Dogs, Chickens and Ants: Investigating the reliability of modern maternal genetic data in retracing early dispersals

OPHELIE MELODIE MARINE LEBRASSEUR

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Investigating the reliability of modern maternal genetic data in retracing early dispersals

O.M.M. LEBRASSEUR

Thesis Abstract

Mitochondrial DNA (mtDNA) has been used extensively in the past few decades to investigate the phylogeny and phylogeography of domesticates but numerous episodes of homogenisation between populations caused by human agency have no doubt obscured past genetic signals. This research statistically tests for mtDNA genetic structure and variation within modern dog, ancient dog and modern chicken populations on a global scale using Wright's *F*-statistics and analysis of molecular variance (AMOVA). It also investigates the potential of the tramp ant *Tapinoma melanocephalum* (ghost ant) to be used as a new proxy for human dispersals in Oceania. Based on extensive datasets combining primary analyses and secondary sources, the statistical analyses reveal differing results according to species. A distinct lack of maternal genetic structure and variation between global populations of modern indigenous dogs is observed. The analyses conducted on 88 ancient dog specimens dating prior to the 15th century, however, reveal mtDNA structure and variation between continents. Thus, it is concluded that the genetic homogenisation observed within modern dogs but absent in ancient populations most likely results from the European colonial expansion and the development of transoceanic travel. In contrast, modern maternal genetic structure was observed between chicken populations from across the world, and allowed for hypotheses to be formulated regarding the early dispersals of chickens. These studies support the fact that mtDNA fragments from modern dog populations cannot reliably infer their origin and early dispersals while analyses conducted on mtDNA fragments of modern chicken populations allow for the investigation of the origin and past migrations of chickens. Looking at the ghost ant which has been widely but unintentionally dispersed, its phylogenetic and phylogeographic analyses reveal two potential introductions of this tramp species into Oceania. While the timing of their introduction cannot yet be deciphered due to the lack of working samples, the correlation between the results and historical records infer potential trading routes, revealing *Tapinoma melanocephalum* as a potential proxy to trace past human migrations.

Dogs, Chickens and Ants:

Investigating the reliability of modern maternal genetic data in retracing early dispersals

Ophélie Mélodie Marine LEBRASSEUR

Thesis submitted for the degree of PhD

Department of Archaeology

Department of Anthropology

Durham University

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List of Abbreviations

AKC	American Kennel Club
AMOVA	Analysis of Molecular Variance
APA	American Poultry Association
ASoP	American Standard of Perfection (chicken)
ASY	A Southeast Asian region south of the Yangtze Rive
BP	Before Present (before 1950)
COI	Cytochrome c Oxidase I
CR	Control Region or D-loop (mitochondrial DNA)
ISEA	Island Southeast Asia
mtDNA	Mitochondrial DNA
PCoGB	Poultry Club of Great-Britain
RJF	Red Junglefowl
UKC	United Kennel Club

Declaration

This thesis is by publication, and its results are presented in the form of manuscripts following the PNAS style. As the work conducted involves collaborations, Table 1 below clarifies which part is the author's own and which parts have been contributed by others.

	Chapter II	Chapter III	Chapter IV	Chapter V	Thomson et al. (Supp App 1)
Conceptualising and refining research idea	x	x	x	x	
Literature Research	x	x	x	x	
Sample collection		X			
Sample extraction and amplification	x	x	x		X
Sample sequencing	x	x	x	x	X
Performing statistical analysis	x	x	x	N/A	N/A
Interpretation of statistical analysis	x	x	x	N/A	N/A
Interpretation of results	x	x	x	x	(X)
First draft of manuscript	x	x	x	x	(X)

Table 1: List of my contributions: x entirely own contribution, X major contributions, (X) minor contributions

107 modern chicken samples used in Chapter IV (which I extracted, amplified and sequenced) were also used for the 2014 paper by Thomson *et al.**.

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*Thomson VA, Lebrasseur O, Austin JJ, Hunt TL, Burney DA, Denham T, Rawlence NJ, Wood, JR, Gongora J, Girdland Flink L, Linderholm A, Dobney K, Larson G, Cooper A (2014) Using ancient DNA to study the origins and dispersal of ancestral Polynesian chickens across the Pacific, *PNAS.* 111(13):4826-4831

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I. Introduction

I.1 Scope of the Thesis

This thesis by publication investigates the power of maternal genetic data in inferring the origins and early history of dogs (*Canis familiaris*) and chickens (*Gallus gallus domesticus*). It constitutes of three primary aims:

- to statistically test for mitochondrial DNA (mtDNA) variation and genetic structure in modern dog and chicken populations from across the world,
- to evaluate the impact human movements and trade have had on their mitochondrial genetic diversities and,
- to appraise the extent to which their modern maternal genetic data can be used to infer early dispersals.

Using Wright's *F*-statistics and analysis of molecular variance (AMOVA), I present a qualitative assessment based on data from the primary analyses of 311 samples (modern dogs, n=79; ancient dogs, n=112; modern chickens n=120) supplemented with additional samples compiled from the literature. The total datasets under study amount to 2,587 modern dogs, 167 ancient dogs and 4,199 chickens. Moreover, given dogs and chickens have been actively dispersed worldwide by human societies, I here test the use of an invasive ant species *Tapinoma melanocephalum* (the ghost ant) as a proxy for human migrations based on 206 newly collected samples from across Oceania.

In the past few decades, the development of sequencing technologies and methods of phylogenetic analyses have led to an expansion in genetic research centred on animal domestication. The strong focus on this research topic is unsurprising: domestication has played a fundamental role in the demographic expansion and development of human societies. From six million people prior to the advance of agriculture and farming, the global human population has now reached seven billion (1). This mutual relationship between animals and humans was and remains quite unique if only for the sustained role of humans in the propagation and care of their domesticates (2). Animals such as cattle, pigs, chickens, dogs and cats not only presented secure resources, but also filled particular roles including beasts of burden, hunters and companions. This was no doubt crucial to the establishment of human societies in new, more challenging environments and led to the introductions of domesticates in regions beyond their progenitors' natural range (2). The investigation of domestication processes therefore not only provides us with a more refined understanding of the origins of domesticates and their early history, it also allows for a better conception of the origins of early modern human societies.

Numerous methods have been employed within the field of archaeology to identify domesticates. The presence of specific morphological markers associated with the transition of a species from a wild state to a domestic one has been largely documented and applied throughout zooarchaeological studies. These characteristic features include changes in facial structure such as a shortening of the snout leading to a reduction in the number of teeth and their size as well as their placement within the mouth. A general decrease in body size and a shift in proportions, most often observed within the shape of the head resulting in a reduced brain size contribute to these morphological markers. Finally, a change in the size and shape of horns and a loss of sexual dimorphism can also be observed (3,4). The dog presents a good illustration of these characteristic features: it possesses a juvenilisation of the skull displayed through a shorter face, a steeper forehead, wider cranial dimensions, tooth crowning and a reduction in tooth size (2).

Other more indirect markers have been identified as evidence for animal domestication. Specific pathologies such as the deformation of extremities in cattle can infer the presence of draught animals (5). Herd demographics, including mortality profiles and sex ratios, can be used to a certain extent as indicators of the sustainment of a herd for its products by human management. The presence of a particular domesticated species outside its wild progenitor's natural range no doubt highlights movement via human agency. Finally, other indirect markers include associated landscape changes and the presence of artefacts and mural depictions linked to animal husbandry (2,4)

In terms of genetic studies, the examination of haplotypes (DNA sequences each defined by a combination of variable sites) as evolutionary units allows for the investigation of ancestral relationships and consequently understanding the evolutionary ancestry of domesticates (6). The combination of haplotype variation with other types of data including geography, morphology and ecology brings us to the field of phylogeography where the past of a species is inferred from phylogenetically-related sequence variants based on their modern distributions (6).

The use of phylogenetic and phylogeographic approaches to understanding domestication based on mtDNA fragments (see 'DNA' section below) was already in place by the late 1980s/early 1990s (7). Loftus *et al.* (8) used mitochondrial DNA fragments to investigate whether or not *Bos indicus* and *Bos taurus* derived from the same domestication episode around 8,000 - 10,000 years BP as was then widely believed. In the same year, Stanley *et al*. (9) reported the first molecular evolutionary analysis conducted on the family *Camelidae* based on the sequencing of a fragment from the cytochrome b gene (9). Vila *et al.*'s 1997 mitochondrial genetic analysis on the origin and domestication of the dog (10) in particular, had quite an impact on highlighting the potential of genetic studies in providing additional details on domestication where conventional zooarchaeological techniques failed (11). Since then, the number of genetic studies conducted on numerous domesticates has increased immensely.

A majority of the research conducted on modern populations, however, has been faced with a temporal issue and has not been able to infer the genetic signatures present during the initial steps of domestications or early dispersals. Firstly, the cohabitation of domesticates with their wild progenitors within the latter's natural range would have led to long-term gene flow between and within these wild and domestic animals. Such introgressive hybridisation between domesticates and wild populations has been observed for several species, including Vietnamese chickens (12), Hungarian cats (13) and honey bees (14).

Secondly, agricultural societies usually dispersed from centres of domestication with their animals. The introduction of domesticates on islands by maritime traders in the 17th century quite clearly demonstrate these animals provided a certain security when moving to a potentially more challenging environment. Due to the uncertain nature of their long maritime journeys to the East Indies, European traders would establish way-stations along the way (usually islands), and would release domesticates including pigs, goats, cattle and chickens to ensure secure resources of food for later journeys (15). This led to the introduction of domesticates into regions beyond their natural habitat. In the absence of wild progenitor and other newly-introduced individuals, genetic isolation would have ensued leading to the development of genetic signature specific to geographical locales.

However, the numerous migrations, trades and exchanges occurring throughout history have no doubt played an important part in blurring ancient and region-specific genetic signatures. This has been particularly accentuated since the development of transoceanic travel in the late 15th century. As a consequence, the ability to infer past dispersals and domestication centres from genetic data has been reduced. The admixture between ancient and introduced populations, or the replacement of ancient populations with newly-introduced ones, has been documented in the Americas for a number of species. For instance, following the 1532 Spanish Conquest, the population of llamas and alpacas in South America was reduced by about 90% (9). A study of ancient skin and fibre samples from El Yaral in Peru dating prior to the colonial conquest revealed that five of the six llamas sampled belonged to an extinct fine fibre breed (16). Another example regards New World dogs. Genetic analyses conducted on village/street dogs in America have revealed an almost complete genetic replacement of these dogs by European dogs, although a few small isolated populations were found to retain high proportions of indigenous ancestry (17,18). Hybridisation between indigenous populations and newly-introduced ones continues today. For instance, Chinese chickens are commonly bred with commercial breeds originating from America and Europe (19).

Finally, the past two centuries have seen an intensification of selective breeding among many domesticates that was first initiated in the 18th century. The horse was the first animal to undergo selective breeding. By the mid-1750's, other domestic livestock followed and the Victorian dog fancy soon came into full bloom by the mid-19th century with the first formal dog show held in 1859 in Newcastle, England (20). Originally, the creation of the first 'breeds' as we know them today did not rely on the purity of descent or length of lineage. Rather, the aesthetics and qualities of the individual animals sufficed and were deemed of primary concern. The question of pedigree, however, soon increased in importance particularly when it came to enhancing one's breeding stock (20).Two hundred years of intense selective pressures (physical and behavioural) would have had an impact on the genetic structure and diversity of these domesticates.

The dog presents an interesting case study. Widespread by human societies, it has been selected throughout time for specific behavioural and physical traits. The Victorian dog fancy, in particular, has led to the emergence of the majority of the breeds observed today. Furthermore, the relationship between man and dog is unlike that of any other domesticate. While a majority of studies attempting to decipher dog origin have relied on modern populations, few have made a distinction between breeds and village dogs. Boyko *et al.* (21,22) observed that indigenous village dogs have not been subjected to intense selection pressure, nor do they tend to be commonly transported throughout the world as pets. Consequently, these native populations may have retained some ancient genetic signature that could shed light on their domestication. However, no worldwide statistical analysis has yet been undertaken on the mtDNA genetic structure and the variation of geographically distinct populations.

What makes this specific part of the research particularly appealing to me is the direct experience with my own dog. Rescued from a litter in our local horse-riding club in the suburbs of Ipoh, Malaysia, it presented all the characteristics of a stray dog: floppy ears, short coat, curly tail. It did not resemble any breeds we knew of. At the time, I did not pay particular attention to the matter, but it was Boyko *et al.*'s study (21,22) that made me realise that this dog's ancestors would have possessed a genetic signature that was unique to the native population of the Malay Peninsula. Was this genetic signature still inscribed in its DNA? Could all indigenous dogs really have retained some hints of their ancestral region-specific genetic signature? As my family and I moved back to France, we took our dog with us. It now resides thousands of miles away from its homeland. This brought a second thought into my mind: by taking this dog to France, had we not taken the first step towards introducing a new genetic signature within the French dog population? A single dog would not necessarily have made much difference, but human movements through time have been numerous and the close association of dogs to humans meant my dog was certainly not the first to have travelled long distance and being introduced to a different gene pool. Therefore, it seemed to me essential to conduct a statistical analysis on the maternal genetic structure of and variation on indigenous dog populations worldwide, and see whether they did retain region-specific signatures, or whether human movements have had a much more powerful impact than previously thought.

The comparison with another domesticate was deemed essential not only to properly compare the results with dogs, but also see how human movements and trade may have impacted domesticates in different ways and why. Chickens provided the best opportunity. Although they may not have a similar status of 'companionship' as that of dogs, their roles in the development of societies is comparable. Domesticated much later than dogs, chickens have nevertheless been spread throughout the world on a similar scale and have provided human societies with, among others, food and sources of entertainment. Moreover, numerous previous studies have investigated the maternal genetic diversity of chicken populations within countries, but such an analysis has never been undertaken on a worldwide scale.

Finally, considering that domesticates have been intentionally moved around the world, traded, exchanged and selectively bred for particular characteristics, the investigation of human migrations through non-intentionally introduced invasive species was the next logical step. Ghost ants (*Tapinoma melanocephalum*) are particularly closely associated with humans. They live in disturbed habitats and have been known to travel in cargos or suitcases with humans as transport vectors. Considering the impact human movements most probably had on the genetic signatures of domesticates, it seemed essential to test if other more 'unique' proxies could be used to infer early human dispersals.

I.2 DNA

First discovered in the 1860s by Friedrich Miescher, DNA, or deoxyribose nucleic acid, was not properly understood until nearly a century later when Alfred Hershey and Martha Chase demonstrated that this molecule carried hereditary genetic information essential to the development, structure and function of an organism (23,24). Its chemical and physical structures were revealed in 1953 by James Watson and Francis Crick (25): the DNA molecule comprises two chains forming a double-helix held together by nucleotides. These nucleotides consist of a base, a sugar (deoxyribose) and a phosphate linked together to form the basic structural unit of DNA (23,25). There are a total of four bases: the purine bases comprising adenine (A) and guanine (G) and the pyrimidine bases consisting thymine (T) and cytosine (C). Each base (from one strand) pairs with a complementary base from the opposite strand following the model A-T and C-G.

I.2.1 Mitochondrial DNA

While a majority of our DNA is found within chromosomes in the nucleus of cells, a small portion can be found within organelles called mitochondria present in multiple copies in the cytoplasm of virtually every cell. The mitochodrion is an important organelle for the smooth functioning of cells as it represents the latter's principal source of energy. Mitochondrial DNA is a small molecule with a circular structure found in multiple copies within mitochondria. It is involved in respiration, and codes for proteins and RNAs essential for the function of the mitochondrion (26). Even though it is of a relatively small size compared to the nuclear genome (an average of 16,000 base pairs for the mitochondrial genome versus billions of base pairs for the nuclear genome), the mitochondrial genome (and the control region in particular) has often been used by population geneticists and molecular systematicists for phylogenetic and phylogeographic studies (11,27).

Mitochondrial DNA is relatively easy to amplify due to its multiple copies within each cell; for every one copy of the nuclear genome, there are thousands of copies of the mitochondrial DNA genome. Indeed, each cell encompasses between 1,000 to 10,000 mitochondria (depending on the type of cell) and 2 to 10 mtDNA molecules can be found within each mitochondrion. The number of mtDNA molecules in a cell therefore ranges between 2,000 and 100,000 (26). This is an appealing prospect when dealing with very small amounts of DNA or ancient samples. For instance, mtDNA has proved useful in forensic analyses where a single dog hair from a crime scene has been analysed (26,28).

More recently, a study successfully amplified the full mitochondrial genome of several archaeological canids, some dating as far back as 36,000 years BP (29).

Mitochondrial DNA also possesses a maternal mode of inheritance. It is passed down from mother to offspring through the cytoplasm of the oocyte (egg). The head of the sperm which fuses with the oocyte to deliver nuclear DNA from the paternal side does not possess any mitochondria. Therefore, the father does not contribute towards the embryo's mitochondrial DNA. There has been some speculation over this fact, but so far, no examples within vertebrate pedigrees have revealed paternal inheritance (20,26). Finally, mitochondrial DNA does not recombine and all changes occurring within a mitochondrial DNA genome sequence are thus the results of mutations (11).

I.2.2 The Control Region

A majority of the mitochondrial DNA codes for proteins and RNAs. These are crucial to the functioning of the mitochondrion. Among its 16,000 base pairs, however, is a major non-coding region called the Control Region (CR) or Displacement loop (D-loop) located between the genes coding for tRNA-proline and tRNA-phenylalanine. This region varies in length depending on the organism. For instance, the control region in humans consists of 1,122 base pairs (30) while those of the chicken and the dog consist of 1,227 base pairs and 1,270 base pairs respectively (31,32).

Due to this region not coding for any proteins and not being part of the transcription/translation process, mutations occurring within the control region do not affect (positively or negatively) the functioning of the organism. Consequently, and unlike other parts of the genome, these mutations are not quickly selected out but rather accumulate quickly over time. This accentuated evolution rate allows for large sequence divergence between species as well as between individuals. This provides the perfect tool for geneticists as it allows for the differentiation of individuals within the same species and allows us to understand the demographic history of a species based on sequences (11).

1.2.3 Limitations to DNA studies

Although genetic analyses have been used extensively throughout the past few decades, there are clear limitations to the technique that need to be taken into account. The following issues only represent some of the major problems faced by geneticists when dealing with modern and archaeological remains.

The first issue faced in all research is the question of post-mortem DNA decay and the preservation of the remaining DNA. While this does not usually poses an issue with modern samples, ancient material is much more problematic. At the death of an organism, its DNA is usually degraded by endogenous nucleases (33). Should conditions be favourable, such as rapid desiccation, low temperatures or high salt concentrations, the nucleases will either be destroyed or become inactive. That is not to say the DNA will be preserved indefinitely as slower processes such as oxidation and background radiation will continue the degradation process. In addition, destabilisation and breaks in the molecule may follow as a result of deamination, depurination and other hydrolytic processes (33). This post-mortem decay affects the rate of success of DNA retrieval from ancient remains.

Contamination is another major issue. Ancient samples, in particular, are more prone to it due to the small amount of indigenous DNA they contain. For instance, a few studies have claimed a Polynesian introduction of the chicken in South America prior to the arrival of Europeans based on genetic analysis conducted on an ancient chicken bone from the El Arenal-1 site in Chile (34). It was recently shown that the observed conclusions resulted most likely from contamination (35). Cooper and Poinar (36) among others, have specified several measures of precaution that need to be carefully followed for the amplification of authentic DNA. Although some of their authenticity criteria may only be applied to specific types of analysis, appropriate laboratory facilities and work area, blank controls, independent replication and cloning of amplification products remain essential and should not be discarded (36,37).

Another issue regards the archaeological record. While ancient DNA is essential to providing a direct window into the past, it relies primarily on the findings of ancient remains as well as the attributed date based on the archaeological data. Some regions have been more focused upon in terms of archaeological investigations than others. This has already led to a certain bias in the recovery of faunal remains. Furthermore, because DNA analysis requires the sampling and destruction of parts of the recovered faunal remains, zooarchaeologists and museum curators may be reluctant to provide the samples for genetic studies.

I.3 Using statistics to investigate genetic differentiation

I.3.1 Wright's F-statistics

When a population is divided into subpopulations, its level of heterozygosity decreases. In particular, this reduction caused by population subdivision is closely related to the decrease in heterozygosity resulting from inbreeding caused by mating between relatives. In order to quantify this decline in heterozygosity, Wright developed the 'fixation index', of which the genetic symbol is F. This fixation index describes the decrease in heterozygosity statistically expected with random mating at any one level of a population hierarchy (see below) relative to another more inclusive one (38). This is a particularly useful index of genetic differentiation as it 'allows for an objective comparison of the overall effect of population structure among different organisms without getting into details of allele frequencies, observed levels of heterozygosity and so forth' ((38):281).

There are generally three levels of population hierarchy that may be compared: total population (T), regional groupings (R), and subpopulations (S). These hierarchical F-statistics represent fixation indices which only differ by their reference populations (38):
(Note that for the following definitions, 'total population' represents all individuals regardless of population subdivision).

- F_{SR} represents the proportionate reduction in heterozygosity of the subpopulations (S) relative to the regional groupings (R) (38):

$$F_{\mathrm{SR}} = \frac{H_{\mathrm{R}} - H_{\mathrm{S}}}{H_{\mathrm{R}}}$$

  with H_{R} representing the average heterozygosity assuming the Hardy-Weinberg expectation among organisms within region
  and H_{S} representing the average heterozygosity assuming the Hardy-Weinber expectation among organisms within random mating subpopulations

- F_{RT} represents the proportionate reduction in heterozygosity of the regional groupings (R) relative to the total population (T) (38):

$$F_{\mathrm{RT}} = \frac{H_{\mathrm{T}} - H_{\mathrm{R}}}{H_{\mathrm{T}}}$$

  with H_{R} representing the average heterozygosity assuming the Hardy-Weinberg expectation among organisms within region
  and H_{T} representing the average heterozygosity assuming the Hardy-Weinber expectation among organisms within the total population

- F_{ST} represents the proportionate reduction in heterozygosity of the subpopulations (S) relative to the total population (T). It compares the least exclusive level to the most inclusive level of the population hierarchy (38):

$$F_{\mathrm{ST}} = \frac{H_{\mathrm{T}} - H_{\mathrm{S}}}{H_{\mathrm{T}}}$$

  with H_{R} representing the average heterozygosity assuming the Hardy-Weinberg expectation among organisms within region
  and H_{T} representing the average heterozygosity assuming the Hardy-Weinber expectation among organisms within the total population

F_{ST} has usually been considered the most informative statistic for the examination of the overall level of genetic divergence among subpopulations (38). It has a theoretical minimum of 0 (which indicates no genetic divergence) and a theoretical maximum of 1 (although the observed maximum is usually much smaller) (38). Because F_{ST} relies primarily on the sample set, it is difficult to conduct comparisons between studies on the same species, let alone on different species (Mwacharo, J. 2013. pers. comm.). When conducting a study, it is thus important to take into account the different F_{ST} values obtained within this study as opposed to direct comparison with other studies undertaken on different datasets. Wright (39) has however provided qualitative guidelines for the interpretation of this fixation index (38,39):

- An F_{ST} value ranging from 0 to 0.05 is considered as an indication of *little* genetic differentiation
- An F_{ST} value ranging from 0.05 to 0.15 indicates *moderate* genetic differentiation

- An F_{ST} value ranging from 0.15 to 0.25 shows *moderately great* genetic differentiation
- An F_{ST} value greater than 0.25 is indicative of *very great* genetic differentiation

However, as noted by Wright, 'differentiation is by no means negligible if F is as small as 0.05 or even less' ((39):85). This re-enforces the comparison within the study as opposed to between studies.

In 1969, Cockerham (40) developed the analysis of variance framework (ANOVA) within which he demonstrated that the total variance of gene frequencies could be partitioned into variance components linked with various subdivision levels (40,41). He showed that this new framework preserved Wright's definition of F-statistics in terms of the correlation of gene frequencies. Although these variance components and F-statistics differed, they also represented an equivalent parameterization of the correlations of genes (41). A conventional ANOVA therefore allowed for the comparison of average gene frequencies among populations (41).

I.3.2 Analysis of Molecular Variance (AMOVA)

Molecular data not only reveals the frequency of molecular markers, it also holds other types of information, such as the amount of mutational differences between alleles (41). An AMOVA can be considered analogous to an ANOVA but it allows for the inclusion of such information, analysing the mutations between molecular sequences as opposed to assuming Mendelian gene frequencies. This hierarchical analysis partitions the total variance into covariance components based on the differences observed at the various levels of population hierarchy (among regional groups, among subpopulations within regional groups and within the total population) (42). Consequently, 'AMOVA is a hierarchical analysis analogous to ANOVA in which the correlations among genotype distances at various hierarchical levels are used as F-statistics analogues, designated as ϕ-statistics' ((42):2092).

Similarly to Wright *F*-statistics, the three levels of population hierarchy which can be compared are (Vila1999):

- ϕ_{ST} represents the correlation of random genotypes within subpopulations (S) relative to the total population (T). It is analogous to Wright's F_{ST} and represents the proportion of genetic variation among subpopulations within the total population (42).

- ϕ_{CT} is the correlation of random genotypes within a regional grouping (C) relative to the total population (T). This measures the proportion of genetic variation among regional groupings within the total population (42).

- ϕ_{SC} represents the correlation of random genotypes within subpopulations (S) relative to the regional groupings (C). It allows for a measure of the proportion of genetic variation among populations within a region (42).

The significance of these ϕ-statistics is determined by random permutation of sequences among populations (42). Moreover, AMOVA takes into account sample size but small sample size within subpopulations should be avoided to prevent introducing a bias. It is generally preferable that the number of samples within each subpopulation exceeds 25 (Mwacharo, 2013 pers.comm.).

The computation of a Minimum Spanning Tree and a Minimum Spanning Network among haplotypes can also be performed as part of the AMOVA. The information on the amount of mutational differences in allelic content between haplotypes is entered as a matrix of Euclidean squared distances used for the AMOVA calculations. This computation can be undertaken using several methods; in the following analyses, the distance matrices will be calculated based on pairwise differences. The Minimum Spanning Tree and Minimum Spanning Network are then computed from these distance matrices calculated between all pairs of haplotypes (43).

I.4 Structure of the thesis

This thesis was undertaken using the 'paper approach': each chapter represents a separate manuscript with the exception of Chapters I (Introduction) and VI (Conclusion). It follows the style imposed by the journal PNAS (Proceedings of the National Academy of Sciences). A brief description of the contents of each chapter follows below:

- Chapter II aims to statistically test modern maternal genetic structure and variation between eight indigenous dog populations originating from geographically distinct regions. It also tests for genetic variation between breeds and non-breeds. These analyses allow for an evaluation of the impact recent human movements have had on the mitochondrial DNA genetic structure of dogs, and assess whether mitochondrial DNA analyses conducted on modern dogs can infer this domesticate's origin and past history.

- Chapter III uses ancient dog samples collected from three geographic regions in order to statistically assess past mitochondrial DNA structure and variation between these geographically distinct populations. A comparison with the modern results obtained in chapter II provides a timeframe within which the homogenisation of dog lineages observed in the modern data (chapter II) may have taken place.

- Chapter IV focuses on modern chicken populations indigenous to eight distinct regions as well as samples from commercial breeds (mainly layers, broilers and sire lines). The aim of the paper is to statistically test for mitochondrial DNA structure and variation between these populations. The results are interpreted in light of archaeological and historical data with early pathways for the dispersals of chickens out of Asia suggested.

- Chapter V investigates the potential of the tramp ant *Tapinoma melanocephalum* as a proxy for past human dispersals in Oceania considering its unintentional distribution by human societies. This constitutes the first phylogenetic and phylogeographic study conducted on this species. Results are interpreted using historical documents and records of the first sightings of this ant within the sampled area.

In addition to these six chapters, a manuscript published in PNAS can be found within the thesis' supplementary data (Supplementary Appendix 1). The paper investigates the dispersal of chickens in Oceania based on ancient and modern mitochondrial DNA and provides evidence to refute the hypothesis that chickens were introduced in South America by early Polynesians. My collaborative work on this research consisted of the extraction, amplification and sequencing of 63% (107 samples) of the modern chicken samples as well as the identification of the 'ancient Polynesian' genetic signature, showing that isolated chicken populations within Island Southeast Asia and Oceania retained an ancestral genetic signature.

I.5 References

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II. Evaluating the reliability of modern mitochondrial DNA of domestic dogs in retracing dog domestication and past history

II.1 Abstract

Although dogs were the first animals to be domesticated, questions surrounding their domestication including the timing(s) and location(s) remain unanswered. Genetic studies have attempted to elucidate such questions based on fragments of the mitochondrial DNA control region (mtDNA CR) from both modern breeds and village dogs but have been unable to agree on a domestication origin. One issue with a majority of these previous studies is the lack of statistical support for the various measures of diversity used. East Asia South of the Yangtze River has been suggested as a potential domestication centre based on a higher genetic diversity while similar levels of genetic diversity have been found in African village dogs. To test statistically the mitochondrial DNA variation between modern dogs across the Old World, I conducted some analyses of molecular variance (AMOVA) on 1,277 non-breed dogs from six geographically distinct populations based on a 582bp fragment of the mtDNA CR. These included 79 samples analysed specifically for this study. To include modern American populations, I conducted additional AMOVAs on a shorter fragment (304bp) of the mtDNA CR which encompassed 1,983 non-breed dogs. I also tested for mtDNA variation between breeds and non-breeds using the same two fragments. These AMOVAs were conducted on a dataset of 1,846 breed and non-breed dogs for the 582bp fragment and 2,587 breed and non-breed dogs for the 304bp fragment. My results demonstrate low to non-existent maternal genetic variation between non-breed dog populations across the world, highlighting a relatively homogenous gene pool. Human migrations have been constant throughout time but the translocation of animals including dogs over great distances has particularly increased since the advent of transoceanic travel in the late 15th century. The lack of mtDNA genetic structure observed today is a probable result of these numerous episodes of homogenisation between previously independent populations. In addition, no mtDNA variation has been found between breeds and non-breeds, suggesting a lack of genetic structure already present by the time most modern breed were created.

II.2 Introduction

For over 12,000 years, the domestic dog (*Canis familiaris*) has played an integral part in various aspects of our society. First used as a mean for obtaining food, its roles developed with the emergence of agriculture and soon came to include flock protection and pest control. Today, dogs not only fulfil their traditional tasks and that of companions, they also act as important protagonists in national security and biomedical sciences (1). With such an encompassing role in people's lives and history, speculations on the dog's origin and domestication process have provided the grounds for debate from before Darwinian times. The observed rich phenotypic diversity led Darwin to speculate that dogs originated from at least two canine species: the wolf (*Canis lupus*) and the golden jackal (*Canis aureus*) (2). Genetic analyses have now confirmed this domesticate descends from the gray wolf (*Canis lupus*) (3), yet the conditions surrounding dog domestication remain unclear.

The oldest canid remains positively identified as early domesticated dogs have been uncovered throughout the Old World in Europe, the Levant, Iraq, Northern China and the Russian Far East. Some of these specimens date as far back as 16,000 years BP, pre-dating the first settled agricultural societies (4). However, key morphological features identified and used by zooarchaeologists to differentiate between this domesticate and their wild ancestors were not fixed during the initial phases of domestication (4). This renders the identification of early dogs problematic. Furthermore, the discovery of early canid remains largely depends on the location and number of archaeological investigations. Consequently, defining the number of geographical origins and timing of dog domestication from the archaeological record alone is difficult.

Pioneer studies in dog genetics based their initial analyses on fragments of the non-coding dog mitochondrial DNA control region (mtDNA CR). Mitochondrial DNA comprises of non-coding regions with a high rate of polymorphism caused by previous mutation events, resulting in an evolution rate five to ten times greater than that of the nuclear genome. It also possesses a maternal mode of inheritance. All of these attributes make mitochondrial DNA a valuable marker for the study of population genetics and phylogenetic research (5, 6). The initial studies in dog genetics demonstrated backcrossing events between wolves and dogs shortly after domestication and indicated the presence of four mtDNA lineages (clades) (3, 7). This observation was refined by Savolainen *et al.* who found two additional clades (although one was defined by a single individual) (8), consequently hypothesising that dogs descended from a minimum of five female wolf lines. As over 95% of all studied individuals fell into three universally represented clades (A, B and C) with similar frequencies, it was assumed that Eurasian dogs shared a common origin from a single gene pool (8) with regional differences caused by founder effects during dog migrations or mutations (9).

A larger genetic variation observed in East Asia led Savolainen *et al.*(8) to speculate a single domestication event within this region: East Asia possessed a higher number of haplotypes (when corrected for sample size, there were 20.2 haplotypes for 51 East Asian dogs compared to 16 haplotypes for 51 Southwest Asian dogs) and a higher proportion of unique haplotypes. This theory was also supported by morphological data based on characteristic jaw features common to dogs and some Chinese wolves (10). Pang *et al.* (11) followed on from these conclusions and conducted a comprehensive mtDNA survey on over 1,500 dogs from major dog populations across the Old World, with a particular emphasis on East Asian samples. The findings confirmed clades A, B and C as dominant clades worldwide, and demonstrated that Asia South of the Yangtze River possessed a distinct maximum for every measure of diversity undertaken in the study. This included the number of haplotypes (adjusted for sample size) and the number of unique haplotypes. Furthermore, the frequency of universal haplotypes was found to be at its lowest in the same region. With Asia South of the Yangtze River encompassing the full range of genetic diversity observed in the study, the results supported a single domestication event within the region (11).

African village dogs were however shown to exhibit a similar level of mtDNA control region diversity to that of the East Asian dogs sampled by Savolainen *et al.* (12). Boyko *et al.* did not suggest Africa as a possible origin for dog domestication but rather highlighted the fact that high levels of genetic diversity found in East Asia may be a result of sampling bias (12). Indeed, high levels of mtDNA diversity have been previously demonstrated in village dogs (13), and Savolainen *et al.*'s data (12) included not only numerous East Asian village dogs but also other regions comprising primarily of breeds. Pang *et al.* (11) addressed this observation with a direct comparison of haplotype frequencies, showing that the smaller South Chinese dataset contained 73% more haplotypes than Boyko's African dataset, and that no adequate compensation for the difference in sample size between the two regions had been taken into account when making the claim (11).

Since the publication of the two research papers in 2009 by Boyko *et al.* (12) and Pang *et al.* (11), other studies have joined in the debate, testing the genetic diversity among village dog populations throughout various regions by means of haplotype frequencies, universal haplotypes and haplotypes unique to specific regions (14, 15). However, the level of mtDNA diversity between geographically defined regions has never been statistically tested, nor have the direct frequency comparisons ever been given statistical significance. Assessing genetic variation between regional groups has been undertaken for numerous species through Wright's *F*-statistics and particularly by analyses of molecular variance (AMOVA) (16, 17). This statistical technique is a hierarchical analysis of variance which partitions the total variance into covariance components based on genotype distances among groups, among sub-populations within groups and within populations. Designated as ϕ-statistics, these are analogous to Wright's *F*-statistics but take into account information not only based on allele frequencies, but also the amount of mutational differences between alleles (17-19).

Figure 1: **Village dog from the Santa Cruz Islands sampled for this study. Its phenotype is characteristic of village dogs with its floppy ears and curly tail. Some village dogs are also piebald (23).**

In addition to the lack of statistical tests, some of the main published research conducted on dog mtDNA diversity, including those of Savolainen *et al.* (8) and Pang *et al*. (11), make no distinction between breeds and non-breeds. These two categories are however clearly distinct in terms of history, ecology and genetics. Since the emergence of the 'Victorian dog fancy' 200 years ago, breeds have undergone and continue to follow intense artificial selection and close control of their breeding in order to ensure pedigrees of qualities. A breed can be defined as a 'type of dog that differs from all others in some way, has a separate history and breed name and has been breeding true for a number of generations' (20). Maintaining the quality of breeds led to the necessity of establishing breed clubs and pedigree studbooks, promoting the working, showing and breeding of purebred dogs following breed standards (21). On the opposite side of the scale come indigenous village dogs (Figure 1). Following a similar lifestyle to that of their ancestors, these human commensals have been living free of controlled breeding and artificial selection, and are believed to retain a certain degree of their ancient geographical genetic signature with little admixture from external non-indigenous dogs (12, 22, 23). Higher mitochondrial DNA diversity has also been observed in village dogs from Portugal compared to native Portuguese breeds, and in African village dogs (12, 13).

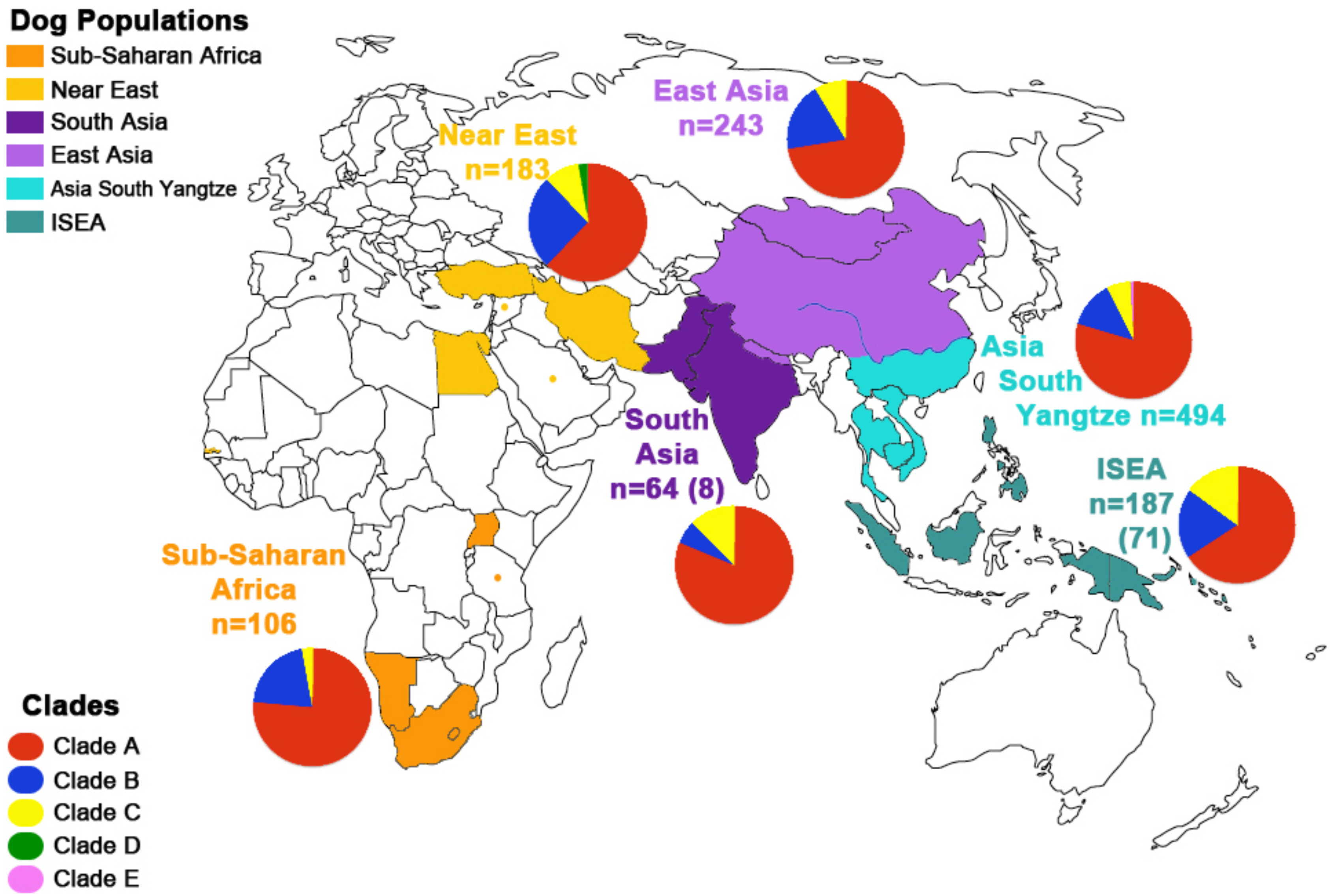
In order to statistically test the genetic variation in modern dog mitochondrial DNA between regions (and consequently provide statistical significance to the claims made by both Pang and Boyko), I conducted an analysis of molecular variance (AMOVA) on a 582bp fragment of the control region, encompassing 1,277 non-breed dogs from six geographically distinct regions across the Old World. This dataset included 79 indigenous dog samples specifically analysed for this study (71 dogs from Island southeast Asia and Near Oceania and eight dogs from Pakistan). Geographical barriers were used to define each of the six regions. To include the American continent for which available sequence length consisted of 304bp only, I conducted an AMOVA on a second dataset constituting of 1,983 non-breed dogs from eight geographically distinct modern dog populations. In order to investigate the best population partitioning, I not only tested multiple groupings based on results from previous researches, but also experimented with various *a posteriori* groups based on geographical barriers between regions and pairwise F_{ST} values. Furthermore, I used AMOVA to test for significant partitioning of breeds and non-breeds in order to assess how the proportion of breeds and non-breeds in a regional dataset may influence the overall genetic diversity of that region. For the present study, the term ‘breed’ will refer to the officially registered and recognised breeds to date of the American Kennel Club (AKC) founded in 1884 and now encompassing 178 breeds and the United Kennel Club (UKC) established in 1898 (21, 24). The statistical analysis was conducted on both the 582bp mtDNA CR fragment and the shorter 304bp mtDNA CR fragment consisting respectively of a dataset of 1,846 dogs and 2,587 dogs from across the world. I tested for two population partitioning for the non-breed dogs based on i) the long-term purity of the individual (pure-bred or mixed-bred) and ii) their sampling location.

II.3 Results and Discussion

II.3.1 Genetic variation in mitochondrial DNA of non-breed dogs between regions

1,277 non-breed indigenous dogs from six geographically distinct populations were analysed on a 582bp fragment of the mtDNA control region. This dataset included 79 dogs sampled exclusively for this study (ISEA, n=71; Pakistan, n=8). 198 haplotypes were identified (see median-joining network in Supplementary Figure 3), six of which had not been previously observed and were exclusive to the ISEA dataset. A detailed analysis of the ISEA dataset including novel sequences specific to this study can be found in the supplements (SI 1, Supp. Table ST6 and Supp. Figure SF1). As expected from previous studies of the Old World gene pool, the Old World dataset was characterised by a predominance of clade A (73% average), clade B (17.3% average) and clade C (9.2% average). Clade D was found in five samples all originating from the Near East while five dogs from Asia South of the Yangtze River possessed haplotypes from clade E. No indigenous dog population exhibited a haplotype from clade F (Figure 2, Supplementary Table ST14).

***Figure 2 (next page)*: Clade distribution for each dog population based on 582bp.**
Colours on map correspond to the countries falling under each 'non-breed' dog population. Dots mark countries with only one sample. Asia South Yangtze refers to the population from Asia South of the Yangtze River previously defined by Pang *et al.* (11). Number for each dataset is given by n. The number in brackets corresponds to the number of samples analysed specifically for this study and included in the total number n.
Note: Clade E is only found in five individuals (0.4%) in the 'Asia South Yangtze' dataset.


Dog Populations
Sub-Saharan Africa
Near East
South Asia
East Asia
Asia South Yangtze
ISEA
Near East n=183
East Asia n=243
Asia South Yangtze n=494
South Asia n=64 (8)
ISEA n=187 (71)
Sub-Saharan Africa n=106
Clades
Clade A
Clade B
Clade C
Clade D
Clade E

Asia South of the Yangtze River exhibited the highest number of haplotypes (n=112) but was also the most sampled region with 494 dogs (Table 1). South Asia, on the contrary, possessed the smallest dataset (64 dogs sampled) and unsurprisingly the lowest number of haplotypes (n=23). Only five haplotypes were common to all populations: A11, A17, A18, A20 and B01. This differs from Pang *et al.*'s 14 universal haplotypes found in Europe, Southwest Asia and East Asia (11). Sub-Saharan Africa exhibited the highest percentage of samples carrying a universal haplotype (50%) whereas ISEA had the lowest (29.4%), followed by Asia South of the Yangtze River (31.4%). The latter region also possessed the highest number of unique haplotypes (n=71) compared to an average of 13 for the other regions. Finally, all regional populations shared haplotypes with one another (Supplementary Table ST15). Asia South of the Yangtze River shared the most haplotypes with all other regions followed closely by ISEA (average of 18 and 16 haplotypes respectively). Based on the results obtained for the different measures of diversity undertaken on the non-breed dataset (following the approach from Savolainen *et al.* (8) and Pang *et al.* (11)), Asia South of the Yangtze River did appear to exhibit not only the highest number of haplotypes (although here not corrected for sample size) and unique haplotypes, but also among the lowest proportion of universal haplotypes as defined in this study.

Dog Populations	n[1]	nH[2]	n uH (%)[3]	%uH/TotalH	nUTs[4]	%UTs[5]
Sub-Saharan Africa	106	31	8 (25.8)	4.04	53	50
Near East	183	40	16 (40)	8.08	69	37.7
South Asia	64	23	8 (34.8)	4.04	22	34.4
East Asia	243	46	18 (39.1)	9.09	108	44.4
Asia South Yangtze	494	112	71 (63.4)	35.86	155	31.4
ISEA	187	47	17 (36.2)	8.59	55	29.4

Table 1: **Table showing haplotype data for each dog population based on the 582bp fragment of the control region.**

[1] Number of samples

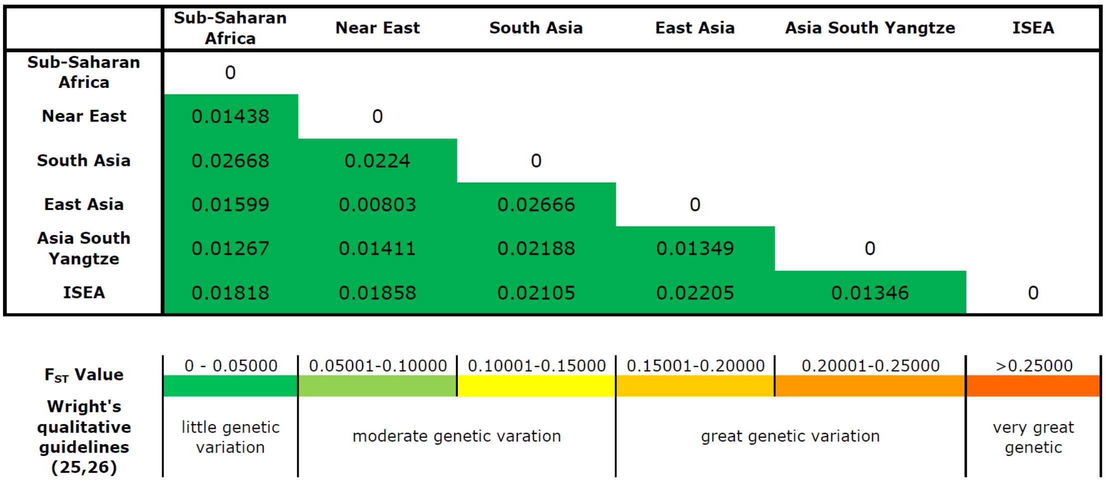
[2] Number of haplotypes within the population

[3] Number of unique haplotypes (percentage of unique haplotypes / total number of haplotypes within the population)

[4] Number of samples carrying a universal haplotype

[5] Percentage of individuals carrying a universal haplotype within that population

However, based on Wright's *F*-statistics, the overall level of genetic divergence between geographically distinct populations was low (Table 2), with all F_{ST} values falling below 0.027 ($P < 0.001$). According to Wright's qualitative guidelines, F_{ST} values below 0.05 can be considered as indicative of little genetic differentiation (25, 26). These low F_{ST} values clearly demonstrate a lack of phylogeographic structure between modern populations and hint towards a low level of mitochondrial DNA variation between geographic regions.



	Sub-Saharan Africa	Near East	South Asia	East Asia	Asia South Yangtze	ISEA
Sub-Saharan Africa	0					
Near East	0.01438	0				
South Asia	0.02668	0.0224	0			
East Asia	0.01599	0.00803	0.02666	0		
Asia South Yangtze	0.01267	0.01411	0.02188	0.01349	0	
ISEA	0.01818	0.01858	0.02105	0.02205	0.01346	0

F_{ST} Value	0 - 0.05000	0.05001-0.10000	0.10001-0.15000	0.15001-0.20000	0.20001-0.25000	>0.25000
	🟩	🟩	🟨	🟨	🟧	🟧
Wright's qualitative guidelines (25,26)	little genetic variation	moderate genetic varation		great genetic variation		very great genetic

***Table 2*: F_{ST} values within non-breed populations for the 582bp fragment of the mtDNA control region. All p-values < 0.05**

When populations were divided into two groups separating Asia South of the Yangtze River from the rest of the Old World primarily based on Savolainen *et al.'s* (8) and Pang *et al.'s* (11) previous studies (Model 1), AMOVA results (Table 3) showed that over 96% of all the genetic variation was found within populations ($P < 0.05$) and that 2.38% of the variation was among populations within groups ($P < 0.05$). Although ϕ_{CT} was non-significant ($P > 0.05$), it is worth noting that 0.88% of the genetic variation was distributed among groups – that is between Asia South of the Yangtze River and the rest of the Old World. These results show that the genetic variation is found primarily within populations. The genetic variation between Asia South of the Yangtze River and the other regions is practically non-existent.

Expanding the Asia South of the Yangtze River group to include populations from neighbouring regions such as Island Southeast Asia (Model 2), East Asia (Model 3) or both (Model 4) resulted in similar observations (Table 3); 96%-97% of the overall genetic variation was found within populations ($P < 0.05$) and 2-3% of the variation was found among populations within groups ($P <0.05$). The genetic variation between groups remained low with an average of 0.5% although this value was again found to be non-significant ($P > 0.05$). Partitioning the Old World into a Western group (Sub-Saharan Africa and the Near East) and an Eastern group (South Asia, East Asia, Asia South of the Yangtze River and ISEA) (Model 5) resulted in a low increase of ϕ_{CT} (from 0.5% to 1.24% - Table 3), although the value remained non-significant and the genetic variation was mainly distributed within populations as observed with previous results (96.4%). Thus, analyses of molecular variance conducted on various *a priori* groups suggested by observations of published studies do not provide statistical support for the mtDNA variation suggested between Asia

South of the Yangtze River and other regions. Rather, it highlights the fact that there is little maternal genetic variation between geographically distinct modern dog populations across the Old World.

Hierarchical Clusters	**Within Populations**		**Among populations within groups**		**Among groups**	
	Φ_{ST}	%	Φ_{SC}	%	Φ_{CT}	%
Non-Breeds (582bp)						
Model 1 [AsiaSouthYangtze] [Sub-Saharan Africa, Near East, South Asia, East Asia, ISEA]	0.03264	96.74	0.024	2.38	0.00883*	0.88
Model 2 [AsiaSouthYangtze, ISEA] [Sub-Saharan Africa, Near East, South Asia, East Asia]	0.03146	96.85	0.02551	2.54	0.0061*	0.61
Model 3 [AsiaSouthYangtze, East Asia] [Sub-Saharan Africa, Near East, South Asia, ISEA]	0.03069	96.93	0.02708	2.7	0.00371*	0.37
Model 4 [AsiaSouthYangtze, East Asia, ISEA] [Sub-Saharan Africa, Near East, South Asia]	0.03199	96.8	0.02652	2.64	0.00561*	0.56
Model 5 [AsiaSouthYangtze, ISEA, East Asia, South Asia] [Sub-Saharan Africa, Near East]	0.03591	96.41	0.0238	2.35	0.0124*	1.24

Table 3: **AMOVA results for Models 1-5 between non-breed dog populations based on 582bp fragment of the mtDNA control region. *p >0.05**
Brackets represent the various groupings, populations within these groups are separated by a comma.

To include North and South American non-breed populations to my dataset, a shorter fragment of 304bp was analysed. This also allowed the addition of a further 341 dogs from the Old World (see Materials and Methods). Due to the removal of over 250bp for this analysis, the samples could no longer be compared to the haplotypes defined by the 582bp fragment; for instance, one haplotype defined by these 304bp encompassed 14 haplotypes defined by the 582bp. Nevertheless, as showed by the median-joining network (Supplementary Figure 4), the shorter fragment retained the most informative SNPs (Single Nucleotide Polymorphism) enabling classification in the previously identified clades. A total of 138 haplotypes was found among all non-breeds. The increased number of samples did not affect the clade distribution (Figure 3, Supplementary Table 16): clade A dominated (71.55% of the samples on average), followed by clade B and clade C (18.7% and 9.3% respectively). Clade D and E were present at very low percentages. Clade F remained absent. Regarding the North and Central America dataset, 119 samples fell in clade A (70.8%), 42 in clade B (25%) and seven in clade C (4.2%). For the South American dataset, 114 samples belonged to clade A (57.9%), 49 to clade B (24.9%) and 32 to clade C (16.2%).

Interestingly, two samples (one from Bolivia, the other from Peru) possessed a sequence falling under clade D (1%). This is surprising as clade D is thought to be restricted to Scandinavia and the Near East, with one sample from India (8, 11).

Asia South of the Yangtze River exhibited yet again the most haplotypes (n=72). North America and South America had 26 and 28 haplotypes respectively. South Asia had the smallest dataset and, similarly to the low number of haplotypes found for the 582bp fragment, displayed only 19 haplotypes. Only four haplotypes identified for the 304bp fragment were common to all populations. All populations shared haplotypes with one another (Supplementary Table 17). Asia South of the Yangtze River shared on average the most haplotypes with other populations (14 on average) while South Asia shared the least (average of 9) probably due to sample size. It is interesting to note that North and South American populations both shared the most haplotypes with one another and with the Near East.

F_{ST} values obtained between the eight geographically distinct populations based on the shorter 304bp fragment range from 0.00588 to 0.03239 (Table 4). These values are similar to the ones obtained for the previously defined six modern dog populations based on the 582bp fragment (0.00803 to 0.02668). This expanded dataset based on a shorter fragment continues to support a lack of phylogeographic structure and low levels of mtDNA variation between modern populations.

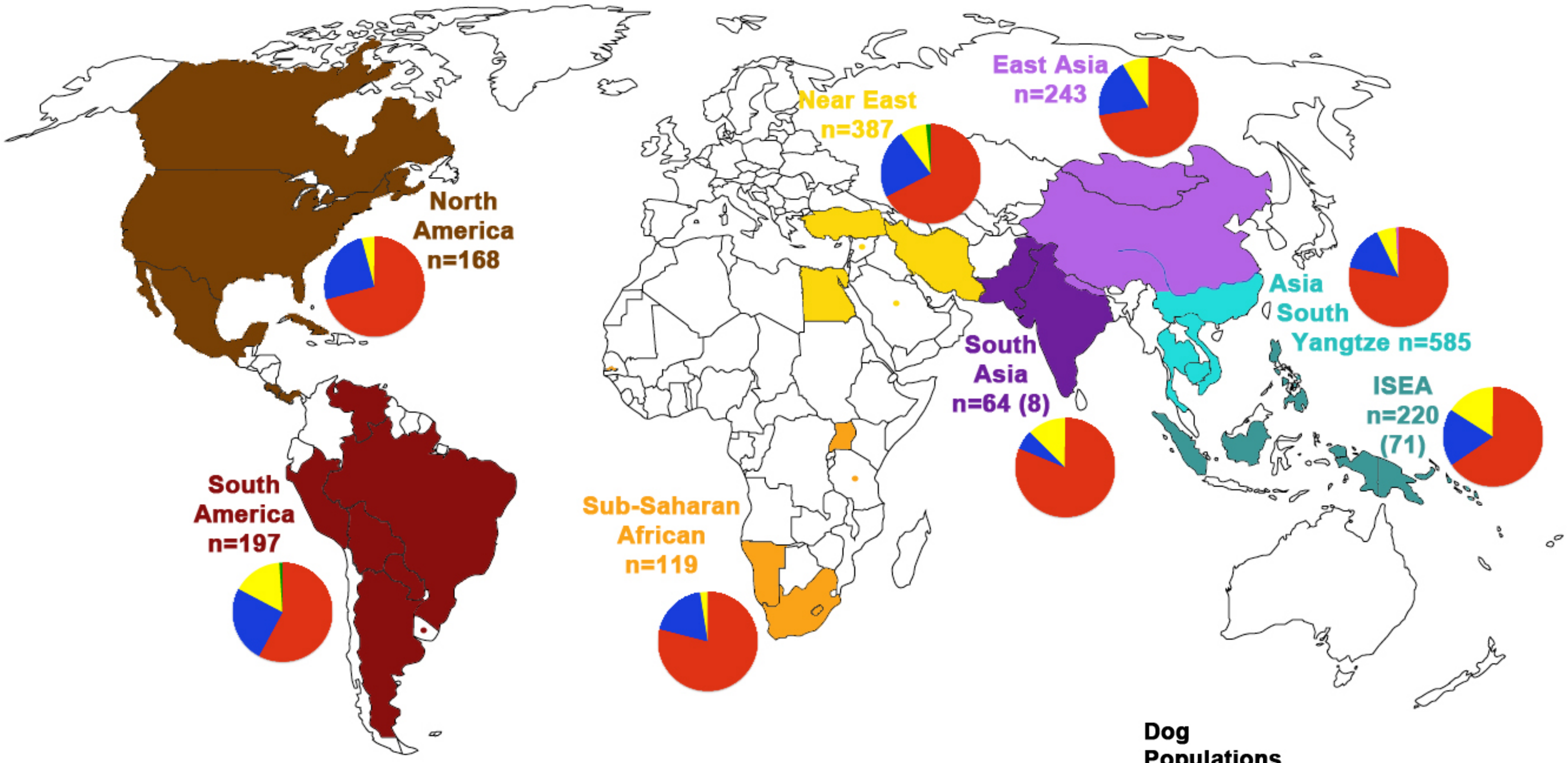
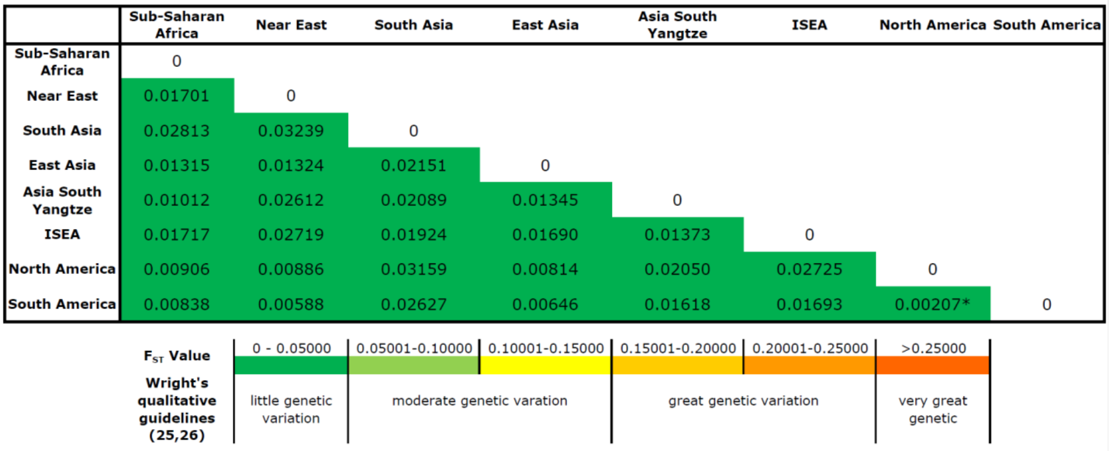


Figure 3: **Clade distribution for each dog population based on 304bp of the mtDNA Control region.** Colours on map correspond to countries falling under each 'non-breed' dog population. Dots mark countries with only one sample. Asia South Yangtze refers to the population from Asia South of the Yangtze River previously defined by Pang et al. (11). Number for each dataset is given by n. The number in brackets corresponds to the number of samples analysed specifically for this study and included in the total number n.



	Sub-Saharan Africa	Near East	South Asia	East Asia	Asia South Yangtze	ISEA	North America	South America
Sub-Saharan Africa	0							
Near East	0.01701	0						
South Asia	0.02813	0.03239	0					
East Asia	0.01315	0.01324	0.02151	0				
Asia South Yangtze	0.01012	0.02612	0.02089	0.01345	0			
ISEA	0.01717	0.02719	0.01924	0.01690	0.01373	0		
North America	0.00906	0.00886	0.03159	0.00814	0.02050	0.02725	0	
South America	0.00838	0.00588	0.02627	0.00646	0.01618	0.01693	0.00207*	0

F_{ST} Value	0 - 0.05000	0.05001-0.10000	0.10001-0.15000	0.15001-0.20000	0.20001-0.25000	>0.25000
Wright's qualitative guidelines (25,26)	little genetic variation	moderate genetic varation		great genetic variation		very great genetic

Table 4: **F_{ST} values within non-breed populations for the 304bp fragment of the mtDNA control region. *p >0.05**

AMOVA results conducted on the 304bp fragment of the mtDNA CR did not differ from those obtained from the 582bp fragment (Table 5). Although the data encompassed 365 dogs from the American continent as well as an additional 341 dogs from the Old World, the various testable a priori groupings did not provide statistical support to the claim that Asia South of the Yangtze River differed genetically from the remaining populations based on mitochondrial DNA. A first partitioning of this worldwide dataset into continents (America and Eurasia: Model 6) resulted in 96.9% of the genetic variation distributed within populations (P <0.05), 2.86% of the genetic variation among populations within groups (P <0.05) and 0.23% of the variation among groups (ie. the continents) although the latter value was found non-significant (P > 0.05). Partitioning Eurasia into two groups with one group comprising of Asia South of the Yangtze River and ISEA (Model 7) did not result in alternative percentages (96.85% variation found within populations, 2.27% variation found among populations within groups and 0.89% variation among groups although the value was still found to be non-significant). Due to the previous observation that North America, South America and the Near East all shared the most haplotypes with one another, I tested three other groupings (Models 8-10) incorporating the Near East, and the Near East and Sub-Saharan Africa with the American populations. In all three cases, all AMOVA results including ϕ_{CT} were significant (P < 0.05) but did not differ from previous analyses; the majority of the mitochondrial DNA variation was found within populations (95-96%) with 1-2% of the variation distributed among populations within groups and 2-3% found among groups.

Hierarchical Clusters	Within Populations		Among populations within groups		Among groups	
	ϕ_{ST}	%	ϕ_{SC}	%	ϕ_{CT}	%
Non-Breeds (304bp)						
Model 6 [North America, South America] [AsiaSouthYangtze, Sub-Saharan Africa, Middle East, South Asia, East Asia, ISEA]	0.03096	96.9	0.02871	2.86	0.00231*	0.23
Model 7 [North America, South America] [Sub-Saharan Africa, Middle East, South Asia, East Asia] [AsiaSouthYangtze, ISEA]	0.03153	96.85	0.02288	2.27	0.00886*	0.89
Model 8 [South America, Middle East] [North America, Sub-Saharan Africa, East Asia, South Asia, ISEA, AsiaSouthYangtze]	0.04048	95.95	0.01818	1.78	0.02272	2.27
Model 9 [North America, South America, Middle East] [Sub-Saharan Africa, South Asia, AsiaSouthYangtze, East Asia, ISEA]	0.03975	96.03	0.01564	1.53	0.02449	2.45
Model 10 [North America, South America, Sub-Saharan Africa, Middle East] [AsiaSouthYangtze, ISEA, East Asia, South Asia]	0.0375	96.25	0.01751	1.72	0.02035	2.03

Table 5: **AMOVA results for the Models 6-10 between non-breed dog populations based on the 304bp fragment of the mtDNA control region. *p >0.05**
Brackets represent the various groupings, populations within these groups are separated by a comma.

The analyses of molecular variance conducted on the mitochondrial DNA control region of modern non-breed indigenous dogs from geographically distinct populations across the Old World and worldwide (respectively based on a 582bp and a 304bp fragment) have demonstrated that 95-97% of the genetic variation observed is distributed within populations. This highlights little maternal genetic variation between modern non-breed dog populations from geographical regions across the world.

A population's genetic structure is usually affected by both historical and ecological factors. Upon reaching new territories, natural selection would be the driving force in a species' adaptation to its new environment, consequently leading to the development of genetic signatures specific to geographical locales and increasing genetic differentiation with geographic distance (27). Barriers of a geographical nature such as mountain ranges, deserts and oceans would usually restrict movement between regions and populations. This has been observed in several species such as the puma (*Puma concolor*) (28) or the moose (*Alces alces*) (29), each of which consisted of fragmented units exhibiting genetic isolation by distance. The main populations designated in the current study were defined as such in order to reflect natural barriers: i.e. the Sahara Desert or the Indus Kush mountain range. These would have presented relatively difficult obstacles for indigenous stray dogs to cross without some form of aid from human groups, whether it be food, shelter or boats (see Supplementary Information SI2 and Supp. Figure 2 for further details on these geographical barriers).

Furthermore, the lifestyle of these non-breed indigenous dogs is one that would not incline their dispersal without the presence of humans. Feral dogs live in a wild and free state and tend to avoid human interactions at all costs. On the contrary, stray dogs or village dogs exhibit and maintain a certain social bond with human groups, usually looking to be cared for (30). Their subsistence relies heavily on human activities as they mainly feed themselves on domestic and farmyard refuse as well as handouts from people. This is not a habit unique to villages and towns; similar lifestyles are observed in the countryside where dependence on human activities remains as important and crucial. This demonstrates that these dogs display a certain 'awareness' to the fact that humans are responsible for their food; thus avoidance would not be in their best interests (23). Consequently one would assume these dogs would remain close to human settlement and not migrate of their own accord. Considering the lack of genetic variation between these various geographically distinct populations, external historical factors must have been involved in order to explain the current AMOVA results.

Dogs have an incredible ability to adapt to the needs expressed by the people with whom they take up residence. Since their domestication, they have constantly migrated with human societies throughout the world at varying latitudes, climates, altitudes and topographies (31). For instance, zooarchaeological studies on the development of dogs in Britain from the Mesolithic to the late 11th century AD have demonstrated the appearance of late Iron Age dogs which, in modern terms, are described as 'toy dogs'. These differ in size from their Early Iron Age counterparts and were probably imported from the Roman Empire flourishing across the English Channel (32, 33). With the conquest of Britain by the Romans, this import from mainland Europe did not cease. Rather, further decrease in size was observed so much so that these new dogs became of a size similar to that of the Pomeranian today: 230mm at shoulder height as opposed to 290mm for the late Iron Age dogs (32, 33). Zooarchaeological analyses on Italian dogs during the Roman period reflected similar fluctuations in size, confirming the likely import of these smaller 'toy dogs' from Italy into Britain (32-34). Larger dogs also appeared within Romano-British archaeological contexts, leading to the assumption that not one but two variety of dogs were introduced to Britain during that time (although these studies have noted the difficulty in distinguishing between these larger dogs and wolves) (33).

The translocation of dogs through human agency can also be seen through biomolecular analyses, linguistic studies and historical documents in the islands of the Greater and Lesser Antilles colonised around 500 BC by horticulturalists from northern South America (35). Dogs were brought along as attested from the archaeological record but also based on linguistic studies; the terms used to describe dogs in populations both from the Caribbean and northern South America do not derive from any European language and appear relatively similar ('*aon*' and '*auri*' respectively) (35). Lithic and ceramic material studies have attested the existence of past exchange networks present within and between the islands and archipelagos, as well as on a larger scale between the insular Caribbean and mainland Central and South America (36). Strontium isotope ratios have demonstrated that pre-Columbian dogs were moved through these inner networks within the Antilles, although no evidence based on strontium isotope analysis have yet been found to confirm dog movement between the Antilles and the continent (36). Interestingly, when Columbus first encountered the Taino people in 1492, he describes a small type of dog that did not bark but chortled, howled or whined. These dogs usually constituted part of the diet; they provided a good food source to the Spaniards during the first famine (35). Similarly, Rodrigo Rangel, then personal secretary of Hernando De Soto during the latter's North American expedition in Tampa Bay, Florida, 1539, writes of small dogs which did not bark and were raised in houses as a food resource (37). Such similar characteristics between these two descriptions may reflect dog movement between the islands and the northern continent.

Probably the biggest impact that human societies would have caused on the genetic structure of the geographically distinct dog populations across the world is the European colonial expansion. The previous examples highlighted translocation of dogs over relatively 'small' distances when taking the world as a geographical reference. With the advent of transoceanic travel, European societies found themselves with great potential for market expansion and began importing and exporting both domesticates and exotic animals (38, 39). To ensure constant sources of food, water and wood along major trading routes, the various Dutch, English, French and Portuguese fleets established safe heavens on uninhabited islands and trading posts in inhabited ports. Islands in particular saw the full exploitation of their native fauna and flora and the introduction of livestock including pigs, goats, cattle and chickens. Hunting dogs were generally later introduced to help with the catching of goats and pigs (38). Consequently, if dogs were introduced later on uninhabited islands along maritime routes, they would have travelled with Europeans to other Eastern colonies, affecting the genetic diversity of the indigenous dog populations.

Support for this extant dog dispersal and admixture following the European expansion can be found in a recently published study on a transmissible cancer that propagates naturally in dogs called the canine transmissible venereal tumour (CTVT). Genome analyses have revealed CTVT probably arose 11,000 years ago within a genetically isolated dog population whose limited genetic diversity would have aided the cancer in its escape from the immune system. An analysis on a modern Brazilian dog and a modern Australia dog displaying CTVT has determined their most recent common ancestor would have lived about 460 years ago. This coincides with European global expansion (40). Considering this cancer is sexually transmitted, this new discovery only emphasises the admixture that has taken place following the rapid human global exploration beginning in the late 15th century.

The New World was no exception to this admixture between native and European dogs. Dogs were widespread in America by the time Europeans set foot in the New World in the late 15th century (35); Columbus talks of mastiffs and small dogs only six days after his landing (41). However, molecular data and statistical modelling conducted on modern village/street dogs and ancient samples have demonstrated that despite larger historical population size and potential refugia through isolated human groups, native American dog lineages were greatly impacted and suffered an extensive replacement by European dogs (31, 42). Exceptions to this are a few Arctic breeds for which no European influence was observed and a few North and South American breeds that exhibited at most 30% European female lineages implying marginal replacement (43).

II. 3.2 Genetic variation in mtDNA diversity between breeds and non-breeds

Unlike any of the non-breeds subpopulations, the Pure-Breed dataset based on the 582bp fragment of the mtDNA control region comprised all six clades: A (69.9%), B (16.9%), C (8.1%), D (4%), E (0.7%) and F (0.4%). The Mixed-breed dataset, however, only contained clades A-C (Supplementary Table 14). Following the observations made by previous papers, the 21 samples from clade D originated from Scandinavia and Turkey (with an additional Spanish Greyhound for which the sampling location is unknown). The four samples from clade E derived from Japan and Korea while the two samples from clade F were found solely in Japan.

When the Pure-Breed and Mixed-Breed datasets are combined, the ‘Breed’ dataset exhibited 83 haplotypes defined by up to 63 polymorphic sites. No single haplotype was found unique to one particular breed, which conforms with previous observations (3, 44). However, 43%

of the total number of haplotypes found within the Breeds dataset was unique to this grouping (32 haplotypes unique to the Pure Breed dataset and 2 unique to the Mixed-Breed dataset). The Breed dataset contained all five observed universal haplotypes and shared a relatively high number of haplotypes with every non-breed population: 30 with Asia South of the Yangtze River, 25 with ISEA, 23 with the Near East and 19 with Sub-Saharan Africa and East Asia (Supplementary Tables 14 and 15).

The F_{ST} results between the breeds and the various geographically distinct non-breed populations reveal little genetic differentiation (Table 6); a maximum F_{ST} value of 0.01348 was found between ISEA non-breed population and the pure-breeds (Table 3). According to Wright's qualitative guidelines, this is well below the 0.05 threshold value corresponding to 'little' genetic differentiation ((19, 26). The mixed-breed dataset presents slightly higher values, ranging from 0.01998 ($P<0.001$) to 0.02582 ($P<0.008$), which likely reflects sampling error due to the relatively small sample size of the mixed-breed dataset (n=38) when compared to the other datasets (ie. Pure-breed n=531, Near East n=183). Nevertheless, the F_{ST} remain characteristic of low maternal genetic differentiation between the various breed and non-breed datasets.

	582bp		**304 bp**	
Dog Populations	**Pure-Breed**	**Mixed-Breed**	**Pure-Breed**	**Mixed-Breed**
North America	N/A	N/A	0.01200	0.00111*
South America	N/A	N/A	0.00986	0.00412*
Near East	0.00808	0.02006	0.01746	0.01182
Sub-Saharan Africa	0.01023	0.00662*	0.00658	0.01038
South Asia	0.01060	0.02581	0.00966	0.01358
ISEA	0.01348	0.02552	0.01285	0.01520
Asia South Yangtze	0.00944	0.01998	0.00908	0.01249
East Asia	0.00972	0.00986*	0.00873	0.00000*#
Pure-Breed	0.00000	0.00759*	0.00000	0.00222*
Mixed-Breed	/	0.00000	/	0.00000

***Table 6*: F_{ST} values between breed and non-breed dog populations based on both the 582bp and the 304bp fragment of the mtDNA control region. *p >0.05, # negative value adjusted to 0**

The analysis of molecular variance (AMOVA) conducted between the groupings of breeds and non-breeds (Model 11) confirmed these observations (Table 7); 98.92% of all genetic variation was found within populations (P=0), 1.51% was found among populations within groups (P=0) and no genetic variation was found among the groups. Similarly to the results obtained for the non-breed populations, the latter value was found to be non-significant. Such an outcome could be predicted given the low number of unique haplotypes found within the Non-breeds in comparison to the overall number of haplotypes observed (15.4%). Similarly to the previous analysis, ϕ_{ST} and ϕ_{SC} values were both significant, highlighting the fact that a majority of the genetic variation was found within populations and that very little genetic structure existed within each of the two groups.

In order to include the American datasets in our comparison between breeds and non-breeds, I conducted a second AMOVA based on the shorter 304bp fragment. This resulted in a total of 1,983 non-breed dogs as described above and 604 samples from breeds: 539 pure-breeds and 65 mixed-breeds (Materials and Methods). The F_{ST} values ranged from 0.00658 to 0.01746 (Table 6), providing slightly lower values compared to the ones obtained for the 582bp fragment and supporting the previous observation. The AMOVA (Model 12) revealed similar results from the ones obtained through the longer fragment (Table 7); a majority of the genetic variation (98.34%) was apportioned within populations (P=0), 2.77% of the variation was found among populations within groups (P=0) and no genetic variation was found among groups (result non-significant, P >0.05) (Table 4).

In order to take the data further and enable a better comparison between the breed and non-Breed datasets in terms of their geographical regions, we split the samples (582bp fragments) from breeds into their sampling locations based on six regions that reflected as much as possible the six regions defined for the non-breed populations (see Materials and Methods). AMOVA results (Model 13) confirmed that the genetic differentiation is primarily distributed among populations (96.92%, P=0) and that there is very low genetic differentiation among the populations within the groups (Table 7). The ϕ_{CT} remained non-significant.

Hierarchical Clusters	Within Populations		Among populations within groups		Among groups	
	ϕ_{ST}	%	ϕ_{SC}	%	ϕ_{CT}	%
Breeds vs Non-Breeds *Model 11 (582bp)* [Pure-Breed, Mixed-Breed] [AsiaSouthYangtze, Sub-Saharan Africa, Middle East, South Asia, East Asia, ISEA]	0.01083	98.92	0.01503	1.51	0*$^{\#}$	0
Model 12 (304bp) [Pure-Breed, Mixed-Breed] [Sub-Saharan Africa, Middle East, South Asia, East Asia] [AsiaSouthYangtze, ISEA, North America, South America]	0.01657	98.34	0.02742	2.77	0*♯	0
Model 13 (582bp) [Sub-Saharan Africa, Near East, South Asia, ISEA, East Asia, AsiaSouthYangtze] [Breed_America, Breed_ChinaSoutheastAsia, Breed_NorthAsia, Breed_Europe, Breed_NearEast, Bred_Sub-SaharanAfrica]	0.03078	96.92	0.03507	3.52	0*♯	0

***Table 7:* AMOVA results for Models 11-13 between breed and non-breed dog populations based on the 582bp and the 304bp fragment of the mtDNA control region.** *p >0.05, $^{\#}$ negative value adjusted to 0**.** Brackets represent the various groupings, populations within these groups are separated by a comma.

The breeding history of the domestic dog is unique in itself. The selection for desired behavioural and aesthetic traits has led to more morphological diversity than can be found within the remainder of the family *Canidae* and presents researchers with the unique opportunity to explore the genetic grounds of disease susceptibility, morphological variation and behavioural traits (45). The definition of a breed differs from author to author but all acknowledge the purity of the bloodline and the notion of intense controlled breeding necessary to obtain desired aesthetic and/or behavioural standards. For instance, Morris defines a breed as ‘a type of dog that differs from all others in some way, has a separate history and breed name and has been breeding true for a number of generations’ (20) while Larson mentions that ‘modern breeding practices date as early as the 19th century and focus on strict aesthetic requirements and closed bloodline’ ((4):8879).

Archaeological faunal remains have confirmed that dog diversity in size and bodily proportions already existed in Prehistoric times but based on the archaeological record, distinct breed types did not appear until c.3000 to 4000 years ago. The frequent depictions of greyhound-type dogs on Egyptian and Western Asian paintings and pottery have provided the earliest evidence for the existence of certain types of dogs (46, 47). Roman times saw the establishment of main breed types, each well-defined with the dogs’ qualities and functions

(47) but the idea of recognised breeds did not emerge until 1486 with Dame Juliana Berners and her treatise on hunting in the Boke of St. Albans (48). As observed by Sampson and Binns, this written list demonstrates the relative importance attached to different breeds at the time (48). However, the very notion of a breed as is understood today has its roots in the Victorian era some 200 years ago. A breed as described by the Victorians implied 'a subspecies or race with definable physical characteristics that will be reliably reproduced in the offspring of intrabreed matings' ((49):235). This era of exhibitions and dog shows saw the creation and development of a majority of dog breeds known today and the establishment of kennel clubs and studbooks keeping close record on breed standards (48). Recorded bloodline also became a crucial element in dog breeding (49).

AMOVA results between breeds and non-breeds have shown little genetic variation between these two groups, consequently supporting a previous observation that these recent breeds emerged from a relatively homogenous gene pool (4). Indeed, ancient village dogs would have not only evolved into modern street and village dogs, but would also have represented the founders of ancient and modern dog breeds (22). Considering the homogenisation of once-independent dog lineages due to human migrations through time, and particularly accentuated since the late 15th century, it is unsurprising that no genetic variation can be found between carefully and intensely bred dogs and non-breed dogs. Brown observes that present European and North American stray dogs would be more likely to reflect secondary admixture with the recently created breeds as opposed to Asian and African village dogs that have supposedly bred independently from modern breeds and are more likely to reflect the deeper indigenous ancestry of their regions (15). However, this was not observed nor supported by my AMOVA analysis.

An additional observation derived from the AMOVA results reveals that selection did not appear to have an impact on the genetic diversity of breeds in comparison to non-breeds. This shows that selection is likely based on autosomal traits that are not sex-specific, nor are they limited to particular geographical regions. Consequently, selection did not majorly affect the level of mitochondrial DNA variation throughout time and generations.

II.4 Conclusion

Through an extensive dataset of previously published and novel modern dog sequences from populations worldwide, I have shown using multiple AMOVA analyses conducted on mtDNA CR fragments, that little to no genetic variation exists between non-breed dog populations that are geographically distinct. This casts questions on the claim made by Pang *et al.* (11) in establishing Asia South of the Yangtze River as the domestication centre for dogs based on higher genetic diversity. Indeed, this lack of maternal genetic variation in our modern dog populations demonstrates that numerous episodes of homogenisation between previously independent dog lineages caused by human migrations led to a current homogenous gene pool found worldwide. Consequently, the capacity of modern mitochondrial DNA genetic data in inferring dog domestication and early history shows clear limitations.

Regarding breeds, my data clearly shows the lack of any maternal genetic variation between non-breed dogs and dogs that have followed close intensive breeding in the last 200 years. This suggests that the observed homogenous gene pool found among modern dogs today was already present to a certain extent 200 years ago, when the concept of a breed as we know it today was first invented and distinctive breeds were created. The careful selection of particular phenotypes in the creation of breeds must also have enticed considerable gene flow between breeds. Indeed, certain mutations have been found responsible for specific phenotypes. Given the unlikely probability that these mutations arose independently across multiple dog populations, the data supports significant degree of gene flow between breeds (4). My results are not only in agreement with these observations, they also provide statistical support.

The studies on the Iron Age, Roman and pre-Columbian dogs based on zooarchaeological and historical data represent only a few of the examples showing the translocation of dogs via human agency throughout historical periods. Although relatively ‘regional’, these would have contributed to admixture between indigenous dog populations. In particular, the homogenisation of the dog maternal gene pool must have become accentuated with the invention of transoceanic travel and the European exploration and colonial expansion in the last five centuries, leading to the lack of mtDNA variation observed today. In addition to the market expansion offered by transoceanic travels, the ever-changing political situations of colonies belonging to the various empires would have ensured continuous exchange of dogs and consequently admixture between populations. Finally, in our modern world where faster and cheaper modes of transports are constantly being developed, this admixture is ever present. Traditional ways of life also continue to contribute as can be observed in northern South America with the Trio (50) and Waiwai (51) societies who continue to exchange dogs with other human groups.

Because modern mitochondrial DNA data cannot provide an accurate understanding of dog domestication and early history, it is essential that we turn towards ancient data. The analyses by Leonard *et al.* (22) have already demonstrated the power of comparing ancient and modern data in order to understand dogs' past history (31). In addition, a recently published analysis conducted on the mitochondrial DNA of Prehistoric canids suggested possible European dog domestication (52), a hypothesis that had not yet been considered by modern genetics. Genetic techniques beyond mitochondrial DNA have also demonstrated their importance in better understanding the past and should be used in conjunction with other techniques.

A final line of evidence that would need further investigation regards ancient wolf data. Combined with ancient dog data, these may help provide a better understanding of the number and location of dog domestication events. As the wolf's historical range comprised of the whole of the holarctic, the number of opportunities during the Late Pleistocene for independent domestication events and also continuous genetic exchange between wolves and dogs would have been quite high (3). Hybridisation between wolves and dogs has already been suggested through mtDNA and single nucleotide polymorphism (14, 53). Research conducted on the major histocompatibility complex genes has shown through various types of simulations that the number of wolves involved in the dog domestication process was larger than the five or six founding lineages theorised by mtDNA, and suggested that backcrossing with male wolves at an early domestication stage would have led to nuclear diversity enrichment in comparison to maternally-inherited mtDNA (54, 55). If mtDNA genetic structure between wolf populations did occur in the past and given the evidence found for dog-wolf hybridisation at an early stage of domestication, this genetic structure would most likely be reflected in the dogs' own past genetic structure. A recent study on modern wolf samples and ancient samples dating between 44,000 and 1,200 BP has however demonstrated major haplogroup replacement through time, which confirms the necessity to use ancient data if we are to better understand dog domestication and subsequent history.

II.5 Materials and Methods

II.5.1 Sampling Protocol and Geographical Distribution

A total of 1,767 modern dog samples from eight previous major studies (7, 8, 11, 12, 14, 56-58) and a complementary 79 samples from this study (Pakistan n=8, Island Southeast Asia and Near Oceania n=71) were analysed in this research. The sequences consisted of a 582bp fragment of the mtDNA CR previously amplified across major studies. The samples originated from across the Old World, Africa and Near Oceania. An additional 706 samples from a total of 11 previously published studies (7, 8, 11, 12, 14, 15, 42, 56-59) were used to investigate a 304bp fragment of the mtDNA CR in order to extend the dataset geographically and include the New World and samples from three other major studies.

A first partitioning grouped samples as ‘Breeds’ and ‘Non-Breeds’. Each dataset was further split into sub-populations based on either the recognition as pure-bred dogs or mixed-bred dogs (for ‘Breeds’) or, if not recognised as a breed, the geographical origin of the samples (for ‘Non-Breeds’). A list of all samples including their corresponding haplotypes, geographical origin, breed (if applicable) and Genbank accession number can be found in Supplementary Tables 1-10.

II.5.1.1 Non-Breeds

My ‘Non-Breeds’ 582bp fragment dataset consists of a total of 1,277 samples partitioned into six geographically distinct populations: i) Sub-Saharan Africa comprises of African countries located below the Sahara Desert; ii) the Near East region also encompasses Egypt (located above the Sahara Desert) and Iran in Southwest Asia; iii) South Asia includes Pakistan and India; iv) East Asia excluding Chinese provinces south of the Yangtze River (hereafter referred to as ‘East Asia’) spans from Nepal to Mongolia via North China; v) Asia south of the Yangtze River follows Pang *et al.*’s definition (11) and includes mainland southeast Asia and vi) Island Southeast Asia and Near Oceania (‘ISEA’) covers the countries from the Philippines to the Solomon Islands. For the analysis conducted on the 304bp fragment, an additional 706 samples were included and partitioned in their corresponding geographical locations.

I included, under my ‘Non-Breed’ dataset, any stray/village/street dogs that had been described as such in papers, as well as any owned dogs which did not belong to any specific breed; for instance, some authors described some of their samples as ‘hunting dog’. Personal communication with the authors confirmed the indigenous nature of the dog but also highlighted the fact that some ‘non-breed’ dogs were nevertheless ‘owned’ and did not solely consist of stray dogs. It is important to mention here that the identification of a free-ranging dog as ‘feral’, ‘stray’ or ‘owned’ is a matter of degree (60) and a complexity to resolve due to the multitude of terms used to describe them (i.e. ‘rural’, ‘indigenous’, ‘village dog’). In a majority of studies, dogs have been classified based on their behaviour and ecological traits, their origin, main type of range, the degree of access to public areas and the level of dependency on and control by humans (30).

II.5.1.1.1 Sub-Saharan Africa

The Sub-Saharan Africa 582bp fragment dataset comprises of 106 samples taken from (8, 11, 12). In the research by Boyko *et al.* (12), the authors used a combination of 89 microsatellite markers or 300 SNPs to determine the degree of inferred admixture of village dogs. We selected samples with an inferred admixture ≤ 25%; these were classified as 'indigenous' by Boyko *et al.* (12) and represented dog populations that developed genetic signatures specific to their regions. Samples from (8, 11) were confirmed to be 'indigenous' by the authors [Savolainen, P. 2013. pers. comm.]. The current dataset comprises of the following regions: Gambia (n=4), Lesotho (n=6), Namibia (n=58), South Africa (n=2), Tanzania (n=1) and Uganda (n=35). An additional 13 samples (Namibia, n=2; Uganda, n=11) were selected for the 304bp analysis. See Supplementary Table 1 for further information on the samples.

II.5.1.1.2 Near East

A total of 183 samples (582bp) and 387 samples (304bp) fell within this region. Samples include Egypt (582bp, n=26; 304bp, n=34), Iran (582bp, n=131; 304bp, n=327), Saudi Arabia (n=1), Syria (n=1) and Turkey (n=22). Two samples originated from the Persian Plateau but their precise location is unknown. Of these, 109 samples were selected from the study by Ardalan *et al*. (14) based on several criteria. Ardalan *et al*. (14) aimed to represent the indigenous dog populations across Southwest Asia. Their study encompassed dogs from various rural locations and included non-breed working dogs as well as indigenous sighthounds, stray dogs and Canaan dogs. Among the latter, the Bakhmul, Baxtiyari, Gorgi, Kalagh-Tazi, Kars dog, Kordi, Mazandarani, Qahderijani, Sangesari, Sarabi and Torkaman were selected for our study as they were classified as indigenous. Furthermore, Ardalan *et al.* (14) argue their southwest Asian dataset is a faithful representation of indigenous dogs within this specific region (14). The samples by Boyko *et al.* (12) comprised samples for which the inferred admixture was ≤ 25% (identified as indigenous dogs). Samples from Savolainen *et al.*(8) and Pang *et al.* (11) were confirmed to be 'indigenous' (Savolainen, P. 2013. pers. comm.). The 196 samples from Brown *et al*. (15) only consisted of samples for the 304bp analysis. These were identified as indigenous dogs from Iran. Further sample details can be found in Supplementary Table 2.

II.5.1.1.3 South Asia

My South Asian dataset contained my eight samples from indigenous dogs from Pakistan and for which no pure-bred or cross-bred were targeted during sampling (Zahir, M. (sample provider) 2013. pers. comm.) as well as 56 samples from two other studies (8, 11). As mentioned above, all dogs from these two studies were confirmed as indigenous. A total of 64 samples were used for both fragments (Pakistan, n=8; India, n=56). See Supplementary Table 3 for further information.

II.5.1.1.4 East Asia (excluding China South of the Yangtze River)

243 dog samples were selected for both fragments from Savolainen *et al*. (8) and Pang *et al.* (11) based on the indigenous status of the dogs. Samples included China (n=238), Mongolia (n=2) and Nepal (n=3). All Chinese provinces are located in North China above the Yangtze River as defined by Pang *et al.* (11): Anhui, Heilongjiang, Liaoning, Qinghai, Shanxi, Shanxixian, Sichuan and Tibet. Further details are given in Supplementary Table 4.

II.5.1.1.5 Asia South of the Yangtze River (Asia South Yangtze)

This region was defined by Pang *et al.* (11) in order to make our results more comparable with these authors' observed results. The region consisted of Chinese provinces located south of the Yangtze River and mainland Southeast Asia. The dataset included 306 samples from the Chinese provinces of Guangdong, Guangxi, Guizhou, Hainansanya, Hunan, Jiangxi and Yunnan, 52 samples from Taiwan, eight samples from Cambodia, 98 samples from Thailand and 30 samples from Vietnam, bringing the total number of samples for this region to 494. An additional 91 samples were used for the 304bp analysis (China, n=2; Taiwan, n=39 and Thailand, n=50). Samples from Savolainen *et al.* (8), Pang *et al.* (11) and Brown *et al.* (15) were confirmed to be indigenous dogs. Samples by Oskarsson *et al*. (57) were collected in an area with low influx of foreign dogs, avoiding crossbreeding with modern dog breeds. Additional information on samples can be found in Supplementary Table 5.

II.5.1.1.6 Island Southeast Asia and Near Oceania

The samples included in my ‘ISEA’ dataset were collected from four previous studies (8, 11, 15, 57) and included 71 samples collected and analysed for this study specifically. All 116 dogs from Savolainen *et al.* (8), Pang *et al.* (11) and Oskarsson *et al* (57) were described as indigenous. 33 samples from ISEA (304bp only) were taken from the study by Brown *et al.* (15), who sampled village dogs from Bali, the Philippines and Brunei. Given the known 'isolated' characteristic of the Bali dog population, I have excluded these from the current analysis. The 71 dogs analysed in this study were collected during the South Sea expedition 'Lapita Voyage' in an attempt to re-create and follow the hypothetical migration route of the Lapita peoples out of Taiwan into Oceania (61). No breeds or known crosses of pure-breeds were targeted. The dogs' phenotypes lacked resemblance with any known modern breeds and resembled more the traditional 'village dog' as described by Coppinger and Coppinger (23). The dogs sampled were either street dogs or dogs associated with rural settlements. The remoteness of the islands makes crossbreeding with modern breeds extremely limited.

The total ISEA amounted to 187 samples for the 582bp fragment analysis and 220 samples for the 304bp fragment analysis: the Philippines (582bp, n=44; 304bp, n=68), Brunei (n=9, 304bp only), Indonesia (n=77), New Guinea (n=25) and the Solomon Islands (n=41). Further information can be found in Supplementary Table 6. Additional GPS coordinates and photographs are available upon request.

II.5.1.1.7 North and Central America

The North and Central American dataset (hereafter referred to as 'North America') included 168 samples for the 304bp fragment only and incorporated previously published samples from Castroviejo-Fisher *et al.* (42). No purebred dogs or crosses of purebred dogs were targeted by the authors. The dogs were either street dogs or came from rural and isolated areas but most were familiar with human interactions either as pets (US and Canada) or associated with communities (Leonard, J. 2013. Pers. comm.). Sample locations include Canada (n=73), USA (n=2), Costa Rica (n=3), Cuba (n=5), Mexico (n=70), Panama (n=9) and Belize (n=6). See Supplementary Table 9 for further sample information.

II.5.1.1.8 South America

Similar to the North American dataset, the samples used for the South American dataset were taken from the study by Castroviejo-Fisher *et al.* (42), with all dogs being non-breed dogs. A total of 197 samples for the 304bp fragment only were kept for the present study. Samples locations include Argentina (n=43), Bolivia (n=26), Brazil (n=42), Paraguay (n=1), Peru (n=23), Uruguay (n=6) and Venezuela (n=56). For further sample information, see Supplementary Table 10.

II.5.1.2 Breeds

Only breeds recognised by the American Kennel Club (AKC) (24) and/or the United Kennel Club (UKC) (71) were included in our 'Breeds' dataset. See Supplementary Table 12 for a complete list of recognised breeds used in this study, including sample number for both the 582bp and 304bp analyses, and their recognition date by the corresponding Kennel Club. All other questionable breeds or breeds awaiting status were discarded. This 'Breeds' dataset was further partitioned into 'Pure-Bred' and 'Mixed-Bred' dogs based on information given by the authors of the corresponding studies. A total of 569 and 604 samples were used for the 582bp fragment and 304bp fragment analysis respectively. To the best of our knowledge, the geographical origins found within the Supplementary Table reflects the sampling location and not the geographical origin of the breeds themselves.

II.5.1.2.1 Pure-Breeds

Samples from 'Pure-Bred' dogs were taken from six previous studies (7, 8, 11, 56, 58, 59) with samples from Muñoz-Fuentes *et al.* (59) only being used for the 304bp analysis. Samples were described as pure-breeds and when unknown, personal communications with the authors ensured their corresponding status. For the 582bp fragment, a total of 569 samples belonging to 134 breeds recognised by the AKC (24) and/or the UKC (71) were used while the 304bp fragment encompassed 604 samples from 135 AKC (24) and/or UKC recognised breeds (71). See Supplementary Table 7 for further details on the samples.

II.5.1.2.2 Mixed-Breeds

The 'Mixed-Bred' dataset consists of samples from Boyko *et al.* (12) for the 582bp fragment analysis and samples from Boyko *et al.* (12) and Muñoz-Fuentes *et al.* (59) for the 304bp fragment analysis. Regarding the samples from Boyko *et al.* (12), the degree of admixture in African village dogs (see 'Sub-Saharan Africa' above) was taken into account: samples with an inferred admixture higher than 60% meant the dog was considered an 'admixed breed' (12). 42 samples met the 60% threshold and qualified for our 'mixed-bred' dataset. The 23 samples from Muñoz-Fuentes *et al.* (59) originated from British Columbia and were identified by the corresponding authors as mixed-bred dogs ((59). See Supplementary Table 8 for further details on the samples.

II.5.1.2.3 Additional dataset: Breeds per Region

In order to take the data further and conduct a direct comparison between the Breed and Non-Breed datasets in terms of their geographical regions, I combined both Pure-Breed and Mixed-Breed datasets and partitioned the resulting data according to sampling location. One sample (PBrd481) had to be removed due to its unknown sampling location, leading to a total dataset of 568 samples from dog breeds. The breed geographical partitioning was designed to correspond with the regions previously defined for the Non-Breeds.

The data was partitioned as follows: America, n=32, China and Southeast Asia, n=37, North and Northeast Asia, n=162, Europe, n=251, Near East and Southwest Asia, n=45 and Sub-Saharan Africa, n=41. See Supplementary Tables 7-8, column 'Brd_Region' for the geographical regions to which samples were assigned.

II.5.2 DNA Extraction, Amplification and Sequencing

Modern dog hairs were obtained from 71 ISEA and Near Oceania dogs and 8 Pakistan dogs. DNA extraction was conducted based on the protocol designed by Pfeiffer *et al.* (62). An average of five hairs were taken from each sample and washed in a 1/10 bleach dilution. They were rinsed five repetitive times using ddH_2O. The hairs were then digested in a 340µl extraction buffer containing 100mM Tris-HCl, pH 8.0, 100mM NaCl, 3mM $CaCl_2$, 2% SDS (w/v) 40mM DTT and 250µg/ml proteinase K. The samples were incubated overnight at 56°C. The DNA was purified using the QIAquick PCR purification Kit (QIAGEN Ltd, UK) following the manufacturer's instructions.

The forward primer H15422 (5'-CTCTTGCTCCACCA TCAGC-3') and the reverse primer L16106 (5'-AAACTATATGTCCTGAAACC-3') were used to amplify a 684bp fragment (excluding primers) corresponding to the positions 15,423 – 16,106 on the complete dog mitochondrial DNA reference sequence (Genbank Acc. Nb. U96639) (63). The amplified sequence corresponded to a hypervariable control region fragment of the mitochondrial genome. The PCR amplification was performed in 25µl containing 2µl extract, 0.76x PCR Gold Buffer, 1.89mM $MgCl_2$, 1.04U *Taq*, 0.18mM dNTP and 0.75µM of each primer. The PCR thermal cycling reactions consisted of a 2 minute denaturation step at 94°C, followed by 35 cycles of 45s denaturation at 94°C, 45s annealing at 52°C, 45s at 72°C, then a 10 minute final extension step at 72°C. The PCR amplifications were visualised on a 0.5x agarose gel. No modern contamination was identified for the DNA extraction and the PCR blanks. Sequencing was performed on a 48-capillary 3730 DNA Analyser in a DNA laboratory located in a physically separated building. The sequencing primers were identical to the ones used for DNA amplification. Sequencing was undertaken on both strands.

II.5.3 DNA Sequence Analysis

Sequences were visualised on Geneious (Geneious Pro 5.3.4 created by Biomatters. Available from http://www.geneious.com) and aligned using MAFFT v7.017 (64). The alignments were confirmed visually. Sequences with missing data were removed. The obtained 582bp sequences (Supplementary Information SI3) were compared to published sequences of selected dog populations (3, 7, 8, 11, 12, 14, 56-58, 65, 66) Some populations followed the haplotype nomenclature attributed by Vila, others by Savolainen. Consequently, haplotypes were converted in order to follow the Savolainen nomenclature and ensure better comparison with previously published data. A full comparison can be found in Supplementary Table 11. Additional haplotypes for which no Savolainen haplotype equivalent existed retained their original names. Sequences were collapsed to haplotypes using FaBox v1.41 (67) and DnaSP v5.10 (68). Bayesian trees were built using MrBayes v2.0.3 Plugin for Geneious (created by Suchard, M. and Biomatters Ltd.) and rooted using a *Canis latran* sequence. A median-joining network was built for both datasets (582bp and 304bp) using NETWORK 4.6.1.2 (www.fluxusengineering.com, (69)) and Gephi (70).

II.5.4 Population Variation

Wright's *F*-statistics were all computed through ARLEQUIN v3.5.1.3 (71). They have a theoretical minimum of 0 indicative of a lack of divergence and a theoretical maximum of 1 indicating fixation for alternate alleles in different subpopulations. However, the interpretation of F_{ST} values can be difficult. Wright has provided the following qualitative interpretation of F_{ST} values (25, 26):

- $F_{ST} > 0.25$ indicates very great differentiation
- F_{ST} between 0.15 and 0.25 are considered to represent moderately great differentiation
- F_{ST} between 0.15 and 0.05 indicates moderate differentiation

- $F_{ST} < 0.05$ may be considered as indicating little genetic differentiation.

These are only qualitative guidelines as Wright also notes that differentiation is by no mean negligible if the F_{ST} value is as low as 0.05 or less. It is also worth noting that F_{ST} values are subject to larger sampling error when estimated from smaller sample size (72). See Chapter I for more details on Wright's *F*-statistics.

Population genetic variation was assessed by analysis of molecular variance (AMOVA) based on 13 groupings. These groupings can be found in Tables 3, 5 and 7 within the Results and Discussion section. ϕ-statistics representing haplotype distances correlations at various levels of hierarchical clusters ϕ_{CT}, ϕ_{SC} and ϕ_{ST} were calculated using ARLEQUIN v3.5.1.3. (71) and significance of the results were evaluated based on 1023 permutations.

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II.8 Supplementary Materials

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II.8.1 Supplementary Information SI 1: ISEA Dataset: sequence analysis of the 71 newly sampled dogs

I analysed 683bp (excluding primers) of the mtDNA CR for 71 dogs from ISEA and Near Oceania (Supplementary Table 6). A total of 45 haplotypes were observed, six of which were novel and specific to ISEA and Near Oceania (Supplementary Table T13). The phylogenetic analysis grouped all my new dog sequences in the previously described haplogroups A-C. As observed with published phylogenetic studies on this 582bp fragment, the Bayesian posterior probability support for the Bayesian tree was relatively low (Supplementary Figure 1). However, as pointed out by Pang *et al.* (1), the full mtDNA genome analysis previously showed these haplogroups had high support with neighbour-joining bootstrap values exceeding 92% and Bayesian values reaching 100% (1), thus confirming the topography of this 582bp CR fragment.

Among the ISEA village dog population, 123 samples belonged to clade A, (65.8%), 36 fell in clade B (19.2%) and 28 samples (15%) came under clade C (Supplementary Table 13). This reflects the results observed from previous studies of the Old World gene pool, with a predominance of clades A, B and C currently found in every population. Interestingly, the ISEA dataset had among the lowest percentage of clade A samples (65.8%, only second lowest after SA with 62.3%) and an almost equivalent number of samples falling under clades B and C (19.2% and 15% respectively). No clade D, E or F was found among these new individuals. This re-emphasises the observation that these three clades are regionally restricted: clade D tends to be found primarily in Central Europe and the Middle East whereas clades E and F are restricted to East Asia (1,2). Dividing the ISEA dataset into its various islands (Philippines, Kalimantan, New Guinea and the Solomon Islands) brought forward an interesting observation: clade A continued to dominate the assemblage, followed by clade B then C with the exception of Kalimantan. This island contained 22.2% of clade C samples in comparison to 12.7% of clade B samples.

Six novel haplotypes represented by a total of nine samples were identified in Near Oceania: five on the island of New Guinea (clade A, n=3; clade B, n=1; clade C, n=1) and 1 (clade A) within the Solomon Islands. This may be explained by the fact that the island of New Guinea has had limited sampling in the past while the Solomon Islands have never been previously sampled. In addition, the remoteness of these islands would contribute towards the preservation of indigenous haplotypes within these local dog populations.

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II.8.2 Supplementary Information SI 2: Details on the geographical barriers defining non-breed dog populations

The non-breed dog populations have been defined based on geographical barriers that would have contributed towards isolation by distance. These comprised of deserts, mountain ranges, rivers and oceans (Supplementary Figure 2). Separating Sub-Saharan Africa from the remainder of the non-breed populations is the Sahara Desert. The Sahara Desert is the largest warm-climate desert on Earth with a surface area of approximately 9,000,000 km^2 (1). The Near East is located west of the Hindu Kush and the Indus River, separating it from North China/Mongolia and to a certain extent South Asia. Moreover, this region can be considered in itself a barrier, populated by the Arabian Desert and numerous mountains including the Taurus Mountains and the Zagros Mountains. East Asia is isolated from the West through the Tien Shan and the Hindu Kush Mountains as well as the Himalayas. It is only separated from Asia South of the Yangtze River by the Yangtze River as defined by Pang *et al*. in their 2009 study (2). The Yangtze River may not represent an important geographical obstacle but its drainage basin is 6,300kms long and has a catchment area of 1.94 x 10^6 km^2 (3). Unstable Holocene environmental conditions within the Yangtze Delta led to five declines in human civilisation, clearly impacting upon these human societies and their development and supposedly indirectly affecting dog populations (4). Finally, ISEA remains isolated through its oceanic barrier, although it is important to note that the island of Borneo was part of the mainland Southeast Asia landmass during the Last Glacial Maximum.

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II.8.3 Supplementary Information SI 3: Sequences of the 79 samples analysed for this study

>ISEA01 Canis familiaris LV141
ACA-
CCCCTACATTCATATATTGAATCACCCCTACTGTGCTATGTCAGTATCTCCAGGTAAACCCTTCTCCCCTCCCCTAT
GTACGTCGTGCATTAATGGTTTGCCCCATGCATATAAGCATGTACATAATATTATATCCTTACATAGGACATATTA
ACTCAATCTCATAATTCACTGATCTATCAACAGTAATCGAATGCATATCACTTAGTCCAATAAGGGCTTAATCAC
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>ISEA69 Canis familiaris GL-LV29
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>SwA111 Canis familiaris OL509 Pakistan
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>ISEA62 Canis familiaris LV106
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>ISEA40 Canis familiaris LV098
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>ISEA53 Canis familiaris LV045
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>ISEA54 Canis familiaris LV046
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>ISEA08 Canis familiaris LV174
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>ISEA14 Canis familiaris LV200
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>ISEA15 Canis familiaris LV201
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>ISEA17 Canis familiaris LV207
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>ISEA28 Canis familiaris LV294
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>ISEA29 Canis familiaris LV295
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>ISEA22 Canis familiaris LV230
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>ISEA23 Canis familiaris LV234
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>ISEA42 Canis familiaris LV099
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>ISEA25 Canis familiaris LV253
ACA-
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ACTCAATCTCATAATTCACTGATCTATCAACAGTAACCGAATGCATATCACTTAGTCCAATAAGGGCTTAATCAC
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CGCAAATGGGACATCTCGATGGACTAATGACTAATCAGCCCATGATCACACATAACTGTGGTGTCATGCATTTGG
TATCTTTTAATTTTTA-
GGGGGGAATCTGCTATCACTCATCTACGACCGCAACGGCACTAACTCTAACTTATCTTCTGCTCTCAGGGGATAT
GCCCGTCGCGGCCCTAATGCAGTCAAATAACTTGTAGCTGGACTTATTCATTATCATTTATCAACTCACGCATAAA
ATCAAGGTGCTATTCAGTCAAT

>ISEA34 Canis familiaris LV255
ACA-
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ACTCAATCTCATAATTCACTGATCTATCAACAGTAACCGAATGCATATCACTTAGTCCAATAAGGGCTTAATCAC
CATGCCTCGAGAAACCATCAACCCTTGCTCGTAATGTCCCTCTTCTCGCTCCGGGCCCATACTAACGTGGGGGTTA
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GGGGGGAATCTGCTATCACTCATCTACGACCGCAACGGCACTAACTCTAACTTATCTTCTGCTCTCAGGGGATAT
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ATCAAGGTGCTATTCAGTCAAT

>ISEA26 Canis familiaris LV254
ACA-
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ACTCAATCTCATAATTCACTGATCTATCAACAGTAACCGAATGCATATCACTTAGTCCAATAAGGGCTTAATCAC
CATGCCTCGAGAAACCATCAACCCTTGCTCGTAATGTCCCTCTTCTCGCTCCGGGCCCATACTAACGTGGGGGTTA
CTATCATGAAACTATACCTGGCATCTGGTTCTTACCTCAGGGCCATAACCTTATTTACTCCAATCCTACTAATTCT
CGCAAATGGGACATCTCGATGGACTAATGACTAATCAGCCCATGATCACACATAACTGTGGTGTCATGCATTTGG
TATCTTTTAATTTTTA-
GGGGGGAATCTGCTATCACTCATCTACGACCGCAACGGCACTAACTCTAACTTATCTTCTGCTCTCAGGGGATAT
GCCCGTCGCGGCCCTAATGCAGTCAAATAACTTGTAGCTGGACTTATTCATTATCATTTATCAACTCACGCATAAA
ATCAAGGTGCTATTCAGTCAAT

>ISEA35 Canis familiaris LV264
ACA-
CCCCTACATTCATATATTGAATCACCCCTACTGTGCTATGTCAGTATTTCCAGGTAAACCCTTCTTCCCTCCCCTAT
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CATGCCTCGAGAAACCATCAACCCTTGCTCGTAATGTCCCTCTTCTCGCTCCGGGCCCATACTAACGTGGGGGTTA
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CGCAAATGGGACATCTCGATGGACTAATGACTAATCAGCCCATGATCACACATAACTGTGGTGTCATGCATTTGG
TATCTTTTAATTTTTA-
GGGGGGAATCTGCTATCACTCATCTACGACCGCAACGGCACTAACTCTAACTTATCTTCTGCTCTCAGGGGATAT
GCCCGTCGCGGCCCTAATGCAGTCAAATAACTTGTAGCTGGACTTATTCATTATCATTTATCAACTCACGCATAAA
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>ISEA66 Canis familiaris LV119
ACA-
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CGCAAATGGGACATCTCGATGGACTAATGACTAATCAGCCCATGATCACACATAACTGTGGTGTCATGCATTTGG
TATCTTTTAATTTTTA-
GGGGGGAATCTGCTATCACTCATCTACGACCGCAACGGCACTAACTCTAACTTATCTTCTGCTCTCAGGGGATAT
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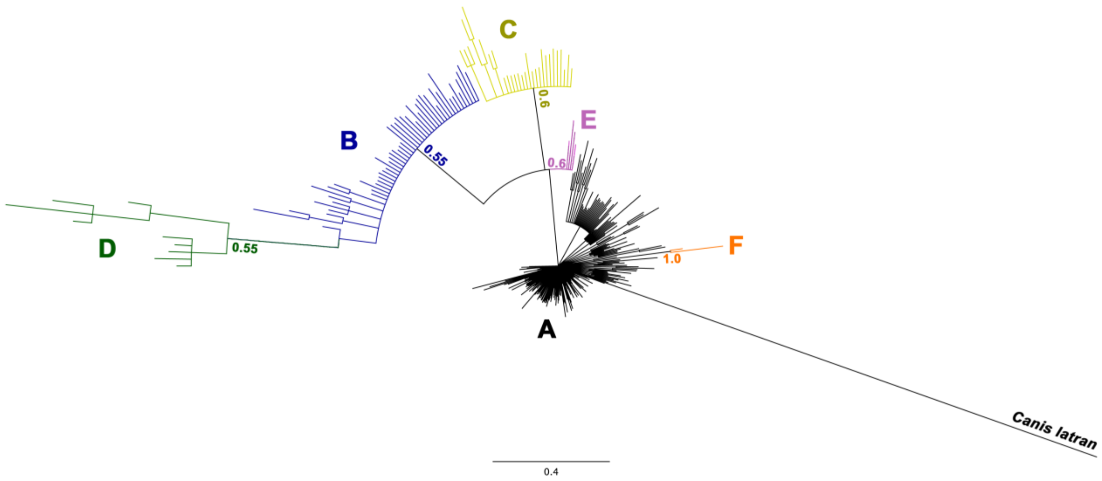
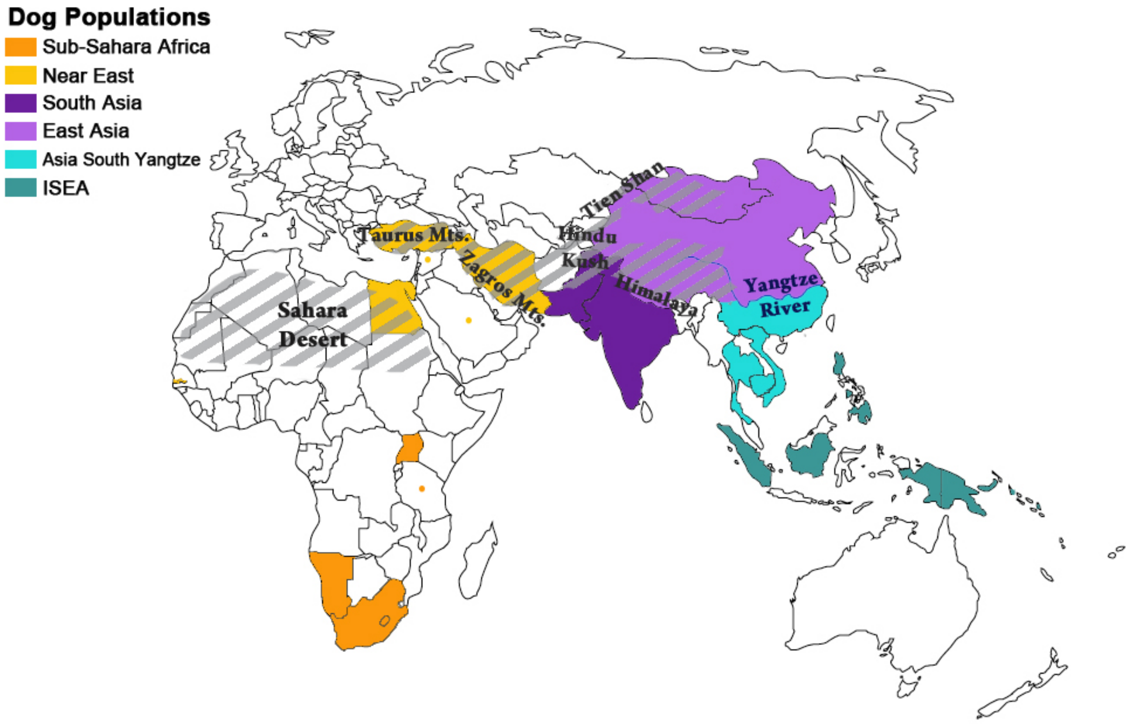
II.8.4 Supplementary Figures



***Supplementary Figure 1:* Bayesian tree based on the 582bp fragment of the mtDNA CR.** Consensus tree built using Bayesian Monte Carlo-Markov Chain and rooted by a coyote sequence *Canis latran*. Numbers represent the Bayesian posterior probability support. Colours denote clades: clade A (black), clade B (blue), clade C (yellow), clade D (green), clade E (pink) and clade F (orange).



***Supplementary Figure 2:* Map of geographical barriers within locations under study.** Location and extent of the geographical barriers are shaded in grey. Colours represent the origin of the six non-breed dog populations.

II.8.5 Supplementary Tables

Supplementary Table ST1: **Full details for the Sub-Saharan African dataset including location of sample, haplogroup, haplotype, Sample Id, Genbank Accession Number and Source. Sorted by fragment length and countries.**

AMOVA Ref	Sample Id	Genbank Acc. Nb	Haplogroup	Haplotype	582bp	304bp	Region	Country	Location specific	Category	Source
Afr03	NA16	GQ375179	A	A20 (VilA15)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr04	NA17	GQ375165	A	A18 (VilA2)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr10	NA88	GQ375186	A	vilA22	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr103	NA8	GQ375177	A	A17 (VilA13)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr106	NA24	GQ375170	A	A27 (VilA7)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr108	NA47	GQ375174	A	A11 (VilA11a)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr111	NA78	GQ375181	A	A80 (VilA17)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr113	NA93	GQ375165	A	A18 (VilA2)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr115	NA31	GQ375170	A	A27 (VilA7)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr119	NA38	GQ375184	A	A65 (VilA20)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr121	NA59	GQ375179	A	A20 (VilA15)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr127	NA81	GQ375174	A	A11 (VilA11a)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr128	NA60	GQ375185	A	A38 (VilA21)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr130	NA36	GQ375174	A	A11 (VilA11a)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr131	NA34	GQ375182	A	vilA18	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr135	NA44	GQ375178	A	A71 (vilA14)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr137	NA40	GQ375179	A	A20 (VilA15)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr14	NA64	GQ375184	A	A65 (VilA20)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr140	NA70	GQ375184	A	A65 (VilA20)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr17	NA79	GQ375177	A	A17 (VilA13)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr18	NA89	GQ375177	A	A17 (VilA13)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr19	NA96	GQ375177	A	A17 (VilA13)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr20	NA27	GQ375182	A	vilA18	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr26	NA82	GQ375177	A	A17 (VilA13)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr27	NA66	GQ375186	A	vilA22	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr28	NA83	GQ375188	A	vilA24	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr36	NA25	GQ375174	A	A11 (VilA11a)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr37	NA86	GQ375198	A	A153 (VilA34)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr49	NA85	GQ375177	A	A17 (VilA13)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr50	NA14	GQ375179	A	A20 (VilA15)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr54	NA84	GQ375170	A	A27 (VilA7)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr56	NA12	GQ375177	A	A17 (VilA13)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr57	NA76	GQ375184	A	A65 (VilA20)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr61	NA42	GQ375178	A	A71 (vilA14)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr63	NA11	GQ375179	A	A20 (VilA15)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr64	NA94	GQ375165	A	A18 (VilA2)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr69	NA19	GQ375181	A	A80 (VilA17)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr70	NA30	GQ375183	A	A32 (VilA19)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr77	NA49	GQ375177	A	A17 (VilA13)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr78	NA53	GQ375183	A	A32 (VilA19)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr80	NA91	GQ375174	A	A11 (VilA11a)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr81	NA71	GQ375177	A	A17 (VilA13)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr85	NA73	GQ375187	A	A03 (VilA23)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr86	NA87	GQ375174	A	A11 (VilA11a)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr89	NA13	GQ375174	A	A11 (VilA11a)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr90	NA69	GQ375174	A	A11 (VilA11a)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr96	NA72	GQ375174	A	A11 (VilA11a)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr124	NA63	GQ375200	B	B01 (VilB1b)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr126	NA62	GQ375200	B	B01 (VilB1b)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr129	NA75	GQ375203	B	B38 (vilB3a)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr132	NA21	GQ375200	B	B01 (VilB1b)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr136	NA33	GQ375203	B	B38 (vilB3a)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr42	NA74	GQ375200	B	B01 (VilB1b)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr65	NA23	GQ375201	B	B01 (VilB1c)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr82	NA15	GQ375200	B	B01 (VilB1b)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr101	NA98	GQ375213	C	vilC6	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr116	NA10	GQ375212	C	C08 (VilC5)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr142	NA54	GQ375212	C	C08 (VilC5)	✔	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr05	UG130	GQ375194	A	A49 (VilA30)	✔	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
Afr105	UG125	GQ375187	A	A03 (VilA23)	✔	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
Afr109	UG17	GQ375177	A	A17 (VilA13)	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr11	UG141	GQ375195	A	vilA31	✔	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
Afr110	UG35	GQ375177	A	A17 (VilA13)	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr117	UG74	GQ375164	A	A22 (VilA1)	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr139	UG37	GQ375196	A	vilA32	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr15	UG140	GQ375195	A	vilA31	✔	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
Afr29	UG144	GQ375195	A	vilA31	✔	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
Afr30	UG102	GQ375165	A	A18 (VilA2)	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr31	UG66	GQ375191	A	A01 (VilA27)	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr38	UG126	GQ375187	A	A03 (VilA23)	✔	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
Afr39	UG124	GQ375194	A	A49 (VilA30)	✔	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
Afr40	UG115	GQ375193	A	vilA29	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr51	UG131	GQ375194	A	A49 (VilA30)	✔	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
Afr55	UG58	GQ375197	A	vilA33	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr66	UG33	GQ375177	A	A17 (VilA13)	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr74	UG153	GQ375165	A	A18 (VilA2)	✔	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
Afr75	UG69	GQ375165	A	A18 (VilA2)	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr79	UG72	GQ375189	A	A02 (VilA25)	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr83	UG53	GQ375165	A	A18 (VilA2)	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr87	UG5	GQ375164	A	A22 (VilA1)	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr93	UG63	GQ375174	A	A11 (VilA11a)	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr06	UG142	GQ375200	B	B01 (VilB1b)	✔	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
Afr107	UG83	GQ375200	B	B01 (VilB1b)	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr138	UG123	GQ375200	B	B01 (VilB1b)	✔	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
Afr143	UG26	GQ375200	B	B01 (VilB1b)	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr145	UG85	GQ375200	B	B01 (VilB1b)	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr21	UG133	GQ375200	B	B01 (VilB1b)	✔	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
Afr44	UG60	GQ375205	B	B41 (VilB4)	✔	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr59	UG149	GQ375200	B	B01 (VilB1b)	✔	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
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Afr92	UG150	GQ375200	B	B01 (VilB1b)	✔	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
Afr146	z71	AF531674	A	A22	✔	✔	South Africa	Lesotho	N/A	Indigenous	Pang et al., 2009
Afr147	z72	AF531674	A	A22	✔	✔	South Africa	Lesotho	N/A	Indigenous	Pang et al., 2009
Afr148	z73	AF531684	A	A32	✔	✔	South Africa	Lesotho	N/A	Indigenous	Pang et al., 2009
Afr149	z74	AF531668	A	A16	✔	✔	South Africa	Lesotho	N/A	Indigenous	Pang et al., 2009
Afr150	z75	AF531684	A	A32	✔	✔	South Africa	Lesotho	N/A	Indigenous	Pang et al., 2009
Afr151	z76	AF531672	A	A20	✔	✔	South Africa	Lesotho	N/A	Indigenous	Pang et al., 2009
Afr152	z24	EU816524	A	A153	✔	✔	South Africa	South Africa	N/A	Indigenous	Pang et al., 2009
Afr153	z25	AF531674	A	A22	✔	✔	South Africa	South Africa	N/A	Indigenous	Pang et al., 2009
Afr154	m346	AF531723	B	B02	✔	✔	Southeast Africa	Tanzania	N/A	Indigenous	Pang et al., 2009
Afr155	m84	AF531679	A	A27	✔	✔	West Africa	Gambia	N/A	Indigenous	Savolainen et al., 2002
Afr156	m85	AF531699	A	A48	✔	✔	West Africa	Gambia	N/A	Indigenous	Savolainen et al., 2002
Afr158	m88	AF531679	A	A27	✔	✔	West Africa	Gambia	N/A	Indigenous	Savolainen et al., 2002
Afr157	m86	AF531722	B	B01	✔	✔	West Africa	Gambia	N/A	Indigenous	Savolainen et al., 2002
Afr91	NA77	GQ375168	A	vilA5	✖	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr95	NA51	GQ375168	A	vilA5	✖	✔	North Africa	Namibia	North	Indigenous	Boyko et al., 2009
Afr07	UG117	GQ375169	A	vilA6	✖	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr12	UG105	GQ375169	A	vilA6	✖	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr122	UG77	GQ375168	A	vilA5	✖	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr123	UG51	GQ375169	A	vilA6	✖	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr125	UG137	GQ375168	A	vilA5	✖	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
Afr22	UG111	GQ375169	A	vilA6	✖	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr32	UG59	GQ375169	A	vilA6	✖	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr43	UG122	GQ375169	A	vilA6	✖	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr52	UG98	GQ375169	A	vilA6	✖	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009
Afr72	UG138	GQ375169	A	vilA6	✖	✔	North Africa	Uganda	Uganda Isles	Indigenous	Boyko et al., 2009
Afr73	UG44	GQ375169	A	vilA6	✖	✔	North Africa	Uganda	Uganda Main	Indigenous	Boyko et al., 2009

Supplementary Table ST2: **Full details for the Near East dataset including location of sample, haplogroup, haplotype, Sample Id, Genbank Accession Number and Source. Samples sorted by fragment length and countries.**

AMOVA Ref	Sample Id	Genbank Acc. Nb	Haplogroup	Haplotype	582bp	304bp	Region	Country	Location specific	Category	Source
Afr02	EG49	GQ375170	A	A27 (VilA7)	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr08	EG35	GQ375171	A	vilA8	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr102	EG47	GQ375172	A	A33 (VilA9)	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr104	EG4	GQ375164	A	A22 (VilA1)	✔	✔	North Africa	Egypt	Giza	Indigenous	Boyko et al., 2009
Afr120	EG11	GQ375165	A	A18 (VilA2)	✔	✔	North Africa	Egypt	Giza	Indigenous	Boyko et al., 2009
Afr133	EG5	GQ375165	A	A18 (VilA2)	✔	✔	North Africa	Egypt	Giza	Indigenous	Boyko et al., 2009
Afr16	EG48	GQ375173	A	vilA10	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr34	EG52	GQ375166	A	A169 (VilA3)	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr45	EG22	GQ375166	A	A169 (VilA3)	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr46	EG38	GQ375166	A	A169 (VilA3)	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr47	EG37	GQ375170	A	A27 (VilA7)	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr58	EG15	GQ375166	A	A169 (VilA3)	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr71	EG39	GQ375164	A	A22 (VilA1)	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr76	EG36	GQ375171	A	vilA8	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr98	EG1	GQ375164	A	A22 (VilA1)	✔	✔	North Africa	Egypt	Giza	Indigenous	Boyko et al., 2009
Afr99	EG14	GQ375166	A	A169 (VilA3)	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr01	EG24	GQ375199	B	B02 (VilB1a)	✔	✔	North Africa	Egypt	Kharga Oasis	Indigenous	Boyko et al., 2009
Afr141	EG42	GQ375200	B	B01 (VilB1b)	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr23	EG27	GQ375199	B	B02 (VilB1a)	✔	✔	North Africa	Egypt	Kharga Oasis	Indigenous	Boyko et al., 2009
Afr24	EG29	GQ375199	B	B02 (VilB1a)	✔	✔	North Africa	Egypt	Kharga Oasis	Indigenous	Boyko et al., 2009
Afr25	EG44	GQ375200	B	B01 (VilB1b)	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr33	EG30	GQ375199	B	B02 (VilB1a)	✔	✔	North Africa	Egypt	Kharga Oasis	Indigenous	Boyko et al., 2009
Afr114	EG6	GQ375208	C	C03 (VilC2)	✔	✔	North Africa	Egypt	Giza	Indigenous	Boyko et al., 2009
Afr41	EG43	GQ375207	C	C07 (VilC1b)	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr48	EG20	GQ375208	C	C03 (VilC2)	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr68	EG46	GQ375207	C	C07 (VilC1b)	✔	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
SWA24	z1536	HQ452466	A	A167	✔	✔	Western Asia	Iran	Dezful, Xuzestan	Baxtiyari	Ardalan et al., 2011
SWA25	con23	AF531664	A	A11	✔	✔	Western Asia	Iran	Golestan	Gorgi	Ardalan et al., 2011
SWA27	z1545	AF531655	A	A02	✔	✔	Western Asia	Iran	Kerman	Guard Dog	Ardalan et al., 2011
SWA28	z210	AF531656	A	A03	✔	✔	Western Asia	Iran	Sabzevar, Xorasan	Guard Dog	Ardalan et al., 2011
SWA29	con56	AF531664	A	A11	✔	✔	Western Asia	Iran	Hormozgan	Guard Dog	Ardalan et al., 2011
SWA30	z1544	AF531664	A	A11	✔	✔	Western Asia	Iran	Kerman	Guard Dog	Ardalan et al., 2011
SWA31	z215	AF531664	A	A11	✔	✔	Western Asia	Iran	Borujerd, Lorestan	Guard Dog	Ardalan et al., 2011
SWA32	z208	AF531664	A	A11	✔	✔	Western Asia	Iran	Joqatay, Xorasan	Guard Dog	Ardalan et al., 2011
SWA33	m516	AF531664	A	A11	✔	✔	Western Asia	Iran	N/A	Guard Dog	Ardalan et al., 2011
SWA34	z197	EU789725	A	A15	✔	✔	Western Asia	Iran	Mashhad, Xorasan	Guard Dog	Ardalan et al., 2011
SWA35	z1543	AF531669	A	A17	✔	✔	Western Asia	Iran	Kerman	Guard Dog	Ardalan et al., 2011
SWA36	z193	AF531669	A	A17	✔	✔	Western Asia	Iran	Tehran	Guard Dog	Ardalan et al., 2011
SWA37	z211	AF531669	A	A17	✔	✔	Western Asia	Iran	Abaveysan, Xorasan	Guard Dog	Ardalan et al., 2011
SWA38	m517	AF531669	A	A17	✔	✔	Western Asia	Iran	N/A	Guard Dog	Ardalan et al., 2011
SWA39	z218	AF531670	A	A18	✔	✔	Western Asia	Iran	Gili, Markazi	Guard Dog	Ardalan et al., 2011
SWA40	z203	AF531671	A	A19	✔	✔	Western Asia	Iran	Borazjan, Bushehr	Guard Dog	Ardalan et al., 2011
SWA41	z205	AF531671	A	A19	✔	✔	Western Asia	Iran	Jahrom, Fars	Guard Dog	Ardalan et al., 2011
SWA42	z198	AF531671	A	A19	✔	✔	Western Asia	Iran	Toroq, Xorasan	Guard Dog	Ardalan et al., 2011
SWA43	z199	AF531671	A	A19	✔	✔	Western Asia	Iran	Ashxane, Xorasan	Guard Dog	Ardalan et al., 2011
SWA44	z214	EU816506	A	A135	✔	✔	Western Asia	Iran	Mazinan, Xorasan	Guard Dog	Ardalan et al., 2011
SWA45	z1542	HQ452466	A	A167	✔	✔	Western Asia	Iran	Susangerd, Xuzestan	Guard Dog	Ardalan et al., 2011
SWA46	con80	HQ452468	A	A171	✔	✔	Western Asia	Iran	Markazi	Guard Dog	Ardalan et al., 2011
SWA47	con85	HQ452469	A	A172	✔	✔	Western Asia	Iran	Kerman	Guard Dog	Ardalan et al., 2011
SWA54	con84	AF531671	A	A19	✔	✔	Western Asia	Iran	Kordestan	Kordi	Ardalan et al., 2011
SWA55	con15	EU816506	A	A135	✔	✔	Western Asia	Iran	Ilam	Kordi	Ardalan et al., 2011
SWA57	z191	AF531669	A	A17	✔	✔	Western Asia	Iran	Baharestan, Mazandaran	Mazandarani	Ardalan et al., 2011
SWA58	z1534	AF531670	A	A18	✔	✔	Western Asia	Iran	Fereydunkenar, Mazandaran	Mazandarani	Ardalan et al., 2011
SWA59	z192	AY656705	A	A82	✔	✔	Western Asia	Iran	Sari, Mazandaran	Mazandarani	Ardalan et al., 2011
SWA61	con104	AF531669	A	A17	✔	✔	Western Asia	Iran	Esfahan	Qahderijani	Ardalan et al., 2011
SWA68	z195	AF531670	A	A18	✔	✔	Western Asia	Iran	Bastam, Semnan	Sangesari	Ardalan et al., 2011
SWA69	z196	AF531670	A	A18	✔	✔	Western Asia	Iran	Shahrud, Semnan	Sangesari	Ardalan et al., 2011
SWA70	con35	AF531671	A	A19	✔	✔	Western Asia	Iran	Semnan	Sangesari	Ardalan et al., 2011
SWA74	con90	AF531655	A	A02	✔	✔	Western Asia	Iran	Ardabil	Sarabi	Ardalan et al., 2011
SWA75	z201	AF531669	A	A17	✔	✔	Western Asia	Iran	Mahneshan, Zanjan	Sarabi	Ardalan et al., 2011
SWA76	z1538	AF531671	A	A19	✔	✔	Western Asia	Iran	Ardabil	Sarabi	Ardalan et al., 2011
SWA77	con87	AF531671	A	A19	✔	✔	Western Asia	Iran	Azarbayjan	Sarabi	Ardalan et al., 2011
SWA78	z1537	HQ452471	A	A275	✔	✔	Western Asia	Iran	Ardabil	Sarabi	Ardalan et al., 2011
SWA80	z212	AF531664	A	A11	✔	✔	Western Asia	Iran	Afcang, Xorasan	Sheep dog	Ardalan et al., 2011
SWA81	con81	AF531671	A	A19	✔	✔	Western Asia	Iran	markazi	Sheep dog	Ardalan et al., 2011
SWA82	z209	AF531674	A	A22	✔	✔	Western Asia	Iran	Joveyn, Xorasan	Sheep dog	Ardalan et al., 2011
SWA83	m514	AF531674	A	A22	✔	✔	Western Asia	Iran	N/A	Sheep dog	Ardalan et al., 2011
SWA84	z213	EU816506	A	A135	✔	✔	Western Asia	Iran	Bardaskan, Xorasan	Sheep dog	Ardalan et al., 2011
SWA88	con75	AF531664	A	A11	✔	✔	Western Asia	Iran	Fars	Stray dog	Ardalan et al., 2011
SWA89	con52	AF531664	A	A11	✔	✔	Western Asia	Iran	Tehran	Stray dog	Ardalan et al., 2011
SWA90	con54	AF531664	A	A11	✔	✔	Western Asia	Iran	Tehran	Stray dog	Ardalan et al., 2011
SWA91	con55	AF531664	A	A11	✔	✔	Western Asia	Iran	Tehran	Stray dog	Ardalan et al., 2011
SWA92	con41	AF531669	A	A17	✔	✔	Western Asia	Iran	Tehran	Stray dog	Ardalan et al., 2011
SWA93	con48	AF531669	A	A17	✔	✔	Western Asia	Iran	Tehran	Stray dog	Ardalan et al., 2011
SWA94	con50	AF531669	A	A17	✔	✔	Western Asia	Iran	Tehran	Stray dog	Ardalan et al., 2011
SWA95	con42	AF531670	A	A18	✔	✔	Western Asia	Iran	Tehran	Stray dog	Ardalan et al., 2011
SWA96	con57	AF531671	A	A19	✔	✔	Western Asia	Iran	Tehran	Stray dog	Ardalan et al., 2011
SWA97	con58	AF531671	A	A19	✔	✔	Western Asia	Iran	Tehran	Stray dog	Ardalan et al., 2011
SWA98	z194	AY656705	A	A82	✔	✔	Western Asia	Iran	Vardavard, Tehran	Stray dog	Ardalan et al., 2011
SWA101	con11	AF531664	A	A11	✔	✔	Western Asia	Iran	Golestan	Torkaman	Ardalan et al., 2011
SWA102	z190	AF531664	A	A11	✔	✔	Western Asia	Iran	Censevli, Golestan	Torkaman	Ardalan et al., 2011
SWA103	con9	AF531669	A	A17	✔	✔	Western Asia	Iran	Golestan	Torkaman	Ardalan et al., 2011
SWA104	con3	AF531670	A	A18	✔	✔	Western Asia	Iran	Golestan	Torkaman	Ardalan et al., 2011
SWA105	con7	AF531671	A	A19	✔	✔	Western Asia	Iran	Golestan	Torkaman	Ardalan et al., 2011
SWA327	Con43	AF531671	A	A19	✔	✔	Western Asia	Iran	N/A	Indigenous	Pang et al., 2009
SWA328	Con45	AF531679	A	A27	✔	✔	Western Asia	Iran	N/A	Indigenous	Pang et al., 2009
SWA329	Con46	AF531671	A	A19	✔	✔	Western Asia	Iran	N/A	Indigenous	Pang et al., 2009
SWA332	Con51	AF531671	A	A19	✔	✔	Western Asia	Iran	N/A	Indigenous	Pang et al., 2009
SWA333	Con53	AF531671	A	A19	✔	✔	Western Asia	Iran	N/A	Indigenous	Pang et al., 2009
SWA340	Con19	AF531664	A	A11	✔	✔	Western Asia	Iran	Golestan	Indigenous	Pang et al., 2009
SWA341	Con20	AF531664	A	A11	✔	✔	Western Asia	Iran	Golestan	Indigenous	Pang et al., 2009
SWA342	Con24	AF531664	A	A11	✔	✔	Western Asia	Iran	Golestan	Indigenous	Pang et al., 2009
SWA343	Con26	AF531664	A	A11	✔	✔	Western Asia	Iran	Golestan	Indigenous	Pang et al., 2009
SWA344	Con32	AF531664	A	A11	✔	✔	Western Asia	Iran	Semnan	Indigenous	Pang et al., 2009
SWA345	Con33	AF531671	A	A19	✔	✔	Western Asia	Iran	Semnan	Indigenous	Pang et al., 2009
SWA316	Con70	AF531656	A	A03	✔	✔	Western Asia	Iran	Khorasan	Indigenous (Sheepdog)	Pang et al., 2009
SWA317	Con12	AF531664	A	A11	✔	✔	Western Asia	Iran	Golestan	Indigenous (Sheepdog)	Pang et al., 2009
SWA318	Con73	AF531664	A	A11	✔	✔	Western Asia	Iran	Khorasan	Indigenous (Sheepdog)	Pang et al., 2009
SWA319	Con22	AF531664	A	A11	✔	✔	Western Asia	Iran	Tehran	Indigenous (Sheepdog)	Pang et al., 2009
SWA320	Con14	AF531671	A	A19	✔	✔	Western Asia	Iran	Eelam	Indigenous (Sheepdog)	Pang et al., 2009
SWA321	Con31	AF531674	A	A22	✔	✔	Western Asia	Iran	Tehran	Indigenous (Sheepdog)	Pang et al., 2009
SWA322	Con16	EU816506	A	A135	✔	✔	Western Asia	Iran	Eelam	Indigenous (Sheepdog)	Pang et al., 2009
SWA323	Con17	EU816506	A	A135	✔	✔	Western Asia	Iran	Eelam	Indigenous (Sheepdog)	Pang et al., 2009
SWA353	m54	AF531664	A	A11	✔	✔	Western Asia	Iran	N/A	Indigenous	Savolainen et al., 2002

SWA354	m47	AF531671	A	A19	✔	✔	Western Asia	Iran	N/A	Indigenous	Savolainen et al., 2002
SWA355	m51	AF531671	A	A19	✔	✔	Western Asia	Iran	N/A	Indigenous	Savolainen et al., 2002
SWA356	m52	AF531671	A	A19	✔	✔	Western Asia	Iran	N/A	Indigenous	Savolainen et al., 2002
SWA357	m55	AF531671	A	A19	✔	✔	Western Asia	Iran	N/A	Indigenous	Savolainen et al., 2002
SWA358	m53	AF531673	A	A21	✔	✔	Western Asia	Iran	N/A	Indigenous	Savolainen et al., 2002
SWA359	m45	AF531677	A	A25	✔	✔	Western Asia	Iran	N/A	Indigenous	Savolainen et al., 2002
SWA360	m46	AF531677	A	A25	✔	✔	Western Asia	Iran	N/A	Indigenous	Savolainen et al., 2002
SWA361	m50	AF531679	A	A27	✔	✔	Western Asia	Iran	N/A	Indigenous	Savolainen et al., 2002
SWA363	m49	AF531670	A	A18	✔	✔	Western Asia	Iran	N/A	Indigenous	Savolainen et al., 2002
SWA26	con82	AF531727	B	B06	✔	✔	Western Asia	Iran	Markazi	Gorgi	Ardalan et al., 2011
SWA48	con108	AF531722	B	B01	✔	✔	Western Asia	Iran	Fars	Guard Dog	Ardalan et al., 2011
SWA49	con95	AF531722	B	B01	✔	✔	Western Asia	Iran	Fars	Guard Dog	Ardalan et al., 2011
SWA50	z219	AF531722	B	B01	✔	✔	Western Asia	Iran	Xomeyn, Markazi	Guard Dog	Ardalan et al., 2011
SWA51	z200	AF531722	B	B01	✔	✔	Western Asia	Iran	Mehmanak, Xorasan	Guard Dog	Ardalan et al., 2011
SWA52	con94	EU816543	B	B26	✔	✔	Western Asia	Iran	Zahedan, Balucestan	Guard Dog	Ardalan et al., 2011
SWA62	con101	AF531722	B	B01	✔	✔	Western Asia	Iran	Esfahan	Qahderijani	Ardalan et al., 2011
SWA63	con102	AF531722	B	B01	✔	✔	Western Asia	Iran	Esfahan	Qahderijani	Ardalan et al., 2011
SWA64	con91	AF531722	B	B01	✔	✔	Western Asia	Iran	Esfahan	Qahderijani	Ardalan et al., 2011
SWA65	con93	AF531722	B	B01	✔	✔	Western Asia	Iran	Esfahan	Qahderijani	Ardalan et al., 2011
SWA66	con103	AF531727	B	B06	✔	✔	Western Asia	Iran	Esfahan	Qahderijani	Ardalan et al., 2011
SWA67	con92	AF531727	B	B06	✔	✔	Western Asia	Iran	Esfahan	Qahderijani	Ardalan et al., 2011
SWA71	con36	AF531722	B	B01	✔	✔	Western Asia	Iran	Semnan	Sangesari	Ardalan et al., 2011
SWA72	z1533	AF531727	B	B06	✔	✔	Western Asia	Iran	Garmsar, Semnan	Sangesari	Ardalan et al., 2011
SWA73	con34	AF531731	B	B10	✔	✔	Western Asia	Iran	Semnan	Sangesari	Ardalan et al., 2011
SWA85	z204	AF531722	B	B01	✔	✔	Western Asia	Iran	Sa'dabad, Bushehr	Sheep dog	Ardalan et al., 2011
SWA86	con64	HQ452473	B	B37	✔	✔	Western Asia	Iran	Hormozgan	Sheep dog	Ardalan et al., 2011
SWA99	z216	AF531722	B	B01	✔	✔	Western Asia	Iran	Arak, Markazi	Stray dog	Ardalan et al., 2011
SWA106	con28	AF531722	B	B01	✔	✔	Western Asia	Iran	Golestan	Torkaman	Ardalan et al., 2011
SWA107	con79	AF531723	B	B02	✔	✔	Western Asia	Iran	Golestan	Torkaman	Ardalan et al., 2011
SWA331	Con49	AF531722	B	B01	✔	✔	Western Asia	Iran	N/A	Indigenous	Pang et al., 2009
SWA335	Con59	EU816544	B	B27	✔	✔	Western Asia	Iran	N/A	Indigenous	Pang et al., 2009
SWA339	z217	AF531727	B	B06	✔	✔	Western Asia	Iran	N/A	Indigenous	Pang et al., 2009
SWA346	Con5	AF531722	B	B01	✔	✔	Western Asia	Iran	Golestan	Indigenous	Pang et al., 2009
SWA347	Con37	AF531723	B	B02	✔	✔	Western Asia	Iran	Semnan	Indigenous	Pang et al., 2009
SWA348	Con6	AF531727	B	B06	✔	✔	Western Asia	Iran	Golestan	Indigenous	Pang et al., 2009
SWA324	Con72	AF531727	B	B06	✔	✔	Western Asia	Iran	Khorasan	Indigenous (Sheepdog)	Pang et al., 2009
SWA350	m125	AF531723	B	B02	✔	✔	Western Asia	Iran	N/A	Indigenous	Savolainen et al., 2002
SWA351	m127	AF531723	B	B02	✔	✔	Western Asia	Iran	N/A	Indigenous	Savolainen et al., 2002
SWA362	m48	AF531722	B	B01	✔	✔	Western Asia	Iran	N/A	Indigenous	Savolainen et al., 2002
SWA56	z202	AY656710	C	C08	✔	✔	Western Asia	Iran	Takab, W. Azarbayjan	Kordi	Ardalan et al., 2011
SWA79	con109	AY656710	C	C08	✔	✔	Western Asia	Iran	Azarbayjan	Sarabi	Ardalan et al., 2011
SWA87	z207	AF531716	C	C02	✔	✔	Western Asia	Iran	Davarzan, Xorasan	Sheep dog	Ardalan et al., 2011
SWA100	con86	AF531717	C	C03	✔	✔	Western Asia	Iran	Tehran	Stray dog	Ardalan et al., 2011
SWA330	Con47	AF531717	C	C03	✔	✔	Western Asia	Iran	N/A	Indigenous	Pang et al., 2009
SWA334	Con56	AF531717	C	C03	✔	✔	Western Asia	Iran	N/A	Indigenous	Pang et al., 2009
SWA338	z206	AF531715	C	C01	✔	✔	Western Asia	Iran	N/A	Indigenous	Pang et al., 2009
SWA325	Con71	AF531715	C	C01	✔	✔	Western Asia	Iran	Khorasan	Indigenous (Sheepdog)	Pang et al., 2009
SWA326	Con74	AF531717	C	C03	✔	✔	Western Asia	Iran	Khorasan	Indigenous (Sheepdog)	Pang et al., 2009
SWA352	m126	AF531716	C	C02	✔	✔	Western Asia	Iran	N/A	Indigenous	Savolainen et al., 2002
SWA60	con76	AF531739	D	D06	✔	✔	Western Asia	Iran	Golestan	Mazandarani	Ardalan et al., 2011
SWA108	con25	AF531739	D	D06	✔	✔	Western Asia	Iran	Golestan	Torkaman	Ardalan et al., 2011
SWA109	con8	AF531739	D	D06	✔	✔	Western Asia	Iran	Golestan	Torkaman	Ardalan et al., 2011
SWA349	Con4	AF531739	D	D06	✔	✔	Western Asia	Iran	Golestan	Indigenous	Pang et al., 2009
SWA23	z498	AF531723	B	B02	✔	✔	Western Asia	Persian Plateau	N/A	Bakhmul	Ardalan et al., 2011
SWA53	z487	AF531723	B	B02	✔	✔	Western Asia	Persian Plateau	N/A	Kalagh-Tazi	Ardalan et al., 2011
SWA337	m337	AF531716	C	C02	✔	✔	Western Asia	Saudi Arabia	N/A	Indigenous	Pang et al., 2009
SWA336	m241	AF531723	B	B02	✔	✔	Western Asia	Syria	N/A	Indigenous	Pang et al., 2009
SWA01	64K	AF531655	A	A02	✔	✔	Western Asia	Turkey	Kars	Kars Dog	Ardalan et al., 2011
SWA02	32IG	AF531664	A	A11	✔	✔	Western Asia	Turkey	Igdir	Kars Dog	Ardalan et al., 2011
SWA03	25Ka	AF531670	A	A18	✔	✔	Western Asia	Turkey	Igdir	Kars Dog	Ardalan et al., 2011
SWA04	26Ka	AF531670	A	A18	✔	✔	Western Asia	Turkey	Igdir	Kars Dog	Ardalan et al., 2011
SWA05	31Ka	AF531670	A	A18	✔	✔	Western Asia	Turkey	Igdir	Kars Dog	Ardalan et al., 2011
SWA06	22Ka	AF531672	A	A20	✔	✔	Western Asia	Turkey	N/A	Kars Dog	Ardalan et al., 2011
SWA07	23Ka	AF531672	A	A20	✔	✔	Western Asia	Turkey	N/A	Kars Dog	Ardalan et al., 2011
SWA08	38V	AF531672	A	A20	✔	✔	Western Asia	Turkey	N/A	Kars Dog	Ardalan et al., 2011
SWA09	19Ka	AF531679	A	A27	✔	✔	Western Asia	Turkey	Kars	Kars Dog	Ardalan et al., 2011
SWA10	34IG	AF531691	A	A40	✔	✔	Western Asia	Turkey	Igdir	Kars Dog	Ardalan et al., 2011
SWA11	33IG	HQ452466	A	A167	✔	✔	Western Asia	Turkey	Igdir	Kars Dog	Ardalan et al., 2011
SWA12	20Ka	AF531722	B	B01	✔	✔	Western Asia	Turkey	Kars	Kars Dog	Ardalan et al., 2011
SWA13	36IG	AF531722	B	B01	✔	✔	Western Asia	Turkey	Igdir	Kars Dog	Ardalan et al., 2011
SWA14	37V	AF531722	B	B01	✔	✔	Western Asia	Turkey	Van	Kars Dog	Ardalan et al., 2011
SWA15	39V	AF531723	B	B02	✔	✔	Western Asia	Turkey	Van	Kars Dog	Ardalan et al., 2011
SWA16	35IG	AF531724	B	B03	✔	✔	Western Asia	Turkey	Igdir	Kars Dog	Ardalan et al., 2011
SWA17	18Ka	HQ452476	B	B41	✔	✔	Western Asia	Turkey	Kars	Kars Dog	Ardalan et al., 2011
SWA18	40V	HQ452476	B	B41	✔	✔	Western Asia	Turkey	Van	Kars Dog	Ardalan et al., 2011
SWA19	59K	HQ452476	B	B41	✔	✔	Western Asia	Turkey	N/A	Kars Dog	Ardalan et al., 2011
SWA20	30Ka	AF531716	C	C02	✔	✔	Western Asia	Turkey	Kars	Kars Dog	Ardalan et al., 2011
SWA21	28Ka	AF531720	C	C06	✔	✔	Western Asia	Turkey	Kars	Kars Dog	Ardalan et al., 2011
SWA22	24Ka	AF531740	D	D05	✔	✔	Western Asia	Turkey	Kars	Kars Dog	Ardalan et al., 2011
Afr112	EG7	GQ375168	A	vilA5	✖	✔	North Africa	Egypt	Giza	Indigenous	Boyko et al., 2009
Afr13	EG21	GQ375169	A	vilA6	✖	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr144	EG2	GQ375168	A	vilA5	✖	✔	North Africa	Egypt	Giza	Indigenous	Boyko et al., 2009
Afr35	EG41	GQ375169	A	vilA6	✖	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr67	EG18	GQ375167	A	vilA4	✖	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr09	EG51	GQ375211	C	vilC4	✖	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
Afr134	EG3	GQ375209	C	vilC3a	✖	✔	North Africa	Egypt	Giza	Indigenous	Boyko et al., 2009
Afr53	EG16	GQ375206	C	vilC1a	✖	✔	North Africa	Egypt	Luxor	Indigenous	Boyko et al., 2009
SWA118	Iran01	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA119	Iran02	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA120	Iran03	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA121	Iran04	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA122	Iran05	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA123	Iran06	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA124	Iran07	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA125	Iran08	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA126	Iran09	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA127	Iran10	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA128	Iran11	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA129	Iran12	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA130	Iran13	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA131	Iran14	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA132	Iran15	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA133	Iran16	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA134	Iran17	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA135	Iran18	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA136	Iran19	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA137	Iran20	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA138	Iran21	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA139	Iran22	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA140	Iran23	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011

SWA141	Iran24	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA142	Iran25	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA143	Iran26	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA144	Iran27	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA145	Iran28	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA146	Iran29	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA147	Iran30	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA148	Iran31	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA149	Iran32	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA150	Iran33	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA151	Iran34	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA152	Iran35	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA153	Iran36	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA154	Iran37	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA155	Iran38	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA156	Iran39	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA157	Iran40	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA158	Iran41	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA159	Iran42	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA160	Iran43	AF531664	A	A11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA161	Iran44	EU816506	A	A135	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA162	Iran45	EU816506	A	A135	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA163	Iran46	AF531667	A	A14	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA164	Iran47	AF531667	A	A14	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA165	Iran48	EU816523	A	A152	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA166	Iran49	EU816523	A	A152	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA167	Iran50	AF531668	A	A16	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA168	Iran51	AF531668	A	A16	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA169	Iran52	AF531668	A	A16	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA170	Iran53	AF531668	A	A16	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA171	Iran54	AF531668	A	A16	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA172	Iran55	AF531668	A	A16	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA173	Iran56	AF531668	A	A16	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA174	Iran57	AF531668	A	A16	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA175	Iran58	AF531668	A	A16	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA176	Iran59	AF531668	A	A16	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA177	Iran60	AF531668	A	A16	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA178	Iran61	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA179	Iran62	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA180	Iran63	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA181	Iran64	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA182	Iran65	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA183	Iran66	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA184	Iran67	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA185	Iran68	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA186	Iran69	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA187	Iran70	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA188	Iran71	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA189	Iran72	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA190	Iran73	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA191	Iran74	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA192	Iran75	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA193	Iran76	AF531670	A	A18	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA194	Iran77	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA195	Iran78	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA196	Iran79	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA197	Iran80	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA198	Iran81	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA199	Iran82	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA200	Iran83	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA201	Iran84	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA202	Iran85	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA203	Iran86	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA204	Iran87	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA205	Iran88	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA206	Iran89	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA207	Iran90	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA208	Iran91	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA209	Iran92	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA210	Iran93	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA211	Iran94	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA212	Iran95	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA213	Iran96	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA214	Iran97	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA215	Iran98	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA216	Iran99	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA217	Iran100	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA218	Iran101	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA219	Iran102	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA220	Iran103	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA221	Iran104	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA222	Iran105	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA223	Iran106	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA224	Iran107	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA225	Iran108	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA226	Iran109	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA227	Iran110	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA228	Iran111	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA229	Iran112	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA230	Iran113	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA231	Iran114	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA232	Iran115	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA233	Iran116	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA234	Iran117	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA235	Iran118	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA236	Iran119	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA237	Iran120	AF531671	A	A19	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA238	Iran121	AF531674	A	A22	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA239	Iran122	AF531674	A	A22	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA240	Iran123	AF531674	A	A22	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA241	Iran124	AF531678	A	A26	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA242	Iran125	AF531678	A	A26	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA243	Iran126	AF531678	A	A26	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA244	Iran127	AF531678	A	A26	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA245	Iran128	AF531679	A	A27	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA246	Iran129	AF531679	A	A27	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA247	Iran130	AF531679	A	A27	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA248	Iran131	AF531679	A	A27	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA249	Iran132	AF531679	A	A27	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA250	Iran133	AF531680	A	A28	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011

SWA251	Iran134	AF531680	A	A28	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA252	Iran135	AF531656	A	A03	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA253	Iran136	AF531656	A	A03	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA254	Iran137	AF531656	A	A03	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA255	Iran138	AF531682	A	A30	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA256	Iran139	AF531682	A	A30	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA257	Iran140	AF531700	A	A49	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA311	Iran194	HQ287740	A	V225	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA314	Iran197	HQ287742	A	V369	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA258	Iran141	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA259	Iran142	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA260	Iran143	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA261	Iran144	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA262	Iran145	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA263	Iran146	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA264	Iran147	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA265	Iran148	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA266	Iran149	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA267	Iran150	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA268	Iran151	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA269	Iran152	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA270	Iran153	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA271	Iran154	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA272	Iran155	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA273	Iran156	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA274	Iran157	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA275	Iran158	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA276	Iran159	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA277	Iran160	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA278	Iran161	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA279	Iran162	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA280	Iran163	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA281	Iran164	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA282	Iran165	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA283	Iran166	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA284	Iran167	AF531722	B	B01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA285	Iran168	AF531732	B	B11	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA286	Iran169	AF531733	B	B12	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA287	Iran170	AF531727	B	B06	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA288	Iran171	AF531727	B	B06	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA289	Iran172	AF531727	B	B06	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA290	Iran173	AF531727	B	B06	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA291	Iran174	AF531727	B	B06	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA292	Iran175	AF531727	B	B06	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA293	Iran176	AF531727	B	B06	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA294	Iran177	AF531727	B	B06	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA295	Iran178	AF531727	B	B06	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA296	Iran179	AF531727	B	B06	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA297	Iran180	AF531727	B	B06	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA298	Iran181	AF531715	C	C01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA299	Iran182	AF531715	C	C01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA300	Iran183	AF531715	C	C01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA301	Iran184	AF531715	C	C01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA302	Iran185	AF531715	C	C01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA303	Iran186	AF531715	C	C01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA304	Iran187	AF531715	C	C01	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA305	Iran188	AF531717	C	C03	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA306	Iran189	AF531717	C	C03	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA307	Iran190	AF531717	C	C03	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA308	Iran191	AF531717	C	C03	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA309	Iran192	AF531717	C	C03	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA312	Iran195	HQ287741	C	V302	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011
SWA310	Iran193	AF531739	D	D06	✖	✔	Western Asia	Iran	N/A	Village dog	Brown et al., 2011

Supplementary Table ST3: **Full details for the South Asia dataset including location of sample, haplogroup, haplotype, Sample Id, Genbank Accession Number and Source. Samples sorted by fragment length and country.**

AMOVA Ref	Sample Id	Genbank Acc. Nb	Haplogroup	Haplotype	582bp	304bp	Region	Country	Location specific	Category	Source
SA02	m235	AF531670	A	A18	✔	✔	South Asia	India	Delhi	Indigenous	Pang et al., 2009
SA04	m318	AF531685	A	A33	✔	✔	South Asia	India	Goa	Indigenous	Pang et al., 2009
SA05	m321	AF531655	A	A2	✔	✔	South Asia	India	Goa	Indigenous	Pang et al., 2009
SA06	m322	AF531664	A	A11	✔	✔	South Asia	India	Goa	Indigenous	Pang et al., 2009
SA07	m323	AF531700	A	A49	✔	✔	South Asia	India	Goa	Indigenous	Pang et al., 2009
SA08	z362	AF531669	A	A17	✔	✔	South Asia	India	Madras City	Indigenous	Pang et al., 2009
SA09	z366	AF531659	A	A6	✔	✔	South Asia	India	Mannargudi District	Indigenous	Pang et al., 2009
SA10	z363	AF531670	A	A18	✔	✔	South Asia	India	Nagai District	Indigenous	Pang et al., 2009
SA11	z364	AY660647	A	A76	✔	✔	South Asia	India	Nagai District	Indigenous	Pang et al., 2009
SA12	z368	AF531659	A	A6	✔	✔	South Asia	India	Nagai District	Indigenous	Pang et al., 2009
SA13	m230	AF531664	A	A11	✔	✔	South Asia	India	Sanelakapu	Indigenous	Pang et al., 2009
SA14	m231	EU816522	A	A151	✔	✔	South Asia	India	Sanelakapu	Indigenous	Pang et al., 2009
SA15	z369	EU816529	A	A158	✔	✔	South Asia	India	South Arcot District	Indigenous	Pang et al., 2009
SA16	m200	AY660647	A	A76	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA20	m204	AF531672	A	A20	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA22	m206	AF531668	A	A16	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA23	m207	AF531668	A	A16	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA24	m208	AF531664	A	A11	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA26	m210	EU816523	A	A152	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA27	m211	AY660648	A	A77	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA28	m212	AY660649	A	A78	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA29	m213	EU816521	A	A150	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA30	m214	EU816524	A	A153	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA31	m215	AF531655	A	A2	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA32	m216	AY660649	A	A78	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA33	m217	AF531664	A	A11	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA35	m219	EU816523	A	A152	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA36	m220	AF531664	A	A11	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA37	m221	AF531679	A	A27	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA38	m222	EU816521	A	A150	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA39	m223	AF531672	A	A20	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA40	z365	AF531664	A	A11	✔	✔	South Asia	India	Tanjore District	Indigenous	Pang et al., 2009
SA18	m202	AF531722	B	B1	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA21	m205	AF531722	B	B1	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA34	m218	AF531722	B	B1	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA01	m234	AF531717	C	C3	✔	✔	South Asia	India	Darjeeling	Indigenous	Pang et al., 2009
SA03	m228	AF531717	C	C3	✔	✔	South Asia	India	Gareluk	Indigenous	Pang et al., 2009
SA17	m201	AF531717	C	C3	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA19	m203	AF531717	C	C3	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA25	m209	AF531719	C	C5	✔	✔	South Asia	India	Tamil Nadu	Indigenous	Pang et al., 2009
SA41	z367	AF531716	C	C2	✔	✔	South Asia	India	Tanjore District	Indigenous	Pang et al., 2009
SA42	m10	AF531664	A	A11	✔	✔	South Asia	India	N/A	Indigenous	Savolainen et al., 2002
SA43	m128	AF531664	A	A11	✔	✔	South Asia	India	N/A	Indigenous	Savolainen et al., 2002
SA44	m58	AF531659	A	A6	✔	✔	South Asia	India	N/A	Indigenous	Savolainen et al., 2002
SA45	m59	AF531659	A	A6	✔	✔	South Asia	India	N/A	Indigenous	Savolainen et al., 2002
SA46	m61	AF531659	A	A6	✔	✔	South Asia	India	N/A	Indigenous	Savolainen et al., 2002
SA47	m4	AF531664	A	A11	✔	✔	South Asia	India	N/A	Indigenous	Savolainen et al., 2002
SA48	m6	AF531664	A	A11	✔	✔	South Asia	India	N/A	Indigenous	Savolainen et al., 2002
SA49	m56	AF531667	A	A14	✔	✔	South Asia	India	N/A	Indigenous	Savolainen et al., 2002
SA50	m57	AF531667	A	A14	✔	✔	South Asia	India	N/A	Indigenous	Savolainen et al., 2002
SA51	m60	AF531667	A	A14	✔	✔	South Asia	India	N/A	Indigenous	Savolainen et al., 2002
SA52	m42	AF531679	A	A27	✔	✔	South Asia	India	N/A	Indigenous	Savolainen et al., 2002
SA55	m7	AF531664	A	A11	✔	✔	South Asia	India	N/A	Indigenous	Savolainen et al., 2002
SA53	m43	AF531722	B	B1	✔	✔	South Asia	India	N/A	Indigenous	Savolainen et al., 2002
SA54	m62	AF531717	C	C3	✔	✔	South Asia	India	N/A	Indigenous	Savolainen et al., 2002
SA56	m8	AF531717	C	C3	✔	✔	South Asia	India	N/A	Indigenous	Savolainen et al., 2002
SWA110	OL517	This study	A	A02	✔	✔	South Asia	Pakistan	N/A	Local indigenous breed	This study
SWA114	OL516	This study	A	A02	✔	✔	South Asia	Pakistan	N/A	Local indigenous breed	This study
SWA115	OL518	This study	A	A02	✔	✔	South Asia	Pakistan	N/A	Local indigenous breed	This study
SWA116	OL519	This study	A	A02	✔	✔	South Asia	Pakistan	N/A	Local indigenous breed	This study
SWA117	OL520	This study	A	A02	✔	✔	South Asia	Pakistan	N/A	Local indigenous breed	This study
SWA112	OL512	This study	A	A11	✔	✔	South Asia	Pakistan	N/A	Local indigenous breed	This study
SWA111	OL509	This study	A	A20	✔	✔	South Asia	Pakistan	N/A	Local indigenous breed	This study
SWA113	OL515	This study	A	A33	✔	✔	South Asia	Pakistan	N/A	Local indigenous breed	This study

Supplementary Table ST4: **Full details for the East Asia dataset including location of sample, haplogroup, haplotype, Sample Id, Genbank Accession Number and Source. Samples sorted according to fragment length and country.**

AMOVA Ref	Sample Id	Genbank Acc. Nb	Haplogroup	Haplotype	582bp	304bp	Region	Country	Location specific	Category	Source
EANASY01	5825	AF531703	A	A52	✔	✔	East Asia	China	Tibet	Tibetan indigenous dog	Pang et al., 2009
EANASY100	5959	D83635	A	A65	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY104	9907	AF531664	A	A11	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY106	9909	AF531664	A	A11	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY111	9914	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY112	9915	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY113	9916	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY114	9917	AF531664	A	A11	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY115	9918	EU816519	A	A148	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY116	9919	AF531706	A	A55	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY118	9921	EU816518	A	A147	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY119	9922	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY120	9923	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY121	9924	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY123	9926	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY124	9927	AF531671	A	A19	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY126	9929	AF531668	A	A16	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY129	9932	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY130	9933	AF531664	A	A11	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY134	9937	AF531671	A	A19	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY135	9938	AF531664	A	A11	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY137	9940	EU816481	A	A109	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY138	9941	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY139	9942	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY140	9943	AF531664	A	A11	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY141	9944	AF531671	A	A19	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY142	9945	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY143	9946	EU816468	A	A95	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY144	9947	AF531672	A	A20	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY145	9949	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY146	9950	AF531668	A	A16	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY147	9951	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY148	9953	AF531664	A	A11	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY149	9954	EU816471	A	A98	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY150	9955	AF531671	A	A19	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY151	9956	AF531670	A	A18	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY154	9959	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY156	9961	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY157	9962	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY158	9963	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY159	9965	AF531671	A	A19	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY161	9967	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY162	9968	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY165	9971	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY166	9972	AF531671	A	A19	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY167	9973	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY168	9974	AF531671	A	A19	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY170	9976	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY171	9977	AF531664	A	A11	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY172	9978	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY173	9979	EU816510	A	A139	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY174	9980	AF531671	A	A19	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY175	9981	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY176	9982	AF531671	A	A19	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY177	9983	AF531671	A	A19	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY181	9987	AF531664	A	A11	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY183	9989	AF531669	A	A17	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY185	9991	AF531671	A	A19	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY33	9823	AF531706	A	A55	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY35	9825	AF531690	A	A39	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY36	9826	AF531674	A	A22	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY37	9827	AF531674	A	A22	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY38	9828	AF531671	A	A19	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY39	9830	AF531664	A	A11	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY42	9835	AF531664	A	A11	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY43	9836	AF531690	A	A39	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY45	9838	EU816513	A	A142	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY47	9840	AF531674	A	A22	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY49	9842	AF531690	A	A39	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY50	9843	AF531671	A	A19	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY56	9850	AF531672	A	A20	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY58	9853	EU816513	A	A142	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY59	9854	AF531664	A	A11	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY60	9855	AF531670	A	A18	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY61	9856	AF531664	A	A11	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY62	9857	AF531671	A	A19	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY63	9858	AF531670	A	A18	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY64	9859	AF531674	A	A22	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY65	9860	AF531664	A	A11	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY66	9861	AF531664	A	A11	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY67	9862	AF531664	A	A11	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY70	9865	AF531690	A	A39	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY71	9867	AF531671	A	A19	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY72	9869	AF531664	A	A11	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY73	9870	AF531664	A	A11	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY74	9871	AF531670	A	A18	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY75	9873	AF531668	A	A16	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY77	9875	AF531669	A	A17	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY78	9876	AF531671	A	A19	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY80	9878	AF531671	A	A19	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY81	9879	AF531671	A	A19	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY84	9882	AF531671	A	A19	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY85	6000	AF531706	A	A55	✔	✔	East Asia	China	Qinghai	Indigenous	Pang et al., 2009

EANASY86	10158	AF531706	A	A55	✔	✔	East Asia	China	Qinghai	Indigenous	Pang et al., 2009
EANASY88	10162	EU816476	A	A103	✔	✔	East Asia	China	Qinghai	Indigenous	Pang et al., 2009
EANASY91	10167	AF531706	A	A55	✔	✔	East Asia	China	Qinghai	Indigenous	Pang et al., 2009
EANASY92	10168	AF531706	A	A55	✔	✔	East Asia	China	Qinghai	Indigenous	Pang et al., 2009
EANASY93	5840	AF531706	A	A55	✔	✔	East Asia	China	Shanxi	Indigenous	Pang et al., 2009
EANASY94	5841	AF531706	A	A55	✔	✔	East Asia	China	Shanxi	Indigenous	Pang et al., 2009
EANASY96	5955	EU816475	A	A102	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY98	5957	AF531664	A	A11	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY99	5958	AF531706	A	A55	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY102	9905	AF531727	B	B6	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY105	9908	AF531727	B	B6	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY107	9910	AF531722	B	B1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY108	9911	AF531727	B	B6	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY109	9912	AF531722	B	B1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY110	9913	AF531722	B	B1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY117	9920	AF531722	B	B1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY122	9925	AF531722	B	B1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY127	9930	AF531722	B	B1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY128	9931	AF531727	B	B6	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY133	9936	AF531722	B	B1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY136	9939	AF531722	B	B1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY155	9960	AF531722	B	B1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY160	9966	AF531722	B	B1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY163	9969	AF531722	B	B1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY164	9970	AF531722	B	B1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY169	9975	AF531727	B	B6	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY178	9984	AF531727	B	B6	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY182	9988	AF531722	B	B1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY184	9990	AF531727	B	B6	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY34	9824	AF531722	B	B1	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY40	9831	AF531722	B	B1	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY41	9832	EU816538	B	B21	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY44	9837	AF531722	B	B1	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY48	9841	AF531722	B	B1	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY51	9844	AF531722	B	B1	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY52	9845	AF531722	B	B1	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY53	9846	AF531722	B	B1	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY54	9847	AF531722	B	B1	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY57	9851	EU816538	B	B21	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY68	9863	AF531722	B	B1	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY69	9864	AF531727	B	B6	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY76	9874	AF531722	B	B1	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY82	9880	AF531727	B	B6	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY90	10164	AF531724	B	B3	✔	✔	East Asia	China	Qinghai	Indigenous	Pang et al., 2009
EANASY95	5846	AF531722	B	B1	✔	✔	East Asia	China	Shanxi	Indigenous	Pang et al., 2009
EANASY97	5956	AF531727	B	B6	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY101	5960	AF531716	C	C2	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY103	9906	AF531715	C	C1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY125	9928	EU816552	C	C12	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY131	9934	AF531715	C	C1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY132	9935	EU816552	C	C12	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY152	9957	AF531715	C	C1	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY153	9958	AF531716	C	C2	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY179	9985	AF531717	C	C3	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY180	9986	AF531716	C	C2	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY186	9992	EU816552	C	C12	✔	✔	East Asia	China	Shanxixian	Indigenous	Pang et al., 2009
EANASY46	9839	AF531719	C	C5	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY55	9848	AF531715	C	C1	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY79	9877	AF531715	C	C1	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY83	9881	AF531716	C	C2	✔	✔	East Asia	China	Heilongjiang	Indigenous	Pang et al., 2009
EANASY87	10160	AF531717	C	C3	✔	✔	East Asia	China	Qinghai	Indigenous	Pang et al., 2009
EANASY89	10163	AF531717	C	C3	✔	✔	East Asia	China	Qinghai	Indigenous	Pang et al., 2009
EANASY02	5785	AF531712	A	A61	✔	✔	East Asia	China	Anhui	Indigenous	Savolainen et al., 2002
EANASY03	5786	AF531712	A	A61	✔	✔	East Asia	China	Anhui	Indigenous	Savolainen et al., 2002
EANASY05	5806	AF531664	A	A11	✔	✔	East Asia	China	Liaoning	Indigenous	Savolainen et al., 2002
EANASY06	5807	AF531671	A	A19	✔	✔	East Asia	China	Liaoning	Indigenous	Savolainen et al., 2002
EANASY07	5808	AF531665	A	A12	✔	✔	East Asia	China	Liaoning	Indigenous	Savolainen et al., 2002
EANASY11	5792	AF531670	A	A18	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY17	5798	AF531664	A	A11	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY18	5799	AF531669	A	A17	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY192	5703	AF531710	A	A59	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY193	5704	AF531711	A	A60	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY194	5705	AF531713	A	A62	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY195	5706	AF531695	A	A44	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY196	5707	AF531702	A	A51	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY197	5708	AF531664	A	A11	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY198	5709	AF531681	A	A29	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY199	5710	AF531681	A	A29	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY20	5801	AF531671	A	A19	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY200	5711	AF531710	A	A59	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY201	5712	AF531710	A	A59	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY202	5713	AF531664	A	A11	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY204	5715	AF531664	A	A11	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY205	5716	AF531702	A	A51	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY206	5717	AF531702	A	A51	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY207	5718	AF531664	A	A11	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY208	5719	AF531664	A	A11	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY209	5720	AF531709	A	A58	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY210	5721	AF531695	A	A44	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY211	5722	AF531702	A	A51	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY212	5723	AF531702	A	A51	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY213	5724	AF531710	A	A59	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY214	5725	AF531664	A	A11	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY215	5726	AF531681	A	A29	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY216	5727	AF531656	A	A3	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY217	5728	AF531664	A	A11	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY218	5729	AF531664	A	A11	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY219	5730	AF531702	A	A51	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002

EANASY22	5803	AF531714	A	A73	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY220	5731	AF531695	A	A44	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY221	5732	AF531702	A	A51	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY222	5733	AF531656	A	A3	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY223	5734	AF531664	A	A11	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY224	5735	AF531702	A	A51	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY225	5736	AF531702	A	A51	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY226	5737	AF531702	A	A51	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY227	5738	AF531702	A	A51	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY228	5739	AF531702	A	A51	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY229	5740	AF531664	A	A11	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY23	5842	AF531664	A	A11	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY230	5741	AF531695	A	A44	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY231	5742	AF531664	A	A11	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY232	5743	AF531702	A	A51	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY233	5744	AF531702	A	A51	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY234	5745	AF531664	A	A11	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY235	5746	AF531664	A	A11	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY236	5747	AF531702	A	A51	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY237	5748	AF531671	A	A19	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY238	5749	AF531671	A	A19	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY239	5804	AF531671	A	A19	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY24	5843	AF531664	A	A11	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY240	5754	AF531664	A	A11	✔	✔	East Asia	China	Tibet	Indigenous	Savolainen et al., 2002
EANASY241	5755	AF531664	A	A11	✔	✔	East Asia	China	Tibet	Indigenous	Savolainen et al., 2002
EANASY242	5756	AF531705	A	A54	✔	✔	East Asia	China	Tibet	Tibetan indigenous dog	Savolainen et al., 2002
EANASY243	5757	AF531670	A	A18	✔	✔	East Asia	China	Tibet	Indigenous	Savolainen et al., 2002
EANASY244	5823	AF531703	A	A52	✔	✔	East Asia	China	Tibet	Tibetan indigenous dog	Savolainen et al., 2002
EANASY245	5827	AF531704	A	A53	✔	✔	East Asia	China	Tibet	Tibetan indigenous dog	Savolainen et al., 2002
EANASY246	5828	AF531704	A	A53	✔	✔	East Asia	China	Tibet	Tibetan indigenous dog	Savolainen et al., 2002
EANASY25	5844	AF531664	A	A11	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY26	5848	AF531706	A	A55	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY28	5852	AF531707	A	A56	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY29	5853	AF531664	A	A11	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY04	5805	AF531734	B	B13	✔	✔	East Asia	China	Liaoning	Indigenous	Savolainen et al., 2002
EANASY08	5809	AF531724	B	B3	✔	✔	East Asia	China	Liaoning	Indigenous	Savolainen et al., 2002
EANASY09	5810	AF531722	B	B1	✔	✔	East Asia	China	Liaoning	Indigenous	Savolainen et al., 2002
EANASY12	5793	AF531722	B	B1	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY14	5795	AF531722	B	B1	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY16	5797	AF531722	B	B1	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY21	5802	AF531722	B	B1	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY27	5851	AF531722	B	B1	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY10	5787	AF531719	C	C5	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY13	5794	AF531717	C	C3	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY15	5796	AF531721	C	C7	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY19	5800	AF531715	C	C1	✔	✔	East Asia	China	Shanxi	Indigenous	Savolainen et al., 2002
EANASY203	5714	AF531716	C	C2	✔	✔	East Asia	China	Sichuan	Indigenous	Savolainen et al., 2002
EANASY190	m666	AF531664	A	A11	✔	✔	East Asia	Mongolia	N/A	Indigenous	Pang et al., 2009
EANASY191	m667	EU816525	A	A154	✔	✔	East Asia	Mongolia	N/A	Indigenous	Pang et al., 2009
EANASY187	m229	AF531670	A	A18	✔	✔	East Asia	Nepal	N/A	Indigenous	Pang et al., 2009
EANASY189	m233	AF531706	A	A55	✔	✔	East Asia	Nepal	N/A	Indigenous	Pang et al., 2009
EANASY188	m232	AF531722	B	B1	✔	✔	East Asia	Nepal	N/A	Indigenous	Pang et al., 2009

Supplementary Table ST5: **Full details for the Asia South of the Yangtze River dataset including location of sample, haplogroup, haplotype, Sample Id, Genbank Accession Number and Source. Samples sorted according to fragment length and country.**

AMOVA Ref	Genbank Acc. Nb	Sample Id	Haplogroup	Haplotype	582bp	304bp	Region	Country	Location Specific	Category	Source
ASY100	AF531706	5888	A	A55	✔	✔	East Asia	China	Guangdong	Indigenous	Pang et al., 2009
ASY102	AF531689	5895	A	A38	✔	✔	East Asia	China	Guangdong	Indigenous	Pang et al., 2009
ASY103	AF531714	5896	A	A73	✔	✔	East Asia	China	Guangdong	Indigenous	Pang et al., 2009
ASY105	AF531714	5854	A	A73	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY106	AF531714	5855	A	A73	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY107	AF531669	5856	A	A17	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY108	AF531714	5857	A	A73	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY109	AF531714	5858	A	A73	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY110	AF531714	5859	A	A73	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY111	AF531714	5860	A	A73	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY112	EU816517	5861	A	A146	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY113	AF531714	5862	A	A73	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY114	EU816458	5863	A	A85	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY115	AF531714	5865	A	A73	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY116	EU816496	5866	A	A125	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY117	EU816492	5867	A	A121	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY118	AF531689	5868	A	A38	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY119	EU816483	5869	A	A111	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY120	AF531695	5871	A	A44	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY121	EU816480	5872	A	A107	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY122	AF531714	5873	A	A73	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY123	EU816461	5874	A	A88	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY124	AF531714	5875	A	A73	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY125	AF531656	5877	A	A3	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY126	AF531695	5878	A	A44	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY127	EU816501	5879	A	A130	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY128	AF531656	5880	A	A3	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY129	AF531714	5881	A	A73	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY131	EU816460	5883	A	A87	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY132	EU816458	10054	A	A85	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY133	EU816520	10055	A	A149	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY135	AF531669	10058	A	A17	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY136	EU816478	10059	A	A105	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY137	AF531664	10060	A	A11	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY139	AF531664	10062	A	A11	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY140	AF531671	10063	A	A19	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY142	AF531714	10065	A	A73	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY143	EU816458	10066	A	A85	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY144	EU816514	10067	A	A143	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY147	EU816477	10070	A	A104	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY148	AF531670	10071	A	A18	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY150	EU816470	10073	A	A97	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY151	AF531664	10074	A	A11	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY152	AF531662	10075	A	A09	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY153	AB007398	10076	A	A75	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY154	AF531695	10077	A	A44	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY155	AF531695	10078	A	A44	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY156	AF531702	10079	A	A51	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY158	AF531702	10081	A	A51	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY159	AF531669	10082	A	A17	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY160	EU816466	10083	A	A93	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY161	AF531664	10084	A	A11	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY162	EU816484	10085	A	A112	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY163	EU816458	10086	A	A85	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY164	AF531674	10087	A	A22	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY165	AF531656	10088	A	A3	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY166	AF531664	10089	A	A11	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY167	EU816501	10090	A	A130	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY168	AF531714	10091	A	A73	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY169	EU816473	10092	A	A100	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY170	AF531695	10093	A	A44	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY171	AF531670	10094	A	A18	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY172	EU816464	10095	A	A91	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY173	EU816482	10096	A	A110	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY174	AF531695	10097	A	A44	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY176	AF531714	10099	A	A73	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY177	AF531681	10100	A	A29	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY180	AF531714	10103	A	A73	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY181	AF531664	10104	A	A11	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY183	AF531670	10106	A	A18	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY184	AB007398	10107	A	A75	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY187	EU816514	10140	A	A143	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY188	AF531671	10148	A	A19	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY189	EU816471	9995	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY190	AF531714	9996	A	A73	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY191	AF531664	9997	A	A11	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY192	EU816471	9998	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY194	EU816471	10000	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY196	EU816476	10002	A	A103	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY197	AF531695	10003	A	A44	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY198	EU816471	10004	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY200	EU816467	10006	A	A94	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY201	AF531664	10007	A	A11	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY202	EU816471	10009	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY203	EU816471	10010	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY206	AF531668	10018	A	A16	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY207	EU816486	10019	A	A114	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY209	EU816471	10021	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY210	EU816457	10022	A	A84	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY211	AF531664	10023	A	A11	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY212	EU816471	10024	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY214	AF531664	10026	A	A11	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY215	AF531656	10027	A	A3	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY216	EU816472	10028	A	A99	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY219	AF531714	10035	A	A73	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY221	AF531695	10037	A	A44	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY222	EU816471	10038	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009

ASY225	EU816476	10041	A	A103	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY227	EU816471	10043	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY229	EU816471	10045	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY230	EU816471	10046	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY231	EU816471	10047	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY232	AF531695	10048	A	A44	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY233	EU816471	10049	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY234	EU816471	10050	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY238	AF531695	10056	A	A44	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY239	EU816471	HN01	A	A98	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY241	EU816472	HN03	A	A99	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY242	AF531674	HN04	A	A22	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY243	AF531656	5864	A	A3	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY244	EU816474	5870	A	A101	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY245	AF531695	5876	A	A44	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY247	AF531661	5899	A	A08	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY248	EU816485	5900	A	A113	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY249	AF531714	5902	A	A73	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY250	AF531664	5903	A	A11	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY252	AF531714	5906	A	A73	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY253	AF531714	5907	A	A73	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY254	EU816469	5909	A	A96	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY255	EU816511	5910	A	A140	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY257	AF531700	5912	A	A49	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY260	AF531714	5915	A	A73	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY261	AF531714	5917	A	A73	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY262	EU816462	5918	A	A89	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY263	EU816516	5919	A	A145	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY266	AF531674	5922	A	A22	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY267	AF531681	5923	A	A29	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY268	AF531664	5925	A	A11	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY269	EU816511	5926	A	A140	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY270	AF531656	5927	A	A3	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY272	AF531690	5929	A	A39	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY273	AF531695	5930	A	A44	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY275	AF531714	5932	A	A73	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY277	AF531664	5934	A	A11	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY278	AF531689	5935	A	A38	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY279	AF531681	5936	A	A29	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY280	AF531714	5937	A	A73	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY282	AF531689	5939	A	A38	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY283	AF531714	5940	A	A73	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY285	AF531668	5942	A	A16	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY287	AF531664	5944	A	A11	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY330	AF531669	5690	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY331	AF531670	5946	A	A18	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY332	EU816465	5947	A	A92	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY333	EU816465	5948	A	A92	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY334	EU816458	5950	A	A85	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY335	EU816458	5952	A	A85	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY336	AF531669	5953	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY337	AF531669	10151	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY338	AF531690	10152	A	A39	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY340	EU816489	10165	A	A117	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY341	EU816508	10169	A	A137	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY342	AF531669	10170	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY343	AF531714	10171	A	A73	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY345	AF531669	10173	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY346	AF531669	10174	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY348	AF531669	10177	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY349	EU816508	10180	A	A137	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY350	AF531669	10181	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY351	AF531664	10182	A	A11	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY352	AF531671	10183	A	A19	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY353	AF531668	10185	A	A16	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY354	AF531714	10187	A	A73	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY355	AF531669	10188	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY356	AF531662	10189	A	A09	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY357	AF531669	10191	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY358	AF531670	10192	A	A18	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY359	EU816463	10194	A	A90	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY361	AF531664	10196	A	A11	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY362	AF531662	10197	A	A09	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY363	AF531669	10198	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY364	AF531671	10199	A	A19	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY365	AF531669	10200	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY366	AF531669	10201	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY367	AF531681	10202	A	A29	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY368	AF531664	10203	A	A11	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY369	EU816479	10204	A	A106	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY370	AF531670	10205	A	A18	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY371	AF531669	10206	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY372	AF531669	10207	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY373	AF531669	10208	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY374	AF531669	10209	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY375	EU816487	10211	A	A115	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY376	AF531669	10212	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY377	AF531669	10213	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY378	AF531669	10214	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY380	AF531670	10218	A	A18	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY381	AF531669	10219	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY382	AF531669	10220	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY383	AF531669	10221	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY384	AF531668	10222	A	A16	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY385	AF531714	10223	A	A73	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY386	AF531656	10242	A	A3	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY388	EU816488	10253	A	A116	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY389	AF531661	10254	A	A08	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY390	EU816509	10255	A	A138	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY392	EU816515	10257	A	A144	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY393	EU816488	10258	A	A116	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY394	AF531689	10259	A	A38	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009

ASY395	AF531714	10260	A	A73	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY396	AF531714	10261	A	A73	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY397	AF531664	10262	A	A11	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY398	AF531661	10263	A	A08	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY399	AF531664	10264	A	A11	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY400	EU816501	10265	A	A130	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY401	EU816458	10266	A	A85	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY402	AF531669	10267	A	A17	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY403	EU816515	10268	A	A144	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY404	EU816509	aa	A	A138	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY405	AF531668	9866	A	A16	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY407	EU816472	10031	A	A99	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY408	AF531714	10111	A	A73	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY409	AF531669	10112	A	A17	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY410	AF531669	10113	A	A17	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY411	AF531669	10114	A	A17	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY412	AF531714	10115	A	A73	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY414	AF531689	10117	A	A38	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY415	AF531656	10118	A	A3	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY416	EU816507	10119	A	A136	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY417	AF531689	10120	A	A38	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY418	AF531664	10121	A	A11	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY419	AF531656	10122	A	A3	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY420	AF531714	10123	A	A73	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY421	EU816507	10124	A	A136	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY422	AF531714	10125	A	A73	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY423	AF531661	10126	A	A08	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY424	AF531664	10128	A	A11	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY425	AF531714	10129	A	A73	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY426	AF531661	10130	A	A08	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY427	AF531661	10131	A	A08	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY429	AF531689	10133	A	A38	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY430	AF531689	10134	A	A38	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY431	EU816507	10135	A	A136	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY432	EU816512	10136	A	A141	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY433	AB007386	10137	A	A74	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY434	AF531656	10138	A	A3	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY97	EU816459	5885	A	A86	✔	✔	East Asia	China	Guangdong	Indigenous	Pang et al., 2009
ASY98	AF531656	5886	A	A3	✔	✔	East Asia	China	Guangdong	Indigenous	Pang et al., 2009
ASY436	AF531681	5812	A	A29	✔	✔	East Asia	China	Guangxi	Indigenous	Savolainen et al., 2002
ASY437	AF531681	5813	A	A29	✔	✔	East Asia	China	Guangxi	Indigenous	Savolainen et al., 2002
ASY439	AF531689	5815	A	A38	✔	✔	East Asia	China	Guangxi	Indigenous	Savolainen et al., 2002
ASY440	AF531695	5816	A	A44	✔	✔	East Asia	China	Guangxi	Indigenous	Savolainen et al., 2002
ASY442	AF531713	5818	A	A62	✔	✔	East Asia	China	Guangxi	Indigenous	Savolainen et al., 2002
ASY443	AF531714	5819	A	A73	✔	✔	East Asia	China	Guangxi	Indigenous	Savolainen et al., 2002
ASY130	EU816545	5882	B	B28	✔	✔	East Asia	China	Guangxi	Indigenous	Pang et al., 2009
ASY141	AF531722	10064	B	B1	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY145	AF531730	10068	B	B9	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY149	AF531722	10072	B	B1	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY157	AF531722	10080	B	B1	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY175	AF531722	10098	B	B1	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY178	AF531722	10101	B	B1	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY179	AF531722	10102	B	B1	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY182	AF531722	10105	B	B1	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY185	AF531722	10108	B	B1	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY186	AF531722	10109	B	B1	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY195	AF531722	10001	B	B1	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY199	AF531722	10005	B	B1	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY204	AF531722	10016	B	B1	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY208	AF531722	10020	B	B1	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY213	AF531722	10025	B	B1	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY217	AF531722	10033	B	B1	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY218	AF531722	10034	B	B1	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY223	AF531722	10039	B	B1	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY224	AF531722	10040	B	B1	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY226	AF531722	10042	B	B1	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY236	AF531722	10052	B	B1	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY237	AF531722	10053	B	B1	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY240	AF531722	HN02	B	B1	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY246	AF531722	5898	B	B1	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY251	AF531722	5904	B	B1	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY258	EU816539	5913	B	B22	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY259	EU816547	5914	B	B30	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY264	EU816545	5920	B	B28	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY265	AF531722	5921	B	B1	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY271	EU816547	5928	B	B30	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY274	AF531722	5931	B	B1	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY276	AF531722	5933	B	B1	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY281	AF531726	5938	B	B05	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY284	AF531722	5941	B	B1	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY286	AF531722	5943	B	B1	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY288	AF531722	5945	B	B1	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009
ASY344	EU816541	10172	B	B24	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY347	EU816546	10175	B	B29	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY360	AF531722	10195	B	B1	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY387	EU816546	10243	B	B29	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY413	AF531722	10116	B	B1	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY428	AF531722	10132	B	B1	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY95	AF531726	5829	B	B05	✔	✔	East Asia	China	Guangdong	Indigenous	Pang et al., 2009
ASY438	AF531722	5814	B	B1	✔	✔	East Asia	China	Guangxi	Indigenous	Savolainen et al., 2002
ASY441	AF531722	5817	B	B1	✔	✔	East Asia	China	Guangxi	Indigenous	Savolainen et al., 2002
ASY101	AF531717	5894	C	C3	✔	✔	East Asia	China	Guangdong	Indigenous	Pang et al., 2009
ASY104	AF531717	5897	C	C3	✔	✔	East Asia	China	Guangdong	Indigenous	Pang et al., 2009
ASY134	AF531717	10057	C	C3	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY138	AF531717	10061	C	C3	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY146	AF531716	10069	C	C2	✔	✔	East Asia	China	Guizhou	Indigenous	Pang et al., 2009
ASY193	AF531716	9999	C	C2	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY205	EU816552	10017	C	C12	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY220	AF531716	10036	C	C2	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY228	AF531716	10044	C	C2	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY235	AF531717	10051	C	C3	✔	✔	East Asia	China	Hunan	Indigenous	Pang et al., 2009
ASY256	AF531716	5911	C	C2	✔	✔	East Asia	China	Jiangxi	Indigenous	Pang et al., 2009

ASY339	AF531717	10159	C	C3	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY379	EU816550	10216	C	C10	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY391	AF531716	10256	C	C2	✔	✔	East Asia	China	Yunnan	Indigenous	Pang et al., 2009
ASY406	AF531716	9868	C	C2	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY435	AF531715	10139	C	C01	✔	✔	East Asia	China	Hainansanya	Indigenous	Pang et al., 2009
ASY40	EU816476	TA35	A	A103	✔	✔	East Asia	Taiwan	Jen'al	Local non-breed dog	Oskarsson et al., 2012
ASY41	AF531664	TA29	A	A11	✔	✔	East Asia	Taiwan	Jen'al	Local non-breed dog	Oskarsson et al., 2012
ASY42	AF531668	TA39	A	A16	✔	✔	East Asia	Taiwan	Jen'al	Local non-breed dog	Oskarsson et al., 2012
ASY43	AF531669	TA27	A	A17	✔	✔	East Asia	Taiwan	Jen'al	Local non-breed dog	Oskarsson et al., 2012
ASY44	AF531669	TA33	A	A17	✔	✔	East Asia	Taiwan	Jen'al	Local non-breed dog	Oskarsson et al., 2012
ASY45	AF531671	TA37	A	A19	✔	✔	East Asia	Taiwan	Jen'al	Local non-breed dog	Oskarsson et al., 2012
ASY46	AF531671	TA41	A	A19	✔	✔	East Asia	Taiwan	Jen'al	Local non-breed dog	Oskarsson et al., 2012
ASY47	AF531672	TA36	A	A20	✔	✔	East Asia	Taiwan	Jen'al	Local non-breed dog	Oskarsson et al., 2012
ASY48	D83635	TA42	A	A65	✔	✔	East Asia	Taiwan	Jen'al	Local non-breed dog	Oskarsson et al., 2012
ASY55	AF531664	TA128	A	A11	✔	✔	East Asia	Taiwan	Mawlin	Local non-breed dog	Oskarsson et al., 2012
ASY56	AF531670	TA112	A	A18	✔	✔	East Asia	Taiwan	Mawlin	Local non-breed dog	Oskarsson et al., 2012
ASY57	AF531670	TA161	A	A18	✔	✔	East Asia	Taiwan	Mawlin	Local non-breed dog	Oskarsson et al., 2012
ASY58	AF531671	TA157	A	A19	✔	✔	East Asia	Taiwan	Mawlin	Local non-breed dog	Oskarsson et al., 2012
ASY59	AF531671	TA159	A	A19	✔	✔	East Asia	Taiwan	Mawlin	Local non-breed dog	Oskarsson et al., 2012
ASY60	AF531671	TA162	A	A19	✔	✔	East Asia	Taiwan	Mawlin	Local non-breed dog	Oskarsson et al., 2012
ASY61	AF531679	TA167	A	A27	✔	✔	East Asia	Taiwan	Mawlin	Local non-breed dog	Oskarsson et al., 2012
ASY64	AF531670	TA177	A	A18	✔	✔	East Asia	Taiwan	Mutai	Local non-breed dog	Oskarsson et al., 2012
ASY67	AF531670	TA47	A	A18	✔	✔	East Asia	Taiwan	Shiowlin	Local non-breed dog	Oskarsson et al., 2012
ASY69	AF531669	z1741	A	A17	✔	✔	East Asia	Taiwan	Taiwan	Local non-breed dog	Oskarsson et al., 2012
ASY70	AF531669	z1742	A	A17	✔	✔	East Asia	Taiwan	Taiwan	Local non-breed dog	Oskarsson et al., 2012
ASY71	AF531669	z1743	A	A17	✔	✔	East Asia	Taiwan	Taiwan	Local non-breed dog	Oskarsson et al., 2012
ASY72	AF531669	z1747	A	A17	✔	✔	East Asia	Taiwan	Taiwan	Local non-breed dog	Oskarsson et al., 2012
ASY73	AF531671	z1749	A	A19	✔	✔	East Asia	Taiwan	Taiwan	Local non-breed dog	Oskarsson et al., 2012
ASY74	HQ452456	z1744	A	A225	✔	✔	East Asia	Taiwan	Taiwan	Local non-breed dog	Oskarsson et al., 2012
ASY75	HQ452456	z1745	A	A225	✔	✔	East Asia	Taiwan	Taiwan	Local non-breed dog	Oskarsson et al., 2012
ASY76	HQ452456	z1746	A	A225	✔	✔	East Asia	Taiwan	Taiwan	Local non-breed dog	Oskarsson et al., 2012
ASY77	HQ452456	z1748	A	A225	✔	✔	East Asia	Taiwan	Taiwan	Local non-breed dog	Oskarsson et al., 2012
ASY78	HQ452456	z1751	A	A225	✔	✔	East Asia	Taiwan	Taiwan	Local non-breed dog	Oskarsson et al., 2012
ASY79	AF531685	z1752	A	A33	✔	✔	East Asia	Taiwan	Taiwan	Local non-breed dog	Oskarsson et al., 2012
ASY80	EU816476	TA15	A	A103	✔	✔	East Asia	Taiwan	Wufeng	Local non-breed dog	Oskarsson et al., 2012
ASY81	AF531664	TA1	A	A11	✔	✔	East Asia	Taiwan	Wufeng	Local non-breed dog	Oskarsson et al., 2012
ASY82	AF531664	TA2	A	A11	✔	✔	East Asia	Taiwan	Wufeng	Local non-breed dog	Oskarsson et al., 2012
ASY83	AF531670	TA16	A	A18	✔	✔	East Asia	Taiwan	Wufeng	Local non-breed dog	Oskarsson et al., 2012
ASY84	AF531670	TA20	A	A18	✔	✔	East Asia	Taiwan	Wufeng	Local non-breed dog	Oskarsson et al., 2012
ASY85	AF531671	TA3	A	A19	✔	✔	East Asia	Taiwan	Wufeng	Local non-breed dog	Oskarsson et al., 2012
ASY86	D83635	TA10	A	A65	✔	✔	East Asia	Taiwan	Wufeng	Local non-breed dog	Oskarsson et al., 2012
ASY87	D83635	TA13	A	A65	✔	✔	East Asia	Taiwan	Wufeng	Local non-breed dog	Oskarsson et al., 2012
ASY88	D83635	TA14	A	A65	✔	✔	East Asia	Taiwan	Wufeng	Local non-breed dog	Oskarsson et al., 2012
ASY49	AF531722	TA23	B	B1	✔	✔	East Asia	Taiwan	Jen'al	Local non-breed dog	Oskarsson et al., 2012
ASY50	AF531722	TA30	B	B1	✔	✔	East Asia	Taiwan	Jen'al	Local non-breed dog	Oskarsson et al., 2012
ASY51	AF531722	TA46	B	B1	✔	✔	East Asia	Taiwan	Jen'al	Local non-breed dog	Oskarsson et al., 2012
ASY52	HQ452460	TA34	B	B47	✔	✔	East Asia	Taiwan	Jen'al	Local non-breed dog	Oskarsson et al., 2012
ASY53	AF531727	TA22	B	B06	✔	✔	East Asia	Taiwan	Jen'al	Local non-breed dog	Oskarsson et al., 2012
ASY62	AF531722	TA171	B	B1	✔	✔	East Asia	Taiwan	Mawlin	Local non-breed dog	Oskarsson et al., 2012
ASY65	EU816544	TA183	B	B27	✔	✔	East Asia	Taiwan	Mutai	Local non-breed dog	Oskarsson et al., 2012
ASY68	HQ452433	TA48	B	B38	✔	✔	East Asia	Taiwan	Shiowlin	Local non-breed dog	Oskarsson et al., 2012
ASY54	AF531717	TA25	C	C3	✔	✔	East Asia	Taiwan	Jen'al	Local non-breed dog	Oskarsson et al., 2012
ASY63	AF531717	TA165	C	C3	✔	✔	East Asia	Taiwan	Mawlin	Local non-breed dog	Oskarsson et al., 2012
ASY66	AF531716	TA141	C	C2	✔	✔	East Asia	Taiwan	Mutai	Local non-breed dog	Oskarsson et al., 2012
ASY89	AF531716	TA7	C	C2	✔	✔	East Asia	Taiwan	Wufeng	Local non-breed dog	Oskarsson et al., 2012
ASY90	AF531716	TA8	C	C2	✔	✔	East Asia	Taiwan	Wufeng	Local non-breed dog	Oskarsson et al., 2012
ASY91	AF531716	TA9	C	C2	✔	✔	East Asia	Taiwan	Wufeng	Local non-breed dog	Oskarsson et al., 2012
SEA102	EU816503	z520	A	A132	✔	✔	Southeast Asia	Cambodia	N/A	Local non-breed dog	Oskarsson et al., 2012
SEA51	AF531695	m237	A	A44	✔	✔	Southeast Asia	Cambodia	N/A	Indigenous	Pang et al., 2009
SEA52	AF531664	m238	A	A11	✔	✔	Southeast Asia	Cambodia	N/A	Indigenous	Pang et al., 2009
SEA53	AF531662	m239	A	A09	✔	✔	Southeast Asia	Cambodia	N/A	Indigenous	Pang et al., 2009
SEA54	AF531664	m240	A	A11	✔	✔	Southeast Asia	Cambodia	N/A	Indigenous	Pang et al., 2009
SEA96	AF531693	Indo3	A	A42	✔	✔	Southeast Asia	Cambodia	N/A	Indigenous	Savolainen et al., 2002
SEA97	AF531722	m129	B	B01	✔	✔	Southeast Asia	Cambodia	N/A	Indigenous	Savolainen et al., 2002
SEA50	EU816551	m236	C	C11	✔	✔	Southeast Asia	Cambodia	N/A	Indigenous	Pang et al., 2009
SEA103	AF531664	z1557	A	A11	✔	✔	Southeast Asia	Thailand	Chantaburi province	Local non-breed dog	Oskarsson et al., 2012
SEA104	AF531664	z1558	A	A11	✔	✔	Southeast Asia	Thailand	Chantaburi province	Local non-breed dog	Oskarsson et al., 2012
SEA105	HQ452452	z1554	A	A221	✔	✔	Southeast Asia	Thailand	Chantaburi province	Local non-breed dog	Oskarsson et al., 2012
SEA106	AF531679	z1572	A	A27	✔	✔	Southeast Asia	Thailand	Chantaburi province	Local non-breed dog	Oskarsson et al., 2012
SEA107	AF531695	z1559	A	A44	✔	✔	Southeast Asia	Thailand	Chantaburi province	Local non-breed dog	Oskarsson et al., 2012
SEA108	AB007398	z1555	A	A75	✔	✔	Southeast Asia	Thailand	Chantaburi province	Local non-breed dog	Oskarsson et al., 2012
SEA109	AB007398	z1560	A	A75	✔	✔	Southeast Asia	Thailand	Chantaburi province	Local non-breed dog	Oskarsson et al., 2012
SEA110	AF531661	z1561	A	A08	✔	✔	Southeast Asia	Thailand	Chantaburi province	Local non-breed dog	Oskarsson et al., 2012
SEA113	AF531664	z1337	A	A11	✔	✔	Southeast Asia	Thailand	Kata	Local non-breed dog	Oskarsson et al., 2012
SEA114	AF531695	z1322	A	A44	✔	✔	Southeast Asia	Thailand	Khao Sok	Local non-breed dog	Oskarsson et al., 2012
SEA118	EU816476	z1456	A	A103	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA119	EU816476	z1457	A	A103	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA120	AF531664	z1465	A	A11	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA121	EU816488	z1473	A	A116	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA122	EU816493	z1515	A	A122	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA123	EU816493	z1516	A	A122	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA124	HQ452450	z1478	A	A219	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA125	HQ452451	z1481	A	A220	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA126	HQ452453	z1505	A	A222	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA127	HQ452454	z1491	A	A223	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA128	HQ452455	z1470	A	A224	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA129	HQ452457	z1503	A	A226	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA130	HQ452458	z1487	A	A227	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA131	AF531679	z1482	A	A27	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA132	AY660633	z1460	A	A29	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA133	AY660633	z1486	A	A29	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA134	AF531695	z1469	A	A44	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA135	AF531695	z1522	A	A44	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA136	AF531660	z1461	A	A07	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA137	AF531714	z1479	A	A73	✔	✔	Southeast Asia	Thailand	North West Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA138	AF531664	z1325	A	A11	✔	✔	Southeast Asia	Thailand	Phuket	Local non-breed dog	Oskarsson et al., 2012
SEA139	AF531664	z1331	A	A11	✔	✔	Southeast Asia	Thailand	Phuket	Local non-breed dog	Oskarsson et al., 2012
SEA140	AF531664	z1332	A	A11	✔	✔	Southeast Asia	Thailand	Phuket	Local non-breed dog	Oskarsson et al., 2012
SEA141	EU816501	z1324	A	A130	✔	✔	Southeast Asia	Thailand	Phuket	Local non-breed dog	Oskarsson et al., 2012
SEA142	AF531668	z1335	A	A16	✔	✔	Southeast Asia	Thailand	Phuket	Local non-breed dog	Oskarsson et al., 2012
SEA143	AF531670	z1334	A	A18	✔	✔	Southeast Asia	Thailand	Phuket	Local non-breed dog	Oskarsson et al., 2012
SEA144	AF531655	z1323	A	A02	✔	✔	Southeast Asia	Thailand	Phuket	Local non-breed dog	Oskarsson et al., 2012

SEA145	AF531695	z1321	A	A44	✔	✔	Southeast Asia	Thailand	Phuket	Local non-breed dog	Oskarsson et al., 2012
SEA146	AB007398	z1330	A	A75	✔	✔	Southeast Asia	Thailand	Phuket	Local non-breed dog	Oskarsson et al., 2012
SEA147	EU816465	z1336	A	A92	✔	✔	Southeast Asia	Thailand	Phuket	Local non-breed dog	Oskarsson et al., 2012
SEA148	AF531664	z1328	A	A11	✔	✔	Southeast Asia	Thailand	Ranong Town	Local non-breed dog	Oskarsson et al., 2012
SEA149	AF531664	z1329	A	A11	✔	✔	Southeast Asia	Thailand	Ranong Town	Local non-breed dog	Oskarsson et al., 2012
SEA150	D83612	z1327	A	A71 (vilA14)	✔	✔	Southeast Asia	Thailand	Ranong Town	Local non-breed dog	Oskarsson et al., 2012
SEA151	EU816499	m369	A	A128	✔	✔	Southeast Asia	Thailand	Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA152	EU816514	m385	A	A143	✔	✔	Southeast Asia	Thailand	Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA153	HQ452447	m267	A	A216	✔	✔	Southeast Asia	Thailand	Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA154	AF531687	z639	A	A35	✔	✔	Southeast Asia	Thailand	Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA155	AF531695	z701	A	A44	✔	✔	Southeast Asia	Thailand	Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA156	AF531695	m348	A	A44	✔	✔	Southeast Asia	Thailand	Thailand	Local non-breed dog	Oskarsson et al., 2012
SEA157	AF531664	z1562	A	A11	✔	✔	Southeast Asia	Thailand	Trad province	Local non-breed dog	Oskarsson et al., 2012
SEA158	AF531664	z1563	A	A11	✔	✔	Southeast Asia	Thailand	Trad province	Local non-breed dog	Oskarsson et al., 2012
SEA159	AF531664	z1565	A	A11	✔	✔	Southeast Asia	Thailand	Trad province	Local non-breed dog	Oskarsson et al., 2012
SEA160	AF531664	z1566	A	A11	✔	✔	Southeast Asia	Thailand	Trad province	Local non-breed dog	Oskarsson et al., 2012
SEA161	AF531664	z1569	A	A11	✔	✔	Southeast Asia	Thailand	Trad province	Local non-breed dog	Oskarsson et al., 2012
SEA162	AF531664	z1571	A	A11	✔	✔	Southeast Asia	Thailand	Trad province	Local non-breed dog	Oskarsson et al., 2012
SEA163	EU816503	z1567	A	A132	✔	✔	Southeast Asia	Thailand	Trad province	Local non-breed dog	Oskarsson et al., 2012
SEA164	AF531670	z1568	A	A18	✔	✔	Southeast Asia	Thailand	Trad province	Local non-breed dog	Oskarsson et al., 2012
SEA55	AF531670	m257	A	A18	✔	✔	Southeast Asia	Thailand	Bangkok	Indigenous	Pang et al., 2009
SEA56	AF531670	m260	A	A18	✔	✔	Southeast Asia	Thailand	Bangkok	Indigenous	Pang et al., 2009
SEA57	AF531670	m261	A	A18	✔	✔	Southeast Asia	Thailand	Bangkok	Indigenous	Pang et al., 2009
SEA58	EU816503	m262	A	A132	✔	✔	Southeast Asia	Thailand	Ko Chang	Indigenous	Pang et al., 2009
SEA59	EU816491	m263	A	A120	✔	✔	Southeast Asia	Thailand	Ko Chang	Indigenous	Pang et al., 2009
SEA60	EU816491	m264	A	A120	✔	✔	Southeast Asia	Thailand	Ko Chang	Indigenous	Pang et al., 2009
SEA61	EU816491	m265	A	A120	✔	✔	Southeast Asia	Thailand	Ko Chang	Indigenous	Pang et al., 2009
SEA62	EU816493	m266	A	A122	✔	✔	Southeast Asia	Thailand	Ching Mai	Indigenous	Pang et al., 2009
SEA64	EU816491	m269	A	A120	✔	✔	Southeast Asia	Thailand	Ko Chang	Indigenous	Pang et al., 2009
SEA65	EU816503	m270	A	A132	✔	✔	Southeast Asia	Thailand	Ko Chang	Indigenous	Pang et al., 2009
SEA66	AF531671	m271	A	A19	✔	✔	Southeast Asia	Thailand	Ko Chang	Indigenous	Pang et al., 2009
SEA67	AF531665	m272	A	A12	✔	✔	Southeast Asia	Thailand	Ko Chang	Indigenous	Pang et al., 2009
SEA68	EU816491	m273	A	A120	✔	✔	Southeast Asia	Thailand	Ko Chang	Indigenous	Pang et al., 2009
SEA69	EU816503	m274	A	A132	✔	✔	Southeast Asia	Thailand	Bangkok	Indigenous	Pang et al., 2009
SEA70	AF531695	m275	A	A44	✔	✔	Southeast Asia	Thailand	Laem Ngop	Indigenous	Pang et al., 2009
SEA71	D83635	m276	A	A65 (VilA20)	✔	✔	Southeast Asia	Thailand	Laem Ngop	Indigenous	Pang et al., 2009
SEA72	AF531664	m277	A	A11	✔	✔	Southeast Asia	Thailand	North o Ching Mai	Indigenous	Pang et al., 2009
SEA74	AF531664	m279	A	A11	✔	✔	Southeast Asia	Thailand	North o Ching Mai	Indigenous	Pang et al., 2009
SEA75	AF531656	m280	A	A03	✔	✔	Southeast Asia	Thailand	N/A	Indigenous	Pang et al., 2009
SEA76	EU816491	m281	A	A120	✔	✔	Southeast Asia	Thailand	North o Ching Mai	Indigenous	Pang et al., 2009
SEA77	EU816493	m282	A	A122	✔	✔	Southeast Asia	Thailand	Ching Mai	Indigenous	Pang et al., 2009
SEA78	AF531660	m283	A	A07	✔	✔	Southeast Asia	Thailand	Ching Mai	Indigenous	Pang et al., 2009
SEA80	AF531670	m285	A	A18	✔	✔	Southeast Asia	Thailand	Ko Chang	Indigenous	Pang et al., 2009
SEA81	AB007398	m286	A	A75	✔	✔	Southeast Asia	Thailand	Ko Chang	Indigenous	Pang et al., 2009
SEA82	AF531665	m287	A	A12	✔	✔	Southeast Asia	Thailand	Ko Chang	Indigenous	Pang et al., 2009
SEA83	EU816490	m288	A	A119	✔	✔	Southeast Asia	Thailand	Bangkok	Indigenous	Pang et al., 2009
SEA84	AF531665	m379	A	A12	✔	✔	Southeast Asia	Thailand	Ko Chang	Indigenous	Pang et al., 2009
SEA100	AF531697	m37	A	A46	✔	✔	Southeast Asia	Thailand	N/A	Indigenous	Savolainen et al., 2002
SEA98	AF531664	m36	A	A11	✔	✔	Southeast Asia	Thailand	N/A	Indigenous	Savolainen et al., 2002
SEA99	AF531695	m38	A	A44	✔	✔	Southeast Asia	Thailand	N/A	Indigenous	Savolainen et al., 2002
SEA112	AF531729	z1573	B	B08	✔	✔	Southeast Asia	Thailand	Chon Buri province	Local non-breed dog	Oskarsson et al., 2012
SEA165	HQ452462	z1570	B	B49	✔	✔	Southeast Asia	Thailand	Trad province	Local non-breed dog	Oskarsson et al., 2012
SEA73	AF531722	m278	B	B01	✔	✔	Southeast Asia	Thailand	North o Ching Mai	Indigenous	Pang et al., 2009
SEA111	AF531716	z1556	C	C2	✔	✔	Southeast Asia	Thailand	Chantaburi province	Local non-breed dog	Oskarsson et al., 2012
SEA115	AF531717	m795	C	C3	✔	✔	Southeast Asia	Thailand	Koh Chang	Local non-breed dog	Oskarsson et al., 2012
SEA116	AF531717	m797	C	C3	✔	✔	Southeast Asia	Thailand	Koh Chang	Local non-breed dog	Oskarsson et al., 2012
SEA79	AF531716	m284	C	C2	✔	✔	Southeast Asia	Thailand	Ko Chang	Indigenous	Pang et al., 2009
SEA117	AF531741	m796	E	E1	✔	✔	Southeast Asia	Thailand	Koh Chang	Local non-breed dog	Oskarsson et al., 2012
SEA166	HQ452465	z1564	E	E4	✔	✔	Southeast Asia	Thailand	Trad province	Local non-breed dog	Oskarsson et al., 2012
SEA63	AF531741	m268	E	E1	✔	✔	Southeast Asia	Thailand	Ko Chang	Indigenous	Pang et al., 2009
SEA85	AF531741	m384	E	E1	✔	✔	Southeast Asia	Thailand	N/A	Indigenous	Pang et al., 2009
SEA167	AF531664	z509	A	A11	✔	✔	Southeast Asia	Vietnam	Phuquoc	Local non-breed dog	Oskarsson et al., 2012
SEA168	AF531664	z515	A	A11	✔	✔	Southeast Asia	Vietnam	Phuquoc	Local non-breed dog	Oskarsson et al., 2012
SEA169	AF531671	z508	A	A19	✔	✔	Southeast Asia	Vietnam	Phuquoc	Local non-breed dog	Oskarsson et al., 2012
SEA175	AF531664	z518	A	A11	✔	✔	Southeast Asia	Vietnam	Vietnam	Local non-breed dog	Oskarsson et al., 2012
SEA176	AF531664	m375	A	A11	✔	✔	Southeast Asia	Vietnam	Vietnam	Local non-breed dog	Oskarsson et al., 2012
SEA177	EU816503	m383	A	A132	✔	✔	Southeast Asia	Vietnam	Vietnam	Local non-breed dog	Oskarsson et al., 2012
SEA178	AF531669	z513	A	A17	✔	✔	Southeast Asia	Vietnam	Vietnam	Local non-breed dog	Oskarsson et al., 2012
SEA179	AF531714	m376	A	A73	✔	✔	Southeast Asia	Vietnam	Vietnam	Local non-breed dog	Oskarsson et al., 2012
SEA180	AF531661	z516	A	A08	✔	✔	Southeast Asia	Vietnam	Vietnam	Local non-breed dog	Oskarsson et al., 2012
SEA86	AF531665	m368	A	A12	✔	✔	Southeast Asia	Vietnam	Sapa	Indigenous	Pang et al., 2009
SEA87	EU816492	m370	A	A121	✔	✔	Southeast Asia	Vietnam	Sapa	Indigenous	Pang et al., 2009
SEA88	EU816492	m371	A	A121	✔	✔	Southeast Asia	Vietnam	Sapa	Indigenous	Pang et al., 2009
SEA89	EU816502	m372	A	A131	✔	✔	Southeast Asia	Vietnam	Sapa	Indigenous	Pang et al., 2009
SEA90	AF531672	m373	A	A20	✔	✔	Southeast Asia	Vietnam	Hoi An	Indigenous	Pang et al., 2009
SEA92	AF531714	m377	A	A73	✔	✔	Southeast Asia	Vietnam	Sapa	Indigenous	Pang et al., 2009
SEA93	AF531670	m380	A	A18	✔	✔	Southeast Asia	Vietnam	Hoi An	Indigenous	Pang et al., 2009
SEA94	EU816501	m382	A	A130	✔	✔	Southeast Asia	Vietnam	Sapa	Indigenous	Pang et al., 2009
SEA95	EU816499	m386	A	A128	✔	✔	Southeast Asia	Vietnam	Sapa	Indigenous	Pang et al., 2009
SEA170	AF531722	z504	B	B1	✔	✔	Southeast Asia	Vietnam	Phuquoc	Local non-breed dog	Oskarsson et al., 2012
SEA171	AF531722	z505	B	B1	✔	✔	Southeast Asia	Vietnam	Phuquoc	Local non-breed dog	Oskarsson et al., 2012
SEA181	AF531722	z510	B	B1	✔	✔	Southeast Asia	Vietnam	Vietnam	Local non-breed dog	Oskarsson et al., 2012
SEA182	AF531722	z511	B	B1	✔	✔	Southeast Asia	Vietnam	Vietnam	Local non-breed dog	Oskarsson et al., 2012
SEA183	AF531722	z517	B	B1	✔	✔	Southeast Asia	Vietnam	Vietnam	Local non-breed dog	Oskarsson et al., 2012
SEA184	AF531722	m387	B	B1	✔	✔	Southeast Asia	Vietnam	Vietnam	Local non-breed dog	Oskarsson et al., 2012
SEA172	AF531717	z506	C	C3	✔	✔	Southeast Asia	Vietnam	Phuquoc	Local non-breed dog	Oskarsson et al., 2012
SEA173	AF531717	z507	C	C3	✔	✔	Southeast Asia	Vietnam	Phuquoc	Local non-breed dog	Oskarsson et al., 2012
SEA174	AF531717	z514	C	C3	✔	✔	Southeast Asia	Vietnam	Phuquoc	Local non-breed dog	Oskarsson et al., 2012
SEA91	AF531716	m374	C	C2	✔	✔	Southeast Asia	Vietnam	Hoi An	Indigenous	Pang et al., 2009
SEA101	AF531717	P66	C	C3	✔	✔	Southeast Asia	Vietnam	N/A	Indigenous	Savolainen et al., 2002
SEA185	AF531741	z512	E	E1	✔	✔	Southeast Asia	Vietnam	Vietnam	Local non-breed dog	Oskarsson et al., 2012
ASY96	EU789725	5884	A	A15	✖	✔	East Asia	China	Guangdong	Indigenous	Pang et al., 2009
ASY99	EU789725	5887	A	A15	✖	✔	East Asia	China	Guangdong	Indigenous	Pang et al., 2009
ASY01	AF531664	Taiwan01	A	A11	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY02	AF531664	Taiwan02	A	A11	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY03	AF531664	Taiwan03	A	A11	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY04	AF531664	Taiwan04	A	A11	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY05	AF531664	Taiwan05	A	A11	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY06	AF531668	Taiwan06	A	A16	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY07	AF531668	Taiwan07	A	A16	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY08	AF531668	Taiwan08	A	A16	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY09	AF531668	Taiwan09	A	A16	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011

ASY10	AF531668	Taiwan10	A	A16	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY11	AF531668	Taiwan11	A	A16	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY12	AF531668	Taiwan12	A	A16	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY13	AF531668	Taiwan13	A	A16	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY14	AF531670	Taiwan14	A	A18	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY15	AF531670	Taiwan15	A	A18	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY16	AF531670	Taiwan16	A	A18	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY17	AF531670	Taiwan17	A	A18	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY18	AF531670	Taiwan18	A	A18	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY19	AF531670	Taiwan19	A	A18	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY20	AF531670	Taiwan20	A	A18	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY21	AF531670	Taiwan21	A	A18	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY22	AF531671	Taiwan22	A	A19	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY23	AF531671	Taiwan23	A	A19	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY24	AF531671	Taiwan24	A	A19	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY25	AF531671	Taiwan25	A	A19	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY26	AF531671	Taiwan26	A	A19	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY27	AF531678	Taiwan27	A	A26	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY28	AF531679	Taiwan28	A	A27	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY29	AF531722	Taiwan29	B	B01	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY30	AF531722	Taiwan30	B	B01	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY31	AF531722	Taiwan31	B	B01	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY32	AF531722	Taiwan32	B	B01	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY33	AF531722	Taiwan33	B	B01	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY34	EU816540	Taiwan34	B	B23	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY35	EU816540	Taiwan35	B	B23	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY36	AF531727	Taiwan36	B	B06	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY37	AF531727	Taiwan37	B	B06	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY38	AF531715	Taiwan38	C	C01	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
ASY39	AF531719	Taiwan39	C	C05	✖	✔	East Asia	Taiwan	N/A	Village dog	Brown et al., 2011
SEA01	AF531654	Thailand01	A	A01	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA02	AF531654	Thailand02	A	A01	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA03	AF531664	Thailand03	A	A11	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA04	AF531664	Thailand04	A	A11	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA05	AF531664	Thailand05	A	A11	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA06	AF531664	Thailand06	A	A11	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA07	AF531664	Thailand07	A	A11	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA08	AF531664	Thailand08	A	A11	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA09	AF531664	Thailand09	A	A11	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA10	AF531664	Thailand10	A	A11	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA11	AF531664	Thailand11	A	A11	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA12	AF531664	Thailand12	A	A11	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA13	AF531664	Thailand13	A	A11	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA14	AF531664	Thailand14	A	A11	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA15	AF531664	Thailand15	A	A11	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA16	EU816491	Thailand16	A	A120	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA17	AF531668	Thailand17	A	A16	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA18	AF531668	Thailand18	A	A16	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA186	AF531678	Thailand50	A	A26	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA19	AF531668	Thailand19	A	A16	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA20	AF531668	Thailand20	A	A16	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA21	AF531668	Thailand21	A	A16	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA22	AF531670	Thailand22	A	A18	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA23	AF531670	Thailand23	A	A18	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA24	AF531670	Thailand24	A	A18	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA25	AF531670	Thailand25	A	A18	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA26	AF531679	Thailand26	A	A27	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA27	AF531656	Thailand27	A	A03	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA28	AF531656	Thailand28	A	A03	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA29	AF531656	Thailand29	A	A03	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA30	AF531695	Thailand30	A	A44	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA31	AF531695	Thailand31	A	A44	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA45	HQ287737	Thailand45	A	V129	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA49	HQ287739	Thailand49	A	VT9	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA32	AF531722	Thailand32	B	B01	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA33	AF531722	Thailand33	B	B01	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA34	AF531722	Thailand34	B	B01	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA35	AF531722	Thailand35	B	B01	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA36	AF531722	Thailand36	B	B01	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA37	AF531722	Thailand37	B	B01	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA38	AF531722	Thailand38	B	B01	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA39	AF531722	Thailand39	B	B01	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA40	AF531727	Thailand40	B	B06	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA41	AF531727	Thailand41	B	B06	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA46	HQ287738	Thailand46	B	V14	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA47	HQ287738	Thailand47	B	V14	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA48	HQ287738	Thailand48	B	V14	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA42	AF531717	Thailand42	C	C03	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA43	AF531717	Thailand43	C	C03	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011
SEA44	AF531717	Thailand44	C	C03	✖	✔	Southeast Asia	Thailand	N/A	Village dog	Brown et al., 2011

Supplementary Table ST6: **Full details for the Island Southeast Asia and Oceania (ISEA) dataset including location of sample, haplogroup, haplotype, Sample Id, Genbank Accession Number and Source. Samples sorted according to fragment length and country.**

AMOVA Ref	Sample Id	Genbank Acc. Nb	Haplogroup	Haplotype	582bp	304bp	Region	Country	Location	Category	Source
ISEA145	KA126	AF531664	A	A11	✔	✔	ISEA	Indonesia	Kalimantan, Latta Laga	Local non-breed dog	Oskarsson et al., 2012
ISEA109	Indo2	AF531664	A	A11	✔	✔	ISEA	Indonesia	N/A	Indigenous	Savolainen et al., 2002
ISEA113	m3	AF531670	A	A18	✔	✔	ISEA	Indonesia	N/A	Indigenous	Savolainen et al., 2002
ISEA114	KA13	HQ452445	A	A214	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA157	KA114	HQ452445	A	A214	✔	✔	ISEA	Indonesia	Kalimantan, Loksad	Local non-breed dog	Oskarsson et al., 2012
ISEA158	KA116	HQ452445	A	A214	✔	✔	ISEA	Indonesia	Kalimantan, Loksad	Local non-breed dog	Oskarsson et al., 2012
ISEA159	KA120	HQ452445	A	A214	✔	✔	ISEA	Indonesia	Kalimantan, Loksad	Local non-breed dog	Oskarsson et al., 2012
ISEA115	KA29	HQ452446	A	A215	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA116	KA30	HQ452446	A	A215	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA117	KA31	HQ452446	A	A215	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA118	KA32	HQ452446	A	A215	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA146	KA123	HQ452446	A	A215	✔	✔	ISEA	Indonesia	Kalimantan, Latta Laga	Local non-breed dog	Oskarsson et al., 2012
ISEA160	KA111	HQ452446	A	A215	✔	✔	ISEA	Indonesia	Kalimantan, Loksad	Local non-breed dog	Oskarsson et al., 2012
ISEA161	KA115	HQ452446	A	A215	✔	✔	ISEA	Indonesia	Kalimantan, Loksad	Local non-breed dog	Oskarsson et al., 2012
ISEA162	KA118	HQ452446	A	A215	✔	✔	ISEA	Indonesia	Kalimantan, Loksad	Local non-breed dog	Oskarsson et al., 2012
ISEA119	KA11	AY660633	A	A29	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA120	KA14	AY660633	A	A29	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA121	KA15	AY660633	A	A29	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA122	KA16	AY660633	A	A29	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA123	KA21	AY660633	A	A29	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA147	KA124	AY660633	A	A29	✔	✔	ISEA	Indonesia	Kalimantan, Latta Laga	Local non-breed dog	Oskarsson et al., 2012
ISEA163	KA110	AY660633	A	A29	✔	✔	ISEA	Indonesia	Kalimantan, Loksad	Local non-breed dog	Oskarsson et al., 2012
ISEA124	KA1	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA125	KA10	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA126	KA12	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA127	KA20	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA128	KA25	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA129	KA26	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA130	KA27	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA148	KA122	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kalimantan, Latta Laga	Local non-breed dog	Oskarsson et al., 2012
ISEA149	KA130	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kalimantan, Latta Laga	Local non-breed dog	Oskarsson et al., 2012
ISEA150	KA132	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kalimantan, Latta Laga	Local non-breed dog	Oskarsson et al., 2012
ISEA164	KA113	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kalimantan, Loksad	Local non-breed dog	Oskarsson et al., 2012
ISEA165	KA117	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kalimantan, Loksad	Local non-breed dog	Oskarsson et al., 2012
ISEA166	KA119	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kalimantan, Loksad	Local non-breed dog	Oskarsson et al., 2012
ISEA169	KA102	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kallimantan, Mallinau	Local non-breed dog	Oskarsson et al., 2012
ISEA170	KA103	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kallimantan, Mallinau	Local non-breed dog	Oskarsson et al., 2012
ISEA171	KA104	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kallimantan, Mallinau	Local non-breed dog	Oskarsson et al., 2012
ISEA172	KA105	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kallimantan, Mallinau	Local non-breed dog	Oskarsson et al., 2012
ISEA173	KA106	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kallimantan, Mallinau	Local non-breed dog	Oskarsson et al., 2012
ISEA174	KA107	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kallimantan, Mallinau	Local non-breed dog	Oskarsson et al., 2012
ISEA175	KA108	AB007398	A	A75	✔	✔	ISEA	Indonesia	Kallimantan, Mallinau	Local non-breed dog	Oskarsson et al., 2012
ISEA112	m2	AB007398	A	A75	✔	✔	ISEA	Indonesia	N/A	Indigenous	Savolainen et al., 2002
ISEA131	KA8	EU816462	A	A89	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA151	KA121	AF531722	B	B01	✔	✔	ISEA	Indonesia	Kalimantan, Latta Laga	Local non-breed dog	Oskarsson et al., 2012
ISEA152	KA125	AF531722	B	B01	✔	✔	ISEA	Indonesia	Kalimantan, Latta Laga	Local non-breed dog	Oskarsson et al., 2012
ISEA153	KA128	AF531722	B	B01	✔	✔	ISEA	Indonesia	Kalimantan, Latta Laga	Local non-breed dog	Oskarsson et al., 2012
ISEA154	KA129	AF531722	B	B01	✔	✔	ISEA	Indonesia	Kalimantan, Latta Laga	Local non-breed dog	Oskarsson et al., 2012
ISEA155	KA131	AF531722	B	B01	✔	✔	ISEA	Indonesia	Kalimantan, Latta Laga	Local non-breed dog	Oskarsson et al., 2012
ISEA167	KA109	AF531722	B	B01	✔	✔	ISEA	Indonesia	Kalimantan, Loksad	Local non-breed dog	Oskarsson et al., 2012

ISEA168	KA112	AF531722	B	B01	✔	✔	ISEA	Indonesia	Kalimantan, Loksad	Local non-breed dog	Oskarsson et al., 2012
ISEA110	m1	AF531722	B	B01	✔	✔	ISEA	Indonesia	N/A	Indigenous	Savolainen et al., 2002
ISEA132	KA9	HQ452459	B	B46	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA136	KA17	AF531717	C	C03	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA137	KA18	AF531717	C	C03	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA138	KA19	AF531717	C	C03	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA139	KA22	AF531717	C	C03	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA140	KA23	AF531717	C	C03	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA141	KA24	AF531717	C	C03	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA142	KA5	AF531717	C	C03	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA143	KA6	AF531717	C	C03	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA144	KA7	AF531717	C	C03	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA156	KA127	AF531717	C	C03	✔	✔	ISEA	Indonesia	Kalimantan, Latta Laga	Local non-breed dog	Oskarsson et al., 2012
ISEA176	KA101	AF531717	C	C03	✔	✔	ISEA	Indonesia	Kallimantan, Mallinau	Local non-breed dog	Oskarsson et al., 2012
ISEA133	KA2	EU816550	C	C10	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA134	KA28	EU816550	C	C10	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA135	KA3	EU816550	C	C10	✔	✔	ISEA	Indonesia	Kalimantan	Local non-breed dog	Oskarsson et al., 2012
ISEA108	Indo1	AF531681	A	vilA29	✔	✔	ISEA	Indonesia	N/A	Indigenous	Savolainen et al., 2002
ISEA177	m713	AF531654	A	A01	✔	✔	ISEA	New Guinea	New Guinea Lowland	Local non-breed dog	Oskarsson et al., 2012
ISEA185	m390	AF531656	A	A03	✔	✔	ISEA	New Guinea	New Guinea Lowland	Local non-breed dog	Oskarsson et al., 2012
ISEA52	LV042 / OL62	This study	A	A11	✔	✔	ISEA	New Guinea	Korido , Biak Island	Indigenous	This study
ISEA55	LV049 / OL66	This study	A	A11	✔	✔	ISEA	New Guinea	Korido , Biak Island	Indigenous	This study
ISEA33	JLN015 / OL188	This study	A	A11	✔	✔	ISEA	New Guinea	Nabire	Indigenous	This study
ISEA178	m394	AF531664	A	A11	✔	✔	ISEA	New Guinea	New Guinea Lowland	Local non-breed dog	Oskarsson et al., 2012
ISEA179	m710	AF531664	A	A11	✔	✔	ISEA	New Guinea	New Guinea Lowland	Local non-breed dog	Oskarsson et al., 2012
ISEA180	m707	EU816524	A	A153	✔	✔	ISEA	New Guinea	New Guinea Lowland	Local non-breed dog	Oskarsson et al., 2012
ISEA181	m711	AF531668	A	A16	✔	✔	ISEA	New Guinea	New Guinea Lowland	Local non-breed dog	Oskarsson et al., 2012
ISEA182	m717	EU816536	A	A165	✔	✔	ISEA	New Guinea	New Guinea Lowland	Local non-breed dog	Oskarsson et al., 2012
ISEA51	LV040 / OL61	This study	A	A18	✔	✔	ISEA	New Guinea	Korido , Biak Island	Indigenous	This study
ISEA183	m392	HQ452448	A	A217	✔	✔	ISEA	New Guinea	New Guinea Lowland	Local non-breed dog	Oskarsson et al., 2012
ISEA50	LV039 / OL60	This study	A	A22	✔	✔	ISEA	New Guinea	Korido , Biak Island	Indigenous	This study
ISEA184	m715	AY660633	A	A29	✔	✔	ISEA	New Guinea	New Guinea Lowland	Local non-breed dog	Oskarsson et al., 2012
ISEA107	m709	AY660650	A	A79	✔	✔	ISEA	New Guinea	N/A	Indigenous	Pang et al., 2009
ISEA106	m708	AY660650	A	A79	✔	✔	ISEA	New Guinea	N/A	Indigenous	Pang et al., 2009
ISEA31	JLN016 / OL181	This study	A	A80	✔	✔	ISEA	New Guinea	Nabire	Indigenous	This study
ISEA186	m388	AF531724	B	B03	✔	✔	ISEA	New Guinea	New Guinea Lowland	Local non-breed dog	Oskarsson et al., 2012
ISEA53	LV045 / OL64	This study	A	Novel -O4	✔	✔	ISEA	New Guinea	Korido , Biak Island	Indigenous	This study
ISEA54	LV046 / OL65	This study	A	Novel -O4	✔	✔	ISEA	New Guinea	Korido , Biak Island	Indigenous	This study
ISEA32	JLN026 / OL182	This study	C	Novel -O5	✔	✔	ISEA	New Guinea	Mulia	Indigenous	This study
ISEA187	z849	AF531664	A	A11	✔	✔	ISEA	Philippines	Basco	Local non-breed dog	Oskarsson et al., 2012
ISEA210	z855	AF531664	A	A11	✔	✔	ISEA	Philippines	Los Banos	Local non-breed dog	Oskarsson et al., 2012
ISEA216	z1042	AF531664	A	A11	✔	✔	ISEA	Philippines	Malaybalay	Local non-breed dog	Oskarsson et al., 2012
ISEA200	z1043	AF531669	A	A17	✔	✔	ISEA	Philippines	Cebu Islands	Local non-breed dog	Oskarsson et al., 2012
ISEA201	z1046	AF531669	A	A17	✔	✔	ISEA	Philippines	Cebu Islands	Local non-breed dog	Oskarsson et al., 2012
ISEA211	z860	AF531669	A	A17	✔	✔	ISEA	Philippines	Los Banos	Local non-breed dog	Oskarsson et al., 2012
ISEA217	z905	AF531669	A	A17	✔	✔	ISEA	Philippines	Malaybalay	Local non-breed dog	Oskarsson et al., 2012
ISEA218	z908	AF531669	A	A17	✔	✔	ISEA	Philippines	Malaybalay	Local non-breed dog	Oskarsson et al., 2012
ISEA202	z1045	AF531670	A	A18	✔	✔	ISEA	Philippines	Cebu Islands	Local non-breed dog	Oskarsson et al., 2012
ISEA203	z1048	AF531670	A	A18	✔	✔	ISEA	Philippines	Cebu Islands	Local non-breed dog	Oskarsson et al., 2012
ISEA219	z907	AF531670	A	A18	✔	✔	ISEA	Philippines	Malaybalay	Local non-breed dog	Oskarsson et al., 2012
ISEA45	GL-LV07 / OL550	This study	A	A18	✔	✔	ISEA	Philippines	Pamilacan	Indigenous	This study
ISEA71	GL-LV08 / OL551	This study	A	A18	✔	✔	ISEA	Philippines	Pamilacan	Indigenous	This study
ISEA212	z858	AF531671	A	A19	✔	✔	ISEA	Philippines	Los Banos	Local non-breed dog	Oskarsson et al., 2012
ISEA47	LV011 / OL57	This study	A	A19	✔	✔	ISEA	Philippines	Panglao Island	Indigenous	This study
ISEA48	LV023 / OL58	This study	A	A20	✔	✔	ISEA	Philippines	Cebu	Indigenous	This study

ISEA69	GL-LV29 / AL030	This study	A	A20	✔	✔	ISEA	Philippines	Merla Farm	Indigenous	This study
ISEA213	z857	HQ452449	A	A218	✔	✔	ISEA	Philippines	Los Banos	Local non-breed dog	Oskarsson et al., 2012
ISEA70	GL-LV35 / AL031	This study	A	A22	✔	✔	ISEA	Philippines	Camungi Island	Indigenous	This study
ISEA188	z852	AF531679	A	A27	✔	✔	ISEA	Philippines	Basco	Local non-breed dog	Oskarsson et al., 2012
ISEA220	z909	AF531679	A	A27	✔	✔	ISEA	Philippines	Malaybalay	Local non-breed dog	Oskarsson et al., 2012
ISEA111	m124	AF531698	A	A47	✔	✔	ISEA	Philippines	N/A	Indigenous	Savolainen et al., 2002
ISEA214	z856	D83635	A	A65	✔	✔	ISEA	Philippines	Los Banos	Local non-breed dog	Oskarsson et al., 2012
ISEA199	z861	AF531714	A	A73	✔	✔	ISEA	Philippines	Calamba	Local non-breed dog	Oskarsson et al., 2012
ISEA215	z859	AF531714	A	A73	✔	✔	ISEA	Philippines	Los Banos	Local non-breed dog	Oskarsson et al., 2012
ISEA189	z854	AF531722	B	B01	✔	✔	ISEA	Philippines	Basco	Local non-breed dog	Oskarsson et al., 2012
ISEA49	LV025 / OL59	This study	B	B01	✔	✔	ISEA	Philippines	Cebu	Indigenous	This study
ISEA204	z1047	AF531722	B	B01	✔	✔	ISEA	Philippines	Cebu Islands	Local non-breed dog	Oskarsson et al., 2012
ISEA205	z1051	AF531722	B	B01	✔	✔	ISEA	Philippines	Cebu Islands	Local non-breed dog	Oskarsson et al., 2012
ISEA44	LV007 / OL54	This study	B	B01	✔	✔	ISEA	Philippines	Panglao Island	Indigenous	This study
ISEA221	z906	AF531731	B	B10	✔	✔	ISEA	Philippines	Malaybalay	Local non-breed dog	Oskarsson et al., 2012
ISEA206	z1049	AF531733	B	B12	✔	✔	ISEA	Philippines	Cebu Islands	Local non-breed dog	Oskarsson et al., 2012
ISEA197	z903	HQ452461	B	B48	✔	✔	ISEA	Philippines	Bay	Local non-breed dog	Oskarsson et al., 2012
ISEA190	z846	AF531729	B	B8	✔	✔	ISEA	Philippines	Basco	Local non-breed dog	Oskarsson et al., 2012
ISEA191	z847	AF531729	B	B8	✔	✔	ISEA	Philippines	Basco	Local non-breed dog	Oskarsson et al., 2012
ISEA192	z851	AF531729	B	B8	✔	✔	ISEA	Philippines	Basco	Local non-breed dog	Oskarsson et al., 2012
ISEA193	z853	AF531729	B	B8	✔	✔	ISEA	Philippines	Basco	Local non-breed dog	Oskarsson et al., 2012
ISEA196	z845	AF531717	C	C03	✔	✔	ISEA	Philippines	Basco	Local non-breed dog	Oskarsson et al., 2012
ISEA198	z904	AF531717	C	C03	✔	✔	ISEA	Philippines	Bay	Local non-breed dog	Oskarsson et al., 2012
ISEA194	z848	AF531716	C	C2	✔	✔	ISEA	Philippines	Basco	Local non-breed dog	Oskarsson et al., 2012
ISEA195	z850	AF531716	C	C2	✔	✔	ISEA	Philippines	Basco	Local non-breed dog	Oskarsson et al., 2012
ISEA207	z1044	AF531716	C	C2	✔	✔	ISEA	Philippines	Cebu Islands	Local non-breed dog	Oskarsson et al., 2012
ISEA208	z1050	AF531716	C	C2	✔	✔	ISEA	Philippines	Cebu Islands	Local non-breed dog	Oskarsson et al., 2012
ISEA209	z1052	HQ452463	C	C20	✔	✔	ISEA	Philippines	Cebu Islands	Local non-breed dog	Oskarsson et al., 2012
ISEA57	LV059 / OL68	This study	A	A01	✔	✔	Near Oceania	New Guinea	Miak, Karkar Island	Indigenous	This study
ISEA60	LV066 / OL78	This study	A	A02	✔	✔	Near Oceania	New Guinea	Miak, Karkar Island	Indigenous	This study
ISEA61	LV067 / OL79	This study	A	A03	✔	✔	Near Oceania	New Guinea	Miak, Karkar Island	Indigenous	This study
ISEA56	LV056 / OL67	This study	A	A05	✔	✔	Near Oceania	New Guinea	Wewak	Indigenous	This study
ISEA37	LV083 / OL45	This study	A	A11	✔	✔	Near Oceania	New Guinea	Garove Island, Witu Islands	Indigenous	This study
ISEA59	LV064 / OL77	This study	A	A17	✔	✔	Near Oceania	New Guinea	Miak, Karkar Island	Indigenous	This study
ISEA43	LV100 / OL52	This study	A	A19	✔	✔	Near Oceania	New Guinea	Watom Island	Indigenous	This study
ISEA39	LV094 / OL47	This study	A	A33	✔	✔	Near Oceania	New Guinea	Watom Island	Indigenous	This study
ISEA36	LV081 / OL44	This study	A	Novel -O1	✔	✔	Near Oceania	New Guinea	Garove Island, Witu Islands	Indigenous	This study
ISEA41	LV079 / OL50	This study	A	Novel -O1	✔	✔	Near Oceania	New Guinea	Garove Island, Witu Islands	Indigenous	This study
ISEA58	LV063 / OL69	This study	A	Novel -O1	✔	✔	Near Oceania	New Guinea	Miak, Karkar Island	Indigenous	This study
ISEA40	LV098 / OL48	This study	A	Novel -O3	✔	✔	Near Oceania	New Guinea	Watom Island	Indigenous	This study
ISEA42	LV099 / OL51	This study	B	Novel -O6	✔	✔	Near Oceania	New Guinea	Watom Island	Indigenous	This study
ISEA30	LV400 / OL178	This study	A	A01	✔	✔	Near Oceania	Solomon Islands	Niubani, Renell Islands	Indigenous	This study
ISEA63	LV107 / OL81	This study	A	A11	✔	✔	Near Oceania	Solomon Islands	Mono Island, Treasury Group	Indigenous	This study
ISEA64	LV111 / OL82	This study	A	A11	✔	✔	Near Oceania	Solomon Islands	Mono Island, Treasury Group	Indigenous	This study
ISEA16	LV206 / OL158	This study	A	A11	✔	✔	Near Oceania	Solomon Islands	Mulihanua Village, Ughi Islands, Makira-Ulawa Province	Indigenous	This study
ISEA01	LV141 / OL117	This study	A	A11	✔	✔	Near Oceania	Solomon Islands	Samata, Pavuvu Island, Russell Islands	Indigenous	This study
ISEA03	LV144 / OL119	This study	A	A11	✔	✔	Near Oceania	Solomon Islands	Samata, Pavuvu Island, Russell Islands	Indigenous	This study
ISEA04	LV145 / OL120	This study	A	A11	✔	✔	Near Oceania	Solomon Islands	Samata, Pavuvu Island, Russell Islands	Indigenous	This study
ISEA46	LV136 / OL99	This study	A	A11	✔	✔	Near Oceania	Solomon Islands	Samata, Pavuvu Island, Russell Islands	Indigenous	This study
ISEA20	LV224 / OL163	This study	A	A16	✔	✔	Near Oceania	Solomon Islands	Lata, Nende Island (Santa Cruz Islands)	Indigenous	This study
ISEA18	LV210 / OL160	This study	A	A16	✔	✔	Near Oceania	Solomon Islands	Maglelo Village, Temotu Neo Island	Indigenous	This study
ISEA13	LV190 / OL155	This study	A	A16	✔	✔	Near Oceania	Solomon Islands	Nukukaisi, Waimasi Bay, Makira-Ulawa Province	Indigenous	This study
ISEA11	LV178 / OL144	This study	A	A16	✔	✔	Near Oceania	Solomon Islands	Waimasi Bay, Makira-Ulawa Province	Indigenous	This study
ISEA12	LV180 / OL145	This study	A	A16	✔	✔	Near Oceania	Solomon Islands	Waimasi Bay, Makira-Ulawa Province	Indigenous	This study
ISEA06	LV172 / OL122	This study	A	A27	✔	✔	Near Oceania	Solomon Islands	Oleyuga Village, Mbokonimbeti Island, Florida Islands	Indigenous	This study

ISEA21	LV227 / OL164	This study	A	A80	✔	✔	Near Oceania	Solomon Islands	Lata, Nende Island (Santa Cruz Islands)	Indigenous	This study
ISEA65	LV114 / OL83	This study	A	A80	✔	✔	Near Oceania	Solomon Islands	Mono Island, Treasury Group	Indigenous	This study
ISEA67	LV128 / OL96	This study	B	B01	✔	✔	Near Oceania	Solomon Islands	Egmolo Bay, Rendova Island	Indigenous	This study
ISEA68	LV133 / OL97	This study	B	B01	✔	✔	Near Oceania	Solomon Islands	Egmolo Bay, Rendova Island	Indigenous	This study
ISEA19	LV223 / OL162	This study	B	B01	✔	✔	Near Oceania	Solomon Islands	Lata, Nende Island (Santa Cruz Islands)	Indigenous	This study
ISEA22	LV230 / OL165	This study	B	B01	✔	✔	Near Oceania	Solomon Islands	Lata, Nende Island (Santa Cruz Islands)	Indigenous	This study
ISEA23	LV234 / OL166	This study	B	B01	✔	✔	Near Oceania	Solomon Islands	Lata, Nende Island (Santa Cruz Islands)	Indigenous	This study
ISEA17	LV207 / OL159	This study	B	B01	✔	✔	Near Oceania	Solomon Islands	Mulihanua Village, Ughi Islands, Makira-Ulawa Province	Indigenous	This study
ISEA28	LV294 / OL174	This study	B	B01	✔	✔	Near Oceania	Solomon Islands	Nembao, Utapua, (Santa Cruz Islands)	Indigenous	This study
ISEA29	LV295 / OL176	This study	B	B01	✔	✔	Near Oceania	Solomon Islands	Nembao, Utapua, (Santa Cruz Islands)	Indigenous	This study
ISEA27	LV293 / OL173	This study	B	B01	✔	✔	Near Oceania	Solomon Islands	Nembao, Utapua, (Santa Cruz Islands)	Indigenous	This study
ISEA07	LV173 / OL123	This study	B	B06	✔	✔	Near Oceania	Solomon Islands	Oleyuga Village, Mbokonimbeti Island, Florida Islands	Indigenous	This study
ISEA08	LV174 / OL141	This study	B	B06	✔	✔	Near Oceania	Solomon Islands	Oleyuga Village, Mbokonimbeti Island, Florida Islands	Indigenous	This study
ISEA14	LV200 / OL156	This study	B	B06	✔	✔	Near Oceania	Solomon Islands	Suwasi Village, Ughi Island, Makira-Ulawa Province	Indigenous	This study
ISEA15	LV201 / OL157	This study	B	B06	✔	✔	Near Oceania	Solomon Islands	Suwasi Village, Ughi Island, Makira-Ulawa Province	Indigenous	This study
ISEA66	LV119 / OL95	This study	C	C03	✔	✔	Near Oceania	Solomon Islands	Egmolo Bay, Rendova Island	Indigenous	This study
ISEA24	LV250 / OL168	This study	C	C16	✔	✔	Near Oceania	Solomon Islands	Muruvai Village, Vanikoro (Vanikolo), (Santa Cruz Islands)	Indigenous	This study
ISEA25	LV253 / OL169	This study	C	C16	✔	✔	Near Oceania	Solomon Islands	Muruvai Village, Vanikoro (Vanikolo), (Santa Cruz Islands)	Indigenous	This study
ISEA26	LV254 / OL170	This study	C	C16	✔	✔	Near Oceania	Solomon Islands	Muruvai Village, Vanikoro (Vanikolo), (Santa Cruz Islands)	Indigenous	This study
ISEA34	LV255 / OL189	This study	C	C16	✔	✔	Near Oceania	Solomon Islands	Muruvai Village, Vanikoro (Vanikolo), (Santa Cruz Islands)	Indigenous	This study
ISEA35	LV264 / OL191	This study	C	C16	✔	✔	Near Oceania	Solomon Islands	Rofaea, Tikopia, (Santa Cruz Islands)	Indigenous	This study
ISEA62	LV106 / OL80	This study	A	Novel -O2	✔	✔	Near Oceania	Solomon Islands	Mono Island, Treasury Group	Indigenous	This study
ISEA05	LV155 / OL121	This study	A	VilA29	✔	✔	Near Oceania	Solomon Islands	Mangalonga Island, Florida Islands	Indigenous	This study
ISEA09	LV175 / OL142	This study	A	VilA29	✔	✔	Near Oceania	Solomon Islands	Oleyuga Village, Mbokonimbeti Island, Florida Islands	Indigenous	This study
ISEA02	LV143 / OL118	This study	A	VilA29	✔	✔	Near Oceania	Solomon Islands	Samata, Pavuvu Island, Russell Islands	Indigenous	This study
ISEA38	LV135 / OL98	This study	A	VilA29	✔	✔	Near Oceania	Solomon Islands	Samata, Pavuvu Island, Russell Islands	Indigenous	This study
ISEA10	LV177 / OL143	This study	A	VilA29	✔	✔	Near Oceania	Solomon Islands	Waimasi Bay, Makira-Ulawa Province	Indigenous	This study
ISEA77	Brunei06	AF531656	A	A03	✖	✔	ISEA	Brunei	N/A	Village dog	Brown et al., 2011
ISEA73	Brunei02	AF531664	A	A11	✖	✔	ISEA	Brunei	N/A	Village dog	Brown et al., 2011
ISEA72	Brunei01	AF531664	A	A11	✖	✔	ISEA	Brunei	N/A	Village dog	Brown et al., 2011
ISEA74	Brunei03	AF531668	A	A16	✖	✔	ISEA	Brunei	N/A	Village dog	Brown et al., 2011
ISEA75	Brunei04	AF531668	A	A16	✖	✔	ISEA	Brunei	N/A	Village dog	Brown et al., 2011
ISEA76	Brunei05	AF531670	A	A18	✖	✔	ISEA	Brunei	N/A	Village dog	Brown et al., 2011
ISEA79	Brunei08	AF531715	C	C01	✖	✔	ISEA	Brunei	N/A	Village dog	Brown et al., 2011
ISEA78	Brunei07	AF531715	C	C01	✖	✔	ISEA	Brunei	N/A	Village dog	Brown et al., 2011
ISEA80	Brunei09	HQ287733	A	V506	✖	✔	ISEA	Brunei	N/A	Village dog	Brown et al., 2011
ISEA81	Philippines01	AF531668	A	A16	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA82	Philippines02	AF531670	A	A18	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA83	Philippines03	AF531670	A	A18	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA86	Philippines06	AF531671	A	A19	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA84	Philippines04	AF531671	A	A19	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA85	Philippines05	AF531671	A	A19	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA87	Philippines07	AF531671	A	A19	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA89	Philippines09	AF531679	A	A27	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA90	Philippines10	AF531679	A	A27	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA91	Philippines11	AF531679	A	A27	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA92	Philippines12	AF531679	A	A27	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA93	Philippines13	AF531722	B	B01	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA94	Philippines14	AF531722	B	B01	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA95	Philippines15	AF531722	B	B01	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA96	Philippines16	AF531727	B	B06	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA100	Philippines20	AF531715	C	C01	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA101	Philippines21	AF531715	C	C01	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA97	Philippines17	AF531715	C	C01	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA98	Philippines18	AF531715	C	C01	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011

ISEA99	Philippines19	AF531715	C	C01	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA102	Philippines22	HQ287734	A	V514	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA103	Philippines23	HQ287735	B	V516	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA104	Philippines24	HQ287736	A	V525	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011
ISEA105	Philippines25	HQ287736	A	V525	✖	✔	ISEA	Philippines	N/A	Village dog	Brown et al., 2011

Supplementary Table ST7: **Full details for the Pure-Breed dataset including location of sample, haplogroup, haplotype, Sample Id, Genbank Accession Number and Source. The column 'Brd_Region' refers to the population the samples were allocated into during the testing of Model 13 in AMOVA. Samples sorted based on fragment lentgh and 'Brd-Region'.**

AMOVA Ref	Sample Id	Genbank Acc. Nb	Haplogroup	Haplotype	582bp	304bp	Brd_Region	Region	Country	Location specific	Breed	Source
PBrd476	z48	AF531656	A	A03	✔	✔	Brd_SubSh	Africa	Benin	N/A	Basenji	Pang et al., 2009
PBrd475	z47	EU816528	A	A157	✔	✔	Brd_SubSh	Africa	Benin	N/A	Basenji	Pang et al., 2009
PBrd474	z46	AF531668	A	A16	✔	✔	Brd_SubSh	Africa	Benin	N/A	Basenji	Pang et al., 2009
PBrd477	z28	AF531658	A	A05	✔	✔	Brd_SubSh	Africa	D.R.Congo	N/A	Basenji	Pang et al., 2009
PBrd478	z32	AF531658	A	A05	✔	✔	Brd_SubSh	Africa	D.R.Congo	N/A	Basenji	Pang et al., 2009
PBrd110	m74	AF531669	A	A17	✔	✔	Brd_Am	America	N/A	N/A	Greenland dog	Savolainen et al., 2002
PBrd78	P19	AF531670	A	A18	✔	✔	Brd_Am	America	N/A	N/A	Canadian Eskimo Dog	Savolainen et al., 2002
PBrd200	L50	AF531681	A	A29	✔	✔	Brd_Am	America	N/A	N/A	Alaskan Malamute	Savolainen et al., 2002
PBrd201	P10	AF531681	A	A29	✔	✔	Brd_Am	America	N/A	N/A	Alaskan Malamute	Savolainen et al., 2002
PBrd202	p5	AF531681	A	A29	✔	✔	Brd_Am	America	N/A	N/A	Alaskan Malamute	Savolainen et al., 2002
PBrd345	P6	AF531681	A	A29	✔	✔	Brd_Am	America	N/A	N/A	Alaskan Malamute	Savolainen et al., 2002
PBrd346	P7	AF531681	A	A29	✔	✔	Brd_Am	America	N/A	N/A	Alaskan Malamute	Savolainen et al., 2002
PBrd347	P9	AF531681	A	A29	✔	✔	Brd_Am	America	N/A	N/A	Alaskan Malamute	Savolainen et al., 2002
PBrd111	m71	AF531683	A	A31	✔	✔	Brd_Am	America	N/A	N/A	Greenland dog	Savolainen et al., 2002
PBrd112	m72	AF531683	A	A31	✔	✔	Brd_Am	America	N/A	N/A	Greenland dog	Savolainen et al., 2002
PBrd113	m73	AF531683	A	A31	✔	✔	Brd_Am	America	N/A	N/A	Greenland dog	Savolainen et al., 2002
PBrd137	P3	AF531683	A	A31	✔	✔	Brd_Am	America	N/A	N/A	Canadian Eskimo Dog	Savolainen et al., 2002
PBrd138	P4	AF531683	A	A31	✔	✔	Brd_Am	America	N/A	N/A	Canadian Eskimo Dog	Savolainen et al., 2002
PBrd351	P22	AF531683	A	A31	✔	✔	Brd_Am	America	N/A	N/A	Canadian Eskimo Dog	Savolainen et al., 2002
PBrd352	P23	AF531683	A	A31	✔	✔	Brd_Am	America	N/A	N/A	Canadian Eskimo Dog	Savolainen et al., 2002
PBrd353	P24	AF531683	A	A31	✔	✔	Brd_Am	America	N/A	N/A	Canadian Eskimo Dog	Savolainen et al., 2002
PBrd79	P18	AF531683	A	A31	✔	✔	Brd_Am	America	N/A	N/A	Canadian Eskimo Dog	Savolainen et al., 2002
PBrd80	P20	AF531683	A	A31	✔	✔	Brd_Am	America	N/A	N/A	Canadian Eskimo Dog	Savolainen et al., 2002
PBrd81	P21	AF531683	A	A31	✔	✔	Brd_Am	America	N/A	N/A	Canadian Eskimo Dog	Savolainen et al., 2002
PBrd52	H1	AF531654	A	A01	✔	✔	Brd_ChSEA	East Asia	China	N/A	Chow-chow	Savolainen et al., 2002
PBrd53	m12	AF531654	A	A01	✔	✔	Brd_ChSEA	East Asia	China	N/A	Chow-chow	Savolainen et al., 2002
PBrd54	m15	AF531654	A	A01	✔	✔	Brd_ChSEA	East Asia	China	N/A	Chow-chow	Savolainen et al., 2002
PBrd55	m9	AF531654	A	A01	✔	✔	Brd_ChSEA	East Asia	China	N/A	Chow-chow	Savolainen et al., 2002
PBrd273	m21	AF531656	A	A03	✔	✔	Brd_ChSEA	East Asia	China	Tibet	Shar-pei	Savolainen et al., 2002
PBrd56	m11	AF531656	A	A03	✔	✔	Brd_ChSEA	East Asia	China	N/A	Chow-chow	Savolainen et al., 2002
PBrd57	m14	AF531656	A	A03	✔	✔	Brd_ChSEA	East Asia	China	N/A	Chow-chow	Savolainen et al., 2002
PBrd58	H2	AF531656	A	A03	✔	✔	Brd_ChSEA	East Asia	China	N/A	Chow-chow	Savolainen et al., 2002
PBrd539	5892	AF531661	A	A08	✔	✔	Brd_ChSEA	East Asia	China	Guangdong	Shar-pei	Pang et al., 2009
PBrd540	5893	AF531661	A	A08	✔	✔	Brd_ChSEA	East Asia	China	Guangdong	Shar-pei	Pang et al., 2009
PBrd225	m4	AF531664	A	A11	✔	✔	Brd_ChSEA	East Asia	China	N/A	Pekingese	Savolainen et al., 2002
PBrd226	m6	AF531664	A	A11	✔	✔	Brd_ChSEA	East Asia	China	N/A	Pekingese	Savolainen et al., 2002
PBrd227	m7	AF531664	A	A11	✔	✔	Brd_ChSEA	East Asia	China	N/A	Pekingese	Savolainen et al., 2002
PBrd59	m10	AF531664	A	A11	✔	✔	Brd_ChSEA	East Asia	China	N/A	Chow-chow	Savolainen et al., 2002
PBrd208	m17	AF531669	A	A17	✔	✔	Brd_ChSEA	East Asia	China	N/A	Pug	Savolainen et al., 2002
PBrd209	m19	AF531669	A	A17	✔	✔	Brd_ChSEA	East Asia	China	N/A	Pug	Savolainen et al., 2002
PBrd48	NY32	AF531670	A	A18	✔	✔	Brd_ChSEA	East Asia	China	N/A	Chinese Crested	Savolainen et al., 2002
PBrd49	R94	AF531670	A	A18	✔	✔	Brd_ChSEA	East Asia	China	N/A	Chinese Crested	Savolainen et al., 2002
PBrd50	R95	AF531670	A	A18	✔	✔	Brd_ChSEA	East Asia	China	N/A	Chinese Crested	Savolainen et al., 2002
PBrd338	m30	AF531674	A	A22	✔	✔	Brd_ChSEA	East Asia	China	N/A	Tibetan terrier	Savolainen et al., 2002
PBrd538	5891	AF531689	A	A38	✔	✔	Brd_ChSEA	East Asia	China	Guangdong	Shar-pei	Pang et al., 2009
PBrd60	m13	AF531689	A	A38	✔	✔	Brd_ChSEA	East Asia	China	N/A	Chow-chow	Savolainen et al., 2002
PBrd328	m22	AF531695	A	A44	✔	✔	Brd_ChSEA	East Asia	China	Tibet	Tibetan Mastiff	Savolainen et al., 2002
PBrd329	m25	AF531695	A	A44	✔	✔	Brd_ChSEA	East Asia	China	Tibet	Tibetan Mastiff	Savolainen et al., 2002
PBrd210	m20	AF531701	A	A50	✔	✔	Brd_ChSEA	East Asia	China	N/A	Pug	Savolainen et al., 2002
PBrd228	m5	AF531722	B	B01	✔	✔	Brd_ChSEA	East Asia	China	N/A	Pekingese	Savolainen et al., 2002
PBrd332	H135	AF531722	B	B01	✔	✔	Brd_ChSEA	East Asia	China	Tibet	Tibetan spaniel	Savolainen et al., 2002
PBrd333	H69	AF531722	B	B01	✔	✔	Brd_ChSEA	East Asia	China	Tibet	Tibetan spaniel	Savolainen et al., 2002
PBrd334	m32	AF531722	B	B01	✔	✔	Brd_ChSEA	East Asia	China	Tibet	Tibetan spaniel	Savolainen et al., 2002
PBrd51	R96	AF531732	B	B11	✔	✔	Brd_ChSEA	East Asia	China	N/A	Chinese Crested	Savolainen et al., 2002
PBrd229	m8	AF531717	C	C03	✔	✔	Brd_ChSEA	East Asia	China	N/A	Pekingese	Savolainen et al., 2002
PBrd231	Tpoin	AB007393	A	A02	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Pointer	Tsuda et al., 1997
PBrd335	H76	AF531658	A	A05	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Tibetan terrier	Savolainen et al., 2002
PBrd336	m26	AF531658	A	A05	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Tibetan terrier	Savolainen et al., 2002
PBrd337	m28	AF531658	A	A05	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Tibetan terrier	Savolainen et al., 2002
PBrd394	m29	AF531658	A	A05	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Tibetan terrier	Savolainen et al., 2002

PBrd395	m31	AF531658	A	A05	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Tibetan terrier	Savolainen et al., 2002
PBrd05	Oaki1	D83627	A	A11	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Akita	Okumura et al., 1996
PBrd275	Oshi1	D83627	A	A11	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd276	Oshi2	D83627	A	A11	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd485	z113	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Hokkaido	Pang et al., 2009
PBrd06	Oaki6	D83609	A	A17	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Akita	Okumura et al., 1996
PBrd119	Thok.a	AB007382	A	A17	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Hokkaido	Tsuda et al., 1997
PBrd120	Ohok2	D83609	A	A17	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Hokkaido	Okumura et al., 1996
PBrd121	Ohok3	D83609	A	A17	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Hokkaido	Okumura et al., 1996
PBrd122	Ohok4	D83609	A	A17	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Hokkaido	Okumura et al., 1996
PBrd152	Tkai.b	AB007382	A	A17	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Kai	Tsuda et al., 1997
PBrd170	Okish1	D83609	A	A17	✔	✔	Brd_NAsia	East Asia	Japan	Honshu Island	Kishu	Okumura et al., 1996
PBrd277	Oshi28	D83609	A	A17	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd294	Oshiko1	D83609	A	A17	✔	✔	Brd_NAsia	East Asia	Japan	Honshu Island	Shikoku	Okumura et al., 1996
PBrd483	z111	AF531669	A	A17	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Hokkaido	Pang et al., 2009
PBrd484	z112	AF531669	A	A17	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Hokkaido	Pang et al., 2009
PBrd486	z114	AF531669	A	A17	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Hokkaido	Pang et al., 2009
PBrd07	Oaki2	D83633	A	A18	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Akita	Okumura et al., 1996
PBrd123	Ohok1	D83633	A	A18	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Hokkaido	Okumura et al., 1996
PBrd153	Okai1	D83633	A	A18	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Kai	Okumura et al., 1996
PBrd203	Tmal	AB007392	A	A18	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Maltese	Tsuda et al., 1997
PBrd278	Oshi12	D83633	A	A18	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd279	Oshi13	D83633	A	A18	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd280	Oshi14	D83633	A	A18	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd392	Oshi15	D83633	A	A18	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd541	z125	AF531670	A	A18	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shikoku	Pang et al., 2009
PBrd482	z110	AF531671	A	A19	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Hokkaido	Pang et al., 2009
PBrd535	z120	AF531671	A	A19	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Kai	Pang et al., 2009
PBrd77	TengS	AB007394	A	A22	✔	✔	Brd_NAsia	East Asia	Japan	N/A	English setter	Tsuda et al., 1997
PBrd27	Tbea	AB007390	A	A28	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Beagle	Tsuda et al., 1997
PBrd08	Oaki4	D83600	A	A29	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Akita	Okumura et al., 1996
PBrd09	Oaki5	D83600	A	A29	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Akita	Okumura et al., 1996
PBrd124	Thok.b	AB007383	A	A29	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Hokkaido	Tsuda et al., 1997
PBrd295	Tshi.a	AB007383	A	A29	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shikoku	Tsuda et al., 1997
PBrd290	L66	AF531690	A	A39	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Savolainen et al., 2002
PBrd291	L68	AF531690	A	A39	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Savolainen et al., 2002
PBrd281	Oshi27	D83629	A	A64	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd487	z134	D83629	A	A64	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Japanese Spitz	Pang et al., 2009
PBrd125	Ohok8	D83608	A	A67	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Hokkaido	Okumura et al., 1996
PBrd282	Oshi16	D83628	A	A68	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd283	Oshi17	D83628	A	A68	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd284	Oshi18	D83628	A	A68	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd380	Oshi19	D83628	A	A68	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd381	Oshi20	D83628	A	A68	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd382	Oshi21	D83628	A	A68	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd383	Oshi22	D83628	A	A68	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd384	Oshi23	D83628	A	A68	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd385	Oshi24	D83628	A	A68	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd285	Oshi25	D83631	A	A69	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd274	Tshet	AB007395	A	A70	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shetland sheepdog	Tsuda et al., 1997
PBrd171	Okish5	D83612	A	A71	✔	✔	Brd_NAsia	East Asia	Japan	Honshu Island	Kishu	Okumura et al., 1996
PBrd172	Tkis.a	AB007384	A	A73	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Kishu	Tsuda et al., 1997
PBrd173	Tkis.b	AB007384	A	A73	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Kishu	Tsuda et al., 1997
PBrd174	Okish3	D83613	A	A73	✔	✔	Brd_NAsia	East Asia	Japan	Honshu Island	Kishu	Okumura et al., 1996
PBrd536	z123	D83613	A	A73	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Kishu	Pang et al., 2009
PBrd154	Tkai.a	AB007387	B	B01	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Kai	Tsuda et al., 1997
PBrd473	z116	AF531722	B	B01	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Akita	Pang et al., 2009
PBrd69	Tdach	AB007387	B	B01	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Dachshund	Tsuda et al., 1997
PBrd71	Tdob	AB007391	B	B01	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Doberman pinscher	Tsuda et al., 1997
PBrd10	Taki.a	AB007380	B	B05	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Akita	Tsuda et al., 1997
PBrd16	L45	AF531726	B	B05	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Akita	Savolainen et al., 2002
PBrd472	z115	AF531726	B	B05	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Akita	Pang et al., 2009
PBrd11	Oaki3	D83601	B	B06	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Akita	Okumura et al., 1996
PBrd175	Okish2	D83620	B	B12	✔	✔	Brd_NAsia	East Asia	Japan	Honshu Island	Kishu	Okumura et al., 1996
PBrd12	Oaki7	D83607	B	B14	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Akita	Okumura et al., 1996
PBrd126	Ohok5	D83607	B	B14	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Hokkaido	Okumura et al., 1996
PBrd127	Ohok6	D83607	B	B14	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Hokkaido	Okumura et al., 1996

PBrd128	Ohok7	D83607	B	B14	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Hokkaido	Okumura et al., 1996
PBrd13	Oaki8	D83607	B	B14	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Akita	Okumura et al., 1996
PBrd14	Oaki9	D83607	B	B14	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Akita	Okumura et al., 1996
PBrd296	Oshiko2	D83636	C	C02	✔	✔	Brd_NAsia	East Asia	Japan	Honshu Island	Shikoku	Okumura et al., 1996
PBrd286	Oshi10	D83630	C	C03	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd287	Oshi11	D83630	C	C03	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd288	Oshi3	D83630	C	C03	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd292	L63	AF531717	C	C03	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Savolainen et al., 2002
PBrd293	L67	AF531717	C	C03	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Savolainen et al., 2002
PBrd386	Oshi4	D83630	C	C03	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd387	Oshi5	D83630	C	C03	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd388	Oshi6	D83630	C	C03	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd389	Oshi7	D83630	C	C03	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd390	Oshi8	D83630	C	C03	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd391	Oshi9	D83630	C	C03	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd479	z132	AF531717	C	C03	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Japanese Chin	Pang et al., 2009
PBrd289	Oshi26	D83632	E	E01	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Shiba Inu	Okumura et al., 1996
PBrd176	Okish4	D83611	F	F01	✔	✔	Brd_NAsia	East Asia	Japan	Honshu Island	Kishu	Okumura et al., 1996
PBrd15	Tak.b	AB007381	F	F03	✔	✔	Brd_NAsia	East Asia	Japan	N/A	Akita	Tsuda et al., 1997
PBrd488	jd107	AF531654	A	A01	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd489	jd108	AF531654	A	A01	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd490	jd110	AF531654	A	A01	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd149	P80	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Savolainen et al., 2002
PBrd150	P81	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Savolainen et al., 2002
PBrd151	P82	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Savolainen et al., 2002
PBrd369	P83	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Savolainen et al., 2002
PBrd370	P85	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Savolainen et al., 2002
PBrd491	jd102	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd492	jd104	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd493	jd105	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd494	jd111	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd495	jd112	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd496	jd12	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd497	jd124	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd498	jd125	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd499	jd126	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd500	jd14	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd501	jd17	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd502	jd19	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd503	jd22	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd504	jd23	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd505	jd27	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd506	jd30	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd507	jd31	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd508	jd35	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd509	jd4	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd510	jd44	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd511	jd9	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd512	jdb79	AF531664	A	A11	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd522	jd119	EU816524	A	A153	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd523	jd120	EU816524	A	A153	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd515	jd28	AF531668	A	A16	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd516	jda13	AF531668	A	A16	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd524	jd20	EU816532	A	A161	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd525	jd3	EU816532	A	A161	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd526	jd32	EU816532	A	A161	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd527	jd33	EU816532	A	A161	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd528	jd121	EU816533	A	A162	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd517	jdb48	AF531670	A	A18	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd518	jd10	AF531674	A	A22	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd519	jd11	AF531674	A	A22	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd520	jd34	AF531674	A	A22	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd521	jd6	D83613	A	A73	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd529	jd49	D83607	B	B14	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd530	jd18	AF531716	C	C02	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd531	jd13	AF531717	C	C03	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd532	jd101	D83632	E	E01	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009

PBrd533	jd103	D83632	E	E01	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd534	jdb72	D83632	E	E01	✔	✔	Brd_NAsia	East Asia	Korea	N/A	Jindo	Pang et al., 2009
PBrd30	H52	AF531654	A	A01	✔	✔	Brd_Europe	Europe	Britain	N/A	Border Collie	Savolainen et al., 2002
PBrd31	H53	AF531654	A	A01	✔	✔	Brd_Europe	Europe	Britain	N/A	Border Collie	Savolainen et al., 2002
PBrd32	R105	AF531654	A	A01	✔	✔	Brd_Europe	Europe	Britain	N/A	Border Collie	Savolainen et al., 2002
PBrd33	R106	AF531654	A	A01	✔	✔	Brd_Europe	Europe	Britain	N/A	Border Collie	Savolainen et al., 2002
PBrd61	NY45	AF531654	A	A01	✔	✔	Brd_Europe	Europe	Britain	N/A	Collie	Savolainen et al., 2002
PBrd271	H13	AF531655	A	A02	✔	✔	Brd_Europe	Europe	Britain	N/A	Irish setter	Savolainen et al., 2002
PBrd272	H56	AF531655	A	A02	✔	✔	Brd_Europe	Europe	Britain	N/A	Irish setter	Savolainen et al., 2002
PBrd318	NY12	AF531655	A	A02	✔	✔	Brd_Europe	Europe	Britain	N/A	West Highland White Terrier	Savolainen et al., 2002
PBrd232	L22	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Britain	N/A	Pointer	Savolainen et al., 2002
PBrd314	H50	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Britain	N/A	Border Terrier	Savolainen et al., 2002
PBrd315	H51	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Britain	N/A	Border Terrier	Savolainen et al., 2002
PBrd317	L25	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Britain	N/A	Terrier Kerry blue	Savolainen et al., 2002
PBrd342	H22	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Britain	N/A	Whippet	Savolainen et al., 2002
PBrd106	H10	AF531668	A	A16	✔	✔	Brd_Europe	Europe	Britain	N/A	Golden Retriever	Savolainen et al., 2002
PBrd107	H64	AF531668	A	A16	✔	✔	Brd_Europe	Europe	Britain	N/A	Golden Retriever	Savolainen et al., 2002
PBrd108	R108	AF531668	A	A16	✔	✔	Brd_Europe	Europe	Britain	N/A	Golden Retriever	Savolainen et al., 2002
PBrd212	H20	AF531668	A	A16	✔	✔	Brd_Europe	Europe	Britain	N/A	Newfoundland	Savolainen et al., 2002
PBrd213	H62	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Britain	N/A	Norfolk Terrier	Savolainen et al., 2002
PBrd236	H49	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Britain	N/A	Chesapeake Bay Retriever	Savolainen et al., 2002
PBrd237	H57	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Britain	N/A	Flat-coated Retriever	Savolainen et al., 2002
PBrd238	H18	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Britain	N/A	Labrador Retriever	Savolainen et al., 2002
PBrd354	H19	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Britain	N/A	Labrador Retriever	Savolainen et al., 2002
PBrd355	H32	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Britain	N/A	Labrador Retriever	Savolainen et al., 2002
PBrd356	R116	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Britain	N/A	Labrador Retriever	Savolainen et al., 2002
PBrd357	R43	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Britain	N/A	Labrador Retriever	Savolainen et al., 2002
PBrd358	R45	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Britain	N/A	Labrador Retriever	Savolainen et al., 2002
PBrd46	NY18	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Britain	N/A	Cavalier King Charles spaniel	Savolainen et al., 2002
PBrd269	H15	AF531670	A	A18	✔	✔	Brd_Europe	Europe	Britain	N/A	English setter	Savolainen et al., 2002
PBrd270	H16	AF531670	A	A18	✔	✔	Brd_Europe	Europe	Britain	N/A	English setter	Savolainen et al., 2002
PBrd34	H41	AF531670	A	A18	✔	✔	Brd_Europe	Europe	Britain	N/A	Border Collie	Savolainen et al., 2002
PBrd316	L24	AF531672	A	A20	✔	✔	Brd_Europe	Europe	Britain	N/A	Soft-coated Wheaten Terrier	Savolainen et al., 2002
PBrd139	R37	AF531674	A	A22	✔	✔	Brd_Europe	Europe	Britain	N/A	Irish wolfhound	Savolainen et al., 2002
PBrd268	R36	AF531674	A	A22	✔	✔	Brd_Europe	Europe	Britain	N/A	Scottish deerhound	Savolainen et al., 2002
PBrd140	H100	AF531676	A	A24	✔	✔	Brd_Europe	Europe	Britain	N/A	Irish wolfhound	Savolainen et al., 2002
PBrd141	H101	AF531676	A	A24	✔	✔	Brd_Europe	Europe	Britain	N/A	Irish wolfhound	Savolainen et al., 2002
PBrd142	NY63	AF531676	A	A24	✔	✔	Brd_Europe	Europe	Britain	N/A	Irish wolfhound	Savolainen et al., 2002
PBrd343	H61	AF531678	A	A26	✔	✔	Brd_Europe	Europe	Britain	N/A	Wire fox terrier	Savolainen et al., 2002
PBrd47	H84	AF531680	A	A28	✔	✔	Brd_Europe	Europe	Britain	N/A	Cavalier King Charles spaniel	Savolainen et al., 2002
PBrd223	H11	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Britain	N/A	Otterhound	Savolainen et al., 2002
PBrd240	H38	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Britain	N/A	Golden Retriever	Savolainen et al., 2002
PBrd241	H45	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Britain	N/A	Golden Retriever	Savolainen et al., 2002
PBrd242	R102	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Britain	N/A	Golden Retriever	Savolainen et al., 2002
PBrd320	NY16	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Britain	N/A	Yorkshire Terrier	Savolainen et al., 2002
PBrd368	R103	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Britain	N/A	Golden Retriever	Savolainen et al., 2002
PBrd239	H30	AF531729	B	B08	✔	✔	Brd_Europe	Europe	Britain	N/A	Flat-coated Retriever	Savolainen et al., 2002
PBrd319	H48	AF531716	C	C02	✔	✔	Brd_Europe	Europe	Britain	N/A	West Highland White Terrier	Savolainen et al., 2002
PBrd313	H60	AF531717	C	C03	✔	✔	Brd_Europe	Europe	Britain	N/A	Airedale terrier	Savolainen et al., 2002
PBrd96	H99	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Continent	N/A	German Shepherd	Savolainen et al., 2002
PBrd97	NY69	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Continent	N/A	German Shepherd	Savolainen et al., 2002
PBrd98	R47	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Continent	N/A	German Shepherd	Savolainen et al., 2002
PBrd205	R80	AF531670	A	A18	✔	✔	Brd_Europe	Europe	Continent	N/A	Maremma Sheepdog	Savolainen et al., 2002
PBrd235	R69	AF531670	A	A18	✔	✔	Brd_Europe	Europe	Continent	N/A	Pyrenean Shepherd	Savolainen et al., 2002
PBrd28	L53	AF531670	A	A18	✔	✔	Brd_Europe	Europe	Continent	N/A	Beauceron	Savolainen et al., 2002
PBrd39	NY94	AF531670	A	A18	✔	✔	Brd_Europe	Europe	Continent	N/A	Bracco Italiano	Savolainen et al., 2002
PBrd40	NY95	AF531670	A	A18	✔	✔	Brd_Europe	Europe	Continent	N/A	Bracco Italiano	Savolainen et al., 2002
PBrd100	H96	AF531671	A	A19	✔	✔	Brd_Europe	Europe	Continent	N/A	German Shepherd	Savolainen et al., 2002
PBrd101	H97	AF531671	A	A19	✔	✔	Brd_Europe	Europe	Continent	N/A	German Shepherd	Savolainen et al., 2002
PBrd168	H77	AF531671	A	A19	✔	✔	Brd_Europe	Europe	Continent	N/A	Keeshond	Savolainen et al., 2002
PBrd169	L48	AF531671	A	A19	✔	✔	Brd_Europe	Europe	Continent	N/A	Keeshond	Savolainen et al., 2002
PBrd363	NY68	AF531671	A	A19	✔	✔	Brd_Europe	Europe	Continent	N/A	German Shepherd	Savolainen et al., 2002
PBrd364	NY71	AF531671	A	A19	✔	✔	Brd_Europe	Europe	Continent	N/A	German Shepherd	Savolainen et al., 2002
PBrd365	NY90	AF531671	A	A19	✔	✔	Brd_Europe	Europe	Continent	N/A	German Shepherd	Savolainen et al., 2002
PBrd366	R46	AF531671	A	A19	✔	✔	Brd_Europe	Europe	Continent	N/A	German Shepherd	Savolainen et al., 2002
PBrd367	R89	AF531671	A	A19	✔	✔	Brd_Europe	Europe	Continent	N/A	German Shepherd	Savolainen et al., 2002
PBrd99	H9	AF531671	A	A19	✔	✔	Brd_Europe	Europe	Continent	N/A	German Shepherd	Savolainen et al., 2002

PBrd204	L56	AF531672	A	A20	✔	✔	Brd_Europe	Europe	Continent	N/A	Pharaoh Hound	Savolainen et al., 2002
PBrd230	R32	AF531672	A	A20	✔	✔	Brd_Europe	Europe	Continent	N/A	Ibizan Hound	Savolainen et al., 2002
PBrd321	L21	AF531672	A	A20	✔	✔	Brd_Europe	Europe	Continent	N/A	Belgian Sheepdog (Groenendael)	Savolainen et al., 2002
PBrd64	H33	AF531672	A	A20	✔	✔	Brd_Europe	Europe	Continent	N/A	Dachshund (Wire-haired)	Savolainen et al., 2002
PBrd65	H66	AF531672	A	A20	✔	✔	Brd_Europe	Europe	Continent	N/A	Dachshund (Wire-haired)	Savolainen et al., 2002
PBrd67	NY87	AF531672	A	A20	✔	✔	Brd_Europe	Europe	Continent	N/A	Dachshund	Savolainen et al., 2002
PBrd68	NY89	AF531672	A	A20	✔	✔	Brd_Europe	Europe	Continent	N/A	Dachshund	Savolainen et al., 2002
PBrd306	L57	AF531674	A	A22	✔	✔	Brd_Europe	Europe	Continent	N/A	St Bernard	Savolainen et al., 2002
PBrd307	L58	AF531674	A	A22	✔	✔	Brd_Europe	Europe	Continent	N/A	St Bernard	Savolainen et al., 2002
PBrd37	H47	AF531674	A	A22	✔	✔	Brd_Europe	Europe	Continent	N/A	Boxer	Savolainen et al., 2002
PBrd36	L14	AF531675	A	A23	✔	✔	Brd_Europe	Europe	Continent	N/A	Borzoi	Savolainen et al., 2002
PBrd206	L19	AF531679	A	A27	✔	✔	Brd_Europe	Europe	Continent	N/A	Maremma Sheepdog	Savolainen et al., 2002
PBrd207	R76	AF531679	A	A27	✔	✔	Brd_Europe	Europe	Continent	N/A	Maremma Sheepdog	Savolainen et al., 2002
PBrd117	R51	AF531682	A	A30	✔	✔	Brd_Europe	Europe	Continent	N/A	Hamiltonstovare	Savolainen et al., 2002
PBrd118	R6	AF531682	A	A30	✔	✔	Brd_Europe	Europe	Continent	N/A	Hamiltonstovare	Savolainen et al., 2002
PBrd94	R34	AF531686	A	A34	✔	✔	Brd_Europe	Europe	Continent	N/A	Spanish Greyhound	Savolainen et al., 2002
PBrd233	R85	AF531691	A	A40	✔	✔	Brd_Europe	Europe	Continent	N/A	Puli	Savolainen et al., 2002
PBrd116	H6	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Continent	N/A	Belgian Sheepdog (Groenendael)	Savolainen et al., 2002
PBrd177	R8	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Continent	N/A	Kooikerhondje	Savolainen et al., 2002
PBrd341	L23	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Continent	N/A	Weimaraner	Savolainen et al., 2002
PBrd70	NY88	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Continent	N/A	Dachshund	Savolainen et al., 2002
PBrd72	NY82	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Continent	N/A	Doberman pinscher	Savolainen et al., 2002
PBrd93	R59	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Continent	N/A	Finnish Hound	Savolainen et al., 2002
PBrd178	R78	AF531724	B	B03	✔	✔	Brd_Europe	Europe	Continent	N/A	Kuvasz	Savolainen et al., 2002
PBrd63	NY10	AF531727	B	B06	✔	✔	Brd_Europe	Europe	Continent	N/A	Dachshund	Savolainen et al., 2002
PBrd66	H81	AF531727	B	B06	✔	✔	Brd_Europe	Europe	Continent	N/A	Dachshund (Wire-haired)	Savolainen et al., 2002
PBrd75	L20	AF531727	B	B06	✔	✔	Brd_Europe	Europe	Continent	N/A	Dutch Shepherd	Savolainen et al., 2002
PBrd76	R84	AF531727	B	B06	✔	✔	Brd_Europe	Europe	Continent	N/A	Dutch Shepherd	Savolainen et al., 2002
PBrd62	NY83	AF531728	B	B07	✔	✔	Brd_Europe	Europe	Continent	N/A	Danish Swedish Farmdog	Savolainen et al., 2002
PBrd01	R40	AF531733	B	B12	✔	✔	Brd_Europe	Europe	Continent	N/A	Affenpinscher	Savolainen et al., 2002
PBrd102	H95	AF531715	C	C01	✔	✔	Brd_Europe	Europe	Continent	N/A	German Shepherd	Savolainen et al., 2002
PBrd103	H98	AF531715	C	C01	✔	✔	Brd_Europe	Europe	Continent	N/A	German Shepherd	Savolainen et al., 2002
PBrd104	NY11	AF531715	C	C01	✔	✔	Brd_Europe	Europe	Continent	N/A	German Shepherd	Savolainen et al., 2002
PBrd244	H28	AF531717	C	C03	✔	✔	Brd_Europe	Europe	Continent	N/A	Giant Schnauzer	Savolainen et al., 2002
PBrd245	H35	AF531717	C	C03	✔	✔	Brd_Europe	Europe	Continent	N/A	Giant Schnauzer	Savolainen et al., 2002
PBrd267	L18	AF531719	C	C05	✔	✔	Brd_Europe	Europe	Continent	N/A	Šarplaninac	Savolainen et al., 2002
PBrd95	R33	AF531739	D	D06	✔	✔	Brd_Europe	Europe	Continent	N/A	Spanish Greyhound	Savolainen et al., 2002
PBrd464	m327	AF531664	A	A11	✔	✔	Brd_Europe	Europe	England	N/A	Greyhound	Angleby et al., 2005
PBrd465	m328	AF531664	A	A11	✔	✔	Brd_Europe	Europe	England	N/A	Greyhound	Angleby et al., 2005
PBrd466	m329	AF531664	A	A11	✔	✔	Brd_Europe	Europe	England	N/A	Greyhound	Angleby et al., 2005
PBrd468	m334	AF531664	A	A11	✔	✔	Brd_Europe	Europe	England	N/A	Greyhound	Angleby et al., 2005
PBrd470	m336	AF531664	A	A11	✔	✔	Brd_Europe	Europe	England	N/A	Greyhound	Angleby et al., 2005
PBrd467	m333	AF531674	A	A22	✔	✔	Brd_Europe	Europe	England	N/A	Greyhound	Angleby et al., 2005
PBrd469	m335	AF531674	A	A22	✔	✔	Brd_Europe	Europe	England	N/A	Greyhound	Angleby et al., 2005
PBrd537	Y85	AF531670	A	A18	✔	✔	Brd_Europe	Europe	France	N/A	Poodle	Pang et al., 2009
PBrd404	m548	AF531655	A	A02	✔	✔	Brd_Europe	Europe	Germany	N/A	Bernese Mountain Dog	Angleby et al., 2005
PBrd403	m546	AF531658	A	A05	✔	✔	Brd_Europe	Europe	Germany	N/A	Jack Russel Terrier	Angleby et al., 2005
PBrd396	m533	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Germany	N/A	Jack Russel Terrier	Angleby et al., 2005
PBrd397	m537	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Germany	N/A	Bearded Collie	Angleby et al., 2005
PBrd401	m544	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Germany	N/A	German Shepherd	Angleby et al., 2005
PBrd412	m558	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Germany	N/A	Schnauzer	Angleby et al., 2005
PBrd413	m559	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Germany	N/A	Australian Shepherd	Angleby et al., 2005
PBrd414	m561	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Germany	N/A	Poodle	Angleby et al., 2005
PBrd416	m565	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Germany	N/A	Rhodesian Ridgeback	Angleby et al., 2005
PBrd400	m542	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Germany	N/A	German Shepherd	Angleby et al., 2005
PBrd415	m564	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Germany	N/A	Jack Russel Terrier	Angleby et al., 2005
PBrd418	m568	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Germany	N/A	Labrador Retriever	Angleby et al., 2005
PBrd480	m226	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Germany	N/A	Great Dane	Pang et al., 2009
PBrd420	m571	AF531671	A	A19	✔	✔	Brd_Europe	Europe	Germany	N/A	German Shepherd	Angleby et al., 2005
PBrd409	m554	AF531672	A	A20	✔	✔	Brd_Europe	Europe	Germany	N/A	Anatolian shepherd dog	Angleby et al., 2005
PBrd402	m545	AF531695	A	A44	✔	✔	Brd_Europe	Europe	Germany	N/A	Tibetan Mastiff	Angleby et al., 2005
PBrd398	m538	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Germany	N/A	Golden Retriever	Angleby et al., 2005
PBrd399	m539	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Germany	N/A	Golden Retriever	Angleby et al., 2005
PBrd408	m553	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Germany	N/A	Bearded Collie	Angleby et al., 2005
PBrd411	m556	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Germany	N/A	Golden Retriever	Angleby et al., 2005
PBrd419	m570	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Germany	N/A	Welsh Terrier	Angleby et al., 2005
PBrd406	m551	AF531727	B	B06	✔	✔	Brd_Europe	Europe	Germany	N/A	Dachshund	Angleby et al., 2005

PBrd407	m552	AF531727	B	B06	✔	✔	Brd_Europe	Europe	Germany	N/A	Giant Schnauzer	Angleby et al., 2005
PBrd405	m549	AF531717	C	C03	✔	✔	Brd_Europe	Europe	Germany	N/A	Giant Schnauzer	Angleby et al., 2005
PBrd410	m555	AF531717	C	C03	✔	✔	Brd_Europe	Europe	Germany	N/A	Boxer	Angleby et al., 2005
PBrd417	m567	AF531717	C	C03	✔	✔	Brd_Europe	Europe	Germany	N/A	Border Collie	Angleby et al., 2005
PBrd194	H67	AF531655	A	A02	✔	✔	Brd_Europe	Europe	N/A	N/A	Leonberger	Savolainen et al., 2002
PBrd195	m130	AF531655	A	A02	✔	✔	Brd_Europe	Europe	N/A	N/A	Leonberger	Savolainen et al., 2002
PBrd196	m131	AF531655	A	A02	✔	✔	Brd_Europe	Europe	N/A	N/A	Leonberger	Savolainen et al., 2002
PBrd371	m132	AF531655	A	A02	✔	✔	Brd_Europe	Europe	N/A	N/A	Leonberger	Savolainen et al., 2002
PBrd372	m133	AF531655	A	A02	✔	✔	Brd_Europe	Europe	N/A	N/A	Leonberger	Savolainen et al., 2002
PBrd109	R79	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Catalonian Sheepdog	Savolainen et al., 2002
PBrd211	R86	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Mudi	Savolainen et al., 2002
PBrd224	H3	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Papillon	Savolainen et al., 2002
PBrd234	R77	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Pyrenean Mastiff	Savolainen et al., 2002
PBrd246	H12	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Rottweiler	Savolainen et al., 2002
PBrd247	H44	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Rottweiler	Savolainen et al., 2002
PBrd248	NY72	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Rottweiler	Savolainen et al., 2002
PBrd339	L36	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Swedish Vallhund	Savolainen et al., 2002
PBrd340	L5	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Swedish Vallhund	Savolainen et al., 2002
PBrd35	NY53	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Borzoi	Savolainen et al., 2002
PBrd373	NY73	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Rottweiler	Savolainen et al., 2002
PBrd374	NY74	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Rottweiler	Savolainen et al., 2002
PBrd375	NY75	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Rottweiler	Savolainen et al., 2002
PBrd376	NY78	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Rottweiler	Savolainen et al., 2002
PBrd377	NY81	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Rottweiler	Savolainen et al., 2002
PBrd73	R41	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Drever	Savolainen et al., 2002
PBrd74	R42	AF531664	A	A11	✔	✔	Brd_Europe	Europe	N/A	N/A	Drever	Savolainen et al., 2002
PBrd197	H70	AF531669	A	A17	✔	✔	Brd_Europe	Europe	N/A	N/A	Leonberger	Savolainen et al., 2002
PBrd41	L26	AF531654	A	A01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norwegian Buhund	Savolainen et al., 2002
PBrd42	L62	AF531654	A	A01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norwegian Buhund	Savolainen et al., 2002
PBrd132	L41	AF531655	A	A02	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Icelandic sheepdog	Savolainen et al., 2002
PBrd133	R93	AF531655	A	A02	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Icelandic sheepdog	Savolainen et al., 2002
PBrd214	r19	AF531655	A	A02	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norrbottenspets	Savolainen et al., 2002
PBrd87	L28	AF531655	A	A02	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish spitz	Savolainen et al., 2002
PBrd134	H73	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Icelandic sheepdog	Savolainen et al., 2002
PBrd135	L40	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Icelandic sheepdog	Savolainen et al., 2002
PBrd218	H26	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norwegian elkhound	Savolainen et al., 2002
PBrd219	H94	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norwegian elkhound	Savolainen et al., 2002
PBrd43	L27	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norwegian Buhund	Savolainen et al., 2002
PBrd44	L61	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norwegian Buhund	Savolainen et al., 2002
PBrd136	L42	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Icelandic sheepdog	Savolainen et al., 2002
PBrd82	L2	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish lapphund	Savolainen et al., 2002
PBrd83	R2	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish lapphund	Savolainen et al., 2002
PBrd198	H68	AF531679	A	A27	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norwegian Lundehund	Savolainen et al., 2002
PBrd199	L37	AF531679	A	A27	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norwegian Lundehund	Savolainen et al., 2002
PBrd215	L38	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norrbottenspets	Savolainen et al., 2002
PBrd216	L4	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norrbottenspets	Savolainen et al., 2002
PBrd217	r20	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norrbottenspets	Savolainen et al., 2002
PBrd360	R14	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish spitz	Savolainen et al., 2002
PBrd361	R16	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish spitz	Savolainen et al., 2002
PBrd362	R17	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish spitz	Savolainen et al., 2002
PBrd45	NY40	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norwegian Buhund	Savolainen et al., 2002
PBrd88	L39	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish spitz	Savolainen et al., 2002
PBrd89	L60	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish spitz	Savolainen et al., 2002
PBrd90	R12	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish spitz	Savolainen et al., 2002
PBrd91	R13	AF531724	B	B03	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish spitz	Savolainen et al., 2002
PBrd144	H91	AF531717	C	C03	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Swedish Elkhound	Savolainen et al., 2002
PBrd145	R92	AF531717	C	C03	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Swedish Elkhound	Savolainen et al., 2002
PBrd308	L32	AF531717	C	C03	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish Hound	Savolainen et al., 2002
PBrd146	H37	AF531735	D	D01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Swedish Elkhound	Savolainen et al., 2002
PBrd147	H65	AF531735	D	D01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Swedish Elkhound	Savolainen et al., 2002
PBrd191	R1	AF531735	D	D01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Lapponian Herder	Savolainen et al., 2002
PBrd220	H25	AF531735	D	D01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norwegian elkhound	Savolainen et al., 2002
PBrd221	H93	AF531735	D	D01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norwegian elkhound	Savolainen et al., 2002
PBrd222	R4	AF531735	D	D01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Norwegian elkhound	Savolainen et al., 2002
PBrd309	L3	AF531735	D	D01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Swedish lapphund	Savolainen et al., 2002
PBrd310	L33	AF531735	D	D01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Swedish lapphund	Savolainen et al., 2002
PBrd311	L34	AF531735	D	D01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Swedish lapphund	Savolainen et al., 2002

PBrd359	R91	AF531735	D	D01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish lapphund	Savolainen et al., 2002
Pbrd393	NY93	AF531735	D	D01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Swedish lapphund	Savolainen et al., 2002
PBrd84	R52	AF531735	D	D01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish lapphund	Savolainen et al., 2002
PBrd85	R53	AF531735	D	D01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish lapphund	Savolainen et al., 2002
PBrd86	R90	AF531735	D	D01	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish lapphund	Savolainen et al., 2002
PBrd92	R10	AF531736	D	D02	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Finnish spitz	Savolainen et al., 2002
PBrd148	R50	AF531737	D	D03	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Swedish Elkhound	Savolainen et al., 2002
PBrd192	L35	AF531737	D	D03	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Lapponian Herder	Savolainen et al., 2002
PBrd193	L1	AF531738	D	D04	✔	✔	Brd_Europe	Europe	Scandinavia	N/A	Lapponian Herder	Savolainen et al., 2002
PBrd424	m407	AF531654	A	A01	✔	✔	Brd_Europe	Europe	Sweden	N/A	Border Collie	Angleby et al., 2005
PBrd448	m456	AF531655	A	A02	✔	✔	Brd_Europe	Europe	Sweden	N/A	Icelandic Sheepdog	Angleby et al., 2005
PBrd450	m462	AF531655	A	A02	✔	✔	Brd_Europe	Europe	Sweden	N/A	Pembroke Welsh Corgi	Angleby et al., 2005
PBrd445	m453	AF531656	A	A03	✔	✔	Brd_Europe	Europe	Sweden	N/A	Norwegian Buhund	Angleby et al., 2005
PBrd421	m401	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Sweden	N/A	Pyrenean Mastiff	Angleby et al., 2005
PBrd428	m424	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Sweden	N/A	Rhodesian Ridgeback	Angleby et al., 2005
PBrd431	m431	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Sweden	N/A	Siberian Husky	Angleby et al., 2005
PBrd453	m467	AF531664	A	A11	✔	✔	Brd_Europe	Europe	Sweden	N/A	Hungarian Puli	Angleby et al., 2005
PBrd449	m457	AF531668	A	A16	✔	✔	Brd_Europe	Europe	Sweden	N/A	Icelandic Sheepdog	Angleby et al., 2005
PBrd438	m444	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Sweden	N/A	Norwich Terrier	Angleby et al., 2005
PBrd439	m445	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Sweden	N/A	Staffordshire Bull Terrier	Angleby et al., 2005
PBrd451	m463	AF531669	A	A17	✔	✔	Brd_Europe	Europe	Sweden	N/A	Cardigan Welsh Corgi	Angleby et al., 2005
PBrd429	m426	AF531670	A	A18	✔	✔	Brd_Europe	Europe	Sweden	N/A	Hungarian wire-haired Vizsla	Angleby et al., 2005
PBrd432	m436	AF531670	A	A18	✔	✔	Brd_Europe	Europe	Sweden	N/A	Poodle	Angleby et al., 2005
PBrd437	m442	AF531670	A	A18	✔	✔	Brd_Europe	Europe	Sweden	N/A	French Bulldog	Angleby et al., 2005
PBrd440	m447	AF531670	A	A18	✔	✔	Brd_Europe	Europe	Sweden	N/A	Samoyed	Angleby et al., 2005
PBrd456	m470	AF531670	A	A18	✔	✔	Brd_Europe	Europe	Sweden	N/A	Briard	Angleby et al., 2005
PBrd435	m440	AF531671	A	A19	✔	✔	Brd_Europe	Europe	Sweden	N/A	Portuguese Water Dog	Angleby et al., 2005
PBrd441	m448	AF531672	A	A20	✔	✔	Brd_Europe	Europe	Sweden	N/A	Scottish Terrier	Angleby et al., 2005
PBrd463	m557	AF531672	A	A20	✔	✔	Brd_Europe	Europe	Sweden	N/A	Polish Lowland Sheepdog	Angleby et al., 2005
PBrd458	m493	AF531674	A	A22	✔	✔	Brd_Europe	Europe	Sweden	N/A	Bergamasco	Angleby et al., 2005
PBrd459	m495	AF531678	A	A26	✔	✔	Brd_Europe	Europe	Sweden	N/A	Cavalier King Charles Spaniel	Angleby et al., 2005
PBrd454	m468	AF531691	A	A40	✔	✔	Brd_Europe	Europe	Sweden	N/A	Hungarian Puli	Angleby et al., 2005
PBrd444	m452	AY656703	A	A80	✔	✔	Brd_Europe	Europe	Sweden	N/A	Irish Terrier	Angleby et al., 2005
PBrd430	m427	AY656704	A	A81	✔	✔	Brd_Europe	Europe	Sweden	N/A	Hungarian wire-haired Vizsla	Angleby et al., 2005
PBrd422	m404	AY656706	A	A83	✔	✔	Brd_Europe	Europe	Sweden	N/A	Lancashire Heeler	Angleby et al., 2005
PBrd427	m413	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Sweden	N/A	Lhasa Apso	Angleby et al., 2005
PBrd433	m437	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Sweden	N/A	Coton de Tulear	Angleby et al., 2005
PBrd436	m441	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Sweden	N/A	Lowchen	Angleby et al., 2005
PBrd442	m449	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Sweden	N/A	Bedlington Terrier	Angleby et al., 2005
PBrd443	m450	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Sweden	N/A	Bedlington Terrier	Angleby et al., 2005
PBrd446	m454	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Sweden	N/A	Norwegian Buhund	Angleby et al., 2005
PBrd461	m510	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Sweden	N/A	Collie	Angleby et al., 2005
PBrd462	m536	AF531722	B	B01	✔	✔	Brd_Europe	Europe	Sweden	N/A	Poodle	Angleby et al., 2005
PBrd447	m455	AF531727	B	B06	✔	✔	Brd_Europe	Europe	Sweden	N/A	Parson Russel Terrier	Angleby et al., 2005
PBrd460	m497	AF531727	B	B06	✔	✔	Brd_Europe	Europe	Sweden	N/A	Dutch Shepherd	Angleby et al., 2005
PBrd434	m439	AY656709	B	B20	✔	✔	Brd_Europe	Europe	Sweden	N/A	Portuguese Water Dog	Angleby et al., 2005
PBrd457	m471	AF531715	C	C01	✔	✔	Brd_Europe	Europe	Sweden	N/A	Briard	Angleby et al., 2005
PBrd423	m405	AF531716	C	C02	✔	✔	Brd_Europe	Europe	Sweden	N/A	Beauceron	Angleby et al., 2005
PBrd426	m409	AF531716	C	C02	✔	✔	Brd_Europe	Europe	Sweden	N/A	Bouvier des Flandres	Angleby et al., 2005
PBrd452	m466	AF531716	C	C02	✔	✔	Brd_Europe	Europe	Sweden	N/A	Bouvier des Flandres	Angleby et al., 2005
PBrd425	m408	AY656710	C	C08	✔	✔	Brd_Europe	Europe	Sweden	N/A	Schapendoes	Angleby et al., 2005
PBrd455	m469	AY656710	C	C08	✔	✔	Brd_Europe	Europe	Sweden	N/A	Schapendoes	Angleby et al., 2005
PBrd481	m332	AF531669	A	A17	✔	✔		N/A	N/A	N/A	Greyhound	Pang et al., 2009
PBrd305	m33	AF531722	B	B01	✔	✔	Brd_MESWA	North Africa	Algeria	N/A	Sloughi	Savolainen et al., 2002
PBrd298	P12	AF531657	A	A04	✔	✔	Brd_MESWA	North Africa	N/A	N/A	Sloughi	Savolainen et al., 2002
PBrd299	P15	AF531657	A	A04	✔	✔	Brd_MESWA	North Africa	N/A	N/A	Sloughi	Savolainen et al., 2002
PBrd300	P14	AF531658	A	A05	✔	✔	Brd_MESWA	North Africa	N/A	N/A	Sloughi	Savolainen et al., 2002
PBrd301	p13	AF531663	A	A10	✔	✔	Brd_MESWA	North Africa	N/A	N/A	Sloughi	Savolainen et al., 2002
PBrd302	p16	AF531663	A	A10	✔	✔	Brd_MESWA	North Africa	N/A	N/A	Sloughi	Savolainen et al., 2002
PBrd303	R31	AF531674	A	A22	✔	✔	Brd_MESWA	North Africa	N/A	N/A	Sloughi	Savolainen et al., 2002
PBrd304	P11	AF531685	A	A33	✔	✔	Brd_MESWA	North Africa	North Africa	N/A	Sloughi	Savolainen et al., 2002
PBrd261	H92	AF531654	A	A01	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	Samoyed	Savolainen et al., 2002
PBrd262	m66	AF531654	A	A01	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	Samoyed	Savolainen et al., 2002
PBrd179	L31	AF531655	A	A02	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	East Siberian Laika	Savolainen et al., 2002
PBrd180	R5	AF531655	A	A02	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	East Siberian Laika	Savolainen et al., 2002
PBrd184	L29	AF531656	A	A03	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	East Siberian Laika	Savolainen et al., 2002
PBrd185	R9	AF531656	A	A03	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	East Siberian Laika	Savolainen et al., 2002

PBrd181	R22	AF531658	A	A05	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	East Siberian Laika	Savolainen et al., 2002
PBrd182	R23	AF531658	A	A05	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	East Siberian Laika	Savolainen et al., 2002
PBrd183	r27	AF531658	A	A05	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	East Siberian Laika	Savolainen et al., 2002
PBrd186	R25	AF531666	A	A13	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	West Siberian Laika	Savolainen et al., 2002
PBrd263	H21	AF531670	A	A18	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	Samoyed	Savolainen et al., 2002
PBrd187	p33	AF531679	A	A27	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	West Siberian Laika	Savolainen et al., 2002
PBrd188	r26	AF531679	A	A27	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	West Siberian Laika	Savolainen et al., 2002
PBrd129	H90	AF531681	A	A29	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	Siberian Husky	Savolainen et al., 2002
PBrd130	L54	AF531681	A	A29	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	Siberian Husky	Savolainen et al., 2002
PBrd189	P35	AF531692	A	A41	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	West Siberian Laika	Savolainen et al., 2002
PBrd264	m65	AF531722	B	B01	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	Samoyed	Savolainen et al., 2002
PBrd265	m67	AF531722	B	B01	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	Samoyed	Savolainen et al., 2002
PBrd131	m40	AF531715	C	C01	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	Siberian Husky	Savolainen et al., 2002
PBrd266	m68	AF531715	C	C01	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	Samoyed	Savolainen et al., 2002
PBrd190	p34	AF531718	C	C04	✔	✔	Brd_NAsia	North Asia	Siberia	N/A	West Siberian Laika	Savolainen et al., 2002
PBrd20	L10	AF531658	A	A05	✔	✔	Brd_SubSh	South Africa	N/A	N/A	Basenji	Savolainen et al., 2002
PBrd21	P27	AF531658	A	A05	✔	✔	Brd_SubSh	South Africa	N/A	N/A	Basenji	Savolainen et al., 2002
PBrd22	P29	AF531658	A	A05	✔	✔	Brd_SubSh	South Africa	N/A	N/A	Basenji	Savolainen et al., 2002
PBrd348	P43	AF531658	A	A05	✔	✔	Brd_SubSh	South Africa	N/A	N/A	Basenji	Savolainen et al., 2002
PBrd349	P44	AF531658	A	A05	✔	✔	Brd_SubSh	South Africa	N/A	N/A	Basenji	Savolainen et al., 2002
PBrd23	P28	AF531662	A	A09	✔	✔	Brd_SubSh	South Africa	N/A	N/A	Basenji	Savolainen et al., 2002
PBrd243	L43	AF531664	A	A11	✔	✔	Brd_SubSh	South Africa	N/A	N/A	Rhodesian ridgeback	Savolainen et al., 2002
PBrd24	P26	AF531684	A	A32	✔	✔	Brd_SubSh	South Africa	South Africa	N/A	Basenji	Savolainen et al., 2002
PBrd25	P42	AF531684	A	A32	✔	✔	Brd_SubSh	South Africa	South Africa	N/A	Basenji	Savolainen et al., 2002
PBrd26	P59	AF531684	A	A32	✔	✔	Brd_SubSh	South Africa	South Africa	N/A	Basenji	Savolainen et al., 2002
PBrd350	P60	AF531684	A	A32	✔	✔	Brd_SubSh	South Africa	South Africa	N/A	Basenji	Savolainen et al., 2002
PBrd471	z254	AF531723	B	B02	✔	✔	Brd_MESWA	South West Asia	Afghanistan	N/A	Afghan Hound	Pang et al., 2009
PBrd322	R30	AF531659	A	A06	✔	✔	Brd_ChSEA	Southeast Asia	Thailand	N/A	Thai ridgeback	Savolainen et al., 2002
PBrd323	P67	AF531660	A	A07	✔	✔	Brd_ChSEA	Southeast Asia	Thailand	N/A	Thai ridgeback	Savolainen et al., 2002
PBrd324	P63	AF531661	A	A08	✔	✔	Brd_ChSEA	Southeast Asia	Thailand	N/A	Thai ridgeback	Savolainen et al., 2002
PBrd325	P64	AF531664	A	A11	✔	✔	Brd_ChSEA	Southeast Asia	Thailand	N/A	Thai ridgeback	Savolainen et al., 2002
PBrd326	P65	AF531670	A	A18	✔	✔	Brd_ChSEA	Southeast Asia	Thailand	N/A	Thai ridgeback	Savolainen et al., 2002
PBrd327	R29	AF531687	A	A35	✔	✔	Brd_ChSEA	Southeast Asia	Thailand	N/A	Thai ridgeback	Savolainen et al., 2002
PBrd02	H102	AF531723	B	B02	✔	✔	Brd_MESWA	Southwest Asia	Afghanistan	N/A	Afghan Hound	Savolainen et al., 2002
PBrd03	H29	AF531723	B	B02	✔	✔	Brd_MESWA	Southwest Asia	Afghanistan	N/A	Afghan Hound	Savolainen et al., 2002
PBrd04	L13	AF531723	B	B02	✔	✔	Brd_MESWA	Southwest Asia	Afghanistan	N/A	Afghan Hound	Savolainen et al., 2002
PBrd344	NY57	AF531723	B	B02	✔	✔	Brd_MESWA	Southwest Asia	Afghanistan	N/A	Afghan Hound	Savolainen et al., 2002
PBrd312	m113	AF531723	B	B02	✔	✔	Brd_MESWA	Southwest Asia	Kazakstan	N/A	Afghan Hound	Savolainen et al., 2002
PBrd115	NY58	AF531669	A	A17	✔	✔	Brd_MESWA	Southwest Asia	N/A	N/A	Greyhound	Savolainen et al., 2002
PBrd249	Ny52	AF531662	A	A09	✔	✔	Brd_MESWA	Southwest Asia	N/A	N/A	Saluki	Savolainen et al., 2002
PBrd165	r82	AF531664	A	A11	✔	✔	Brd_MESWA	Southwest Asia	N/A	N/A	Caucasian Ovcharka	Savolainen et al., 2002
PBrd166	R83	AF531664	A	A11	✔	✔	Brd_MESWA	Southwest Asia	N/A	N/A	Caucasian Ovcharka	Savolainen et al., 2002
PBrd250	P37	AF531664	A	A11	✔	✔	Brd_MESWA	Southwest Asia	N/A	N/A	Saluki	Savolainen et al., 2002
PBrd114	H82	AF531668	A	A16	✔	✔	Brd_MESWA	Southwest Asia	N/A	N/A	Greyhound	Savolainen et al., 2002
PBrd252	P39	AF531678	A	A26	✔	✔	Brd_MESWA	Southwest Asia	N/A	N/A	Saluki	Savolainen et al., 2002
PBrd255	R57	AF531722	B	B01	✔	✔	Brd_MESWA	Southwest Asia	N/A	N/A	Saluki	Savolainen et al., 2002
PBrd258	L11	AF531723	B	B02	✔	✔	Brd_MESWA	Southwest Asia	N/A	N/A	Saluki	Savolainen et al., 2002
PBrd259	m115	AF531723	B	B02	✔	✔	Brd_MESWA	Southwest Asia	N/A	N/A	Saluki	Savolainen et al., 2002
PBrd260	NY50	AF531723	B	B02	✔	✔	Brd_MESWA	Southwest Asia	N/A	N/A	Saluki	Savolainen et al., 2002
PBrd378	R56	AF531723	B	B02	✔	✔	Brd_MESWA	Southwest Asia	N/A	N/A	Saluki	Savolainen et al., 2002
PBrd379	r58	AF531723	B	B02	✔	✔	Brd_MESWA	Southwest Asia	N/A	N/A	Saluki	Savolainen et al., 2002
PBrd167	R81	AF531731	B	B10	✔	✔	Brd_MESWA	Southwest Asia	N/A	N/A	Caucasian Ovcharka	Savolainen et al., 2002
PBrd251	P38	AF531678	A	A26	✔	✔	Brd_MESWA	Southwest Asia	Saudi Arabia	N/A	Saluki	Savolainen et al., 2002
PBrd253	p36	AF531694	A	A43	✔	✔	Brd_MESWA	Southwest Asia	Saudi Arabia	N/A	Saluki	Savolainen et al., 2002
PBrd254	m119	AF531722	B	B01	✔	✔	Brd_MESWA	Southwest Asia	Saudi Arabia	N/A	Saluki	Savolainen et al., 2002
PBrd257	m34	AF531723	B	B02	✔	✔	Brd_MESWA	Southwest Asia	Syria	N/A	Saluki	Savolainen et al., 2002
PBrd18	R72	AF531655	A	A02	✔	✔	Brd_MESWA	Southwest Asia	Turkey	N/A	Anatolian shepherd dog	Savolainen et al., 2002
PBrd155	m91	AF531664	A	A11	✔	✔	Brd_MESWA	Southwest Asia	Turkey	N/A	Kangal	Savolainen et al., 2002
PBrd156	m95	AF531664	A	A11	✔	✔	Brd_MESWA	Southwest Asia	Turkey	N/A	Kangal	Savolainen et al., 2002
PBrd19	R70	AF531668	A	A16	✔	✔	Brd_MESWA	Southwest Asia	Turkey	N/A	Anatolian shepherd dog	Savolainen et al., 2002
PBrd157	m99	AF531700	A	A49	✔	✔	Brd_MESWA	Southwest Asia	Turkey	N/A	Kangal	Savolainen et al., 2002
PBrd158	m94	AF531722	B	B01	✔	✔	Brd_MESWA	Southwest Asia	Turkey	N/A	Kangal	Savolainen et al., 2002
PBrd159	m101	AF531720	C	C06	✔	✔	Brd_MESWA	Southwest Asia	Turkey	N/A	Kangal	Savolainen et al., 2002
PBrd160	m92	AF531720	C	C06	✔	✔	Brd_MESWA	Southwest Asia	Turkey	N/A	Kangal	Savolainen et al., 2002
PBrd161	m96	AF531720	C	C06	✔	✔	Brd_MESWA	Southwest Asia	Turkey	N/A	Kangal	Savolainen et al., 2002
PBrd162	m97	AF531720	C	C06	✔	✔	Brd_MESWA	Southwest Asia	Turkey	N/A	Kangal	Savolainen et al., 2002
PBrd163	m100	AF531740	D	D05	✔	✔	Brd_MESWA	Southwest Asia	Turkey	N/A	Kangal	Savolainen et al., 2002

PBrd164	m98	AF531740	D	D05	✔	✔	Brd_MESWA	Southwest Asia	Turkey	N/A	Kangal	Savolainen et al., 2002
PBrd256	m35	AF531723	B	B02	✔	✔	Brd_MESWA	Southwest Asia	United Arab Emirates	Dubai	Saluki	Savolainen et al., 2002
PBrd330	m23	AF531696	A	A45	✖	✔		East Asia	China	Tibet	Tibetan Mastiff	Savolainen et al., 2002
PBrd331	m24	AF531696	A	A45	✖	✔		East Asia	China	Tibet	Tibetan Mastiff	Savolainen et al., 2002
PBrd105	JAL5213	FN298203	A	N/A	✖	✔		North America	Canada	British Columbia: Bella Bella, Campbell Island	German Shorthaired Pointer	Muñoz-Fuentes et al., 2010
PBrd17	JAL5217	FN298207	A	N/A	✖	✔		North America	Canada	British Columbia: Ocean Falls	Alaskan Malamute	Muñoz-Fuentes et al., 2010
PBrd29	JAL5218	FN298208	A	N/A	✖	✔		North America	Canada	British Columbia: Ocean Falls	Labrador Retriever	Muñoz-Fuentes et al., 2010
PBrd297	JAL5206	FN298197	A	N/A	✖	✔		North America	Canada	British Columbia: Shearwater, Denny Island	Siberian Husky	Muñoz-Fuentes et al., 2010
PBrd38	JAL5203	FN298195	A	N/A	✖	✔		North America	Canada	British Columbia: Shearwater, Denny Island	Boxer	Muñoz-Fuentes et al., 2010
PBrd143	JAL5204	FN298196	B	N/A	✖	✔		North America	Canada	British Columbia: Shearwater, Denny Island	Jack Russell Terrier	Muñoz-Fuentes et al., 2010

Supplementary Table ST8: **Full details for the Mixed-Breed dataset including location of sample, haplogroup, haplotype, Sample Id, Genbank Accession Number and Source. The column 'Brd_Region' refers to the population the samples were allocated into during the testing of Model 13 in AMOVA. Samples sorted based on fragment length and 'Brd_Regions'.**

AMOVA Ref	Sample Id	Genbank Acc. Nb	Haplogroup	Haplotype	582bp	304bp	Brd_Region	Region	Country	Location specific	Category	Source
MBrd50	PR6	GQ375165	A	A18 (VilA2)	✔	✔	Brd_Am	Central America	Puerto Rico	N/A	Admixed Breed	Boyko et al., 2009
MBrd51	P5	GQ375174	A	A11 (VilA11a)	✔	✔	Brd_Am	Central America	Puerto Rico	N/A	Admixed Breed	Boyko et al., 2009
MBrd52	PR5	GQ375177	A	A17 (VilA13)	✔	✔	Brd_Am	Central America	Puerto Rico	N/A	Admixed Breed	Boyko et al., 2009
MBrd53	P8	GQ375174	A	A11 (VilA11a)	✔	✔	Brd_Am	Central America	Puerto Rico	N/A	Admixed Breed	Boyko et al., 2009
MBrd56	PR3	GQ375192	A	A185 (VilA28)	✔	✔	Brd_Am	Central America	Puerto Rico	N/A	Admixed Breed	Boyko et al., 2009
MBrd57	P9	GQ375190	A	A29 (VilA26)	✔	✔	Brd_Am	Central America	Puerto Rico	N/A	Admixed Breed	Boyko et al., 2009
MBrd58	P3	GQ375189	A	A02 (VilA25)	✔	✔	Brd_Am	Central America	Puerto Rico	N/A	Admixed Breed	Boyko et al., 2009
MBrd59	PR1	GQ375191	A	A01 (VilA27)	✔	✔	Brd_Am	Central America	Puerto Rico	N/A	Admixed Breed	Boyko et al., 2009
MBrd60	P6	GQ375165	A	A18 (VilA2)	✔	✔	Brd_Am	Central America	Puerto Rico	N/A	Admixed Breed	Boyko et al., 2009
MBrd63	PR2	GQ375177	A	A17 (VilA13)	✔	✔	Brd_Am	Central America	Puerto Rico	N/A	Admixed Breed	Boyko et al., 2009
MBrd54	P1	GQ375200	B	B01 (VilB1b)	✔	✔	Brd_Am	Central America	Puerto Rico	N/A	Admixed Breed	Boyko et al., 2009
MBrd55	PR4	GQ375200	B	B01 (VilB1b)	✔	✔	Brd_Am	Central America	Puerto Rico	N/A	Admixed Breed	Boyko et al., 2009
MBrd62	P7	GQ375200	B	B01 (VilB1b)	✔	✔	Brd_Am	Central America	Puerto Rico	N/A	Admixed Breed	Boyko et al., 2009
MBrd24	NA103	GQ375177	A	A17 (VilA13)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd26	NA1	GQ375177	A	A17 (VilA13)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd28	NA123	GQ375174	A	A11 (VilA11a)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd29	NA120	GQ375174	A	A11 (VilA11a)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd32	NA4	GQ375177	A	A17 (VilA13)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd33	NA5	GQ375165	A	A18 (VilA2)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd36	NA117	GQ375174	A	A11 (VilA11a)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd39	NA121	GQ375174	A	A11 (VilA11a)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd40	NA122	GQ375170	A	A27 (VilA7)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd42	NA107	GQ375178	A	A71 (vilA14)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd43	NA125	GQ375177	A	A17 (VilA13)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd47	NA55	GQ375174	A	A11 (VilA11a)	✔	✔	Brd_SubSh	Africa	Namibia	North	Admixed Breed	Boyko et al., 2009
MBrd37	NA105	GQ375200	B	B01 (VilB1b)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd38	NA111	GQ375200	B	B01 (VilB1b)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd44	NA102	GQ375201	B	B01 (VilB1c)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd46	NA9	GQ375200	B	B01 (VilB1b)	✔	✔	Brd_SubSh	Africa	Namibia	North	Admixed Breed	Boyko et al., 2009
MBrd34	NA106	GQ375208	C	C03 (VilC2)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd35	NA109	GQ375208	C	C03 (VilC2)	✔	✔	Brd_SubSh	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd64	UG29	GQ375174	A	A11 (VilA11a)	✔	✔	Brd_SubSh	Africa	Uganda	Mainland	Admixed Breed	Boyko et al., 2009
MBrd65	UG38	GQ375196	A	VilA32	✔	✔	Brd_SubSh	Africa	Uganda	Mainland	Admixed Breed	Boyko et al., 2009
MBrd66	UG13	GQ375175	A	VilA11b	✔	✔	Brd_SubSh	Africa	Uganda	Mainland	Admixed Breed	Boyko et al., 2009
MBrd67	UG18	GQ375174	A	A11 (VilA11a)	✔	✔	Brd_SubSh	Africa	Uganda	Mainland	Admixed Breed	Boyko et al., 2009
MBrd69	UG6	GQ375164	A	A22 (VilA1)	✔	✔	Brd_SubSh	Africa	Uganda	Mainland	Admixed Breed	Boyko et al., 2009
MBrd70	UG20	GQ375177	A	A17 (VilA13)	✔	✔	Brd_SubSh	Africa	Uganda	Mainland	Admixed Breed	Boyko et al., 2009
MBrd68	UG2	GQ375200	B	B01 (VilB1b)	✔	✔	Brd_SubSh	Africa	Uganda	Mainland	Admixed Breed	Boyko et al., 2009
MBrd01	JAL5198	FN298190	A	N/A	✖	✔		North America	Canada	British Columbia: Shearwater, Denny Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd02	JAL5199	FN298191	A	N/A	✖	✔		North America	Canada	British Columbia: Shearwater, Denny Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd04	JAL5201	FN298193	A	N/A	✖	✔		North America	Canada	British Columbia: Shearwater, Denny Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd05	JAL5202	FN298194	A	N/A	✖	✔		North America	Canada	British Columbia: Shearwater, Denny Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd06	JAL5208	FN298198	A	N/A	✖	✔		North America	Canada	British Columbia: Bella Bella, Campbell Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd07	JAL5209	FN298199	A	N/A	✖	✔		North America	Canada	British Columbia: Bella Bella, Campbell Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd08	JAL5210	FN298200	A	N/A	✖	✔		North America	Canada	British Columbia: Bella Bella, Campbell Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd09	JAL5211	FN298201	A	N/A	✖	✔		North America	Canada	British Columbia: Bella Bella, Campbell Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd10	JAL5212	FN298202	A	N/A	✖	✔		North America	Canada	British Columbia: Bella Bella, Campbell Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd11	JAL5214	FN298204	A	N/A	✖	✔		North America	Canada	British Columbia: Bella Bella, Campbell Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd13	JAL5216	FN298206	A	N/A	✖	✔		North America	Canada	British Columbia: Bella Bella, Campbell Island	Mix-Breed	Muñoz-Fuentes et al., 2010

MBrd14	JAL5219	FN298209	A	N/A	✖	✔	North America	Canada	British Columbia: Ocean Falls	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd18	JAL5223	FN298213	A	N/A	✖	✔	North America	Canada	British Columbia: Klemtu, Swindle Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd20	JAL5225	FN298215	A	N/A	✖	✔	North America	Canada	British Columbia: Klemtu, Swindle Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd21	JAL5226	FN298216	A	N/A	✖	✔	North America	Canada	British Columbia: Klemtu, Swindle Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd22	JAL5227	FN298217	A	N/A	✖	✔	North America	Canada	British Columbia: Klemtu, Swindle Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd03	JAL5200	FN298192	B	N/A	✖	✔	North America	Canada	British Columbia: Shearwater, Denny Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd12	JAL5215	FN298205	B	N/A	✖	✔	North America	Canada	British Columbia: Bella Bella, Campbell Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd15	JAL5220	FN298210	B	N/A	✖	✔	North America	Canada	British Columbia: Ocean Falls	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd17	JAL5222	FN298212	B	N/A	✖	✔	North America	Canada	British Columbia: Ocean Falls	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd23	JAL5228	FN298218	B	N/A	✖	✔	North America	Canada	British Columbia: Klemtu, Swindle Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd16	JAL5221	FN298211	C	N/A	✖	✔	North America	Canada	British Columbia: Ocean Falls	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd19	JAL5224	FN298214	C	N/A	✖	✔	North America	Canada	British Columbia: Klemtu, Swindle Island	Mix-Breed	Muñoz-Fuentes et al., 2010
MBrd49	NA43	GQ375169	A	vilA6	✖	✔	Africa	Namibia	North	Admixed Breed	Boyko et al., 2009
MBrd31	NA118	GQ375209	C	vilC3a	✖	✔	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd41	NA6	GQ375209	C	vilC3a	✖	✔	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009
MBrd45	NA2	GQ375209	C	vilC3a	✖	✔	Africa	Namibia	Central	Admixed Breed	Boyko et al., 2009

Supplementary Table ST9: **Full details for the North and Central America dataset including location of sample, haplogroup, haplotype, Sample Id, Genbank Accession Number and Source. Samples sorted based on fragment lenght and country.**

AMOVA Ref	Sample Id	Genbank Acc. Nb	Haplogroup	Haplotype	582bp	304bp	Region	Country	Location specific	Category	Source
NAm75	BZ01	HQ126814	A	N/A	✖	✔	Central America	Belize	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm76	BZ03	HQ126815	A	N/A	✖	✔	Central America	Belize	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm77	BZ04	HQ126816	A	N/A	✖	✔	Central America	Belize	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm78	BZ05	HQ126817	A	N/A	✖	✔	Central America	Belize	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm79	BZ06	HQ126818	A	N/A	✖	✔	Central America	Belize	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm80	BZ07	HQ126819	B	N/A	✖	✔	Central America	Belize	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm86	CR59	HQ126899	A	N/A	✖	✔	Central America	Costa Rica	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm87	CR60	HQ126900	A	N/A	✖	✔	Central America	Costa Rica	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm88	CR61	HQ126901	A	N/A	✖	✔	Central America	Costa Rica	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm81	C1	HQ126820	A	N/A	✖	✔	Central America	Cuba	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm82	C2	HQ126821	A	N/A	✖	✔	Central America	Cuba	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm83	C3	HQ126822	A	N/A	✖	✔	Central America	Cuba	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm84	C4	HQ126823	A	N/A	✖	✔	Central America	Cuba	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm85	C5	HQ126824	A	N/A	✖	✔	Central America	Cuba	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm162	PA7	HQ126979	A	N/A	✖	✔	Central America	Panama	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm163	PA8	HQ126980	A	N/A	✖	✔	Central America	Panama	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm164	PA11	HQ126981	A	N/A	✖	✔	Central America	Panama	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm166	PA14	HQ126983	A	N/A	✖	✔	Central America	Panama	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm160	PA2	HQ126976	B	N/A	✖	✔	Central America	Panama	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm161	PA3	HQ126977	B	N/A	✖	✔	Central America	Panama	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm165	PA13	HQ126982	B	N/A	✖	✔	Central America	Panama	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm167	PA16	HQ126984	B	N/A	✖	✔	Central America	Panama	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm159	PA1	HQ126975	C	N/A	✖	✔	Central America	Panama	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm01	JAL5205	HQ126858	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm02	JAL5207	HQ126859	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm03	CA1	HQ126825	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm05	CA4	HQ126827	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm07	CA6	HQ126829	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm08	CA7	HQ126830	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm09	CA8	HQ126831	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm10	CA9	HQ126832	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm11	CA10	HQ126833	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm12	JAL4799	HQ126834	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm14	JAL5174	HQ126836	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm15	JAL5175	HQ126837	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm16	JAL5176	HQ126838	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm17	JAL5177	HQ126839	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm18	JAL5178	HQ126840	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm19	JAL5179	HQ126841	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm20	JAL5181	HQ126842	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm21	JAL5182	HQ126843	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm22	JAL5183	HQ126844	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm23	JAL5184	HQ126845	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm25	JAL5186	HQ126847	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm26	JAL5187	HQ126848	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm28	JAL5189	HQ126850	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm30	JAL5191	HQ126852	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm31	JAL5192	HQ126853	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm33	JAL5194	HQ126855	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm34	JAL5196	HQ126856	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm35	JAL5197	HQ126857	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm39	JAL5233	HQ126863	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm40	JAL5234	HQ126864	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm41	JAL5235	HQ126865	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm43	JAL5237	HQ126867	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm44	JAL5238	HQ126868	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm46	JAL5240	HQ126870	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm47	JAL5241	HQ126871	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm48	JAL5242	HQ126872	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm49	JAL5243	HQ126873	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm51	JAL5245	HQ126875	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm52	JAL5246	HQ126876	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm53	JAL5247	HQ126877	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm54	JAL5248	HQ126878	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm55	JAL5249	HQ126879	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm56	JAL5250	HQ126880	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm57	JAL5251	HQ126881	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm58	JAL5257	HQ126882	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm59	JAL5258	HQ126883	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm60	JAL5260	HQ126884	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm66	JAL5267	HQ126890	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm68	JAL5269	HQ126892	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm69	JAL5271	HQ126893	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm70	JAL5272	HQ126894	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm71	JAL5273	HQ126895	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm73	JAL5275	HQ126897	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm74	JAL5276	HQ126898	A	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm04	CA2	HQ126826	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm06	CA5	HQ126828	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm13	JAL5173	HQ126835	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm24	JAL5185	HQ126846	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm27	JAL5188	HQ126849	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm29	JAL5190	HQ126851	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm32	JAL5193	HQ126854	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm36	JAL5230	HQ126860	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm38	JAL5232	HQ126862	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm45	JAL5239	HQ126869	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm50	JAL5244	HQ126874	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm61	JAL5262	HQ126885	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm62	JAL5263	HQ126886	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm63	JAL5264	HQ126887	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm64	JAL5265	HQ126888	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm65	JAL5266	HQ126889	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm67	JAL5268	HQ126891	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm72	JAL5274	HQ126896	B	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm37	JAL5231	HQ126861	C	N/A	✖	✔	North America	Canada	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm100	M16	HQ126915	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm101	M17	HQ126916	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm102	M18	HQ126917	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm103	M19	HQ126918	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm104	M21	HQ126919	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011

NAm106	M25	HQ126921	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm107	M26	HQ126922	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm108	M27	HQ126923	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm109	M28	HQ126924	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm110	M29	HQ126925	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm111	M30	HQ126926	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm113	M32	HQ126928	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm116	M36	HQ126931	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm117	M37	HQ126932	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm118	M38	HQ126933	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm119	M39	HQ126934	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm120	M40	HQ126935	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm121	M41	HQ126936	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm122	M42	HQ126937	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm123	M43	HQ126938	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm124	M44	HQ126939	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm125	M45	HQ126940	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm126	M45b	HQ126941	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm127	M46	HQ126942	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm130	M49	HQ126945	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm131	M50	HQ126946	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm132	M53	HQ126947	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm134	M55a	HQ126949	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm135	M55b	HQ126950	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm138	M59	HQ126953	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm141	M63	HQ126956	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm142	M64	HQ126957	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm144	M67	HQ126959	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm147	M70	HQ126962	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm151	M75	HQ126966	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm152	M76	HQ126967	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm154	MD_3.1	HQ126969	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm156	MD_3.3	HQ126971	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm157	MD_3.4	HQ126972	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm89	M1	HQ126902	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm91	M6	HQ126905	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm92	M7	HQ126906	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm93	M8	HQ126907	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm94	M9	HQ126908	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm95	M11	HQ126910	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm96	M12	HQ126911	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm98	M14	HQ126913	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm99	M15	HQ126914	A	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm105	M24	HQ126920	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm112	M31	HQ126927	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm114	M33	HQ126929	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm115	M35	HQ126930	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm128	M47	HQ126943	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm129	M48	HQ126944	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm133	M54	HQ126948	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm136	M56	HQ126951	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm137	M57	HQ126952	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm139	M61	HQ126954	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm140	M62	HQ126955	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm143	M65	HQ126958	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm149	M73	HQ126964	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm153	M77	HQ126968	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm155	MD_3.2	HQ126970	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm90	M5	HQ126904	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm97	M13	HQ126912	B	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm145	M68	HQ126960	C	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm146	M69	HQ126961	C	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm148	M71	HQ126963	C	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm150	M74	HQ126965	C	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm158	MD_3.5	HQ126973	C	N/A	✖	✔	North America	Mexico	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm168	U1	HQ127008	B	N/A	✖	✔	North America	USA	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
NAm169	U2	HQ127009	B	N/A	✖	✔	North America	USA	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011

Supplementary Table ST10: **Full details for the Southl America dataset including location of sample, haplogroup, haplotype, Sample Id, Genbank Accession Number and Source. Samples sorted according to fragment length and country.**

AMOVA Ref	Sample Id	Genbank Acc. Nb	Haplogroup	Haplotype	582bp	304bp	Region	Country	Location specific	Category	Source
SAm31	A40	HQ126732	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm07	A11	HQ126708	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm09	A13	HQ126710	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm10	A14	HQ126711	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm11	A15	HQ126712	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm13	A18	HQ126714	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm25	A32	HQ126726	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm30	A37	HQ126731	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm32	A41	HQ126733	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm33	A42	HQ126734	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm35	A46	HQ126736	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm39	A50	HQ126740	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm01	A2	HQ126702	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm04	A5	HQ126705	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm05	A8	HQ126706	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm16	A22	HQ126717	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm12	A17	HQ126713	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm17	A23	HQ126718	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm19	A25	HQ126720	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm36	A47	HQ126737	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm42	A53	HQ126743	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm02	A3	HQ126703	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm03	A4	HQ126704	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm15	A21	HQ126716	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm26	A33	HQ126727	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm27	A34	HQ126728	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm28	A35	HQ126729	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm34	A44	HQ126735	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm38	A49	HQ126739	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm40	A51	HQ126741	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm43	A54	HQ126744	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm22	A29	HQ126723	A	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm06	A9	HQ126707	B	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm08	A12	HQ126709	B	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm14	A19	HQ126715	B	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm21	A28	HQ126722	B	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm23	A30	HQ126724	B	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm37	A48	HQ126738	B	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm41	A52	HQ126742	B	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm29	A36	HQ126730	B	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm24	A31	HQ126725	C	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm18	A24	HQ126719	C	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm20	A26	HQ126721	C	N/A	✖	✔	South America	Argentina	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm101	BO19	HQ126803	A	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm90	BO7	HQ126792	A	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm91	BO8	HQ126793	A	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm98	BO16	HQ126800	A	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm111	BO29	HQ126813	A	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm105	BO23	HQ126807	A	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm106	BO24	HQ126808	A	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm110	BO28	HQ126812	A	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm97	BO15	HQ126799	A	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm92	BO10	HQ126794	B	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm102	BO20	HQ126804	B	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm103	BO21	HQ126805	B	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm109	BO27	HQ126811	B	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm86	BO1	HQ126787	B	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm87	BO2	HQ126788	C	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm88	BO3	HQ126789	C	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm89	BO4	HQ126790	C	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm96	BO14	HQ126798	C	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm100	BO18	HQ126802	C	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm108	BO26	HQ126810	C	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm94	BO12	HQ126796	C	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm93	BO11	HQ126795	C	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm95	BO13	HQ126797	C	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm104	BO22	HQ126806	C	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm99	BO17	HQ126801	C	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm107	BO25	HQ126809	D	N/A	✖	✔	South America	Bolivia	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm44	B1	HQ126745	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm57	B15	HQ126758	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm77	B37	HQ126778	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm51	B8	HQ126752	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm58	B16	HQ126759	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm70	B30	HQ126771	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm71	B31	HQ126772	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm76	B36	HQ126777	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm85	B46	HQ126786	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm52	B9	HQ126753	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm59	B18	HQ126760	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm60	B19	HQ126761	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm64	B23	HQ126765	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm66	B25	HQ126767	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm81	B42	HQ126782	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm63	B22	HQ126764	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm65	B24	HQ126766	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm68	B28	HQ126769	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm73	B33	HQ126774	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm82	B43	HQ126783	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm84	B45	HQ126785	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm74	B34	HQ126775	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm48	B5	HQ126749	A	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm46	B3	HQ126747	B	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm47	B4	HQ126748	B	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm53	B10	HQ126754	B	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm56	B14	HQ126757	B	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm62	B21	HQ126763	B	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm67	B26	HQ126768	B	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011

SAm78	B38	HQ126779	B	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm83	B44	HQ126784	B	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm50	B7	HQ126751	B	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm55	B12	HQ126756	B	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm61	B20	HQ126762	B	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm80	B41	HQ126781	B	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm79	B39	HQ126780	B	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm45	B2	HQ126746	C	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm69	B29	HQ126770	C	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm54	B11	HQ126755	C	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm72	B32	HQ126773	C	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm75	B35	HQ126776	C	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm49	B6	HQ126750	C	N/A	✖	✔	South America	Brazil	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm112	P2	HQ126974	A	N/A	✖	✔	South America	Paraguay	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm125	PE16	HQ126997	A	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm128	PE20	HQ127000	A	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm129	PE21	HQ127001	A	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm131	PE23	HQ127003	A	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm113	PE1	HQ126985	A	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm116	PE6	HQ126988	A	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm123	PE13	HQ126995	A	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm126	PE17	HQ126998	A	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm134	PE26	HQ127006	A	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm117	PE7	HQ126989	B	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm119	PE9	HQ126991	B	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm132	PE24	HQ127004	B	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm127	PE18	HQ126999	B	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm135	PE27	HQ127007	B	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm118	PE8	HQ126990	B	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm133	PE25	HQ127005	B	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm124	PE15	HQ126996	C	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm114	PE2	HQ126986	C	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm115	PE4	HQ126987	C	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm120	PE10	HQ126992	C	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm122	PE12	HQ126994	C	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm130	PE22	HQ127002	C	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm121	PE11	HQ126993	D	N/A	✖	✔	South America	Peru	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm141	UR8	HQ127015	A	N/A	✖	✔	South America	Uruguay	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm138	UR3	HQ127012	A	N/A	✖	✔	South America	Uruguay	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm137	UR2	HQ127011	A	N/A	✖	✔	South America	Uruguay	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm140	UR6	HQ127014	A	N/A	✖	✔	South America	Uruguay	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm136	UR1	HQ127010	A	N/A	✖	✔	South America	Uruguay	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm139	UR4	HQ127013	A	N/A	✖	✔	South America	Uruguay	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm143	V2	HQ127017	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm146	V5	HQ127021	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm157	V19	HQ127032	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm159	V21	HQ127034	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm160	V22	HQ127035	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm161	V23	HQ127036	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm162	V25	HQ127037	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm170	V35	HQ127045	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm171	V36	HQ127046	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm172	V37	HQ127047	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm173	V38	HQ127048	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm177	V51	HQ127052	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm192	V67	HQ127067	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm147	V6	HQ127022	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm163	V26	HQ127038	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm195	V70	HQ127070	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm142	V1	HQ127016	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm150	V11	HQ127025	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm153	V14	HQ127028	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm156	V18	HQ127031	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm167	V32	HQ127042	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm176	V49	HQ127051	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm193	V68	HQ127068	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm194	V69	HQ127069	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm149	V8	HQ127024	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm151	V12	HQ127026	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm154	V16	HQ127029	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm155	V17	HQ127030	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm166	V30	HQ127041	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm174	V45	HQ127049	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm175	V48	HQ127050	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm178	V52	HQ127053	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm190	V65	HQ127065	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm187	V62	HQ127062	A	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm152	V13	HQ127027	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm144	V3	HQ127018	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm145	V3b	HQ127019	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm158	V20	HQ127033	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm164	V27	HQ127039	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm165	V28	HQ127040	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm168	V33	HQ127043	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm169	V34	HQ127044	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm179	V53	HQ127054	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm191	V66	HQ127066	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm196	V71	HQ127071	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm181	V55	HQ127056	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm183	V58	HQ127058	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm182	V56	HQ127057	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm188	V63	HQ127063	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm189	V64	HQ127064	B	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm148	V7	HQ127023	C	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm180	V54	HQ127055	C	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm184	V59	HQ127059	C	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm185	V60	HQ127060	C	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm186	V61	HQ127061	C	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011
SAm197	V72	HQ127072	C	N/A	✖	✔	South America	Venezuela	N/A	Non-Breed Village dog	Castroviejo-Fisher et al., 2011

Supplementary Tables T11a and T11b: Vila and Savolainen haplotype comparison based on a 582bp fragment. A total of 286 Savolainen haplotypes were compared with 50 Vila haplotypes. Matching haplotypes are displayed below (ST11a). As our study followed the Savolainen nomenclature, we also provide a list of Vila haplotypes for which no equivalent was found (ST11b).

ST11a

Savolainen Haplotypes	Vila/Boyko Haplotypes
A01	VilA27
A02	VilA25
A03	VilA23
A11	VilA11a
A17	VilA13
A18	VilA2
A20	VilA15
A22	VilA1
A27	VilA7
A29	VilA26
A32	VilA19
A33	VilA09
A38	VilA21
A49	VilA30
A65	VilA20
A71	VilA14
A80	VilA17
A153	VilA34
A169	VilA3
A185	VilA28
B01	VilB1b / VilB1c
B02	VilB1a
B38	VilB3a
B41	VilB4
C01	VilC3b
C03	VilC2
C07	VilC1b
C08	VilC5

ST11b

Vila Haplotypes with no Savolainen haplotype equivalent
VilA10
VilA12
VilA11b
VilA8
VilA18
VilA29
VilA16
VilA06
VilA33
VilA22
VilA24
VilA4
VilA5
VilA32
VilA31
VilB2
VilB3b
VilC1a
VilC3a
VilC4
VilC6

Supplementary Table 12: List of breeds used in this study and their recognition date (if any) by the American Kennel Club (AKC) (24) and/or the United Kennel Club (UKC) (71). Also included is the number of samples studied for each breed for both the 582bp fragment (n=569) and the 304bp fragment (n=604) of the mtDNA CR.

Breed	AKC		UKC		Number of	
	Recognised in	Group	Recognised in	Group	582 bp	331bp
Affenpinscher	1936	Toy	1957	Companion	1	1
Afghan Hound	1926	Hound	1948	Sighthound and Pariah	6	6
Airedale Terrier	1888	Terrier	1914	Terrier	1	1
Akita	1972	Working	1980	Northern Breed	14	14
Alaskan Malamute	1935	Working	1947	Northern Breed	6	7
Anatolian Shepherd	1996	Working	1993	Guardian	3	3
Australian Shepherd	1991	Herding	1979	Herding	1	1
Basenji	1944	Hound	1948	Sighthound and Pariah	15	15
Beagle	1885	Hound	N/A	Scenthound	1	1
Bearded Collie	1976	Herding	1979	Herding	2	2
Beauceron	2007	Herding	1994	Herding	2	2
Bedlington Terrier	1886	Terrier	1948	Terrier	2	2
Belgian Sheepdog (Groenendael)	1912	Herding	1991	Herding	2	2
Bergamasco	Not recognised	/	1995	Herding	1	1
Bernese Mountain Dog	1937	Working	1948	Guardian	1	1
Border Collie	1995	Herding	1961	Herding	7	7
Border Terrier	1930	Terrier	1948	Terrier	2	2
Borzoi	1891	Hound	1914	Sighthound and Pariah	2	2
Bouvier des Flandres	1931	Herding	1948	Herding	2	2
Boxer	1904	Working	1948	Guardian	2	3
Bracco Italiano	Not recognised	/	2006	Gun Dog	2	2
Briard	1928	Herding	1948	Herding	2	2
Canadian Eskimo Dog	Not recognised	/	1996	Northern	9	9
Cardigan Welsh Corgi	1935	Herding	1959	Herding	1	1
Catalonian Sheepdog	Not recognised	/	2006	Herding	1	1
Caucasian Ovcharka	Not recognised	/	1995	Guardian	3	3
Cavalier King Charles Spaniel	1995	Toy	1980	Companion	3	3
Chesapeake Bay Retriever	1878	Sporting	1927	Gun Dog	1	1
Chinese Crested	1991	Toy	1995	Companion	4	4
Chinese Shar-Pei	1992	Non-sporting	1985	Northern Breed	4	4
Chow chow	1903	Non-sporting	1934	Northern Breed	9	9
Collie	1885	Herding	1914	Herding	2	2
Coton de Tulear	Not recognised	/	1996	Companion	1	1
Dachshund	1885	Hound	1919	Scenthound	9	9
Danish-Swedish Farmdog	Not recognised	/	2008	Terrier	1	1
Doberman Pinscher	1908	Working	1940's	Guardian	2	2
Drever	Not recognised	/	1996	Scenthound	2	2
Dutch Shepherd	Not recognised	/	1995	Herding	3	3
East Siberian Laika	Not recognised	/	1996	Northern	7	7
English Setter	1884	Sporting	1900's	Gun Dog	3	3
Finnish Hound	Not recognised	/	1996	Scenthound	2	2
Finnish Lapphund	2011	Herding	1994	Northern Breed	6	6
Finnish Spitz	1991	Non-sporting	1992	Northern Breed	9	9
Flat-coated Retriever	1915	Sporting	1984	Gun Dog	2	2
French Bulldog	1898	Non-sporting	1965	Companion	1	1
German Shepherd	1908	Herding	1924	Herding	17	17
German Shorthaired Pointer	1930	Sporting	1948	Gun Dog	0	1
Giant Schnauzer	1930	Working	1948	Guardian	4	4
Golden Retriever	1925	Sporting	1956	Gun Dog	10	10
Great Dane	1887	Working	1923	Guardian	1	1
Greenland Dog	Not recognised	/	1996	Northern	4	4
Greyhound	1885	Hound	1914	Sighthound and Pariah	10	10
Hamiltonstovare	Not recognised	/	2006	Scenthound	2	2
Hokkaido	Not recognised	/	1996	Northern	15	15
Hungarian Puli	1936	Herding	1948	Herding	2	2
Hungarian Wire-Haired Vizsla	Not recognised	/	2006	Gun Dog	2	2
Ibizan Hound	1978	Hound	1979	Sighthound and Pariah	1	1
Icelandic Sheepdog	2010	Herding	1996	Herding	7	7
Irish Setter	1878	Sporting	1914	Gun Dog	2	2
Irish Terrier	1885	Terrier	1932	Terrier	1	1
Irish Wolfhound	1897	Hound	1921	Sighthound and Pariah	4	4
Jack Russell Terrier	Not recognised	/	2001	Terrier	3	4
Japanese Chin	1888	Toy	N/A	Companion	1	1
Japanese Spitz	Not recognised	/	2006	Northern Breed	1	1
Jindo	Not recognised	/	1998	Northern	50	50
Kai	Not recognised	/	1997	Northern	4	4
Kangal Dog	Not recognised	/	1998	Guardian	10	10
Keeshond	1930	Non-sporting	1936	Northern Breed	2	2

Kerry Blue Terrier	1922	Terrier	1948	Terrier	1	1
Kishu	Not recognised	/	2006	Northern	8	8
Kooikerhondje	Not recognised	/	1996	Gun Dog	1	1
Kuvasz	1931	Working	1965	Guardian	1	1
Labrador Retriever	1917	Sporting	1947	Gun Dog	7	8
Lancashire Heeler	Not recognised	/	2009	Herding	1	1
Lapinporokoira (Lapponian Herder)	Not recognised	/	2006	Herding	3	3
Leonberger	2010	Working	1991	Guardian	6	6
Lhasa Apso	1935	Non-sporting	1975	Companion	1	1
Löwchen	1996	Non-sporting	1995	Companion	1	1
Maltese	1888	Toy	1948	Companion	1	1
Maremma Sheepdog	Not recognised	/	2006	Guardian	3	3
Mudi	Not recognised	/	2006	Herding	1	1
Newfoundland	1886	Working	1919	Guardian	1	1
Norfolk Terrier	1979	Terrier	1979	Terrier	1	1
Norrbottenspetz	Not recognised	/	1996	Northern	4	4
Norwegian Buhund	2009	Herding	1996	Northern Breed	7	7
Norwegian Elkhound	1913	Hound	1949	Northern Breed	5	5
Norwegian Lundehund	2011	Non-sporting	1995	Northern Breed	2	2
Norwich Terrier	1936	Terrier	1979	Terrier	1	1
Otterhound	1909	Hound	1985	Scenthound	1	1
Papillon	1915	Toy	1950	Companion	1	1
Parson Russell Terrier	1997	Terrier	1991	Terrier	1	1
Pekingese	1906	Toy	1948	Companion	5	5
Pembroke Welsh Corgi	1934	Herding	1959	Herding	1	1
Pharaoh Hound	1983	Hound	1983	Sighthound and Pariah	1	1
Pointer	1884	Sporting	N/A	Gun Dog	2	2
Polish Lowland Sheepdog	2001	Herding	1992	Herding	1	1
Poodle	1887	Non-sporting	1914	Companion	4	4
Portuguese Water Dog	1983	Working	1987	Gun Dog	2	2
Pug	1885	Toy	1918	Companion	3	3
Puli	1936	Herding	1948	Herding	1	1
Pyrenean Mastiff	Not recognised	/	2006	Guardian	2	2
Pyrenean Shepherd	2009	Herding	Not recognised	/	1	1
Rhodesian Ridgeback	1955	Hound	1980	Sighthound and Pariah	3	3
Rottweiler	1931	Working	1950	Guardian	8	8
Saint Bernard	1885	Working	1920's	Guardian	2	2
Saluki	1929	Hound	1956	Sighthound and Pariah	14	14
Samoyed	1906	Working	1927	Northern Breed	7	7
Sarplaninac	Not recognised	/	1995	Guardian	1	1
Schapendoes	Not recognised	/	2006	Herding	2	2
Schnauzer	1904	Working	1948	Guardian	1	1
Scottish Deerhound	1886	Hound	1949	Sighthound and Pariah	1	1
Scottish Terrier	1885	Terrier	1934	Terrier	1	1
Shetland Sheepdog	1911	Herding	1948	Herding	1	1
Shiba Inu	1992	Non-sporting	1992	Northern	32	32
Shikoku	Not recognised	/	2006	Northern Breed	4	4
Siberian Husky	1930	Working	1938	Northern Breed	4	5
Sloughi	Not recognised	/	1995	Sighthound and Pariah	8	8
Soft-coated Wheaten Terrier	1973	Terrier	1978	Terrier	1	1
Spanish Greyhound	Not recognised	/	2006	Sighthound	2	2
Staffordshire Bull Terrier	1975	Terrier	1975	Terrier	1	1
Swedish Elkhound (Jämthund)	Not recognised	/	2006	Northern	5	5
Swedish Lapphund	Not recognised	/	2006	Northern	4	4
Swedish Vallhund	2007	Herding	1996	Herding	2	2
Thai Ridgeback	Not recognised	/	1996	Sighthound	6	6
Tibetan Mastiff	2006	Working	1998	Guardian	3	5
Tibetan Spaniel	1983	Non-Sporting	1992	Companion	3	3
Tibetan Terrier	1973	Non-Sporting	1973	Companion	6	6
Weimaraner	1943	Sporting	1955	Gun Dog	1	1
Welsh Terrier	1888	Terrier	1936	Terrier	1	1
West Highland White Terrier	1908	Terrier	1919	Terrier	2	2
West Siberian Laika	Not recognised	/	1996	Northern	5	5
Whippet	1888	Hound	1935	Sighthound and Pariah	1	1
Wire Fox Terrier	1885	Terrier	1912	Terrier	1	1
Yorkshire Terrier	1885	Toy	1956	Companion	1	1

Supplementary Table ST13: **Clade distribution and percentage for the full ISEA dataset.** Of the 187 samples under study, 71 were analysed specifically for this study. Six novel haplotypes were found.

Region	**Haplogroup A**		**Haplogroup B**		**Haplogroup C**		**TOTAL**
	Nb samples (novel)	**%**	**Nb samples (novel)**	**%**	**Nb samples (novel)**	**%**	**Nb samples (novel)**
ISEA	123 (4)	65.78	36 (1)	19.25	28 (1)	14.97	187 (6)
Kalimantan (Indonesia)	41 (0)	65.08	8 (0)	12.70	14 (0)	22.22	63
Indonesia Misc.	4	80.00	1	20.00	0	0.00	5
Philippines	25 (0)	56.82	12 (0)	27.27	7 (0)	15.91	44
New Guinea	31 (3)	91.18	2 (1)	5.88	1 (1)	2.94	34 (5)
Solomon Islands	22 (1)	53.66	13 (0)	31.71	6 (0)	14.63	41 (1)

Supplementary Table ST14: **Clade distribution among breed and non-breed datasets (582bp).** Based on the 582bp fragment of the mtDNA CR. 'n' represents the number of samples. The numbers in bracket represent the percentage of samples from that dataset falling under each clade.

	Clade A n (%)	**Clade B n (%)**	**Clade C n (%)**	**Clade D n (%)**	**Clade E n (%)**	**Clade F n (%)**	**Total n**
Breeds							
Pure-Breeds (PBrd)	371 (69.9)	90 (16.9)	43 (8.1)	21 (4.0)	4 (0.7)	2 (0.4)	**531**
Mixed-Breeds (MBrd)	28 (73.7)	8 (21.0)	2 (5.3)	0	0	0	**38**
Non-Breeds							
Sub-Saharan Africa	81 (76.4)	22 (20.8)	3 (2.8)	0	0	0	**106**
Near East	114 (62.3)	47 (25.7)	17 (9.3)	5 (2.7)	0	0	**183**
South Asia	52 (81.2)	4 (6.3)	8 (12.5)	0	0	0	**64**
East Asia excluding South China	176 (72.5)	46 (18.9)	21 (8.6)	0	0	0	**243**
Asia South Yangtze	393 (79.5)	64 (13.0)	32 (6.5)	0	5 (1.0)	0	**494**
ISEA	123 (65.8)	36 (19.2)	28 (15.0)	0	0	0	**187**
Total	**1338 (72.5)**	**317 (17.2)**	**154 (8.3)**	**26 (1.4)**	**9 (0.5)**	**2 (0.1)**	**1846**

***Supplementary Table ST15:* Number of shared haplotypes between/within non-breed and breed populations.**
Based on the 582bp fragment of the mtDNA control region.

	n	Sub-Saharan Africa	Near East	South Asia	East Asia	Asia South Yangtze	ISEA	Pure-Breed	Mixed-Breed
Sub-Saharan Africa	106	*							
Near East	183	12	*						
South Asia	64	10	10	*					
East Asia	243	9	14	9	*				
Asia South Yangtze	494	14	15	12	25	*			
ISEA	187	15	16	12	16	22	*		
Pure-Breed	531	19	23	15	19	30	25	*	
Mixed-Breed	38	10	8	7	7	10	10	11	*

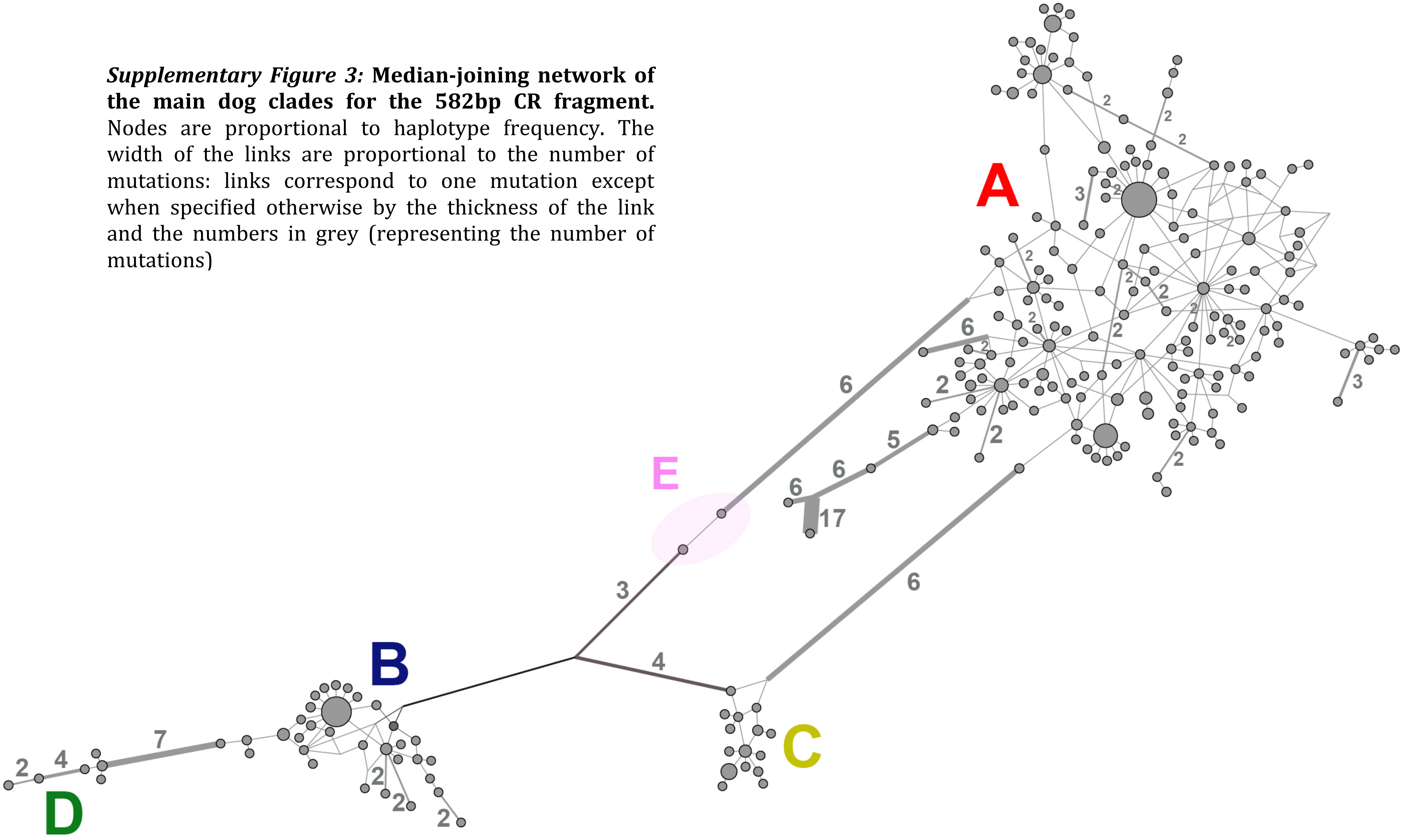
Supplementary Table 16: **Clade distribution among breed and non-breed datasets (304bp).** *Based on the 304bp fragment of the mtDNA CR. 'n' represents the number of samples. The number in bracket represents the percentage of samples from the dataset falling under each clade.*

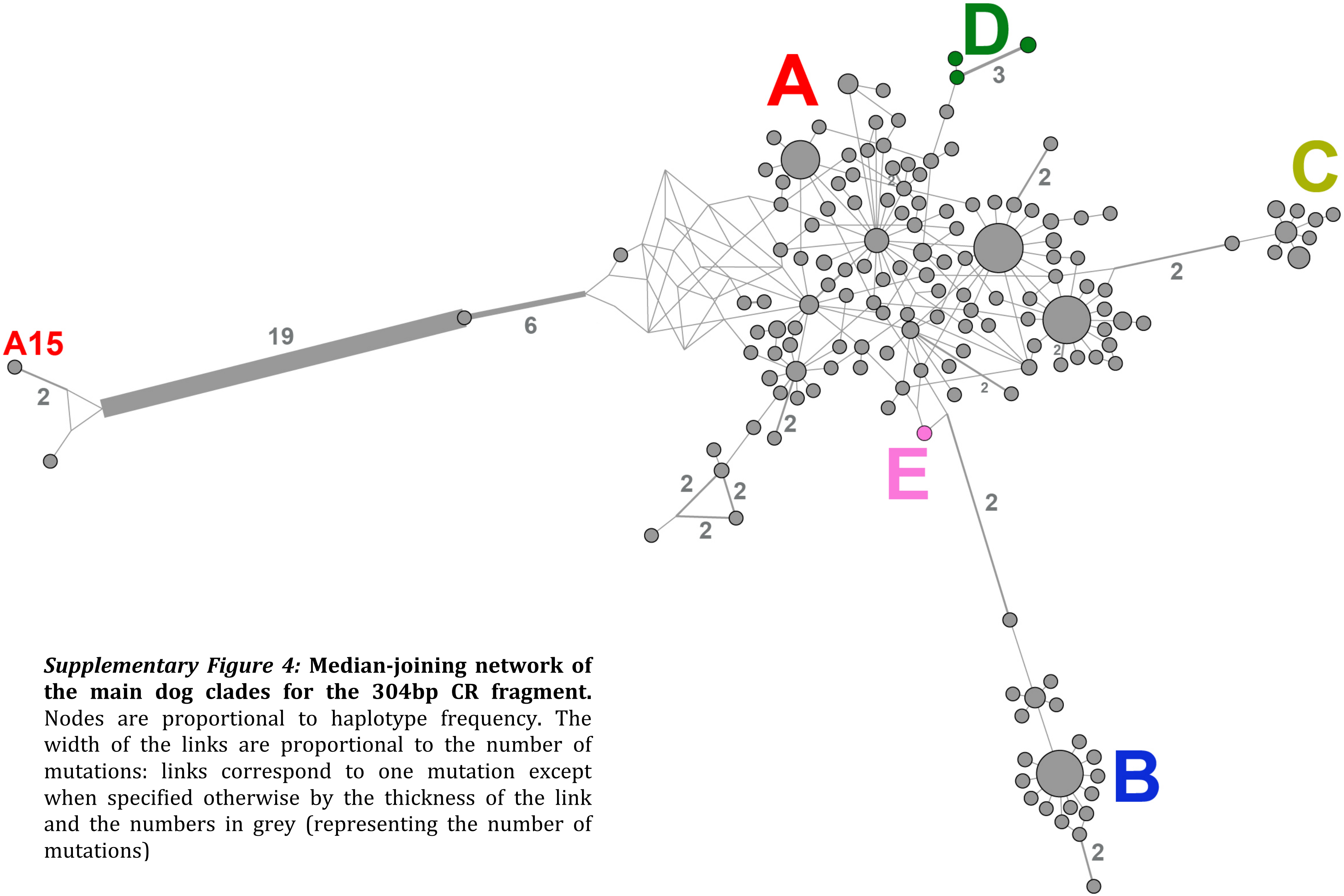
	Clade A	**Clade B**	**Clade C**	**Clade D**	**Clade E**	**Clade F**	**Total**
	n (%)	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n (%)**	**n**
Breeds							
Pure-Breeds (PBrd)	378 (70.1)	91 (16.9)	43 (8.0)	21 (3.9)	4 (0.7)	2 (0.4)	539
Mixed-Breeds (MBrd)	45 (69.2)	13 (20.0)	7 (10.8)	0	0	0	65
Non-Breeds							
Sub-Saharan Africa	94 (79.0)	22 (18.5)	3 (2.5)	0	0	0	119
Near East	261 (67.4)	87 (22.5)	33 (8.5)	6 (1.6)	0	0	387
South Asia	52 (81.3)	4 (6.3)	8 (12.5)	0	0	0	64
East Asia	176 (72.5)	46 (18.9)	21 (8.6)	0	0	0	243
Asia South Yangtze	457 (78.1)	86 (14.7)	37 (6.3)	0	5 (0.9)	0	585
ISEA	144 (65.5)	41 (18.6)	25 (15.9)	0	0	0	220
North America	119 (70.8)	42 (25.0)	7 (42.0)	0	0	0	168
South America	114 (57.9)	49 (24.9)	32 (16.2)	2 (1.0)	0	0	197
Total	1607 (62.1)	390 (15.1)	187 (7.2)	27 (1.0)	9 (0.3)	2 (0.1)	2587

Supplementary Table ST17 : **Number of shared haplotypes between/within non-breed and breed populations**. Based on the 304bp fragment of the mtDNA control region.

	n	Sub-Saharan Africa	Near East	South Asia	East Asia	Asia South Yangtze	ISEA	North America	South America	Pure-Breed	Mixed-Breed
Sub-Saharan Africa	119	*									
Near East	387	14	*								
South Asia	64	8	13	*							
East Asia	243	10	14	9	*						
Asia South Yangtze	585	16	20	12	20	*					
ISEA	220	13	17	11	13	19	*				
North America	168	11	16	9	9	13	14	*			
South America	197	10	18	10	13	15	14	17	*		
Pure-Breed	539	15	25	12	16	22	16	17	18	*	
Mixed-Breed	65	11	13	9	9	12	11	12	12	13	*

Supplementary Figure 3: **Median-joining network of the main dog clades for the 582bp CR fragment.** Nodes are proportional to haplotype frequency. The width of the links are proportional to the number of mutations: links correspond to one mutation except when specified otherwise by the thickness of the link and the numbers in grey (representing the number of mutations)





***Supplementary Figure 4:* Median-joining network of the main dog clades for the 304bp CR fragment.** Nodes are proportional to haplotype frequency. The width of the links are proportional to the number of mutations: links correspond to one mutation except when specified otherwise by the thickness of the link and the numbers in grey (representing the number of mutations)

III. Archaeological dog remains suggest maternal genetic variation between ancient populations

III.1 Abstract

Constant human movements have affected the maternal genetic structure of dogs across the world (chapter II). Admixture between indigenous and introduced dog populations has led to an homogenisation of the modern dog gene pool, rendering the investigation of their origin and early dispersals from modern samples unreliable. This research aims to investigate if maternal genetic structure existed in past dog populations, and tests whether this homogenisation occurred following the European colonial expansion in the late 15th century. 112 ancient samples were collected across the Caribbean, Europe and Southeast Asia and Oceania. 33 positive amplifications of a 97bp mitochondrial DNA (mtDNA) fragment were obtained. Combined with 55 previously published archaeological sequences, my results demonstrated a pattern within the clade distribution; America and Southeast Asia/Oceania were dominated by clade A while clade C prevailed in Europe. An analysis of molecular variance (AMOVA) further confirmed the presence of mtDNA structure and variation between ancient dog populations. As all ancient samples dated prior to the European colonial expansion starting in the late 15th century, this study suggests that the homogeneous gene pool observed in modern dog populations results from population movements accentuated by the development of transoceanic travel.

III.2 Introduction

The dog (*Canis familiaris*) is the first animal to have been domesticated (1) and has since proved valuable in the development of human societies and cultures. Genetic, behavioural and morphological studies have demonstrated that the domestic dog is descended from the gray wolf (*Canis lupus*) (1-3). Although the initial process of this domestication remains unknown, it is generally believed that dogs evolved through a mutually beneficial relationship, taking residence with human societies and accompanying them on numerous worldwide dispersals. These resulted in a widespread geographical distribution of the domestic dog which covered both Eurasia and the Americas well before the development of transoceanic travel in the late 15^{th} century (4, 5).

Despite numerous studies undertaken by zooarchaeologists and biomolecular archaeologists, the geographical origin and timing of dog domestication remains under debate. Morphological analyses of early canid remains have suggested the presence of ‘Palaeolithic dogs’ dating back as far as 36,000 years BP. Found in Belgium (6), the Czech Republic (7) and Siberia (8), further research including mitochondrial DNA analyses conducted on the Belgian canids showed that these ‘Palaeolithic dogs’ most likely represented an aborted domestication event or a morphologically distinct population of gray wolf not previously recognised (9, 10). The earliest confidently identified dog remains appeared in the archaeological record around 14,000 years BP. Other early dog remains have been recovered across the Old World including Europe, the Levant, Iraq, Northern China and the Russian Far East (9). By 8,000 years BP, dogs were widespread within their ancestor’s historical range including North America (9, 11) (Figure1). This is further supported by pictorial depictions of dogs on Saharan and Iberic Epipalaeolithic rock art (2). Remaining regions lacking the presence of wolves were in most cases populated by dogs with the advent of agriculture; the earliest dog present in the Khoi area of South Africa has been radiocarbon dated to 1,150 years ago, only a few centuries after the introduction of cattle in the region (12), while the earliest dog remains from southern South America were found to coincide with the arrival of sedentary societies around 1,000 years ago (13). Based on the location of the earliest dog remains, these zooarchaeological studies support a European and/or a Middle Eastern origin for dogs (14-17) (Figure 1).

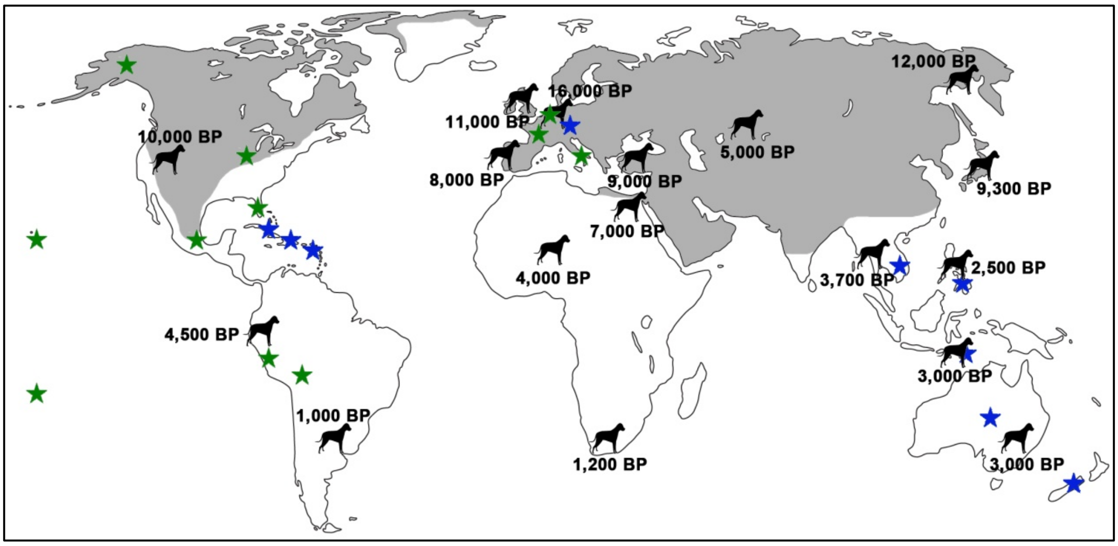


***Figure 1*: Approximate historical range of the gray wolf (*Canis lupus*) shaded in gray and a selection of the earliest archaeological dog remains found across the world (map mainly based on (9) including references from (13,14)).** Stars represent the location of the samples used in this study: previously published samples (green star) and samples analysed specifically for this study (blue star). For full details of the samples, see Supp. Table 1.

Defining the origin(s) of dog domestication based solely on zooarchaeological remains is, however, problematic. The holarctic distribution of the wolf prevents zooarchaeologists from identifying ancient dog remains as ‘wild’ or ‘domestic’ based solely on geographical location, unlike other domesticates whose ancestors’ native ranges were more restricted (9, 18). Morphological traits distinguishing dogs from wolves have been suggested by zooarchaeologists, and notably consist of a decrease in body size and a juvenilisation of the skull (shorter face, steeper forehead and wider cranial dimensions). The latter resulted in characteristic tooth crowning and a reduction in tooth size (19, 20). Yet, these newly developed features were not fixed during the earliest stage of domestication, nor do we know the time these developments took to be morphologically visible (9). Both these factors render the distinction between small wolves and early domesticated dogs problematic. Another major issue with ancient canid remains is that their discovery largely depends on the location and number of archaeological investigations.

Phylogenetic analyses on modern dogs have in turn attempted to shed light on the geographical and temporal origin of dog domestication based on fragments of the mitochondrial DNA (mtDNA) control region (CR). Mitochondrial DNA is commonly used in phylogenetic studies due to its high evolution rate compared to that of the nuclear genome and its unique mode of inheritance. Furthermore, it allows for a clear distinction between dog and wolf lineages (1, 3). Comprehensive surveys of modern dogs from across the Old World have suggested East Asia south of the Yangtze River as the most likely centre of domestication based on a higher genetic diversity (1, 21). This view has since been challenged not only based on the nature of the East Asian dataset (comprising of both breeds and street dogs) but also on the fact that similar levels of mtDNA diversity have been found in African village dogs (22). Other mtDNA analyses have suggested the Near East as another potential domestication centre (23).

Statistical tests undertaken through analyses of molecular variance conducted on eight geographically distinct modern populations of non-breed dogs across the world (including the Near East and East Asia) have however shown that genetic variation between these populations is almost non-existent. Instead, the majority of the genetic variation (96%) is observed within populations (chapter II, this volume). This analysis of molecular variance (AMOVA) is analogous to an ANOVA in which the correlations among genotype distances at various hierarchical levels are used as F-statistics analogues. The significance of these ϕ-statistics is evaluated based on random permutations of sequences among populations (24). This technique is particularly useful for data containing not only allele frequencies but also the amount of mutations between alleles (25).

The lack of worldwide mitochondrial DNA variation in modern dogs most likely results from recent human movements essentially driven by the development of transoceanic travel five centuries ago. The European colonial expansion and the subsequent trade and exchange between the continents have had a major impact on the genetic signatures of dog populations as suggested by mtDNA studies on New World dogs. These genetic analyses have shown an almost complete replacement of American village/street dogs by European dogs although evidence for Pre-Columbian origin was present in some Arctic, North and South American breeds (4, 26, 27). These studies highlight the fact that modern mitochondrial DNA is not a reliable tool in attempting to retrace dog history.

Research on the mitochondrial DNA structure of past populations include studies on Pre-Columbian American dogs (4, 10), Neolithic European dogs (2, 28, 29) and Pre-European Polynesian dogs (30). Results based on various fragments of the mtDNA control region have revealed ancient haplotypes unique to specific regions. These include haplotypes from clade *a* in Pre-Columbian Latin America (4) and haplotypes Arc 1 and Arc 2 in pre-European Polynesia (30, 31). However, the number of genetic analyses conducted on ancient dogs remains small despite the number of archaeological material uncovered, and a direct comparison of the genetic diversity of each of the studied regions has yet to be undertaken. Given the lack of genetic variation between modern dog populations, the presence of genetic differentiation between ancient dog populations would not only confirm that recent population movements have blurred genetic signatures of dog geographical locale, it would also highlight the necessity of using ancient material when investigating dogs' past history through genetics.

In order to i) investigate the level of mitochondrial DNA variation in ancient dogs between geographically distinct populations and ii) test whether the lack of mitochondrial DNA variation between modern populations occurred following the European colonial expansion in the late 15th century, I used an analysis of molecular variance on 88 ancient dogs from three regions dating prior to the development of transoceanic travel. 112 archaeological remains were sampled from the Caribbean, Europe and Southeast Asia/Oceania. Due to a low success rate in the amplification of these ancient remains (29%), only 33 samples out of the 112 specimens collected for this study were used. 55 sequences from previously published ancient dog remains were selected based on their confirmed dog morphological and genetic identification (Figure 1) (2, 4, 10, 28, 30). Those for which the identification was unclear, such as the 14,000 years old canid remains from Kesslerloch Cave in Switzerland, were excluded (10), as were those for which previous genetic analyses revealed ambiguous results (i.e. the 36,000 years old Goyet cave dogs) (10). By implementing a rigorous selection of ancient samples, I aim to prevent any genetic differentiation between populations that may be a result of the inclusion of wolf sequences.

III.3 Results and Discussion

Of the 112 archaeological dogs sampled for this study, I have successfully amplified a 97bp fragment from the mtDNA control region of nine ancient dogs from the Caribbean, ten ancient dogs from Hungary and 14 ancient dogs from across Southeast Asia and Oceania (Supplementary Table ST1). Combined with carefully selected samples from previously published studies (Table 1 and Supplementary Table 2), my dataset comprised of a total of 88 sequences including 36 from America, 19 from Europe and 33 from across Southeast Asia and Oceania (Table 1).

Despite the short fragment length of my samples, the main clades previously defined by Savolainen *et al.* (1)*,* Vila *et al.* (3) and Pang *et al.* (21) remain identifiable; six major clades (named clades A-F) have been identified among modern dogs from across the world (1, 3, 21). These comprised three dominant clades A, B and C which encompass over 95% of individuals (65-75% for clade A, 15-20% for clade B and 5-10% for clade C) (32). The other three clades are mostly geographically restricted and found in small numbers: clade D is found in Scandinavian breeds and the Middle East (1, 3, 21, 32), and clades E and F are restricted to East Asian populations and Siberian breeds (32-34). Based on the 97bp fragment, the neighbour-joining tree provides little support for these clades (bootstrap values <50% except for clade F, Supp. Figure 1). Low values have also been observed by previous studies based on a 582bp fragment of the CR; full sequencing of the mitochondrial genome has, however, confirmed this CR-based topography with high neighbour-joining bootstrap values (>92%) and Bayesian values (100%) (21). Furthermore, the 97bp fragment selected and used in this study conserves the main SNPs that allow classification of the samples into their respective clades (Figure 2, Figure 3, Supp Table 3). For instance, clade B is defined by a combination of 7 SNPs, whereas clade C and D differentiate from other clades based on 4 SNPs. Clade A, as has been observed in numerous previous studies, is regarded as a polytomy and does not retain particular SNPs. The 88 samples comprising the dataset for this study all fell into known haplogroups and no haplotypes belonging to clades E or F have been observed. This is not surprising given the lack of archaeological dog remains in East Asia. A large proportion of the European samples fell within clade C in comparison to the other two regions (73.6% in Europe, 0% and 6.1% in America and Southeast Asia/Oceania respectively). Clade B was found in equal proportion and Clade D was found in one sample

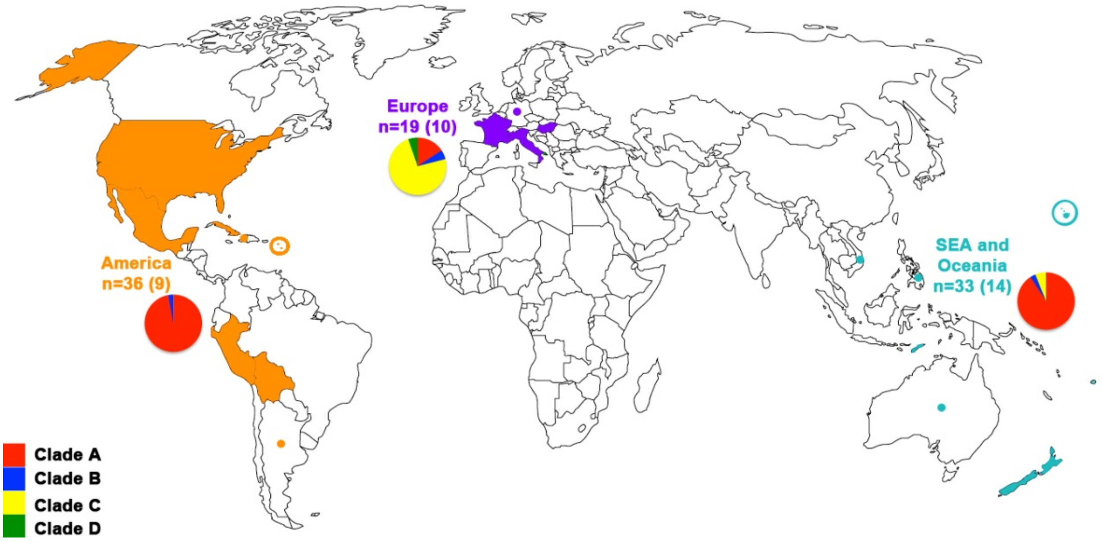
***Table 1:* : List of the samples used in this study including the samples' ID number, their origins, dates, source, clade and haplotype as defined by the 97bp fragment**

Sample Id.	Genbank Acc Nb	Haplogroup 97bp	Haplotype 97bp	Population	Region	Country	Location specific	Date (BP)	Source
PC8	AY163886	A	Hap_01	America	North America	Mexico	Teotihuacan	1300 yr BP	Leonard et al 2002
JAL49	AF005280	A	Hap_08	America	North America	Alaska	Fairbanks area	275 yr BP	Leonard et al 2002
JAL330	AY163878	A	Hap_05	America	South America	Bolivia	Iwawi	>1000 yr BP	Leonard et al 2002
JAL331	AY163879	A	Hap_05	America	South America	Bolivia	Iwawi	>1000 yr BP	Leonard et al 2002
JAL332	AY163880	A	Hap_06	America	South America	Bolivia	Iwawi	>1000 yr BP	Leonard et al 2002
JAL334	AY163881	A	Hap_05	America	South America	Bolivia	Iwawi	>1000 yr BP	Leonard et al 2002
JAL337	AY163882	A	Hap_05	America	South America	Bolivia	Iwawi	>1000 yr BP	Leonard et al 2002
JAL365	AY163883	A	Hap_12	America	South America	Peru	Chiribaja Baja	1000 yr BP	Leonard et al 2002
PC5	AY163884	A	Hap_07	America	South America	Peru	Chiribaja Baja	1000 yr BP	Leonard et al 2002
PC6	AY163885	A	Hap_05	America	South America	Peru	Chiribaja Baja	1000 yr BP	Leonard et al 2002
PC10	AY163887	A	Hap_03	America	North America	Mexico	Texcoco	800 yr BP	Leonard et al 2002
PC12	AY163888	A	Hap_05	America	North America	Mexico	Tula (Hidalgo)	1400 yr BP	Leonard et al 2002
PC13	AY163889	B	Hap_13	America	North America	Mexico	Tula (Hidalgo)	1400 yr BP	Leonard et al 2002
PC14	AY163890	A	Hap_02	America	North America	Mexico	Tula (Hidalgo)	1400 yr BP	Leonard et al 2002
JAL27	AY163891	A	Hap_09	America	North America	Alaska	Fairbanks area	420-310 yr BP	Leonard et al 2002
JAL42	AY163892	A	Hap_08	America	North America	Alaska	Fairbanks area	285 yr BP	Leonard et al 2002
JAL62	AY163892	A	Hap_08	America	North America	Alaska	Fairbanks area	500 yr BP	Leonard et al 2002
JAL43	AY163893	A	Hap_08	America	North America	Alaska	Fairbanks area	430-320 yr BP	Leonard et al 2002
JAL46	AY163894	A	Hap_02	America	North America	Alaska	Fairbanks area	295 yr BP	Leonard et al 2002
JAL53	AY163895	A	Hap_02	America	North America	Alaska	Fairbanks area	300 yr BP	Leonard et al 2002
JAL59	AY163896	A	Hap_10	America	North America	Alaska	Fairbanks area	475 yr BP	Leonard et al 2002
USA8,500	KF661083	A	Hap_08	America	North America	USA	Koster site, Illinois	8500 yr BP	Thalmann et al., 2013
Argentina1,000	KF661084	A	Hap_05	America	South America	Argentina	Cerro Lutz (near Uruguay, Brasil)	1000 yr BP	Thalmann et al., 2013
USA1,000	KF661086	A	Hap_08	America	North America	USA	Flordia	1000 yr BP	Thalmann et al., 2013
Perm597	N/A	A	Hap_02	America	North America	Alaska	Fairbanks area	495 yr BP	Leonard et al 2002
JAL44	N/A	A	Hap_02	America	North America	Alaska	Fairbanks area	275 yr BP	Leonard et al 2002
JAL45	N/A	A	Hap_04	America	North America	Alaska	Fairbanks area	310 yr BP	Leonard et al 2002
OL463	this study	A	Hap_08	America	North America	Antigua	Indian Creek Site	1950-1350 yr BP	This study
OL465	this study	A	Hap_08	America	North America	Antigua	Indian Creek Site	1050-850 yr BP	This study
OL473	this study	A	Hap_08	America	North America	Cuba	Portrero del Mango site, Banes	750-513 yr BP	This study
OL475	this study	A	Hap_08	America	North America	Cuba	Portrero del Mango site, Banes	750-513 yr BP	This study
OL476	this study	A	Hap_08	America	North America	Cuba	Portrero del Mango site, Banes	750-513 yr BP	This study
OL478	this study	A	Hap_08	America	North America	Cuba	Portrero del Mango site, Banes	750-513 yr BP	This study
OL479	this study	A	Hap_08	America	North America	Cuba	Portrero del Mango site, Banes	750-513 yr BP	This study
OL445	this study	A (Novel2)	Hap_11	America	North America	Guadeloupe	Morel	2270-1650 yr BP	This study
OL471	this study	A	Hap_08	America	North America	Haiti	Meillac Site	757-513 yr BP	This study
PIC-1	AY741666	C	Hap_14	Europe	Europe	Italy	Palidoro Upper Palaeolithic Rock Shelter	14670 yr BP	Verginelli et al., 2005
PIC-2	AY741667	B	Hap_13	Europe	Europe	Italy	Apulia	9860 yr BP	Verginelli et al., 2005
PIC-3	AY741668	A	Hap_02	Europe	Europe	Italy	Romanelli Cave	9670 yr BP	Verginelli et al., 2005
PIC-4	AY741669	C	Hap_14	Europe	Europe	Italy	Casal del Dolce Eneolithic site	4110 yr BP	Verginelli et al., 2005
PIC-5	AY741670	A	Hap_12	Europe	Europe	Italy	Vejano Recent Bronze Age site	3040 yr BP	Verginelli et al., 2005
VTC1	EU287460	C	Hap_15	Europe	Europe	France	Villeneuve-Tolosane	5950-5750 yr BP	Deguilloux et al., 2009
VTC2	EU287461	C	Hap_14	Europe	Europe	France	Villeneuve-Tolosane	5950-5750 yr BP	Deguilloux et al., 2009
VTC3	EU287462	C	Hap_14	Europe	Europe	France	Villeneuve-Tolosane	5950-5750 yr BP	Deguilloux et al., 2009
Germany12,500	KF661094	C	Hap_14	Europe	Europe	Germany	Kartstein Cave	12500 yr BP	Thalmann et al., 2013
OL504	this study	A	Hap_08	Europe	Central Europe	Hungary	N/A	6920-5710 yr BP	This study
OL453	this study	C	Hap_14	Europe	Central Europe	Hungary	N/A	6920-5710 yr BP	This study
OL499	this study	C	Hap_14	Europe	Central Europe	Hungary	N/A	6920-5710 yr BP	This study
OL502	this study	C	Hap_14	Europe	Central Europe	Hungary	N/A	6920-5710 yr BP	This study

OL507	this study	C	Hap_14	Europe	Central Europe	Hungary	N/A	6920-5710 yr BP	This study
OL276	this study	C	Hap_16	Europe	Central Europe	Hungary	N/A	6920-5710 yr BP	This study
OL451	this study	C	Hap_14	Europe	Central Europe	Hungary	N/A	6920-5710 yr BP	This study
OL452	this study	C	Hap_14	Europe	Central Europe	Hungary	N/A	6920-5710 yr BP	This study
OL505	this study	C (Novel4)	Hap_17	Europe	Central Europe	Hungary	N/A	6920-5710 yr BP	This study
OL501	this study	D (Novel3)	Hap_18	Europe	Central Europe	Hungary	N/A	6920-5710 yr BP	This study
N/A - Sample 1	N/A	A	Hap_08	Oceania	Oceania	Cook Islands	N/A	1000 yr BP	Savolainen et al 2004
N/A - Sample 2	N/A	A	Hap_19 (Arc2)	Oceania	Oceania	Cook Islands	N/A	1000 yr BP	Savolainen et al 2004
N/A - Sample 16	N/A	A	Hap_08	Oceania	Oceania	Hawaii	N/A	800-172 yr BP	Savolainen et al 2004
N/A - Sample 17	N/A	A	Hap_08	Oceania	Oceania	Hawaii	N/A	800-172 yr BP	Savolainen et al 2004
N/A - Sample 18	N/A	A	Hap_19 (Arc2)	Oceania	Oceania	Hawaii	N/A	800-172 yr BP	Savolainen et al 2004
N/A - Sample 19	N/A	A	Hap_19 (Arc2)	Oceania	Oceania	Hawaii	N/A	800-172 yr BP	Savolainen et al 2004
N/A - Sample 3	N/A	A	Hap_08	Oceania	Oceania	New Zealand	N/A	700-400 yr BP	Savolainen et al 2004
N/A - Sample 4	N/A	A	Hap_08	Oceania	Oceania	New Zealand	N/A	700-400 yr BP	Savolainen et al 2004
N/A - Sample 5	N/A	A	Hap_08	Oceania	Oceania	New Zealand	N/A	700-400 yr BP	Savolainen et al 2004
N/A - Sample 6	N/A	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	N/A	700-400 yr BP	Savolainen et al 2004
N/A - Sample 7	N/A	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	N/A	700-400 yr BP	Savolainen et al 2004
N/A - Sample 8	N/A	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	N/A	700-400 yr BP	Savolainen et al 2004
N/A - Sample 9	N/A	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	N/A	700-400 yr BP	Savolainen et al 2004
N/A - Sample 10	N/A	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	N/A	700-400 yr BP	Savolainen et al 2004
N/A - Sample 11	N/A	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	N/A	700-400 yr BP	Savolainen et al 2004
N/A - Sample 12	N/A	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	N/A	700-400 yr BP	Savolainen et al 2004
N/A - Sample 13	N/A	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	N/A	700-400 yr BP	Savolainen et al 2004
N/A - Sample 14	N/A	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	N/A	700-400 yr BP	Savolainen et al 2004
N/A - Sample 15	N/A	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	N/A	700-400 yr BP	Savolainen et al 2004
OL267	this study	B	Hap_13	Oceania	Oceania	Australia	N/A	2750-2340 yr BP	This study
OL239	this study	C	Hap_14	Oceania	Oceania	Indonesia	Timor	3000 yr BP	This study
OL268	this study	C	Hap_14	Oceania	Oceania	Indonesia	Timor	3000 yr BP	This study
OL271	this study	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	Houhora (Maori village)	650-550 yr BP	This study
OL272	this study	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	Kaupohonui	650-550 yr BP	This study
OL428	this study	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	Houhora (Maori village)	650-550 yr BP	This study
OL430	this study	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	Houhora (Maori village)	650-550 yr BP	This study
OL432	this study	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	Kaupohonui	650-550 yr BP	This study
OL433	this study	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	Kaupohonui	650-550 yr BP	This study
OL434	this study	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	Twilight beach (midden)	650-550 yr BP	This study
OL435	this study	A	Hap_19 (Arc2)	Oceania	Oceania	New Zealand	Twilight beach (midden)	650-550 yr BP	This study
OL273	this study	A (Novel1)	Hap_20	Oceania	Oceania	New Zealand	Shag Mouth (midden)	650-550 yr BP	This study
OL269	this study	A	Hap_12	Oceania	ISEA	Philippines	Nagsabaran	3950-2450 yr BP	This study
OL493	this study	A	Hap_21	Oceania	Oceania	Vietnam	N/A	4250-3150 yr BP	This study

from Hungary. This difference in the proportions of clades according to regions resulted in genetic variation between the European population and the other two populations (Figure 2).

Figure 2: **Sample distribution used in this study according to regions (orange = America, purple = Europe and turquoise = Southeast Asia and Oceania) and proportion of clades for each region (clade A represented in red, clade B in blue, clade C in yellow and clade D in green)**. Countries with a dot represent the sampling of only one individual within the entire country. Numbers in brackets represent the number of samples from this study.



The presence of clade C haplotypes in Neolithic European dogs has already been observed through three French Neolithic dogs previously published (included in the current analysis) (28). Considering the extent of the clade A distribution in modern European dogs (1, 21), Deguilloux *et al.* (28) have speculated that clade C Western European Neolithic dogs have since been replaced by clade A dogs. This hypothesis is further supported by my larger European dataset: in addition to Deguilloux's samples, clade C was also present in two Upper Palaeolithic dogs in Italy and Germany dating respectively to 14,670 years BP and 12,500 years BP and one Neolithic Italian sample. Moreover, eight of my Hungarian samples possessed clade C haplotypes, all dating to the late Neolithic/Early Copper Age. This showed that the distribution of clade C was not restricted to Western Europe, but rather included most of Europe. Consequently, based on the genetic analyses, it would appear that clade C was widely distributed in Neolithic European dogs and would have been subjected to replacement by clade A dogs sometime after the Neolithic.

An interesting observation is the presence of a novel haplotype belonging to clade D present in Hungary during the late Neolithic/Early Copper Age (Figures 2,3). Based on modern mtDNA dog analyses, clade D is mostly restricted to Scandinavian breeds and Middle Eastern dogs (1, 21). Malmstrom *et al.* have sampled Neolithic and Medieval Scandinavia dogs and have revealed the lack of clade D for both periods based on a 107bp mtDNA CR fragment, suggesting a lineage replacement after the Medieval period (28, 29). Pang's genetic analysis suggested two separate wolf origins for clade D based on the presence of two sub-clades: one in Scandinavia, the other further south (the sub-clade was found among six individuals from Southwest Asia, North Africa and Iberia) (21). However, the presence of a haplotype belonging to clade D within Neolithic Hungary, but not observed in any other ancient samples across the world, suggests clade D may have originated somewhere in central Europe. Further genetic surveys of ancient dog material from across Europe and Asia are needed to confirm the origin of this clade.

A total of 21 haplotypes were observed based on the 97bp fragment here under study. In order to compare these haplotypes with previously recognised ones from both ancient and modern remains, I compiled an alignment of published haplotypes from 14 studies ((1, 3, 4, 21, 22, 27, 30, 31, 33-37) and chapter II, this volume). Unsurprisingly, given the shorter fragment analysed for my archaeological fragment. I have nevertheless identified four novel haplotypes within dogs sampled specifically for this study: one haplotype was found in the Caribbean, two were from Hungary and one from New Zealand. Of the 21 haplotypes observed within my dataset, three were common to all populations. Only one haplotype was shared between America and Europe and another haplotype was shared between Europe and Southeast Asia and Oceania.

The relatively low number of shared haplotypes between regional datasets would suggest genetic differentiation between these ancient dog populations. This is supported by the F_{ST} values (Table 2). According to Wright's qualitative guidelines in the interpretation of F_{ST} (38, 39), this range of values from 0.22801 to 0.34972 are representative of a 'great' to 'very great' genetic differentiation. This result differs from the F_{ST} values observed among modern populations: for instance, an F_{ST} value of 0.027 was observed between Island Southeast Asia and North America, and an F_{ST} value of 0.008 was observed between North America and the Middle East indicating 'little' genetic differentiation (Chapter II, this volume). Consequently, the ancient dog populations have a higher genetic differentiation than modern dog populations.

Table 2: F_{ST} value between ancient populations. All P-values <0.01.

	America	Europe	SEA and Oceania
America	*		
Europe	0.34972	*	
SEA and Oceania	0.25537	0.22801	*

When the 88 ancient dog dataset was divided into three geographically distinct populations (America, Europe and Southeast Asia/Oceania), the AMOVA results showed that overall, 72.87% of the genetic variation was observed within populations and 27.13% was found among populations (Table 3). This compares to the low percentage of genetic variation observed between geographically distinct modern populations; following the same analysis as the one currently used in this study, AMOVA revealed that 98.02% of the total modern genetic variation was found within populations and 1.98% was found among populations, showing little genetic variation between the modern populations. This result demonstrates ancient genetic variation between each of the three regions, but also genetic structure within each region as was suggested by the number of shared and unique haplotypes as well as the F_{ST} values. My comparison with modern data based on the 97bp fragment also confirms that the results obtained were not caused by the loss of genetic information due to the shortening of the fragment.

Hierarchical Clusters	Variance Components	Percent of	F	*P*-value
Ancient Samples (97bp) [aAmerica] [aEurope] [aSEA and Oceania]	Within Populations Among Populations	72.87 27.13	0.27127	0.0000
Modern Samples (97bp) [North America] [South America] [Sub-Saharan Africa] [Near East] [South Asia] [ISEA] [East Asia South Yangtze] [East Asia]	Within Populations Among Populations	98.01 1.98	0.01981	0.0000

Table 3: AMOVA results for ancient samples and modern samples (both datasets based on 97bp). Regions in square brackets correspond to the regional groups

The most likely cause of this observed genetic differentiation between America, Europe and Southeast Asia/Oceania is the distribution of haplotypes unique to each region, revealing that dog movement through human dispersals had not majorly affected the worldwide genetic structure of dogs prior to the 15th century and the European colonial expansion.

Both America and Oceania possessed haplotypes unique to their region as is also demonstrated by the MJ network (Figure 3), contributing towards the genetic variation between populations. The Pre-Columbian Latin American samples used in this study have previously revealed, based on a longer fragment, that they are grouped under clade *a*, a sub-clade that was not found in any modern samples. The 97bp haplotypes deriving from this sub-clade remained unique to the region. Interestingly, none of my newly sampled Caribbean dogs shared haplotypes with these Pre-Columbian Latin America samples. Rather, all my samples originating from Cuba and Antigua belonged to one of the three universal haplotypes found in all three regions (although excluding South America). This is surprising considering dogs were introduced in the Caribbean by horticulturalists from northern South America about 500 years B.C. (11). The only remaining sample was from Morel, Guadeloupe, which possessed a novel haplotype. More complete mitochondrial DNA fragments of the Caribbean dogs would no doubt help shed light on this region but the success rate of DNA amplification for these samples was relatively low (27%).

Zooarchaeological data and historical documents have highlighted the presence of two different types of dog in the Caribbean. Several chroniclers have recorded the presence of small mute dogs called *aon.* These were occasionally eaten to compensate for the dearth of terrestrial protein and have now become extinct. The second type of dog found on these islands was much larger and found buried in human graves. Commonly used to pursue hutias (now-extinct rodents), these dogs are believed to have persisted through Post-Conquest times (11). A majority of my samples from Cuba and Antigua were found from layers encompassing numerous hutia bones while the size of the sampled remains were relatively uniform suggesting my Caribbean data comprised of a single type of dog. Given their association with hutias, one could hypothesise the samples here under study belonged to the larger dog type (and were thus not *aon*). However, due to a lack of available comparative material, I have been unable to confirm this observation. Future research should focus on obtaining comparative zooarchaeological material from these two types of dogs in order to identify the type of dog here under study. Combined with genetic data, the results would help understand the origin of these two Caribbean dogs and their potential genetic replacement through time.

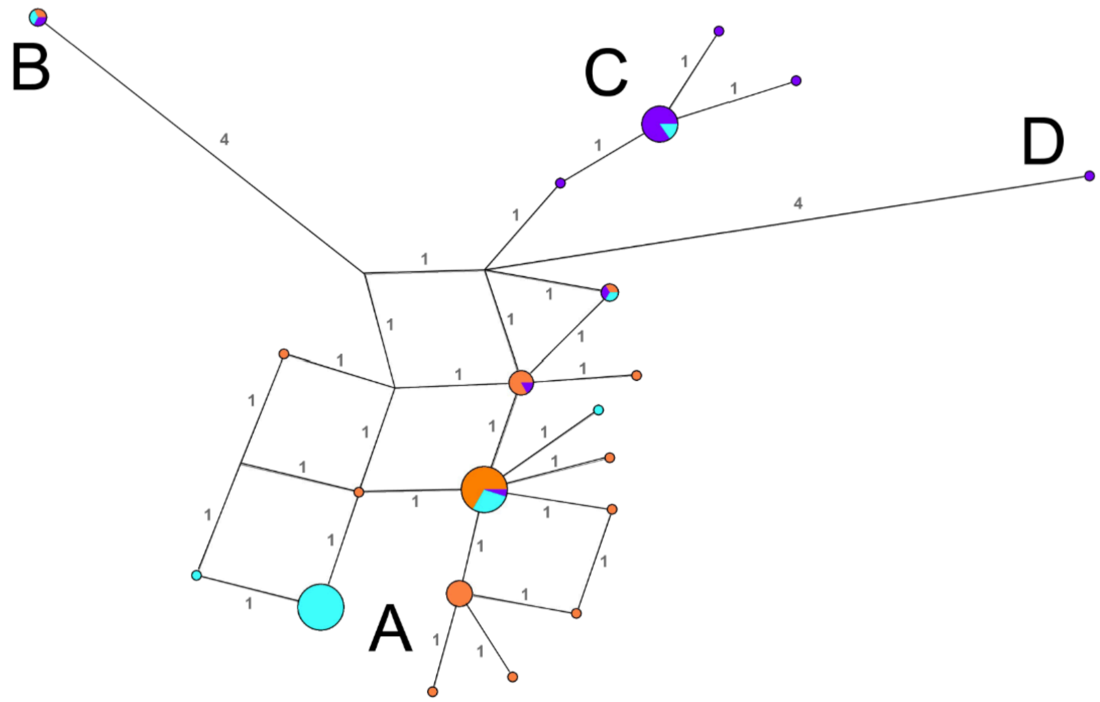


Figure 3**: Median-Joining Network representing the relationship between haplotypes based on the 97bp fragment and the distribution of haplotypes for America (orange), Europe (purple) and Southeast Asia and Oceania (turquoise).** Nodes proportional to haplotype frequency. Number in grey corresponds to the number of mutations between haplotypes. Clades have been identified based on the identification of specific SNPs on the 97bp fragment.

Regarding Oceania, a previous study conducted on pre-European Polynesian samples (which were also included in this study), revealed through the sequencing of a 263bp fragment, the presence of two pre-European haplotypes Arc 1 and Arc 2 within clade A. These haplotypes were found across Polynesian dogs as well as China and Indonesia but were absent from Taiwan and the Philippines, thus supporting a mainland Southeast Asian introductory route for dogs into Polynesia (although the dispersal of the various human groups before and during the Neolithic appears to be more complex) (30, 31). Although the sequences were trimmed to 97bp preventing any direct comparison between this study and the published studies, one of the two haplotypes (Arc2) remained unique over the 97bp fragment. In particular, it included eight of my nine New Zealand samples, leading to a total of 21 samples out of the 33 Southeast Asia/Oceania samples with this haplotype. Such a large proportion of a unique haplotype specific to this region also contributed to the genetic variation observed between populations.

III.4 Conclusion

The analysis of molecular variance (AMOVA) demonstrated clear mitochondrial DNA variation between three geographically distinct ancient dog populations. This contrasts with the lack of genetic variation between modern dog populations observed in my previous study (chapter II) and highlights a clear loss of genetic diversity since the Neolithic. As genetic differentiation is observable in samples dating prior to the late 15th century, the cause of this decrease is most likely the result of recent population movements linked to the development of transoceanic travel during the European colonial expansion. Colonialism has seen the introduction of European dogs across the world, which has not only led to potential replacement of native populations as was demonstrated in America (4, 26), but also in regions previously devoid of domesticates such as Mauritius when it became a way-station for European-Southeast Asian trade (40). The development of easy and fast modes of transport in the last 200 years have also facilitated human movements throughout the world, no doubt contributing to the blurring of genetic signatures specific to regional dog populations. It is therefore essential that upon attempting to retrace dog domestication and history, genetic studies should rely upon archaeological remains to avoid the consequences recent events have had on the genetic structure of dogs.

This study has investigated dog genetic diversity prior to the European colonial expansion. Thus, the time span of the archaeological remains ranged over several millennia. However, a distinction between historical periods will be essential when aiming to understand lineage origin and replacement across the world. This can already be demonstrated through an ancient mtDNA analysis undertaken in Scandinavia where most Neolithic samples possessed clade C haplotypes. By the Medieval period, these remained present but clade A haplotypes were becoming more prominent (29), suggesting the introduction of clade A dogs in Scandinavia around the Medieval Period. Since then, a second main lineage replacement occurred by dogs possessing clade D haplotypes.

Defining the number of dog domestication events and its/their origin(s) is also inextricably linked to the historical distribution and ancient genetic structure of the gray wolf. Isolation caused by glacial cycles is known to affect patterns of genetic differentiation of numerous species (41). Despite the small number of ancient samples available and sampling locations, ancient mitochondrial DNA studies on wolves have revealed that Pleistocene wolves across Northern Eurasia and America may have belonged to one continuous population. This is reflected by the holartic distribution of one haplogroup, although some haplotypes were region-specific (18, 42). Modern data revealed this haplogroup became extinct in contemporary North American wolves and has decreased in frequency throughout Europe, with a second major haplogroup now dominating Europe and present throughout North America (42). Hence, understanding the past genetic history of the dog's ancestor and testing the genetic differentiation between regions from past wolf populations needs to be taken into account when looking at the origins of clades and thus dog domestication centre(s).

A major limitation to using ancient remains in exploring the genetic history of dogs is the number and location of archaeological excavations. The burying of dogs by human societies for the past 12,000 – 14,000 years has improved the archaeological visibility of dogs and provided important indications on the social bond between dogs and people (43). Nevertheless, archaeological investigations are lacking in numerous regions across the world, notably East Asia. Understanding the ancient genetic structure of East Asian dogs would provide missing links to our current understanding of dog domestication, especially in terms of clade distribution and replacement through time, as well as its status as a domestication centre. For instance, the presence of clade C in Neolithic Europe and its absence in Neolithic Southeast Asia/Oceania and Pre-Columbian America may suggest geographically distinct domestication events. Pang *et al.* (21) did observe that if clade A and clade B and C originated from different places, their distribution would not be as uniform as currently observed (21). However, Pang *et al.* (21) based his observation on modern genetic data where a lack of genetic variation between populations has been recorded. The lack of archaeological evidence in parts of the world leads to a bias in our understanding of dog domestication and highlights the necessity of interdisciplinary studies, particularly between archaeologists and geneticists in order to provide an accurate view of dog domestication.

III.5 Acknowledgments

I would like to thank Laszlo Bartosiewicz for the Hungarian samples; Roger Colten, Maureen Daros, Rebekah DeAngleo, Allowen Evin and Sandrine Grouard for the Caribbean samples, Greger Larson, Anna Linderholm and Karen Mudar for the Southeast Asia and Oceania samples and Peter Stahl for the Real Alto dog sample. This research was funded by NERC.

III.6 Materials and Methods

III.6.1 Sample collection and DNA extraction

112 ancient dog bones were collected from archaeological sites from America, Central Europe and across Southeast Asia and Oceania. The collected dataset for the Americas comprised of one dog mandible from Real Alto, Ecuador and 33 ancient remains from archaeological sites across the Caribbean (Antigua, n=9; Haiti, n=1; Puerto Rico, n=4; Cuba,

n=10 and Guadeloupe, n=9). Central Europe comprised of two samples from Serbia and 18 samples from Hungary. Finally, 58 samples were collected from across mainland and island Southeast Asia as well as Oceania (Vietnam, n=19; Thailand, n=17; Philippines, n=2; PNG, n=2; Timor, n=3; Australia, n=1 and New Zealand, n=14). To prevent sample contamination and ensure the generation of authentic ancient data, strict DNA procedures were followed based on Cooper and Poinar, and Gilbert *et al.* (44, 45). An electric hand-drill was used to remove approximately 1mm of the exterior surface of the bone, after which each sample was ground to fine powder in a sterilised stainless steel canister using a microdismembrator (Sartorius). Samples were incubated at 50°C overnight in a solution containing 1.7ml of 0.5M EDTA (pH8), 0.2ml of 10mM TRIS-HCl (pH8), 0.1ml of SDS (1%w/v) and 20µl of Proteinase K (20mg/ml). Purification was undertaken using the QIAquick PCR purification Kit (QIAGEN Ltd, UK) following the manufacturer's instructions.

III.6.2 PCR amplification and sequencing

The forward primer 'Canis F2' (5'-TGGTTTGYCCCATGCATA-3') and the reverse primer 'Canis R4' (5'-TGATTAAGCCCTTATTGGA-3') designed by Pionnier-Capitan (46) were used to amplify a 97bp fragment (excluding primers). This fragment corresponded to the positions 15,572 – 15,669 on the complete dog mitochondrial DNA genome (47). DNA extractions of longer fragments were attempted on samples from various regions but the success rate was extremely low. The highest success rate was obtained through the shorter 97bp fragment. The PCR amplification was performed in 25µl containing 2µl extract, 0.76x PCR Gold Buffer, 1.89mM MgCl2, 1.04U Taq, 0.18mM dNTP and 0.75µM of each primer. 2.5µl of BSA (25mg/ml) was added. Thermo-cycling conditions comprised of a 3-minute denaturation step at 94°C, followed by 50 cycles of 45s denaturation at 94°C, 45s annealing at 55°C, 45s at 72°C, and a 10-minute final extension step at 72°C. If PCR amplification failed, the number of cycles was increased to 70. The PCR amplifications were visualised on a 0.5x agarose gel. 33 samples yielded positive results. No modern contamination was identified for the DNA extraction and the PCR blanks. Sequencing was performed on a 48-capillary 3730 DNA Analyser in a DNA laboratory located in a physically separate building. The sequencing primers were identical to the primers used for DNA amplification. Sequencing was undertaken on both strands.

III.6.3 Sequence analysis

Of the 112 samples analysed, DNA was successfully amplified for 33 samples: nine from the Caribbean, ten from Hungary and 14 from Southeast Asia and Oceania (See Supplementary Table 1). Ancient canid remains from previously published studies were selected based on sequence availability and morphological identification. They were added to my dataset for a better representation of mtDNA diversity throughout the world prior to the European expansion in the late 15th century. These additional samples comprised of four ancient dog remains from Thalmann *et al.* (10) (see Supplementary Table 2 for the selection criteria), all of Leonard's *et al*. ancient dog specimens from across America and Alaska (4), all three middle Neolithic French dog specimens from Deguilloux *et al.* (28), five prehistoric Italian canids from Verginelli *et al*. (2) and all 19 Pre-European Polynesian archaeological samples from Savolainen *et al.* (30). Sequences were visualised on Geneious (Geneious Pro 5.3.4 created by Biomatters. Available from http://www.geneious.com) and aligned using MAFFT v7.017 (48) followed by visual confirmation. Sequences were collapsed into haplotypes using FaBox v1.41 (49) and DnaSP v5.10 (50) and compared to previously defined haplotypes from both ancient and modern remains (1, 3, 4, 21, 22, 27, 30, 31, 33-37) as well as the six novel haplotypes found in my modern dog study (Chapter II, this volume). See Supplementary Information 1 for the full sequence of the samples analysed in this study. Due to the shorter fragment length, the 381 previously defined haplotypes grouped into 111 haplotypes. A median-joining network was built using NETWORK 4.6.1.2 (www.fluxusengineering.com, (51)) to investigate the haplogroup and haplotype relationship of each populations.

III.6.4 Population genetic variability and structure

Wright's Fixation Index was calculated through ARLEQUIN v3.5.1.3 (52). The interpretation of *F*-statistics relies exclusively on the original dataset and cannot be easily compared between studies (Mwacharo, J. 2013. pers. comm). They have a theoretical minimum of 0 attesting lack of divergence and a theoretical maximum of 1. Wright has nevertheless suggested qualitative guidelines when analysing F_{ST} values (25,38): a value lower than 0.05 would indicate little genetic differentiation, a value between 0.05 and 0.15 would be indicative of moderate genetic differentiation, an F_{ST} between 0.15 and 0.25 would be considered to represent moderately great differentiation and finally, a value higher than 0.25 would indicate very great differentiation. This index is a useful guide to genetic differentiation but is not the best suited tool when information on allele frequencies as well as the amount of mutations between alleles is known, in which case AMOVA is recommended (25).

The mtDNA variation between populations was assessed by an analysis of molecular variance (AMOVA) using ARLEQUIN v3.5.1.3 (52). The groupings for AMOVA consisted of three geographically-distinct populations: America, Europe and South-East Asia and Oceania. The significance of the results was tested by 1023 permutations in ARLEQUIN. To ensure the genetic differentiation observed was not caused by the shorter mtDNA fragment (97bp) compared to previous studies (582bp and 304bp), I conducted an AMOVA on the same 97bp mtDNA fragment from a dataset comprising of 1983 modern village dogs from eight geographically distinct populations across the world. These populations comprised of North America, South America, Sub-Saharan Africa, the Near East, South Asia, East Asia, East Asia south of the Yangtze River and Island Southeast Asia. See Chapter II Supplementary Tables 1-8 (this volume) for a detailed list of these samples.

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III.8 Supplementary Materials

CONTENTS **PAGE**

***Supplementary Table ST1:* List of the 112 samples analysed in this study**

Durham Sample Nb	ID Sample Nb.	Region	Country	Location Specific / Archaeological site	DNA?
OL242	ANT.254319	Caribbean	Antigua	Indian Creek Site	
OL463	ANT.251414	Caribbean	Antigua	Indian Creek Site	✓
OL464	ANT.252074	Caribbean	Antigua	Indian Creek Site	
OL465	ANT.252379	Caribbean	Antigua	Indian Creek Site	✓
OL466	ANT.251971	Caribbean	Antigua	Indian Creek Site	
OL467	ANT.253250	Caribbean	Antigua	Indian Creek Site	
OL468	ANT.251328	Caribbean	Antigua	Indian Creek Site	
OL470	ANT.253406	Caribbean	Antigua	Indian Creek Site	
OL462	ANT.251269	Caribbean	Antigua	Indian Creek Site	
OL471	ANT.041168	Caribbean	Haiti	Meillac Site	✓
OL457	ANT.011851	Caribbean	Puerto Rico	Ponce, Canas Site	
OL460	ANT.011818	Caribbean	Puerto Rico	Ponce, Canas Site	
OL459	ANT.011859	Caribbean	Puerto Rico	Ponce, Canas Site	
OL458	ANT.228116	Caribbean	Puerto Rico	Loiza, Maria de la Cruz	
OL478	ANT.101761	Caribbean	Cuba	Portrero del Mango site, Banes	✓
OL479	ANT.102333	Caribbean	Cuba	Portrero del Mango site, Banes	✓
OL438	ANT.102486	Caribbean	Cuba	Portrero del Mango site, Banes	
OL475	ANT.103562.001	Caribbean	Cuba	Portrero del Mango site, Banes	✓
OL474	ANT.103562.002	Caribbean	Cuba	Portrero del Mango site, Banes	
OL473	ANT.103430	Caribbean	Cuba	Portrero del Mango site, Banes	✓
OL241, OL282	ANT.103154	Caribbean	Cuba	Portrero del Mango site, Banes	
OL472	ANT.103069	Caribbean	Cuba	Portrero del Mango site, Banes	
OL279	ANT.103706	Caribbean	Cuba	Portrero del Mango site, Banes	
OL476	ANT.103965	Caribbean	Cuba	Portrero del Mango site, Banes	✓
OL441	1948	Caribbean	Guadeloupe	Gare Maritime Basse Terre	
OL446	1947	Caribbean	Guadeloupe	Gare Maritime Basse Terre	
OL444	17	Caribbean	Guadeloupe	Cathedrale Basse Terre	
OL439	34	Caribbean	Guadeloupe	Sainte Rose la Ramee	
OL278	MOR.90.01 2733	Caribbean	Guadeloupe	Morel, Le Moule	
OL274	MOR.91.11	Caribbean	Guadeloupe	Morel	
OL442	MOR.90.01.D	Caribbean	Guadeloupe	Morel	
OL440	MOR.90.16 / 2729 / 4	Caribbean	Guadeloupe	Morel	
OL445	MNHN-MOR-90-01-03 (2730)	Caribbean	Guadeloupe	Morel	✓
OL270, AL602	N/A	South America	Ecuador	Real Alto	
AL603	800/2	Central Europe	Serbia	Belo Brdo	
OL281	800/	Central Europe	Serbia	Belo Brdo	

OL507	M6To - 10/B 77.obj	Central Europe	Hungary	Alsonyek-Bataszek	✓
OL504	M6To - 10/B 4279.obj	Central Europe	Hungary	Alsonyek-Bataszek	✓
OL502	M6To - 10/B 69.obj 69/1	Central Europe	Hungary	Alsonyek-Bataszek	✓
OL499	M6To - 10/B 69.obj 69/3	Central Europe	Hungary	Alsonyek-Bataszek	✓
OL498	M6To - 10/B 1025.obj	Central Europe	Hungary	Alsonyek-Bataszek	
OL277	M6To - 10/B 113.obj	Central Europe	Hungary	Alsonyek-Bataszek	
OL451	M6To - 10/B 3787.obj	Central Europe	Hungary	Alsonyek-Bataszek	✓
OL453	M6To - 10/B 15.obj	Central Europe	Hungary	Alsonyek-Bataszek	✓
OL452	M6To - 10/B 723.obj	Central Europe	Hungary	Alsonyek-Bataszek	✓
OL450	M6To - 10/B 619.obj	Central Europe	Hungary	Alsonyek-Bataszek	
OL454	M6To - 5603/1 964.obj	Central Europe	Hungary	Alsonyek-Bataszek	
OL506	M6.Z.2011.10B.7221.7.15	Central Europe	Hungary	Alsonyek-Bataszek	
OL505	M6.Z.2011.10B.7321.11.15	Central Europe	Hungary	Alsonyek-Bataszek	✓
OL501	M6.Z.2012.5603/1.2001.2.15	Central Europe	Hungary	Alsonyek-Bataszek	✓
OL500	M6.Z.2011.10B.7382.22.15	Central Europe	Hungary	Alsonyek-Bataszek	
OL456	M6.Z.2011.10B.7382.19.15	Central Europe	Hungary	Alsonyek-Bataszek	
AL601	M6To - 5603/1 1991.obj	Central Europe	Hungary	Alsonyek-Bataszek	
OL276	M6To - 5693/1 968.obj	Central Europe	Hungary	Alsonyek-Bataszek	✓
OL481	LAM-AS-007	Mainland Southeast Asia	Vietnam	An Son	
OL491	LAM-AS-011	Mainland Southeast Asia	Vietnam	An Son	
OL493	LAM-AS-013	Mainland Southeast Asia	Vietnam	An Son	✓
OL492	LAM-AS-11	Mainland Southeast Asia	Vietnam	An Son	
OL494	LAM-AS-13	Mainland Southeast Asia	Vietnam	An Son	
OL496	LAM-AS-19	Mainland Southeast Asia	Vietnam	An Son	
OL488	LAM-AS-2	Mainland Southeast Asia	Vietnam	An Son	
OL484	LAM-AS-3	Mainland Southeast Asia	Vietnam	An Son	
OL483	LAM-AS-30	Mainland Southeast Asia	Vietnam	An Son	
OL482	LAM-AS-34	Mainland Southeast Asia	Vietnam	An Son	
OL480	LAM-AS-9	Mainland Southeast Asia	Vietnam	An Son	
OL487	LAM-RN-13	Mainland Southeast Asia	Vietnam	Rach Nui	
OL490	LAM-RN-14	Mainland Southeast Asia	Vietnam	Rach Nui	
OL489	LAM-RN-24	Mainland Southeast Asia	Vietnam	Rach Nui	
OL497	LAM-RN-25	Mainland Southeast Asia	Vietnam	Rach Nui	
OL486	LAM-RN-26	Mainland Southeast Asia	Vietnam	Rach Nui	
AL622	LAM-RN-19	Mainland Southeast Asia	Vietnam	Rach Nui	
AL624	LAM-AS-001	Mainland Southeast Asia	Vietnam	An Son	
AL623	LAM-AS-005	Mainland Southeast Asia	Vietnam	An Son	
OL267	ANU-PIC-10	Oceania	Australia	N/A	✓
OL269	Spit5, Pit11	Island Southeast Asia	Philippines	Nagsabaran	✓
OL238, AL600	II,96,213-2009-29	Island Southeast Asia	Philippines	Nagsabaran	
OL448	PNG-NGRP-96-7	Island Southeast Asia	PNG	N/A	

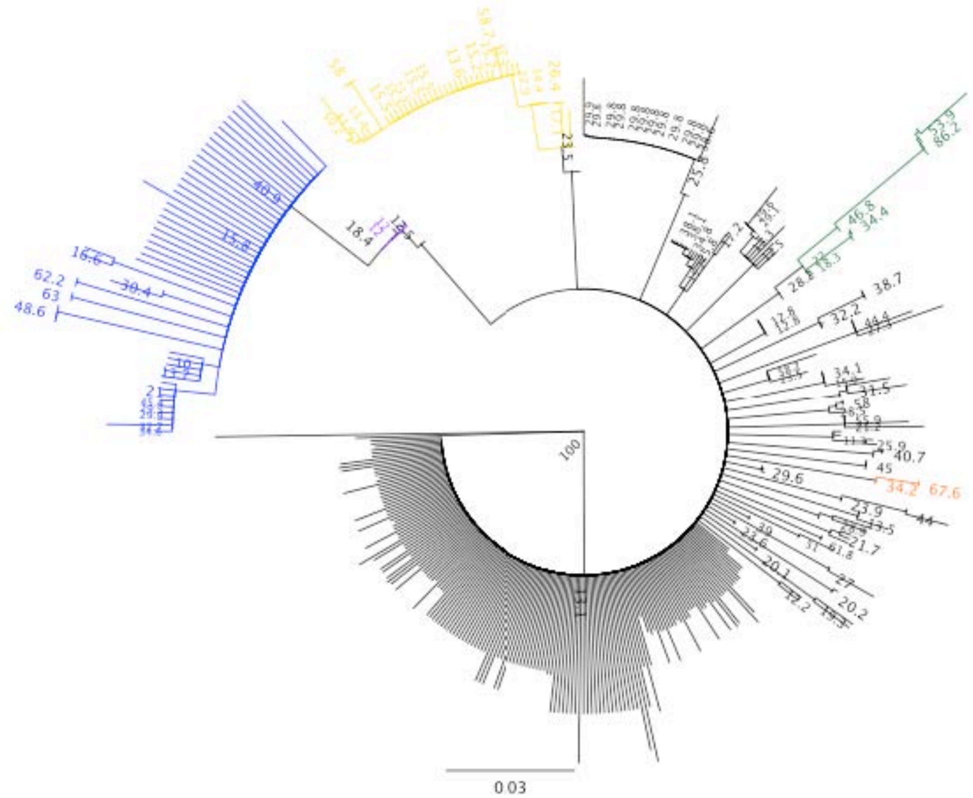
OL447	PNG-NGRP-96-78	Island Southeast Asia	PNG	N/A	
OL268	ANU-TIMOR-3	Island Southeast Asia	Timor	Macha Kuru 2	✓
OL436	ANU-TIMOR-2	Island Southeast Asia	Timor	Macha Kuru 3	
OL239	ANU-TIMOR-1	Island Southeast Asia	Timor	Macha Kuru 4	✓
OL434	ANU-TWI-1	Oceania	New Zealand	Twilight beach	✓
AL599	ANU-TWI-2	Oceania	New Zealand	Twilight beach	
OL435	ANU-TWI-3	Oceania	New Zealand	Twilight beach	✓
OL240	ANU-SHA-1	Oceania	New Zealand	Shag Mouth	
OL427	ANU-SHA-9	Oceania	New Zealand	Shag Mouth	
OL273	ANU-SHA-14	Oceania	New Zealand	Shag Mouth	✓
OL426	ANU-SHA-28/34	Oceania	New Zealand	Shag Mouth	
OL433	ANU-KAU-1	Oceania	New Zealand	Kaupokonui	✓
OL432	ANU-KAU-2	Oceania	New Zealand	Kaupokonui	✓
OL272	ANU-KAU-3	Oceania	New Zealand	Kaupokonui	✓
OL271	ANU-HOU-1	Oceania	New Zealand	Houhora	✓
OL429	ANU-HOU-2	Oceania	New Zealand	Houhora	
OL430	ANU-HOU-3	Oceania	New Zealand	Houhora	✓
OL428	ANU-HOU-4	Oceania	New Zealand	Houhora	✓
OL335	NKH-5887-2	Mainland Southeast Asia	Thailand	Nil Kham Haeng	
OL347	NKW_3287_1	Mainland Southeast Asia	Thailand	Nil Kham Haeng	
OL348	NKH_3287_2	Mainland Southeast Asia	Thailand	Nil Kham Haeng	
OL350	NKH_3295_1	Mainland Southeast Asia	Thailand	Nil Kham Haeng	
OL351	NKH_0437	Mainland Southeast Asia	Thailand	Nil Kham Haeng	
OL352	NKH_0209	Mainland Southeast Asia	Thailand	Nil Kham Haeng	
OL334	NML-18764	Mainland Southeast Asia	Thailand	Non Mak La	
OL336	NML-31049-1	Mainland Southeast Asia	Thailand	Non Mak La	
OL353	NML_31136_1	Mainland Southeast Asia	Thailand	Non Mak La	
OL354	NML_30753	Mainland Southeast Asia	Thailand	Non Mak La	
OL355	NML_18888_2	Mainland Southeast Asia	Thailand	Non Mak La	
OL356	NML_20792_2	Mainland Southeast Asia	Thailand	Non Mak La	
OL333	NPW86-38257_2	Mainland Southeast Asia	Thailand	Non Pa Wai	
OL343	NPW_14083	Mainland Southeast Asia	Thailand	Non Pa Wai	
OL344	NPW_8921	Mainland Southeast Asia	Thailand	Non Pa Wai	
OL345	NPW86_1378	Mainland Southeast Asia	Thailand	Non Pa Wai	
OL346	NPW86_38046	Mainland Southeast Asia	Thailand	Non Pa Wai	

Supplementary Table ST2: **List of samples excluded from this study and the rationale for exclusion**

ID Sample	Source	Location	Age	Rationale for exclusion
Belgium 26,000	Thalmann et al., 2013	Belgium, Trou des Nutons	26000 BP	Morphologicaly classified as wolf-like
Belgium 36,000	Thalmann et al., 2013	Belgium, Goyet niveau 4	36,000 BP	mtDNA sequence places it as an ancient sister group to all modern dogs rather than a direct ancestor of the dog (Thalmann et al., 2013)
Belgium 30,000	Thalmann et al., 2013	Belgium, Goyet niveau 4	30,000 BP	Morphologicaly classified as wolf-like
Russia 18,000	Thalmann et al., 2013	Russia, Medvezya Cave	18,000 BP	Morphologicaly classified as wolf-like
Russia 15,000	Thalmann et al., 2013	Russia, Eliseevichi	15,000 BP	Missing Sequence
Russia 22,000	Thalmann et al., 2013	Russia, Kostenki 4	22,000 BP	Morphologicaly classified as wolf-like
Switzerland1 14,500	Thalmann et al., 2013	Switzerland, Kesslerloch Cave	14,500 BP	Morphologicaly classified as wolf-like
Alaska 28,000	Thalmann et al., 2013	Alaska, Eastern Beringia	28,000 BP	Morphologicaly classified as wolf-like
Alaska 21,000	Thalmann et al., 2013	Alaska, Eastern Beringia	21,000 BP	Morphologicaly classified as wolf-like
Alaska 20,800	Thalmann et al., 2013	Alaska, Eastern Beringia	20,800 BP	Morphologicaly classified as wolf-like
Switzerland2 14,500	Thalmann et al., 2013	Switzerland, Kesslerloch Cave	14,500 BP	Morphologicaly classified as wolf-like
Russia 33,500	Thalmann et al., 2013	Russia, Razboinichya Cave	33,500 BP	Ambiguous taxonomic classification
Germany 14,700	Thalmann et al., 2013	Germany, Bonn-Oberkassel	14,700 BP	Missing Sequence
Switzerland3 14,500	Thalmann et al., 2013	Switzerland, Kesslerloch Cave	14,500 BP	Morphologicaly classified as wolf-like

	24	40	41	54	56	57	61	65	68	72	79	81
Ref	C	T	T	T	G	T	C	T	A	A	T	G
B	T	.	C	.	A	.	T	.	G	G	.	A
C	.	C	.	.	A	.	.	.	G	.	C	.
D	.	.	.	C	A	.	T	C	.	.	.	.
E	.	.	.	.	.	.	T	.	.	.	.	A
F	.	C	.	.	.	C	.	.	.	.	.	.

Supplemetary Table 3: **List of SNPs for each clade for the 97bp fragment.** Clade A being a polytomy, it does not have any SNPs that defines it.



Supplementary Figure 1: **NJ Tree of previously published haplotypes (see Materials and Methods) and ancient samples used in this study trimmed to represent the 97bp fragment of the mtDNA CR studied.** The main clades (clade A: black, clade B: blue, clade C: yellow, clade D: green, clade E: purple and clade F: orange) are poorly supported by bootstrap values. Nevertheless, clades can be identified on the 97bp fragment as it retains clade-specific SNPs. This NJ tree does not include an outgroup.

Supplementary Information 1: **Sequences of the 33 samples analysed in this study**

OL463
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTG
ATCTATCAACAGTAATCGAATGCATATCACTTAG

OL465
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTG
ATCTATCAACAGTAATCGAATGCATATCACTTAG

OL471
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTG
ATCTATCAACAGTAATCGAATGCATATCACTTAG

OL473
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTG
ATCTATCAACAGTAATCGAATGCATATCACTTAG

OL475
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTG
ATCTATCAACAGTAATCGAATGCATATCACTTAG

OL476
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTG
ATCTATCAACAGTAATCGAATGCATATCACTTAG

OL478
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTG
ATCTATCAACAGTAATCGAATGCATATCACTTAG

OL479
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTG
ATCTATCAACAGTAATCGAATGCATATCACTTAG

OL445
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCATTG
ATCTATCAACAGTAATCGAATGCATATCACCTAG

OL453
TAAGCATGTACATAATATTATATCCTTACATAGGACATACTAACTCAATCTCATAATTCACTG
ATCTGTCAACAGTAACCGAATGCATATCACTTAG

OL499
TAAGCATGTACATAATATTATATCCTTACATAGGACATACTAACTCAATCTCATAATTCACTG
ATCTGTCAACAGTAACCGAATGCATATCACTTAG

OL502
TAAGCATGTACATAATATTATATCCTTACATAGGACATACTAACTCAATCTCATAATTCACTG
ATCTGTCAACAGTAACCGAATGCATATCACTTAG

OL507
TAAGCATGTACATAATATTATATCCTTACATAGGACATACTAACTCAATCTCATAATTCACTG
ATCTGTCAACAGTAACCGAATGCATATCACTTAG

OL451
TAAGCATGTACATAATATTATATCCTTACATAGGACATACTAACTCAATCTCATAATTCACTG
ATCTGTCAACAGTAACCGAATGCATATCACTTAG

OL452
TAAGCATGTACATAATATTATATCCTTACATAGGACATACTAACTCAATCTCATAATTCACTG
ATCTGTCAACAGTAACCGAATGCATATCACTTAG

OL276
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAATTCACTG
ATCTGTCAACAGTAACCGAATGCATATCACTTAG

OL505
TAAGCATGTATATAATATTATATCCTTACATAGGACATACTAACTCAATCTCATAATTCACTGATCTGTCAACAGTAACCGAAT
GCATATCACTTAG

OL504
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTGATCTATCAACAGTAATCGAAT
GCATATCACTTAG

OL501
TAAGCATGTCATAATATTATATCCTTACATAGGACATATTAACTCAATCTCACAATTCATTGACCTGTCAACAGTAATCGAATG
CATATCACTTAG

OL271
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTGATCTATCAACGGTAATCAAAT
GCATATCACTTAG

OL272
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTGATCTATCAACGGTAATCAAAT
GCATATCACTTAG

OL428
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTGATCTATCAACGGTAATCAAAT
GCATATCACTTAG

OL430
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTGATCTATCAACGGTAATCAAAT
GCATATCACTTAG

OL432
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTGATCTATCAACGGTAATCAAAT
GCATATCACTTAG

OL433
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTGATCTATCAACGGTAATCAAAT
GCATATCACTTAG

OL434
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTGATCTATCAACGGTAATCAAAT
GCATATCACTTAG

OL435
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTGATCTATCAACGGTAATCAAAT
GCATATCACTTAG

OL273
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTCACTGATCTATCAACGGTAATTAAAT
GCATATCACTTAG

OL493
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAGTTTACTGATCTATCAACAGTAATCGAAT
GCATATCACTTAG

OL269
TAAGCATGTACATAATATTATATCCTTACATAGGACATATTAACTCAATCTCATAATTCACTGATCTTTCAACAGTAATCGAAT
GCATATCACTTAG

OL239
TAAGCATGTACATAATATTATATCCTTACATAGGACATACTAACTCAATCTCATAATTCACTGATCTGTCAACAGTAACCGAAT
GCATATCACTTAG

OL268
TAAGCATGTACATAATATTATATCCTTACATAGGACATACTAACTCAATCTCATAATTCACTGATCTGTCAACAGTAACCGAAT
GCATATCACTTAG

OL267
TAAGCATGTACATAATATTATATTCTTACATAGGACATATCAACTCAATCTCATAATTCATTGATCTGTCAGCAGTAATCAAAT
GCATATCACTTAG

IV. Dynamics of early chicken dispersals revealed by statistical testing of global mitochondrial DNA diversity of modern chickens

IV.1 Abstract

Previous genetic studies conducted on chicken populations have primarily either focused on understanding the domestication of chickens or on assessing the genetic diversity of particular chicken populations within countries. This research presents the first assessment of maternal genetic variation between geographically-defined indigenous populations conducted on a worldwide scale. I analysed 120 new chicken samples from Island Southeast Asia and Oceania and combined these with an extensive dataset of previously published chicken sequences from 21 studies, resulting in a total of 4,199 chickens partitioned into eight geographically distinct populations and a ninth comprising commercial breeds. Using Wright's *F*-statistics and analyses of molecular variance (AMOVA), the results show mitochondrial DNA structure between populations despite widespread human movement and trade. Combining these genetic results with archaeological data and modern management strategies, it is demonstrated that a partition exists between South American, European, Sub-Saharan African and South Asian populations on the one hand, and East Asian, South Chinese, Southeast Asian, Island Southeast Asian/Oceanian and commercial populations on the other. This has allowed a certain degree of reconstruction of the early history of chickens and their dispersal out of Asia with a clear origin of native European and African breeds in South Asia, and confirmation of a European origin for South American indigenous breeds. Commercial breeds and Asian breeds (excluding South Asia) were found to be closely related, which may result from the historical development of commercial breeds and/or current hybridisation between Asian indigenous breeds and commercial lines. Finally, despite a clear distinction in clade distribution, Island Southeast Asia and Oceania exhibited low genetic differentiation from East Asian and Southeast Asian populations, confirming their dispersal from mainland east and southeast Asia.

IV.2 Introduction

Despite its relatively recent domestication, the chicken (*Gallus gallus domesticus*) rapidly became a valued animal from which human societies derived and continue to draw much benefit. Originally bred for entertainment purposes including cockfighting and ornamentation (1, 2), this domesticate has grown to cross cultural boundaries with ease, dominating the culinary arts, playing an important role in biomedical research (3) and sometimes acquiring a 'sacred' status as evidenced in some cultures today (4). Although the timing of its domestication remains undetermined, ancient chicken bones have been found in the Indus Valley dating back to 2,000 BP (5) while its presence in China was evident 3,600 years ago (1).

The question of origins, however, remains controversial. Taxonomically, the genus *Gallus* comprises four species: *Gallus lafayettei* (Lafayette jungle fowl), *Gallus varius* (Green jungle fowl), *Gallus sonneratii* (Grey jungle fowl) and *Gallus gallus* (Red jungle fowl or RJF). The latter presently encompasses five sub-species classified mostly by phenotypic traits and geographical distribution (6): *G. g. gallus*, *G. g. spadiceus*, *G. g. bankiva*, *G. g. murghi* and *G. g. jabouillei*. The first major genetic study undertaken on the domestic chicken concluded a monophyletic origin of the domestic fowl in Thailand from the RJF sub-species *G. g. gallus* (7, 8) although this observation was later questioned on account of potential biases caused by low sample size. A nuclear DNA microsatellite analysis further supported the RJF as the main ancestor of the domestic chicken (9), but subsequent mitochondrial DNA (mtDNA) analyses revealed that several divergent matrilineal lineages contributed to the genesis of the modern chicken. This supported multiple origins from the RJF suggested to have taken place in South Asia, Southeast Asia and East Asia (6, 10). In addition, phylogenetic studies have demonstrated the tight clustering of some of these sub-species, with a major partitioning between continental RJF sub-species (*G. g. gallus*, *G. g. murghi*, G. *g. spadiceus* and *G. g. jabouillei*) and the island sub-species *G. g. bankiva* (10). Based on shared haplotypes, it was found that some or all major continental sub-species contributed to the domestic chicken genome (6, 10). In addition to the mitochondrial genome being inherited from the RJF sub-species, research conducted on the nuclear genome showed that the yellow skin allele observed in domestic chickens did not originate from the RJF but rather from the Grey jungle fowl *G. sonneratii* (11). This demonstrated that at least one other species of jungle fowl contributed genetic material to the genome of domestic chickens, resulting in conclusive evidence arguing for a polyphyletic origin of chickens (11).

While domestication has been the topic of numerous papers (1, 10, 12), the question of the genetic diversity between chicken populations within regions and countries has been equally addressed by studies conducted across Africa, Europe and Asia (13-16). The genetic diversity found within farm animals represents a means to trace livestock development when dealing with changing environmental and human needs and that of the chicken is no exception. Numerous recent studies have aimed to evaluate the genetic diversity between chicken populations and/or specific breeds, but each always focused on one particular country, e.g. Nigeria (13), Hungary (17), China (15), Korea (14) and Vietnam (18). This represents a wealth of information for research undertaken on the domestication process and clarification of matrilineal phylogeny which was used in Miao *et al.*'s extensive study (1) on chicken domestication conducted on over 4,000 individuals. However, the recent occurrence of genetic erosion in chicken populations (among other farm animals) caused by changing agricultural practices and economic factors, not only affects the livelihood of the local human populations within developing countries and the subsequent conservation strategies put in place (19), but also impacts upon the genetics of chicken populations used for the understanding of chicken domestication and early history.

As well as evaluating modern genetic diversity, some of these studies have attempted to retrace migratory routes employed by human societies in the dispersal of the domestic fowl. For instance, Adebambo *et al.* (20) demonstrated that the mtDNA control region (CR) sequences of Nigerian chickens all radiated from a single clade which most likely originated from the Indian sub-continent. The authors consequently proposed three migratory routes: i) from North Africa through trans-Saharan trade, ii) from East Africa through migrations following the Saharan belt and/or iii) from the coast via European colonial trade (20). Similar reconstructions of dispersal patterns have been attempted regarding the introduction of chickens in Europe (17), Oceania and South America (21-23).

The issue faced here is the assumption that chicken populations display genetic diversity with one another and have retained some form of genetic signature that allows for differentiation between populations. An interesting case for comparison is that of the dog, which, like the chicken, has been integral to numerous human societies and is now almost ubiquitous worldwide. Genetic variation between geographically distinct non-breed indigenous dog populations was statistically tested through analyses of molecular variance (AMOVA). AMOVA is a hierarchical analysis in which the correlations among genotype distances within total population, among groups and among populations within groups are used as *F*-statistics analogues evaluated by random permutations of sequences among populations (24). The results have demonstrated that little to no genetic variation actually existed between these dog populations (see chapter II, this volume). It was suggested that this lack of genetic differentiation was caused by the development of transoceanic travel in the 15th century and the numerous admixture events that followed between European dogs and indigenous dog populations (see chapter III, this volume).

Similarly to dogs, chickens have been transported throughout continents (25) and islands (26) by Europeans during their colonial expansion. The last two centuries in particular have been crucial to the creation and development of the American and European breeds seen today. South and Southeast Asian chickens began to be exported to Europe where they were not only displayed and bred (27) but also selected for particular exhibition traits and crossbred with European breeds in order to create various 'fancy fowls' (28); the Dutch Barnevelders and Kraienkoppes breeds, for instance, all derived from Asiatic chicken classes including the Malays, Japanese bantams and Sumatras (28). In addition, the 1950s have seen the development of commercial lines of chickens (broilers, layers and sire lines) subjected to intensive selection for quantitative traits (28).

However, contrary to dogs, phylogenetic studies of chickens have demonstrated a certain genetic structure within populations; nine divergent matrilineal lineages named clades A-I have been identified. Of particular interest is the fact that most of these clades appear to be specific to certain geographical regions. Clade D, for instance, is characteristic of Japanese and Chinese gamecocks; it is found among domestic chickens from Africa, South Asia, East Asia, and Southeast Asia with a frequency peaking in Island Southeast Asia and Oceania. This distribution appears to indirectly reflect the dispersal of human cultures associated with cockfighting (1, 10). Clades A and B, on the other hand, are widely distributed but are absent in Africa (10). This already highlights a particular structure within chicken populations across the world and would tend to support genetic differentiation between these populations. Studies on genetic diversity between populations within countries have already been conducted and have revealed, particularly in Asian populations, some differentiation. However, the comparison of genetic diversity between regional populations across the world has never been assessed despite the large genetic resources published and readily available.

Therefore, this research comprised of two major aims: i) to statistically test for genetic variation between local chicken populations from eight regions across the world and a ninth population consisting of commercial breeds using analyses of molecular variance (AMOVA), and ii) to assess the extent to which early chicken dispersals can be retraced using modern mitochondrial DNA. In order to conduct this research, I compiled a dataset of 4,199 chickens. 4,079 chickens were taken from 21 previously published studies and 120 chicken were sampled specifically for this study. I partitioned the samples into eight distinct chicken populations from across the world (South America, Europe, Sub-Saharan Africa, South Asia, East Asia excluding South China, South China, Southeast Asia and Island Southeast Asia/Oceania) and a ninth population representing commercial lines. With the exception of the commercial breeds, I have selected samples specifically to best represent breeds native to their respective regions. The 120 new samples were obtained from Island Southeast Asian and Oceanian chickens (representing 68% of the ISEA and Oceania dataset) which I extracted, amplified and sequenced. The study was undertaken on a 201bp hyper-variable fragment of the mitochondrial DNA control region (mtDNA CR).

IV.3 Results

IV.3.1 Clade and haplotype distribution pattern

Of the 4,199 sequences analysed based on the short (201bp) hyper-variable fragment of the CR, 296 haplotypes defined by 94 polymorphic sites were generated. As demonstrated by the median-joining network (Supplementary Figure SF1), all samples fell within the previously defined clades A-I. 197 haplotypes corresponded to the haplotypes previously defined by Thomson *et al.* (23) based on the same 201bp fragment (See Dataset S6 from (23) for these haplotypes). 99 novel 201bp haplotypes were generated, three of which belonged to the newly sampled Sulawesi material.

The 120 new samples analysed in this study mostly belonged to clades D or E with the exception of five individuals (Supplementary Table ST12): two samples from the Philippines fell under clades A and I; two samples from Vietnam and one from the Solomon Islands were grouped under clade B. The remainder of the samples were highly dominated by clade D (84.76%) followed by clade E (12.71%). This is in accordance with previous studies that showed the frequency of clade D peaked in the Pacific Islands while clade E was the most widely distributed clade across the world (1, 10). Moreover, as shown in a previous study (23), two haplotypes from clade D were found to have the ‘ancestral Polynesian motif’ defined by a combination of 4 CR SNPs (single nucleotide polymorphism). This combination has been observed among ancient Polynesian samples and was thus identified as a possible founding lineage of chickens which, once transported across the Pacific by human societies, ultimately spread into Polynesia (23).

When taking the eight geographical datasets as a whole, the clade distribution is in agreement with previous studies (Figure 1, Supplementary Table ST13). The most widely distributed clade E is found ubiquitously throughout the world and dominates Europe (90.21%), Sub-Saharan Africa (79.67%), South Asia (81.61%) and South America (84.21%). Clades A and B are also almost ubiquitously distributed, with the exception of Sub-Saharan Africa where clade B is absent and clade A is represented by only two samples. These two clades are mostly found in South China, Southeast Asia and East Asia. Clade D was previously found in domestic chickens from South Asia, Southeast Asia, Indonesia, East Asia and Africa including Chinese and Japanese gamecocks (1, 10). The current dataset confirms these observations with a prevalence of clade D in Island Southeast Asia (84.34%). It is the second most common clade found in South Asia (12.85%) and Sub-Saharan Africa (19.42%), found in small proportions in Southeast Asia (2.48%), South China (0.73%) and East Asia (0.44%), but absent from Europe and South America. Clade C is found mainly in East Asia and South China but has low proportions in the rest of the world and is absent in South America and Island Southeast Asia. Clades F and G are restricted to Asia with particular emphasis on South China. Finally, clades H and I are both rare as previously observed (1, 10) with clade H restricted to South Asia and South China, and clade I found in Southeast and Island Southeast Asia only. Regarding the commercial lines, they comprised primarily of clade E (71.52%) followed by clade A (17.09%) and B (10.76%). Two samples belonged to clade D.

The number of unique haplotypes per geographical population highlighted that South China possessed the highest number of unique haplotypes (25.7% out of the total number of observed haplotypes). Asian regions followed with lower percentages (Table 1) and South America, Europe and the commercial lines datasets exhibited few unique haplotypes (1, 4 and 8 respectively). Interestingly, Sub-Saharan Africa had the second highest number of unique haplotypes (15.2% out of the total number of haplotypes observed). Such an observation is unlikely to derive from differences in sample size, as the East Asian dataset was a similar size to that of Sub-Saharan Africa (678 and 659 samples respectively) but exhibited only 31 unique haplotypes compared to 45 for Sub-Saharan Africa.

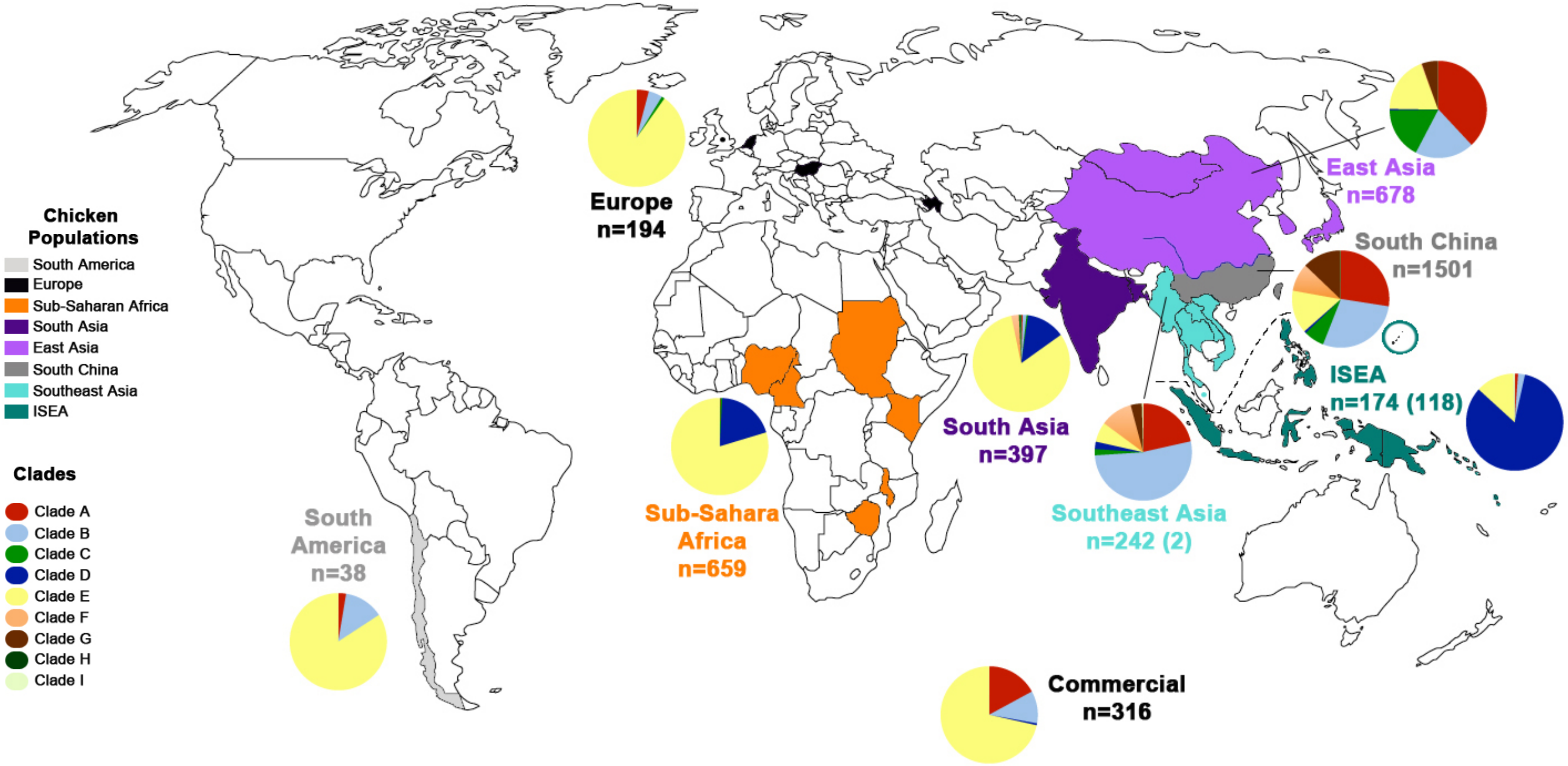


Figure 1: **Clade distribution for chicken populations based on 201bp of the mtDNA CR.** Colours on map correspond to the countries falling under each chicken population. Dots mark countries with only one sample. Number for each dataset is given by n. The number in brackets corresponds to the number of samples analysed specifically for this study and included in the total number n.

Chicken Populations	n[1]	nH[2]	n uH (%)[3]	%uH/TotalH[4]
South America	38	7	1 (14.3)	0.3
Europe	194	17	4 (23.5)	1.4
Sub-Saharan Africa	659	59	45 (76.3)	15.2
South Asia	397	47	29 (61.7)	9.8
East Asia	678	74	31 (41.9)	10.5
South China	1501	124	76 (61.3)	25.7
Southeast Asia	242	43	19 (44.2)	6.4
ISEA	174	34	21 (61.8)	7.1
Commercial	316	21	8 (38.1)	2.7

***Table 1:* Table showing haplotype data for each chicken population.**
[1] Number of samples
[2] Number of haplotypes within the population
[3] Number of unique haplotypes (percentage of unique haplotypes / total number of haplotypes within the population)
[4] Percentage of unique haplotype of that population compared to the total number of haplotypes observed

IV.3.2 Genetic variation among chicken populations

To test the genetic differentiation between the nine chicken populations, I first used Wright's *F*-statistics. Based on the F_{ST} values, there is clear genetic differentiation between groupings of populations (Table 2). F_{ST} values between populations from East Asia, South China, Southeast Asia, Island Southeast Asia and commercial breeds ranged from 0.00532 to 0.11469, representing low to moderate genetic differentiation according to Wright's qualitative guidelines (29, 30). However, these values differ quite clearly from the F_{ST} values observed between these populations and the populations from South Asia, Sub-Saharan Africa, Europe and South America: the F_{ST} values between these two groups range from between 0.15447 to 0.28904, equivalent to great genetic differentiation according to Wright's qualitative guidelines (29, 30). The South Asian population in particular is more closely related to Europe, Sub-Saharan Africa and South America than it is to other Asian populations (average of 0.05831 compared to 0.14311). Moreover, while the European population of native breeds are more closely related to South Asian population, chickens from commercial lines differ more from the European population (0.21762) than from East Asia (0.06739), South China (0.06991) and Southeast Asia (0.09910). These results therefore suggest that Western chicken populations (Europe, Sub-Saharan Africa and South America) are more closely related to South Asian populations which themselves differ genetically from other Asian populations.

	South America	Europe	Sub-Saharan Africa	South Asia	East Asia	South China	Southeast Asia	ISEA	Commercial
South America	0.00000								
Europe	0.0118*	0.00000							
Sub-Saharan Africa	0.02884	0.02842	0.00000						
South Asia	0.05077	0.07397	0.05019	0.00000					
East Asia	0.16366	0.21857	0.19007	0.12725	0.00000				
South China	0.15911	0.20870	0.17940	0.12291	0.00532	0.00000			
Southeast Asia	0.20427	0.28904	0.25107	0.17268	0.02929	0.01397	0.00000		
ISEA	0.20326	0.27778	0.22500	0.14960	0.09269	0.09058	0.11469	0.00000	
Commercial	0.15447	0.21762	0.19197	0.13197	0.06739	0.06991	0.09910	0.10833	0.00000

F_{ST} Value	0 - 0.05000	0.05001-0.10000	0.10001-0.15000	0.15001-0.20000	0.20001-0.25000	>0.25000
Wright's qualitative guidelines (30, 64)	little genetic variation	moderate genetic varation		great genetic variation		very great genetic variation

***Table 2*: F_{ST} values between each population based on the 201bp fragment of the mtDNA control region.**
* non-significant value (p>0.05)

AMOVA was used to test for genetic variation between populations based on *a priori* groups suggested by prior studies and the current F_{ST} values. The first grouping (Model 1) tested for overall maternal genetic structure across the nine populations. 88.12% of the genetic variation was observed within populations and 11.88% was found among populations (Table 3). This suggests that a large portion of the genetic variation can be found within populations, but that these populations have retained some genetic structure. This is reflected in the distribution pattern of the clades: clades A, B and E are practically ubiquitous across the world, but the other 6 clades are geographically restricted.

Hierarchical Clusters	**Among Populations**		**Within populations**
	ϕ_{ST}	%	%
201bp *Model 1* [SouthAmerica, Europe, Sub-Saharan Africa, South Asia, East Asia, South China, Southeast Asia, ISEA, Commercial]	0.11882	11.88	88.12

***Table 3*: AMOVA result for Model 1 between all chicken population based on the 201bp fragment of the mtDNA control region. p<0.05**

Considering the groupings based on observed F_{ST} values, five population groupings were tested for the most probable genetic subdivisions across the world (Table 4). Model 2 tested for the division between i) Western populations and South Asia and ii) remaining Asian populations and commercial breeds. This grouping showed that 82.46% of the genetic variation was distributed within populations, 13.73% among groups and 3.82% among populations within groups. When commercial breeds were grouped with the Western populations and South Asia (Model 3), the genetic variation among groups decreased (10%) and that among populations within groups increased to 5.49%. Model 4 investigated the genetic variation between two groups when Europe and South America were grouped with the Asian population while South Asia remained grouped with Sub-Saharan Africa. There was again an increase of genetic variation among populations within groups (6.96%) and a decrease of genetic variation among groups (9.21% although the value was found to be non-significant). Model 5 grouped all populations together with the exception of South Asia. Similar results to those in Model 4 were observed. These various models clearly show a grouping between i) populations from South Asia, Europe, Sub-Saharan Africa and South America and ii) populations from East Asia, South China, Southeast Asia, Island Southeast Asia and commercial lines.

Hierarchical Clusters	Within Populations		Among populations		Among groups	
	Φ_{ST}	%	Φ_{SC}	%	Φ_{CT}	%
201bp						
Model 2 [South America, Europe, Sub-Sahara Africa, South Asia] [East Asia, South China, Southeast Asia, ISEA, Comm]	0.17545	82.46	0.04424	3.82	0.13728	13.73
Model 3 [South America, Europe, Sub-Sahara Africa, South Asia, Comm] [East Asia, South China, Southeast Asia, ISEA]	0.15489	84.51	0.06103	5.49	0.09996	10
Model 4 [South America, Europe, East Asia, South China, Southeast Asia, ISEA, Comm] [Sub-Sahara Africa, South Asia]	0.16178	83.82	0.07672	6.96	0.09213*	9.21
Model 5 [South America, Europe, Sub-Sahara Africa, East Asia, South China, Southeast Asia, ISEA, Comm] [South Asia]	0.11574	88.43	0.11965	12.02	0*$^{\#}$	0

***Table 4*: AMOVA results for Models 2-6 between chicken populations based on 201bp fragment of the mtDNA control region.**
*p >0.05 $^{\#}$ negative value adjusted to 0
Brackets represent the various groupings, populations within these groups are separated by a comma.

IV.4 Discussion

In this study, a 201bp hyper-variable fragment of the mtDNA CR was analysed from 4,199 chickens native to eight geographical regions and a ninth population comprising commercial breeds. Included in this dataset are 120 newly sampled modern chickens from Southeast Asia, Island Southeast Asia and Oceania. This extensive dataset was used to test for genetic variation between chicken populations across the world and investigate the impact that recent human movements may have had on the modern genetic structure of these populations. The results have shown clear genetic variation between i) populations from South Asia, Europe, Sub-Saharan Africa and South America and ii) populations from East Asia, South China, Southeast Asia, Island Southeast Asia /Oceania and commercial breeds.

Genetic differentiation was observed between chicken populations native to South Asia and chicken populations native to other East Asian countries. F_{ST} values between the South Asian population and other East Asian populations ranged from 0.12291 to 0.17268, whereas F_{ST} values between East Asian populations excluding South Asia ranged from 0.00532 to 0.11469. This genetic variation between South Asia and the remainder of Asia, as well as the low genetic variation observed between East Asia, South China and Southeast Asia, may be the result of three possible events, none of them exclusive of one another.

Firstly, the results may reflect the multiple domestication episodes that occurred throughout Asia. Independent domestication of Indian domestic chickens from the Indian RJF *G. g. murghi* has previously been demonstrated (6) while the distribution of sub-haplogroups E2 and E3 based on full mitochondrial genomes has suggested an independent domestication of the chicken in South Asia (1). On the contrary, localised domestications across East Asia (primarily from *G. g. gallus*) have also been suggested through the distribution of other clades such as clade H (1) or clades A and B which, based on similar geographical distribution and close phylogenetic relationship, have been assumed to share a common ancestral population (10).

Current local management of chicken populations may also have affected genetic variation between these populations. In the same study unveiling an independent domestication from *G. g. murghi*, Kanginakuduru *et al.* (6) demonstrated that current hybridisation between *G. g. domesticus* and *G. g. murghi* is non-existent (6). On the contrary, research has shown that Vietnamese local populations exhibited relatively high genetic diversity most likely caused by hybridisation with the RJF (31). Vietnamese chicken populations are mostly free scavenging chickens kept in remote areas, and therefore, their hybridisation with wild RJF would be relatively easy. Moreover, it is common practice for some local households to pick up eggs in the forest and raise the chicks (31). Such gene flow between *G. g. gallus* and domestic chickens may have occurred more frequently through time in regions across the natural range of *G. g. gallus* than it would have in South Asia, resulting in a blurring of past genetic signatures in South China and East and Southeast Asia.

Finally, modern genetic erosion within Asian breeds caused by the rise of commercial breeds may be a third contributing event. Indigenous Chinese breeds such as the Bashangchangwei chicken in the Hebei province are near-extinction due to their slow growth rate and poor laying performance while other Chinese breeds have been hybridised with commercial varieties (15). The extinction of some indigenous breeds and the hybridisation of other indigenous breeds with introduced ones would affect the overall genetic diversity of the region and potentially erase to a certain extent past genetic signatures specific to certain regions.

At this point, the development of commercial breeds has to be taken into account. The low genetic differentiation between commercial breeds and East Asian breeds (with the exception of South Asia) as seen with both F_{ST} values (ranging from 0.06739 - 0.09910) and AMOVA (Models 2 and 3) may not only be caused by modern hybridisation, but also be due to the fact that some commercial breeds derive from breeds of Asian ancestry. For instance, commercial laying flock in the United Kingdom are mainly hybrids of the Rhode Island and Light Sussex breeds (32, 33). The Rhode Island breed was gradually formed in the mid-19th century in Rhode Island, Massachusetts and possibly in parts of Connecticut, New York and New Jersey (34). The ports in these states were the bases of whaling ships which, as well as bringing back whale meat, brought back large Asiatic chickens from their trips to the Indian Ocean and Southwest Pacific. These chickens, first of the Malay type then replaced by Buff or Partridge Cochins/Shanghais, were then sold to local farmers to be crossed with local farmyard hens (34). Brahma, Silver Grey Dorkings and Cochins are known to have been used in perfecting the Light Sussex (35). Commercial broilers descend from Plymouth Rock, themselves originating from Asian breeds including Java Fowl, Brahma and Cochin (28). Finally, the White Cornish has led to sire lines, selected in particular for growth trait. The White Cornish's origin is believed to lie in Asian fighting cocks (28). This clear predominance of Asian ancestry in commercial breeds correlates with the low genetic variation observed between the commercial population and the populations from East Asia, South China and Southeast Asia.

The Island Southeast Asian dataset was primarily dominated by clade D (83.34%) but had relatively low genetic differentiation with East Asia, South China and Southeast Asia compared to other populations, which is somewhat interesting given the difference in clades between these populations. Model 2 tested through AMOVA also supported this observation. The introduction of chickens in Island Southeast Asia and Oceania is believed to have originated with the Lapita Cultural Complex, a new culture that emerged in the archaeological record around 3,000 - 3,500 BP (36). Although their origin and dispersal trajectories are still being debated in the literature, the introduction of chickens from continental Asian locations is reflected by the F_{ST} values and AMOVA results. Interestingly, it has been previously shown that many native chicken populations from Island Southeast Asia and Oceania (in particular the Marquesas, Vanuatu and the Solomon Islands including the Santa Cruz Islands) have retained relatively high frequencies of founding maternal genetic lineages. This suggested a high level of genetic continuity within these island-specific chicken populations (37). Their low genetic differentiation with continental Asian populations would suggest that genetic signatures in mainland Asia may still be relatively close to the ancient genetic signatures of that region.

Based on various groupings tested through AMOVA (Models 2 and 3), lower genetic differentiation was found between European and South Asian populations compared to European and other East Asian populations. This observation may differ from general expectations given that the 19th century saw a major influx of Asian breeds brought into Europe through sea routes (2, 9, 28). Breeds of East Asian and Southeast Asian origin were particularly popular: in his 1850 book on the varieties of the domestic fowl, Bennett lists breeds imported from China (Yellow and White Shanghaes, Cochin China fowl), Malaysia (Great Malay fowl, Shakebag fowl) and Indonesia (Great Java fowl, Bantam fowl), but lists only one breed from India (the Wild Indian game) (38). Following their introduction into Europe, many of these Asian breeds played a major part in the creation and development of European 'fancy fowl' (28). For instance, the Dutch breeds Breda, Booted bantams and Barnevelders are all known to have mostly East and Southeast Asian ancestry (28). Consequently, considering the relatively low number of imported breeds originating from India compared to other Asian regions ((38) and Supplementary Table ST11), the genetic differentiation between European populations and East Asian, South Chinese and/or Southeast Asian populations should be lower than with South Asia.

However, the breeds used for the European population were selected to try and reflect indigenous chicken populations with the least genetic influence from Asiatic chickens. The Assendelft fowl, Drente fowl and Groninger Mew, for instance, are all Dutch country fowls with no recorded history of genetic influence from Asiatic chickens (28). The Transylvanian Naked Neck Black, White and Speckled breeds are all native to Hungary and are regarded as 'national treasures' ((17):548). Given the AMOVA results, these native European chickens do not appear to have been affected by the influx of East and Southeast Asian breeds during the last few centuries. Dana *et al.* (28) had previously suggested European chickens derived from the Indian sub-continent based on the consistent occurrence of clade E which is believed to have originated in South Asia (1, 39, 40). The study, however, lacked statistical support and was conducted on a single western European country comprising breeds from various ancestries. The results here obtained through AMOVA, and based on a dataset of native European breeds, confirmed that European chickens originated mostly from South Asia. This also correlates with a recent study conducted on the genetic structure of British chicken breeds using 30 microsatellite loci. Some genetic differentiation was observed among breeds based on their origins, and two groups were identified; one consisted of indigenous British breeds, the other comprised Buffs, Asian, Maran, Ixworth, Sussex and Rhode Island Red breeds (33).

Research on the introduction of the domestic chicken in Africa is limited compared to other domesticates. Ancient chicken bones from Sub-Saharan Africa dating prior to 1,000 AD remain particularly scarce. The earliest chicken remains in Sub-Saharan Africa have been found in Nubia dating to the first millennium AD (41), while archaeological evidence from West Africa suggested chickens were already well-established by the sixth century AD (42, 43). However, the number of entry points and subsequent dispersal routes remain uncertain. Mwacharo *et al.* (41) were the first to compile a review of the linguistic, cultural, archaeological and molecular data in order to better investigate the subject. They combined various molecular studies across African chicken populations and found two clades (D and E) dominated the dataset; this corresponds to the observations made in this study (clade E, 79.67% and clade D, 19.42%). With the origin of clade D most likely in East or Southeast Asia (39, 40) (found mainly among Japanese and Chinese gamecocks, and Indian and Indonesian domestic chickens (1, 10)), a maritime introduction along the East African Coast from East or Southeast Asia was suggested. Whether this introduction resulted from Indian Ocean trade or an early Austronesian expansion remains to be investigated (41). The second clade, clade E, has a hypothetical origin from the Indian sub-continent (39, 40). Thus, another introduction from South Asia was also put forward, although whether the route was maritime (through the Indian Ocean) or terrestrial (via the Near East) route is uncertain (41).

The Sub-Saharan African dataset exhibited low genetic differentiation with South America, Europe and South Asia (0.02884, 0.02842 and 0.05019 respectively) compared to the remaining populations (from 0.17940 with South China to 0.25107 with Southeast Asia). This clustering of Sub-Saharan African populations with Europe and South Asia rather than Southeast Asia confirms a closer genetic relationship between Sub-Saharan African populations and South Asia populations. Sub-Saharan African chickens may thus have originally mostly derived from the Indian sub-continent through terrestrial introductions. According to a review on chicken dispersals into Europe, chickens were introduced into ancient Persia from the Indus Valley between 2,500 - 2,000 BC (44). From there, they could have reached the Near East and Egypt; historical records have indicated the presence of chickens in Egypt by the Third Dynasty of Ur (2,113-1,006 BC) (41). Various routes have then been suggested for the dispersal of the chickens from either North Africa or East Africa to the rest of the continent (42). Whether or not multiple introductions occurred from South Asia and their respective migratory routes requires further research.

It is however very likely that a later introduction of chickens from Southeast Asia occurred, given the distribution pattern of clade D and its association with gamecocks. In addition, way-stations had been established in South Africa by the Europeans during the colonial era, which most likely led to the import of chickens from Southeast Asia (26). However, this introduction appears to have had little impact upon the genetic diversity of the African populations. The Sub-Saharan African dataset, however, contained mostly local village chicken populations and lacked samples from gamecocks or from populations from South Africa or Madagascar. Further research within these areas would provide additional information on a potential introduction from Southeast Asia.

The South American dataset was based on breeds known to have been indigenous to South America for over centuries. It comprised of the Passion Fowl, the Araucana and the Creole (see Materials and Methods for further details on the authenticity of these breeds). The South American chicken population was found to differ genetically more from Asian populations than South Asia, Sub-Saharan Africa, and Europe (although the latter was found to be non-significant) (Table 2). This is in accordance with the fact that chickens were introduced into South America by the Europeans during the 15th century (45). Given that European chickens derived from chickens from the Indian sub-continent, this consistency in genetic signature is unsurprising. Some studies have suggested that early Polynesians first introduced chickens into South America. However, it was shown that the genetic evidence used for these assumptions resulted from modern DNA contamination (23). The dataset here confirms a European introduction of chickens in South America.

IV.5 Conclusion

This research has demonstrated maternal genetic structure between eight geographically distinct indigenous populations across the world as well as commercial breeds. Correlating with the clade distribution pattern previously observed throughout numerous studies, this result demonstrates that human movements in the last few centuries (and indirectly those of chickens) has not affected the genetic structure of chickens to the same extent as other domesticates such as dogs (chapter II and III, this volume).

This may be due to the different management strategies between these animals. Chickens are usually kept in small isolated populations throughout the world and rarely subjected to admixture with other populations. Exceptions include intentional breed development and admixture of free scavenging chickens with the RJF in Asian regions. Moreover, the distance chickens may travel without human aid is considerably smaller than that covered by dogs. The difference in the extent of the natural habitat of the progenitors between dogs and chickens may also result in such an observation; chickens dispersed worldwide would have carried genetic signatures reflective of their Asian matrilineages which would have evolved subsequently into region-specific genetic signatures. Considering the absence of RJF outside of Asia, no hybridisation would have been possible to blur this genetic signal.

The testing of various genetic groupings using analyses of molecular variance has revealed genetic differentiation between two major groups: one comprised South American, European, Sub-Saharan African and South Asian populations while the other consisted of East Asian, South Chinese, Southeast Asian and Island Southeast Asian populations and commercial breeds (layers, broilers, sire lines). Combining the AMOVA findings with F_{ST} values and archaeological and historical data, I was able to provide hypotheses regarding the early history of chickens throughout the continents.

The genetic variation observed between South Asia and East Asia, South China, Southeast Asia as well as the low genetic differentiation found within these East Asian populations may have reflected the multiple domestication episodes occurring in various Asian regions (and particularly between South Asia with the Indian RJF *G. g. murghi* and South China/Southeast Asia with the RJF *G. g. gallus*). However, modern hybridisation between the wild and domestic fowl in East and Southeast Asia and the absence of hybridisation of Indian domestic fowl with the Indian RJF may also have contributed to this observation. Finally, admixture between Chinese indigenous breeds and commercial breeds is becoming more frequent, endangering the genetic diversity of Chinese native chicken populations, while commercial exchanges are common for poultry replacement following epidemic events (15, 31). This is perhaps the one geographical region where recent population movements and the development of commercial breeds have affected the indigenous genetic signature of chickens.

The low genetic variation between Europe and South Asia demonstrated native European chickens most likely originated from South Asia. This confirmed genetic differentiation among breeds based on their origins (33); commercial breeds known to be of Asian ancestry grouped with East Asian populations while indigenous European breeds differed and grouped more closely with South Asian populations. This further refutes the hypothesis that European chickens had been introduced from China through Russia (12). The migratory route(s) employed for the dispersion of chickens into Europe remain(s) however unknown. Multidisciplinary studies involving archaeological, historical and cultural data would provide a strong basis to answering this question (as was attempted by Mwacharo *et al.* (46) for African chicken populations).

Regarding South American chicken populations, these have been relatively recently introduced and historically documented. Previous genetic analyses have suggested that early Polynesians introduced chickens into South America prior to the arrival of the Europeans (22). However, it was recently demonstrated that this hypothesis was based on contamination of ancient remains and that a pre-Columbian introduction of chickens in the Americas was unlikely (37). Given the low genetic differentiation between South American chicken populations and those of Europe, Sub-Saharan Africa and South Asia and the higher genetic differentiation with Island Southeast Asia (based on F_{ST} values and AMOVA models), my results here support a European origin for South American chickens populations.

The origin(s) and dispersal(s) of the Sub-Saharan African chicken is one that remains unclear and a recent review combining archaeological, molecular and cultural data revealed that multiple introductions from South Asia and Southeast Asia may have occurred. However, no studies so far have tested for genetic variation between African populations and Asian populations (41). Given that the current extensive dataset included several Asian populations, AMOVA analyses were conducted to test for genetic variation between these populations. The results confirmed a closer genetic relationship between Sub-Saharan African populations and South Asian populations than between Sub-Saharan African populations and Southeast Asian populations. This revealed that if a secondary major introduction occurred from Southeast Asia, it did not have a major impact on the genetic structure of Sub-Saharan chickens. It has been suggested that the distribution pattern of clade D majorly reflected the distribution of cultures associated with cockfighting. The lack of gamecocks in our samples combined with the lack of samples from South Africa and Madagascar where Europeans are known to have established way-stations (26), may explain the higher genetic differentiation between this Sub-Saharan dataset and Southeast Asia.

Through an extensive dataset comprising indigenous chicken populations from regions across the world, this research has provided statistical support for maternal genetic variation between these chicken populations and has highlighted the presence of mitochondrial DNA genetic structure within the species despite human movements (much unlike dogs). Although this genetic structure allows for some reconstruction of the early history of chickens, it presents clear limitations. Ancient DNA analyses of archaeological remains would provide a valuable insight into past chicken history, but the fragile nature of the bones does not allow for frequent recovery from the archaeological record. The use of nuclear SNPs to identify specific mutations linked to phenotypic traits has already proven its value in enlightening chicken domestication (11) and breed improvement (47). Further research in identifying these genes would allow the identification of specific traits linked to domestication and breed improvement. Applied to the various indigenous populations across the world, these would help in further identifying the origins of some populations and the processes involved in domestication. Moreover, if successfully used on available ancient bones, the results combined with historical data, may help better discern the presence of specific breeds in particular regions and consequently help in understanding chicken dispersal out of Asia.

IV.6 Materials and Methods

IV.6.1 Sampling protocol and geographic distribution

A total of 4,079 modern chicken samples from 21 previous studies (1, 8, 10, 11, 13, 14, 17, 18, 20, 21, 28, 39, 48-55) and an additional 120 samples newly analysed for this study (Vietnam, n=2; the Philippines, n=23; Indonesia, n=10; Papua New Guinea, n=13 and the Solomon Islands, n=59 of which 28 were from the Santa Cruz Islands) have been used in this research, making a total dataset of 4,199 modern samples. The targeted sequence consisted of a 201bp fragment of the mtDNA CR which was previously shown to be highly variable (23).

The samples were partitioned into the following regions: South America, Europe, Sub-Saharan Africa, South Asia, East Asia excluding South China, South China, Southeast Asia, and Island Southeast Asia/Oceania. This partitioning was undertaken based on geographical barriers for populations of South America, Europe, Sub-Saharan Africa and Island Southeast Asia/Oceania. For the Asian populations, the regions were divided based on the location of domestication episodes suggested by previous studies: South Asia (1, 6), Southwest China (represented by South China) (1), North China (represented by East Asia) (12) and Southeast Asia (10).

As far as possible, all samples were carefully selected to represent indigenous chicken populations native to their respective regions. Information on the origin of a breed or its current distribution was sometimes difficult to find in the literature. In such cases, a search on specialised online forums maintained by breeders proved a wealth of information. See Supplementary Table ST10 for details on the sample collection for each study used in this research, and Supplementary Table ST11 for details on each breed including their recognition by the American Standard of Perfection (early 20th century edition and revised 2012 edition), the British Poultry Club or any other local Poultry Clubs, as well as a brief description of the origin of the breed.

IV.6.1.1 South America

Modern DNA studies on native South American fowl are particularly scarce. Consequently, my South American dataset comprises of only 38 samples from a study by Gongora *et al* (21) which includes three breeds: Araucana (n=28), Creole (n=6) and Passion Fowl (n=4). Three samples from that study have been discarded: one corresponding to a cross-breed Creole x Naked Neck, one of Sebright ancestry and the last recognised as a Japanese Long Tail. The Passion Fowl and the Araucana are both Chilean breeds; the Auraucana in particular is believed to be descended from indigenous Ameridians chickens. It is currently divided into three variants: the Quetro (n=11), the Collonca (n=16) and the Collonca de Arêtes (n=1). The origins or indigenous status of the Creole breed in Chile poses particularly difficulty. No information is given within Gongora's paper (21) nor is it recognised by any Poultry Clubs (Supplementary Table ST11). However, the breed has been established in Mexico for at least five centuries (56) and other studies conducted on breed improvement have mentioned indigenous Creole populations in Guyana (57). Given the nature of Gongora's paper (21), the sampled Creole breed is most likely native to Chile. See Supplementary Table ST1 for further details on the samples.

IV.6.1.2 Europe

My European dataset comprises of 194 samples from native European breeds. The breeds were carefully selected based on their long-established origin within a particular country (see Supplementary Table ST11 for further details on each breed and their recognition by various Poultry Clubs). From Dana *et al*'s study (28), the following Dutch breeds (n=60) were selected: Assendelft Fowl (n=8), Brabanter (n=8), Dutch Bantam (n=7), Drente Fowl (n=7), Dutch owl-bearded (n=6), Frisian Fowl (n=3), Groninger Mew (n=7), Kraienkoppe (n=8) and Lakenvelder (n=6). Revay's study (17) on Hungarian breeds (n=74) showcased, according to the author, native chicken breeds regarded as 'national treasures' (pg548 (17)); these comprised the Hungarian Speckled Godollo (n=10), the Hungarian Speckled Hodmezovasarhely (n=6), the Hungarian White Godollo (n=9), the Hungarian Yellow Godollo (n=6), the Hungarian Yellow Mosonmagyarovar (n=10), the Transylvanian Naked Neck Black Godollo (n=8), the Transylvanian Naked Neck Speckled Godollo (n=9), the Transylvanian Naked Neck Speckled Hodmezov (n=8) and the Transylvanian Naked Neck White Godollo (n=8). Finally, Lui's study (10) comprised of European samples but gave no further mention regarding the 'breed' status. Rather, while Asian samples were given particular 'breeds' or 'sub-species' information, the European samples were simply regarded as 'domestic'. Given that Liu's sampling strategy included avoiding recently introduced individuals or crosses of commercial lines across Eurasia (10), his samples most likely reflect indigenous populations (an observation that was also made by Miao (1) in his supplementary data). See Supplementary Table ST2 for a full list and complete details of the European samples.

IV.6.1.3 Sub-Saharan Africa

659 samples from five previously published papers made up the Sub-Saharan Africa dataset comprising indigenous chickens from Nigeria (n=359), Cameroon (n=3), Malawi (n=19), Sudan (n=20), Zimbabwe (n=99) and Kenya (n=159). 127 Nigerian samples were selected from the 2009 study by Adebambo *et al* (13) and contained the following indigenous breeds: Fulani (n=9), Opipi (n=11) and Yaffa (n=2). Three breeds from the study were discarded: Anak Titan based on its origin from Israel, the Giri Raja which was bred in 2008 in India for meat and egg production and the Naked Neck (See Supplementary Table ST11 for selection criteria). 105 samples came from local chickens with no specific breeds mentioned. All information and sequences here used were kindly provided and/or confirmed by Adebambo in person (Adebambo, pers.comm. Oct 2013). An additional 232 Nigerian samples were used from Adebambo *et al*'s 2010 study (20). These comprised of local village chickens. The 3 Cameroon village chicken samples were taken from Eriksson *et al*'s study (11). 138 samples from Muchadeyi *et al.* (39) comprised 19 scavenging chickens from Malawi, 20 Baladi (local) chickens from Sudan and 99 local Zimbabwean chickens. Finally, 159 Kenyan samples from unimproved free-ranging village chickens were selected from Mwacharo *et al*'s research (40). See Supplementary Table ST3 for further details on the Sub-Saharan Africa samples.

IV.6.1.4 South Asia

A total of 397 samples from India (n=311) and Bangladesh (n=86) were collected from two previous studies. The Indian samples comprised 27 samples collected from Liu *et al*'s (10) study (the chickens were described as 'domestic' with no apparent breed designation) and 284 indigenous samples from Miao *et al* (1). The 86 samples from Bangladesh were from Miao *et al*'s (1) study and comprised indigenous chickens. See Supplementary Table ST4 for a complete list of the samples.

IV.6.1.5 East Asia (excluding South China)

The East Asian dataset comprised of North China (n=578), Japan (n=38), Korea (n=31) and Mongolia (n=30) and excluded Chinese provinces from South China. North China here encompassed the Chinese provinces of Anhui, Chongqing, Hebei, Heilongjiang, Henan, Hubei, Jilin, Jiangsu, Qinghai, Shaanxi, Shandong, Shanxi, Sichuan and Xinjiang. A total of 677 samples made up this dataset. Most Japanese samples came from the 2003 and 2004 studies by Komiyama *et al.* (51, 52) with the exception of one sample from Fumihito *et al.* (8) and two samples from Wada *et al.* (55). According to Miao *et al.* (1), the two Nagoya Japanese chickens are indigenous. The Komiyama *et al.* (51) samples from the 2003 study were taken from native Japanese chickens (51) whereas the samples from the 2004 study included Japanese competition chickens (gamecocks) (52). All sampled Japanese breeds are believed to have been established in Japan for a few centuries. See Supplementary Table ST10 and ST11 for the original descriptions. The Korean samples were taken from a published study by Lee *et al.* (14) which comprised 31 Ogol Korean chickens (see Supplementary Table ST11 for further information). Finally, the 612 Chinese samples were either collected from small remote villages (Lui's samples (10)) or were described as 'indigenous' (Miao's samples (1)).

Numerous breeds were attributed to the various Chinese samples but none were recognised by Poultry Clubs and direct references regarding their origin proved hard to find. Some of the breeds were recognised as native local breeds within the published study (for instance, the breeds 'Beijing Youkei' and 'Big Bone' (53)). Other breeds appeared to have been attributed a breed name to reflect the geographical region in which the corresponding chicken populations could be found, for instance 'Sichuan Mountain Wugu'. Finally, others were not referenced and it can be assumed that these correspond to very local breeds ('Bian', 'Caoke' for instance). Thus, these may not be considered 'breeds' as understood in the European context based on the Victorian definition (e.g. 'a subspecies or race with definable physical characteristics that will be reliably reproduced in the offspring of intra-breed matings' (pg 235, (58))). Nevertheless, this emphasises their local status. See Supplementary Tables ST05, ST10 and ST11 for further details on the samples and these Chinese breeds.

IV.6.1.6 South China

The South Chinese dataset includes 239 samples from Taiwan and 1262 samples from Chinese provinces south of the Yangtze River (Fujian, Guangdong, Guangxi, Guizhou, Hunan, Jiangsu, Jiangxi, Yunnan and Zhejiang). This constitutes a total dataset of 1494 samples. The Chinese samples were selected from previously published studies by Fu *et al.* (50), Miao *et al.* (1) and Liu *et al*. (10). As observed previously with the East Asian dataset, these samples have either been collected from remote villages and constitute local individuals (Liu *et al.* (10)) or have been described as 'indigenous' (Miao *et al.* (1)). The breeds attributed to the Chinese sample represent similar issues to those observed from the East Asian dataset. Most breeds such as 'Dehong' and 'Guizhou Mountain Wugu' appear to reflect the local region in which these particular chicken populations are found. Others are known native breeds, such as the 'Chahua' (53) and the 'Huxu' (59). Further breeds appear to be local unknown breeds, as they are not recognised by any Poultry Clubs, their names do not refer to any regions and the finding of references to these specific breeds proves difficult (for instance, the 'Douji'). For further details on the samples and their corresponding breeds, and further information on each Chinese breed, please see Supplementary Tables ST6 and ST11 respectively.

25 Chinese samples were directly submitted to GenBank by Fu *et al.* (50). These comprised of five native chicken breeds (Baiyiner, Linkun, Xianju, Xiaoshan and Zhejiang Wugu) based on Miao *et al.* (1) and Fu et *al*. (60). Regarding the Taiwanese data, all samples came from local chicken breeds that have been maintained through a conservation programme (48). These breeds include Hsin-Yi, Hua-Tung, Ju-Chi and Quemoy. Two additional breeds were included in Chang's study (48): the Skek-ki originating from South China which has therefore been kept within this dataset, and the Nagoya, which was discarded as it originated from Japan. See Supplementary Table ST6 for a complete list of all the samples comprised in this dataset.

IV.6.1.7 Southeast Asia

The Southeast Asian dataset included Laos (n=66), Malaysia (n=1), Myanmar (n=21), Thailand (n=1) and Vietnam (n=153). 106 samples were taken from Berthouly-Salazar *et al*'s study (18) and corresponded to local Ha Giang chickens native to the region (31). One sample from Thailand was a 'Thai Bantam' (8), two samples from Myanmar were gamecocks (51), and one from Malaysia was taken from Lui *et al* (10) and consequently represented a local individual as observed previously with Lui's samples. 128 samples were taken from Miao's study and were described as 'indigenous' (1). Finally, two samples, one from Laos and one from Vietnam came from a direct submission by Miyake *et al* (54). These samples were also described as indigenous (1). To this dataset of previously published samples, I added two samples from Vietnam. These were sampled from indigenous chickens. See Supplementary Table ST7 for further details on the samples of this dataset.

IV.6.1.8 Island Southeast Asia and Oceania (ISEA)

This dataset comprised previously published samples (n=55) as well as newly analysed samples from across Island Southeast Asia and Near Oceania (n=118). 45 samples originated from a study by Dancause *et al* (49) which comprised five samples from Guam and 40 samples from Vanuatu. These samples were all local chickens or gamecocks. Three Indonesian samples were taken from Fumihito *et a.l* (8) while a further seven samples were from Liu's study (10), the samples from both described as indigenous (1, 10). The Indonesian samples comprised a couple of individuals belonging to native Indonesian breeds: Ayam Cemani, Ayam Kokok Balenggek and Ayam Pelung (see Supplementary Table ST11 for further details).

My newly analysed samples included the Philippines (n=23), Sulawesi (n=13), Papua Indonesia (n=10), Papua New Guinea (n=13) and the Solomon Islands (n=59) of which 20 were from the Santa Cruz Islands. All samples came from village chickens native to the islands on which they were sampled. Furthermore, the relative isolation of these islands provides limited interaction between recently introduced breeds or chickens from commercial lines. GPS coordinates and photographs are available upon request. See Supplementary Table ST8 for further details on the samples of this dataset.

IV.6.1.9 Commercial Lines

316 samples made up the commercial lines. From one study, I obtained 93 broilers (males and females) from two different companies, 51 brown-egg layers and 16 white-egg layers (28). From a published study, I selected 35 brown-egg layers (Hy-line variety brown, and Lohmann brown) (1). Finally, from a third study, 40 white-egg layers, 40 brown-egg layers, 20 sire line and 20 boiler dam line were used in this research (39). See Supplementary Table ST09 for further information.

IV.6.2 DNA extraction, amplification and sequencing

The tip of each feather was sampled (approximately 1cm cut into smaller fragments) and digested in 340µl extraction buffer containing 100mM Tris-HCl, pH8, 100mM NaCl, 3mM $CaCl_2$, 2% SDS (w/v), 40mM DTT and 250µg/ml proteinase K following the protocol by Pfeiffer *et al.* (61). The samples were incubated overnight at 56°C on a rotary mixer. Following digestion, the samples were purified using the QIAquick PCR purification Kit (QIAGEN Ltd, UK) following the manufacturers' instructions. An extraction control was used for every run of seven samples. The forward primer GG144F (5'-ACCCATTATATGTATACGGGCATTAA-3') and the reverse primer GG387R (5'-CGAGCATAACCAAATGGGTTAGA-3') were used to amplify a 201bp fragment (excluding primers). The PCR amplifications were performed in a 25µl reaction mix containing 1µl of extract, 0.96x PCR Gold Buffer, 2.4mM $MgCl_2$, 1.2U *Taq*, 0.24mM dNTP and 0.96µM of each primer. The PCR thermal cycling reactions consisted of 90s initial denaturation step at 94°C, followed by 35 cycles of 30s denaturation at 94°C, 30s annealing at 54°C, 30s extension at 72°C then a 10 minute final extension step at 72°C. The PCR amplification were visualised on a 0.5x agarose gel. Sequencing was performed on an ABI 3730 sequencer in the DNA-dedicated laboratory of the School of Biological and Biomedical Sciences in Durham.

IV.6.3 DNA sequence analysis

Sequences were visualised on Geneious (Geneious Pro 5.3.4 created by Biomatters. Available from http://www.geneious.com) and aligned using MAFFT v7.017 (55) followed by visual confirmation. Sequences with missing data were removed. The 120 samples were compared to selected published chicken populations from 21 previous studies (1, 8, 10, 11, 13, 14, 17, 18, 20, 21, 28, 39, 48-55). Sequences were shortened to the targeted 201bp and collapsed to haplotypes using FaBox v1.41 (62) and DnaSP v5.10 (63). Haplotypes were then compared to the 201bp haplotypes previously identified by Thomson *et al.* (37). A median-joining network was built using NETWORK 4.6.1.2 (www.fluxusengineering.com, (64)) and Gephi (65).

IV.6.4 Analyses of mtDNA variation

To calculate Wright's Fixation Index, the software ARLEQUIN v3.5.1.3 (66) was used. Wright's F-statistics have a theoretical minimum of 0 attesting lack of divergence and a theoretical maximum of 1. According to his suggested qualitative guidelines, an F_{ST} value between 0.05 and 0.15 would be indicative of moderate genetic differentiation, an F_{ST}

between 0.15 and 0.25 would be considered to represent moderately great differentiation and finally, a value higher than 0.25 would indicate very great differentiation (30, 67).

The mtDNA variation between populations was calculated using analyses of molecular variance (AMOVA) in ARLEQUIN v3.5.1.3 (66). The groupings for AMOVA consisted of nine populations, eight of which were geographically defined, the ninth comprising of commercial breeds only. Significant testing was undertaken using 1023 permutations.

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IV.9 Supplementary Materials

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Supplementary Table ST1: Full details for the South American dataset including location of samples, haplogroups, haplotypes, Sample ID, Genbank Accession Number and Source. Sorted by haplogroups and country

AMOVA Ref	*Samples ID*	*GenBank Acc Nb.*	*Haplogroup (201bp)*	*Haplotype (201bp)*	*Haplogroup (from source)*	*Region*	*Sub-Region*	*Country*	*Location specific*	*Category*	*Additional Status Info*	*Breed*	Source
SAm14	CHL31	EF190857	A	Hap15	A02	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm03	CHL6	EF190833	B	Hap21	B01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm17	CHL36	EF190862	B	Hap21	B01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm18	CHL1	EF190830	B	Hap21	B01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Quetro)	Gongora et al., 2008
SAm20	CHL17	EF190843	B	Hap21	B01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Quetro)	Gongora et al., 2008
SAm27	CHL37	EF190863	B	Hap21	B01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Quetro)	Gongora et al., 2008
SAm01	CHL11	EF190838	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca de Arêtes)	Gongora et al., 2008
SAm02	CHL2	EF190831	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm04	CHL8	EF190835	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm05	CHL9	EF190836	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm06	CHL12	EF190839	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm07	CHL13	EF190840	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm08	CHL18	EF190844	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm09	CHL21	EF190847	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm10	CHL24	EF190850	E	Hap41	E04	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm11	CHL26	EF190852	E	Hap01	E06	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm12	CHL27	EF190853	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm13	CHL30	EF190856	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm15	CHL32	EF190858	E	Hap27	E11	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm16	CHL35	EF190861	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Collonca)	Gongora et al., 2008
SAm19	CHL10	EF190837	E	Hap395	E52	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Quetro)	Gongora et al., 2008
SAm21	CHL22	EF190848	E	Hap395	E52	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Quetro)	Gongora et al., 2008
SAm22	CHL23	EF190849	E	Hap01	E06	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Quetro)	Gongora et al., 2008
SAm23	CHL25	EF190851	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Quetro)	Gongora et al., 2008
SAm24	CHL28	EF190854	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Quetro)	Gongora et al., 2008
SAm25	CHL29	EF190855	E	Hap395	E52	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Quetro)	Gongora et al., 2008
SAm26	CHL33	EF190859	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Quetro)	Gongora et al., 2008
SAm28	CHL43	EF190869	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Araucana (Quetro)	Gongora et al., 2008
SAm29	CHL7	EF190834	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Creole	Gongora et al., 2008
SAm30	CHL14	EF190841	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Creole	Gongora et al., 2008
SAm31	CHL15	EF190842	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Creole	Gongora et al., 2008
SAm32	CHL19	EF190845	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Creole	Gongora et al., 2008
SAm33	CHL20	EF190846	E	Hap395	E52	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Creole	Gongora et al., 2008
SAm34	CHL38	EF190864	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Creole	Gongora et al., 2008
SAm35	CHL39	EF190865	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Passion Fowl	Gongora et al., 2008
SAm36	CHL40	EF190866	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Passion Fowl	Gongora et al., 2008
SAm37	CHL41	EF190867	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Passion Fowl	Gongora et al., 2008
SAm38	CHL42	EF190868	E	Hap02	E01	America	South America	Chile	N/A	Gallus gallus domesticus	Local chicken	Passion Fowl	Gongora et al., 2008

Supplementary Table ST2: Full details for the European dataset including location of samples, haplogroups, haplotypes, Sample ID, Genbank Accession Number and Source. Sorted by haplogroups and country

AMOVA Ref	Samples ID	GenBank Acc Nb.	Haplogroup (201bp)	Haplotype (201bp)	Haplogroup (Source)	Region	Sub-Region	Country	Location specific	Sub-species	Additional Status Info	Breed / Common Name	Source
EU7P08	GQ258698	GQ258698	A	Hap13	A01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Black Godollo	Revay et al., 2010
EU4P27	2806d6	AY645000	A	Hap128	A27	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P33	3425b3	AY645006	A	Hap13	A01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P54	4404b1	AY704694	A	Hap13	A01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P07	1807b8	AY644980	A	Hap15	A02	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU2P06	HM015602f	HM015603	A	Hap13	A01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Dutch Bantam	Dana et al., 2010
EU2P01	HM015604	HM015604	A	Hap60	A03	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Frisian Fowl	Dana et al., 2010
EU2P02	HM015604a	HM015604	A	Hap60	A03	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Frisian Fowl	Dana et al., 2010
EU6P08	GQ258699a	GQ258699	B	Hap21	B01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Godollo	Revay et al., 2010
EU6P09	GQ258699b	GQ258699	B	Hap21	B01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Godollo	Revay et al., 2010
EU6P10	GQ258699c	GQ258699	B	Hap21	B01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Godollo	Revay et al., 2010
EU6P13	GQ258699d	GQ258699	B	Hap21	B01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Hodmezovasarhely	Revay et al., 2010
EU6P14	GQ258699e	GQ258699	B	Hap21	B01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Hodmezovasarhely	Revay et al., 2010
EU6P15	GQ258699f	GQ258699	B	Hap21	B01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Hodmezovasarhely	Revay et al., 2010
EU6P16	GQ258699g	GQ258699	B	Hap21	B01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Hodmezovasarhely	Revay et al., 2010
EU6P25	GQ258699	GQ258699	B	Hap21	B01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian White Godollo	Revay et al., 2010
EU7P25	GQ258699h	GQ258699	B	Hap21	B01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Hodmezovasarhely	Revay et al., 2010
EU2P32	HM015608	HM015608	C	Hap22	C06	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Lakenvelder	Dana et al., 2010
EU2P33	HM015608a	HM015608	C	Hap22	C06	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Lakenvelder	Dana et al., 2010
EU5P02	aze11	AY704697	E	Hap02	E01	Europe	SW Europe	Azerbaijan	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU5P03	aze20	AY704698	E	Hap02	E01	Europe	SW Europe	Azerbaijan	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU5P04	aze21	AY704699	E	Hap02	E01	Europe	SW Europe	Azerbaijan	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU5P05	aze22	AY704700	E	Hap02	E01	Europe	SW Europe	Azerbaijan	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU5P01	aze01	AY704696	E	Hap29	E08	Europe	SW Europe	Azerbaijan	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU6P01	GQ258689n	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Godollo	Revay et al., 2010
EU6P02	GQ258689o	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Godollo	Revay et al., 2010
EU6P03	GQ258689p	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Godollo	Revay et al., 2010
EU6P04	GQ258689q	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Godollo	Revay et al., 2010
EU6P05	GQ258689r	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Godollo	Revay et al., 2010
EU6P06	GQ258693	GQ258693	E	Hap30	E03	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Godollo	Revay et al., 2010
EU6P07	GQ258693a	GQ258693	E	Hap30	E03	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Godollo	Revay et al., 2010
EU6P11	GQ258689s	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Hodmezovasarhely	Revay et al., 2010
EU6P12	GQ258689t	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Speckled Hodmezovasarhely	Revay et al., 2010
EU6P17	GQ258689	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian White Godollo	Revay et al., 2010
EU6P18	GQ258689a	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian White Godollo	Revay et al., 2010
EU6P19	GQ258689b	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian White Godollo	Revay et al., 2010
EU6P20	GQ258689c	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian White Godollo	Revay et al., 2010
EU6P21	GQ258689d	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian White Godollo	Revay et al., 2010
EU6P22	GQ258689e	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian White Godollo	Revay et al., 2010
EU6P23	GQ258689f	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian White Godollo	Revay et al., 2010
EU6P24	GQ258689g	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian White Godollo	Revay et al., 2010
EU6P26	GQ258689h	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Godollo	Revay et al., 2010
EU6P27	GQ258689i	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Godollo	Revay et al., 2010
EU6P28	GQ258689j	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Godollo	Revay et al., 2010
EU6P29	GQ258689k	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Godollo	Revay et al., 2010
EU6P30	GQ258696	GQ258696	E	Hap02	E15	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Godollo	Revay et al., 2010
EU6P31	GQ258696a	GQ258696	E	Hap02	E15	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Godollo	Revay et al., 2010
EU6P32	GQ258689l	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Mosonmagyarovar	Revay et al., 2010
EU6P33	GQ258689m	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Mosonmagyarovar	Revay et al., 2010
EU6P35	GQ258695	GQ258695	E	Hap02	E12	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Mosonmagyarovar	Revay et al., 2010
EU6P36	GQ258695a	GQ258695	E	Hap02	E12	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Mosonmagyarovar	Revay et al., 2010
EU6P37	GQ258696b	GQ258696	E	Hap02	E15	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Mosonmagyarovar	Revay et al., 2010
EU6P38	GQ258696c	GQ258696	E	Hap02	E15	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Mosonmagyarovar	Revay et al., 2010
EU6P39	GQ258696d	GQ258696	E	Hap02	E15	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Mosonmagyarovar	Revay et al., 2010
EU6P40	GQ258696e	GQ258696	E	Hap02	E15	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Mosonmagyarovar	Revay et al., 2010
EU6P41	GQ258696f	GQ258696	E	Hap02	E15	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Mosonmagyarovar	Revay et al., 2010
EU6P34	GQ258694	GQ258694	E	Hap92	E80	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Hungarian Yellow Mosonmagyarovar	Revay et al., 2010
EU7P01	GQ258689ad	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Black Godollo	Revay et al., 2010
EU7P02	GQ258689ae	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Black Godollo	Revay et al., 2010
EU7P03	GQ258689af	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Black Godollo	Revay et al., 2010
EU7P04	GQ258689ag	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Black Godollo	Revay et al., 2010
EU7P05	GQ258689ah	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Black Godollo	Revay et al., 2010
EU7P06	GQ258689ai	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Black Godollo	Revay et al., 2010
EU7P07	GQ258692a	GQ258692	E	Hap41	E04	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Black Godollo	Revay et al., 2010
EU7P12	GQ258690	GQ258690	E	Hap01	E06	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Godollo	Revay et al., 2010
EU7P13	GQ258690a	GQ258690	E	Hap01	E06	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Godollo	Revay et al., 2010
EU7P14	GQ258690b	GQ258690	E	Hap01	E06	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Godollo	Revay et al., 2010
EU7P09	GQ258689u	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Godollo	Revay et al., 2010
EU7P10	GQ258689v	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Godollo	Revay et al., 2010
EU7P11	GQ258689w	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Godollo	Revay et al., 2010
EU7P17	GQ258697	GQ258697	E	Hap02	E45	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Godollo	Revay et al., 2010
EU7P15	GQ258691	GQ258691	E	Hap323	E49	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Godollo	Revay et al., 2010

EU7P16	GQ258692	GQ258692	E	Hap41	E04	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Godollo	Revay et al., 2010
EU7P18	GQ258689x	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Hodmezovasarhely	Revay et al., 2010
EU7P19	GQ258689y	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Hodmezovasarhely	Revay et al., 2010
EU7P20	GQ258689z	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Hodmezovasarhely	Revay et al., 2010
EU7P21	GQ258689aa	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Hodmezovasarhely	Revay et al., 2010
EU7P22	GQ258689ab	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Hodmezovasarhely	Revay et al., 2010
EU7P23	GQ258689ac	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Hodmezovasarhely	Revay et al., 2010
EU7P24	GQ258692a	GQ258692	E	Hap41	E04	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck Speckled Hodmezovasarhely	Revay et al., 2010
EU7P26	GQ258689aj	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck White Godollo	Revay et al., 2010
EU7P27	GQ258689ak	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck White Godollo	Revay et al., 2010
EU7P28	GQ258689al	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck White Godollo	Revay et al., 2010
EU7P29	GQ258689am	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck White Godollo	Revay et al., 2010
EU7P30	GQ258689an	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck White Godollo	Revay et al., 2010
EU7P31	GQ258689ao	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck White Godollo	Revay et al., 2010
EU7P32	GQ258689ap	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck White Godollo	Revay et al., 2010
EU7P33	GQ258689aq	GQ258689	E	Hap02	E01	Europe	Central Europe	Hungary	N/A	*Gallus gallus domesticus*	Local chicken	Transylvanian Naked Neck White Godollo	Revay et al., 2010
EU4P34	3436g11	AY645007	E	Hap01	E06	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P35	3433e11	AY645008	E	Hap01	E06	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P45	5022f3	AY645018	E	Hap01	E06	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P46	5020d3	AY645019	E	Hap01	E06	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P52	3425a11	AY704692	E	Hap01	E06	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P55	5027a3	AY704695	E	Hap01	E06	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P01	0522h10	AY644974	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P02	0518d10	AY644975	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P03	0519e19	AY644976	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P04	0517c10	AY644977	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P05	0515a10	AY644978	E	Hap02	E12	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P06	1813f8	AY644979	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P10	1810d8	AY644983	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P11	1815h8	AY644984	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P12	1925d9	AY644985	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P13	1923b9	AY644986	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P14	1921a9	AY644987	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P15	1927E9	AY644988	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P16	1929c9	AY644989	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P17	2713c4	AY644990	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P18	2711a4	AY644991	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P19	2735a5	AY644992	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P20	2736b5	AY644993	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P21	2714d4	AY644994	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P22	2715e4	AY644995	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P23	2737c5	AY644996	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P24	2739e5	AY644997	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P25	2740f5	AY644998	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P26	2804b6	AY644999	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P28	3203b7	AY645001	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P29	3207f7	AY645002	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P30	3313b2	AY645003	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P36	3427b11	AY645009	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P37	4231a2	AY645010	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P38	4233c2	AY645011	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P39	4234d2	AY645012	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P40	4235e2	AY645013	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P47	5071c3	AY645020	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P48	2712b4	AY704688	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P49	2803a6	AY704689	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P50	3202a7	AY704690	E	Hap02	E01	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P41	4409e1	AY645014	E	Hap27	E11	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P42	4405d1	AY645015	E	Hap27	E11	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P43	4411f1	AY645016	E	Hap27	E11	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P53	4403a1	AY704693	E	Hap27	E11	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P31	3317c12	AY645004	E	Hap28	E09	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P32	3319d12	AY645005	E	Hap28	E09	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P44	4406c1	AY645017	E	Hap28	E09	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P51	3313a12	AY704691	E	Hap28	E09	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P08	1812e8	AY644981	E	Hap41	E04	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
EU4P09	1804a8	AY644982	E	Hap41	E04	Europe	N/A	N/A	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
Eu1P15	HM015610l	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Assendelft Fowl	Dana et al., 2010
Eu1P16	HM015610m	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Assendelft Fowl	Dana et al., 2010
Eu1P17	HM015610n	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Assendelft Fowl	Dana et al., 2010
Eu1P18	HM015610o	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Assendelft Fowl	Dana et al., 2010
Eu1P19	HM015610p	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Assendelft Fowl	Dana et al., 2010
Eu1P20	HM015610q	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Assendelft Fowl	Dana et al., 2010
Eu1P21	HM015610r	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Assendelft Fowl	Dana et al., 2010
Eu1P22	HM015610s	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Assendelft Fowl	Dana et al., 2010
EU2P16	HM015610an	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Brabanter	Dana et al., 2010
EU2P17	HM015610ao	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Brabanter	Dana et al., 2010
EU2P18	HM015610ap	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Brabanter	Dana et al., 2010
EU2P19	HM015610aq	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Brabanter	Dana et al., 2010

EU2P20	HM015610ar	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Brabanter	Dana et al., 2010
EU2P21	HM015612a	HM015612a	E	Hap30	E03	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Brabanter	Dana et al., 2010
EU2P22	HM015615	HM015615	E	Hap322	E06	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Brabanter	Dana et al., 2010
EU2P23	HM015615a	HM015615	E	Hap322	E06	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Brabanter	Dana et al., 2010
Eu1P08	HM015610e	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Drente Fowl	Dana et al., 2010
Eu1P09	HM015610f	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Drente Fowl	Dana et al., 2010
Eu1P10	HM015610g	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Drente Fowl	Dana et al., 2010
Eu1P11	HM015610h	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Drente Fowl	Dana et al., 2010
Eu1P12	HM015610i	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Drente Fowl	Dana et al., 2010
Eu1P13	HM015610j	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Drente Fowl	Dana et al., 2010
Eu1P14	HM015610k	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Drente Fowl	Dana et al., 2010
EU2P04	HM015610cr	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Dutch Bantam	Dana et al., 2010
EU2P05	HM015610cs	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Dutch Bantam	Dana et al., 2010
EU2P07	HM015610co	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Dutch Bantam	Dana et al., 2010
EU2P08	HM015610cp	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Dutch Bantam	Dana et al., 2010
EU2P09	HM015610cq	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Dutch Bantam	Dana et al., 2010
EU2P38	HM015620	HM015620	E	Hap394		Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Dutch Bantam	Dana et al., 2010
EU2P10	HM015610aa	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Dutch owl-bearded	Dana et al., 2010
EU2P11	HM015610ab	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Dutch owl-bearded	Dana et al., 2010
EU2P12	HM015610ac	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Dutch owl-bearded	Dana et al., 2010
EU2P13	HM015610ad	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Dutch owl-bearded	Dana et al., 2010
EU2P14	HM015610ae	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Dutch owl-bearded	Dana et al., 2010
EU2P15	HM015610af	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Dutch owl-bearded	Dana et al., 2010
EU2P03	HM015610t	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Frisian Fowl	Dana et al., 2010
Eu1P01	HM015610	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Groninger Mew	Dana et al., 2010
Eu1P03	HM015616	HM015616	E	Hap29	E08	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Groninger Mew	Dana et al., 2010
Eu1P04	HM015616a	HM015616	E	Hap29	E08	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Groninger Mew	Dana et al., 2010
Eu1P05	HM015616b	HM015616	E	Hap29	E08	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Groninger Mew	Dana et al., 2010
Eu1P06	HM015616c	HM015616	E	Hap29	E08	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Groninger Mew	Dana et al., 2010
Eu1P07	HM015616d	HM015616	E	Hap29	E08	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Groninger Mew	Dana et al., 2010
Eu1P02	HM015612	HM015612	E	Hap30	E03	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Groninger Mew	Dana et al., 2010
EU2P24	HM015610br	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Kraienkoppe	Dana et al., 2010
EU2P25	HM015610bs	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Kraienkoppe	Dana et al., 2010
EU2P26	HM015610bt	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Kraienkoppe	Dana et al., 2010
EU2P27	HM015610bu	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Kraienkoppe	Dana et al., 2010
EU2P28	HM015610bv	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Kraienkoppe	Dana et al., 2010
EU2P29	HM015610bw	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Kraienkoppe	Dana et al., 2010
EU2P30	HM015610bx	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Kraienkoppe	Dana et al., 2010
EU2P31	HM015610by	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Kraienkoppe	Dana et al., 2010
EU2P34	HM015610a	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Lakenvelder	Dana et al., 2010
EU2P35	HM015610b	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Lakenvelder	Dana et al., 2010
EU2P36	HM015610c	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Lakenvelder	Dana et al., 2010
EU2P37	HM015610d	HM015610	E	Hap02	E01	Europe	Northwest Europe	The Netherlands	N/A	*Gallus gallus domesticus*	Local chicken	Lakenvelder	Dana et al., 2010

Supplementary Table ST3: Full details for the Sub-Saharan African dataset including location of samples, haplogroups, haplotypes, Sample ID, Genbank Accession Number and Source. Sorted by haplogroups and country

AMOVA Ref	Samples ID	GenBank Acc Nb.	Haplogroup (201bp)	Haplotype (201bp)	Haplogroup (Source)	Region	Sub-Region	Country	Location specific	Category	Additional Status Info	Breed / Common Name	Source
SuS6P78	AM746031	AM746031	A	Hap80	N/A	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P79	AM746032	AM746032	A	Hap81	N/A	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS2P03	KF09	EU095036	C	Hap135	C09	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P05	KF17	EU095038	C	Hap135	C09	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P28	TL02	EU095061	C	Hap135	C09	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P87	MT43	EU095120	C	Hap135	C09	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P01	KF01	EU095034	D	Hap10	D46	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P04	KF13	EU095037	D	Hap10	D50	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P11	PN04	EU095044	D	Hap10	D46	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P123	KK25	EU095156	D	Hap10	D46	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P14	DC05	EU095047	D	Hap10	D46	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P21	TT21	EU095054	D	Hap10	D48	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P22	PN10	EU095055	D	Hap10	D46	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P65	KT23	EU095098	D	Hap10	D46	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P77	MT11	EU095110	D	Hap10	D46	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P12	PN09	EU095045	D	Hap150	D49	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P149	NV12	EU095182	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P153	NV24	EU095186	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P18	TT11	EU095051	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P19	TT14	EU095052	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P23	PN13	EU095056	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P32	MG03	EU095065	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P34	MG05	EU095067	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P35	MG06	EU095068	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P36	MG08	EU095069	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P37	MG10	EU095070	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P38	MG11	EU095071	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P39	MG12	EU095072	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P40	MG14	EU095073	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P43	MG18	EU095076	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P44	MG20	EU095077	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P45	MR01	EU095078	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P46	MR09	EU095079	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P47	MR11	EU095080	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P51	MR27	EU095084	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P53	MR34	EU095086	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P54	MR37	EU095087	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P55	MR40	EU095088	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P57	MR46	EU095090	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P59	KT02	EU095092	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P63	KT17	EU095096	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P64	KT20	EU095097	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P66	KT26	EU095099	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P67	KT29	EU095100	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P70	KT43	EU095103	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P71	KT46	EU095104	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P73	MT01	EU095106	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P75	MT06	EU095108	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P82	MT30	EU095115	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P83	MT32	EU095116	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P86	MT40	EU095119	D	Hap151	D53	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P49	MR17	EU095082	D	Hap153	D52	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P78	MT15	EU095111	D	Hap153	D52	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P80	MT23	EU095113	D	Hap153	D52	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P81	MT27	EU095114	D	Hap153	D52	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P85	MT38	EU095118	D	Hap153	D52	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P61	KT12	EU095094	D	Hap154	C40	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P20	TT18	EU095053	D	Hap16	D06	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS3P01	AM746024at	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P02	AM746024au	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P03	AM746024av	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P04	AM746024aw	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P05	AM746024ax	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P06	AM746024ay	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P07	AM746024az	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P08	AM746024ba	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008

SuS3P09	AM746024bb	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P10	AM746024bc	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P11	AM746024bd	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P12	AM746024be	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P13	AM746024bf	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P14	AM746024bg	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P15	AM746024bh	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P16	AM746024bi	AM746024	D	Hap10	D46	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P17	AM746028c	AM746028	D	Hap10	D48	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P18	AM746028d	AM746028	D	Hap10	D48	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS3P19	AM746030	AM746030	D	Hap79	D29	Africa	Southeast Africa	Malawi	N/A	*Gallus gallus domesticus*	Scavenging chicken	N/A	Muchadeyi et al., 2008
SuS4P377	N OP 7	From author	D	Hap78	N/A	Africa	West Africa	Nigeria	Bida	*Gallus gallus domesticus*	Local chicken	Opipi	Adebambo et al., 2009
SuS4P208	NW7	FJ851667	D	Hap78	N/A	Africa	West Africa	Nigeria	Northwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS6P01	AM746024	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P02	AM746024a	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P03	AM746024b	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P04	AM746024c	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P05	AM746024d	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P06	AM746024e	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P07	AM746024f	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P08	AM746024g	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P09	AM746024h	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P10	AM746024i	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P11	AM746024j	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P12	AM746024k	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P21	AM746024l	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P22	AM746024m	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P23	AM746024n	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P24	AM746024o	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P25	AM746024p	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P26	AM746024q	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P27	AM746024r	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P28	AM746024s	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P29	AM746024t	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P41	AM746024u	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P42	AM746024v	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P43	AM746024w	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P44	AM746024x	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P45	AM746024y	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P46	AM746024z	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P47	AM746024aa	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P48	AM746024ab	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P49	AM746024ac	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P50	AM746024ad	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P51	AM746024ae	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P52	AM746028	AM746028	D	Hap10	D48	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P60	AM746024af	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P61	AM746024ag	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P62	AM746024ah	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P63	AM746024ai	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P64	AM746024aj	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P65	AM746024ak	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P80	AM746024al	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P81	AM746024am	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P82	AM746024an	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P83	AM746024ao	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P84	AM746024ap	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P85	AM746024aq	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P86	AM746024ar	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P87	AM746024as	AM746024	D	Hap10	D46	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P88	AM746028a	AM746028	D	Hap10	D48	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P89	AM746028b	AM746028	D	Hap10	D48	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P15	AM746027	AM746027	D	Hap35	D27	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P13	AM746025	AM746025	D	Hap76	D51	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P66	AM746025a	AM746025	D	Hap76	D51	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P14	AM746026	AM746026	D	Hap77	D47	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P67	AM746029	AM746029	D	Hap78	E128	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P77	AM746044	AM746044	D	Hap85	D18	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS1P01	Cam C4	EU329404	E	Hap02	E01	Africa	Central Africa	Cameroon	N/A	*Gallus gallus domesticus*	Local chicken	Village chicken	Eriksson et al., 2008
SuS1P02	Cam C85	EU329405	E	Hap02	E01	Africa	Central Africa	Cameroon	N/A	*Gallus gallus domesticus*	Local chicken	Village chicken	Eriksson et al., 2008
SuS1P03	Cam C100	EU329406	E	Hap02	E01	Africa	Central Africa	Cameroon	N/A	*Gallus gallus domesticus*	Local chicken	Village chicken	Eriksson et al., 2008
SuS2P100	KS41	EU095133	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011

SuS2P101	KS44	EU095134	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P102	KS48	EU095135	E	Hap02	E66	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P103	HB02	EU095136	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P104	HB04	EU095137	E	Hap02	E66	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P106	HB08	EU095139	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P107	HB11	EU095140	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P109	HB15	EU095142	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P110	HB17	EU095143	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P111	HB21	EU095144	E	Hap02	E66	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P112	HB27	EU095145	E	Hap02	E66	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P113	HB30	EU095146	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P115	HB38	EU095148	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P118	KK06	EU095151	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P122	KK22	EU095155	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P124	KK27	EU095157	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P127	KK35	EU095160	E	Hap02	E66	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P131	ND01	EU095164	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P132	ND04	EU095165	E	Hap02	E66	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P133	ND07	EU095166	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P134	ND11	EU095167	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P135	ND19	EU095168	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P137	ND24	EU095170	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P138	ND28	EU095171	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P139	ND31	EU095172	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P140	ND36	EU095173	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P141	ND39	EU095174	E	Hap02	E66	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P142	ND41	EU095175	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P145	NV01	EU095178	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P146	NV04	EU095179	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P147	NV06	EU095180	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P148	NV08	EU095181	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P150	NV14	EU095183	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P151	NV16	EU095184	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P152	NV20	EU095185	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P154	NV27	EU095187	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P155	NV29	EU095188	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P156	NV33	EU095189	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P157	NV37	EU095190	E	Hap02	E66	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P158	NV41	EU095191	E	Hap02	E66	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P159	NV44	EU095192	E	Hap02	E66	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P42	MG17	EU095075	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P48	MR14	EU095081	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P50	MR22	EU095083	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P56	MR43	EU095089	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P69	KT39	EU095102	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P72	KT51	EU095105	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P74	MT04	EU095107	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P79	MT19	EU095112	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P90	KS10	EU095123	E	Hap02	E66	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P91	KS13	EU095124	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P92	KS17	EU095125	E	Hap02	E12	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P93	KS19	EU095126	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P94	KS22	EU095127	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P95	KS25	EU095128	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P96	KS28	EU095129	E	Hap02	E66	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P97	KS31	EU095130	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P98	KS34	EU095131	E	Hap02	E01	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P99	KS37	EU095132	E	Hap02	E66	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P10	KF29	EU095043	E	Hap149	E67	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P105	HB05	EU095138	E	Hap149	E67	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P117	KK02	EU095150	E	Hap149	E67	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P129	KK43	EU095162	E	Hap149	E67	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P143	ND45	EU095176	E	Hap149	E67	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P24	PN15	EU095057	E	Hap149	E67	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P29	TL04	EU095062	E	Hap149	E67	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P30	MG01	EU095063	E	Hap149	E67	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P31	MG02	EU095064	E	Hap149	E67	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P41	MG16	EU095074	E	Hap149	E67	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P52	MR31	EU095085	E	Hap149	E67	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P58	MR50	EU095091	E	Hap149	E67	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P60	KT08	EU095093	E	Hap149	E67	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P62	KT15	EU095095	E	Hap149	E67	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011

SuS2P76	MT09	EU095109	E	Hap149	E67	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P26	CH07	EU095059	E	Hap152	E71	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P89	KS06	EU095122	E	Hap155	E69	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P108	HB13	EU095141	E	Hap156	E68	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P125	KK31	EU095158	E	Hap156	E68	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P128	KK39	EU095161	E	Hap156	E68	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P144	ND47	EU095177	E	Hap156	E68	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P116	HB41	EU095149	E	Hap157	E78	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P120	KK14	EU095153	E	Hap158	E70	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P126	KK33	EU095159	E	Hap159	E75	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P130	KK47	EU095163	E	Hap160	E77	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P136	ND21	EU095169	E	Hap161	E79	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P33	MG04	EU095066	E	Hap27	E11	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P02	KF04	EU095035	E	Hap29	E08	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P06	KF19	EU095039	E	Hap29	E08	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P07	KF21	EU095040	E	Hap29	E08	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P08	KF24	EU095041	E	Hap29	E08	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P09	KF27	EU095042	E	Hap29	E08	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P119	KK12	EU095152	E	Hap29	E08	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P121	KK18	EU095154	E	Hap29	E72	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P13	CH01	EU095046	E	Hap29	E08	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P15	FF01	EU095048	E	Hap29	E08	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P16	TT02	EU095049	E	Hap29	E08	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P17	TT05	EU095050	E	Hap29	E08	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P25	FF05	EU095058	E	Hap29	E08	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P68	KT31	EU095101	E	Hap29	E72	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P84	MT35	EU095117	E	Hap29	E08	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P88	KS03	EU095121	E	Hap29	E76	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P27	DC10	EU095060	E	Hap30	E03	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS2P114	HB34	EU095147	E	Hap41	E04	Africa	East Africa	Kenya	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Mwacharo et al., 2011
SuS4P379	113	From author	E	Hap01	N/A	Africa	West Africa	Nigeria	Abeokuta, Federal University of Agriculture	*Gallus gallus domesticus*	Local chicken	Yaffa	Adebambo et al., 2009
SuS4P03	N_FU_41	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kano	*Gallus gallus domesticus*	Local chicken	Fulani	Adebambo et al., 2009
SuS4P04	N_FU_83	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Jos	*Gallus gallus domesticus*	Local chicken	Fulani	Adebambo et al., 2009
SuS4P06	N_FU_2	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Bida	*Gallus gallus domesticus*	Local chicken	Fulani	Adebambo et al., 2009
SuS4P07	17	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kwara, Kosubosu	*Gallus gallus domesticus*	Local chicken	Fulani	Adebambo et al., 2009
SuS4P08	21	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kwara, Kosubosu	*Gallus gallus domesticus*	Local chicken	Fulani	Adebambo et al., 2009
SuS4P09	33	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ogun, Imeko	*Gallus gallus domesticus*	Local chicken	Fulani	Adebambo et al., 2009
SuS4P11	30	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ogun, Imeko	*Gallus gallus domesticus*	Local chicken	Fulani	Adebambo et al., 2009
SuS4P247	N_NN_33	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kano	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P248	N_NN_34	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kano	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P250	N_NN_38	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kano	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P251	N_NN_39	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kano	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P252	N_NN_40	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kano	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P253	N_NN_44	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kari	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P254	N_NN_45	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kari	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P255	N_NN_47	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kari	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P256	N_NN_49	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kari	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P257	N_NN_50	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kari	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P258	N_NN_52	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kari	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P259	N_NN_53	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kari	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P260	N_NN_54	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kari	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P261	N_NN_55	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kari	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P262	N_NN_56	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kari	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P263	N_NN_59	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Potiskom	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P264	N_NN_60	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Potiskom	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P265	N_NN_63	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Potiskom	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P266	N_NN_64	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Potiskom	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P267	N_NN_67	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Maiduguri	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P268	N_NN_70	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Maiduguri	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P269	N_NN_71	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Maiduguri	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P270	N_NN_84	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Jos	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P273	N_NN_72	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Maiduguri	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P282	N_NN_11	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kebbi	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P283	N_NN_12	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kebbi	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P284	N_NN_15	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kebbi	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P285	N_NN_16	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Sokoto	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P286	N_NN_17	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Sokoto	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P287	N_NN_23	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kaduna	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P288	N_NN_24	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kaduna	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P289	N_NN_26	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Zaria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P290	N_NN_27	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Zaria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P291	N_NN_29	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Zaria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009

SuS4P292	N_NN_30	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Zaria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P293	N_NN_32	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Zaria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P294	N_NN_4	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Bida	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P296	2	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Edo, Uromi	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P297	3	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Edo, Uromi	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P298	4	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Edo, Uromi	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P299	5	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Edo, Uromi	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P300	7	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ondo, Ore	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P301	8	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ondo, Ore	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P302	9	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ondo, Ore	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P303	11	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ondo, Ore	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P304	13	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ondo, Ore	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P305	14	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ondo, Ore	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P306	16	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kwara, Kosubosu	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P307	18	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kwara, Kosubosu	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P308	19	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kwara, Kosubosu	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P309	29	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kwara, Jebba	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P310	39	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ogun, Ipokia	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P311	41	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ogun, Ipokia	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P312	46	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ogun, Ipokia	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P313	48	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ondo, Ikare	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P314	51	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ondo, Ikare	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P315	53	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ondo, Ikare	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P316	54	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ondo, Ikare	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P317	61	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ogun, Owode	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P318	63	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ogun, Owode	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P319	64	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Oyo, Oke-iho	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P320	65	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Oyo, Oke-iho	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P321	66	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Oyo, Oke-iho	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P322	67	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Oyo, Oke-iho	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P323	68	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Oyo, Oke-iho	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P324	70	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Osun, Ifewara	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P325	71	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Osun, Ifewara	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P326	72	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Osun, Ifewara	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P327	74	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Osun, Ifewara	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P328	75	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Osun, Ifewara	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P329	78	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Lagos, Epe	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P330	79	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Lagos, Epe	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P331	81	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Lagos, Epe	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P332	85	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Oyo, Agoare	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P333	86	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Oyo, Agoare	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P334	87	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Oyo, Agoare	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P335	90	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Oyo, Agoare	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P336	97	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kwara, Offa	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P337	98	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kwara, Offa	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P338	99	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Kwara, Offa	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P347	59	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ogun, Owode	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P349	62	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ogun, Owode	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P367	31	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Imeko	*Gallus gallus domesticus*	Local chicken	Opipi	Adebambo et al., 2009
SuS4P368	34	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Imeko	*Gallus gallus domesticus*	Local chicken	Opipi	Adebambo et al., 2009
SuS4P369	40	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ogun, Ipokia	*Gallus gallus domesticus*	Local chicken	Opipi	Adebambo et al., 2009
SuS4P370	42	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ogun, Ipokia	*Gallus gallus domesticus*	Local chicken	Opipi	Adebambo et al., 2009
SuS4P371	43	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ogun, Ipokia	*Gallus gallus domesticus*	Local chicken	Opipi	Adebambo et al., 2009
SuS4P372	44	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ogun, Ipokia	*Gallus gallus domesticus*	Local chicken	Opipi	Adebambo et al., 2009
SuS4P373	45	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Ogun, Ipokia	*Gallus gallus domesticus*	Local chicken	Opipi	Adebambo et al., 2009
SuS4P374	80	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Lagos, Epe	*Gallus gallus domesticus*	Local chicken	Opipi	Adebambo et al., 2009
SuS4P375	83	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Lagos, Epe	*Gallus gallus domesticus*	Local chicken	Opipi	Adebambo et al., 2009
SuS4P376	88	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Oyo, Agoare	*Gallus gallus domesticus*	Local chicken	Opipi	Adebambo et al., 2009
SuS4P378	110	From author	E	Hap02	N/A	Africa	West Africa	Nigeria	Abeokuta, Federal University of Agriculture	*Gallus gallus domesticus*	Local chicken	Yaffa	Adebambo et al., 2009
SuS4P100	NE84br	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P101	NE84bs	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P102	NE84bt	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P103	NE84bu	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P104	NE84bv	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P105	NE84bw	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P106	NE84bx	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P107	NE84by	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P108	NE84bz	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P109	NE84ca	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P110	NE84cb	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P111	NE84cc	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P112	NE84cd	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010

SuS4P113	NE84ce	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P114	NE84cf	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P115	NE84cg	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P116	NE84ch	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P117	NE84ci	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P118	NE84cj	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P119	NE84ck	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P120	NE84cl	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P121	NE84cm	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P122	NE84cn	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P123	NE84co	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P124	NE84cp	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P125	NE84cq	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P126	NE84cr	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P127	NE84cs	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P128	NE84ct	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P129	NE84cu	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P130	NE84cv	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P131	NE84cw	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P132	NE84cx	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P133	NE84cy	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P134	NE84cz	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P135	NE84da	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P136	NE84db	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P137	NE84dc	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P138	NE84dd	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P139	NE84de	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P140	NE84df	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P141	NE84dg	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P142	NE84dh	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P143	NE84di	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P144	NE84dj	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P145	NE84dk	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P146	NE84dl	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P147	NE84dm	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P148	NE84dn	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P149	NE84do	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P15	NE51	FJ851659	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P150	NE84dp	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P151	NE84dq	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P152	NE84dr	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P153	NE84ds	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P154	NE84dt	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P155	NE84du	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P156	NE84dv	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P157	NE84dw	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P158	NE84dx	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P159	NE84dy	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P16	NE51a	FJ851659	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P160	NE84dz	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P161	NE84ea	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P162	NE84eb	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P163	NE84ec	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P164	NE84ed	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P165	NE84ee	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P166	NE84ef	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P167	NE84eg	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P168	NE84eh	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P169	NE84ei	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P17	NE51b	FJ851659	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P170	NE84ej	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P171	NE84ek	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P172	NE84el	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P173	NE84em	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P174	NE84en	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P175	NE84eo	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P176	NE84ep	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P177	NE84eq	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P178	NE84er	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P179	NE84es	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P18	NE51c	FJ851659	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P180	NE84et	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010

SuS4P181	NE84eu	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P182	NE84ev	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P183	NE84ew	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P184	NE84ex	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P185	NE84ey	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P186	NE84ez	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P187	NE84fa	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P188	NE84fb	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P189	NE84fc	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P19	NE51d	FJ851659	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P190	NE84fd	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P191	NE84fe	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P192	NE84ff	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P193	NE84fg	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P194	NE84fh	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P195	NE84fi	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P196	NE84fj	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P197	NE84fk	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P198	NE84fl	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P199	NE84fm	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P20	NE51e	FJ851659	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P200	NE84fn	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P201	NE84fo	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P202	NE84fp	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P203	NE84fq	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P204	NE84fr	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P205	NE84fs	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P206	NE84ft	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P234	SW30	FJ851678	E	Hap02	Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P241	SW59	FJ851682	E	Hap02	Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P242	SW59a	FJ851682	E	Hap02	Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P244	SW62	FJ851684	E	Hap02	Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P30	NE84	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P31	NE84a	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P32	NE84b	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P33	NE84c	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P34	NE84d	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P35	NE84e	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P36	NE84f	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P37	NE84g	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P38	NE84h	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P39	NE84i	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P40	NE84j	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P41	NE84k	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P42	NE84l	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P43	NE84m	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P44	NE84n	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P45	NE84o	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P46	NE84p	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P47	NE84q	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P48	NE84r	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P49	NE84s	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P50	NE84t	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P51	NE84u	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P52	NE84v	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P53	NE84w	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P54	NE84x	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P55	NE84y	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P56	NE84z	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P57	NE84aa	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P58	NE84ab	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P59	NE84ac	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P60	NE84ad	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P61	NE84ae	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P62	NE84af	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P63	NE84ag	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P64	NE84ah	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P65	NE84ai	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P66	NE84aj	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P67	NE84ak	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P68	NE84al	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P69	NE84am	FJ851666	E	Hap02	Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010

SuS4P70	NE84an	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P71	NE84ao	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P72	NE84ap	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P73	NE84aq	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P74	NE84ar	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P75	NE84as	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P76	NE84at	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P77	NE84au	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P78	NE84av	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P79	NE84aw	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P80	NE84ax	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P81	NE84ay	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P82	NE84az	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P83	NE84ba	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P84	NE84bb	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P85	NE84bc	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P86	NE84bd	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P87	NE84be	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P88	NE84bf	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P89	NE84bg	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P90	NE84bh	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P91	NE84bi	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P92	NE84bj	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P93	NE84bk	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P94	NE84bl	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P95	NE84bm	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P96	NE84bn	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P97	NE84bo	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P98	NE84bp	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P99	NE84bq	FJ851666	E	Hap02		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P341	15	From author	E	Hap130	N/A	Africa	West Africa	Nigeria	Kwara, Kosubosu	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P225	SW15	FJ851675	E	Hap130		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P295	N NN 25	From author	E	Hap164	N/A	Africa	West Africa	Nigeria	Zaria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P211	NW25	FJ851670	E	Hap164		Africa	West Africa	Nigeria	Northwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P274	N NN 57	From author	E	Hap198	N/A	Africa	West Africa	Nigeria	Kari	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P275	N NN 58	From author	E	Hap198	N/A	Africa	West Africa	Nigeria	Potiskom	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P276	N_NN_61	From author	E	Hap198	N/A	Africa	West Africa	Nigeria	Potiskom	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P277	N NN 68	From author	E	Hap198	N/A	Africa	West Africa	Nigeria	Maiduguri	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P21	NE62	FJ851660	E	Hap198		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P22	NE62a	FJ851660	E	Hap198		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P23	NE62b	FJ851660	E	Hap198		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P24	NE62c	FJ851660	E	Hap198		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P25	NE62d	FJ851660	E	Hap198		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P279	N NN 73	From author	E	Hap199	N/A	Africa	West Africa	Nigeria	Maiduguri	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P280	N_NN_74	From author	E	Hap199	N/A	Africa	West Africa	Nigeria	Maiduguri	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P26	NE73	FJ851662	E	Hap199		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P27	NE74	FJ851663	E	Hap199		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P28	NE79	FJ851664	E	Hap200		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P281	N NN 81	From author	E	Hap201	N/A	Africa	West Africa	Nigeria	Jos	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P29	NE81	FJ851665	E	Hap201		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P209	NW9	FJ851668	E	Hap202		Africa	West Africa	Nigeria	Northwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P210	NW18	FJ851669	E	Hap203		Africa	West Africa	Nigeria	Northwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P271	N NN 35	From author	E	Hap204	N/A	Africa	West Africa	Nigeria	Kano	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P212	NW35	FJ851671	E	Hap204		Africa	West Africa	Nigeria	Northwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P340	12	From author	E	Hap206	N/A	Africa	West Africa	Nigeria	Ondo, Ore	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P224	SW12	FJ851674	E	Hap206		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P345	49	From author	E	Hap208	N/A	Africa	West Africa	Nigeria	Ondo, Ikare	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P238	SW49	FJ851680	E	Hap208		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P239	SW49a	FJ851680	E	Hap208		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P346	55	From author	E	Hap209	N/A	Africa	West Africa	Nigeria	Ondo, Ikare	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P240	SW55	FJ851681	E	Hap209		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P350	77	From author	E	Hap211	N/A	Africa	West Africa	Nigeria	Kwara, Offa	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P245	SW77	FJ851685	E	Hap211		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P351	82	From author	E	Hap212	N/A	Africa	West Africa	Nigeria	Lagos, Epe	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P246	SW82	FJ851686	E	Hap212		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P207	NE96	GU951751	E	Hap219		Africa	West Africa	Nigeria	Northeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P216	SE2	GU951753	E	Hap220		Africa	West Africa	Nigeria	Southeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P219	SE10	GU951756	E	Hap221		Africa	West Africa	Nigeria	Southeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P220	SE18	GU951757	E	Hap222		Africa	West Africa	Nigeria	Southeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P221	SE32	GU951758	E	Hap223		Africa	West Africa	Nigeria	Southeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P218	SE8	GU951755	E	Hap27		Africa	West Africa	Nigeria	Southeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P215	NW59	GU951752	E	Hap28		Africa	West Africa	Nigeria	Northwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010

SuS4P342	20	From author	E	Hap29	N/A	Africa	West Africa	Nigeria	Kwara, Kosubosu	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P343	76	From author	E	Hap29	N/A	Africa	West Africa	Nigeria	Kwara, Offa	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P217	SE5	GU951754	E	Hap29		Africa	West Africa	Nigeria	Southeast Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P226	SW20	FJ851676	E	Hap29		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P227	SW20a	FJ851676	E	Hap29		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P228	SW20b	FJ851676	E	Hap29		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P229	SW20c	FJ851676	E	Hap29		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P230	SW20d	FJ851676	E	Hap29		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P231	SW20e	FJ851676	E	Hap29		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P232	SW20f	FJ851676	E	Hap29		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P05	N FU 36	From author	E	Hap205	N/A	Africa	West Africa	Nigeria	Kano	*Gallus gallus domesticus*	Local chicken	Fulani	Adebambo et al., 2009
SuS4P272	N NN 48	From author	E	Hap205	N/A	Africa	West Africa	Nigeria	Kari	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P213	NW36	FJ851672	E	Hap205	N/A	Africa	West Africa	Nigeria	Northwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P214	NW36a	FJ851672	E	Hap205	N/A	Africa	West Africa	Nigeria	Northwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P10	35	From author	E	Hap380	N/A	Africa	West Africa	Nigeria	Ogun, Imeko	*Gallus gallus domesticus*	Local chicken	Fulani	Adebambo et al., 2009
SuS4P278	N NN 69	From author	E	Hap381	N/A	Africa	West Africa	Nigeria	Maiduguri	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P249	N NN 37	From author	E	Hap382	N/A	Africa	West Africa	Nigeria	Kano	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P344	27	From author	E	Hap207	N/A	Africa	West Africa	Nigeria	Kwara, Jebba	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P233	SW27	FJ851677	E	Hap207		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P348	60	From author	E	Hap210	N/A	Africa	West Africa	Nigeria	Ogun, Owode	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P243	SW60	FJ851683	E	Hap210		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P235	SW32	FJ851679	E	Hap41	N/A	Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P236	SW32a	FJ851679	E	Hap41	N/A	Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P237	SW32b	FJ851679	E	Hap41	N/A	Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P339	10	From author	E	Hap84	N/A	Africa	West Africa	Nigeria	Ondo, Ore	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2009
SuS4P222	SW10	FJ851673	E	Hap84		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS4P223	SW10a	FJ851673	E	Hap84		Africa	West Africa	Nigeria	Southwest Nigeria	*Gallus gallus domesticus*	Local chicken	N/A	Adebambo et al., 2010
SuS5P01	AM746042w	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P02	AM746042x	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P03	AM746042y	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P04	AM746042z	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P05	AM746042aa	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P06	AM746042ab	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P07	AM746042ac	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P08	AM746042ad	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P09	AM746042ae	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P10	AM746042af	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P11	AM746042ag	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P12	AM746042ah	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P13	AM746042ai	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P14	AM746042aj	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P15	AM746042ak	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P16	AM746042al	AM746042	E	Hap02	E01	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P17	AM746045	AM746045	E	Hap86	E14	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P18	AM746045a	AM746045	E	Hap86	E14	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P19	AM746045b	AM746045	E	Hap86	E14	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS5P20	AM746046	AM746046	E	Hap87	E48	Africa	North Africa	Sudan	N/A	*Gallus gallus domesticus*	Baladi chicken	N/A	Muchadeyi et al., 2008
SuS6P20	AM746042	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P32	AM746042a	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P33	AM746042b	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P34	AM746042c	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P35	AM746042d	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P36	AM746042e	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P37	AM746042f	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P38	AM746042g	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P39	AM746042h	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P55	AM746042i	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P56	AM746042j	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P57	AM746042k	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P58	AM746042l	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P59	AM746042m	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P68	AM746042n	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P69	AM746042o	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P70	AM746042p	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P71	AM746042q	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P72	AM746042r	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P73	AM746042s	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P74	AM746042t	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P75	AM746042u	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P76	AM746042v	AM746042	E	Hap02	E01	Africa	South Africa	Zimbabwe	Gokwe-South	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P16	AM746040	AM746040	E	Hap29	E08	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P17	AM746040a	AM746040	E	Hap29	E08	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008

SuS6P18	AM746040b	AM746040	E	Hap29	E08	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P30	AM746040c	AM746040	E	Hap29	E08	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P90	AM746040d	AM746040	E	Hap29	E08	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P91	AM746040e	AM746040	E	Hap29	E08	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P92	AM746040f	AM746040	E	Hap29	E08	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P93	AM746040g	AM746040	E	Hap29	E08	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P94	AM746040h	AM746040	E	Hap29	E08	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P95	AM746040i	AM746040	E	Hap29	E08	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P96	AM746040j	AM746040	E	Hap29	E08	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P97	AM746040k	AM746040	E	Hap29	E08	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P19	AM746041	AM746041	E	Hap30	E03	Africa	South Africa	Zimbabwe	Risitu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P31	AM746041a	AM746041	E	Hap30	E03	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P53	AM746041b	AM746041	E	Hap30	E03	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P54	AM746041c	AM746041	E	Hap30	E03	Africa	South Africa	Zimbabwe	Gutu	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P98	AM746041d	AM746041	E	Hap30	E03	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P99	AM746041e	AM746041	E	Hap30	E03	Africa	South Africa	Zimbabwe	Beitbridge	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008
SuS6P40	AM746043	AM746043	E	Hap84	E129	Africa	South Africa	Zimbabwe	Hurungwe	*Gallus gallus domesticus*	Local chicken	N/A	Muchadeyi et al., 2008

Supplementary Table ST4: Full details for the South Asia dataset including location of samples, haplogroups, haplotypes, Sample ID, Genbank Accession Number and Source. Sorted by haplogroups and country

AMOVA Ref	Samples ID	GenBank Acc Nb.	Haplogroup (201bp)	Haplotype (201bp)	Haplogroup (Source)	Region	Sub-Region	Country	Location specific	Category	Additional Status Info	Breed / Common Name	Source
SA1P85	BGN39	GU449063ac	A	Hap13	A01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P86	BGN46	GU449063ad	A	Hap13	A01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P07	indiaG8	AY644972	B	Hap21	B01	Asia	South Asia	India	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P175	yin11	GU448476	B	Hap21	B01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P181	yin5	GU448482	B	Hap21	B01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P275	ypt6	GU448968	B	Hap21	B01	Asia	South Asia	India	Northwestern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P254	ypt19	GU448957	B	Hap25	B11	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P115	yin63	GU448424	C	Hap11	C01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P97	yin81	GU448406	C	Hap11	C01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P18	BGC27	GU448951a	D	Hap123	D	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P19	BGN32	GU448951b	D	Hap123	D	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P20	BGN33	GU448951c	D	Hap123	D	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P21	BGS14	GU448951d	D	Hap123	D	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P15	BGN37	GU448916a	D	Hap131	D23	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P16	BGN25	GU448920a	D	Hap132	D24	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P17	BGN6	GU448920b	D	Hap132	D24	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P09	BGC12	GU448475a	D	Hap354	D17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P10	BGS2	GU448480a	D	Hap356	D16	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P05	indiaG6	AY644970	D	Hap123	D01	Asia	South Asia	India	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P26	id8	AY704718	D	Hap123	D	Asia	South Asia	India	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P246	ypt25	GU448951	D	Hap123	D	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P247	NEI1	GU448951e	D	Hap123	D	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P248	NES16	GU448951f	D	Hap123	D	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P06	indiaG7	AY644971	D	Hap126	D22	Asia	South Asia	India	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P12	id12	AY704704	D	Hap129	D25	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P17	id19	AY704709	D	Hap131	D23	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P238	yp-x5	GU448916	D	Hap131	D23	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P09	id1	AY704701	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P18	id2	AY704710	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P19	id20	AY704711	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P24	id5	AY704716	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P25	id6	AY704717	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P187	YP62	GU448725	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P198	YP40	GU448736	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P207	YP27	GU448745	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P208	YP26	GU448746	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P212	YP21	GU448750	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P217	YP6	GU448759	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P223	YP13	GU448765	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P226	YP16	GU448768	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P227	YP17	GU448769	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P242	yp-x1	GU448920	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P30	in6	GU447491	D	Hap132	D24	Asia	South India	India	Southern India, Dindigul	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P34	YP65	GU448260	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P35	YP67	GU448267	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P36	YP64	GU448268	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P38	YP59	GU448270	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P41	YP42	GU448273	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P43	YP66	GU448276	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P44	YP57	GU448277	D	Hap132	D24	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P27	id9	AY704719	D	Hap16	D06	Asia	South Asia	India	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P192	YP51	GU448730	D	Hap32	D13	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P225	YP15	GU448767	D	Hap32	D13	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P172	yin12	GU448475	D	Hap354	D17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P173	NES19	GU448475b	D	Hap354	D17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P174	SI8	GU448475c	D	Hap354	D17	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P179	yin7	GU448480	D	Hap356	D16	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P91	yin87	GU448400	D	Hap356	D16	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P186	YP63	GU448724	D	Hap357	C44	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P188	YP60	GU448726	D	Hap366	D30	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P53	BGS10	GU449055aa	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P54	BGS11	GU449055ab	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012

SA1P55	BGS17	GU449055ac	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P56	BGS20	GU449055ad	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P57	BGS23	GU449055adi	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P58	BGS21	GU449055ae	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P59	BGS24	GU449055aei	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P60	BGS30	GU449055af	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P61	BGS32	GU449055ag	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P62	BGS35	GU449055ah	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P63	BGS5	GU449055ai	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P64	BGC11	GU449055bu	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P65	BGC16	GU449055g	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P66	BGC19	GU449055h	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P67	BGC20	GU449055i	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P68	BGC28	GU449055j	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P69	BGC3	GU449055k	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P70	BGC32	GU449055l	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P71	BGC6	GU449055m	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P72	BGN10	GU449055n	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P73	BGN13	GU449055o	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P74	BGN16	GU449055p	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P75	BGN18	GU449055q	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P76	BGN21	GU449055r	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P77	BGN23	GU449055s	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P78	BGN26	GU449055t	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P79	BGN27	GU449055u	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P80	BGN31	GU449055v	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P81	BGN35	GU449055w	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P82	BGN4	GU449055x	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P83	BGN7	GU449055y	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P84	BGN8	GU449055z	E	Hap02	E01	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P01	BGC17	GU448362a	E	Hap120	E18	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P02	BGS1	GU448362b	E	Hap120	E18	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P22	BGS33	GU448960aa	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P23	BGS6	GU448960ab	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P24	BGS7	GU448960ac	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P25	BGS8	GU448960ad	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P26	BGC10	GU448960b	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P27	BGC13	GU448960c	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P28	BGC24	GU448960d	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P29	BGC26	GU448960e	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P30	BGC29	GU448960f	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P31	BGC37	GU448960g	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P32	BGC38	GU448960h	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P33	BGC4	GU448960i	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P34	BGC5	GU448960j	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P35	BGC9	GU448960k	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P36	BGN1	GU448960l	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P37	BGN11	GU448960m	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P38	BGN14	GU448960n	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P39	BGN15	GU448960o	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P40	BGN2	GU448960p	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P41	BGN24	GU448960q	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P42	BGN29	GU448960r	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P43	BGN3	GU448960s	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P44	BGN38	GU448960t	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P45	BGN41	GU448960u	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P46	BGN42	GU448960v	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P47	BGN43	GU448960w	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P48	BGN9	GU448960x	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P49	BGS15	GU448960y	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P50	BGS19	GU448960z	E	Hap130	E17	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P07	BGN48	GU448471a	E	Hap197	E31	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P08	BGS34	GU448471b	E	Hap197	E31	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P11	BGC18	GU448773a	E	Hap201	E33	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P51	BGS9	GU448973a	E	Hap270	E32	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P12	BGC7	GU448836a	E	Hap29	E08	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P13	BGN45	GU448836b	E	Hap29	E08	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012

SA1P14	BGS31	GU448836c	E	Hap29	E08	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P52	BGS26	GU449050a	E	Hap30	E03	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P05	BGN20	GU448464a	E	Hap351	E23	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P06	BGN5	GU448464b	E	Hap351	E23	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P03	BGC39	GU448378a	E	Hap368	E43	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P273	ypt8	GU448966	E	Hap01	E06	Asia	South Asia	India	Northwestern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P01	indiaG1	AY644966	E	Hap02	E01	Asia	South Asia	India	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P03	indiaG3	AY644968	E	Hap02	E01	Asia	South Asia	India	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P10	id10	AY704702	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P11	id11	AY704703	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P13	id13	AY704705	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P14	id14	AY704706	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P15	id15	AY704707	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P20	id21	AY704712	E	Hap02	E15	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P21	id23	AY704713	E	Hap02	E16	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P22	id25	AY704714	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P23	id3	AY704715	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P101	yin77	GU448410	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P102	yin76	GU448411	E	Hap02	E45	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P103	yin75	GU448412	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P104	yin74	GU448413	E	Hap02	E46	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P108	yin70	GU448417	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P109	yin69	GU448418	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P116	yin62	GU448425	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P119	yin59	GU448428	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P120	yin58	GU448429	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P121	yin57	GU448430	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P123	yin55	GU448432	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P124	yin54	GU448433	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P125	yin53	GU448434	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P126	yin52	GU448435	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P129	yin49	GU448438	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P130	yin48	GU448439	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P131	yin47	GU448440	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P134	yin44	GU448443	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P138	yin40	GU448447	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P139	yin39	GU448448	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P142	yin36	GU448451	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P147	yin32	GU448455	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P149	yin30	GU448457	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P151	yin28	GU448459	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P152	yin27	GU448460	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P153	yin26	GU448461	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P154	yin25	GU448462	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P155	yin24	GU448463	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P161	yin22	GU448465	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P165	yin17	GU448470	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P169	yin15	GU448472	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P171	yin13	GU448474	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P177	yin9	GU448478	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P189	YP54	GU448727	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P190	YP53	GU448728	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P191	YP52	GU448729	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P193	YP50	GU448731	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P194	YP48	GU448732	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P195	YP47	GU448733	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P196	YP46	GU448734	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P197	YP44	GU448735	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P199	YP39	GU448737	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P200	YP38	GU448738	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P201	YP37	GU448739	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P204	YP33	GU448742	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P206	YP28	GU448744	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P209	YP25	GU448747	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P210	YP24	GU448748	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P211	YP23	GU448749	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P213	YP2	GU448755	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012

SA2P214	YP3	GU448756	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P215	YP4	GU448757	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P218	YP7	GU448760	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P219	YP8	GU448761	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P220	YP9	GU448762	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P221	YP10	GU448763	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P222	YP11	GU448764	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P229	YP19	GU448771	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P230	YP22	GU448772	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P233	YP45	GU448774	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P235	yp-i1	GU448779	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P240	yp-x3	GU448918	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P241	yp-x2	GU448919	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P244	ypt27	GU448949	E	Hap02	E01	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P251	ypt22	GU448954	E	Hap02	E01	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P253	ypt20	GU448956	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P255	ypt18	GU448958	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P256	ypt17	GU448959	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P269	ypt15	GU448961	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P270	ypt13	GU448963	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P278	CI11	GU449055aj	E	Hap02	E01	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P279	CI13	GU449055ak	E	Hap02	E01	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P28	in24	GU447485	E	Hap02	E01	Asia	South India	India	Southern India, Dindigul	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P280	CI14	GU449055al	E	Hap02	E01	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P281	CI2	GU449055am	E	Hap02	E01	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P282	CI7	GU449055an	E	Hap02	E01	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P283	CI8	GU449055ao	E	Hap02	E01	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P284	NES11	GU449055ap	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P285	NES12	GU449055aq	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P286	NES15	GU449055ar	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P287	NES17	GU449055as	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P288	NES21	GU449055at	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P289	NES22	GU449055au	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P29	in7	GU447490	E	Hap02	E01	Asia	South India	India	Southern India, Dindigul	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P290	NES24	GU449055av	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P291	NES5	GU449055aw	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P292	NES7	GU449055ax	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P293	NES8	GU449055ay	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P294	SI14	GU449055az	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P295	SI15	GU449055ba	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P296	SI16	GU449055bb	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P297	SI2	GU449055bc	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P298	SI20	GU449055bd	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P299	SI21	GU449055be	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P300	SI22	GU449055bf	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P301	SI23	GU449055bg	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P302	SI24	GU449055bh	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P303	SI25	GU449055bi	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P304	SI26	GU449055bj	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P305	SI27	GU449055bk	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P306	SI29	GU449055bl	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P307	SI30	GU449055bm	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P308	SI31	GU449055bn	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P309	SI34	GU449055bo	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P31	in25	GU447492	E	Hap02	E01	Asia	South India	India	Southern India, Dindigul	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P310	SI35	GU449055bp	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P311	SI36	GU449055bq	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P312	SI4	GU449055br	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P313	SI7	GU449055bs	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P314	SI9	GU449055bt	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P32	in3	GU447495	E	Hap02	E01	Asia	South India	India	Southern India, Dindigul	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P33	YP58	GU448259	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P37	YP61	GU448269	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P40	YP30	GU448272	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P42	YP41	GU448275	E	Hap02	E01	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P45	yin130	GU448357	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P48	yin127	GU448360	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012

SA2P49	yin126	GU448361	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P54	yin121	GU448366	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P56	yin119	GU448368	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P61	yin115	GU448372	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P62	yin114	GU448373	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P64	yin112	GU448375	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P66	yin110	GU448377	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P69	yin107	GU448380	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P71	yin105	GU448382	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P74	yin102	GU448385	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P83	yin95	GU448392	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P84	yin94	GU448393	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P87	yin91	GU448396	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P88	yin90	GU448397	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P90	yin88	GU448399	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P92	yin86	GU448401	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P93	yin85	GU448402	E	Hap02	E01	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P50	yin125	GU448362	E	Hap120	E18	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P02	indiaG2	AY644967	E	Hap125	E13	Asia	South Asia	India	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P04	indiaG4	AY644969	E	Hap125	E13	Asia	South Asia	India	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P08	indiaG9	AY644973	E	Hap127	E10	Asia	South Asia	India	N/A	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P16	id18	AY704708	E	Hap130	E17	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Liu et al., 2006
SA2P117	yin61	GU448426	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P133	yin45	GU448442	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P136	yin42	GU448445	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P137	yin41	GU448446	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P170	yin14	GU448473	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P176	yin10	GU448477	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P178	yin8	GU448479	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P185	yin1	GU448486	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P203	YP34	GU448741	E	Hap130	E17	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P205	YP31	GU448743	E	Hap130	E17	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P257	ypt16	GU448960	E	Hap130	E17	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P258	ypt14	GU448960a	E	Hap130	E17	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P259	CI1	GU448960ae	E	Hap130	E17	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P260	CI12	GU448960af	E	Hap130	E17	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P261	CI5	GU448960ag	E	Hap130	E17	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P262	NES10	GU448960ah	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P263	NES3	GU448960ai	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P264	SI10	GU448960aj	E	Hap130	E17	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P265	SI12	GU448960ak	E	Hap130	E17	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P266	SI17	GU448960al	E	Hap130	E17	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P267	SI28	GU448960am	E	Hap130	E17	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P268	SI32	GU448960an	E	Hap130	E17	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P46	yin129	GU448358	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P47	yin128	GU448359	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P55	yin120	GU448367	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P59	yin117	GU448370	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P60	yin116	GU448371	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P65	yin111	GU448376	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P72	yin104	GU448383	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P73	yin103	GU448384	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P75	yin101	GU448386	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P76	yin100	GU448387	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P77	yin99	GU448388	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P85	yin93	GU448394	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P89	yin89	GU448398	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P94	yin84	GU448403	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P98	yin80	GU448407	E	Hap130	E17	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P135	yin43	GU448444	E	Hap156	E40	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P184	yin2	GU448485	E	Hap156	E40	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P52	yin123	GU448364	E	Hap156	E40	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P57	yin118	GU448369	E	Hap156	E68	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P58	NES25	GU448369a	E	Hap156	E68	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P132	yin46	GU448441	E	Hap163	E30	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P272	ypt11	GU448965	E	Hap163	E30	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P274	ypt7	GU448967	E	Hap163	E30	Asia	South Asia	India	Northwestern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012

SA2P166	yin16	GU448471	E	Hap197	E31	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P51	yin124	GU448363	E	Hap197	E31	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P167	CI4	GU448471c	E	Hap197	E31	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P168	SI6	GU448471d	E	Hap197	E31	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P231	YP32	GU448773	E	Hap201	E33	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P232	NES4	GU448773b	E	Hap201	E33	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P39	YP20	GU448271	E	Hap201	E33	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P144	yin34	GU448453	E	Hap211	E36	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P145	NES14	GU448453a	E	Hap211	E36	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P140	yin38	GU448449	E	Hap270	E32	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P148	yin31	GU448456	E	Hap270	E32	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P277	CI10	GU448973b	E	Hap270	E32	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P182	yin4	GU448483	E	Hap29	E08	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P202	YP36	GU448740	E	Hap29	E08	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P95	yin83	GU448404	E	Hap29	E08	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P183	yin3	GU448484	E	Hap30	E03	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P70	yin106	GU448381	E	Hap30	E03	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P216	YP5	GU448758	E	Hap350	E29	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P228	YP18	GU448770	E	Hap350	E29	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P239	yp-x4	GU448917	E	Hap350	E29	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P276	yp-i12	GU448969	E	Hap350	E29	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P106	yin72	GU448415	E	Hap351	E23	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P107	yin71	GU448416	E	Hap351	E23	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P111	yin67	GU448420	E	Hap351	E23	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P112	yin66	GU448421	E	Hap351	E23	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P114	yin64	GU448423	E	Hap351	E23	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P118	yin60	GU448427	E	Hap351	E23	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P127	yin51	GU448436	E	Hap351	E23	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P143	yin35	GU448452	E	Hap351	E23	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P156	yin23	GU448464	E	Hap351	E23	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P157	CI3	GU448464c	E	Hap351	E23	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P158	NES13	GU448464d	E	Hap351	E23	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P159	NES18	GU448464e	E	Hap351	E23	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P160	SI18	GU448464f	E	Hap351	E23	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P53	yin122	GU448365	E	Hap351	E23	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P150	yin29	GU448458	E	Hap352	E22	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P78	yin98	GU448389	E	Hap353	E44	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P79	NES6	GU448389a	E	Hap353	E44	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P80	SI3	GU448389b	E	Hap353	E44	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P224	YP14	GU448766	E	Hap355	E42	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P100	yin78	GU448409	E	Hap358	E41	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P105	yin73	GU448414	E	Hap359	E39	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P164	yin18	GU448469	E	Hap360	E25	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P180	yin6	GU448481	E	Hap360	E25	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P82	yin96	GU448391	E	Hap360	E25	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P250	ypt23	GU448953	E	Hap361	E28	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P252	ypt21	GU448955	E	Hap361	E28	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P141	yin37	GU448450	E	Hap362	E24	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P243	ypt28	GU448948	E	Hap363	E21	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P271	ypt12	GU448964	E	Hap364	E27	Asia	South Asia	India	Southern India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P163	yin19	GU448468	E	Hap365	E34	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P245	ypt26	GU448950	E	Hap367	E26	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P67	yin109	GU448378	E	Hap368	E43	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P249	ypt24	GU448952	E	Hap369	E37	Asia	South Asia	India	Central India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA1P04	BGN40	GU448454a	F	Hap320	F20	Asia	South Asia	Bangladesh	Central Bangladesh	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P110	yin68	GU448419	F	Hap320	F20	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P122	yin56	GU448431	F	Hap320	F20	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P128	yin50	GU448437	F	Hap320	F20	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P146	yin33	GU448454	F	Hap320	F20	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P68	yin108	GU448379	F	Hap320	F20	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P81	yin97	GU448390	F	Hap320	F20	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P86	yin92	GU448395	F	Hap320	F20	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P96	yin82	GU448405	F	Hap320	F20	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P99	yin79	GU448408	F	Hap320	F20	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P113	yin65	GU448422	H	Hap370	N/A	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P162	yin21	GU448466	H	Hap370	N/A	Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
SA2P63	yin113	GU448374	H	Hap370		Asia	South Asia	India	Northeast India	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012

Supplementary Table ST5: Full details for the East Asian dataset including location of samples, haplogroups, haplotypes, Sample ID, Genbank Accession Number and Source. Sorted by haplogroups and country

AMOVA Ref	Samples ID	GenBank Acc Nb.	Haplogroup (201bp)	Haplotype (201bp)	Haplogroup (Source)	Region	Sub-Region	Country	Location specific	Category	Additional Status Info	Breed / Common Name	Source
NEA1P489	zj14	GU448902	A	Hap112	A21	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P490	zj12	GU448904	A	Hap112	A21	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P491	zj9	GU448907	A	Hap112	A21	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P492	zj8	GU448908	A	Hap112	A21	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P323	BY2	AY465981	A	Hap116	A20	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Beijing Youkei	Liu et al., 2004
NEA1P123	HD26	GU447514	A	Hap118	A48	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P350	qh49	GU447954	A	Hap118	A48	Asia	East Asia	China	Qinghai	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P322	BY1	AY465980	A	Hap13	A01	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Beijing Youkei	Liu et al., 2004
NEA1P324	BY3	AY465982	A	Hap13	A01	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Beijing Youkei	Liu et al., 2004
NEA1P327	DG2	AY465977	A	Hap13	A33	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Big bone	Liu et al., 2004
NEA1P342	ZJ1	AY465960	A	Hap13	A24	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Tibetan chicken	Liu et al., 2004
NEA1P343	ZJ2	AY465961	A	Hap13	A24	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Tibetan chicken	Liu et al., 2004
NEA1P344	ZJ3	AY465962	A	Hap13	A24	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Tibetan chicken	Liu et al., 2004
NEA1P345	ZJ4	AY465963	A	Hap13	A24	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Tibetan chicken	Liu et al., 2004
NEA1P383	SG4	AY465987	A	Hap13	A15	Asia	East Asia	China	Shandong Province, Souguang City, Cilun breed farm	*Gallus gallus domesticus*	Local chicken	Souguang	Liu et al., 2004
NEA1P254	gushi12	AF512140	A	Hap13	A15	Asia	East Asia	China	Henan Province, Gushi Xian	*Gallus gallus domesticus*	Local chicken	Gushi	Liu et al., 2006
NEA1P261	gushi19	AF512147	A	Hap13	A15	Asia	East Asia	China	Henan Province, Gushi Xian	*Gallus gallus domesticus*	Local chicken	Gushi	Liu et al., 2006
NEA1P263	gushi21	AF512149	A	Hap13	A15	Asia	East Asia	China	Henan Province, Gushi Xian	*Gallus gallus domesticus*	Local chicken	Gushi	Liu et al., 2006
NEA1P501	ck141	AF512091	A	Hap13	A01	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P502	ck142	AF512092	A	Hap13	A01	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P503	ck143	AF512093	A	Hap13	A01	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P504	ck144	AF512094	A	Hap13	A01	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P505	ck145	AF512095	A	Hap13	A01	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P509	ck153	AF512099	A	Hap13	A01	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P510	ck154	AF512100	A	Hap13	A01	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P512	ck167	AF512102	A	Hap13	A01	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P514	ck175	AF512104	A	Hap13	A01	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P515	ck177	AF512105	A	Hap13	A01	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P516	ck189	AF512106	A	Hap13	A01	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P506	ck146	AF512096	A	Hap13	A13	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P529	sdw481	AF512267	A	Hap13	A01	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Sichuan Mountain Wugu	Liu et al., 2006
NEA1P530	sdw482	AF512268	A	Hap13	A01	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Sichuan Mountain Wugu	Liu et al., 2006
NEA1P535	yh457	AF512317	A	Hap13	A01	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an non-Wugu	Liu et al., 2006
NEA1P536	yh458	AF512318	A	Hap13	A01	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an non-Wugu	Liu et al., 2006
NEA1P538	yh460	AF512320	A	Hap13	A01	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an non-Wugu	Liu et al., 2006
NEA1P541	yh470	AF512323	A	Hap13	A01	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an non-Wugu	Liu et al., 2006
NEA1P545	yw583	AF512331	A	Hap13	A01	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an Wugu	Liu et al., 2006
NEA1P542	yw580	AF512328	A	Hap13	A13	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an Wugu	Liu et al., 2006
NEA1P01	FY3	GU447593	A	Hap13	A01	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	Fuyang	Miao et al., 2012
NEA1P06	HN7	GU447341	A	Hap13	A01	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P07	HN4	GU447344	A	Hap13	A15	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P588	YP20628	GU448784	A	Hap13	A01	Asia	East Asia	China	China	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P23	YP20638	GU448974	A	Hap13	A01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P24	YP20640	GU448976	A	Hap13	A01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P25	YP20653	GU448987	A	Hap13	A01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P52	YP20658	GU448992	A	Hap13	A52	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P55	LD2	GU447806	A	Hap13	A01	Asia	East Asia	China	Heilongjiang	*Gallus gallus domesticus*	Local chicken	Lindian	Miao et al., 2012
NEA1P56	LD12	GU447813	A	Hap13	A01	Asia	East Asia	China	Heilongjiang	*Gallus gallus domesticus*	Local chicken	Lindian	Miao et al., 2012
NEA1P57	LD13	GU447814	A	Hap13	A01	Asia	East Asia	China	Heilongjiang	*Gallus gallus domesticus*	Local chicken	Lindian	Miao et al., 2012
NEA1P58	LD14	GU447815	A	Hap13	A01	Asia	East Asia	China	Heilongjiang	*Gallus gallus domesticus*	Local chicken	Lindian	Miao et al., 2012
NEA1P69	YP18725	GU448714	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P70	YP18724	GU448715	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P71	YP18722	GU448717	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P72	YP18721	GU448718	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P73	YP18718	GU448721	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P74	YP18715	GU448723	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P75	YP19327	GU448586	A	Hap13	A15	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P76	YP19326	GU448587	A	Hap13	A15	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P77	YP19324	GU448589	A	Hap13	A15	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P78	YP19323	GU448590	A	Hap13	A15	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P79	YP19321	GU448592	A	Hap13	A15	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P80	YP19319	GU448594	A	Hap13	A15	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P81	YP19318	GU448595	A	Hap13	A15	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P103	HD19	GU447321	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P104	HD43	GU447497	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P105	HD40	GU447500	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P106	HD39	GU447501	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P107	HD33	GU447507	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P108	HD30	GU447510	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P109	HD25	GU447515	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P110	HD23	GU447517	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P111	HD18	GU447521	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P112	HD35	GU447505	A	Hap13	A15	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P113	HD1	GU447536	A	Hap13	A15	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P149	HX13	GU447328	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P150	HX1	GU447340	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P151	h_wang4	GU447539	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P152	h_wang3	GU447540	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P153	h_wang2	GU447541	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P154	h_chen14	GU447543	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P155	h_chen11	GU447546	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P156	h_chen6	GU447551	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P157	h_chen3	GU447554	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012

NEA1P158	xin-c2	GU448194	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P159	XX1	GU448218	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P168	HX7	GU447334	A	Hap13	A15	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P169	HX5	GU447336	A	Hap13	A15	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P160	YP20493	GU448781	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P161	YP20535	GU448799	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P162	YP20533	GU448801	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P163	YP20532	GU448802	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P164	YP20531	GU448803	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P165	YP20526	GU448808	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P166	YP20495	GU448834	A	Hap13	A01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P170	YP20524	GU448810	A	Hap13	A15	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P171	YP20517	GU448816	A	Hap13	A15	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P172	YP20507	GU448824	A	Hap13	A15	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P175	YP20498	GU448832	A	Hap13	A38	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P265	JZ13	GU449041	A	Hap13	A01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P266	JZ14	GU449042	A	Hap13	A01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P267	JZ15	GU449043	A	Hap13	A01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P268	JZ21	GU449045	A	Hap13	A01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P269	JZ28	GU449049	A	Hap13	A01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P270	LX39	GU449057	A	Hap13	A01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P271	LX1	GU449059	A	Hap13	A01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P272	LX4	GU449060	A	Hap13	A01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P273	LX9	GU449061	A	Hap13	A01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P274	LX15	GU449063	A	Hap13	A01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P306	JJ8	GU447784	A	Hap13	A01	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012
NEA1P346	qh1	GU447947	A	Hap13	A01	Asia	East Asia	China	Qinghai	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P347	QL9	GU447965	A	Hap13	A01	Asia	East Asia	China	Qinghai	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P368	JN2	GU447795	A	Hap13	A01	Asia	East Asia	China	Shandong	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012
NEA1P385	YP19467	GU448530	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Caoke	Miao et al., 2012
NEA1P386	YP19459	GU448533	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Caoke	Miao et al., 2012
NEA1P387	YP19453	GU448537	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Caoke	Miao et al., 2012
NEA1P388	YP19452	GU448538	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Caoke	Miao et al., 2012
NEA1P392	YP18773	GU448683	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Chengdu yellow	Miao et al., 2012
NEA1P393	YP18768	GU448687	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Chengdu yellow	Miao et al., 2012
NEA1P397	HH191	GU447409	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P398	HH189	GU447411	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P399	HH187	GU447413	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P400	HH108	GU447458	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P401	HH101	GU447465	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P402	HH99	GU447467	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P403	XCJ4	GU448141	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P404	XCJ5	GU448142	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P405	XCJ18	GU448153	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P414	HH207	GU447399	A	Hap13	A39	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P476	zj20	GU448896	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P477	zj19	GU448897	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P478	zj18	GU448898	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P479	zj17	GU448899	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P480	zj13	GU448903	A	Hap13	A01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P552	XB1	GU448114	A	Hap13	A01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P554	YP20702	GU449001	A	Hap13	A01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P555	YP20712	GU449008	A	Hap13	A01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P556	YP20720	GU449014	A	Hap13	A01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P557	YP20725	GU449018	A	Hap13	A01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P558	YP20727	GU449019	A	Hap13	A01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P559	YP20730	GU449022	A	Hap13	A01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P563	YP20721	GU449015	A	Hap13	A15	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P519	hk62	AF512211	A	Hap15	A02	Asia	East Asia	China	Sichuan Province, Xinfan	*Gallus gallus domesticus*	Local chicken	Heikang layer	Liu et al., 2006
NEA1P520	hk63	AF512212	A	Hap15	A02	Asia	East Asia	China	Sichuan Province, Xinfan	*Gallus gallus domesticus*	Local chicken	Heikang layer	Liu et al., 2006
NEA1P521	hk65	AF512213	A	Hap15	A02	Asia	East Asia	China	Sichuan Province, Xinfan	*Gallus gallus domesticus*	Local chicken	Heikang layer	Liu et al., 2006
NEA1P539	yh461	AF512321	A	Hap15	A02	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an non-Wugu	Liu et al., 2006
NEA1P59	LD3	GU447807	A	Hap15	A02	Asia	East Asia	China	Heilongjiang	*Gallus gallus domesticus*	Local chicken	Lindian	Miao et al., 2012
NEA1P307	JJ4	GU447781	A	Hap15	A02	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012
NEA1P308	JJ6	GU447782	A	Hap15	A02	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012
NEA1P348	QP9	GU447972	A	Hap15	A02	Asia	East Asia	China	Qinghai	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P406	HH208	GU447398	A	Hap15	A02	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P407	HH199	GU447402	A	Hap15	A02	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P408	HH195	GU447405	A	Hap15	A02	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P409	HH193	GU447407	A	Hap15	A02	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P410	HH110	GU447456	A	Hap15	A02	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P411	HH109	GU447457	A	Hap15	A02	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P560	YP20710	GU449007	A	Hap15	A02	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P561	YP20713	GU449009	A	Hap15	A02	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P562	YP20715	GU449010	A	Hap15	A02	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P08	HN1	GU447347	A	Hap26	A25	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P584	YP20596	GU448791	A	Hap26	A25	Asia	South Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P585	YP20589	GU448794	A	Hap26	A25	Asia	South Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P173	h_chen2	GU447555	A	Hap26	A25	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P243	YP20494	GU448835	A	Hap26	A25	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P250	YP20496	GU448776	A	Hap281	A50	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P251	YP20518	GU448815	A	Hap281	A50	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P384	SX5	GU448228	A	Hap281	A50	Asia	East Asia	China	Shanxi	*Gallus gallus domesticus*	Local chicken	Shanxi	Miao et al., 2012
NEA1P176	HX2	GU447339	A	Hap282	A46	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P177	xin-c1	GU448193	A	Hap282	A46	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P21	HH238	GU447395	A	Hap31	A43	Asia	East Asia	China	Chongqing	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P82	YP19302	GU448265	A	Hap31	A35	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P83	YP19312	GU448598	A	Hap31	A35	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012

NEA1P275	JZ35	GU449054	A	Hap31	A35	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P360	XA5	GU448111	A	Hap31	A35	Asia	East Asia	China	Shaanxi	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P415	HH239	GU447394	A	Hap31	A43	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P249	YP20497	GU448833	A	Hap327	A47	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P148	KF2	GU447804	A	Hap329	A40	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P244	YP20499	GU448778	A	Hap329	A40	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P245	YP20515	GU448818	A	Hap329	A40	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P246	YP20513	GU448820	A	Hap329	A40	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P247	YP20511	GU448822	A	Hap329	A40	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P349	qh17	GU447951	A	Hap329	A40	Asia	East Asia	China	Qinghai	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P248	YP20534	GU448800	A	Hap330	A41	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P395	YP18771	GU448685	A	Hap331	A66	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Chengdu yellow	Miao et al., 2012
NEA1P416	XCJ22	GU448156	A	Hap331	A66	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P178	HX9	GU447332	A	Hap332	A60	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P257	gushi15	AF512143	A	Hap45	A11	Asia	East Asia	China	Henan Province, Gushi Xian	*Gallus gallus domesticus*	Local chicken	Gushi	Liu et al., 2006
NEA1P259	gushi17	AF512145	A	Hap45	A11	Asia	East Asia	China	Henan Province, Gushi Xian	*Gallus gallus domesticus*	Local chicken	Gushi	Liu et al., 2006
NEA1P508	ck150	AF512098	A	Hap47	A12	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P507	ck147	AF512097	A	Hap48	A19	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P511	ck165	AF512101	A	Hap48	A19	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P481	zj16	GU448900	A	Hap48	A19	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P482	zj15	GU448901	A	Hap48	A19	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P483	zj10	GU448906	A	Hap48	A19	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P484	zj5	GU448910	A	Hap48	A19	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P485	zj4	GU448911	A	Hap48	A19	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P486	zj3	GU448912	A	Hap48	A19	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P487	zj23	GU449025	A	Hap48	A19	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P488	zj7	GU449026	A	Hap48	A19	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P513	ck173	AF512103	A	Hap49	A17	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P528	sdw475	AF512266	A	Hap49	A17	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Sichuan Mountain Wugu	Liu et al., 2006
NEA1P13	TH3	GU448030	A	Hap49	A17	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	Taihu	Miao et al., 2012
NEA1P114	HD37	GU447503	A	Hap49	A17	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P115	HD22	GU447518	A	Hap49	A17	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P116	HD14	GU447524	A	Hap49	A17	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P117	HD8	GU447529	A	Hap49	A17	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P118	HD7	GU447530	A	Hap49	A17	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P119	HD5	GU447532	A	Hap49	A17	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P120	HD4	GU447533	A	Hap49	A17	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P121	HD3	GU447534	A	Hap49	A17	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P122	HD2	GU447535	A	Hap49	A17	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P389	YP19445	GU448541	A	Hap49	A17	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Caoke	Miao et al., 2012
NEA1P390	YP19443	GU448542	A	Hap49	A17	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Caoke	Miao et al., 2012
NEA1P391	YP19437	GU448543	A	Hap49	A17	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Caoke	Miao et al., 2012
NEA1P564	YP20723	GU449016	A	Hap49	A17	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P303	y336	AF512314	A	Hap67	A18	Asia	East Asia	China	Hubei Province, Yunxian	*Gallus gallus domesticus*	Local chicken	Yunxian Wugu	Liu et al., 2006
NEA1P304	y337	AF512315	A	Hap67	A18	Asia	East Asia	China	Hubei Province, Yunxian	*Gallus gallus domesticus*	Local chicken	Yunxian Wugu	Liu et al., 2006
NEA1P537	yh459	AF512319	A	Hap74	A08	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an non-Wugu	Liu et al., 2006
NEA1P540	yh462	AF512322	A	Hap74	A08	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an non-Wugu	Liu et al., 2006
NEA1P546	yw584	AF512332	A	Hap74	A08	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an Wugu	Liu et al., 2006
NEA1P549	yw587	AF512335	A	Hap74	A08	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an Wugu	Liu et al., 2006
NEA1P167	h_chen9	GU447548	A	Hap74	A08	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P174	YP20506	GU448825	A	Hap74	A36	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P394	YP18770	GU448686	A	Hap74	A08	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Chengdu yellow	Miao et al., 2012
NEA1P396	YP18772	GU448684	A	Hap74	A67	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Chengdu yellow	Miao et al., 2012
NEA1P412	HH205	GU447400	A	Hap74	A08	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P413	HH197	GU447404	A	Hap74	A08	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA2P03	CHKMTD25	D82921	A	Hap06	A03	Asia	East Asia	Japan	Hiroshima, Hiroshima Animal Husbandry Experimental Station	*Gallus gallus domesticus*		Nagoya	Fumihito et al., 1996
NEA2P24	NA3	AB263972	A	Hap06	A03	Asia	East Asia	Japan	Saga Prefectural Livestock Experimental Station	*Gallus gallus domesticus*		Nagoya	Wada et al., 2006, direct submission
NEA2P05	kos00079	AB098677	A	Hap13	A01	Asia	East Asia	Japan	Honshu, Niigata	*Gallus gallus domesticus*	Local	Koshamo	Komiyama et al., 2003
NEA2P25	kos00077	AB098676	A	Hap13	A01	Asia	East Asia	Japan	Shikoku	*Gallus gallus domesticus*	Local	Koshamo	Komiyama et al., 2003
NEA2P26	kos00078	AB098687	A	Hap13	A01	Asia	East Asia	Japan	Shikoku	*Gallus gallus domesticus*	Local	Koshamo	Komiyama et al., 2003
NEA2P29	kos00013	AB098671	A	Hap13	A01	Asia	East Asia	Japan	Shizuoka	*Gallus gallus domesticus*	Local	Koshamo	Komiyama et al., 2003
NEA2P30	kos00014	AB098672	A	Hap13	A01	Asia	East Asia	Japan	Shizuoka	*Gallus gallus domesticus*	Local	Koshamo	Komiyama et al., 2003
NEA2P31	kos00015	AB098673	A	Hap13	A01	Asia	East Asia	Japan	Shizuoka	*Gallus gallus domesticus*	Local	Koshamo	Komiyama et al., 2003
NEA2P10	kaw00041	AB114083	A	Hap13	A01	Asia	East Asia	Japan	Ibaraki	*Gallus gallus domesticus*	Local chicken	Kawachi-yakko	Komiyama et al., 2004
NEA2P13	uzu00036	AB114069	A	Hap13	A01	Asia	East Asia	Japan	Ibaraki	*Gallus gallus domesticus*	Local chicken	Uzurao	Komiyama et al., 2004
NEA2P21	sat00031	AB114084	A	Hap13	A31	Asia	East Asia	Japan	Oita	*Gallus gallus domesticus*	Fighting Cock	Satsumadori	Komiyama et al., 2004
NEA2P22	sat00032	AB114085	A	Hap13	A32	Asia	East Asia	Japan	Oita	*Gallus gallus domesticus*	Fighting Cock	Satsumadori	Komiyama et al., 2004
NEA2P27	kaw00006	AB114081	A	Hap13	A30	Asia	East Asia	Japan	Shizuoka	*Gallus gallus domesticus*	Local chicken	Kawachi-yakko	Komiyama et al., 2004
NEA2P23	NA1	AB263971	A	Hap13	A01	Asia	East Asia	Japan	Saga Prefectural Livestock Experimental Station	*Gallus gallus domesticus*		Nagoya	Wada et al., 2006, direct submission
NEA2P28	kos00010	AB098670	A	Hap23	A26	Asia	East Asia	Japan	Shizuoka	*Gallus gallus domesticus*	Local	Koshamo	Komiyama et al., 2003
NEA2P34	mon00090	AB114079	A	Hap23	A05	Asia	East Asia	Japan	Shizuoka	*Gallus gallus domesticus*	Local chicken	Minohiki (Japanese Saddle Hackle Dragger)	Komiyama et al., 2004
NEA2P35	min00093	AB114080	A	Hap23	A05	Asia	East Asia	Japan	Shizuoka	*Gallus gallus domesticus*	Local chicken	Minohiki (Japanese Saddle Hackle Dragger)	Komiyama et al., 2004
NEA2P33	min00004	AB114078	A	Hap23	A29	Asia	East Asia	Japan	Shizuoka	*Gallus gallus domesticus*	Local chicken	Minohiki (Japanese Saddle Hackle Dragger)	Komiyama et al., 2004
NEA4P01	ZL20	GU448878	A	Hap13	A01	Asia	East Asia	Mongolia	East Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Zalantun	Miao et al., 2012
NEA4P02	ZL19	GU448879	A	Hap13	A01	Asia	East Asia	Mongolia	East Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Zalantun	Miao et al., 2012
NEA4P03	ZL18	GU448880	A	Hap13	A01	Asia	East Asia	Mongolia	East Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Zalantun	Miao et al., 2012
NEA4P04	ZL15	GU448882	A	Hap13	A01	Asia	East Asia	Mongolia	East Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Zalantun	Miao et al., 2012
NEA4P05	ZL11	GU448886	A	Hap13	A01	Asia	East Asia	Mongolia	East Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Zalantun	Miao et al., 2012
NEA4P06	ZL7	GU448887	A	Hap13	A01	Asia	East Asia	Mongolia	East Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Zalantun	Miao et al., 2012
NEA4P07	ZL6	GU448888	A	Hap13	A01	Asia	East Asia	Mongolia	East Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Zalantun	Miao et al., 2012
NEA4P08	ZL2	GU448892	A	Hap13	A01	Asia	East Asia	Mongolia	East Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Zalantun	Miao et al., 2012
NEA4P16	SD14	GU447980	A	Hap13	A01	Asia	East Asia	Mongolia	West Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Bian chicken	Miao et al., 2012
NEA4P17	SD15	GU447981	A	Hap13	A01	Asia	East Asia	Mongolia	West Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Bian chicken	Miao et al., 2012
NEA4P18	SD8	GU447976	A	Hap31	A35	Asia	East Asia	Mongolia	West Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Bian chicken	Miao et al., 2012
NEA4P19	SD9	GU447977	A	Hap31	A35	Asia	East Asia	Mongolia	West Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Bian chicken	Miao et al., 2012
NEA4P20	SD13	GU447979	A	Hap31	A35	Asia	East Asia	Mongolia	West Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Bian chicken	Miao et al., 2012
NEA4P21	SD21	GU447987	A	Hap31	A35	Asia	East Asia	Mongolia	West Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Bian chicken	Miao et al., 2012
NEA1P381	SG2	AY465985	B	Hap134	B18	Asia	East Asia	China	Shandong Province, Souguang City, Cilun breed farm	*Gallus gallus domesticus*	Local chicken	Souguang	Liu et al., 2004

NEA1P325	BY4	AY465983	B	Hap21	B01	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Beijing Youkei	Liu et al., 2004
NEA1P326	DG1	AY465976	B	Hap21	B01	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Big bone	Liu et al., 2004
NEA1P328	DG3	AY465978	B	Hap21	B01	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Big bone	Liu et al., 2004
NEA1P329	DG4	AY465979	B	Hap21	B01	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Big bone	Liu et al., 2004
NEA1P334	DJ1	AY465968	B	Hap21	B01	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Fighting Cock	Henan cockfighting	Liu et al., 2004
NEA1P335	DJ2	AY465969	B	Hap21	B01	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Fighting Cock	Henan cockfighting	Liu et al., 2004
NEA1P336	DJ3	AY465970	B	Hap21	B01	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Fighting Cock	Henan cockfighting	Liu et al., 2004
NEA1P337	DJ4	AY465971	B	Hap21	B01	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agr. Sci, Jiangsu Province	*Gallus gallus domesticus*	Fighting Cock	Henan cockfighting	Liu et al., 2004
NEA1P380	SG1	AY465984	B	Hap21	B01	Asia	East Asia	China	Shandong Province, Souguang City, Cilun breed farm	*Gallus gallus domesticus*	Local chicken	Souguang	Liu et al., 2004
NEA1P382	SG3	AY465986	B	Hap21	B01	Asia	East Asia	China	Shandong Province, Souguang City, Cilun breed farm	*Gallus gallus domesticus*	Local chicken	Souguang	Liu et al., 2004
NEA1P548	yw586	AF512334	B	Hap21	B01	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an Wugu	Liu et al., 2006
NEA1P02	FY4	GU447592	B	Hap21	B01	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	Fuyang	Miao et al., 2012
NEA1P09	HN6	GU447342	B	Hap21	B01	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P10	HN3	GU447345	B	Hap21	B01	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P14	TH5	GU448032	B	Hap21	B01	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	Taihu	Miao et al., 2012
NEA1P15	TH9	GU448035	B	Hap21	B01	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	Taihu	Miao et al., 2012
NEA1P26	YP20627	GU448785	B	Hap21	B01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P27	YP20620	GU448786	B	Hap21	B01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P28	YP20612	GU448787	B	Hap21	B01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P29	YP20611	GU448788	B	Hap21	B01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P30	YP20598	GU448789	B	Hap21	B01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P31	YP20597	GU448790	B	Hap21	B01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P32	YP20595	GU448792	B	Hap21	B01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P33	YP20590	GU448793	B	Hap21	B01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P34	YP20632	GU448970	B	Hap21	B01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P35	YP20636	GU448972	B	Hap21	B01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P36	YP20647	GU448981	B	Hap21	B01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P37	YP20650	GU448984	B	Hap21	B01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P38	YP20651	GU448985	B	Hap21	B01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P39	YP20654	GU448988	B	Hap21	B01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P40	YP20655	GU448989	B	Hap21	B01	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P60	LD1	GU447805	B	Hap21	B01	Asia	East Asia	China	Heilongjiang	*Gallus gallus domesticus*	Local chicken	Lindian	Miao et al., 2012
NEA1P61	LD9	GU447811	B	Hap21	B01	Asia	East Asia	China	Heilongjiang	*Gallus gallus domesticus*	Local chicken	Lindian	Miao et al., 2012
NEA1P62	LD17	GU447817	B	Hap21	B01	Asia	East Asia	China	Heilongjiang	*Gallus gallus domesticus*	Local chicken	Lindian	Miao et al., 2012
NEA1P63	LD22	GU447819	B	Hap21	B01	Asia	East Asia	China	Heilongjiang	*Gallus gallus domesticus*	Local chicken	Lindian	Miao et al., 2012
NEA1P84	YP19304	GU448274	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P85	YP18723	GU448716	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P86	YP18719	GU448720	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P124	HD15	GU447322	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P125	HD9	GU447323	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P126	HD42	GU447498	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P127	HD41	GU447499	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P128	HD36	GU447504	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P129	HD32	GU447508	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P130	HD31	GU447509	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P131	HD29	GU447511	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P132	HD28	GU447512	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P133	HD27	GU447513	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P134	HD24	GU447516	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P135	HD21	GU447519	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P136	HD20	GU447520	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P137	HD17	GU447522	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P138	HD16	GU447523	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P139	HD13	GU447525	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P140	HD12	GU447526	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P141	HD11	GU447527	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P142	HD10	GU447528	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P143	HD06	GU447531	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P147	KF1	GU447803	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Jining chicken	Miao et al., 2012
NEA1P179	HX15	GU447326	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P180	HX10	GU447331	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P181	HX6	GU447335	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P182	HX4	GU447337	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P183	HX3	GU447338	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P184	h_chen10	GU447547	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P185	h_chen4	GU447553	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P186	xin-c4	GU448195	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P187	xin-c8	GU448199	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P188	yongchen9	GU448751	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P189	yongchen11	GU448753	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P190	yongchen12	GU448754	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P191	YP20509	GU448777	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P192	YP20539	GU448795	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P193	YP20538	GU448796	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P194	YP20528	GU448806	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P195	YP20527	GU448807	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P196	YP20522	GU448812	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P197	YP20520	GU448814	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P198	YP20516	GU448817	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P199	YP20510	GU448823	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P200	YP20504	GU448827	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P201	YP20500	GU448831	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P202	YP20486	GU448838	B	Hap21	B01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P276	JZ33	GU449052	B	Hap21	B01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P277	JZ34	GU449053	B	Hap21	B01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P278	JZ37	GU449056	B	Hap21	B01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P309	JJ7	GU447783	B	Hap21	B01	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012
NEA1P310	JJ12	GU447788	B	Hap21	B01	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012

NEA1P311	JJ19	GU447794	B	Hap21	B01	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012
NEA1P361	XA4	GU448110	B	Hap21	B01	Asia	East Asia	China	Shaanxi	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P362	XA7	GU448113	B	Hap21	B01	Asia	East Asia	China	Shaanxi	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P369	JN4	GU447796	B	Hap21	B01	Asia	East Asia	China	Shandong	*Gallus gallus domesticus*	Local chicken	Jining chicken	Miao et al., 2012
NEA1P376	yanzhou3	GU448488	B	Hap21	B01	Asia	East Asia	China	Shandong	*Gallus gallus domesticus*	Local chicken	yanzhou	Miao et al., 2012
NEA1P377	yanzhou2	GU448489	B	Hap21	B01	Asia	East Asia	China	Shandong	*Gallus gallus domesticus*	Local chicken	yanzhou	Miao et al., 2012
NEA1P417	HH204	GU447401	B	Hap21	B01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P418	HH198	GU447403	B	Hap21	B01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P419	HH106	GU447460	B	Hap21	B01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P420	XCJ31	GU448165	B	Hap21	B01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P421	XCJ32	GU448166	B	Hap21	B01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P422	XCJ38	GU448171	B	Hap21	B01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P423	XCJ44	GU448177	B	Hap21	B01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P565	YP20695	GU448994	B	Hap21	B01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P566	YP20700	GU448999	B	Hap21	B01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P567	YP20707	GU449005	B	Hap21	B01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P568	YP20731	GU449023	B	Hap21	B01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P203	YP20537	GU448797	B	Hap25	B11	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P279	JZ31	GU449051	B	Hap25	B11	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P424	XCJ30	GU448164	B	Hap25	B11	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P425	XCJ39	GU448172	B	Hap25	B11	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P351	qh3	GU447949	B	Hap328	B39	Asia	East Asia	China	Qinghai	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P352	qh7	GU447950	B	Hap328	B39	Asia	East Asia	China	Qinghai	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P16	TH2	GU448029	B	Hap333	B57	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	Taihu	Miao et al., 2012
NEA1P87	YP18716	GU448722	B	Hap334	B54	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P204	YP20519	GU448782	B	Hap335	B26	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P205	xin-c3	GU448253	B	Hap336	B47	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P280	JZ18	GU449044	B	Hap337	B59	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P297	y10	AF512308	B	Hap40	B08	Asia	East Asia	China	Hubei Province, Yunxian	*Gallus gallus domesticus*	Local chicken	Yunxian Wugu	Liu et al., 2006
NEA1P301	y329	AF512312	B	Hap40	B08	Asia	East Asia	China	Hubei Province, Yunxian	*Gallus gallus domesticus*	Local chicken	Yunxian Wugu	Liu et al., 2006
NEA1P264	gushi26	AF512150	B	Hap59	B13	Asia	East Asia	China	Henan Province, Gushi Xian	*Gallus gallus domesticus*	Local chicken	Gushi	Liu et al., 2006
NEA1P523	sdw243	AF512261	B	Hap59	B13	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Sichuan Mountain Wugu	Liu et al., 2006
NEA1P550	yw588	AF512336	B	Hap59	B13	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an Wugu	Liu et al., 2006
NEA1P298	y2	AF512309	B	Hap73	B03	Asia	East Asia	China	Hubei Province, Yunxian	*Gallus gallus domesticus*	Local chicken	Yunxian Wugu	Liu et al., 2006
NEA2P09	kaw00040	AB114082	B	Hap21	B01	Asia	East Asia	Japan	Ibaraki	*Gallus gallus domesticus*	Local chicken	Kawachi-yakko	Komiyama et al., 2004
NEA2P16	sat00035	AB114086	B	Hap21	B01	Asia	East Asia	Japan	Kagoshima	*Gallus gallus domesticus*	Fighting Cock	Satsumadori	Komiyama et al., 2004
NEA3P03	KOC3	DQ629866	B	Hap21	B01	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P07	KOC8	DQ629870	B	Hap21	B01	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P13	KOC14	DQ629876	B	Hap21	B01	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P18	KOC21	DQ629881	B	Hap21	B01	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P22	KOC25	DQ629885	B	Hap21	B01	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA4P09	ZL14	GU448883	B	Hap21	B01	Asia	East Asia	Mongolia	East Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Zalantun	Miao et al., 2012
NEA4P10	ZL13	GU448884	B	Hap21	B01	Asia	East Asia	Mongolia	East Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Zalantun	Miao et al., 2012
NEA4P11	ZL12	GU448885	B	Hap21	B01	Asia	East Asia	Mongolia	East Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Zalantun	Miao et al., 2012
NEA1P296	y1	AF512307	C	Hap11	C01	Asia	East Asia	China	Hubei Province, Yunxian	*Gallus gallus domesticus*	Local chicken	Yunxian Wugu	Liu et al., 2006
NEA1P299	y3	AF512310	C	Hap11	C01	Asia	East Asia	China	Hubei Province, Yunxian	*Gallus gallus domesticus*	Local chicken	Yunxian Wugu	Liu et al., 2006
NEA1P305	y338	AF512316	C	Hap11	C01	Asia	East Asia	China	Hubei Province, Yunxian	*Gallus gallus domesticus*	Local chicken	Yunxian Wugu	Liu et al., 2006
NEA1P518	hk46	AF512210	C	Hap11	C01	Asia	East Asia	China	Sichuan Province, Xinfan	*Gallus gallus domesticus*	Local chicken	Heikang layer	Liu et al., 2006
NEA1P522	hk66	AF512214	C	Hap11	C01	Asia	East Asia	China	Sichuan Province, Xinfan	*Gallus gallus domesticus*	Local chicken	Heikang layer	Liu et al., 2006
NEA1P64	LD15	GU447816	C	Hap11	C01	Asia	East Asia	China	Heilongjiang	*Gallus gallus domesticus*	Local chicken	Lindian	Miao et al., 2012
NEA1P88	YP19305	GU448263	C	Hap11	C01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P89	YP19301	GU448602	C	Hap11	C01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P90	YP19320	GU448593	C	Hap11	C27	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P206	HX14	GU447327	C	Hap11	C01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P207	HX12	GU447329	C	Hap11	C01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P208	h_chen13	GU447544	C	Hap11	C01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P209	h_chen12	GU447545	C	Hap11	C01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P210	h_chen5	GU447552	C	Hap11	C01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P211	xin-c6	GU448197	C	Hap11	C01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P212	yongchen8	GU448279	C	Hap11	C01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P213	yongchen10	GU448752	C	Hap11	C01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P227	xin-c5	GU448196	C	Hap11	C27	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P214	YP20508	GU448780	C	Hap11	C01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P215	YP20536	GU448798	C	Hap11	C01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P216	YP20521	GU448813	C	Hap11	C01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P217	YP20502	GU448829	C	Hap11	C01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P228	YP20523	GU448811	C	Hap11	C27	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P281	LX11	GU449062	C	Hap11	C01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P282	JZ2	GU449064	C	Hap11	C01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P291	y330	GU448491	C	Hap11	C01	Asia	East Asia	China	Hubei (Yunxian)	*Gallus gallus domesticus*	Local chicken	Yunxian Wugu	Miao et al., 2012
NEA1P292	YP19621	GU448492	C	Hap11	C01	Asia	East Asia	China	Hubei (Yunxian)	*Gallus gallus domesticus*	Local chicken	Yunxian Wugu	Miao et al., 2012
NEA1P293	YP19628	GU448503	C	Hap11	C01	Asia	East Asia	China	Hubei (Yunxian)	*Gallus gallus domesticus*	Local chicken	Yunxian Wugu	Miao et al., 2012
NEA1P294	y327	GU448493	C	Hap11	C34	Asia	East Asia	China	Hubei (Yunxian)	*Gallus gallus domesticus*	Local chicken	Yunxian Wugu	Miao et al., 2012
NEA1P312	JJ10	GU447786	C	Hap11	C01	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012
NEA1P313	JJ16	GU447792	C	Hap11	C01	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012
NEA1P314	JJ17	GU447793	C	Hap11	C01	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012
NEA1P321	JJ1	GU447779	C	Hap11	C01	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jinghong chicken	Miao et al., 2012
NEA1P426	XCJ16	GU448151	C	Hap11	C01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P475	YP19777	GU448501	C	Hap11	C01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Sichuan Mountain Wugu	Miao et al., 2012
NEA1P500	YP19874	GU448500	C	Hap11	C01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Ya'an Wugu	Miao et al., 2012
NEA1P569	YP20701	GU449000	C	Hap11	C01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P570	YP20703	GU449002	C	Hap11	C01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P571	YP20705	GU449003	C	Hap11	C01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P572	YP20717	GU449011	C	Hap11	C01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P573	YP20718	GU449012	C	Hap11	C01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P04	FY2	GU447594	C	Hap22	C06	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	Fuyang	Miao et al., 2012
NEA1P11	HN2	GU447346	C	Hap22	C06	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P144	HD44	GU447496	C	Hap22	C06	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012

NEA1P145	HD38	GU447502	C	Hap22	C06	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P146	HD34	GU447506	C	Hap22	C06	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Zhoukou chicken	Huaiyang	Miao et al., 2012
NEA1P224	YP20512	GU448821	C	Hap22	C06	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P371	JN10	GU447799	C	Hap22	C06	Asia	East Asia	China	Shandong	*Gallus gallus domesticus*	Local chicken	Jining chicken	Miao et al., 2012
NEA1P574	YP20706	GU449004	C	Hap22	C06	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P575	YP20709	GU449006	C	Hap22	C06	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P576	YP20719	GU449013	C	Hap22	C06	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P577	YP20724	GU449017	C	Hap22	C06	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P578	YP20728	GU449020	C	Hap22	C06	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P579	YP20729	GU449021	C	Hap22	C06	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P05	FY6	GU447590	C	Hap338	C38	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	Fuyang	Miao et al., 2012
NEA1P232	xin-c9	GU448200	C	Hap339	C31	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P587	YP20631	GU448783	C	Hap340	C25	Asia	East Asia	China	China	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P45	YP20635	GU448971	C	Hap340	C25	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P46	YP20644	GU448978	C	Hap340	C25	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P47	YP20645	GU448979	C	Hap340	C25	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P226	xin-c7	GU448198	C	Hap340	C25	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P427	HH240	GU447393	C	Hap340	C25	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P230	YP20503	GU448828	C	Hap341	C30	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P231	YP20501	GU448830	C	Hap341	C30	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P48	YP20639	GU448975	C	Hap342	C29	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P91	YP18720	GU448719	C	Hap342	C29	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P225	HX11	GU447330	C	Hap344	C20	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P295	y347	GU448278	C	Hap348	C35	Asia	East Asia	China	Hubei (Yunxian)	*Gallus gallus domesticus*	Local chicken	Yunxian Wugu	Miao et al., 2012
NEA1P586	YP20619	GU448775	C	Hap61	C02	Asia	East Asia	China	China	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P42	YP20646	GU448980	C	Hap61	C02	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P43	YP20652	GU448986	C	Hap61	C02	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P218	xin-c10	GU448201	C	Hap61	C02	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P219	XX2	GU448219	C	Hap61	C02	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P220	YP20487	GU448837	C	Hap61	C02	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P370	JN7	GU447798	C	Hap61	C02	Asia	East Asia	China	Shandong	*Gallus gallus domesticus*	Local chicken	Jining chicken	Miao et al., 2012
NEA1P378	yanzhou4	GU448487	C	Hap61	C02	Asia	East Asia	China	Shandong	*Gallus gallus domesticus*	Local chicken	yanzhou	Miao et al., 2012
NEA1P283	JZ22	GU449046	C	Hap65	C03	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P284	JZ25	GU449048	C	Hap65	C03	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P300	y328	AF512311	C	Hap66	C05	Asia	East Asia	China	Hubei Province, Yunxian	*Gallus gallus domesticus*	Local chicken	Yunxian Wugu	Liu et al., 2006
NEA1P302	y335	AF512313	C	Hap66	C05	Asia	East Asia	China	Hubei Province, Yunxian	*Gallus gallus domesticus*	Local chicken	Yunxian Wugu	Liu et al., 2006
NEA1P525	sdw472	AF512263	C	Hap66	C05	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Sichuan Mountain Wugu	Liu et al., 2006
NEA1P526	sdw473	AF512264	C	Hap66	C05	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Sichuan Mountain Wugu	Liu et al., 2006
NEA1P532	sdw484	AF512270	C	Hap66	C05	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Sichuan Mountain Wugu	Liu et al., 2006
NEA1P17	TH1	GU448028	C	Hap66	C05	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	Taihu	Miao et al., 2012
NEA1P18	TH4	GU448031	C	Hap66	C05	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	Taihu	Miao et al., 2012
NEA1P19	TH7	GU448033	C	Hap66	C05	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	Taihu	Miao et al., 2012
NEA1P20	TH8	GU448034	C	Hap66	C05	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	Taihu	Miao et al., 2012
NEA1P03	FY5	GU447591	C	Hap72	C04	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	Fuyang	Miao et al., 2012
NEA1P44	YP20649	GU448983	C	Hap72	C04	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P221	HX8	GU447333	C	Hap72	C04	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P222	h_wang1	GU447542	C	Hap72	C04	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P229	h_chen7	GU447550	C	Hap72	C28	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P223	YP20505	GU448826	C	Hap72	C04	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P285	JZ40	GU449058	C	Hap72	C04	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P543	yw581	AF512329	C	Hap75	C08	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an Wugu	Liu et al., 2006
NEA2P08	yam00110	AB098680	C	Hap135	C09	Asia	East Asia	Japan	Honshu, Tokyo	*Gallus gallus domesticus*	Local	Yamato-gunkei	Komiyama et al., 2003
NEA2P04	kos00053	AB098675	C	Hap22	C06	Asia	East Asia	Japan	Honshu, Ibaraki	*Gallus gallus domesticus*	Local	Koshamo	Komiyama et al., 2003
NEA2P06	yam00106	AB098678	C	Hap22	C06	Asia	East Asia	Japan	Honshu, Tokyo	*Gallus gallus domesticus*	Local	Yamato-gunkei	Komiyama et al., 2003
NEA2P07	yam00108	AB098679	C	Hap22	C06	Asia	East Asia	Japan	Honshu, Tokyo	*Gallus gallus domesticus*	Local	Yamato-gunkei	Komiyama et al., 2003
NEA2P32	kos00003	AB098674	C	Hap22	C06	Asia	East Asia	Japan	Shizuoka	*Gallus gallus domesticus*	Local	Koshamo	Komiyama et al., 2003
NEA2P11	nan00042	AB114067	C	Hap22	C06	Asia	East Asia	Japan	Ibaraki	*Gallus gallus domesticus*	Local chicken	Nankin-shamo	Komiyama et al., 2004
NEA2P12	nan00043	AB114068	C	Hap22	C06	Asia	East Asia	Japan	Ibaraki	*Gallus gallus domesticus*	Local chicken	Nankin-shamo	Komiyama et al., 2004
NEA3P05	KOC5	DQ629868	C	Hap11	C01	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P16	KOC18	DQ629879	C	Hap11	C01	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P21	KOC24	DQ629884	C	Hap11	C01	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P23	KOC26	DQ629886	C	Hap11	C01	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P25	KOC28	DQ629888	C	Hap11	C01	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P26	KOC29	DQ629889	C	Hap11	C01	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P28	KOC31	DQ629891	C	Hap11	C01	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P29	KOC32	DQ629892	C	Hap11	C01	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P31	KOC34	DQ629894	C	Hap11	C01	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA4P12	ZL5	GU448889	C	Hap11	C01	Asia	East Asia	Mongolia	East Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Zalantun	Miao et al., 2012
NEA4P13	ZL4	GU448890	C	Hap11	C01	Asia	East Asia	Mongolia	East Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Zalantun	Miao et al., 2012
NEA4P22	SD5	GU447975	C	Hap11	C01	Asia	East Asia	Mongolia	West Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Bian chicken	Miao et al., 2012
NEA4P23	SD19	GU447985	C	Hap11	C01	Asia	East Asia	Mongolia	West Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Bian chicken	Miao et al., 2012
NEA4P14	ZL3	GU448891	C	Hap345	C22	Asia	East Asia	Mongolia	East Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Zalantun	Miao et al., 2012
NEA1P92	YP18726	GU448713	D	Hap144	D10	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P580	YP20698	GU448997	D	Hap16	D06	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P581	YP20697	GU448996	D	Hap32	D13	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P517	ck244	AF512107	E	Hap01	E06	Asia	East Asia	China	Sichuan province, Shimian Xian	*Gallus gallus domesticus*	Local chicken	Caoke	Liu et al., 2006
NEA1P524	sdw470	AF512262	E	Hap01	E06	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Sichuan Mountain Wugu	Liu et al., 2006
NEA1P551	yw589	AF512337	E	Hap01	E06	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an Wugu	Liu et al., 2006
NEA1P66	LD21	GU447818	E	Hap01	E06	Asia	East Asia	China	Heilongjiang	*Gallus gallus domesticus*	Local chicken	Lindian	Miao et al., 2012
NEA1P100	YP19313	GU448597	E	Hap01	E06	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P99	YP19299	GU448266	E	Hap01	E06	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P239	yongchen7	GU448280	E	Hap01	E06	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P289	LX23	GU449047	E	Hap01	E06	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P290	JZ5	GU449065	E	Hap01	E06	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P364	XA6	GU448112	E	Hap01	E06	Asia	East Asia	China	Shaanxi	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P440	HH103	GU447463	E	Hap01	E06	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P441	HH102	GU447464	E	Hap01	E06	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P253	gushi1	AF512139	E	Hap02	E01	Asia	East Asia	China	Henan Province, Gushi Xian	*Gallus gallus domesticus*	Local chicken	Gushi	Liu et al., 2006

NEA1P262	gushi20	AF512148	E	Hap02	E01	Asia	East Asia	China	Henan Province, Gushi Xian	*Gallus gallus domesticus*	Local chicken	Gushi	Liu et al., 2006
NEA1P255	gushi13	AF512141	E	Hap02	E05	Asia	East Asia	China	Henan Province, Gushi Xian	*Gallus gallus domesticus*	Local chicken	Gushi	Liu et al., 2006
NEA1P256	gushi14	AF512142	E	Hap02	E05	Asia	East Asia	China	Henan Province, Gushi Xian	*Gallus gallus domesticus*	Local chicken	Gushi	Liu et al., 2006
NEA1P258	gushi16	AF512144	E	Hap02	E05	Asia	East Asia	China	Henan Province, Gushi Xian	*Gallus gallus domesticus*	Local chicken	Gushi	Liu et al., 2006
NEA1P527	sdw474	AF512265	E	Hap02	E01	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Sichuan Mountain Wugu	Liu et al., 2006
NEA1P531	sdw483	AF512269	E	Hap02	E01	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Sichuan Mountain Wugu	Liu et al., 2006
NEA1P534	sdw486	AF512272	E	Hap02	E01	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Sichuan Mountain Wugu	Liu et al., 2006
NEA1P544	yw582	AF512330	E	Hap02	E01	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an Wugu	Liu et al., 2006
NEA1P547	yw585	AF512333	E	Hap02	E01	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Ya'an Wugu	Liu et al., 2006
NEA1P22	HH235	GU447396	E	Hap02	E01	Asia	East Asia	China	Chongqing	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P65	LD4	GU447808	E	Hap02	E01	Asia	East Asia	China	Heilongjiang	*Gallus gallus domesticus*	Local chicken	Lindian	Miao et al., 2012
NEA1P93	YP19311	GU448262	E	Hap02	E01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P94	YP19303	GU448264	E	Hap02	E01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P95	YP19325	GU448588	E	Hap02	E01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P96	YP19317	GU448596	E	Hap02	E01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P97	YP19310	GU448599	E	Hap02	E01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P98	YP19309	GU448600	E	Hap02	E01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P233	h_wang6	GU447537	E	Hap02	E01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P234	h_wang5	GU447538	E	Hap02	E01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P235	h_chen8	GU447549	E	Hap02	E01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P236	h_chen1	GU447556	E	Hap02	E01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P237	YP20529	GU448805	E	Hap02	E01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P238	YP20485	GU448839	E	Hap02	E01	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P286	LX07	GU449040	E	Hap02	E01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P287	JZ36	GU449055	E	Hap02	E01	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P315	JJ9	GU447785	E	Hap02	E01	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012
NEA1P316	JJ11	GU447787	E	Hap02	E01	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012
NEA1P317	JJ13	GU447789	E	Hap02	E01	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012
NEA1P318	JJ14	GU447790	E	Hap02	E01	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012
NEA1P353	QL5	GU447962	E	Hap02	E01	Asia	East Asia	China	Qinghai	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P354	QL8	GU447964	E	Hap02	E01	Asia	East Asia	China	Qinghai	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P363	XY4	GU448255	E	Hap02	E01	Asia	East Asia	China	Shaanxi	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P367	SX2	GU448026	E	Hap02	E01	Asia	East Asia	China	Shaanxi	*Gallus gallus domesticus*	Local chicken	Shanxi	Miao et al., 2012
NEA1P372	JN18	GU447800	E	Hap02	E01	Asia	East Asia	China	Shandong	*Gallus gallus domesticus*	Local chicken	Jining chicken	Miao et al., 2012
NEA1P428	HH210	GU447397	E	Hap02	E01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P429	HH192	GU447408	E	Hap02	E01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P430	HH190	GU447410	E	Hap02	E01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P431	HH188	GU447412	E	Hap02	E01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P432	HH111	GU447455	E	Hap02	E01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P433	HH107	GU447459	E	Hap02	E01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P434	HH104	GU447462	E	Hap02	E01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P435	HH100	GU447466	E	Hap02	E01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P436	HH98	GU447468	E	Hap02	E01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P437	HH11	GU447487	E	Hap02	E01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P438	XCJ8	GU448145	E	Hap02	E01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P439	XCJ40	GU448173	E	Hap02	E01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P493	zj6	GU448909	E	Hap02	E01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P553	XB2	GU448115	E	Hap02	E01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P582	YP20696	GU448995	E	Hap02	E01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P583	YP20699	GU448998	E	Hap02	E01	Asia	East Asia	China	Xinjiang	*Gallus gallus domesticus*	Local chicken	Tulufan	Miao et al., 2012
NEA1P356	QL2	GU447961	E	Hap08	E07	Asia	East Asia	China	Qinghai	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P101	YP19307	GU448601	E	Hap164	E35	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P12	HN5	GU447343	E	Hap27	E11	Asia	East Asia	China	Anhui	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P49	YP20656	GU448990	E	Hap27	E11	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P50	YP20657	GU448991	E	Hap27	E11	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P51	YP20659	GU448993	E	Hap27	E11	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P68	LD8	GU447810	E	Hap27	E11	Asia	East Asia	China	Heilongjiang	*Gallus gallus domesticus*	Local chicken	Lindian	Miao et al., 2012
NEA1P319	JJ2	GU447780	E	Hap27	E11	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012
NEA1P359	QP8	GU447971	E	Hap27	E11	Asia	East Asia	China	Qinghai	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P365	XA1	GU448254	E	Hap27	E11	Asia	East Asia	China	Shaanxi	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P375	JN6	GU447797	E	Hap27	E11	Asia	East Asia	China	Shandong	*Gallus gallus domesticus*	Local chicken	Jining chicken	Miao et al., 2012
NEA1P379	yanzhou1	GU448490	E	Hap27	E11	Asia	East Asia	China	Shandong	*Gallus gallus domesticus*	Local chicken	yanzhou	Miao et al., 2012
NEA1P443	HH194	GU447406	E	Hap27	E11	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P54	YP20637	GU448973	E	Hap270	E32	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P67	LD10	GU447812	E	Hap28	E09	Asia	East Asia	China	Heilongjiang	*Gallus gallus domesticus*	Local chicken	Lindian	Miao et al., 2012
NEA1P242	YP20514	GU448819	E	Hap28	E09	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P358	QL7	GU447963	E	Hap28	E09	Asia	East Asia	China	Qinghai	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P366	SQ1	GU448025	E	Hap28	E09	Asia	East Asia	China	Shaanxi	*Gallus gallus domesticus*	Local chicken	Shaanxi	Miao et al., 2012
NEA1P374	JN20	GU447801	E	Hap28	E09	Asia	East Asia	China	Shandong	*Gallus gallus domesticus*	Local chicken	Jining chicken	Miao et al., 2012
NEA1P442	HH105	GU447461	E	Hap28	E09	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P240	YP20530	GU448804	E	Hap29	E08	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P241	YP20488	GU448836	E	Hap29	E08	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA1P357	qh30	GU447952	E	Hap29	E08	Asia	East Asia	China	Qinghai	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P288	LX29	GU449050	E	Hap30	E03	Asia	East Asia	China	Hubei	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P355	qh2	GU447948	E	Hap30	E03	Asia	East Asia	China	Qinghai	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P373	JN25	GU447802	E	Hap30	E03	Asia	East Asia	China	Shandong	*Gallus gallus domesticus*	Local chicken	Jining chicken	Miao et al., 2012
NEA1P320	JJ15	GU447791	E	Hap343	E19	Asia	East Asia	China	Jilin	*Gallus gallus domesticus*	Local chicken	Jilin chicken	Miao et al., 2012
NEA1P533	sdw485	AF512271	E	Hap41	E04	Asia	East Asia	China	Sichuan Province, Ya'an	*Gallus gallus domesticus*	Local chicken	Sichuan Mountain Wugu	Liu et al., 2006
NEA1P53	YP20648	GU448982	E	Hap41	E04	Asia	East Asia	China	Hebei	*Gallus gallus domesticus*	Local chicken	Weichang	Miao et al., 2012
NEA1P252	YP20525	GU448809	E	Hap41	E04	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Xinxian	Miao et al., 2012
NEA2P20	tom00204	AB114066	E	Hap01	E06	Asia	East Asia	Japan	Niigata	*Gallus gallus domesticus*	Local chicken	Toumaru (Japanese Black Crowner)	Komiyama et al., 2004
NEA2P02	koe00029	AB114060	E	Hap02	E01	Asia	East Asia	Japan	Aomori	*Gallus gallus domesticus*	Local chicken	Koeyoshi (Japanese Good Crowner)	Komiyama et al., 2004
NEA2P14	koe00027	AB114058	E	Hap02	E01	Asia	East Asia	Japan	Iwate	*Gallus gallus domesticus*	Local chicken	Koeyoshi (Japanese Good Crowner)	Komiyama et al., 2004
NEA2P17	tot00056	AB114062	E	Hap02	E01	Asia	East Asia	Japan	Kanagawa	*Gallus gallus domesticus*	Local chicken	Toutenko (Japanese Red Crowner)	Komiyama et al., 2004
NEA2P18	tot00057	AB114063	E	Hap02	E01	Asia	East Asia	Japan	Kanagawa	*Gallus gallus domesticus*	Local chicken	Toutenko (Japanese Red Crowner)	Komiyama et al., 2004
NEA2P19	tom00203	AB114065	E	Hap02	E01	Asia	East Asia	Japan	Niigata	*Gallus gallus domesticus*	Local chicken	Toumaru (Japanese Black Crowner)	Komiyama et al., 2004
NEA2P36	sho00058	AB114076	E	Hap02	E01	Asia	East Asia	Japan	Shizuoka	*Gallus gallus domesticus*	Local chicken	Shokoku	Komiyama et al., 2004
NEA2P37	sho00059	AB114077	E	Hap02	E01	Asia	East Asia	Japan	Shizuoka	*Gallus gallus domesticus*	Local chicken	Shokoku	Komiyama et al., 2004

NEA2P38	tot00105	AB114064	E	Hap02	E01	Asia	East Asia	Japan	Tochigi	*Gallus gallus domesticus*	Local chicken	Toutenko (Japanese Red Crowner)	Komiyama et al., 2004
NEA2P01	koe00028	AB114059	E	Hap29	E08	Asia	East Asia	Japan	Aomori	*Gallus gallus domesticus*	Local chicken	Koeyoshi (Japanese Good Crowner)	Komiyama et al., 2004
NEA2P15	koe00030	AB114061	E	Hap349	E08	Asia	East Asia	Japan	Iwate	*Gallus gallus domesticus*	Local chicken	Koeyoshi (Japanese Good Crowner)	Komiyama et al., 2004
NEA3P06	KOC6	DQ629869	E	Hap01	E06	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P08	KOC9	DQ629871	E	Hap01	E06	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P09	KOC10	DQ629872	E	Hap01	E06	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P10	KOC11	DQ629873	E	Hap01	E06	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P11	KOC12	DQ629874	E	Hap01	E06	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P15	KOC17	DQ629878	E	Hap01	E06	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P17	KOC20	DQ629880	E	Hap01	E06	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P20	KOC23	DQ629883	E	Hap01	E06	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P24	KOC27	DQ629887	E	Hap01	E06	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P27	KOC30	DQ629890	E	Hap01	E06	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P12	KOC13	DQ629875	E	Hap02	E01	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P04	KOC4	DQ629867	E	Hap08	E07	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P01	KOC1	DQ629864	E	Hap27	E11	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P02	KOC2	DQ629865	E	Hap27	E11	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P14	KOC16	DQ629877	E	Hap27	E11	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P19	KOC22	DQ629882	E	Hap27	E11	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA3P30	KOC33	DQ629893	E	Hap27	E11	Asia	East Asia	Korea	National Livestock Research Institute	*Gallus gallus domesticus*	Local chicken	Ogol	Lee et al., 2007
NEA4P24	SD17	GU447983	E	Hap02	E01	Asia	East Asia	Mongolia	West Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Bian chicken	Miao et al., 2012
NEA4P25	SD3	GU447973	E	Hap08	E07	Asia	East Asia	Mongolia	West Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Bian chicken	Miao et al., 2012
NEA4P26	SD4	GU447974	E	Hap08	E07	Asia	East Asia	Mongolia	West Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Bian chicken	Miao et al., 2012
NEA4P27	SD10	GU447978	E	Hap08	E07	Asia	East Asia	Mongolia	West Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Bian chicken	Miao et al., 2012
NEA4P30	SD16	GU447982	E	Hap163	E30	Asia	East Asia	Mongolia	West Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Bian chicken	Miao et al., 2012
NEA4P15	ZL16	GU448881	E	Hap27	E11	Asia	East Asia	Mongolia	East Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Zalantun	Miao et al., 2012
NEA4P28	SD18	GU447984	E	Hap27	E11	Asia	East Asia	Mongolia	West Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Bian chicken	Miao et al., 2012
NEA4P29	SD20	GU447986	E	Hap27	E11	Asia	East Asia	Mongolia	West Inner Mongolia	*Gallus gallus domesticus*	Local chicken	Bian chicken	Miao et al., 2012
NEA1P444	XCJ1	GU448138	F	Hap68	F01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P445	XCJ35	GU448168	F	Hap68	F01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P464	XCJ7	GU448144	G	Hap217	G23	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P465	XCJ25	GU448159	G	Hap217	G23	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P466	XCJ26	GU448160	G	Hap305	G42	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P467	XCJ29	GU448163	G	Hap305	G42	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P468	XCJ36	GU448169	G	Hap305	G42	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P469	XCJ37	GU448170	G	Hap305	G42	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P494	zj24	GU448893	G	Hap346	G34	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P495	zj22	GU448894	G	Hap346	G34	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P496	zj21	GU448895	G	Hap346	G34	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P497	zj11	GU448905	G	Hap346	G34	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P498	zj2	GU448913	G	Hap346	G34	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P499	zj1	GU448914	G	Hap346	G34	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	Tibetan	Miao et al., 2012
NEA1P470	XCJ2	GU448139	G	Hap347	G46	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P471	XCJ11	GU448148	G	Hap347	G46	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P472	XCJ33	GU448167	G	Hap347	G46	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P473	XCJ43	GU448176	G	Hap347	G46	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P474	XCJ15	GU448250	G	Hap347	G46	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P260	gushi18	AF512146	G	Hap44	G03	Asia	East Asia	China	Henan Province, Gushi Xian	*Gallus gallus domesticus*	Local chicken	Gushi	Liu et al., 2006
NEA1P102	YP19322	GU448591	G	Hap44	G03	Asia	East Asia	China	Henan	*Gallus gallus domesticus*	Local chicken	Gushi	Miao et al., 2012
NEA1P462	XCJ9	GU448146	G	Hap96	G21	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P463	XCJ14	GU448249	G	Hap96	G21	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P446	XCJ3	GU448140	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P447	XCJ6	GU448143	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P448	XCJ10	GU448147	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P449	XCJ12	GU448149	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P450	XCJ13	GU448150	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P451	XCJ17	GU448152	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P452	XCJ20	GU448154	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P453	XCJ21	GU448155	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P454	XCJ23	GU448157	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P455	XCJ24	GU448158	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P456	XCJ27	GU448161	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P457	XCJ28	GU448162	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P458	XCJ41	GU448174	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P459	XCJ42	GU448175	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P460	XCJ19	GU448251	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012
NEA1P461	XCJ34	GU448252	G	Hap98	G01	Asia	East Asia	China	Sichuan	*Gallus gallus domesticus*	Local chicken	N/A	Miao et al., 2012

Supplementary Table ST6: Full details for the South China dataset including location of samples, haplogroups, haplotypes, Sample ID, Genbank Accession Number and Source. Sorted by haplogroups and country

AMOVA Ref	Samples ID	GenBank Acc Nb.	Haplogroup (201bp)	Haplotype (201bp)	Haplogroup (Source)	Region	Sub-Region	Country	Location specific	Category	Additional Status Info	Breed / Common Name	Source
ASY1P1097	T17	AY392301	A	Hap103	A23	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1143	W17	AY392347	A	Hap112	A21	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1152	W2	AY392356	A	Hap112	A21	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P414	DHJ-11	GU447603	A	Hap112	A79	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dehong	Miao et al., 2012
ASY1P1170	W7	AY392374	A	Hap116	A20	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P821	YP18782	GU448677	A	Hap116	A20	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P628	WD5	GU448070	A	Hap116	A20	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P856	YP18741	GU448705	A	Hap116	A20	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P668	XC1	GU448116	A	Hap116	A20	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P688	XC21	GU448136	A	Hap116	A20	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P723	YJ71	GU448286	A	Hap116	A20	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P741	YJ53	GU448304	A	Hap116	A20	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P747	YJ47	GU448310	A	Hap116	A20	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P764	YJ29	GU448328	A	Hap116	A20	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P857	ZY18	GU448705a	A	Hap116	A20	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P858	ZY19	GU448705b	A	Hap116	A20	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P859	ZY5	GU448705c	A	Hap116	A20	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P1250	Fu21	AF128340	A	Hap13	A01	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Xiaoshan	Fu et al., 1999, direct submission
ASY1P1253	Fu24	AF128343	A	Hap13	A01	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Xiaoshan	Fu et al., 1999, direct submission
ASY1P1224	YJ3	AY465998	A	Hap13	A01	Asia	East Asia	China	Yunnan Province, Yanjing County	Gallus gallus	Local chicken	Yanjing wugu	Liu et al., 2004
ASY1P1255	CH1	AY465972	A	Hap13	A24	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agri. Sci., Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Chahua	Liu et al., 2004
ASY1P1256	CH3	AY465974	A	Hap13	A24	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agri. Sci., Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Chahua	Liu et al., 2004
ASY1P1257	CH4	AY465975	A	Hap13	A24	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agri. Sci., Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Chahua	Liu et al., 2004
ASY1P1175	X14	AY392379	A	Hap13	A24	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1176	X15	AY392380	A	Hap13	A24	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1177	X16	AY392381	A	Hap13	A24	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1184	X2	AY392388	A	Hap13	A24	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1190	X3	AY392394	A	Hap13	A24	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1191	X4	AY392395	A	Hap13	A24	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1192	X59	AY392396	A	Hap13	A24	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1196	X64	AY392400	A	Hap13	A24	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1200	X68	AY392404	A	Hap13	A24	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1204	ch1	AF512076	A	Hap13	A01	Asia	East Asia	China	Yunnan province, Jinghong Xian	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1205	ch10	AF512077	A	Hap13	A14	Asia	East Asia	China	Yunnan province, Jinghong Xian	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1206	ch11	AF512078	A	Hap13	A15	Asia	East Asia	China	Yunnan province, Jinghong Xian	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1207	ch12	AF512079	A	Hap13	A15	Asia	East Asia	China	Yunnan province, Jinghong Xian	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1208	ch13	AF512080	A	Hap13	A01	Asia	East Asia	China	Yunnan province, Jinghong Xian	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1209	ch14	AF512081	A	Hap13	A01	Asia	East Asia	China	Yunnan province, Jinghong Xian	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1211	ch2	AF512083	A	Hap13	A15	Asia	East Asia	China	Yunnan province, Jinghong Xian	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1214	ch5	AF512086	A	Hap13	A15	Asia	East Asia	China	Yunnan province, Jinghong Xian	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1218	ch9	AF512090	A	Hap13	A15	Asia	East Asia	China	Yunnan province, Jinghong Xian	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1000	D9	AY392204	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P976	D27	AY392180	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P977	D28	AY392181	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P978	D29	AY392182	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P980	D31	AY392184	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P982	D33	AY392186	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P986	D39	AY392190	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P998	D5	AY392202	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P999	D6	AY392203	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P955	dj2	AF512113	A	Hap13	A01	Asia	East Asia	China	Yunnan province	Gallus gallus	Local chicken	Douji	Liu et al., 2006
ASY1P209	dw237	AF512119	A	Hap13	A01	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Dwarf Wugu	Liu et al., 2006
ASY1P210	dw238	AF512120	A	Hap13	A01	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Dwarf Wugu	Liu et al., 2006
ASY1P212	dw240	AF512122	A	Hap13	A01	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Dwarf Wugu	Liu et al., 2006
ASY1P219	gui181	AF512129	A	Hap13	A01	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Liu et al., 2006
ASY1P220	gui182	AF512130	A	Hap13	A01	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Liu et al., 2006
ASY1P221	gui183	AF512131	A	Hap13	A01	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Liu et al., 2006
ASY1P224	gui186	AF512134	A	Hap13	A01	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Liu et al., 2006
ASY1P227	gui190	AF512137	A	Hap13	A01	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Liu et al., 2006
ASY1P142	lk31	AF512238	A	Hap13	A01	Asia	East Asia	China	Guangxi Province	Gallus gallus	Local chicken	Luke	Liu et al., 2006
ASY1P143	lk32	AF512239	A	Hap13	A01	Asia	East Asia	China	Guangxi Province	Gallus gallus	Local chicken	Luke	Liu et al., 2006
ASY1P144	lk34	AF512240	A	Hap13	A01	Asia	East Asia	China	Guangxi Province	Gallus gallus	Local chicken	Luke	Liu et al., 2006
ASY1P1043	L30	AY392247	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P1050	L54	AY392254	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P1052	L57	AY392256	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P1054	L60	AY392258	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P1055	L6	AY392259	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P1087	N5	AY392291	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P965	nx5	AF512252	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P966	nx7	AF512253	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1221	a1851	AF512059	A	Hap13	A01	Asia	East Asia	China	Yunnan Province, Malong Xian	Gallus gallus	Local chicken	Shenggou	Liu et al., 2006
ASY1P1094	T13	AY392298	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1095	T15	AY392299	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1096	T16	AY392300	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1098	T18	AY392302	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006

ASY1P1103	T22	AY392307	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1104	T23	AY392308	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1119	T41	AY392323	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1120	T42	AY392324	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1121	T43	AY392325	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1122	T44	AY392326	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1128	T52	AY392332	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1129	T53	AY392333	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1136	T8	AY392340	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1137	W10	AY392341	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1139	W12	AY392343	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1146	W1	AY392350	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1159	W39	AY392363	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1160	W3	AY392364	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1164	W4	AY392368	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1168	W5	AY392372	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1171	W8	AY392375	A	Hap13	A01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P404	wd4	AF512294	A	Hap13	A01	Asia	East Asia	China	Yunnan Province, Wuding Xian	Gallus gallus	Local chicken	Wuding	Liu et al., 2006
ASY1P408	wd9	AF512298	A	Hap13	A01	Asia	East Asia	China	Yunnan Province, Wuding Xian	Gallus gallus	Local chicken	Wuding	Liu et al., 2006
ASY1P799	YP19255	GU448606	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P800	YP19254	GU448607	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P801	YP19253	GU448608	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P802	YP19252	GU448609	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P803	YP19251	GU448610	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P804	YP19250	GU448611	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P805	YP19249	GU448612	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P806	YP19248	GU448613	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P807	YP19247	GU448614	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P808	YP19246	GU448615	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P483	C25	GU447693	A	Hap13	A24	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P485	C27	GU447694	A	Hap13	A24	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P410	DHJ-16	GU447599	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dehong	Miao et al., 2012
ASY1P421	DHJ-1	GU447610	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dehong	Miao et al., 2012
ASY1P180	YP19504	GU448508	A	Hap13	A01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P181	YP19503	GU448509	A	Hap13	A01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P183	YP19501	GU448511	A	Hap13	A01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P184	YP19500	GU448512	A	Hap13	A01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P187	YP19497	GU448515	A	Hap13	A01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P188	YP19496	GU448516	A	Hap13	A01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P189	YP19495	GU448517	A	Hap13	A01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P195	YP19488	GU448523	A	Hap13	A01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P196	YP19487	GU448524	A	Hap13	A01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P197	YP19486	GU448525	A	Hap13	A01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P198	YP19484	GU448526	A	Hap13	A01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P199	YP19481	GU448527	A	Hap13	A01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P200	YP19478	GU448528	A	Hap13	A01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P532	JH2	GU447778	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Jingu	Miao et al., 2012
ASY1P533	LJ1	GU447820	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P534	LJ2	GU447821	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P536	LJ4	GU447823	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P542	LJ10	GU447829	A	Hap13	A55	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P543	LJ11	GU447830	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P547	LJ15	GU447834	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P549	LJ17	GU447836	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P556	LJ24	GU447843	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P558	LJ26	GU447845	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P560	LJ28	GU447847	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P562	LJ31	GU447849	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P564	LJ33	GU447851	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P565	LJ34	GU447852	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P568	LJ37	GU447855	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P569	LJ38	GU447856	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P570	LJ39	GU447857	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P571	LJ40	GU447858	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P575	LJ44	GU447862	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P576	LJ45	GU447863	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P105	YP19357	GU448563	A	Hap13	A01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P107	YP19355	GU448565	A	Hap13	A01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P108	YP19354	GU448566	A	Hap13	A01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P111	YP19351	GU448569	A	Hap13	A01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P114	YP19348	GU448572	A	Hap13	A01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P119	YP19340	GU448577	A	Hap13	A01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P120	YP19339	GU448578	A	Hap13	A01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P122	YP19337	GU448580	A	Hap13	A01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P125	YP19333	GU448583	A	Hap13	A01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P591	ML1	GU447911	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Malong chicken	Miao et al., 2012
ASY1P595	ML29	GU447915	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Malong chicken	Miao et al., 2012
ASY1P482	B-SY1	GU447692	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Mengla	Miao et al., 2012
ASY1P29	HH154	GU447432	A	Hap13	A01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P131	GX16	GU449030	A	Hap13	A01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012

ASY1P244	HHL35	GU447362	A	Hap13	A01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P250	HHL29	GU447368	A	Hap13	A01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P282	HH134	GU447438	A	Hap13	A01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P284	HH132	GU447440	A	Hap13	A01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P321	HHL15	GU447760	A	Hap13	A01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P372	HH168	GU447418	A	Hap13	A01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P375	HH165	GU447421	A	Hap13	A01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P387	GY10	GU447566	A	Hap13	A01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P409	D8	GU447324	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P424	DH38	GU447618	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P427	DH25	GU447625	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P481	BS1	GU447691	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P492	CL3	GU447733	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P505	D2	GU447746	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P506	D3	GU447747	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P509	D11	GU447750	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P520	D10	GU447765	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P882	ypt138	GU448922	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P922	BB01	GU449063a	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P923	ZY28	GU449063aa	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P924	ZY8	GU449063ab	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P925	BB02	GU449063b	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P926	BB05	GU449063c	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P927	BB18	GU449063d	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P928	BB19	GU449063e	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P929	BB21	GU449063f	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P930	BB22	GU449063g	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P931	BB23	GU449063h	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P932	BB25	GU449063i	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P933	BB26	GU449063j	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P934	BB27	GU449063k	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P935	LS03	GU449063l	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P936	LS07	GU449063m	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P937	LS13	GU449063n	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P938	LS15	GU449063o	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P939	LS16	GU449063p	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P940	LS17	GU449063q	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P941	LS47	GU449063r	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P942	LS50	GU449063s	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P943	LS56	GU449063t	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P944	LS58	GU449063u	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P945	LS59	GU449063v	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P946	LS60	GU449063w	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P947	LS67	GU449063x	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P948	ZY24	GU449063y	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P949	ZY27	GU449063z	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P60	YP19164	GU448629	A	Hap13	A01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P34	SH16	GU447999	A	Hap13	A01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Sanhuang	Miao et al., 2012
ASY1P323	SM1	GU448011	A	Hap13	A01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Shimen	Miao et al., 2012
ASY1P325	SM3	GU448013	A	Hap13	A01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Shimen	Miao et al., 2012
ASY1P326	SM4	GU448014	A	Hap13	A01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Shimen	Miao et al., 2012
ASY1P329	SM8	GU448017	A	Hap13	A01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Shimen	Miao et al., 2012
ASY1P333	SM12	GU448021	A	Hap13	A01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Shimen	Miao et al., 2012
ASY1P334	SM13	GU448022	A	Hap13	A01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Shimen	Miao et al., 2012
ASY1P335	SM14	GU448023	A	Hap13	A01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Shimen	Miao et al., 2012
ASY1P633	WD17	GU448075	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P642	WD36	GU448084	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P648	WD51	GU448090	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P649	WD52	GU448091	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P652	WD65	GU448094	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P653	WK2	GU448095	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P655	WK4	GU448097	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P660	WL4	GU448102	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P666	WL14	GU448108	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P667	WL16	GU448109	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P863	YP18736	GU448707	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P864	YP18734	GU448708	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P865	YP18733	GU448709	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P815	YP18846	GU448660	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P818	YP18837	GU448663	A	Hap13	A15	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P676	XC9	GU448124	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P678	XC11	GU448126	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P679	XC12	GU448127	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P451	BN6	GU447661	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P456	BN16	GU447666	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P458	BN22	GU447668	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P459	BN33	GU447669	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P464	BN41	GU447674	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P466	BN43	GU447676	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P472	BN51	GU447682	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012

ASY1P474	BN53	GU447684	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P338	XF3	GU448179	A	Hap13	A01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Xuefeng	Miao et al., 2012
ASY1P361	YP18783	GU448676	A	Hap13	A01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Xuefeng	Miao et al., 2012
ASY1P695	xyun7	GU448225	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xyun	Miao et al., 2012
ASY1P728	YJ66	GU448291	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P730	YJ64	GU448293	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P735	YJ59	GU448298	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P738	YJ56	GU448301	A	Hap13	A52	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P739	YJ55	GU448302	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P751	YJ43	GU448314	A	Hap13	A55	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P757	YJ36	GU448321	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P758	YJ35	GU448322	A	Hap13	A55	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P767	YJ26	GU448331	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P784	YJ14	GU448343	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P790	YJ8	GU448349	A	Hap13	A01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P256	HHL23	GU447374	A	Hap15	A02	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P277	HH170	GU447416	A	Hap15	A02	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P113	YP19349	GU448571	A	Hap23	A05	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P115	YP19347	GU448573	A	Hap23	A05	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P124	YP19335	GU448582	A	Hap23	A05	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P127	YP19331	GU448585	A	Hap23	A05	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P426	DH27	GU447623	A	Hap26	A25	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P881	ypt139	GU448921	A	Hap26	A25	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P884	ypt120	GU448927	A	Hap26	A25	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P52	YP19172	GU448621	A	Hap281	A59	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P526	JG6	GU447772	A	Hap282	A46	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Jingu	Miao et al., 2012
ASY1P528	JG8	GU447774	A	Hap282	A46	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Jingu	Miao et al., 2012
ASY1P529	JG9	GU447775	A	Hap282	A46	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Jingu	Miao et al., 2012
ASY1P531	JG11	GU447777	A	Hap282	A46	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Jingu	Miao et al., 2012
ASY1P819	YP18836	GU448664	A	Hap283	A42	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P168	WGJ21	GU447957	A	Hap288	A68	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Wumeng wugu	Miao et al., 2012
ASY1P770	YJ23	GU448334	A	Hap292	A53	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P798	YP19256	GU448605	A	Hap293	A44	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P744	YJ50	GU448307	A	Hap295	A56	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P400	YG3	AY465994	A	Hap31	A35	Asia	East Asia	China	Jiangxi Province, Yugan County, Yugan breed farm	Gallus gallus	Local chicken	Yugan wugu	Liu et al., 2004
ASY1P182	YP19502	GU448510	A	Hap31	A35	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P185	YP19499	GU448513	A	Hap31	A35	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P300	HH92	GU447470	A	Hap31	A35	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P316	HH9	GU447488	A	Hap31	A35	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P317	HH8	GU447489	A	Hap31	A35	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P69	YP19155	GU448638	A	Hap31	A35	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P716	WD15	GU448248	A	Hap31	A35	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P228	gui191	AF512138	A	Hap45	A11	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Liu et al., 2006
ASY1P733	YJ61	GU448296	A	Hap45	A11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P455	BN14	GU447665	A	Hap49	A17	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P461	BN36	GU447671	A	Hap49	A17	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P465	BN42	GU447675	A	Hap49	A17	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P467	BN44	GU447677	A	Hap49	A17	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P468	BN46	GU447678	A	Hap49	A17	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P469	BN48	GU447679	A	Hap49	A17	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P470	BN49	GU447680	A	Hap49	A17	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P476	BN56	GU447686	A	Hap49	A17	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P218	gui178	AF512128	A	Hap51	A10	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Liu et al., 2006
ASY1P141	lk1	AF512237	A	Hap51	A10	Asia	East Asia	China	Guangxi Province	Gallus gallus	Local chicken	Luke	Liu et al., 2006
ASY1P191	YP19492	GU448519	A	Hap52	A09	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P192	YP19491	GU448520	A	Hap52	A09	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P193	YP19490	GU448521	A	Hap52	A09	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P201	YP19471	GU448529	A	Hap52	A09	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P373	HH167	GU447419	A	Hap52	A09	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P374	HH166	GU447420	A	Hap52	A09	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P1251	Fu22	AF128341	A	Hap67	A18	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Xiaoshan	Fu et al., 1999, direct submission
ASY1P960	nx11	AF512247	A	Hap67	A18	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P150	wang436	AF512283	A	Hap67	A18	Asia	East Asia	China	Guangxi Province, Nanning	Gallus gallus	Local chicken	Wangfeng Wugu	Liu et al., 2006
ASY1P153	wangf390	AF512286	A	Hap67	A18	Asia	East Asia	China	Guangxi Province, Nanning	Gallus gallus	Local chicken	Wangfeng Wugu	Liu et al., 2006
ASY1P154	wangf391	AF512287	A	Hap67	A18	Asia	East Asia	China	Guangxi Province, Nanning	Gallus gallus	Local chicken	Wangfeng Wugu	Liu et al., 2006
ASY1P156	wangf437	AF512289	A	Hap67	A18	Asia	East Asia	China	Guangxi Province, Nanning	Gallus gallus	Local chicken	Wangfeng Wugu	Liu et al., 2006
ASY1P698	JG1	GU448229	A	Hap67	A18	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Jingu	Miao et al., 2012
ASY1P867	YP18731	GU448711	A	Hap67	A18	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P1029	L10	AY392233	A	Hap7	A06	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P635	WD23	GU448077	A	Hap7	A06	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P647	WD48	GU448089	A	Hap74	A08	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P866	YP18732	GU448710	A	Hap74	A08	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P868	YP18728	GU448712	A	Hap74	A08	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P726	YJ68	GU448289	A	Hap74	A08	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P740	YJ54	GU448303	A	Hap74	A08	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P743	YJ51	GU448306	A	Hap74	A08	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P749	YJ45	GU448312	A	Hap74	A08	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P763	YJ30	GU448327	A	Hap74	A08	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P768	YJ25	GU448332	A	Hap74	A08	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P791	YJ7	GU448350	A	Hap74	A08	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012

ASY1P793	YJ5	GU448352	A	Hap74	A08	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P796	YJ2	GU448355	A	Hap74	A08	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P1044	L31	AY392248	A	Hap99	A22	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv’erwu	Liu et al., 2006
ASY1P486	LS02	GU447727a	A	Hap99	A54	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Puer chicken	Miao et al., 2012
ASY1P487	LS04	GU447727b	A	Hap99	A54	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Puer chicken	Miao et al., 2012
ASY1P488	LS19	GU447727c	A	Hap99	A54	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Puer chicken	Miao et al., 2012
ASY1P489	ZY25	GU447727d	A	Hap99	A54	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY2P171	HQ022887	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P172	HQ022887a	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P173	HQ022887b	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P174	HQ022887c	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P175	HQ022887d	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P176	HQ022887e	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P177	HQ022887f	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P178	HQ022887g	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P179	HQ022887h	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P180	HQ022887i	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P181	HQ022887j	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P182	HQ022887k	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P183	HQ022887l	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P184	HQ022887m	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P185	HQ022887n	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P186	HQ022887o	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P187	HQ022887p	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P188	HQ022887ay	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P189	HQ022887az	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P190	HQ022887ba	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P191	HQ022887bb	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P192	HQ022887bc	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P193	HQ022887bd	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P194	HQ022887be	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P195	HQ022887bf	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P196	HQ022887bg	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P197	HQ022887bh	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P198	HQ022887bi	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P199	HQ022887q	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P200	HQ022887r	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P201	HQ022887s	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P202	HQ022887t	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P203	HQ022887u	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P204	HQ022887v	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P205	HQ022887w	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P206	HQ022887x	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P207	HQ022887y	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P208	HQ022887z	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P209	HQ022887aa	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P210	HQ022887ab	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P211	HQ022887ac	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P212	HQ022887ad	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P213	HQ022887ae	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P214	HQ022887af	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P215	HQ022887ag	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P216	HQ022887ah	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P217	HQ022887ai	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P218	HQ022887aj	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P219	HQ022887ak	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P220	HQ022887al	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P221	HQ022887am	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P222	HQ022887an	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P223	HQ022887ao	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P224	HQ022887ap	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P225	HQ022887aq	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P226	HQ022887ar	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P227	HQ022887as	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P228	HQ022887at	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P229	HQ022887au	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P230	HQ022887av	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P231	HQ022887aw	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P232	HQ022887ax	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P258	HQ022887bj	HQ022887	A	Hap13	A01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P259	HQ022888	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P260	HQ022888a	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P261	HQ022888b	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P262	HQ022888c	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P263	HQ022888d	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P264	HQ022888e	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P265	HQ022888f	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P266	HQ022888g	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P267	HQ022888h	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P268	HQ022888i	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011

ASY2P269	HQ022888j	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P270	HQ022888k	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P271	HQ022888l	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P272	HQ022888m	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P273	HQ022888n	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P274	HQ022888o	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P275	HQ022888p	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P276	HQ022888q	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P277	HQ022888r	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P278	HQ022888s	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P279	HQ022888t	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P280	HQ022888u	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P281	HQ022888v	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P282	HQ022888w	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P283	HQ022888x	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P284	HQ022888y	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P285	HQ022888z	HQ022888	A	Hap15	A02	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY1P1157	W36	AY392361	B	Hap115	B14	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1158	W38	AY392362	B	Hap115	B14	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P592	ML23	GU447912	B	Hap115	B14	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Malong chicken	Miao et al., 2012
ASY1P203	WM1	AY466000	B	Hap117	B19	Asia	East Asia	China	Guizhou Province, Bijie City	Gallus gallus	Local chicken	Wumeng Wugu	Liu et al., 2004
ASY1P204	WM2	AY466001	B	Hap117	B19	Asia	East Asia	China	Guizhou Province, Bijie City	Gallus gallus	Local chicken	Wumeng Wugu	Liu et al., 2004
ASY1P167	WGJ18	GU447956	B	Hap117	B19	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Wumeng wugu	Miao et al., 2012
ASY1P171	WGJ28	GU447960	B	Hap117	B19	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Wumeng wugu	Miao et al., 2012
ASY1P1025	J43	AY392229	B	Hap133	B15	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P26	HH157	GU447429	B	Hap143	B35	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P287	HH127	GU447443	B	Hap170	B36	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P1235	Fu06	AF128320	B	Hap21	B01	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Baiyiner	Fu et al., 1999, direct submission
ASY1P1238	Fu09	AF128323	B	Hap21	B01	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Baiyiner	Fu et al., 1999, direct submission
ASY1P1239	Fu10	AF128324	B	Hap21	B01	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Baiyiner	Fu et al., 1999, direct submission
ASY1P1240	Fu11	AF128330	B	Hap21	B01	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Lingkun	Fu et al., 1999, direct submission
ASY1P1242	Fu13	AF128332	B	Hap21	B01	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Lingkun	Fu et al., 1999, direct submission
ASY1P1243	Fu14	AF128333	B	Hap21	B01	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Lingkun	Fu et al., 1999, direct submission
ASY1P1244	Fu15	AF128334	B	Hap21	B01	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Lingkun	Fu et al., 1999, direct submission
ASY1P205	WM3	AY466002	B	Hap21	B01	Asia	East Asia	China	Guizhou Province, Bijie City	Gallus gallus	Local chicken	Wumeng Wugu	Liu et al., 2004
ASY1P206	WM4	AY466003	B	Hap21	B01	Asia	East Asia	China	Guizhou Province, Bijie City	Gallus gallus	Local chicken	Wumeng Wugu	Liu et al., 2004
ASY1P401	YG4	AY465995	B	Hap21	B01	Asia	East Asia	China	Jiangxi Province, Yugan County, Yugan breed farm	Gallus gallus	Local chicken	Yugan wugu	Liu et al., 2004
ASY1P1259	QY1	AY465964	B	Hap21	B01	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agri. Sci., Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Qingyan blotted	Liu et al., 2004
ASY1P1260	QY2	AY465965	B	Hap21	B01	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agri. Sci., Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Qingyan blotted	Liu et al., 2004
ASY1P1261	QY3	AY465966	B	Hap21	B01	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agri. Sci., Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Qingyan blotted	Liu et al., 2004
ASY1P1174	X11	AY392378	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1181	X1	AY392385	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1182	X21	AY392386	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1183	X28	AY392387	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1185	X30	AY392389	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1186	X32	AY392390	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1187	X33	AY392391	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1188	X35	AY392392	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1197	X65	AY392401	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1198	X66	AY392402	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1202	X77	AY392406	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1212	ch3	AF512084	B	Hap21	B01	Asia	East Asia	China	Yunnan province, Jinghong Xian	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1215	ch6	AF512087	B	Hap21	B01	Asia	East Asia	China	Yunnan province, Jinghong Xian	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1216	ch7	AF512088	B	Hap21	B01	Asia	East Asia	China	Yunnan province, Jinghong Xian	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P970	D16	AY392174	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P971	D1	AY392175	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P973	D21	AY392177	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P975	D26	AY392179	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P979	D30	AY392183	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P984	D37	AY392188	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P985	D38	AY392189	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P987	D40	AY392191	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P991	D47	AY392195	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P994	D50	AY392198	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P951	dj10	AF512109	B	Hap21	B01	Asia	East Asia	China	Yunnan province	Gallus gallus	Local chicken	Douji	Liu et al., 2006
ASY1P952	dj11	AF512110	B	Hap21	B01	Asia	East Asia	China	Yunnan province	Gallus gallus	Local chicken	Douji	Liu et al., 2006
ASY1P953	dj12	AF512111	B	Hap21	B01	Asia	East Asia	China	Yunnan province	Gallus gallus	Local chicken	Douji	Liu et al., 2006
ASY1P957	dj6	AF512115	B	Hap21	B01	Asia	East Asia	China	Yunnan province	Gallus gallus	Local chicken	Douji	Liu et al., 2006
ASY1P958	dj9	AF512116	B	Hap21	B01	Asia	East Asia	China	Yunnan province	Gallus gallus	Local chicken	Douji	Liu et al., 2006
ASY1P214	dw242	AF512124	B	Hap21	B01	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Dwarf Wugu	Liu et al., 2006
ASY1P1013	J31	AY392217	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1015	J33	AY392219	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P147	lk37	AF512243	B	Hap21	B01	Asia	East Asia	China	Guangxi Province	Gallus gallus	Local chicken	Luke	Liu et al., 2006
ASY1P964	nx33	AF512251	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P157	wangf438	AF512290	B	Hap21	B01	Asia	East Asia	China	Guangxi Province, Nanning	Gallus gallus	Local chicken	Wangfeng Wugu	Liu et al., 2006
ASY1P1145	W19	AY392349	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1154	W31	AY392358	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1161	W40	AY392365	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1162	W41	AY392366	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1163	W49	AY392367	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006

ASY1P1169	W6	AY392373	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1172	W9	AY392376	B	Hap21	B01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P405	wd6	AF512295	B	Hap21	B01	Asia	East Asia	China	Yunnan Province, Wuding Xian	Gallus gallus	Local chicken	Wuding	Liu et al., 2006
ASY1P406	wd7	AF512296	B	Hap21	B01	Asia	East Asia	China	Yunnan Province, Wuding Xian	Gallus gallus	Local chicken	Wuding	Liu et al., 2006
ASY1P407	wd8	AF512297	B	Hap21	B01	Asia	East Asia	China	Yunnan Province, Wuding Xian	Gallus gallus	Local chicken	Wuding	Liu et al., 2006
ASY1P364	xf10	AF512300	B	Hap21	B01	Asia	East Asia	China	Hunan Province	Gallus gallus	Local chicken	Xuefeng	Liu et al., 2006
ASY1P367	xf16	AF512303	B	Hap21	B01	Asia	East Asia	China	Hunan Province	Gallus gallus	Local chicken	Xuefeng	Liu et al., 2006
ASY1P368	xf17	AF512304	B	Hap21	B01	Asia	East Asia	China	Hunan Province	Gallus gallus	Local chicken	Xuefeng	Liu et al., 2006
ASY1P369	xf7	AF512305	B	Hap21	B01	Asia	East Asia	China	Hunan Province	Gallus gallus	Local chicken	Xuefeng	Liu et al., 2006
ASY1P370	xf9	AF512306	B	Hap21	B01	Asia	East Asia	China	Hunan Province	Gallus gallus	Local chicken	Xuefeng	Liu et al., 2006
ASY1P1228	yj3	AF512326	B	Hap21	B02 (B01)	Asia	East Asia	China	Yunnan Province, Yanjing Xian	Gallus gallus	Local chicken	Yanjing	Liu et al., 2006
ASY1P480	Boai8	GU447690	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Boai	Miao et al., 2012
ASY1P202	YP19457	GU448534	B	Hap21	B01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P12	LY23	GU447889	B	Hap21	B01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	Hetian	Miao et al., 2012
ASY1P14	LY25	GU447891	B	Hap21	B01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	Hetian	Miao et al., 2012
ASY1P05	LY11	GU447882	B	Hap21	B01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	Hetian	Miao et al., 2012
ASY1P523	JG3	GU447769	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Jingu	Miao et al., 2012
ASY1P525	JG5	GU447771	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Jingu	Miao et al., 2012
ASY1P527	JG7	GU447773	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Jingu	Miao et al., 2012
ASY1P48	YP19176	GU448617	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Lingnan yellow chicken	Miao et al., 2012
ASY1P01	LY1	GU447878	B	Hap21	B01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	Longyan	Miao et al., 2012
ASY1P02	LY2	GU447879	B	Hap21	B01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	Longyan	Miao et al., 2012
ASY1P03	LY6	GU447880	B	Hap21	B01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	Longyan	Miao et al., 2012
ASY1P07	LY17	GU447884	B	Hap21	B01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	Longyan	Miao et al., 2012
ASY1P09	LY20	GU447886	B	Hap21	B01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	Longyan	Miao et al., 2012
ASY1P593	ML24	GU447913	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Malong chicken	Miao et al., 2012
ASY1P594	ML28	GU447914	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Malong chicken	Miao et al., 2012
ASY1P700	ML17	GU448231	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Malong chicken	Miao et al., 2012
ASY1P701	ML18	GU448232	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Malong chicken	Miao et al., 2012
ASY1P702	ML20	GU448233	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Malong chicken	Miao et al., 2012
ASY1P703	ML21	GU448234	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Malong chicken	Miao et al., 2012
ASY1P704	ML22	GU448235	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Malong chicken	Miao et al., 2012
ASY1P705	ML25	GU448236	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Malong chicken	Miao et al., 2012
ASY1P706	ML26	GU448237	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Malong chicken	Miao et al., 2012
ASY1P707	ML27	GU448238	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Malong chicken	Miao et al., 2012
ASY1P15	XQ1	GU448212	B	Hap21	B67 (B01?)	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P16	XQ2	GU448213	B	Hap21	B01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P18	XQ4	GU448215	B	Hap21	B01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P19	XQ5	GU448216	B	Hap21	B01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P20	XQ6	GU448217	B	Hap21	B01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P22	HH161	GU447425	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P27	HH156	GU447430	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P28	HH155	GU447431	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P128	GX1	GU449027	B	Hap21	B01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P129	GX11	GU449028	B	Hap21	B01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P130	GX12	GU449029	B	Hap21	B01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P132	GX20	GU449031	B	Hap21	B01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P133	GX24	GU449032	B	Hap21	B01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P134	GX26	GU449033	B	Hap21	B01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P135	GX27	GU449034	B	Hap21	B01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P136	GX30	GU449035	B	Hap21	B01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P137	GX32	GU449036	B	Hap21	B01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P138	GX4	GU449037	B	Hap21	B01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P139	GX8	GU449038	B	Hap21	B01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P140	GX9	GU449039	B	Hap21	B01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P230	HHL50	GU447348	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P232	HHL48	GU447350	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P233	HHL47	GU447351	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P235	HHL45	GU447353	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P240	HHL40	GU447358	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P241	HHL38	GU447359	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P245	HHL34	GU447363	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P246	HHL33	GU447364	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P247	HHL32	GU447365	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P248	HHL31	GU447366	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P251	HHL28	GU447369	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P252	HHL27	GU447370	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P254	HHL25	GU447372	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P259	HHL18	GU447377	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P262	HHL14	GU447380	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P263	HHL13	GU447381	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P264	HHL12	GU447382	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P267	HHL9	GU447385	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P272	HHL4	GU447390	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P273	HHL2	GU447391	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P276	HH175	GU447415	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P288	HH126	GU447444	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P289	HH125	GU447445	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P294	HH120	GU447450	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P297	HH115	GU447453	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012

ASY1P298	HH114	GU447454	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P301	HH85	GU447471	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P315	HH13	GU447486	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P318	HH4	GU447493	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P320	HHL20	GU447759	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P351	XP1	GU448202	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P354	XP4	GU448205	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P357	XP7	GU448208	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P371	HH169	GU447417	B	Hap21	B01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P378	GY20	GU447557	B	Hap21	B01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P380	GY18	GU447559	B	Hap21	B01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P382	GY15	GU447561	B	Hap21	B01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P383	GY14	GU447562	B	Hap21	B01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P386	GY11	GU447565	B	Hap21	B01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P388	GY9	GU447567	B	Hap21	B01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P389	GY8	GU447568	B	Hap21	B01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P392	GY4	GU447571	B	Hap21	B52 (B01?)	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P393	GY3	GU447572	B	Hap21	B01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P395	GY1	GU447574	B	Hap21	B01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P396	GY7	GU447764	B	Hap21	B01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P429	DC10	GU447636	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P432	D42	GU447640	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P435	BA1	GU447645	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P436	BA2	GU447646	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P437	BA3	GU447647	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P438	BA5	GU447648	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P439	BA6	GU447649	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P440	BA7	GU447650	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P441	BA8	GU447651	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P442	BA9	GU447652	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P443	BA10	GU447653	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P444	BA11	GU447654	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P445	BA12	GU447655	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P446	BA13	GU447656	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P447	BA14	GU447657	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P448	BA18	GU447658	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P495	CL6	GU447736	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P510	D14	GU447751	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P511	D15	GU447752	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P512	D17	GU447753	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P514	D19	GU447755	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P515	D23	GU447756	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P516	D24	GU447757	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P518	D22	GU447761	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P519	D30	GU447763	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P521	ML19	GU447767	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P586	LP3	GU447873	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P587	LP4	GU447874	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P588	LP5	GU447875	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P596	PB1	GU447938	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P601	PB8	GU447945	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P602	PB9	GU447946	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P49	YP19175	GU448618	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P50	YP19174	GU448619	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P51	YP19173	GU448620	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P53	YP19171	GU448622	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P57	YP19167	GU448626	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P59	YP19165	GU448628	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P61	YP19163	GU448630	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P62	YP19162	GU448631	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P64	YP19160	GU448633	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P66	YP19158	GU448635	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P67	YP19157	GU448636	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P70	YP19154	GU448639	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P72	YP19152	GU448641	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P73	YP19151	GU448642	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P74	YP19150	GU448643	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P77	YP19147	GU448646	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P78	YP19146	GU448647	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P80	YP19144	GU448649	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P85	YP18811	GU448669	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P87	YP18809	GU448671	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P88	YP18808	GU448672	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P89	YP18807	GU448673	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P32	SH4	GU447997	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Sanhuang	Miao et al., 2012
ASY1P33	SH7	GU447998	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Sanhuang	Miao et al., 2012
ASY1P35	SH19	GU448000	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Sanhuang	Miao et al., 2012
ASY1P36	SH22	GU448001	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Sanhuang	Miao et al., 2012
ASY1P37	SH30	GU448002	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Sanhuang	Miao et al., 2012
ASY1P38	SH39	GU448003	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Sanhuang	Miao et al., 2012

ASY1P39	SH45	GU448004	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Sanhuang	Miao et al., 2012
ASY1P41	SH49	GU448006	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Sanhuang	Miao et al., 2012
ASY1P42	SH51	GU448007	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Sanhuang	Miao et al., 2012
ASY1P43	SH55	GU448008	B	Hap21	B01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Sanhuang	Miao et al., 2012
ASY1P604	SG2	GU447989	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P610	SG15	GU447995	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P708	SG3	GU448240	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P324	SM2	GU448012	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Shimen	Miao et al., 2012
ASY1P328	SM7	GU448016	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Shimen	Miao et al., 2012
ASY1P336	SM15	GU448024	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Shimen	Miao et al., 2012
ASY1P627	WD4	GU448069	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P651	WD60	GU448093	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P664	WL10	GU448106	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P816	YP18845	GU448661	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P817	YP18843	GU448662	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P173	WGJ48	GU447968	B	Hap21	B01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Wumeng wugu	Miao et al., 2012
ASY1P175	WGJ61	GU447970	B	Hap21	B01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Wumeng wugu	Miao et al., 2012
ASY1P160	GM5	GU447576	B	Hap21	B01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Xingren	Miao et al., 2012
ASY1P162	GM3	GU447578	B	Hap21	B01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Xingren	Miao et al., 2012
ASY1P163	GM2	GU447579	B	Hap21	B01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Xingren	Miao et al., 2012
ASY1P164	GM1	GU447580	B	Hap21	B01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Xingren	Miao et al., 2012
ASY1P669	XC2	GU448117	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P671	XC4	GU448119	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P684	XC17	GU448132	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P449	BN2	GU447659	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P475	BN54	GU447685	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P517	BN18	GU447758	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P813	YP18862	GU448658	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P341	XF21	GU448182	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Xuefeng	Miao et al., 2012
ASY1P343	XF25	GU448184	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Xuefeng	Miao et al., 2012
ASY1P346	XF49	GU448187	B	Hap21	B01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Xuefeng	Miao et al., 2012
ASY1P729	YJ65	GU448292	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P765	YJ28	GU448329	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P869	ZS11	GU448867	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Funing local chicken	Zesang	Miao et al., 2012
ASY1P870	ZS10	GU448868	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Funing local chicken	Zesang	Miao et al., 2012
ASY1P871	ZS9	GU448869	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Funing local chicken	Zesang	Miao et al., 2012
ASY1P872	ZS8	GU448870	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Funing local chicken	Zesang	Miao et al., 2012
ASY1P873	ZS7	GU448871	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Funing local chicken	Zesang	Miao et al., 2012
ASY1P874	ZS6	GU448872	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Funing local chicken	Zesang	Miao et al., 2012
ASY1P875	ZS5	GU448873	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Funing local chicken	Zesang	Miao et al., 2012
ASY1P876	ZS4	GU448874	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Funing local chicken	Zesang	Miao et al., 2012
ASY1P877	ZS3	GU448875	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Funing local chicken	Zesang	Miao et al., 2012
ASY1P878	ZS2	GU448876	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Funing local chicken	Zesang	Miao et al., 2012
ASY1P879	ZS1	GU448877	B	Hap21	B01	Asia	East Asia	China	Yunnan	Gallus gallus	Funing local chicken	Zesang	Miao et al., 2012
ASY1P717	YP18742	GU448261	B	Hap234	B28	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P1258	CH2	AY465973	B	Hap25	B11	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agri. Sci., Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Chahua	Liu et al., 2004
ASY1P1173	X10	AY392377	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1178	X17	AY392382	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1179	X18	AY392383	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1180	X19	AY392384	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1189	X36	AY392393	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1193	X5	AY392397	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1194	X61	AY392398	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1195	X62	AY392399	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1199	X67	AY392403	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1201	X69	AY392405	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1203	X7	AY392407	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P983	D34	AY392187	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P1019	J37	AY392223	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1031	L12	AY392235	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv’erwu	Liu et al., 2006
ASY1P1036	L19	AY392240	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv’erwu	Liu et al., 2006
ASY1P1038	L22	AY392242	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv’erwu	Liu et al., 2006
ASY1P1039	L23	AY392243	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv’erwu	Liu et al., 2006
ASY1P967	nx9	AF512254	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1100	T1	AY392304	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1102	T21	AY392306	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1111	T2	AY392315	B	Hap25	B11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P484	C26	GU447695	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P418	DHJ-6	GU447607	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dehong	Miao et al., 2012
ASY1P419	DHJ-3	GU447608	B	Hap25	B42 (B11)	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dehong	Miao et al., 2012
ASY1P420	DHJ-2	GU447609	B	Hap25	B42 (B11)	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dehong	Miao et al., 2012
ASY1P524	JG4	GU447770	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Jingu	Miao et al., 2012
ASY1P566	LJ35	GU447853	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P573	LJ42	GU447860	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P271	HHL5	GU447389	B	Hap25	B11	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P496	CL7	GU447737	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P502	CN2	GU447743	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P503	CN3	GU447744	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P504	CN4	GU447745	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P597	PB2	GU447939	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012

ASY1P598	PB5	GU447942	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P599	PB6	GU447943	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P600	PB7	GU447944	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P719	YL4	GU448282	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P45	SH61	GU448010	B	Hap25	B11	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Sanhuang	Miao et al., 2012
ASY1P643	WD37	GU448085	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P820	YP18835	GU448665	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P174	WGJ52	GU447969	B	Hap25	B11	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Wumeng wugu	Miao et al., 2012
ASY1P673	XC6	GU448121	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P674	XC7	GU448122	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P675	XC8	GU448123	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P681	XC14	GU448129	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P686	XC19	GU448134	B	Hap25	B41 (B11)	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P450	BN4	GU447660	B	Hap25	B33	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P453	BN10	GU447663	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P454	BN12	GU447664	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P690	xyun1	GU448220	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xyun	Miao et al., 2012
ASY1P693	xyun5	GU448223	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xyun	Miao et al., 2012
ASY1P906	ZY1	GU449051a	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P907	ZY10	GU449051b	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P908	ZY11	GU449051c	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P909	ZY12	GU449051d	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P910	ZY13	GU449051e	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P911	ZY16	GU449051f	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P912	ZY17	GU449051g	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P913	ZY2	GU449051h	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P914	ZY20	GU449051i	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P915	ZY21	GU449051j	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P916	ZY37	GU449051k	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P917	ZY4	GU449051l	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P918	ZY6	GU449051m	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P919	ZY7	GU449051n	B	Hap25	B11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P104	xilin	GU448192	B	Hap275	B34	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P54	YP19170	GU448623	B	Hap276	B51	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P68	YP19156	GU448637	B	Hap276	B51	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P55	YP19169	GU448624	B	Hap277	B49	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P71	YP19153	GU448640	B	Hap278	B48	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P391	GY5	GU447570	B	Hap279	B55	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P82	YP19142	GU448651	B	Hap279	B53	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P305	HH81	GU447475	B	Hap280	B31	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P306	HH80	GU447476	B	Hap280	B31	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P307	HH79	GU447477	B	Hap280	B31	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P308	HH78	GU447478	B	Hap280	B31	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P309	HH77	GU447479	B	Hap280	B31	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P310	HH76	GU447480	B	Hap280	B31	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P311	HH75	GU447481	B	Hap280	B31	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P312	HH74	GU447482	B	Hap280	B31	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P385	GY12	GU447564	B	Hap284	B30	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P31	SH1	GU447996	B	Hap284	B30	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Sanhuang	Miao et al., 2012
ASY1P697	xyun9	GU448227	B	Hap285	B38	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xyun	Miao et al., 2012
ASY1P11	LY22	GU447888	B	Hap286	B40	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	Longyan	Miao et al., 2012
ASY1P109	YP19353	GU448567	B	Hap287	B25	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P118	YP19341	GU448576	B	Hap287	B25	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P275	HH179	GU447414	B	Hap289	B29	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P394	GY2	GU447573	B	Hap290	B50	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P44	SH57	GU448009	B	Hap291	B24	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Sanhuang	Miao et al., 2012
ASY1P46	YP19660	GU448502	B	Hap294	B27	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P538	LJ6	GU447825	B	Hap296	B56	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P1236	Fu07	AF128321	B	Hap40	B08	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Baiyiner	Fu et al., 1999, direct submission
ASY1P1237	Fu08	AF128322	B	Hap40	B08	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Baiyiner	Fu et al., 1999, direct submission
ASY1P1245	Fu16	AF128335	B	Hap40	B09	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Zhejiang Wugu	Fu et al., 1999, direct submission
ASY1P13	LY24	GU447890	B	Hap40	B08	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	Hetian	Miao et al., 2012
ASY1P23	HH160	GU447426	B	Hap40	B08	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P255	HHL24	GU447373	B	Hap40	B08	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P319	HH3	GU447494	B	Hap40	B08	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P390	GY6	GU447569	B	Hap40	B08	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P347	XF51	GU448188	B	Hap40	B08	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Xuefeng	Miao et al., 2012
ASY1P1252	Fu23	AF128342	B	Hap42	B12	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Xiaoshan	Fu et al., 1999, direct submission
ASY1P1213	ch4	AF512085	B	Hap46	B06	Asia	East Asia	China	Yunnan province, Jinghong Xian	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P1246	Fu17	AF128336	B	Hap59	B13	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Zhejiang Wugu	Fu et al., 1999, direct submission
ASY1P1247	Fu18	AF128337	B	Hap59	B13	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Zhejiang Wugu	Fu et al., 1999, direct submission
ASY1P1248	Fu19	AF128338	B	Hap59	B13	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Zhejiang Wugu	Fu et al., 1999, direct submission
ASY1P1249	Fu20	AF128339	B	Hap59	B13	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Zhejiang Wugu	Fu et al., 1999, direct submission
ASY1P215	dw243	AF512125	B	Hap59	B13	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Dwarf Wugu	Liu et al., 2006
ASY1P217	dw9	AF512127	B	Hap59	B13	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Dwarf Wugu	Liu et al., 2006
ASY1P379	GY19	GU447558	B	Hap59	B13	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P654	WK3	GU448096	B	Hap59	B13	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P658	WL2	GU448100	B	Hap59	B13	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P662	WL6	GU448104	B	Hap59	B13	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P149	lk39	AF512245	B	Hap63	B04	Asia	East Asia	China	Guangxi Province	Gallus gallus	Local chicken	Luke	Liu et al., 2006

ASY1P123	YP19336	GU448581	B	Hap63	B37	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P1217	ch8	AF512089	B	Hap64	B05	Asia	East Asia	China	Yunnan province, Jinghong Xian	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P956	dj5	AF512114	B	Hap64	B05	Asia	East Asia	China	Yunnan province	Gallus gallus	Local chicken	Douji	Liu et al., 2006
ASY1P963	nx3	AF512250	B	Hap64	B05	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P403	wd2	AF512293	B	Hap64	B05	Asia	East Asia	China	Yunnan Province, Wuding Xian	Gallus gallus	Local chicken	Wuding	Liu et al., 2006
ASY1P812	YP18864	GU448657	B	Hap64	B05	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P457	BN20	GU447667	B	Hap64	B05	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P1167	W56	AY392371	B	Hap70	B07	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P363	xf1	AF512299	B	Hap70	B07	Asia	East Asia	China	Hunan Province	Gallus gallus	Local chicken	Xuefeng	Liu et al., 2006
ASY1P243	HHL36	GU447361	B	Hap70	B07	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY2P01	HQ022881	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P02	HQ022881a	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P03	HQ022881b	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P04	HQ022881c	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P05	HQ022881d	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P06	HQ022881e	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P07	HQ022881f	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P08	HQ022881g	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P09	HQ022881h	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P10	HQ022881i	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P11	HQ022881j	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P12	HQ022881k	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P13	HQ022881l	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P14	HQ022881m	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P15	HQ022881n	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P16	HQ022881o	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P17	HQ022881p	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P18	HQ022881q	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P19	HQ022881r	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P20	HQ022881s	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P21	HQ022881t	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P22	HQ022881u	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P23	HQ022881v	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P24	HQ022881w	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P25	HQ022881x	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P26	HQ022881y	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P27	HQ022881z	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P28	HQ022881aa	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P29	HQ022881ab	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P30	HQ022881ac	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P31	HQ022881ad	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P32	HQ022881ae	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P33	HQ022881af	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P34	HQ022881ag	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P35	HQ022881ah	HQ022881	B	Hap21	B01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY1P1241	Fu12	AF128331	C	Hap11	C01	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Lingkun	Fu et al., 1999, direct submission
ASY1P1254	Fu25	AF128344	C	Hap11	C01	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Xiaoshan	Fu et al., 1999, direct submission
ASY1P1225	YJ4	AY465999	C	Hap11	C01	Asia	East Asia	China	Yunnan Province, Yanjing County	Gallus gallus	Local chicken	Yanjing wugu	Liu et al., 2004
ASY1P223	gui185	AF512133	C	Hap11	C01	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Liu et al., 2006
ASY1P226	gui188	AF512136	C	Hap11	C01	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Liu et al., 2006
ASY1P145	lk35	AF512241	C	Hap11	C01	Asia	East Asia	China	Guangxi Province	Gallus gallus	Local chicken	Luke	Liu et al., 2006
ASY1P146	lk36	AF512242	C	Hap11	C01	Asia	East Asia	China	Guangxi Province	Gallus gallus	Local chicken	Luke	Liu et al., 2006
ASY1P148	lk38	AF512244	C	Hap11	C01	Asia	East Asia	China	Guangxi Province	Gallus gallus	Local chicken	Luke	Liu et al., 2006
ASY1P1040	L25	AY392244	C	Hap11	C01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P1140	W13	AY392344	C	Hap11	C01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P176	YP19514	GU448504	C	Hap11	C01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P10	LY21	GU447887	C	Hap11	C01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	Longyan	Miao et al., 2012
ASY1P106	YP19356	GU448564	C	Hap11	C01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P110	YP19352	GU448568	C	Hap11	C01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P117	YP19345	GU448575	C	Hap11	C01	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P234	HHL46	GU447352	C	Hap11	C01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P238	HHL42	GU447356	C	Hap11	C01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P249	HHL30	GU447367	C	Hap11	C01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P266	HHL10	GU447384	C	Hap11	C01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P280	HH139	GU447436	C	Hap11	C01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P290	HH124	GU447446	C	Hap11	C01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P313	HH17	GU447483	C	Hap11	C01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P352	XP2	GU448203	C	Hap11	C01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P355	XP5	GU448206	C	Hap11	C01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P356	XP6	GU448207	C	Hap11	C01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P358	XP8	GU448209	C	Hap11	C01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P359	XP9	GU448210	C	Hap11	C01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P360	XP10	GU448211	C	Hap11	C01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P376	HH164	GU447422	C	Hap11	C01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P377	HH163	GU447423	C	Hap11	C01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P381	GY17	GU447560	C	Hap11	C01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P384	GY13	GU447563	C	Hap11	C01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P397	GY16	GU447766	C	Hap11	C01	Asia	East Asia	China	Jiangxi	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P56	YP19168	GU448625	C	Hap11	C01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P58	YP19166	GU448627	C	Hap11	C01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012

ASY1P63	YP19161	GU448632	C	Hap11	C01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P65	YP19159	GU448634	C	Hap11	C01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P76	YP19148	GU448645	C	Hap11	C01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P83	YP18813	GU448667	C	Hap11	C01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P90	YP18806	GU448674	C	Hap11	C01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P663	WL7	GU448105	C	Hap11	C01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P665	WL12	GU448107	C	Hap11	C01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P677	XC10	GU448125	C	Hap11	C01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P683	XC16	GU448131	C	Hap11	C01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P349	XF56	GU448190	C	Hap11	C01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Xuefeng	Miao et al., 2012
ASY1P725	YJ69	GU448288	C	Hap11	C01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P762	YJ31	GU448326	C	Hap11	C01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P771	YJ22	GU448335	C	Hap11	C01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P792	YJ6	GU448351	C	Hap11	C01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P112	YP19350	GU448570	C	Hap135	C09	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P353	XP3	GU448204	C	Hap309	C36	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P25	HH158	GU447428	C	Hap310	C26	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P285	HH131	GU447441	C	Hap311	C21	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P327	SM6	GU448015	C	Hap312	C32	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Shimen	Miao et al., 2012
ASY1P471	BN50	GU447681	C	Hap313	C24	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P322	HHL39	GU447762	C	Hap314	C39	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P92	hx380	AF512215	C	Hap61	C02	Asia	East Asia	China	Guangdong Province, Guangzhou	Gallus gallus	Local chicken	Huxu	Liu et al., 2006
ASY1P93	hx431	AF512216	C	Hap61	C02	Asia	East Asia	China	Guangdong Province, Guangzhou	Gallus gallus	Local chicken	Huxu	Liu et al., 2006
ASY1P94	hx432	AF512217	C	Hap61	C02	Asia	East Asia	China	Guangdong Province, Guangzhou	Gallus gallus	Local chicken	Huxu	Liu et al., 2006
ASY1P95	hx433	AF512218	C	Hap61	C02	Asia	East Asia	China	Guangdong Province, Guangzhou	Gallus gallus	Local chicken	Huxu	Liu et al., 2006
ASY1P96	hx434	AF512219	C	Hap61	C02	Asia	East Asia	China	Guangdong Province, Guangzhou	Gallus gallus	Local chicken	Huxu	Liu et al., 2006
ASY1P97	hx435	AF512220	C	Hap61	C02	Asia	East Asia	China	Guangdong Province, Guangzhou	Gallus gallus	Local chicken	Huxu	Liu et al., 2006
ASY1P151	wangf388	AF512284	C	Hap61	C02	Asia	East Asia	China	Guangxi Province, Nanning	Gallus gallus	Local chicken	Wangfeng Wugu	Liu et al., 2006
ASY1P84	YP18812	GU448668	C	Hap61	C02	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P100	qiny367	AF512257	C	Hap65	C03	Asia	East Asia	China	Guangdong Province, Guangzhou	Gallus gallus	Local chicken	Qingyuan blotted	Liu et al., 2006
ASY1P101	qiny368	AF512258	C	Hap65	C03	Asia	East Asia	China	Guangdong Province, Guangzhou	Gallus gallus	Local chicken	Qingyuan blotted	Liu et al., 2006
ASY1P102	qiny378	AF512259	C	Hap65	C03	Asia	East Asia	China	Guangdong Province, Guangzhou	Gallus gallus	Local chicken	Qingyuan blotted	Liu et al., 2006
ASY1P103	qiny379	AF512260	C	Hap65	C03	Asia	East Asia	China	Guangdong Province, Guangzhou	Gallus gallus	Local chicken	Qingyuan blotted	Liu et al., 2006
ASY1P98	qiny365	AF512255	C	Hap65	C03	Asia	East Asia	China	Guangdong Province, Guangzhou	Gallus gallus	Local chicken	Qingyuan blotted	Liu et al., 2006
ASY1P99	qiny366	AF512256	C	Hap65	C03	Asia	East Asia	China	Guangdong Province, Guangzhou	Gallus gallus	Local chicken	Qingyuan blotted	Liu et al., 2006
ASY1P366	xf14	AF512302	C	Hap72	C04	Asia	East Asia	China	Hunan Province	Gallus gallus	Local chicken	Xuefeng	Liu et al., 2006
ASY1P126	YP19332	GU448584	C	Hap72	C04	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P229	HHL21	GU447325	C	Hap72	C04	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P239	HHL41	GU447357	C	Hap72	C04	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P283	HH133	GU447439	C	Hap72	C04	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P286	HH129	GU447442	C	Hap72	C04	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P293	HH121	GU447449	C	Hap72	C04	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P330	SM9	GU448018	C	Hap72	C04	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Shimen	Miao et al., 2012
ASY1P331	SM10	GU448019	C	Hap72	C04	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Shimen	Miao et al., 2012
ASY1P332	SM11	GU448020	C	Hap72	C04	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Shimen	Miao et al., 2012
ASY2P132	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P133	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P134	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P135	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P136	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P137	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P138	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P139	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P140	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hua-Tung	Chang et al., 2011
ASY2P141	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P142	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P143	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P144	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P145	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P146	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P147	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P148	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P149	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P150	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P151	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P152	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY2P153	HQ022885	HQ022885	C	Hap11	C01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Shek-ki	Chang et al., 2011
ASY1P1232	Fu03	AF128317	D	Hap144	D10	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Xianju	Fu et al., 1999, direct submission
ASY1P972	D20	AY392176	D	Hap94	D17	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P974	D25	AY392178	D	Hap94	D17	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P981	D32	AY392185	D	Hap95	D16	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P539	LJ7	GU447826	D	Hap95	D	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P551	LJ19	GU447838	D	Hap95	D	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P559	LJ27	GU447846	D	Hap95	D	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P583	LJ52	GU447870	D	Hap95	D	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P433	D36	GU447641	D	Hap95	D	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P434	D35	GU447642	D	Hap95	D	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P507	D4	GU447748	D	Hap95	D	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P1230	Fu01	AF128315	E	Hap01	E06	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Xianju	Fu et al., 1999, direct submission
ASY1P1231	Fu02	AF128316	E	Hap01	E06	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Xianju	Fu et al., 1999, direct submission

ASY1P398	YG1	AY465992	E	Hap01	E06	Asia	East Asia	China	Jiangxi Province, Yugan County, Yugan breed farm	Gallus gallus	Local chicken	Yugan wugu	Liu et al., 2004
ASY1P208	dw215	AF512118	E	Hap01	E06	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Dwarf Wugu	Liu et al., 2006
ASY1P222	gui184	AF512132	E	Hap01	E06	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Liu et al., 2006
ASY1P1023	J41	AY392227	E	Hap01	E06	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1106	T25	AY392310	E	Hap01	E06	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P179	YP19505	GU448507	E	Hap01	E06	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P190	YP19493	GU448518	E	Hap01	E06	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P47	YP19177	GU448616	E	Hap01	E06	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Lingnan yellow chicken	Miao et al., 2012
ASY1P257	HHL22	GU447375	E	Hap01	E06	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P261	HHL16	GU447379	E	Hap01	E06	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P75	YP19149	GU448644	E	Hap01	E06	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P81	YP19143	GU448650	E	Hap01	E06	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P640	WD31	GU448082	E	Hap01	E06	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P646	WD41	GU448088	E	Hap01	E06	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P656	WK5	GU448098	E	Hap01	E06	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P172	WGJ41	GU447967	E	Hap01	E06	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Wumeng wugu	Miao et al., 2012
ASY1P452	BN8	GU447662	E	Hap01	E06	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P344	XF32	GU448185	E	Hap01	E06	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Xuefeng	Miao et al., 2012
ASY1P692	xyun4	GU448222	E	Hap01	E06	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xyun	Miao et al., 2012
ASY1P1234	Fu05	AF128319	E	Hap02	E01	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Xianju	Fu et al., 1999, direct submission
ASY1P399	YG2	AY465993	E	Hap02	E01	Asia	East Asia	China	Jiangxi Province, Yugan County, Yugan breed farm	Gallus gallus	Local chicken	Yugan wugu	Liu et al., 2004
ASY1P1210	ch15	AF512082	E	Hap02	E01	Asia	East Asia	China	Yunnan province, Jinghong Xian	Gallus gallus	Local chicken	Chahua	Liu et al., 2006
ASY1P207	dw214	AF512117	E	Hap02	E01	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Dwarf Wugu	Liu et al., 2006
ASY1P211	dw239	AF512121	E	Hap02	E01	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Dwarf Wugu	Liu et al., 2006
ASY1P213	dw241	AF512123	E	Hap02	E01	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Dwarf Wugu	Liu et al., 2006
ASY1P225	gui187	AF512135	E	Hap02	E01	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Liu et al., 2006
ASY1P1032	L13	AY392236	E	Hap02	E01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv’erwu	Liu et al., 2006
ASY1P1034	L16	AY392238	E	Hap02	E01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv’erwu	Liu et al., 2006
ASY1P1057	L9	AY392261	E	Hap02	E01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv’erwu	Liu et al., 2006
ASY1P1065	N1	AY392269	E	Hap02	E01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P822	YP18780	GU448679	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P186	YP19498	GU448514	E	Hap02	E15	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P194	YP19489	GU448522	E	Hap02	E15	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P04	LY8	GU447881	E	Hap02	E01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	Longyan	Miao et al., 2012
ASY1P08	LY19	GU447885	E	Hap02	E01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	Longyan	Miao et al., 2012
ASY1P17	XQ3	GU448214	E	Hap02	E01	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P21	HH162	GU447424	E	Hap02	E01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P24	HH159	GU447427	E	Hap02	E01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P30	HH153	GU447433	E	Hap02	E01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P231	HHL49	GU447349	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P236	HHL44	GU447354	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P237	HHL43	GU447355	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P242	HHL37	GU447360	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P253	HHL26	GU447371	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P260	HHL17	GU447378	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P265	HHL11	GU447383	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P268	HHL8	GU447386	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P269	HHL7	GU447387	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P270	HHL6	GU447388	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P274	HHL1	GU447392	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P278	HH149	GU447434	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P279	HH144	GU447435	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P281	HH135	GU447437	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P291	HH123	GU447447	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P292	HH122	GU447448	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P295	HH119	GU447451	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P296	HH116	GU447452	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P299	HH95	GU447469	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P302	HH84	GU447472	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P303	HH83	GU447473	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P304	HH82	GU447474	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P428	DH24	GU447626	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P490	CL1	GU447731	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P589	LP6	GU447876	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P920	LS01	GU449055e	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Puer chicken	Miao et al., 2012
ASY1P86	YP18810	GU448670	E	Hap02	E01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P91	YP18805	GU448675	E	Hap02	E01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P40	SH47	GU448005	E	Hap02	E01	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Sanhuang	Miao et al., 2012
ASY1P622	THW29	GU448046	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Tibetan	Miao et al., 2012
ASY1P630	WD9	GU448072	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P638	WD26	GU448080	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P645	WD40	GU448087	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P661	WL5	GU448103	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P165	WGJ01	GU447953	E	Hap02	E01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Wumeng wugu	Miao et al., 2012
ASY1P337	XF1	GU448178	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Xuefeng	Miao et al., 2012
ASY1P339	XF16	GU448180	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Xuefeng	Miao et al., 2012
ASY1P340	XF18	GU448181	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Xuefeng	Miao et al., 2012
ASY1P342	XF23	GU448183	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Xuefeng	Miao et al., 2012
ASY1P345	XF34	GU448186	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Xuefeng	Miao et al., 2012
ASY1P348	XF52	GU448189	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Xuefeng	Miao et al., 2012

ASY1P350	XF58	GU448191	E	Hap02	E01	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	Xuefeng	Miao et al., 2012
ASY1P691	xyun2	GU448221	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xyun	Miao et al., 2012
ASY1P734	YJ60	GU448297	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P759	YJ34	GU448323	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P761	YJ32	GU448325	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P766	YJ27	GU448330	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P785	YJ13	GU448344	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P789	YJ9	GU448348	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P794	YJ4	GU448353	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P921	ZY47	GU449055f	E	Hap02	E01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P362	HH44	GU447978a	E	Hap08	E07	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P178	YP19511	GU448506	E	Hap201	E33	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P79	YP19145	GU448648	E	Hap201	E33	Asia	East Asia	China	Guangdong	Gallus gallus	Local chicken	Qingyuan blotted	Miao et al., 2012
ASY1P06	LY13	GU447883	E	Hap27	E11	Asia	East Asia	China	Fujian	Gallus gallus	Local chicken	Longyan	Miao et al., 2012
ASY1P314	HH16	GU447484	E	Hap27	E11	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P718	YL5	GU448281	E	Hap27	E11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P166	WGJ06	GU447955	E	Hap27	E11	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Wumeng wugu	Miao et al., 2012
ASY1P159	GM6	GU447575	E	Hap27	E11	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Xingren	Miao et al., 2012
ASY1P685	XC18	GU448133	E	Hap27	E11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P687	XC20	GU448135	E	Hap27	E11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P732	YJ62	GU448295	E	Hap27	E11	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P1132	T57	AY392336	E	Hap28	E09	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P825	YP18777	GU448682	E	Hap28	E09	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P550	LJ18	GU447837	E	Hap28	E09	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P582	LJ51	GU447869	E	Hap28	E09	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P584	LJ53	GU447871	E	Hap28	E09	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P258	HHL19	GU447376	E	Hap28	E09	Asia	East Asia	China	Hunan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P170	WGJ27	GU447959	E	Hap28	E09	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Wumeng wugu	Miao et al., 2012
ASY1P689	XC22	GU448137	E	Hap28	E09	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P603	SG1	GU447988	E	Hap297	E47	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P1233	Fu04	AF128318	E	Hap30	E03	Asia	East Asia	China	Zhejiang	Gallus gallus	Indigenous	Xianju	Fu et al., 1999, direct submission
ASY1P116	YP19346	GU448574	E	Hap30	E03	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P121	YP19338	GU448579	E	Hap30	E03	Asia	East Asia	China	Guangxi	Gallus gallus	Local chicken	Luke	Miao et al., 2012
ASY1P631	WD11	GU448073	E	Hap30	E03	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P634	WD20	GU448076	E	Hap30	E03	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P644	WD38	GU448086	E	Hap30	E03	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P1262	QY4	AY465967	E	Hap393	N/A	Asia	East Asia	China	Poultry Institute, Chinese Acad. of Agri. Sci. Jiangsu Province	*Gallus gallus domesticus*	Local chicken	Qingyan blotted	Liu et al., 2004
ASY1P216	dw485	AF512126	E	Hap41	E04	Asia	East Asia	China	Guizhou Province, Guiyang	Gallus gallus	Local chicken	Dwarf Wugu	Liu et al., 2006
ASY1P365	xf11	AF512301	E	Hap71	E02	Asia	East Asia	China	Hunan Province	Gallus gallus	Local chicken	Xuefeng	Liu et al., 2006
ASY1P590	LP8	GU447877	E	Hap71	E02	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P169	WGJ26	GU447958	E	Hap71	E02	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Wumeng wugu	Miao et al., 2012
ASY2P36	HQ022882a	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P37	HQ022882b	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P38	HQ022882c	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P39	HQ022882d	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P40	HQ022882e	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P41	HQ022882f	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P42	HQ022882g	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P43	HQ022882h	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P44	HQ022882i	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P45	HQ022882j	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P46	HQ022882k	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P47	HQ022882l	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P48	HQ022882m	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P49	HQ022882n	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P50	HQ022882o	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P51	HQ022882p	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P52	HQ022882q	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P53	HQ022882r	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P54	HQ022882s	HQ022882	E	Hap01	E06	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P59	HQ022883	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P60	HQ022883a	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P61	HQ022883b	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P62	HQ022883c	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P63	HQ022883d	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P64	HQ022883e	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P65	HQ022883f	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P66	HQ022883g	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P67	HQ022883h	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P68	HQ022883i	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P69	HQ022883j	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P70	HQ022883k	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P71	HQ022883l	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P72	HQ022883m	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P73	HQ022883n	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P74	HQ022883o	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P75	HQ022883p	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P76	HQ022883q	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P77	HQ022883r	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P100	HQ022883ao	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011

ASY2P101	HQ022883ap	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P102	HQ022883aq	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P103	HQ022883ar	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P104	HQ022883as	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P105	HQ022883at	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P106	HQ022883au	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P107	HQ022883av	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P108	HQ022883aw	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P109	HQ022883ax	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P110	HQ022883ay	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P111	HQ022883az	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P112	HQ022883ba	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P113	HQ022883bb	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P114	HQ022883bc	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P115	HQ022883bd	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P116	HQ022883be	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P117	HQ022883bf	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P118	HQ022883bg	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P119	HQ022883bh	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P78	HQ022883s	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P79	HQ022883t	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P80	HQ022883u	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P81	HQ022883v	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P82	HQ022883w	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P83	HQ022883x	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P84	HQ022883y	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P85	HQ022883z	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P86	HQ022883aa	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P87	HQ022883ab	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P88	HQ022883ac	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P89	HQ022883ad	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P90	HQ022883ae	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P91	HQ022883af	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P92	HQ022883ag	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P93	HQ022883ah	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P94	HQ022883ai	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P95	HQ022883aj	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P96	HQ022883ak	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P97	HQ022883al	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P98	HQ022883am	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P99	HQ022883an	HQ022883	E	Hap02	E01	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P120	HQ022884	HQ022884	E	Hap28	E09	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P121	HQ022884a	HQ022884	E	Hap28	E09	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Hsin-Yi	Chang et al., 2011
ASY2P122	HQ022884b	HQ022884	E	Hap28	E09	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P123	HQ022884c	HQ022884	E	Hap28	E09	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P124	HQ022884d	HQ022884	E	Hap28	E09	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P125	HQ022884e	HQ022884	E	Hap28	E09	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P126	HQ022884f	HQ022884	E	Hap28	E09	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Ju-Chi	Chang et al., 2011
ASY2P127	HQ022884g	HQ022884	E	Hap28	E09	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P128	HQ022884h	HQ022884	E	Hap28	E09	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P129	HQ022884i	HQ022884	E	Hap28	E09	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P130	HQ022884j	HQ022884	E	Hap28	E09	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY2P131	HQ022884k	HQ022884	E	Hap28	E09	Asia	East Asia	Taiwan	N/A	Gallus gallus	Local chicken	Quemoy	Chang et al., 2011
ASY1P969	D13	AY392173	F	Ha93	F16	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P1101	T20	AY392305	F	Hap105	F12	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1112	T30	AY392316	F	Hap105	F12	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1105	T24	AY392309	F	Hap106	F14	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1130	T54	AY392334	F	Hap106	F14	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1107	T26	AY392311	F	Hap107	F13	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1127	T49	AY392331	F	Hap107	F13	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1108	T27	AY392312	F	Hap108	F10	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1114	T33	AY392318	F	Hap108	F10	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1117	T38	AY392321	F	Hap108	F10	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1123	T45	AY392327	F	Hap108	F10	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1125	T47	AY392329	F	Hap108	F10	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1126	T48	AY392330	F	Hap108	F10	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1134	T59	AY392338	F	Hap108	F10	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1110	T29	AY392314	F	Hap109	F17	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1124	T46	AY392328	F	Hap110	F11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P890	ypt55	GU448935	F	Hap315	F19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dulong	Miao et al., 2012
ASY1P891	ypt54	GU448936	F	Hap315	F19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dulong	Miao et al., 2012
ASY1P893	ypt52	GU448938	F	Hap315	F19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dulong	Miao et al., 2012
ASY1P895	ypt50	GU448940	F	Hap315	F19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dulong	Miao et al., 2012
ASY1P899	ypt46	GU448944	F	Hap315	F19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dulong	Miao et al., 2012
ASY1P901	ypt44	GU448946	F	Hap315	F19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dulong	Miao et al., 2012
ASY1P412	DHJ-13	GU447601	F	Hap316	F29	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dehong	Miao et al., 2012
ASY1P415	DHJ-10	GU447604	F	Hap316	F29	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dehong	Miao et al., 2012
ASY1P417	DHJ-8	GU447606	F	Hap317	F18	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dehong	Miao et al., 2012
ASY1P431	D45	GU447638	F	Hap318	F33	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P497	CL8	GU447738	F	Hap319	F27	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012

ASY1P498	CL9	GU447739	F	Hap319	F27	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P500	CL11	GU447741	F	Hap319	F27	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P462	BN37	GU447672	F	Hap320	F20	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P463	BN39	GU447673	F	Hap320	F20	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P1219	a1849	AF512057	F	Hap43	F07	Asia	East Asia	China	Yunnan Province, Malong Xian	Gallus gallus	Local chicken	Shenggou	Liu et al., 2006
ASY1P1220	a1850	AF512058	F	Hap43	F07	Asia	East Asia	China	Yunnan Province, Malong Xian	Gallus gallus	Local chicken	Shenggou	Liu et al., 2006
ASY1P607	SG11	GU447992	F	Hap43	F07	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P608	SG12	GU447993	F	Hap43	F07	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P609	SG13	GU447994	F	Hap43	F07	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P711	SG8	GU448243	F	Hap43	F07	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P713	SG10	GU448245	F	Hap43	F07	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P714	SG14	GU448246	F	Hap43	F07	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P715	SG16	GU448247	F	Hap43	F07	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P1009	J20	AY392213	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1026	J5	AY392230	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1058	N10	AY392262	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1060	N12	AY392264	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1063	N15	AY392267	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1069	N25	AY392273	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1071	N27	AY392275	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1073	N29	AY392277	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1077	N37	AY392281	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1082	N46	AY392286	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1083	N47	AY392287	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1084	N4	AY392288	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1093	T12	AY392297	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1109	T28	AY392313	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1133	T58	AY392337	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1135	T7	AY392339	F	Hap57	F04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P411	DHJ-14	GU447600	F	Hap57	F04	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dehong	Miao et al., 2012
ASY1P896	ypt49	GU448941	F	Hap57	F04	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dulong	Miao et al., 2012
ASY1P530	JG10	GU447776	F	Hap57	F04	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Jingu	Miao et al., 2012
ASY1P880	yyj1	GU448915	F	Hap57	F04	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P827	YP18762	GU448689	F	Hap57	F04	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P830	YP18759	GU448692	F	Hap57	F04	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P460	BN34	GU447670	F	Hap57	F24	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P988	D41	AY392192	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P989	D43	AY392193	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P950	dj1	AF512108	F	Hap68	F01	Asia	East Asia	China	Yunnan province	Gallus gallus	Local chicken	Douji	Liu et al., 2006
ASY1P1001	J12	AY392205	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1002	J13	AY392206	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1003	J14	AY392207	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1004	J15	AY392208	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1007	J18	AY392211	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1008	J19	AY392212	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1010	J27	AY392214	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1014	J32	AY392218	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1017	J35	AY392221	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1024	J42	AY392228	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1041	L26	AY392245	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv’erwu	Liu et al., 2006
ASY1P1045	L35	AY392249	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv’erwu	Liu et al., 2006
ASY1P1046	L43	AY392250	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv’erwu	Liu et al., 2006
ASY1P1049	L4	AY392253	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv’erwu	Liu et al., 2006
ASY1P1053	L58	AY392257	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv’erwu	Liu et al., 2006
ASY1P1074	N2	AY392278	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1090	N8	AY392294	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P961	nx20	AF512248	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1113	T32	AY392317	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1115	T34	AY392319	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1116	T36	AY392320	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1118	T39	AY392322	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P152	wangf389	AF512285	F	Hap68	F01	Asia	East Asia	China	Guangxi Province, Nanning	Gallus gallus	Local chicken	Wangfeng Wugu	Liu et al., 2006
ASY1P1141	W14	AY392345	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1150	W28	AY392354	F	Hap68	F15	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1155	W32	AY392359	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1165	W52	AY392369	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1166	W53	AY392370	F	Hap68	F01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P478	Boai6	GU447688	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Boai	Miao et al., 2012
ASY1P479	Boai7	GU447689	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Boai	Miao et al., 2012
ASY1P545	LJ13	GU447832	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P548	LJ16	GU447835	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P553	LJ21	GU447840	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P554	LJ22	GU447841	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P555	LJ23	GU447842	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P557	LJ25	GU447844	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P579	LJ48	GU447866	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P580	LJ49	GU447867	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P699	LJ29	GU448230	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P522	JG2	GU447768	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Malong chicken	Miao et al., 2012
ASY1P499	CL10	GU447740	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012

ASY1P720	YL3	GU448283	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P721	YL2	GU448284	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P722	YL1	GU448285	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P811	YP18869	GU448656	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P831	YP18758	GU448693	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P834	YP18755	GU448696	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P835	YP18752	GU448697	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P836	YP18751	GU448698	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P837	YP18750	GU448699	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P838	LS06	GU448699d	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Puer chicken	Miao et al., 2012
ASY1P839	LS12	GU448699e	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Puer chicken	Miao et al., 2012
ASY1P840	LS48	GU448699f	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Puer chicken	Miao et al., 2012
ASY1P841	LS49	GU448699g	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Puer chicken	Miao et al., 2012
ASY1P842	LS55	GU448699h	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Puer chicken	Miao et al., 2012
ASY1P605	SG5	GU447990	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P606	SG6	GU447991	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P709	SG4	GU448241	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P710	SG7	GU448242	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P712	SG9	GU448244	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Shenggou	Miao et al., 2012
ASY1P612	THW1	GU448036	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Tibetan	Miao et al., 2012
ASY1P629	WD7	GU448071	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P639	WD29	GU448081	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P650	WD56	GU448092	F	Hap68	F25	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P814	YP18847	GU448659	F	Hap68	F26	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P611	xyun10	GU448027	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xyun	Miao et al., 2012
ASY1P694	xyun6	GU448224	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xyun	Miao et al., 2012
ASY1P745	YJ49	GU448308	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P746	YJ48	GU448309	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P752	YJ42	GU448315	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P755	YJ39	GU448318	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P843	ZY26	GU448699i	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P844	ZY3	GU448699j	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P845	ZY32	GU448699k	F	Hap68	F01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P1047	L44	AY392251	G	Hap100	G12	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P1048	L45	AY392252	G	Hap100	G12	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P413	DHJ-12	GU447602	G	Hap100	G12	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dehong	Miao et al., 2012
ASY1P416	DHJ-9	GU447605	G	Hap100	G12	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dehong	Miao et al., 2012
ASY1P422	DH51	GU447611	G	Hap100	G12	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P423	DH46	GU447614	G	Hap100	G12	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P425	DH36	GU447619	G	Hap100	G12	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P491	CL2	GU447732	G	Hap100	G27	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P696	xyun8	GU448226	G	Hap100	G12	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P860	YP18738	GU448706	G	Hap100	G12	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P861	ZY23	GU448706a	G	Hap100	G12	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P862	ZY42	GU448706b	G	Hap100	G12	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P1056	L8	AY392260	G	Hap101	G13	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P1059	N11	AY392263	G	Hap102	G10	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1066	N20	AY392270	G	Hap102	G10	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1067	N21	AY392271	G	Hap102	G10	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1070	N26	AY392274	G	Hap102	G10	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1072	N28	AY392276	G	Hap102	G10	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1075	N32	AY392279	G	Hap102	G10	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P855	YP18743	GU448704	G	Hap102	G10	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P1088	N6	AY392292	G	Hap104	G19	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1092	T10	AY392296	G	Hap104	G19	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1099	T19	AY392303	G	Hap104	G19	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P829	YP18760	GU448691	G	Hap104	G19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P846	YP18748	GU448700	G	Hap104	G19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P847	LS05	GU448700a	G	Hap104	G19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Puer chicken	Miao et al., 2012
ASY1P848	LS11	GU448700b	G	Hap104	G19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Puer chicken	Miao et al., 2012
ASY1P849	LS14	GU448700c	G	Hap104	G19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Puer chicken	Miao et al., 2012
ASY1P850	LS69	GU448700d	G	Hap104	G19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Puer chicken	Miao et al., 2012
ASY1P851	LS70	GU448700e	G	Hap104	G19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Puer chicken	Miao et al., 2012
ASY1P618	THW13	GU448042	G	Hap104	G19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Tibetan	Miao et al., 2012
ASY1P632	WD12	GU448074	G	Hap104	G19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P637	WD25	GU448079	G	Hap104	G19	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P1131	T55	AY392335	G	Hap111	G22	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Tengchongxue	Liu et al., 2006
ASY1P1142	W16	AY392346	G	Hap113	G08	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1144	W18	AY392348	G	Hap113	G08	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1147	W21	AY392351	G	Hap114	G17	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P760	YJ33	GU448324	G	Hap114	G17	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P1028	J7	AY392232	G	Hap167	G09	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1085	N50	AY392289	G	Hap167	G09	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1016	J34	AY392220	G	Hap213	G07	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1020	J38	AY392224	G	Hap213	G07	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1021	J39	AY392225	G	Hap213	G07	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1078	N38	AY392282	G	Hap215	G18	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P613	THW2	GU448037	G	Hap215	G18	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Tibetan	Miao et al., 2012
ASY1P615	THW6	GU448039	G	Hap215	G18	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Tibetan	Miao et al., 2012
ASY1P617	THW9	GU448041	G	Hap215	G18	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Tibetan	Miao et al., 2012

ASY1P624	THW39	GU448048	G	Hap215	G18	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Tibetan	Miao et al., 2012
ASY1P625	THW44	GU448049	G	Hap215	G18	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Tibetan	Miao et al., 2012
ASY1P1086	N51	AY392290	G	Hap216	G20	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P577	LJ46	GU447864	G	Hap216	G45	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P1222	YJ1	AY465996	G	Hap217	G23	Asia	East Asia	China	Yunnan Province, Yanjing County	Gallus gallus	Local chicken	Yanjing wugu	Liu et al., 2004
ASY1P786	YJ12	GU448345	G	Hap217	G23	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P1223	YJ2	AY465997	G	Hap218	G24	Asia	East Asia	China	Yunnan Province, Yanjing County	Gallus gallus	Local chicken	Yanjing wugu	Liu et al., 2004
ASY1P832	YP18757	GU448694	G	Hap218	G24	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P736	YJ58	GU448299	G	Hap218	G24	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P535	LJ3	GU447822	G	Hap298	G43	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P567	LJ36	GU447854	G	Hap298	G43	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P727	YJ67	GU448290	G	Hap299	G33	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P1005	J16	AY392209	G	Hap300	G16	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P537	LJ5	GU447824	G	Hap300	G16	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P546	LJ14	GU447833	G	Hap300	G16	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P731	YJ63	GU448294	G	Hap301	G32	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P773	YJ20	GU448337	G	Hap301	G32	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P574	LJ43	GU447861	G	Hap302	G44	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P473	BN52	GU447683	G	Hap303	G29	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P782	YJ16	GU448341	G	Hap304	G28	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P783	YJ15	GU448342	G	Hap304	G28	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P787	YJ11	GU448346	G	Hap304	G28	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P788	YJ10	GU448347	G	Hap304	G28	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P795	YJ3	GU448354	G	Hap304	G28	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P581	LJ50	GU447868	G	Hap305	G42	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P585	LJ54	GU447872	G	Hap305	G42	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P774	YJ19	GU448338	G	Hap306	G31	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P775	ZY15	GU448338a	G	Hap306	G31	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P776	ZY40	GU448338b	G	Hap306	G31	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P777	ZY41	GU448338c	G	Hap306	G31	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P778	ZY43	GU448338d	G	Hap306	G31	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P779	ZY50	GU448338e	G	Hap306	G31	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P781	YJ17	GU448340	G	Hap307	G30	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P954	dj13	AF512112	G	Hap50	G02	Asia	East Asia	China	Yunnan province	Gallus gallus	Local chicken	Douji	Liu et al., 2006
ASY1P1011	J29	AY392215	G	Hap214	G14	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1012	J30	AY392216	G	Hap214	G14	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P959	nx10	AF512246	G	Hap214	G02	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P828	YP18761	GU448690	G	Hap214	G14	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P854	YP18744	GU448703	G	Hap214	G14	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P1079	N3	AY392283	G	Hap44	G03	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1081	N43	AY392285	G	Hap44	G03	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1091	N9	AY392295	G	Hap44	G03	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P823	YP18779	GU448680	G	Hap44	G03	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P824	YP18778	GU448681	G	Hap44	G03	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Chahua	Miao et al., 2012
ASY1P826	YP18763	GU448688	G	Hap44	G03	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P852	YP18747	GU448701	G	Hap44	G03	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P853	YP18745	GU448702	G	Hap44	G03	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P657	WK10	GU448099	G	Hap44	G03	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P753	YJ41	GU448316	G	Hap44	G03	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P962	nx23	AF512249	G	Hap69	G04	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P402	wd1	AF512292	G	Hap69	G04	Asia	East Asia	China	Yunnan Province, Wuding Xian	Gallus gallus	Local chicken	Wuding	Liu et al., 2006
ASY1P1033	L14	AY392237	G	Hap96	G21	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P541	LJ9	GU447828	G	Hap96	G21	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P561	LJ30	GU447848	G	Hap96	G21	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P742	YJ52	GU448305	G	Hap96	G21	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P1035	L18	AY392239	G	Hap97	G15	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P968	D12	AY392172	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P990	D46	AY392194	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P992	D48	AY392196	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P993	D49	AY392197	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P995	D51	AY392199	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P996	D52	AY392200	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P997	D53	AY392201	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Chigulu	Liu et al., 2006
ASY1P1006	J17	AY392210	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1018	J36	AY392222	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1022	J40	AY392226	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1027	J6	AY392231	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Jiangbian	Liu et al., 2006
ASY1P1030	L11	AY392234	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P1037	L20	AY392241	G	Hap98	G11	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P1042	L27	AY392246	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P1051	L55	AY392255	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Lv'erwu	Liu et al., 2006
ASY1P1061	N13	AY392265	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1062	N14	AY392266	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1064	N16	AY392268	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1068	N24	AY392272	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1076	N33	AY392280	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1080	N42	AY392284	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P1089	N7	AY392293	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Nixi	Liu et al., 2006
ASY1P155	wangf392	AF512288	G	Hap98	G01	Asia	East Asia	China	Guangxi Province, Nanning	Gallus gallus	Local chicken	Wangfeng Wugu	Liu et al., 2006
ASY1P158	wangf439	AF512291	G	Hap98	G01	Asia	East Asia	China	Guangxi Province, Nanning	Gallus gallus	Local chicken	Wangfeng Wugu	Liu et al., 2006

ASY1P1138	W11	AY392342	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1148	W25	AY392352	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1149	W27	AY392353	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1151	W29	AY392355	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1153	W30	AY392357	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1156	W35	AY392360	G	Hap98	G01	Asia	East Asia	China	Yunnan Province	Gallus gallus	Local chicken	Wenshanshandi	Liu et al., 2006
ASY1P1226	yj1	AF512324	G	Hap98	G05	Asia	East Asia	China	Yunnan Province, Yanjing Xian	Gallus gallus	Local chicken	Yanjing	Liu et al., 2006
ASY1P1227	yj2	AF512325	G	Hap98	G01	Asia	East Asia	China	Yunnan Province, Yanjing Xian	Gallus gallus	Local chicken	Yanjing	Liu et al., 2006
ASY1P1229	yj4	AF512327	G	Hap98	G01	Asia	East Asia	China	Yunnan Province, Yanjing Xian	Gallus gallus	Local chicken	Yanjing	Liu et al., 2006
ASY1P892	ypt53	GU448937	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dulong	Miao et al., 2012
ASY1P894	ypt51	GU448939	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dulong	Miao et al., 2012
ASY1P897	ypt48	GU448942	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dulong	Miao et al., 2012
ASY1P898	ypt47	GU448943	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dulong	Miao et al., 2012
ASY1P900	ypt45	GU448945	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dulong	Miao et al., 2012
ASY1P902	ypt43	GU448947	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Dulong	Miao et al., 2012
ASY1P177	YP19513	GU448505	G	Hap98	G01	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Guizhou Mountain Wugu	Miao et al., 2012
ASY1P540	LJ8	GU447827	G	Hap98	G05	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P544	LJ12	GU447831	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P552	LJ20	GU447839	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P563	LJ32	GU447850	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P578	LJ47	GU447865	G	Hap98	G05	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012
ASY1P430	D54	GU447637	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P493	CL4	GU447734	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P494	CL5	GU447735	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P501	CL12	GU447742	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P508	D7	GU447749	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P513	D18	GU447754	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P883	ypt134	GU448924	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P885	ypt115	GU448929	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P886	ypt113	GU448931	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P887	ypt112	GU448932	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P888	ypt111	GU448933	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P889	ypt110	GU448934	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	N/A	Miao et al., 2012
ASY1P833	YP18756	GU448695	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Nixi	Miao et al., 2012
ASY1P614	THW4	GU448038	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Tibetan	Miao et al., 2012
ASY1P616	THW7	GU448040	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Tibetan	Miao et al., 2012
ASY1P619	THW17	GU448043	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Tibetan	Miao et al., 2012
ASY1P620	THW21	GU448044	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Tibetan	Miao et al., 2012
ASY1P621	THW25	GU448045	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Tibetan	Miao et al., 2012
ASY1P623	THW33	GU448047	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Tibetan	Miao et al., 2012
ASY1P626	THW45	GU448050	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Tibetan	Miao et al., 2012
ASY1P636	WD24	GU448078	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P641	WD32	GU448083	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P659	WL3	GU448101	G	Hap98	G26	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Wuding	Miao et al., 2012
ASY1P161	GM4	GU447577	G	Hap98	G25	Asia	East Asia	China	Guizhou	Gallus gallus	Local chicken	Xingren	Miao et al., 2012
ASY1P670	XC3	GU448118	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P672	XC5	GU448120	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P680	XC13	GU448128	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P682	XC15	GU448130	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xisha chicken	Miao et al., 2012
ASY1P477	BN57	GU447687	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Xishuangbanna	Miao et al., 2012
ASY1P724	YJ70	GU448287	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P737	YJ57	GU448300	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P748	YJ46	GU448311	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P750	YJ44	GU448313	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P754	YJ40	GU448317	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P756	YJ38	GU448319	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P769	YJ24	GU448333	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P772	YJ21	GU448336	G	Hap98	G26	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P780	YJ18	GU448339	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P797	YJ1	GU448356	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P809	YP18875	GU448654	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P810	YP18874	GU448655	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Yanjin	Miao et al., 2012
ASY1P903	ZY29	GU448947g	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P904	ZY30	GU448947h	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P905	ZY9	GU448947i	G	Hap98	G01	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Zinyuan wugu	Miao et al., 2012
ASY1P572	LJ41	GU447859	H	Hap308	H02	Asia	East Asia	China	Yunnan	Gallus gallus	Local chicken	Lijiang	Miao et al., 2012

Supplementary Table ST7: Full details for the South East Asia dataset including location of samples, haplogroups, haplotypes, Sample ID, Genbank Accession Number and Source. Sorted by haplogroups and country

AMOVA Ref	Samples ID	GenBank Acc Nb.	Haplogroup (201bp)	Haplotype (201bp)	Haplogroup (Source)	Region	Sub-Region	Country	Location specific	Category	Additional Status Info	Breed / Common Name	Source
SEA1P01	chah10	GU447705	A	Hap13	A01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P02	chah18	GU447713	A	Hap13	A01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P03	chah20	GU447715	A	Hap13	A01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P04	chah29	GU447724	A	Hap13	A01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P05	chah30	GU447725	A	Hap13	A01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P06	YP20475	GU448848	A	Hap13	A01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P07	YP20474	GU448849	A	Hap13	A01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P08	YP20470	GU448853	A	Hap13	A01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P09	YP20467	GU448856	A	Hap13	A01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P10	YP20424	GU448866	A	Hap13	A01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P11	111-0773	GU449063ae	A	Hap13	A01	Asia	Southeast Asia	Laos	Xekong	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P12	111-0779	GU449063af	A	Hap13	A01	Asia	Southeast Asia	Laos	Xekong	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P66	Miyake16	AB009448	A	Hap13	A01	Asia	Southeast Asia	Laos	N/A	gallus gallus domesticus	Indigenous	N/A	Miyake et al., 1997, Direct submission
SEA1P13	YP20471	GU448852	A	Hap31	A35	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P14	YP20465	GU448858	A	Hap31	A35	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P17	chah32	GU447727	A	Hap99	A54	Asia	Southeast Asia	Laos	Mekong	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P68	MD2	GU447896	A	Hap13	A01	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P69	MD3	GU447897	A	Hap13	A01	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P70	MD4	GU447898	A	Hap13	A01	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P71	MD5	GU447899	A	Hap13	A01	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P72	MD7	GU447901	A	Hap13	A01	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P73	MD8	GU447902	A	Hap13	A01	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P74	MAN1	GU447892	A	Hap7	A45	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA2P16	VNA20G0142	HM462097	A	Hap112	A21	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P17	VNA20G0051	HM462098	A	Hap116	A20	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P20	VA40G0161	HM462101	A	Hap116	A20	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P70	VNA103G011	HM462151	A	Hap116	A20	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P93	VNA20G0072	HM462174	A	Hap116	A20	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P01	VA7G0132	HM462082	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P06	VNA2G1063	HM462087	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P08	VNA48G0411	HM462089	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P12	VNA48G0491	HM462093	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P24	VA40G0201	HM462105	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P26	VA40G0312	HM462107	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P65	VNA103G030	HM462146	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P75	VNA103G016	HM462156	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P77	VA40G1372	HM462158	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P82	VA40G1392	HM462163	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P92	VNA20G0262	HM462173	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P95	VNA20G0351	HM462176	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P108	Nvn1	GU447916	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P109	Nvn2	GU447917	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P110	Nvn8	GU447920	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P111	Nvn21	GU447929	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P112	Nvn11	GU448257	A	Hap13	A01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P113	TP7	GU448056	A	Hap15	A02	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P42	VA88G1092	HM462123	A	Hap229	A71	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P102	VA88G1262	HM462183	A	Hap230	A72	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P43	VA88G0122	HM462124	A	Hap230	A72	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P52	VA88G1112	HM462133	A	Hap230	A72	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P59	VA88G0212	HM462140	A	Hap231	A	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P114	Nvn20	GU447928	A	Hap31	A35	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P18	chah4	GU447699	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P19	chah5	GU447700	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P20	chah13	GU447708	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P21	chah14	GU447709	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P22	chah17	GU447712	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P23	chah24	GU447719	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P24	chah25	GU447720	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P25	chah26	GU447721	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P26	chah27	GU447722	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P27	chah28	GU447723	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P28	YP20483	GU448840	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P29	YP20482	GU448841	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P30	YP20481	GU448842	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P31	YP20480	GU448843	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P32	YP20479	GU448844	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P33	YP20478	GU448845	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P34	YP20476	GU448847	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012

SEA1P35	YP20473	GU448850	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P36	YP20472	GU448851	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P37	YP20469	GU448854	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P38	YP20468	GU448855	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P39	YP20462	GU448861	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P40	YP20461	GU448862	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P41	YP20460	GU448863	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P42	YP20459	GU448864	B	Hap21	B01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P43	chah1	GU447696	B	Hap25	B11	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P44	chah3	GU447698	B	Hap25	B11	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P45	chah9	GU447704	B	Hap25	B11	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P46	chah11	GU447706	B	Hap25	B11	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P47	chah15	GU447710	B	Hap25	B11	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P48	chah16	GU447711	B	Hap25	B11	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P49	chah21	GU447716	B	Hap25	B11	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P50	chah22	GU447717	B	Hap25	B11	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P51	chah23	GU447718	B	Hap25	B11	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P52	chah34	GU447729	B	Hap25	B11	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P53	chah35	GU447730	B	Hap25	B11	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P54	chah12	GU447707	B	Hap374	B44	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P87	sha00085	AB098667	B	Hap122	B17	Asia	ISEA	Myanmar	Mandalay	Gallus gallus domesticus	Gamecocks	N/A	Komiyama et al., 2003
SEA1P88	sha00086	AB098668	B	Hap25	B11	Asia	ISEA	Myanmar	Mandalay	Gallus gallus domesticus	Gamecocks	N/A	Komiyama et al., 2003
SEA1P75	MD1	GU447895	B	Hap25	B11	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P76	MD6	GU447900	B	Hap25	B11	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P77	MD9	GU447903	B	Hap25	B11	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P78	MD10	GU447904	B	Hap25	B11	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P79	MD11	GU447905	B	Hap25	B11	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P80	MD13	GU447907	B	Hap372	B32	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P81	MD15	GU447909	B	Hap372	B32	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P82	MD16	GU447910	B	Hap372	B32	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P89	CHKMTD26	D82922	B	Hap21	B01	Asia	ISEA	Thailand	N/A	Gallus gallus domesticus		Thai Bantam	Fumihito et al., 1996
SEA2P41	VA88G0022	HM462122	B	Hap115	B14	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P130	TP1	GU448051	B	Hap133	B15	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P131	TP4	GU448054	B	Hap133	B15	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P03	VNA61G0322	HM462084	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P05	VNA2G1082	HM462086	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P10	VNA48G0141	HM462091	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P103	VA40G0032	HM462184	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P104	VA40G0042	HM462185	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P105	VA40G1332	HM462186	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P106	VNA1G0182	HM462187	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P11	VNA48G0432	HM462092	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P13	VNA48G1412	HM462094	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P15	VNA48G1312	HM462096	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P18	VA40G1272	HM462099	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P23	VA40G0182	HM462104	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P25	VA40G0221	HM462106	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P36	VA88G1042	HM462117	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P44	VA88G0262	HM462125	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P45	VA88G019-2	HM462126	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P46	VA88G1062	HM462127	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P47	VA88G1292	HM462128	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P48	VA88G0072	HM462129	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P49	VA88G0112	HM462130	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P51	VA88G0132	HM462132	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P57	VA88G0242	HM462138	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P60	VA88G1102	HM462141	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P64	VA40G0051	HM462145	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P66	VA40G0062	HM462147	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P67	VNA103G108	HM462148	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P72	VNA103G020	HM462153	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P74	VNA103G022	HM462155	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P78	VA40G1222	HM462159	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P79	VA7G010-2	HM462160	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P80	VNA1G0141	HM462161	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P86	VA65G0382	HM462167	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P88	VA65G1331	HM462169	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P89	VA65G0022	HM462170	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P98	VNA61G1182	HM462179	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P107	TP12	GU448256	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P116	Nvn14	GU447923	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P117	Nvn22	GU447930	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P118	Nvn24	GU447932	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P119	Nvn25	GU447933	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012

SEA2P120	Nvn26	GU447934	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P121	TP2	GU448052	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P122	TP3	GU448053	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P123	TP9	GU448058	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P124	TP13	GU448059	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P125	TP14	GU448060	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P126	TP15	GU448061	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P127	TP17	GU448063	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P128	VN3	GU448066	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P129	VN4	GU448067	B	Hap21	B01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P152	OL322	This study	B	Hap21	N/A	SEA	N/A	Vietnam	Southwest of Ho Chi Minh	Gallus gallus	Local chicken	N/A	This study
SEA2P04	VNA2G1012	HM462085	B	Hap227	B64	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P14	VNA48G0111	HM462095	B	Hap228	B63	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P62	VA40G1242	HM462143	B	Hap233	B62	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P84	VA65G1012	HM462165	B	Hap234	B28	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P85	VA65G0052	HM462166	B	Hap234	B28	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P91	VA65G0081	HM462172	B	Hap234	B28	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P96	VA65G0162	HM462177	B	Hap234	B28	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P87	VA65G1062	HM462168	B	Hap235	B60	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P07	VNA2G1092	HM462088	B	Hap25	B11	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P19	VA40G1202	HM462100	B	Hap25	B41	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P27	VA40G0341	HM462108	B	Hap25	B11	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P34	VA88g0291	HM462115	B	Hap25	B41	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P50	VA88G0232	HM462131	B	Hap25	B11	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P53	VA88G2052	HM462134	B	Hap25	B11	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P56	VA88G0102	HM462137	B	Hap25	B11	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P58	VA88G0052	HM462139	B	Hap25	B11	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P71	VNA103G019	HM462152	B	Hap25	B11	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P99	VNAG610221	HM462180	B	Hap25	B11	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P153	OL323	This study	B	Hap25	N/A	SEA	N/A	Vietnam	Southwest of Ho Chi Minh	Gallus gallus	Local chicken	N/A	This study
SEA2P132	VN1	GU448064	B	Hap373	B23	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P133	VN2	GU448065	B	Hap373	B23	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P134	VN5	GU448068	B	Hap373	B23	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P37	VA88G0162	HM462118	B	Hap46	B06	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P55	VA88G0152	HM462136	B	Hap46	B06	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P76	VA40G0021	HM462157	B	Hap70	B07	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P32	VNA1G0272	HM462113	C	Hap11	C01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P35	VA88G1282	HM462116	C	Hap11	C01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P38	VA88G0062	HM462119	C	Hap11	C01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P68	VA40G0071	HM462149	C	Hap11	C01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P90	VA65G0042	HM462171	C	Hap11	C01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA1P57	YP20477	GU448846	D	Hap16	D06	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P58	YP20466	GU448857	D	Hap32	D13	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P55	YP20464	GU448859	D	Hap375	D02	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P56	YP20463	GU448860	D	Hap375	D02	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P97	VNA610292	HM462178	D	Hap16	D06	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P22	VA40G0152	HM462103	D	Hap32	D13	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA1P59	ALP	GU449055bv	E	Hap02	E01	Asia	Southeast Asia	Laos	Attapeu	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P15	chah8	GU447703	E	Hap371	E	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P16	chah19	GU447714	E	Hap371	E	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P67	isolate 1	AY642134	E	Hap01	E06	Asia	ISEA	Malaysia	N/A	Gallus gallus	Local chicken	N/A	Liu et al., 2006
SEA1P83	MAN13	GU447894	E	Hap02	E01	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA2P143	Nvn16	GU447925	E	Hap01	E06	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P144	Nvn17	GU448239	E	Hap01	E06	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P135	Nvn13	GU447922	E	Hap02	E01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P136	Nvn15	GU447924	E	Hap02	E01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P137	Nvn18	GU447926	E	Hap02	E01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P138	Nvn19	GU447927	E	Hap02	E01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P139	Nvn27	GU447935	E	Hap02	E01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P140	Nvn30	GU447937	E	Hap02	E01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P141	Nvn12	GU448258	E	Hap02	E01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P115	TP5	GU448055	E	Hap371	E	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P142	Nvn23	GU447931	E	Hap71	E02	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P61	chah33	GU447728	F	Hap57	F04	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P60	chah6	GU447701	F	Hap68	F01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P62	chah2	GU447697	F	Hap68	F15	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P63	YP20435	GU448865	F	Hap68	F15	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P85	MD12	GU447906	F	Hap376	F28	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P86	MD14	GU447908	F	Hap376	F28	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA1P84	MAN2	GU447893	F	Hap57	F02	Asia	Southeast Asia	Myanmar	N/A	Gallus gallus	Local chicken	Myanmar chicken	Miao et al., 2012
SEA2P61	VA40G1232	HM462142	F	Hap232	F34	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P02	VA7G0052	HM462083	F	Hap68	F01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P09	VNA48G0231	HM462090	F	Hap68	F15	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P101	VA7G0141	HM462182	F	Hap68	F30	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010

SEA2P21	VA40G0141	HM462102	F	Hap68	F01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P28	VNA20G0341	HM462109	F	Hap68	F01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P29	VNA20G0241	HM462110	F	Hap68	F15	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P30	VNA1G1111	HM462111	F	Hap68	F15	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P33	VNA1G0072	HM462114	F	Hap68	F01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P39	VA88G2022	HM462120	F	Hap68	F01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P40	VA88G0182	HM462121	F	Hap68	F01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P69	VA40G0082	HM462150	F	Hap68	F15	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P73	VA40G0091	HM462154	F	Hap68	F15	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P81	VA7G0121	HM462162	F	Hap68	F01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P145	Nvn4	GU447918	F	Hap68	F01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P146	Nvn7	GU447919	F	Hap68	F01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P147	Nvn10	GU447921	F	Hap68	F01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P148	Nvn28	GU447936	F	Hap68	F01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P149	TP8	GU448057	F	Hap68	F01	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P64	chah7	GU447702	G	Hap98	G01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA1P65	chah31	GU447726	G	Hap98	G01	Asia	Southeast Asia	Laos	N/A	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P150	TP16	GU448062	G	Hap113	G08	Asia	Southeast Asia	Vietnam	Northern Vietnam	Gallus gallus	Local chicken	N/A	Miao et al., 2012
SEA2P94	VNAG1032	HM462175	G	Hap236	G49	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P100	VA88G2082	HM462181	G	Hap98	G01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P31	VNA1G0252	HM462112	G	Hap98	G01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P54	VA88G1312	HM462135	G	Hap98	G01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P63	VNA103G122	HM462144	G	Hap98	G01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P83	VA7G0061	HM462164	G	Hap98	G01	Asia	Southeast Asia	Vietnam	Northern Ha Giang Province	Gallus gallus	Local chicken	Ha Giang	Berthouly-Salazar et al., 2010
SEA2P151	Miyake17	AB009449	I	Hap24	I03	Asia	Southeast Asia	Vietnam	N/A	gallus gallus domesticus	Indigenous	N/A	Miyake et al., 1997, Direct submission

Supplementary Table ST8: Full details for the Island South East Asia dataset including location of samples, haplogroups, haplotypes, Sample ID, Genbank Accession Number and Source. Sorted by haplogroups and country.

AMOVA Ref	Samples ID	GenBank Acc Nb.	Haplogroup (201bp)	Haplotype (201bp)	Haplogroup (Source)	Region	Sub-Region	Country	Location specific	Category	Additional Status Info	Breed / Common Name	Source
ISEA1P60	OL265	This study	A	Hap31	N/A	ISEA	N/A	Philippines	Merla Farm	Gallus gallus	Local chicken	N/A	This study
ISEA2P79	Vanuatu21	FJ914337	A	Hap13	A01	Oceania		Vanuatu	Efate, Port Vila	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA1P13	isolate 6	AY642127	B	Hap21	B01	Asia	ISEA	Indonesia	N/A	Gallus gallus domesticus	Local chicken	N/A	Liu et al., 2006
ISEA1P14	isolate 7	AY642128	B	Hap21	B01	Asia	ISEA	Indonesia	N/A	Gallus gallus domesticus	Local chicken	N/A	Liu et al., 2006
ISEA1P15	isolate 4	AY642129	B	Hap21	B01	Asia	ISEA	Indonesia	N/A	Gallus gallus domesticus	Local chicken	N/A	Liu et al., 2006
ISEA2P18	OL128	This study	B	Hap21	N/A	Oceania	B01	Solomon Islands	Rendova Island, Egmolo Bay	Gallus gallus	Local chicken	N/A	This study
ISEA1P01	GuamFight001	FJ914362	D	Hap224	D37	Oceania		Guam	N/A	Gallus gallus domesticus	Gamecock	N/A	Dancause et al., 2011
ISEA1P02	GuamFight002	FJ914363	D	Hap225	D35	Oceania		Guam	N/A	Gallus gallus domesticus	Gamecock	N/A	Dancause et al., 2011
ISEA1P03	GuamFight003	FJ914364	D	Hap32	D32	Oceania		Guam	N/A	Gallus gallus domesticus	Gamecock	N/A	Dancause et al., 2011
ISEA1P09	CHKMTD23	D82919	D	Hap147	D14	Asia	ISEA	Indonesia	Java, Bogor	Gallus gallus domesticus	Indigenous	Ayam Pelung	Fumihito et al., 1996
ISEA1P08	CHKMTD22	D82918	D	Hap16	N/A	Asia	ISEA	Indonesia	West Sumatra, Solok	Gallus gallus domesticus	Indigenous	Ayam Kokok Balenggek	Fumihito et al., 1996
ISEA1P06	CHKMTD20	D82916	D	Hap32	D13	Asia	ISEA	Indonesia	East Java, Surabaya, Surabaya Zoo	Gallus gallus domesticus	Indigenous	Ayam Cemani	Fumihito et al., 1996
ISEA1P07	CHKMTD21	D82917	D	Hap384	N/A	Asia	ISEA	Indonesia	West Sumatra, Solok	Gallus gallus domesticus	Indigenous	Ayam Kokok Balenggek	Fumihito et al., 1996
ISEA1P25	OL87	This study	D	Hap266	N/A	ISEA	N/A	Indonesia (Papua)	Ternata	Gallus gallus	Local chicken	N/A	This study
ISEA1P21	OL288	This study	D	Hap32	N/A	ISEA	N/A	Indonesia (Papua)	Nabire	Gallus gallus	Local chicken	N/A	This study
ISEA1P22	OL290	This study	D	Hap32	N/A	ISEA	N/A	Indonesia (Papua)	Mulia	Gallus gallus	Local chicken	N/A	This study
ISEA1P23	OL292	This study	D	Hap32	N/A	ISEA	N/A	Indonesia (Papua)	Mulia	Gallus gallus	Local chicken	N/A	This study
ISEA1P24	OL293	This study	D	Hap32	N/A	ISEA	N/A	Indonesia (Papua)	Wamena	Gallus gallus	Local chicken	N/A	This study
ISEA1P26	OL88	This study	D	Hap32	N/A	ISEA	N/A	Indonesia (Papua)	Baik Island	Gallus gallus	Local chicken	N/A	This study
ISEA1P27	OL89	This study	D	Hap33	N/A	ISEA	N/A	Indonesia (Papua)	Baik Island	Gallus gallus	Local chicken	N/A	This study
ISEA1P28	OL90	This study	D	Hap33	N/A	ISEA	N/A	Indonesia (Papua)	Baik Island	Gallus gallus	Local chicken	N/A	This study
ISEA1P29	OL91	This study	D	Hap33	N/A	ISEA	N/A	Indonesia (Papua)	Baik Island	Gallus gallus	Local chicken	N/A	This study
ISEA1P30	OL308	This study	D	Hap33	N/A	ISEA	N/A	Papua New Guinea	Watom Island	Gallus gallus	Local chicken	N/A	This study
ISEA1P31	OL92	This study	D	Hap33	N/A	ISEA	N/A	Papua New Guinea	Karkar Island, Miak	Gallus gallus	Local chicken	N/A	This study
ISEA1P33	OL101	This study	D	Hap33	N/A	Oceania	New Guinea	Papua New Guinea	Karkar Island, Miak	Gallus gallus	Local chicken	N/A	This study
ISEA1P34	OL102	This study	D	Hap33	N/A	Oceania	New Guinea	Papua New Guinea	Karkar Island, Miak	Gallus gallus	Local chicken	N/A	This study
ISEA1P35	OL103	This study	D	Hap33	N/A	Oceania	New Guinea	Papua New Guinea	Karkar Island, Miak	Gallus gallus	Local chicken	N/A	This study
ISEA1P36	OL104	This study	D	Hap33	N/A	Oceania	New Guinea	Papua New Guinea	Karkar Island, Miak	Gallus gallus	Local chicken	N/A	This study
ISEA1P37	OL105	This study	D	Hap33	N/A	Oceania	New Guinea	Papua New Guinea	Garove Witu Island	Gallus gallus	Local chicken	N/A	This study
ISEA1P38	OL106	This study	D	Hap33	N/A	Oceania	New Guinea	Papua New Guinea	Garove Witu Island	Gallus gallus	Local chicken	N/A	This study
ISEA1P39	OL107	This study	D	Hap33	N/A	Oceania	New Guinea	Papua New Guinea	Garove Witu Island	Gallus gallus	Local chicken	N/A	This study
ISEA1P40	OL108	This study	D	Hap33	N/A	Oceania	New Guinea	Papua New Guinea	Garove Witu Island	Gallus gallus	Local chicken	N/A	This study
ISEA1P41	OL109	This study	D	Hap33	N/A	Oceania	New Guinea	Papua New Guinea	Watom Island	Gallus gallus	Local chicken	N/A	This study
ISEA1P42	OL110	This study	D	Hap33	N/A	Oceania	New Guinea	Papua New Guinea	Watom Island	Gallus gallus	Local chicken	N/A	This study
ISEA1P64	AL006	This study	D	Ha154	N/A	ISEA	N/A	Philippines	Palawan, El Niclo	Gallus gallus	Local chicken	N/A	This study
ISEA1P65	AL007	This study	D	Ha154	N/A	ISEA	N/A	Philippines	N/A	Gallus gallus	Local chicken	N/A	This study
ISEA1P49	OL252	This study	D	Hap16	N/A	ISEA	N/A	Philippines	Camiguin	Gallus gallus	Local chicken	N/A	This study
ISEA1P57	OL262	This study	D	Hap16	N/A	ISEA	N/A	Philippines	Jagna Province	Gallus gallus	Local chicken	N/A	This study
ISEA1P59	OL264	This study	D	Hap16	N/A	ISEA	N/A	Philippines	Jagna Province	Gallus gallus	Local chicken	N/A	This study
ISEA1P53	OL256	This study	D	Hap263	N/A	ISEA	N/A	Philippines	Camiguin	Gallus gallus	Local chicken	N/A	This study
ISEA1P55	OL260	This study	D	Hap264	N/A	ISEA	N/A	Philippines	Cuyo Islanda, Pamalican Island	Gallus gallus	Local chicken	N/A	This study
ISEA1P61	OL266	This study	D	Hap265	N/A	ISEA	N/A	Philippines	Camiguin	Gallus gallus	Local chicken	N/A	This study
ISEA1P46	OL234	This study	D	Hap33	N/A	ISEA	N/A	Philippines	Pintuyan town	Gallus gallus	Local chicken	N/A	This study
ISEA1P47	OL235	This study	D	Hap33	N/A	ISEA	N/A	Philippines	Pintuyan town	Gallus gallus	Local chicken	N/A	This study
ISEA1P62	OL85	This study	D	Hap33	N/A	ISEA	N/A	Philippines	Pintuyan town	Gallus gallus	Local chicken	N/A	This study
ISEA1P43	OL231	This study	D	Hap35	N/A	ISEA	N/A	Philippines	Panglao	Gallus gallus	Local chicken	N/A	This study
ISEA2P01	OL309	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Nggela Island, Abokonimbeti Island, Olevuga	Gallus gallus	Local chicken	N/A	This study
ISEA2P03	OL311	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Makira-Ulawa, Waimasi Bay	Gallus gallus	Local chicken	N/A	This study
ISEA2P08	OL318	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Islands, Nendo Island, Lata	Gallus gallus	Local chicken	N/A	This study
ISEA2P16	OL126	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Rendova Island, Egmolo Bay	Gallus gallus	Local chicken	N/A	This study
ISEA2P17	OL127	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Rendova Island, Egmolo Bay	Gallus gallus	Local chicken	N/A	This study
ISEA2P23	OL134	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Russell Islands, Pavuvu Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P24	OL135	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Russell Islands, Pavuvu Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P25	OL136	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Russell Islands, Pavuvu Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P26	OL137	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Russell Islands, Pavuvu Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P29	OL148	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Nggela Island, Mana Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P30	OL149	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Nggela Island, Mana Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P31	OL150	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Nggela Island, Mana Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P33	OL152	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Nggela Island, Abokonimbeti Island, Olevuga	Gallus gallus	Local chicken	N/A	This study
ISEA2P34	OL153	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Nggela Island, Abokonimbeti Island, Olevuga	Gallus gallus	Local chicken	N/A	This study
ISEA2P39	OL204	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Island, Vanikoro, Muruvai	Gallus gallus	Local chicken	N/A	This study
ISEA2P40	OL205	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Island, Vanikoro, Muruvai	Gallus gallus	Local chicken	N/A	This study
ISEA2P41	OL207	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Island, Vanikoro, Muruvai	Gallus gallus	Local chicken	N/A	This study
ISEA2P42	OL208	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Island, Vanikoro, Muruvai	Gallus gallus	Local chicken	N/A	This study
ISEA2P43	OL209	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Island, Vanikoro, Muruvai	Gallus gallus	Local chicken	N/A	This study
ISEA2P44	OL210	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Island, Tikopia, Matafanga Village	Gallus gallus	Local chicken	N/A	This study
ISEA2P46	OL212	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Island, Tikopia, Matafanga Village	Gallus gallus	Local chicken	N/A	This study
ISEA2P59	OL225	This study	D	Hap239	N/A	Oceania	N/A	Solomon Islands	Santa Cruz, Utapua, Nembao Village	Gallus gallus	Local chicken	N/A	This study
ISEA2P13	OL113	This study	D	Hap260	N/A	Oceania	N/A	Solomon Islands	Treasury Islands, Mono Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P15	OL125	This study	D	Hap260	N/A	Oceania	N/A	Solomon Islands	Treasury Islands, Mono Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P19	OL129	This study	D	Hap260	N/A	Oceania	N/A	Solomon Islands	Rendova Island, Egmolo Bay	Gallus gallus	Local chicken	N/A	This study
ISEA2P20	OL130	This study	D	Hap260	N/A	Oceania	N/A	Solomon Islands	Rendova Island, Egmolo Bay	Gallus gallus	Local chicken	N/A	This study
ISEA2P21	OL131	This study	D	Hap260	N/A	Oceania	N/A	Solomon Islands	Rendova Island, Egmolo Bay	Gallus gallus	Local chicken	N/A	This study

ISEA2P48	OL214	This study	D	Hap260	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Island, Tikopia, Matafanga Village	Gallus gallus	Local chicken	N/A	This study
ISEA2P49	OL215	This study	D	Hap260	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Island, Tikopia, Matafanga Village	Gallus gallus	Local chicken	N/A	This study
ISEA2P07	OL317	This study	D	Hap261	N/A	ISEA	N/A	Solomon Islands	Santa Cruz Islands, Temotu Neo Island, Maglelo	Gallus gallus	Local chicken	N/A	This study
ISEA2P37	OL202	This study	D	Hap261	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Islands, Nendo Island, Lata	Gallus gallus	Local chicken	N/A	This study
ISEA2P38	OL203	This study	D	Hap261	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Islands, Nendo Island, Lata	Gallus gallus	Local chicken	N/A	This study
ISEA2P51	OL217	This study	D	Hap262	N/A	Oceania	N/A	Solomon Islands	Temotu Province, Anuta Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P53	OL219	This study	D	Hap262	N/A	Oceania	N/A	Solomon Islands	Temotu Province, Anuta Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P09	OL319	This study	D	Hap33	N/A	ISEA	N/A	Solomon Islands	Santa Cruz Islands, Temotu Neo Island, Luetekati	Gallus gallus	Local chicken	N/A	This study
ISEA2P11	OL111	This study	D	Hap33	N/A	Oceania	N/A	Solomon Islands	Treasury Islands, Mono Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P12	OL112	This study	D	Hap33	N/A	Oceania	N/A	Solomon Islands	Treasury Islands, Mono Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P14	OL114	This study	D	Hap33	N/A	Oceania	N/A	Solomon Islands	Treasury Islands, Mono Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P22	OL133	This study	D	Hap33	N/A	Oceania	N/A	Solomon Islands	Russell Islands, Pavuvu Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P45	OL211	This study	D	Hap33	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Island, Tikopia, Matafanga Village	Gallus gallus	Local chicken	N/A	This study
ISEA2P52	OL218	This study	D	Hap33	N/A	Oceania	N/A	Solomon Islands	Temotu Province, Anuta Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P54	OL220	This study	D	Hap33	N/A	Oceania	N/A	Solomon Islands	Temotu Province, Anuta Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P55	OL221	This study	D	Hap33	N/A	Oceania	N/A	Solomon Islands	Temotu Province, Anuta Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P02	OL310	This study	D	Hap35	N/A	ISEA	N/A	Solomon Islands	Makira-Ulawa, Nukukaisi	Gallus gallus	Local chicken	N/A	This study
ISEA2P04	OL312	This study	D	Hap35	N/A	ISEA	N/A	Solomon Islands	Makira-Ulawa, Waimasi Bay	Gallus gallus	Local chicken	N/A	This study
ISEA2P05	OL314	This study	D	Hap35	N/A	ISEA	N/A	Solomon Islands	Makira-Ulawa, Waimasi Bay	Gallus gallus	Local chicken	N/A	This study
ISEA2P06	OL316	This study	D	Hap35	N/A	ISEA	N/A	Solomon Islands	Makira-Ulawa, Nukukaisi	Gallus gallus	Local chicken	N/A	This study
ISEA2P10	AL008	This study	D	Hap35	N/A	ISEA	N/A	Solomon Islands	Makira-Ulawa, Nukukaisi	Gallus gallus	Local chicken	N/A	This study
ISEA2P32	OL151	This study	D	Hap35	N/A	Oceania	N/A	Solomon Islands	Nggela Island, Mana Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P35	OL200	This study	D	Hap35	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Islands, Nendo Island, Lata	Gallus gallus	Local chicken	N/A	This study
ISEA2P36	OL201	This study	D	Hap35	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Islands, Nendo Island, Lata	Gallus gallus	Local chicken	N/A	This study
ISEA2P56	OL222	This study	D	Hap35	N/A	Oceania	N/A	Solomon Islands	Temotu Province, Anuta Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P57	OL223	This study	D	Hap35	N/A	Oceania	N/A	Solomon Islands	Temotu Province, Anuta Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P58	OL224	This study	D	Hap35	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Island, Patteson High School	Gallus gallus	Local chicken	N/A	This study
ISEA1P70	OL384	This study	D	Hap147	N/A	ISEA	N/A	Sulawesi	Kendari, Andowia	Gallus gallus	Local chicken	N/A	This study
ISEA1P74	OL392	This study	D	Hap16	N/A	ISEA	N/A	Sulawesi	Buton Isle, Lapuli	Gallus gallus	Local chicken	N/A	This study
ISEA1P66	OL379	This study	D	Hap32	N/A	ISEA	N/A	Sulawesi	Buton Isle, Kakenauwe	Gallus gallus	Local chicken	N/A	This study
ISEA1P71	OL387	This study	D	Hap32	N/A	ISEA	N/A	Sulawesi	Buton Isle, Kakenauwe	Gallus gallus	Local chicken	N/A	This study
ISEA1P72	OL389	This study	D	Hap32	N/A	ISEA	N/A	Sulawesi	Buton Isle, Kaweli	Gallus gallus	Local chicken	N/A	This study
ISEA1P76	OL401	This study	D	Hap32	N/A	ISEA	N/A	Sulawesi	Buton Isle, Kontawu	Gallus gallus	Local chicken	N/A	This study
ISEA1P77	OL404	This study	D	Hap32	N/A	ISEA	N/A	Sulawesi	Buton Isle, Jantan	Gallus gallus	Local chicken	N/A	This study
ISEA1P75	OL400	This study	D	Hap324	N/A	ISEA	N/A	Sulawesi	Buton Isle, Toruku	Gallus gallus	Local chicken	N/A	This study
ISEA1P69	OL383	This study	D	Hap325	N/A	ISEA	N/A	Sulawesi	Buton Isle, Lagunturu	Gallus gallus	Local chicken	N/A	This study
ISEA1P68	OL382	This study	D	Hap326	N/A	ISEA	N/A	Sulawesi	Buton Isle, Wagari	Gallus gallus	Local chicken	N/A	This study
ISEA1P73	OL391	This study	D	Hap326	N/A	ISEA	N/A	Sulawesi	Buton Isle, Talingko	Gallus gallus	Local chicken	N/A	This study
ISEA1P67	OL380	This study	D	Hap35	N/A	ISEA	N/A	Sulawesi	Buton Isle, Kontawu	Gallus gallus	Local chicken	N/A	This study
ISEA1P78	OL405	This study	D	Hap35	N/A	ISEA	N/A	Sulawesi	Buton Isle, Lapuli	Gallus gallus	Local chicken	N/A	This study
ISEA2P90	Vanuatu33	FJ914349	D	Hap123	D	Oceania		Vanuatu	Tanna	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P61	Vanuatu03	FJ914319	D	Hap239	D20	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P62	Vanuatu04	FJ914320	D	Hap239	D20	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P64	Vanuatu06	FJ914322	D	Hap239	D20	Oceania		Vanuatu	Ambae	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P71	Vanuatu13	FJ914329	D	Hap239	D20	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P76	Vanuatu18	FJ914334	D	Hap239	D20	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P80	Vanuatu22	FJ914338	D	Hap239	D20	Oceania		Vanuatu	Efate, Port Vila	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P82	Vanuatu24	FJ914340	D	Hap239	D20	Oceania		Vanuatu	Efate, Port Vila	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P83	Vanuatu25	FJ914341	D	Hap239	D20	Oceania		Vanuatu	Efate, Port Vila	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P84	Vanuatu26	FJ914342	D	Hap239	D20	Oceania		Vanuatu	Efate, Port Vila	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P85	Vanuatu27	FJ914343	D	Hap239	D20	Oceania		Vanuatu	Efate, Port Vila	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P91	Vanuatu34	FJ914350	D	Hap239	D20	Oceania		Vanuatu	Tanna	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P92	Vanuatu35	FJ914351	D	Hap239	D20	Oceania		Vanuatu	Ambae	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P95	Vanuatu38	FJ914354	D	Hap239	D20	Oceania		Vanuatu	Ambae	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P96	Vanuatu39	FJ914355	D	Hap239	D20	Oceania		Vanuatu	Ambae	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P97	Vanuatu40	FJ914356	D	Hap239	D20	Oceania		Vanuatu	Efate, Port Vila	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P98	Vanuatu42	FJ914358	D	Hap239	D20	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P65	Vanuatu07	FJ914323	D	Hap271	D36	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P67	Vanuatu09	FJ914325	D	Hap271	D36	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P68	Vanuatu10	FJ914326	D	Hap271	D36	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P69	Vanuatu11	FJ914327	D	Hap271	D36	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P70	Vanuatu12	FJ914328	D	Hap271	D36	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P72	Vanuatu14	FJ914330	D	Hap271	D36	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P73	Vanuatu15	FJ914331	D	Hap271	D36	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P74	Vanuatu16	FJ914332	D	Hap271	D36	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P99	Vanuatu43	FJ914359	D	Hap271	D36	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P75	Vanuatu17	FJ914333	D	Hap272	D38	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P77	Vanuatu19	FJ914335	D	Hap272	D38	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P88	Vanuatu30	FJ914346	D	Hap273	D34	Oceania		Vanuatu	Tanna	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P89	Vanuatu31	FJ914347	D	Hap274	D33	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P63	Vanuatu05	FJ914321	D	Hap33	D22	Oceania		Vanuatu	Ambae	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P66	Vanuatu08	FJ914324	D	Hap33	D22	Oceania		Vanuatu	Aneityum	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P81	Vanuatu23	FJ914339	D	Hap33	D22	Oceania		Vanuatu	Efate, Port Vila	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P87	Vanuatu29	FJ914345	D	Hap33	D22	Oceania		Vanuatu	Efate, Erakor	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P94	Vanuatu37	FJ914353	D	Hap33	D22	Oceania		Vanuatu	Ambae	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P78	Vanuatu20	FJ914336	D	Hap35	D27	Oceania		Vanuatu	Efate, Port Vila	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P86	Vanuatu28	FJ914344	D	Hap35	D27	Oceania		Vanuatu	Efate, Port Vila	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA2P93	Vanuatu36	FJ914352	D	Hap35	D27	Oceania		Vanuatu	Ambae	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA1P05	GuamFight005	FJ914366	E	Hap02	E01	Oceania		Guam	N/A	Gallus gallus domesticus	Gamecock	N/A	Dancause et al., 2011

ISEA1P04	GuamFight004	FJ914365	E	Hap30	E03	Oceania		Guam	N/A	Gallus gallus domesticus	Gamecock	N/A	Dancause et al., 2011
ISEA1P16	isolate 3	AY642130	E	Hap01	E06	Asia	ISEA	Indonesia	N/A	Gallus gallus domesticus	Local chicken	N/A	Liu et al., 2006
ISEA1P17	isolate 8	AY642131	E	Hap01	E06	Asia	ISEA	Indonesia	N/A	Gallus gallus domesticus	Local chicken	N/A	Liu et al., 2006
ISEA1P18	isolate 5	AY642132	E	Hap01	E06	Asia	ISEA	Indonesia	N/A	Gallus gallus domesticus	Local chicken	N/A	Liu et al., 2006
ISEA1P19	isolate 2	AY642133	E	Hap01	E06	Asia	ISEA	Indonesia	N/A	Gallus gallus domesticus	Local chicken	N/A	Liu et al., 2006
ISEA1P20	OL286	This study	E	Hap02	N/A	ISEA	N/A	Indonesia (Papua)	Enarotali	Gallus gallus	Local chicken	N/A	This study
ISEA1P32	OL93	This study	E	Hap01	N/A	ISEA	N/A	Papua New Guinea	Karkar Island, Miak	Gallus gallus	Local chicken	N/A	This study
ISEA1P44	OL232	This study	E	Hap02	N/A	ISEA	N/A	Philippines	Cebu City	Gallus gallus	Local chicken	N/A	This study
ISEA1P50	OL253	This study	E	Hap02	N/A	ISEA	N/A	Philippines	Camiguin	Gallus gallus	Local chicken	N/A	This study
ISEA1P52	OL255	This study	E	Hap02	N/A	ISEA	N/A	Philippines	Camiguin	Gallus gallus	Local chicken	N/A	This study
ISEA1P54	OL257	This study	E	Hap02	N/A	ISEA	N/A	Philippines	Camiguin	Gallus gallus	Local chicken	N/A	This study
ISEA1P56	OL261	This study	E	Hap02	N/A	ISEA	N/A	Philippines	Balicasag Island	Gallus gallus	Local chicken	N/A	This study
ISEA1P58	OL263	This study	E	Hap02	N/A	ISEA	N/A	Philippines	Jagna Province	Gallus gallus	Local chicken	N/A	This study
ISEA1P63	OL86	This study	E	Hap02	N/A	ISEA	N/A	Philippines	Pintuyan town	Gallus gallus	Local chicken	N/A	This study
ISEA1P51	OL254	This study	E	Hap30	N/A	ISEA	N/A	Philippines	Camiguin	Gallus gallus	Local chicken	N/A	This study
ISEA1P45	OL233	This study	E	Hap41	N/A	ISEA	N/A	Philippines	Cebu City	Gallus gallus	Local chicken	N/A	This study
ISEA2P47	OL213	This study	E	Hap02	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Island, Tikopia, Rofaea Village	Gallus gallus	Local chicken	N/A	This study
ISEA2P50	OL216	This study	E	Hap02	N/A	Oceania	N/A	Solomon Islands	Santa Cruz Island, Tikopia, Matafanga Village	Gallus gallus	Local chicken	N/A	This study
ISEA2P27	OL138	This study	E	Hap27	N/A	Oceania	N/A	Solomon Islands	Nggela Island, Mana Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P28	OL139	This study	E	Hap27	N/A	Oceania	N/A	Solomon Islands	Nggela Island, Mana Island	Gallus gallus	Local chicken	N/A	This study
ISEA2P60	Vanuatu01	FJ914317	E	Hap270	E32	Oceania		Vanuatu	Efate, Port Vila	Gallus gallus domesticus	Local chicken	N/A	Dancause et al., 2011
ISEA1P48	OL251	This study	I	Hap14	N/A	ISEA	N/A	Philippines	Camiguin	Gallus gallus	Local chicken	N/A	This study

Supplementary Table ST9: Full details for thecommercial breeds including location of samples, haplogroups, haplotypes, Sample ID, Genbank Accession Number and Source. Sorted by haplogroups and country.

AMOVA Ref	Samples ID	Genbank Acc. Nb	Haplogroup (201bp)	Haplotype (201bp)	Haplogroup	Region	Category	Breed	Additional Status Info	Source
Comm248	AM746039	AM746039	A	Hap31	B07	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm18	HM015605d	HM015605	A	Hap31	A04	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm19	HM015605e	HM015605	A	Hap31	A04	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm14	HM015605	HM015605	A	Hap31	A04	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm15	HM015605a	HM015605	A	Hap31	A04	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm16	HM015605b	HM015605	A	Hap31	A04	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm17	HM015605c	HM015605	A	Hap31	A04	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm01	HM015602a	HM015602	A	Hap13	A01	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm02	HM015602b	HM015602	A	Hap13	A01	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm03	HM015602c	HM015602	A	Hap13	A01	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm04	HM015602d	HM015602	A	Hap13	A01	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm05	HM015602e	HM015602	A	Hap13	A01	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm215	AM746035	AM746035	A	Hap13	B03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm216	AM746035a	AM746035	A	Hap13	B03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm217	AM746035b	AM746035	A	Hap13	B03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm218	AM746035c	AM746035	A	Hap13	B03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm219	AM746035d	AM746035	A	Hap13	B03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm220	AM746035e	AM746035	A	Hap13	B03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm221	AM746035f	AM746035	A	Hap13	B03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm222	AM746035g	AM746035	A	Hap13	B03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm223	AM746035h	AM746035	A	Hap13	B03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm224	AM746035i	AM746035	A	Hap13	B03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm225	AM746035j	AM746035	A	Hap13	B03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm226	AM746035k	AM746035	A	Hap13	B03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm06	HM015603b	HM015603	A	Hap15	A02	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm07	HM015603c	HM015603	A	Hap15	A02	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm08	HM015603d	HM015603	A	Hap15	A02	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm09	HM015603e	HM015603	A	Hap15	A02	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm10	HM015603f	HM015603	A	Hap15	A02	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm11	HM015603g	HM015603	A	Hap15	A02	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm12	HM015603h	HM015603	A	Hap15	A02	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm20	HM015606	HM015606	A	Hap385	A05	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm247	AM746038	AM746038	A	Hap83	B06	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm246	AM746037	AM746037	A	Hap60	B05	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm13	HM015603i	HM015603	A	Hap15	A02	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm196	AM746033	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm197	AM746033a	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm198	AM746033b	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm199	AM746033c	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm200	AM746033d	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm201	AM746033e	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm202	AM746033f	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm203	AM746033g	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm204	AM746033h	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm205	AM746033i	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm206	AM746033j	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm207	AM746033k	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm208	AM746033l	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm209	AM746033m	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm210	AM746033n	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm211	AM746033o	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm212	AM746033p	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm213	AM746033q	AM746033	A	Hap15	B01	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008

Comm214	AM746034	AM746034	A	Hap82	B02	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm239	AM746036l	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm240	AM746036m	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm241	AM746036n	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm242	AM746036o	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm243	AM746036p	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm244	AM746036q	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm245	AM746036r	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm23	HM015607a	HM015607a	B	Hap21	B01	N/A	*Gallus gallus domesticus*	Broiler Female Line 2	Commercial	Dana et al., 2010
Comm31	HM015607i	HM015607	B	Hap21	B01	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm32	HM015607j	HM015607	B	Hap21	B01	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm33	HM015607k	HM015607	B	Hap21	B01	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm34	HM015607l	HM015607	B	Hap21	B01	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm35	HM015607m	HM015607	B	Hap21	B01	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm21	HM015607	HM015607	B	Hap21	B01	N/A	*Gallus gallus domesticus*	Broiler Male Line 1	Commercial	Dana et al., 2010
Comm22	HM015607n	HM015607	B	Hap21	B01	N/A	*Gallus gallus domesticus*	Broiler Male Line 1	Commercial	Dana et al., 2010
Comm24	HM015607b	HM015607	B	Hap21	B01	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm25	HM015607c	HM015607	B	Hap21	B01	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm26	HM015607d	HM015607	B	Hap21	B01	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm27	HM015607e	HM015607	B	Hap21	B01	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm28	HM015607f	HM015607	B	Hap21	B01	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm29	HM015607g	HM015607	B	Hap21	B01	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm30	HM015607h	HM015607	B	Hap21	B01	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm227	AM746036	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm228	AM746036a	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm229	AM746036b	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm230	AM746036c	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm231	AM746036d	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm232	AM746036e	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm233	AM746036f	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm234	AM746036g	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm235	AM746036h	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm236	AM746036i	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm237	AM746036j	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm238	AM746036k	AM746036	B	Hap21	B04	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm316	AM746055	AM746055	D	Hap91	C16	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm310	AM746052	AM746052	D	Hap90	C13	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm294	AM746047r	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm295	AM746047s	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm296	AM746047t	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm297	AM746047u	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm298	AM746047v	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm299	AM746047w	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm272	AM746042ba	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm273	AM746042bb	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm274	AM746042bc	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm275	AM746042bd	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm315	AM746054	AM746054	E	Hap41	C15	N/A	*Gallus gallus domesticus*	Boiler dam line	Commercial	Muchadeyi et al., 2008
Comm104	HM015614k	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 2	Commercial	Dana et al., 2010
Comm105	HM015614l	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 2	Commercial	Dana et al., 2010
Comm106	HM015614m	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 2	Commercial	Dana et al., 2010
Comm107	HM015614n	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 2	Commercial	Dana et al., 2010
Comm108	HM015614o	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 2	Commercial	Dana et al., 2010
Comm109	HM015614p	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 2	Commercial	Dana et al., 2010
Comm110	HM015614q	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 2	Commercial	Dana et al., 2010
Comm111	HM015614r	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 2	Commercial	Dana et al., 2010
Comm112	HM015614s	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 2	Commercial	Dana et al., 2010
Comm113	HM015614t	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 2	Commercial	Dana et al., 2010
Comm114	HM015614u	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 2	Commercial	Dana et al., 2010

Comm115	HM015614v	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 2	Commercial	Dana et al., 2010
Comm37	HM015610ca	HM015610	E	Hap02	E01	N/A	*Gallus gallus domesticus*	Broiler Female Line 2	Commercial	Dana et al., 2010
Comm120	HM015615a	HM015615	E	Hap322	E06	N/A	*Gallus gallus domesticus*	Broiler Female Line 2	Commercial	Dana et al., 2010
Comm62	HM015614ae	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm63	HM015614af	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm64	HM015614ag	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm65	HM015614ah	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm66	HM015614ai	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm67	HM015614aj	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm68	HM015614ak	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm69	HM015614al	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm70	HM015614am	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm71	HM015614an	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm72	HM015614ao	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm73	HM015614ap	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm74	HM015614aq	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm75	HM015614ar	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm76	HM015614as	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm77	HM015614at	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm78	HM015614au	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm79	HM015614av	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm80	HM015614aw	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm81	HM015614ax	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm82	HM015614ay	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm83	HM015614az	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm85	HM015614ba	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm86	HM015614bb	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm87	HM015614bc	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm88	HM015614bd	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm89	HM015614be	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm90	HM015614bf	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm91	HM015614bg	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm92	HM015614bh	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm93	HM015614bi	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm94	HM015614bj	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm95	HM015614bk	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm40	HM015610cd	HM015610	E	Hap02	E01	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm41	HM015610ce	HM015610	E	Hap02	E01	N/A	*Gallus gallus domesticus*	Broiler Female Line 4	Commercial	Dana et al., 2010
Comm100	HM015614g	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 1	Commercial	Dana et al., 2010
Comm101	HM015614h	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 1	Commercial	Dana et al., 2010
Comm102	HM015614i	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 1	Commercial	Dana et al., 2010
Comm103	HM015614j	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 1	Commercial	Dana et al., 2010
Comm56	HM015614	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 1	Commercial	Dana et al., 2010
Comm57	HM015614a	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 1	Commercial	Dana et al., 2010
Comm84	HM015614b	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 1	Commercial	Dana et al., 2010
Comm96	HM015614c	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 1	Commercial	Dana et al., 2010
Comm97	HM015614d	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 1	Commercial	Dana et al., 2010
Comm98	HM015614e	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 1	Commercial	Dana et al., 2010
Comm99	HM015614f	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 1	Commercial	Dana et al., 2010
Comm36	HM015610bz	HM015610	E	Hap02	E01	N/A	*Gallus gallus domesticus*	Broiler Male Line 1	Commercial	Dana et al., 2010
Comm133	HM015618	HM015618	E	Hap386	E09	N/A	*Gallus gallus domesticus*	Broiler Male Line 1	Commercial	Dana et al., 2010
Comm116	HM015614w	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm117	HM015614x	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm118	HM015614y	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm119	HM015614z	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm58	HM015614aa	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm59	HM015614ab	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm60	HM015614ac	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm61	HM015614ad	HM015614	E	Hap01	E05	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010

Comm38	HM015610cb	HM015610	E	Hap02	E01	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm39	HM015610cc	HM015610	E	Hap02	E01	N/A	*Gallus gallus domesticus*	Broiler Male Line 3	Commercial	Dana et al., 2010
Comm267	AM746042av	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm268	AM746042aw	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm269	AM746042ax	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm270	AM746042ay	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm271	AM746042az	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm301	AM746049	AM746049	E	Hap02	C10	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm42	HM015610cf	HM015610	E	Hap02	E01	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm43	HM015610cg	HM015610	E	Hap02	E01	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm44	HM015610ch	HM015610	E	Hap02	E01	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm45	HM015610ci	HM015610	E	Hap02	E01	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm46	HM015610cj	HM015610	E	Hap02	E01	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm47	HM015610ck	HM015610	E	Hap02	E01	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm48	HM015610cl	HM015610	E	Hap02	E01	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm49	HM015610cm	HM015610	E	Hap02	E01	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm50	HM015610cn	HM015610	E	Hap02	E01	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm134	HM015619	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm135	HM015619a	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm136	HM015619b	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm137	HM015619c	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm138	HM015619d	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm139	HM015619e	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm140	HM015619f	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm141	HM015619g	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm142	HM015619h	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm143	HM015619i	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm144	HM015619j	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm145	HM015619k	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm146	HM015619l	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm147	HM015619m	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm148	HM015619n	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm149	HM015619o	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm150	HM015619p	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm151	HM015619q	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm152	HM015619r	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm153	HM015619s	HM015619	E	Hap27	E10	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm303	AM746051	AM746051	E	Hap27	C12	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm304	AM746051a	AM746051	E	Hap27	C12	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm305	AM746051b	AM746051	E	Hap27	C12	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm306	AM746051c	AM746051	E	Hap27	C12	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm307	AM746051d	AM746051	E	Hap27	C12	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm308	AM746051e	AM746051	E	Hap27	C12	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm309	AM746051f	AM746051	E	Hap27	C12	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm128	HM015617	HM015617	E	Hap28	E08	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm129	HM015617a	HM015617	E	Hap28	E08	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm130	HM015617b	HM015617	E	Hap28	E08	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm131	HM015617c	HM015617	E	Hap28	E08	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm311	AM746053	AM746053	E	Hap28	C14	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm312	AM746053a	AM746053	E	Hap28	C14	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm313	AM746053b	AM746053	E	Hap28	C14	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm314	AM746053c	AM746053	E	Hap28	C14	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm250	AM746041g	AM746041	E	Hap30	C02	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm251	AM746041h	AM746041	E	Hap30	C02	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm252	AM746041i	AM746041	E	Hap30	C02	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm253	AM746041j	AM746041	E	Hap30	C02	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm254	AM746041k	AM746041	E	Hap30	C02	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm255	AM746041l	AM746041	E	Hap30	C02	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm256	AM746041m	AM746041	E	Hap30	C02	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008

Comm257	AM746041n	AM746041	E	Hap30	C02	N/A	*Gallus gallus domesticus*	Brown egg layer	Commercial	Muchadeyi et al., 2008
Comm51	HM015612b	HM015612	E	Hap30	E03	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm52	HM015612c	HM015612	E	Hap30	E03	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm53	HM015612d	HM015612	E	Hap30	E03	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm54	HM015612e	HM015612	E	Hap30	E03	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm55	HM015612f	HM015612	E	Hap30	E03	N/A	*Gallus gallus domesticus*	Brown Egg Layer	Commercial	Dana et al., 2010
Comm161	HL15	GU449066	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer : Hy-line variety brown	Commercial	Miao et al., 2012
Comm162	HL18	GU449067	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer : Hy-line variety brown	Commercial	Miao et al., 2012
Comm163	HL19	GU449068	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer : Hy-line variety brown	Commercial	Miao et al., 2012
Comm164	HL20	GU449069	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer : Hy-line variety brown	Commercial	Miao et al., 2012
Comm187	HL3	GU449092	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer : Hy-line variety brown	Commercial	Miao et al., 2012
Comm188	HL6	GU449093	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer : Hy-line variety brown	Commercial	Miao et al., 2012
Comm191	HL10	GU449096	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer : Hy-line variety brown	Commercial	Miao et al., 2012
Comm192	HL11	GU449097	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer : Hy-line variety brown	Commercial	Miao et al., 2012
Comm193	HL12	GU449098	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer : Hy-line variety brown	Commercial	Miao et al., 2012
Comm194	HL13	GU449099	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer : Hy-line variety brown	Commercial	Miao et al., 2012
Comm189	HL7	GU449094	E	Hap28	E	N/A	*Gallus gallus domesticus*	brown egg layer : Hy-line variety brown	Commercial	Miao et al., 2012
Comm190	HL8	GU449095	E	Hap28	E	N/A	*Gallus gallus domesticus*	brown egg layer : Hy-line variety brown	Commercial	Miao et al., 2012
Comm165	LM1	GU449070	E	Hap02	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm166	LM2	GU449071	E	Hap02	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm167	LM3	GU449072	E	Hap02	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm177	LM15	GU449082	E	Hap02	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm182	LM28	GU449087	E	Hap02	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm195	HL14	GU449100	E	Hap02	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm168	LM4	GU449073	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm170	LM6	GU449075	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm171	LM7	GU449076	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm172	LM8	GU449077	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm173	LM9	GU449078	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm174	LM10	GU449079	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm175	LM11	GU449080	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm176	LM12	GU449081	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm178	LM18	GU449083	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm179	LM21	GU449084	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm184	LM34	GU449089	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm185	LM44	GU449090	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm186	LM57	GU449091	E	Hap27	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm169	LM5	GU449074	E	Hap28	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm180	LM23	GU449085	E	Hap28	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm181	LM25	GU449086	E	Hap28	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm183	LM33	GU449088	E	Hap30	E	N/A	*Gallus gallus domesticus*	brown egg layer: Lohmann brown	Commercial	Miao et al., 2012
Comm287	AM746047k	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm288	AM746047l	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm289	AM746047m	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm290	AM746047n	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm291	AM746047o	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm292	AM746047p	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm293	AM746047q	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm302	AM746050	AM746050	E	Hap89	C11	N/A	*Gallus gallus domesticus*	sire line	Commercial	Muchadeyi et al., 2008
Comm276	AM746047	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm277	AM746047a	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm278	AM746047b	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm279	AM746047c	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm280	AM746047d	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm281	AM746047e	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm282	AM746047f	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm283	AM746047g	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm284	AM746047h	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm285	AM746047i	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008

Comm286	AM746047j	AM746047	E	Hap01	C08	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm154	HM015621	HM015621	E	Hap02	E12	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm155	HM015621a	HM015621	E	Hap02	E12	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm156	HM015621b	HM015621	E	Hap02	E12	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm157	HM015621c	HM015621	E	Hap02	E12	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm158	HM015621d	HM015621	E	Hap02	E12	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm159	HM015621e	HM015621	E	Hap02	E12	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm160	HM015621f	HM015621	E	Hap02	E12	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm258	AM746042am	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm259	AM746042an	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm260	AM746042ao	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm261	AM746042ap	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm262	AM746042aq	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm263	AM746042ar	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm264	AM746042as	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm265	AM746042at	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm266	AM746042au	AM746042	E	Hap02	C03	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm132	HM015617d	HM015617	E	Hap28	E08	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm121	HM015616i	HM015616	E	Hap29	E07	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm122	HM015616j	HM015616	E	Hap29	E07	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm123	HM015616k	HM015616	E	Hap29	E07	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm124	HM015616l	HM015616	E	Hap29	E07	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm125	HM015616m	HM015616	E	Hap29	E07	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm126	HM015616n	HM015616	E	Hap29	E07	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm127	HM015616o	HM015616	E	Hap29	E07	N/A	*Gallus gallus domesticus*	White Egg Layer	Commercial	Dana et al., 2010
Comm249	AM746041f	AM746041	E	Hap30	C02	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008
Comm300	AM746048	AM746048	E	Hap88	C09	N/A	*Gallus gallus domesticus*	White egg layer	Commercial	Muchadeyi et al., 2008

Source	Sample Collection Details	Breeds
Adebambo et al., 2009	Chicken blood samples from a total of 98 individuals belonging to 3 major phenotypes were collected from South-western Nigeria	Anak Titan, Frizzle, Opipi, OpipixFrizzle, Fulani, Giriraja, Naked Neck, Yaffa, Normal (Local Chicken)
Adebambo et al., 2010	Genomic DNA was extracted from 232 local unrelated chickens from 4 geographic regions in Nigeria.	Unknown
Berthouly-Salazar et al., 2010	Vietnamese chickens originate from the northern Ha Giang province (22°08' - 23°19' N; 104°33' - 105°33' E) bordering the Yunnan Chinese province. A total of 106 mtDNA Dloop sequences from 40 villages among 10 communes were analysed.	Beijing Youkei, Huxu, Qinyuan blotted, Luke, Wanfeng Wugu, Dwarf Wugu, Guizhou Mountain Wugu, Heikang Layer, Wumeng Wugu, Gushi Wugu, Henan Cockfight, Taihe Silky, Black Silky Hubei, Silky Hybrid, Silky Hubei, Yunxian Wugu, Xuefeng, Langshan, Silky Jiangsu, Yugan Wugu, Bigbone, Souguang, Caoke, Chengdu Black Silky, Chengdu Silky, Sichuan Mountain Wugu, Ya'an Non Wugu, Ya'an Wugu, Tibetan, Chahua, Chigulu, Douji, Jiangbian, Lv'erwu, Nixi, Shenggou, Tenchongxue, Whenshanshandi, Wuding, Yanjing Wugu, Ha Giang
Chang et al., 2011	Six local chicken breeds have been maintained in a conservation programme at NCHU since 1982. A representative set of 50 animals, 25 males and 25 females, was sampled according to pedigree records.	Hua-Tung (HT), Hsin-Yi (HY), Ju-Chi (JC) and Quemoy (QM) are from the Taiwan region, Shek-Ki (SK) is from Hong-Kong, and Nagoya (NG) is from Japan.
Dancause et al., 2011	Chicken feathers were collected from 12 sampling sites representing nine villages and four islands in the Vanuatu archipelago: Ambae, Aneityum, Efate, and Tanna (see Figure S1), and from Guam in the Mariana Islands.	Unknown
Eriksson et al., 2008	DNA samples from various domestic breeds collected by the AvianDiv project were used for IBD mapping together with samples from experimental populations used by the Uppsala group. The origin of samples from different species of junglefowl is given together with information on the domestic chicken included in this study.	White Leghorn Line 13, Silkie, Village chicken (local)
Fu et al., 1999	A total of 539 bases of mitochondrial DNA D-loop region of five native chicken breeds of Zhejiang province was sequenced.	Xianju, Lingkun, Baiyiner, Wugu, Xiaoshan.
Fumihito et al., 1996	Samples collected from various locations across the world. Sampling locations provided. See their Table 1 for further information	Ayam Cemani, Ayam Kokok Balenggek, Ayam Pelung, Barred Plymouth Rock, Nagoya, Thai Bantam
Gongora et al., 2008	Blood samples were obtained from 41 modern Chilean chickens from 12 locations in Chile. The authenticity of the Araucana specimens was assessed by J.A.A., an international authority on this breed.	Araucanas (Quetro, Collonca, Collonca de Aretes), Creole, Japanese Long Tail, Passion Fowl
Komiyama et al., 2003	A total of 42 samples of Shamo (Gallus gallus domesticus) were collected from representative breeds of 11 prefectures in three different areas: Honshu area: Tokyo, Ibaraki, Saitama, Tochigi, Chiba, Niigata, and Osaka; Kyushu area: Nagasaki (Tsushima), Saga and Kagoshima including Amamioshima and Tokunoshima; and Okinawa area: Okinawa Islands including Ishigakijima.In this study, we sequenced 1100 bp of the mtDNA Dloop region for 42 Shamo's in Japan, 12 native chickens of Japan and 5 gamecocks of Southeast Asia.	Koshamo, Shamo, Yamato-Gunkei
Komiyama et al., 2004	Blood samples were collected from adult competition chickens raised by special breeders throughout Japan. All breeders were interviewed using questionnaires to determine the birthplace, the genealogical records and any other useful information regarding the sample chickens to clarify their genetic and cultural backgrounds.	Totenko, Koeyoshi, Tomaru, Uzurachabo, Minohikidori, Shokoku, Shambo, Chabo, Ukokkei, Kawachi-yakko, Satsumadori, Koshamo, Yamato-gunkei, Nankin-shamo
Lee et al., 2007	Blood samples of 31 Korean Ogol chicken (Gallus gallus domesticus) were collected from National Livestock Research Institute (NLRI) in Korea. Approximately 500 birds of this breed have been maintained per year at NLRI for conserving this valuable genetic resource.	Ogol
Dana et al., 2010	The study comprises of 273 individuals were selected from populations and breeds. This included commercial chickens (n = 160) selected for economically important traits and fancy breeds (n = 113) from The Netherlands. The name and sample size for each breed are shown in Table 1.	Groninger Mew, Lakenvelder, Drente fowl, Assendelft fowl, Frisian fowl, Hamburgh, Polish bearded, Dutch owl-bearded, Polish non-bearded, Breda fowl, Brabanter, Holland fowl, Kraienkoppe, Broiler Male line 1 (Commercial), Broiler Female line 2 (Commercial), Broiler Male line 3 (Commercial), Broiler Female line 4 (Commercial), Brown-Egg Layer (Commercial), White-egg Layer (Commercial)

Liu et al., 2004	12 relatively ancient native chicken breeds from different animal husbandry culture areas in China were sampled for this study. Each breed was represented by 4 specimens for four different lines.	Tibetan, Qingyuan blotted, Henan cockfight, Chahua, Big bone, Beijing youkei, Langshan, Yugan Wugu, Souguang, Taihe Silky, Wumeng Wugu, Yanjing Wugu
Liu et al., 2006	Blood samples of 478 individuals were collected from 31 indigenous chicken populations from small remote villages, in avoidance of sampling recent introduced individuals or crosses of the commercial lines across Eurasia with emphasis on China. Also samples from domestic chickens from Europe, India, Indonesia, Malaysia and the Middle East (Iran, Azerbaijan and Turkmenistan) were also included. 38 red jungle fowl samples were also included from which: 35 were G. g. spadiceus (nine from Burma, 26 from Yunnan Province, China); three were G. g. jabouillei (from Yunnan Province, China). NOTE: It is not described whether the domestic chickens from Europe, India, Indonesia, Malaysia and the Middle East are commercial breeds or not. It would not appear so as it is not described in the breed column. Miao et al., 2011 also categories the chicjens as indigenous	Caoke, Sichuan Mountain Wugu, Chengdu Black Silky, Chengdu Silky, Ya'an Wugu, Ya'an non-Wugu, Heikang layer, Guizhou Mountain Wugu, Dwarf Wugu, Wumeng Wugu, Luke, Wangfeng Wugu, Tibetan, Shenggou, Chahua, Nixi, Wuding, Douji, Yanjing, Jiangbian, Wenshanshandi, Chigulu, Lv'erwu, Tengchongxue, Huxu, *Gallus gallus jabouileii* , *Gallus gallus spadiceus* , Qinyuan, Gushi, Cockfight, Taihe Silky, Yugan Wugu, Jiangsu Silky, Langshan, Hubei Silky, Hubei Black Silky, Yunxian Wugu, Hybrid Silky, Xuefeng, Xiaoshan, Zhejiang Wugu, Linkun, Baiyiner, Xianju, Leghorn, Pekin Bantam, Youkei, Buff Cochin, Tulufan, Luxi, Souguang, Zhangzhou, Big Bone, Ayam kokok balenggek, Ayam cemani, Ayam pelung, Domestic, *Gallus gallus gallus* , *Gallus gallus bankiva* , Thai bantam, Gamecock, White Leghorn, Silky, Chabo, Satsuma-dori, Nagoya-dori, Onaga-dori, Kisyu, Shamo, Koshamo, Yamato-gunkei, Koeyoshi, Totenko, Tomaru, Uzura-Chabo, Kawachi-yakko, Shokoku, Ukokkei, Minohididori, Nankin-shamo, Syokoku, Tokuji-dori, Hinai-dori, Rikutyu-dori, Kosyama, Ryukyu-dori, Uthai chan, Thotenkho, Madagascar game
Miao et al., 2012	We collected samples consisting of 2044 domestic chickens and 51 red junglefowl from China, India and Southeast Asia.	Silky black bone, Caoke, Chahua, Chengdu Yellow, Dehong, Dulong, Fuyang, Guizhou Mountain Wugu, Gushi, Hetian, Huaiyang, Jiangsu Silky, Jilin, Jingu, Jihing, Lijiang, Lindian, Lingnan Yellow, Boai, Mengla, Longyan, Luke, Malong, Myanmar, Nixi, Puer, Quigyan, Red Jungle Fowl, Sanhuang, Shaanxi, Shenggou, Shimen, Sichuan Mountain Wugu, Silky, Taihe, Tibetan, Tulufan, Wuding, Wumeng Wugu, Xingren, Xisha, Xishuangbanna, Xuefeng, Xyun, Ya'an Wugu, Yanjin, Yanzhou, Yunxian Wugu, Zalantun, Zesang, Zinyuan Wugu and Native local breeds from specific town
Miyake et al., 1997	Direct Submission. All 17 specimens have an attributed collection site.	Indigenous domestic chickens
Muchadeyi et al., 2008	A total of 283 chickens were sampled from five eco-zones in Zimbabwe (EcoI - EcoV), from Malawi, Sudan and local Northwest Europe and from broiler and layer purebred commercial and experimental lines.	Local Zimbabwean chickens, White-egg layer, Brown-egg layer, Boiler dam line, sire, Fancy Breed
Mwacharo et al., 2011	Blood samples from 512 genetically unrelated village chickens were collected from 23 populations in four countries in East Africa: Kenya, Ethiopia, Sudan and Uganda. All samples were from unimproved village chickens raised under free-range scavenging	Indigenous chickens - no specific breed
Revay et al., 2010	In this study, we investigated the maternal origin of nine native chicken stocks from three different regions of Hungary (Godollo, Mosonmagyarovar and Hodmezovasarhely)	Hungarian White, Yellow, Speckled and the Transylvanian Naked Neck Black, White and Speckled breeds.
Wada et al., 2008	Direct Submission: All samples allocated a sampling location and corresponding breed	Nagoya, Rhode Island RedxWhite Plymouth Rock, Silky
This Study		Local breeds from remote villages

Supplementary Table ST10: **Details on sample collection for each study**

Supplementary Table ST11: Details on breeds used in this study

Breed / Variety	Type of breed	Origin of local breed	Recognised by ASoP from APA (19)	Recognised by APA (as of 2012)	Recognised by PCoGB (12)	Additional Breed Associations	Additional Information
Anak Titan	Broiler	Israel	☒	☒	☒	N/A	This breed results from long-term selection for efficiency of feed utilisation (1)
Araucana	Multi-purpose	Chili	☒	☑	☑	American Bantam Association, British Araucana Club, Araucana Club of America	There exists three groups or variants of Araucana currently recognized: quetros (ear-tufted and normal tailed), colloncas (nontufted and rumpless), and collonca de aretes (ear-tufted and rumpless) (2)
Assendelft Fowl	Egg production	North Holland	☒	☒	☒	N/A	Country fowl with no recorded history of genetic influence from Asiatic chickens (3)
Ayam Cemani	Exhibition Fowl	Java, Indonesia	☒	☒	☒	N/A	Ayam Cemani is considered a separate breed in Europe and North America, but only a sub-type 'Ayam Kedu Cemani' in Indonesia. It is also a breed used for ritual ceremonies (4).
Ayam Kokok Balenggek	N/A	N/A	☒	☒	☒	N/A	This breed has been adopted as a symbol of the Solok prefecture in Minangkabau. Its perception as a highly esteemed bird could come from its novelty, implying it was introduced to West Sumatra from elsewhere (5)
Ayam Pelung	Crowning and singing	Cianjur district, West Java	☒	☒	☒	N/A	The pelung chicken has several advantages over other free-ranging chickens including a better body posture and development and a long melodious crown. In Java, there exists a Pelung Chicken context (4)
Baiyiner	N/A	Zhejiang province, China	☒	☒	☒	N/A	According to Fu et al., this chickens under study are from a native chicken breed of Zhejiang province (6)
Barnevelder	Multi-purpose	Dutch, Barneveld	☒	☑	☑	The British Barnevelder Club	This Dutch breed has its origin in Barneveld. The breed originated in the mid 19th century by crossing Asian breeds such as Cochins, Malays, Brahmas and Langshan (7).
Beijing Youkei	Multi-purpose	An'ding area, Beijing	☒	☒	☒	N/A	This breed is an ancient native breed from the animal husbandry culture North of China. It originated approximately 250 years old (8).
Bian	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al*. (9)
Big bone	Multi-purpose	Zhuanghe county, Liaoning	☒	☒	☒	N/A	This breed is a native breed from the animal husbandry culture of Northeast China. It originated approximately 200 years ago (8).
Boai	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao et al. (9). It is most likely a native local breed from Bo'ai County in China.
Brabanter	Fancy Fowl	Dutch	☒	☒	☑	The BKU Club	One of the oldest breed of Dutch origin which already existed in 16th and 17th century. The Bantam was formed around 1934 from a cross between Dutch Beard Polands and large Barbaters. This breed is still considered relatively rare (7).
Breda	Fancy Fowl	Dutch	☒	☒	☑	The Dutch Owlbeard Club	Of Dutch origin (3)
Caoke	N/A	N/A	☒	☒	☒	N/A	Breed from Liu *et al* (10)
Chahua	N/A	Dehong County, Yunnan	☒	☒	☒	N/A	This breed is a native breed from the animal husbandry culture of southwest China (8)
Chengdu yellow	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al*. (9)
Chigulu	N/A	N/A	☒	☒	☒	N/A	Breed from Liu *et al* (10)
Creole	N/A	N/A	☒	☒	☒	N/A	Breed from Gongora *et al.* (2)
Dehong	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Dehong, Chin.
Douji	N/A	N/A	☒	☒	☒	N/A	Breed from Liu *et al* (10)
Drente Fowl	Fancy Fowl	Netherlands, province of Drenthe	☒	☒	☒	N/A	Believed to be a country fowl with no recorded history of genetic influence from Asiatic chickens (3). According to Kay, this breed Drente or Dretenche fowl has been found in Holland for centuries (11). It is from the province of Drenthe and originated in the 17th and 18th centuries.
Dulong	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Dulong River Valley, China
Dutch (True) Bantam	Exhibition Fowl	Holland	☒	☒	☑	The Dutch Bantam Club of Great Britain	Recognised as a Dutch breed since 1906 (7)
Dwarf (Wugu)	N/A	N/A	☒	☒	☒	N/A	Not sure if 'dwarf wugu' relates to 'dwarf poultry fowl' or not. Breed from Liu et al., 2006
Friesian Fowl	Fancy Fowl	The Netherlands, from the province of Friesland.	☒	☒	☑	N/A	Friesian fowls are from the windswept northern coastal region of The Netherlands. This region was very isolated until modem times, so the breed is thought to be very similar to those bred in the area 1000 years ago (12). Recognised as a Dutch Poultry Breed.
Fulani	Broiler	Middle belt and norther parts of Nigeria	☒	☒	☒	N/A	The Fulani Ecotype chicken is native to the Fulani tribe in Nigeria (13)
Fuyang	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Fuyang, China
Giri Raja	Multi-purpose	Bangalore's Veterinary College, India	☒	☒	☒	N/A	This breed was developped and announced in 2008 by the Bangalore's Veterinary College in India. It was developped to be less intensively-bred but to provide egg and meat (14)

Groninger Meeuwen	Fancy Fowl	Netherlands (Groningen Province)	☒	☒	☒	Groninger Meeuwen Club	Recognised in 1919 by the Dutch Poultry Breeds. Classified as a rare Dutch breed and believed to have no recorded history of genetic influence from Asiatic chickens (3)
Guizhou Mountain (Wugu)	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Liu *et al* (10) and Miao *et al.* (9). It is most likely a native local breed from the Guizhou Mountains
Gushi	Meat and egg production	Gushi county, Henan province	☒	☒	☒	N/A	Breed native to Gushi county, China's Henan province. Samples from Liu et al (10) Miao et al. (9)
Ha Giang	N/A	Vietnam	☒	☒	☒	N/A	The Ha Giang chickens are local chickens native to the region (15)
Hamburgh	Egg production	Holland	☒	☒	☑		The origin of the Hamburgh is wrapped in mystery. The spangled were bred in Yorkshire and Lancashire three hundred years ago as Pheasants and Mooneys, and there is a book reference to black Pheasants in the North of England in 1702 (12)
Heikang layer	Egg production	N/A	☒	☒	☒	N/A	Originally refered to as 'Hekiang Layer' (10)
Henan cockfighting (Henan Dou Ji)	Cockfighting/recreation	Kaifeng city, Henan	☒	☒	☒	N/A	This breed is an ancient native breed from the animal husbandry culture of southeast China with the breed origin believed to be 2000 years old (8).
Hetian	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Hetian (Huton), China
Hsin-Yi	N/A	Taiwan	☒	☒	☒	N/A	Samples from local Chinese breed in Taiwan (16)
Hua-Tung	N/A	Taiwan	☒	☒	☒	N/A	Samples from local Chinese breed in Taiwan (16)
Huaiyang	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Huaiyang county in Henan, China
Huxu	N/A	China	☒	☒	☒	N/A	Huiyang Huxu is a Chinese domestic chicken breed (17)
Japanese Long Tail ancestry	Ornamental	N/A	☒	☒	☒	N/A	The modern Yokohama chicken (ornamental long-tailed European breed)share Japanese long-tailed ancestry. The first Yokohamas are believed to be Shikoku exported from Japan and given a new name (18). It is here unknown if this/these samples are modern Yokohamas or not.
Japanese True Bantam (Chabo)	Ornamental	Japan	☑	☑	☑	The Japanese Bantam Club of Great Britain	See American Standard of Perfection (19)
Jiangbian	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Jiangbiang in China
Jilin	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Jilin in China
Jinghong	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Jinghong in China
Jingu	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Jingu in China
Jining	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Jining in China
Ju-Chi	N/A	Taiwan	☒	☒	☒	N/A	Samples from local Chinese breed in Taiwan (16)
Kawachi-yakko (Japanese Brave)	Fancy Fowl	Japan	☒	☒	☒	N/A	This breed does not belong to the Shamo classification but has similar characteritics to the latter. It is originally believed to have been established in the late stages of the Edo Era (1603-1867) (20)
Ko-shamo (Japanese Small Game)	Game	Japan	☒	☒	☒	N/A	See (20)
Koeyoshi (Japanese Good Crowner)	Crowning and singing cockere	Japan	☒	☒	☒	N/A	This breed is thought to have been established in the late stages of the Edo Era (1603-1867). It is now considered as a Natural Monument designated in 1937 (20).
Kraienkoppe	Fancy Fowl	The Netherlands	☒	☒	☑	N/A	Found in The Netherlands for several centuries. The bantam form was first axhibited in 1935 in the Netherlands (www.nhdb.nl). It is today a rare breed.
Lakenvelder	Fancy Fowl	The Netherlands / Germany	☒	☑	☑	Lakenvelderclub, NHDB	Recognised as a breed in the Netherlands. A very old Dutch breed already in existence based on historical records back in 1700. The Bantam form is believed to have been developped in 1940 (7). This fancy breed is another country fowl with no recorded history of genetic influence from Asiatic chicken (3). There are some discussion regarding its origin as to whether it originated in the Netherlands or Germany.
Lijiang	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Lijiang in China
Lindian	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Lindian in China
Lingnan yellow	Broiler	N/A	☒	☒	☒	N/A	This appears to be a breed developped for fast growth of meat based on the Ministry of Science and Technology of the People's Republic of China.
Linkun	N/A	N/A	☒	☒	☒	N/A	Indigenous breed according to Miao *et al.* (9)
Longyan	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Longyan in China
Luke	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao et al. (9)
Lv'erwu	N/A	China	☒	☒	☒	N/A	Indigenous breed from Miao et al. (9)
Malong	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Malong in China
Mengla	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Mengla in China

Minohiki (Japanese Saddle Hackle Dragger)	Fancy Fowl	Japan	☒	☒	☒	N/A	This breed is thought to have been established in the late stages of the Edo Era (1603-1867) from crossing Oh-Shamo with the Shoukoku (20)
Nagoya	N/A	Japan	☒	☒	☒	N/A	Origin from Japan (16)
Nankin-shamo (Japanese Slender Game)	Game	Japan	☒	☒	☒	N/A	See (20)
Netherland owlbeards (Dutch owl-bearded)	Ornamental and egg production	Holland	☒	☒	☑	The Dutch Owlbeard Club	Dutch owl-bearded are thought to be relatively old, featuring in 16th and 17th century paintings (3).
Nixi	N/A	Yunnan plateau, China	☒	☒	☒	N/A	N/A
Ogol	Multi-purpose breed	Korea	☒	☒	☒	N/A	As of 1997, the Korean native Ogol fowl had not been accepted as a breed due to insufficent research. This fowl has been known from olden times (22).
Opipi	N/A	Nigeria	☒	☒	☒	N/A	South western Nigeria domestic population (1)
Passion Fowl	N/A	Chili	☒	☒	☒	N/A	Breed could potentially have originated from Asia (2)
Plymouth Rock (Barred)	Multi-purpose	United States	☑	☑	☑	N/A	N/A
Polish Bearded	Exhibition Fowl and Egg production	Holland	☑	☑	☒	Polish Breeders Club	Believed to have origins in the East (3)
Pu'er	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Pu'er in China
Qingyan blotted	Broiler	Qingyan county, Guangdong, China	☒	☒	☒	N/A	This breed is an ancient native breed from the animal husbandry culture of Min Yue area, Guangdong, China, believed to have its origins 900 years ago (8).
Quemoy	N/A	Taiwan	☒	☒	☒	N/A	Samples from local Chinese breed in Taiwan (16)
Rhode Island Red	Multi-purpose breed	America	☑	☑	☑	Rhode Island Red Club of America	The Rhode Island breed was gradually formed in the mid-19th century in Rhode Island, Massachusetts and possibly in parts of Connecticut, New York and New Jersey (23).
Sanhuang	Broiler	Longgang District, China	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Longgtang Town in Longgang District.
Satsuma (Kagoshima Game)	Game	Japan	☒	☒	☑	N/A	The Satsuma-Dori is thought to have been established in the late Edo Era (1603-1867) with one of its ancestors being the Oh-Shamo due to its physical characteristics (20)
Shaanxi	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Shaanxi in China
Shamo (Japanese Game)	Game	Japan	☒	☑	☑	N/A	See (20)
Shanxi	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Shanxi in China
Shenggou	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Shenggou in China.
Shimen	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Shimen in China
Shokoku	Ornamental	Japan	☒	☒	☒	N/A	Shokoku was developped as an eastetic breed for its beautiful long tail and saddle. Its founding origin are still uncertain (24)
Sichuan Mountain (Wugu)	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Liu *et al.* (10) Miao *et al.* (9). It is most likely a native local breed from Sichuan Mountains in China
Silky	Multi-purpose breed	Probably Asia	☑	☑	☑	American Sikly Bantam Club, American Bantam Association,	N/A
Silky (Taihe)	Medecine	Taihe county, Jiangxi	☑	☑	☑	N/A	This breed originated 1000 years ago during the animal husbandry culture around the Xiang'er'Gan area (8)
Souguang	Multi-purpose breed	Souguang City, Shandong	☒	☒	☒	N/A	This breed is a relatively ancient native breed from the animal husbandry culture of the north of China. The breed originated 1,500 years ago (8).
Speckled Chicken (Hungary Godollo)	N/A	Hungary	☒	☒	☒	N/A	This breed is indigenous to the Godollo region in Hungary. Genetic analysis have suggested that the origin of the breed may originate from Indian subcontinent or possibly the East. (25)
Speckled Chicken (Hungary Hodmezovasarhely)	N/A	Hungary	☒	☒	☒	N/A	This breed is indigenous to the Hodmezovasarhely region in Hungary. Genetic analysis have suggested that the origin of the breed may originate from Indian subcontinent or possibly the East. (16)
Taihu	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Liu *et al.* (10) Miao *et al.* (9). It is most likely a native local breed from Lake Tahu in China
Tengchongxue	N/A	N/A	☒	☒	☒	N/A	Breed from Liu et al (10)
Thai Bantam	N/A	N/A	N/A	N/A	N/A	N/A	N.A
Tibetan	N/A	Qing Zang area, Tibet	☒	☒	☒	N/A	This breed is a relatively ancient native breed from the animal husbandry culture of the Qing Zang area, Tibet with the breed origin believed to be 1000 years old (8).
Toumaru (Japanese Black Crowner)	Crowning and singing cockere	Niigata Prefecture (Japan)	☒	☒	☒	N/A	This breed is part of the three major Japanese long-crowning breeds and is thought to have been established in the early Meiji Era (1868 - 1912) (20)
Toutenko (Japanese Red Crowner)	Crowning and singing cockere	Japan	☒	☒	☒	N/A	This breed is believed to have been established in the late Edo Era (1603-1867) (20)
Transylvanian Naked Neck (Black Godollo)	Exhibition Fowl	N/A	☒	☑	☑	N/A	Black naked neck from Godollo region although ancestry of breed is unclear (20)
Transylvanian Naked Neck (Speckled Godollo)	Exhibition Fowl	N/A	☒	☑	☑	N/A	Speckled naked neck from Godollo region although ancestry of breed is unclear (20)
ansylvanian Naked Neck (Speckled Hodmezovasarhel	Exhibition Fowl	N/A	☒	☑	☑	N/A	Speckled naked neck from Hodmezovasarhely region although ancestry of breed is unclear (20)
Transylvanian Naked Neck (White Godollo)	Exhibition Fowl	N/A	☒	☑	☑	N/A	White naked neck from Godollo region although ancestry of breed is unclear (20)

Tulufan	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Tulufan in China
Uzurao (Japanese Small Rumpless)	Fancy Fowl	Japan	☒	☒	☒	N/A	Thought to have been established in the late stages of the Edo Era (1603-1867) (20)
Wangfeng (Wugu)	N/A	N/A	☒	☒	☒	N/A	Breed from Liu et al (10)
Weichang	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Weichang in China
Wenshanshandi	N/A	N/A	☒	☒	☒	N/A	Breed from Liu et al (10)
White Chicken (Hunagry Godollo)	N/A	Hungary	☒	☒	☒	N/A	This breed is indigenous to the Godollo region in Hungary. Genetic analysis have suggested that the origin of the breed may originate from Indian subcontinent or possibly the East. (25)
Wuding	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Wudang in China
Wumeng (Wugu)	Medecine	Bijie City, Guizhou	☒	☒	☒	N/A	This breed originated in the Southwest of China (8)
Xianju	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Xianju in China according to Miao *et al*. (9)
Xiaoshan	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Xiaoshan in China according to Miao *et al*. (9)
Xingren	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Xingren in China according to Miao *et al*. (9)
Xinxian	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao et al. (9)
Xisha	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Xisha in China
Xishuangbanna	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Xishuangbanna in China
Xuefeng	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Liu et al (10) and Miao et al. (9).
Xyun	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao et al. (9)
Ya'an	N/A	N/A	☒	☒	☒	N/A	Breed from Liu et al (10)
Ya'an (Wugu)	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Liu et al (10) and Miao et al. (9). It is most likely a native local breed from Ya'an in China
Yaffa	N/A	Nigeria	☒	☒	☒	N/A	N/A
Yamato-gunkei (Yamato Game)	Game	Japan	☒	☒	☒	N/A	See (20)
Yanjin	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Liu et al (10) and Miao et al. (9).
Yanjing (Wugu)	Medecine	Yanjing county, Yunnan	☒	☒	☒	N/A	This breed originated during the Han Dysnasty 2000 years ago in the Southwest of China (8)
yanzhou	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Yanzhou in China
Yellow Chicken (Hungary Mosonmagyarovar)	N/A	Hungary	☒	☒	☒	N/A	This breed is indigenous to the Mosonmagyarovar region in Hungary. Genetic analysis have suggested that the origin of the breed may originate from Indian subcontinent or possibly the East. (Revay et al., 2010)
Yugan (Wugu)	Medecine	Yugan county, Jiangxi	☒	☒	☒	N/A	This breed is a relatively ancient native breed from the animal husbandry culture of the Xiang'er'Gan area. The breed originated during the Han Dynasty (2000 years ago) (Liu et al., 2004).
Yunxian (Wugu)	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Liu et al (10) and Miao et al. (9). It is most likely a native local breed from Yunxian in China
Zalantun	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Liu et al (10) and Miao et al. (9). It is most likely a native local breed from Zhalantun in China
Zesang	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Zesang in China
Zhejiang (Wugu)	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Zhejiang in Chin according to Miao *et al* (9)
Zinyuan (Wugu)	N/A	N/A	☒	☒	☒	N/A	Indigenous breed from Miao *et al.* (9). It is most likely a native local breed from Zinyuann in China

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Supplementary Table ST12: **Clade distribution within the ISEA dataset**

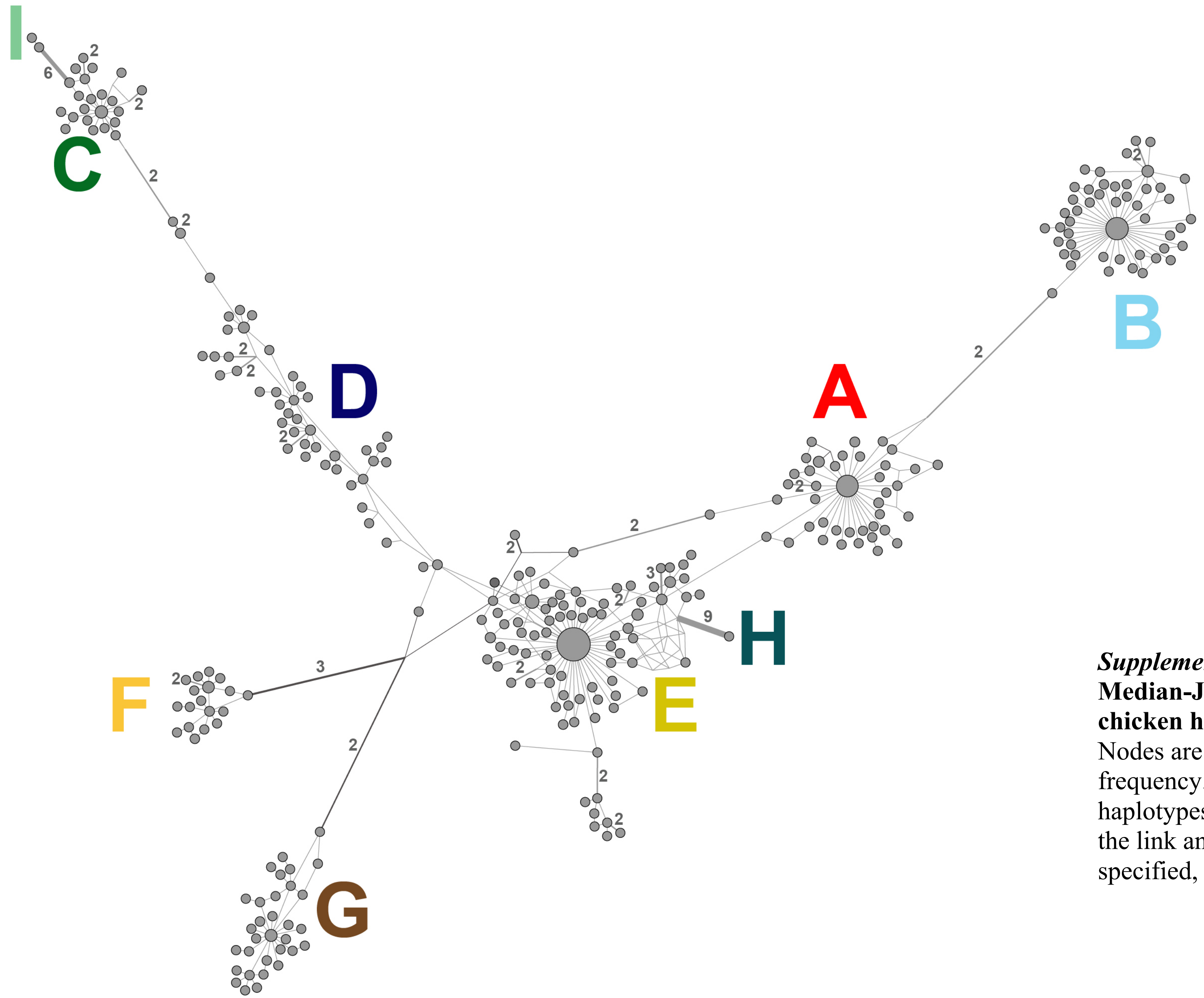
Based on the 201bp fragment of the mtDNA control region. n represents the number of samples. The numbers in bracket represent the percentage of samples from that dataset falling under each clade.

Region	**Haplogroup A**		**Haplogroup B**		**Haplogroup D**		**Haplogroup E**		**Haplogroup I**		**TOTAL**
	Nb samples	**%**	**Nb samples**	**%**	**Nb samples**	**%**	**Nb samples**	**%**	**Nb samples**	**%**	**Nb samples**
VIETNAM	0	0.00	2	100	0	0.00	0	0.00	0	0.00	2
ISEA	1	0.84	1	0.84	100	84.76	15	12.72	1	0.84	118
Philippines	1	4.35	0	0.00	12	52.17	9	39.13	1	4.35	23
Sulawesi	0	0.00	0	0.00	13	100.00	0	0.00	0	0.00	13
Indonesia	0	0.00	0	0.00	9	90.00	1	10.00	0	0.00	10
Papua New Guinea	0	0.00	0	0.00	12	92.31	1	7.69	0	0.00	13
Solomon Islands	0	0.00	1	1.69	54	91.53	4	6.78	0	0.00	59

Supplementary Table ST13: ***Clade distribution among chicken populations***

Based on the 201bp fragment of the mtDNA control region. n represents the number of samples. The numbers in bracket represent the percentage of samples from that dataset falling under each clade.

	Clade A n (%)	**Clade B n (%)**	**Clade C n (%)**	**Clade D n (%)**	**Clade E n (%)**	**Clade F n (%)**	**Clade G n (%)**	**Clade H n (%)**	**Clade I n (%)**	**Total n**
South America	1 (2.63)	5 (13.16)	0 (0.00)	0 (0.00)	32 (84.21)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	38
Europe	8 (4.12)	9 (4.64)	2 (1.03)	0 (0.00)	175 (90.21)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	194
Sub-Sahara Africa	2 (0.30)	0 (0.00)	4 (0.61)	128 (19.42)	525 (79.67)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	659
South Asia	2 (0.50)	5 (1.26)	2 (0.50)	51 (12.85)	324 (81.61)	10 (2.52)	0 (0.00)	3 (0.76)	0 (0.00)	397
East Asia	258 (38.05)	133 (19.62)	116 (17.11)	3 (0.44)	129 (19.03)	2 (0.29)	37 (5.46)	0 (0.00)	0 (0.00)	678
South China	412 (27.45)	428 (28.51)	102 (6.80)	11 (0.73)	215 (14.32)	140 (9.33)	192 (12.79)	1 (0.07)	0 (0.00)	1501
Southeast Asia	52 (21.49)	127 (52.48)	5 (2.07)	6 (2.48)	16 (6.61)	26 (10.74)	9 (3.72)	0 (0.00)	1 (0.41)	242
ISEA	2 (1.15)	4 (2.30)	0 (0.00)	145 (83.34)	22 (12.64)	0 (0.00)	0 (0.00)	0 (0.00)	1 (0.57)	174
Commercial	54 (17.09)	34 (10.76)	0 (0.00)	2 (0.63)	226 (71.52)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	316
Total										**4199**



Supplementary Figure SF1:
Median-Joining network of the main chicken haplogroups.
Nodes are proportional to haplotype frequency. The number of mutations between haplotypes is represented by the thickness of the link and the numbers in grey. When not specified, the link is 1 mutation.

V. A new proxy for human dispersals? Investigating introductory pathways of the ghost ant (*Tapinoma melanocephalum*) in Oceania using modern mitochondrial DNA

V.1 Abstract

The ghost ant, *Tapinoma melanocephalum,* lives in close association with human societies. Its characteristics include living in disturbed habitats, the quick relocation of its nest and the ability to start a new colony with only a couple of queens and several workers. Although the location of its origin remains unknown, the ghost ant is now dispersed throughout most of the world. This research first aimed to genetically confirm morphological identifications of the ghost ant before assessing its potential as a proxy for past human dispersals. 206 modern samples morphologically identified were collected throughout the Philippines, Oceania and the USA and a 658bp fragment of the COI gene was amplified. Due to the lack of previously published COI fragments of *Tapinoma melanocephalum* specimens, an additional 55 samples from other *Tapinoma* species were included in the analysis. Despite a low success rate (34%, all of which originated from Oceania), the results showed that 14 samples did not genetically group with other ghost ant specimens and were thus misidentified. This most likely resulted from the presence of other morphologically similar species. Four clades were observed, two of which suggested two distinct introductions of the ghost ant in Oceania. A lack of working samples from other Indo-Pacific locations, however, prevented any hypothesis regarding the origin of the ghost ant. Combined with historical records, the genetic data revealed potential maritime routes, which is a promising step towards the use of *Tapinoma melanocephalum* as a proxy to reconstruct past human dispersals.

V.2 Introduction

Human migrations and commerce have facilitated the movements of domesticates, and unintentionally those of invasive species such as rodents and ants, into regions beyond their natural habitats (1-3,37). Investigating the colonisation patterns of domesticated animals and commensal small mammals has helped shed light on past human dispersals (1,4). Other invasive species such as ants have followed similar migratory pathways via human agency, but have not been subjected to an equivalent amount of research. Although their distribution across the globe is strongly linked to that of human societies, their potential as proxies in reconstructing human migrations has never been properly evaluated.

A majority of newly introduced ant species remain confined to human habitats within their new environment (5). This is particularly true of 'tramp ants'. Closely associated with humans, these 'tramp' species are found in disturbed habitats and are now widely dispersed across the globe as a result of human movements and commerce (5,6). They possess several life history characteristics that allow their successful establishment in their new environments (7). These include polygyny (the presence of several reproductive queens within a single colony), reproduction by budding (the creation of new colonies by one or more queens and a group of workers away from their natal nest) and unicoloniality (reduced or lack of internest aggression) (7,8). Such characteristics are also shared by 'invasive ants', but a clear distinction exists between the two categories. 'Tramp ants' usually occupy a niche unfilled by native ant species; they present no threat to native ant faunas and tend to either adapt and blend into their new environment or reside within human structures (7). An example is the Pharaoh ant (*Monomorium pharaonis,* (Linnaeus 1758)) (9). In contrast, 'invasive ants' (such as the Argentine ant (*Linepithema humile* (Mayr 1868)) and the red imported fire ant (*Solenopsis invicta* (Buren 1972)), spread in their new environment by displacing native ant faunas through predation and competition. They reduce indigenous ant diversity, directly and indirectly affect other organisms and consequently present a major threat to their new ecosystem (5,8).

It is precisely the harmful impacts that these 'invasive ants' have on their new environments that have drawn a certain amount of research on preventing threats of new biological invasions. Studies have shown that the successful establishment and spread of non-indigenous species into new ecosystems relies primarily on four crucial stages: i) the transfer of the species at the source location onto a human transport vector, ii) the shift of the vector to a new location beyond the species' natural habitat, iii) the successful initial colonisation and establishment of a viable self-sustaining population in the new location and iv) short-distance and long-distance dispersals from the site of introduction into the new environment (10,11). Many researchers now agree that the most effective strategy to eradicate and control invasive species relies on the prevention of future introductions. This consequently requires knowledge of the species' methods of propagation (10) but also the identification of introductory pathways.

The use of mitochondrial DNA (mtDNA) markers allowed the successful identification of the origin of the invasive Argentine ants (*Linepithema humile*) from New Zealand (12). The spread of ants and establishment of new colonies require a founding queen, thus mitochondrial DNA (mtDNA) was particularly suited for such a task given its lack of recombination and maternal inheritance (12). Based on fragments of the cytochrome *b* (cyt *b*) gene, the results revealed the presence of a single haplotype in New Zealand. When compared with available sequences originating from eight other countries, the findings suggested an introduction into New Zealand from eastern Australia (12). This successful identification of the origin of New Zealand Argentine ants has opened up a whole new potential area of research for the investigation of past human migrations using ants (and 'tramp ants' in particular) as proxies in Oceania.

Indeed, the question of human diasporas in Oceania and the Pacific remains a heavily debated topic in the literature. The colonisation of Australia and New Guinea dates back to 55,000 - 60,000 BP and evidence of human colonisation of 'Near Oceania' (Bismarck and the Solomon Islands) appears by 29,000 BP (13). By 3,000 - 3,500 BP, a new culture called the Lapita Cultural Complex emerged in the archaeological record. It included the appearance of new features such as permanent villages, horticultural crops and domestic animals, mainly chickens, pigs, dogs and rats (13). From Near Oceania, these human societies dispersed East and soon colonised Remote Oceania, reaching Hawaii and Easter Island by AD 500 (14). The question of their origins, and consequently the origin of modern populations in Melanesia, Micronesia and Polynesia, as well as their dispersal routes throughout Oceania and the Pacific, remain however uncertain. These have been explored throughout numerous disciplines including archaeology, linguistics and genetics of both humans and domesticated animals. Regarding ants, it is believed that nearly half of the ants residing in Polynesia have been introduced through human commerce during the last 400 years (15). However, their dispersal with earlier societies is not impossible; by 2,500 BP, the Lapita Culture had the technology to make long sea voyages with more substantial cargoes including dogs, chickens, bamboo, banana, sugar cane, taro, yams and many fruit and tree seeds (14). 'Tramp ants' could easily have taken up residence among some of this cargo. Consequently, the investigation of 'tramp ant' dispersals may indirectly inform us of past human migratory routes.

The 'tramp ant' *Tapinoma melanocephalum* (Fabricius 1793) is the third most widespread ant across the world after the longhorn crazy ant (*Paratrechina longicornis* (Latreille 1802)) and the Pharaoh ant (*Monomorium pharaonis* (Linnaeus 1758)) (6). Although its origin is unknown and remains debated in the literature, there is general agreement that its natural range is located within the Old World tropics in the Indo-Pacific (6) where it is currently most abundant. Considered one of the most common house pests closely associated with humans, it is almost exclusively restricted to living in disturbed areas, with indoor nests usually found within the structures of buildings such as cracks and wall voids, and outdoor nests found in flowerpots or under objects on the ground (16). Its phenotype gives it a 'ghostly appearance': generally of a small size (average 1.5mm), with a bicolour body (Figure 1). The head and thorax are brown to dark brown while the abdomen and legs are yellowish, white or opaque. This allows them to blend in the background (6,16). Moreover, the polygonous colonies frequently relocate their nests in a matter of hours, which facilitates their movement through human agency, whether it be via cargo or suitcases (6). Their common name 'ghost ant' is no doubt linked to their phenotypic appearance and fast-moving behaviour (6,16). Its taxonomy, however, remains relatively unknown (Janda, M. 2011. pers. comm. 2 May) and the high degree of morphological similarity with other closely related taxa within the Indo-Pacific presents issues for its classification into species and subspecies.

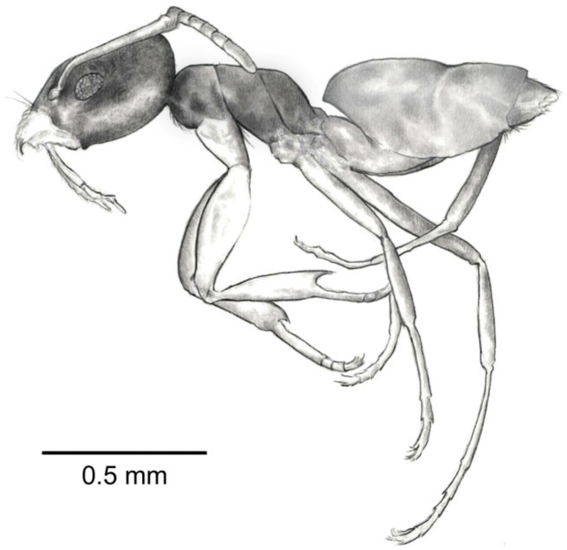


***Figure 1*:** Drawing of *Tapinoma melanocephalum*. Drawing by M. Lebrasseur based on photo collection from AntWeb (17).

Based on the sampling of morphologically identified *Tapinoma melanocephalum* individuals throughout Oceania, this research aims to i) genetically confirm the species status of the specimens collected for this study and ii) establish the role of the ghost ant as a proxy in retracing past human dispersals across Oceania. I successfully amplified 71 samples of *Tapinoma melanocephalum* specimens from New Guinea (n=52), Yap (n=2), Chuuk (n=3), Pohnpei (n=12), Guam (n=1) and Australia (n=1) and compared them to other published *Tapinoma* species using phylogenetic tree-based analyses in order to properly ascertain my samples had been positively identified. Based on haplotype distribution and historical records, I then attempted to identify introductory pathways of the ghost ants in the sampled locations and evaluated their potential as proxies in retracing human migrations.

V.3 Results and Discussion

Of the 206 specimens sampled in this study, only 71 sequences generated the full 658bp targeted fragment of the cytochrome c oxidase I (COI) gene. 20.8% of the samples did not yield any DNA. The remaining sequences were amplified either partially, or potential mutations within the primer sequences prevented the isolation of the targeted fragment. Due to the lack of previously published data and reference sequences, further work including the design of novel primers will be needed to generate DNA from these remaining samples. The 71 successfully amplified samples may nevertheless provide preliminary information on the phylogeny and current haplotype distribution within Micronesia, New Guinea and Australia (Table 1). Due to the inclusion of additional previously published *Tapinoma* sp. sequences of varying lengths, the fragment under study was reduced to 601bp.

V.3.1 Genetic identification of Tapinoma melanocephalum samples

34 haplotypes differing among 240 variable sites were identified within the 71 sequences. These were named Hap01-Hap34 (Supplementary Information SI1). Phylogenetic tree-based analyses were conducted to test for the genetic identification of *Tapinoma melanocephalum*. In the absence of previously published ghost ant COI fragments, published sequences from other *Tapinoma* species deposited in Genbank were included for a better comparison. These comprised *Tapinoma sessile* (Say 1836), *Tapinoma opacum* (Wheeler & Mann 1914), *Tapinoma erraticum* (Latreille 1794), *Tapinoma subtile* (Santschi 1911) and other unspecified *Tapinoma* species. A neighbour-joining tree (Figure 2) and a consensus tree built using Bayesian Monte Carlo-Markov Chain (Model GTR + I + G) (Figure 3) were generated. Both phylogenetic analyses revealed several clades within a cluster that comprised the majority of my samples (57/71 samples). This cluster, for which the support values were very high (99% bootstrap support for the NJ tree and 100% Bayesian posterior probability support for the Bayesian tree) most likely reflect *Tapinoma melanocephalum*. The four clades found within that cluster possessed equally high bootstrap support values (100% for each of the four clades in both trees) and were named clades I-IV.

The remainder of the samples (14 specimens) formed clades dispersed throughout other *Tapinoma* species which would suggest these groupings most likely represent either new

Tapinoma species or previously identified *Tapinoma* species for which no genetic data is yet available. This would be expected; the genus *Tapinoma* comprises multiple species described in major works throughout the last century (e.g. 18) but only a handful have published genetic sequences. An interesting clade, here named clade V, groups together six samples originating from Chuuk, Guam, New Guinea and Pohnpei based on high support values (99% for the NJ tree and 100% for the Bayesian tree). However, this clade does not group with the main *Tapinoma melanocephalum* cluster (for the NJ tree, the support values are 55%). Based on the current data, it is unknown whether these represent a subspecies of *Tapinoma melanocephalum* or another *Tapinoma* species but the latter seems more plausible given its position within both phylogenetic trees. Due to this uncertainty, this clade as well as the seven specimens clustering within other *Tapinoma* species have therefore been discarded for the rest of the analysis.

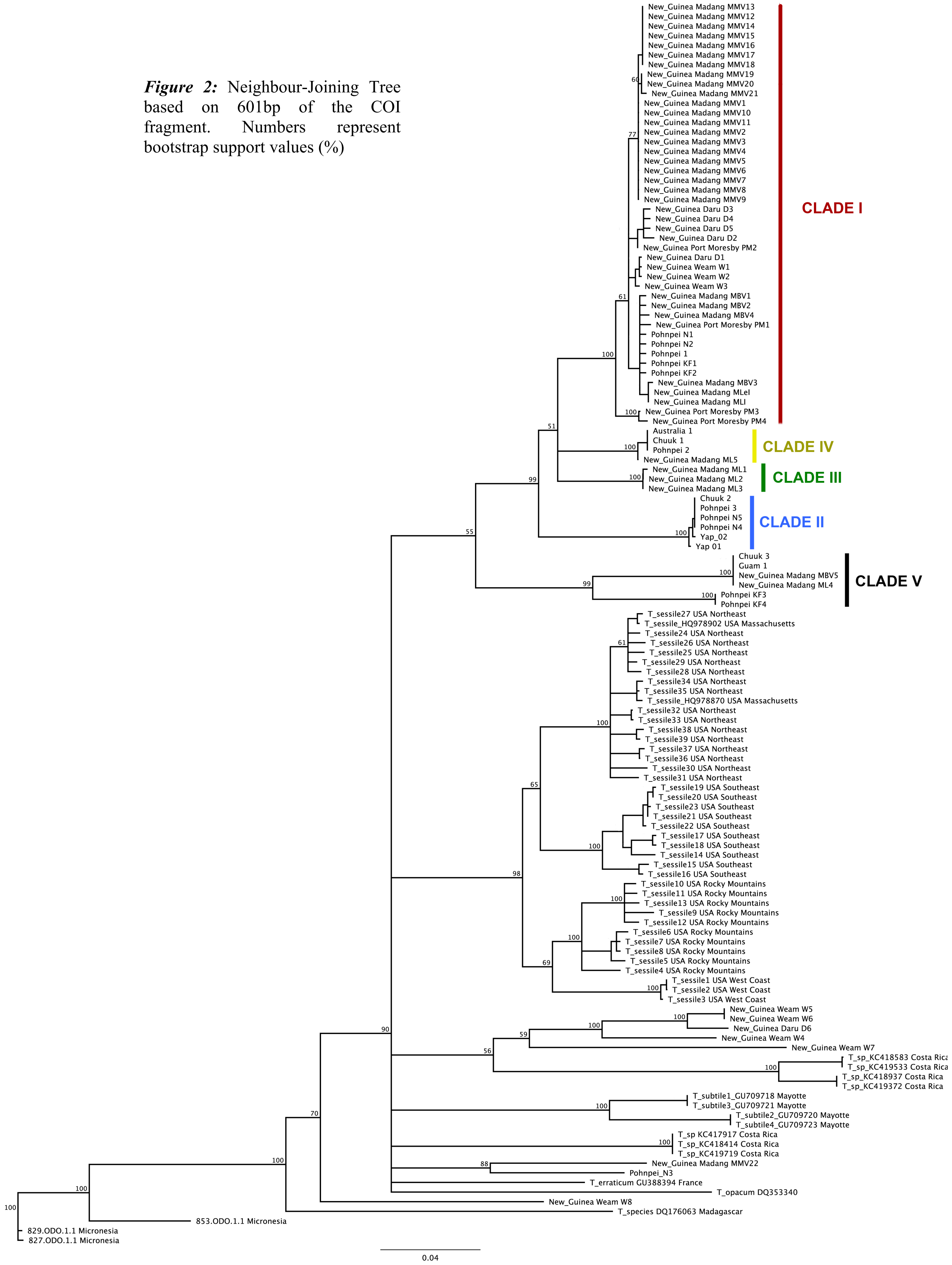
Sampled ID	Code	Identification	Region	Country	Location specific	Haplotype	Clade
MJ13391	NG_MBV1	*T. melanocephalum*	Near Oceania	New Guinea	Baitabag Village, Madang Province	Hap03	I
MJ13392	NG_MBV2	*T. melanocephalum*	Near Oceania	New Guinea	Baitabag Village, Madang Province	Hap03	I
831.TAP.3.1	Poh_KF1	*T. melanocephalum*	Micronesia	Pohnpei	Kepirohi Falls	Hap03	I
831.TAP.4.1	Poh_KF2	*T. melanocephalum*	Micronesia	Pohnpei	Kepirohi Falls	Hap03	I
838.TAP.2.1	Poh_N1	*T. melanocephalum*	Micronesia	Pohnpei	Nett	Hap03	I
831.TAP.2.1	Poh_1	*T. melanocephalum*	Micronesia	Pohnpei		Hap03	I
838.TAP.3.1	Poh_N2	*T. melanocephalum*	Micronesia	Pohnpei	Nett	Hap04	I
TAP13367	NG_PM1	*T. melanocephalum*	Near Oceania	New Guinea	Port Moresby	Hap05	I
MJ13393	NG_MBV3	*T. melanocephalum*	Near Oceania	New Guinea	Baitabag Village, Madang Province	Hap06	I
TAP13362	NG_MLeI	*T. melanocephalum*	Near Oceania	New Guinea	Lepa Island, Madang Province	Hap07	I
TAP13363	NG_MLI	*T. melanocephalum*	Near Oceania	New Guinea	Sinub Island, Madang Province	Hap07	I
MJ13390	NG_MBV4	*T. melanocephalum*	Near Oceania	New Guinea	Baitabag Village, Madang Province	Hap08	I
HP0036	NG_MMV1	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap09	I
HP0449	NG_MMV2	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap09	I
HP0450	NG_MMV3	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap09	I
HP0451	NG_MMV4	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap09	I
HP0452	NG_MMV5	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap09	I
HP0453	NG_MMV6	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap09	I
HP0454	NG_MMV7	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap09	I
HP0455	NG_MMV8	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap09	I
HP0456	NG_MMV9	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap09	I
HP0460	NG_MMV10	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap09	I
HP0462	NG_MMV11	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap09	I
HP0457	NG_MMV12	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap10	I
HP0458	NG_MMV13	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap10	I
HP0459	NG_MMV14	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap10	I
HP0463	NG_MMV15	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap10	I
HP0464	NG_MMV16	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap10	I
HP0471	NG_MMV17	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap10	I
HP0472	NG_MMV18	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap10	I
TAP13368	NG_PM2	*T. melanocephalum*	Near Oceania	New Guinea	Port Moresby	Hap11	I
HP0466	NG_MMV19	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap12	I
HP0469	NG_MMV20	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap12	I
HP0470	NG_MMV21	*T. melanocephalum*	Near Oceania	New Guinea	Madang, Wannang Village	Hap13	I
MJ13385	NG_D1	*T. melanocephalum*	Near Oceania	New Guinea	Western Province, Daru	Hap14	I
TAP13371	NG_W1	*T. melanocephalum*	Near Oceania	New Guinea	Western Province, Weam	Hap14	I
TAP13372	NG_W2	*T. melanocephalum*	Near Oceania	New Guinea	Western Province, Weam	Hap14	I
TAP13373	NG_W3	*T. melanocephalum*	Near Oceania	New Guinea	Western Province, Weam	Hap15	I
MJ13383	NG_D2	*T. melanocephalum*	Near Oceania	New Guinea	Western Province, Daru	Hap16	I
MJ13384	NG_D3	*T. melanocephalum*	Near Oceania	New Guinea	Western Province, Daru	Hap17	I
TAP13380	NG_D4	*T. melanocephalum*	Near Oceania	New Guinea	Western Province, Daru	Hap17	I
TAP13382	NG_D5	*T. melanocephalum*	Near Oceania	New Guinea	Western Province, Daru	Hap17	I
TAP13369	NG_PM3	*T. melanocephalum*	Near Oceania	New Guinea	Port Moresby	Hap18	I
TAP13370	NG_PM4	*T. melanocephalum*	Near Oceania	New Guinea	Port Moresby	Hap19	I
803.TAP.1.1	Chu2	*T. melanocephalum*	Micronesia	Chuuk		Hap22	II
838.TAP.1.1	Poh_N5	*T. melanocephalum*	Micronesia	Pohnpei	Nett	Hap22	II
838.TAP.5.1	Poh_N4	*T. melanocephalum*	Micronesia	Pohnpei	Nett	Hap22	II
830.TAP.1.1	Poh_3	*T. melanocephalum*	Micronesia	Pohnpei		Hap22	II
839.TAP.1.1	Yap_01	*T. melanocephalum*	Micronesia	Yap		Hap23	II
843.TAP.1.1	Yap_02	*T. melanocephalum*	Micronesia	Yap	Stone Trail	Hap24	II
805.TAP.1.1	Chu1	*T. melanocephalum*	Micronesia	Chuuk		Hap20	III
830.TAP.2.1	Poh_2	*T. melanocephalum*	Micronesia	Pohnpei		Hap20	III
858.TAP.1.1	Aus01	*T. melanocephalum*	Australia	Queensland		Hap20	III
MJ13388	NG_ML5	*T. melanocephalum*	Near Oceania	New Guinea	Madang Lagune, Madang Province	Hap21	III
MJ13387	NG_ML1	*T. melanocephalum*	Near Oceania	New Guinea	Madang Lagune, Madang Province	Hap01	IV
MJ13386	NG_ML3	*T. melanocephalum*	Near Oceania	New Guinea	Madang Lagune, Madang Province	Hap02	IV
MJ13389	NG_ML2	*T. melanocephalum*	Near Oceania	New Guinea	Madang Lagune, Madang Province	Hap02	IV
804.TAP.1.1	Chu3	*T. sp*	Micronesia	Chuuk		Hap25	V
853.TAP.1.1	Guam1	*T. sp*	Micronesia	Guam	N/A	Hap25	V
TAP13361	NG_MBV5	*T. sp*	Near Oceania	New Guinea	Baitabag Village, Madang Province	Hap25	V
TAP13365	NG_ML4	*T. sp*	Near Oceania	New Guinea	Madang Lagune, Madang Province	Hap25	V
831.TAP.1.1	Poh_KF3	*T. sp*	Micronesia	Pohnpei	Kepirohi Falls	Hap26	V
831.TAP.6.1	Poh_KF4	*T. sp*	Micronesia	Pohnpei	Kepirohi Falls	Hap26	V
838.TAP.4.1	Poh_N3	*T. sp*	Micronesia	Pohnpei	Nett	Hap27	
HP0049	NG_MMV22	*T. sp*	Near Oceania	New Guinea	Madang, Wannang Village	Hap28	
MJ13376	NG_W4	*T. sp*	Near Oceania	New Guinea	Western Province, Weam	Hap29	
TAP13375	NG_W5	*T. sp*	Near Oceania	New Guinea	Western Province, Weam	Hap30	
TAP13378	NG_W6	*T. sp*	Near Oceania	New Guinea	Western Province, Weam	Hap31	
TAP13381	NG_D6	*T. sp*	Near Oceania	New Guinea	Western Province, Daru	Hap32	
TAP13374	NG_W7	*T. sp*	Near Oceania	New Guinea	Western Province, Weam	Hap33	
TAP13379	NG_W8	*T. sp*	Near Oceania	New Guinea	Western Province, Weam	Hap34	

Table 1: List of the samples positively identified in this study

The morphological misidentification of 14 specimens currently under study is unsurprising; the ghost ant is easily identifiable in most regions except for the Indo-Pacific where it can be confused with other closely related taxa (6). *Tapinoma minutum*, for instance, tends to have a darker abdomen while *Tapinoma indicum* is very similar to *Tapinoma minutum* but possesses a lighter colour and longer antennae, although these are shorter than those of the ghost ant (6). Wheeler and Wheeler describe the larvae of *Tapinoma melanocephalum* as 'scarcely distinguishable from *Tapinoma sessile'* (19:197). Moreover, the subspecies *Tapinoma melanocephalum malesianum* has been described by Forel using specimens from Java and Sumatra ((20) translated in (6)); with more uniform colour, thinner palps and shorter antennae, their description closely matches that of *Tapinoma indicum* (6). Consequently, positive identification of *Tapinoma melanocephalum* in Oceania can be difficult.

The fact that the other published *Tapinoma* species used in the phylogenetic tree-based analyses can be positively excluded from the group comprising *Tapinoma melanocephalum* reinforces the observation that the samples clustering within this larger grouping are not ghost ants. For instance, *Tapinoma opacum* has been described in detail by Wheeler and Mann (21) based on specimens from Haiti. Most interestingly, these authors argued that the larger morphology of both males and workers excluded it from the group of species comprising of the ghost ant but included it in the group containing *Tapinoma erraticum* and *Tapinoma sessile* (21). This corresponds to the phylogenies provided by both the NJ and the Bayesian trees. As a result of the phylogenetic analyses, the 14 samples were discarded for the rest of the analysis. This highlights the necessity of using multiple DNA markers and acquiring additional specimens from various species across the *Tapinoma* genus as well as various subspecies within *Tapinoma melanocephalum* in order to confirm the morphological identification of *Tapinoma* specimens and provide a better understanding of the phylogeny of the *Tapinoma* genus. Furthermore, based on the available specimen records (*ie.* Antweb.org (38)), multiple undescribed species are found in continental Asia and Indo-Australia. Further taxonomic and phylogenetic work is thus needed to establish the species limits of the *Tapinoma* lineages in this region.

Figure 2: Neighbour-Joining Tree based on 601bp of the COI fragment. Numbers represent bootstrap support values (%)



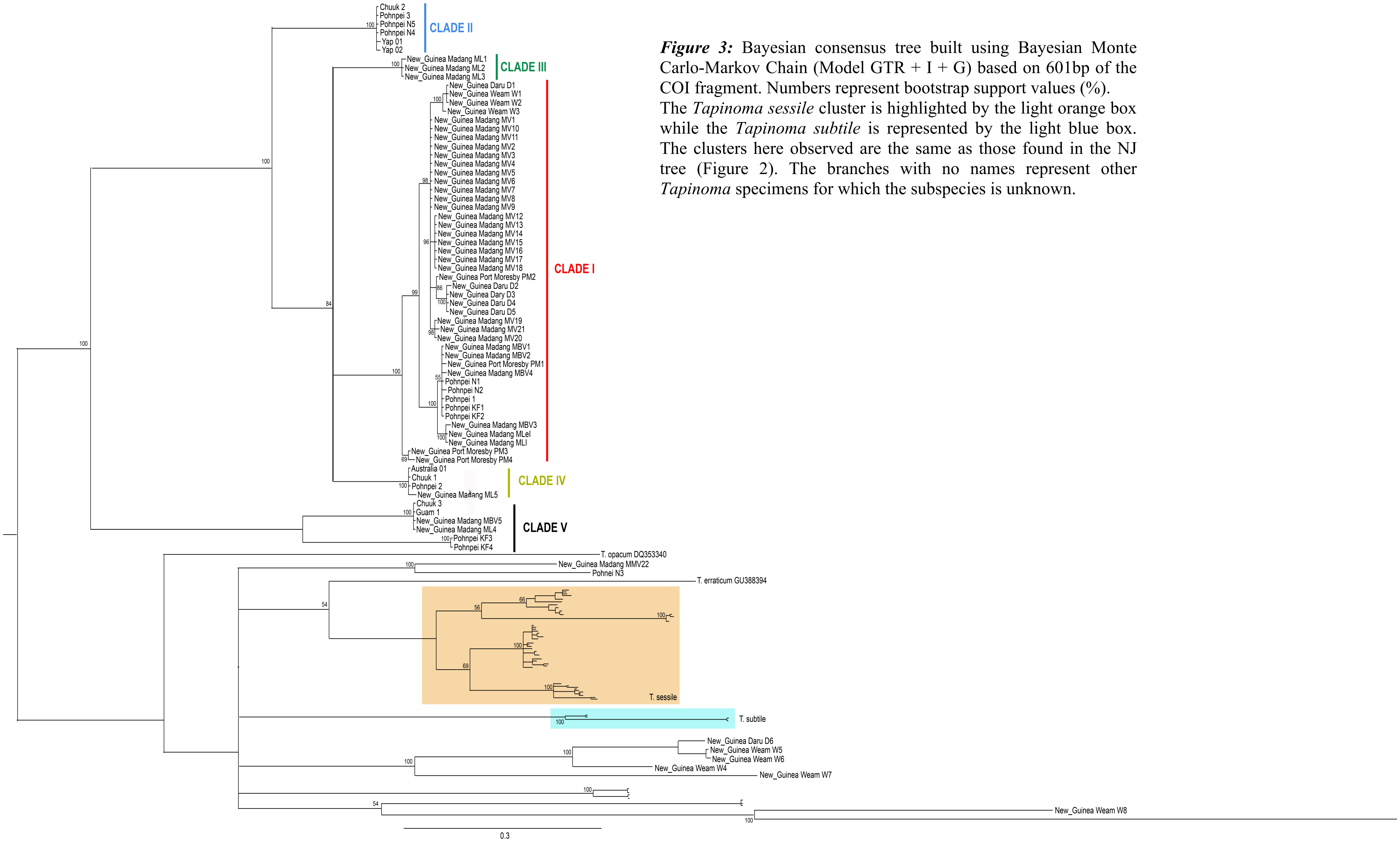


Figure 3: Bayesian consensus tree built using Bayesian Monte Carlo-Markov Chain (Model GTR + I + G) based on 601bp of the COI fragment. Numbers represent bootstrap support values (%). The *Tapinoma sessile* cluster is highlighted by the light orange box while the *Tapinoma subtile* is represented by the light blue box. The clusters here observed are the same as those found in the NJ tree (Figure 2). The branches with no names represent other *Tapinoma* specimens for which the subspecies is unknown.

V.3.2 Inferring past dispersals within Oceania based on haplotype distributions

Of the 57 remaining sequences, 24 haplotypes were generated. Within clades I-IV, most haplotypes (79.2%) were restricted to their respective sampling locations, showing that a relatively high number of samples possessed genetic signatures specific to these locations (Figure 4). For instance, Hap09 was only found in Wannang Village in the Madang Province while Hap17 was restricted to Daru in the Western province of New Guinea (Table 1). This showed a certain genetic diversity between the various locations. However, 31.6% of the samples possessed genetic signatures that violated this pattern: five haplotypes (Hap03, Hap07, Hap14, Hap20 and Hap22) were shared among individuals from different sampling locations (Figure 5). This most likely reflects human-mediated dispersals.

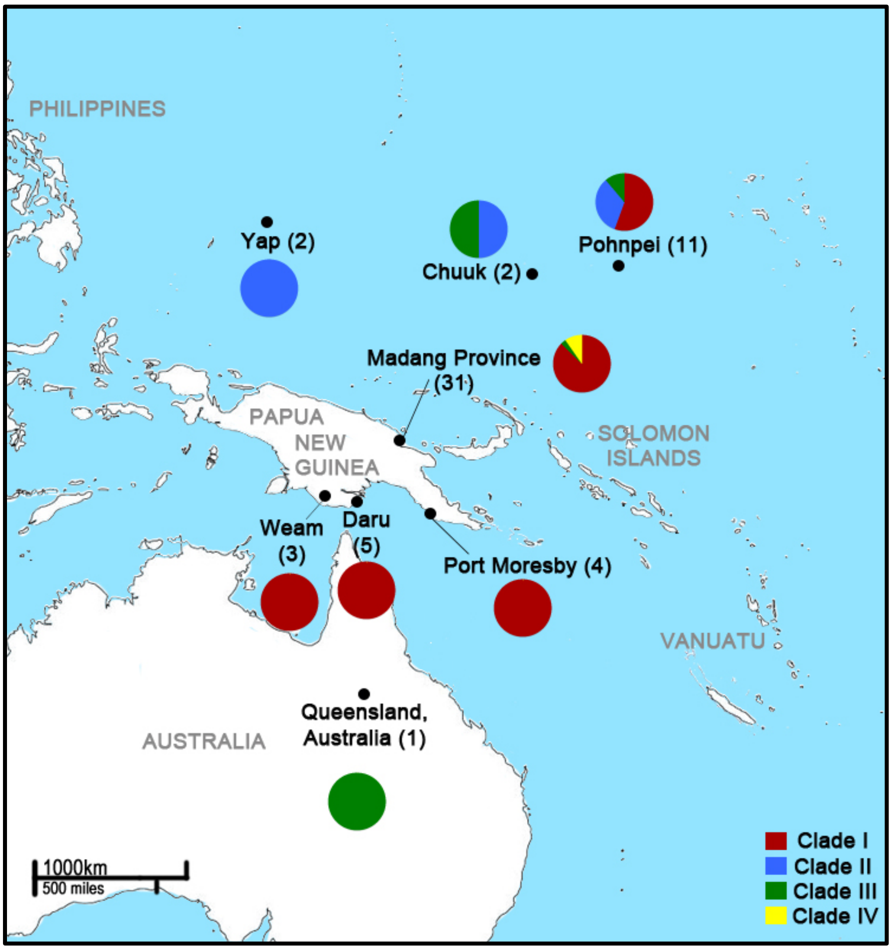


Figure 4: Clade distribution within the sampled location. Numbers in brackets represent the number of samples for each location (or region for Madang Province)

Clade I comprised 44 individuals grouped into 17 haplotypes. It was primarily found in all main sampled locations throughout New Guinea and in five samples from various locations on Pohnpei Island (Figure 4). Interestingly, Pohnpei Island comprised two haplotypes only, one unique to the island while the other was shared with individuals from Baitabag Village in the Madang province. The dominant proportion of clade I haplotypes in New Guinea, and the presence of a shared haplotype between the Madang province and Pohnpei Island, suggests clade I is primarily restricted to New Guinea but that recent commerce between the Madang Province and Pohnpei may have led to the introduction of clade I ghost ants to the island.

Clade II was restricted to Micronesia; it comprised six individuals from the islands of Pohnpei, Chuuk and Yap. It consisted of three haplotypes only (Hap22-24), one of which (Hap22) was shared among individuals from the islands of Pohnpei and Chuuk while the remaining two were only found on Yap Island. The distribution of Hap22 between the two islands once again most likely reflects human movements.

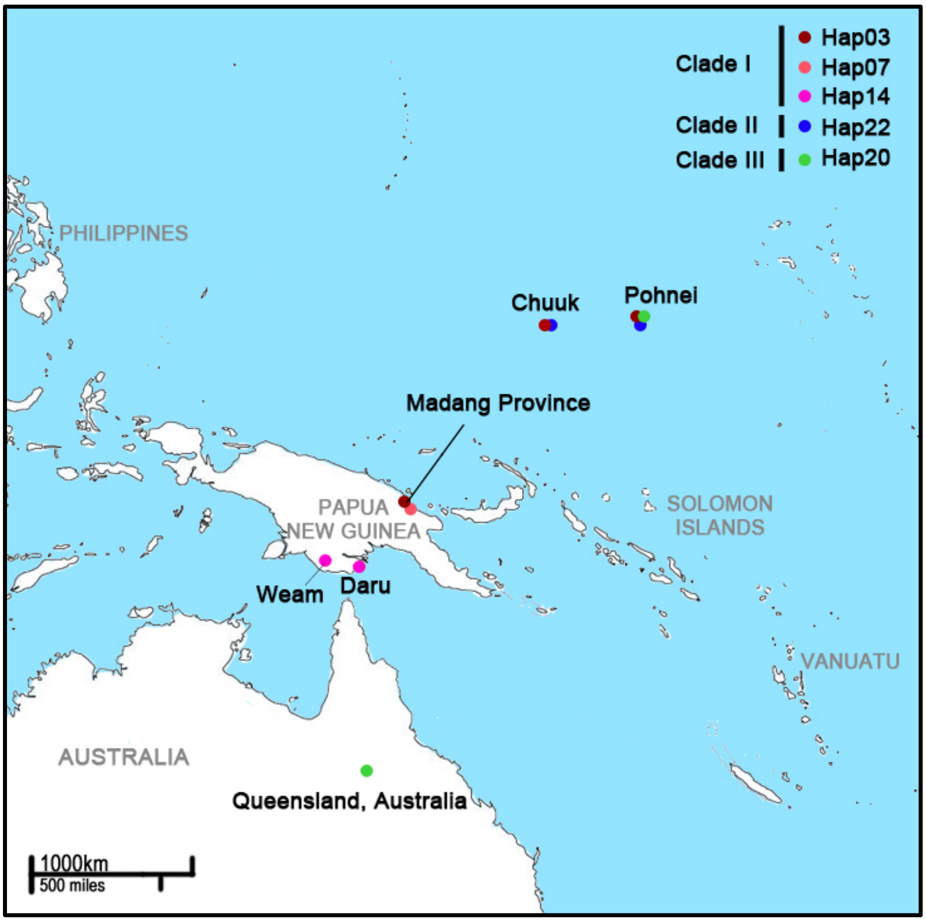


Figure 5: Distribution of shared haplotypes. Hap03, Hap07 and Hap14 all belong to clade I, Hap22 belongs to clade II and Hap20 belongs to clade III.

Clade III consisted of two haplotypes (Hap20 and Hap21): one haplotype (Hap20) was found among individuals from Chuuk and Pohnpei as well as the single individual from

Queensland in Australia. Hap21 was restricted to the Madang Lagune on New Guinea. The distribution of Hap20 most likely results from human trade. It is however difficult to pinpoint the potential origin of this clade and a more extensive sampling from Australia and Micronesia may help understand whether the ghost ants spread from Micronesia to Australia or vice versa.

Finally, clade IV only consisted of three individuals exhibiting two haplotypes, all originating from the Madang Lagune. Given the limited amount of samples available from other locations, it is difficult to establish whether or not clade IV originated from New Guinea or was introduced from elsewhere via human agency.

Clade distribution throughout the sampled locations would suggest that the dispersal of the ghost ant in Micronesia, New Guinea and Australia resulted from several introductions. Clade I is found predominantly in New Guinea. The only other sampled location possessing individuals with haplotypes from clade I is the island of Pohnpei which shares one of its two haplotypes with specimens from Baitabag village in the Madang province of New Guinea. This suggests that the ghost ants from Pohnpei originated from New Guinea probably via human agency. Pinpointing the timing of introduction of *Tapinoma melanocephalum* on the island, however, is very difficult. The first sighting of the ghost ant on Pohnpei remains unknown. The first landing of the Europeans on the island is as equally uncertain with only Pohnpeian oral accounts left to attest for the event; it is believed to have taken place in the early 1600's (22). Following violent encounters with the indigenous population, no European crew is known to have landed on the island in the following 250 years. Contacts began to be re-established in the middle of the 19th century and soon became more frequent (22) but the ports of departure leading the ships to Pohnpei remain scarcely mentioned. Furthermore, non-European maritime travel and trade also took place although the routes employed are poorly documented. Consequently, whether the introduction of the ghost ant on Pohnpei dates back to 200 years ago or was caused by more recent trade is currently impossible to determine.

Regarding Clade I, its restriction to locations within New Guinea (with the exception of the suggested later dispersal to Pohnpei) and the absence of additional samples from the west suggests it originated from New Guinea. However, this needs to be taken with caution and further investigated, as a possible origin in mainland or island Southeast Asia followed by an introduction in New Guinea cannot be discarded. Working samples from mainland and Island Southeast Asia would be an initial first step in shedding light on the history of this clade and indirectly, migratory routes. Determining the timing of this potential introduction would be difficult as several introductions or re-introductions by early societies, the Lapita Cultural Complex or more recent human movements may have taken place.

Clade II appears to be restricted to Micronesia, which points towards a second introduction different to the one from New Guinea. This clade is found in all three Micronesian islands: Chuuk, Pohnpei and Yap, all known to have been settled by 2,000 BP (23). Historical Western descriptions by the end of the 18th century were quite abundant and revealed that trade and commerce took place between Micronesia and the Philippines (14). For instance, the Palau Islands were only six days sailing by local canoes from Mindanao (Philippines) and trepang (sea cucumber) commerce was undertaken with Chinese merchants located in the Philippines (14). These observations and the lack of Clade II in New Guinea would point towards a Filipino origin but sequences from specimens throughout Island Southeast Asia would be needed to confirm this hypothesis.

The dispersal of clade II throughout Micronesia no doubt reflects human travel and trade. The timing, however, presents once again an issue. Trade between these Micronesian Islands has been recorded in the last few centuries. For instance, stone money was regularly carried between Palau and Yap. Regular trade, visits and war episodes were also common among the major human groups within the islands of Micronesia (14). These could have provided the human transport vector necessary for the dispersals of the ghost ants. However, while records of the first sightings of *Tapinoma melanocephalum* on these three islands are lacking, such observations exist for the surrounding islands (Figure 6) and suggest a more recent introduction of the ghost ant dating to sometime in the last century. For instance, the first sighting of the ghost ant in the Mariana Islands dates back to 1945 and that of the Marshall Islands to 1947 (6). Historical first recordings of invasive and tramp ant species, however, present several issues. First, the dating is subjective to the visit of the observers to these islands. Secondly, the number of ants introduced and established outside their natural range far exceeds the number recorded. It is estimated that the former could be three times higher than the number so far detected (24). Thus, ghost ants on these islands may have evaded earlier observations. Nevertheless, these

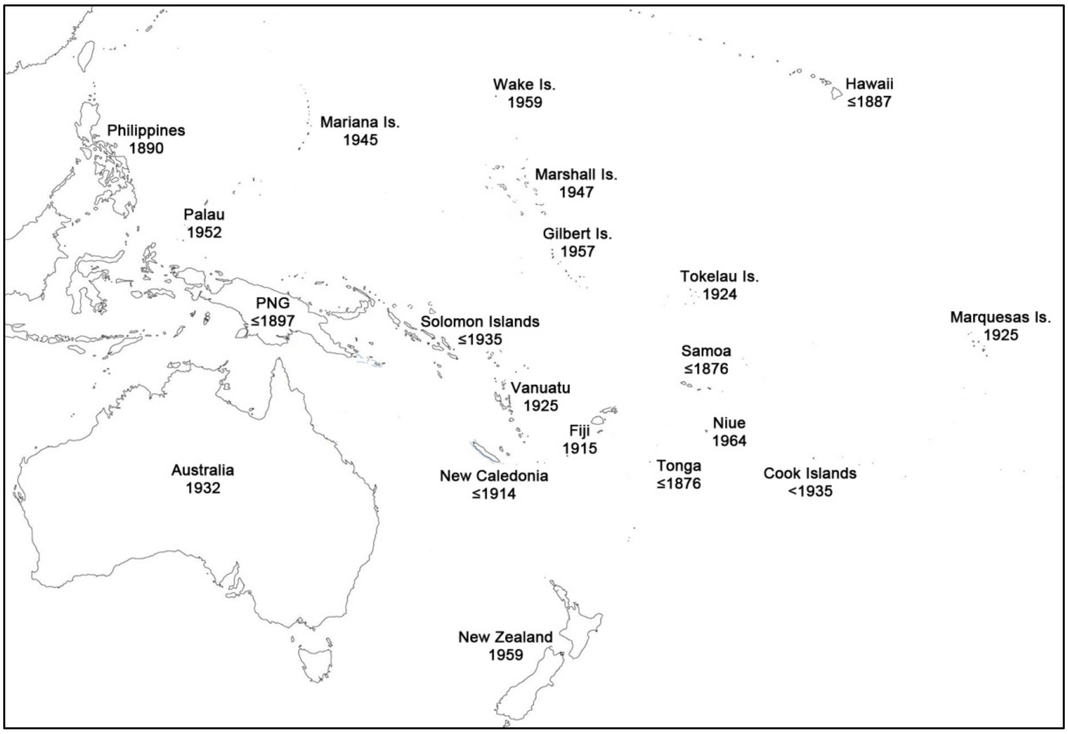


Figure 6: Dates of the earliest recordings of *Tapinoma melanocephalum* (based on (6))

recordings serve as a reminder that modern maritime trade routes could also have played an important role in the dispersal of *Tapinoma melanocephalum* in Micronesia, especially between Pohnpei and Chuuk given their shared haplotype. Furthermore, modern air commerce and travel are also to be considered as vectors of dispersals; these seem to be focus mainly between the various islands of Micronesia as opposed to longer more international routes. For instance, current flights operated by the company Asia Pacific Airlines link Guam to various islands in the Pacific including Chuuk, Yap and Pohnpei, but do not provide routes to New Guinea (25). Consequently, the timing of the migratory pathways employed in the dispersal of *Tapinoma melanocephalum* within Micronesia cannot be confidently asserted.

Similarly, clade III is found on the islands of Chuuk and Pohnpei as well as the Madang Province in New Guinea and Queensland in Australia but its widespread dispersal among the sampled locations demonstrated by the shared haplotype Hap20, which is found in all clade III samples from Chuuk and Pohnpei and the one sample from Queensland. The distance separating the Micronesian islands and Australia may well have been covered by boat but movement via planes may also explain this dispersal and the lack of Hap20 in New Guinea.

The ability of the ghost ant to move quickly into human transport vectors, whether cargo ships or an individual's luggage, has been previously observed. The first sighting of *Tapinoma melanocephalum* in Spain dates back to 1999 in the apartment of a couple (26). Interestingly, this couple regularly travelled to Africa where the ghost ant is also distributed, although not as common. It was consequently hypothesised that the first introduced ghost ant colony in Spain may have originated from Africa (26). Similarly, during his stay in Martinique, Wetterer (6) noted than an entire colony of ghost ants had moved into his packed luggage within a single night. The speed displayed by ghost ants in relocating their nests and their reproduction by budding provides them with the ability to quickly disperse throughout the world via human agency including planes, and establish successful colonies in their new environment. Therefore, the dispersal of clade II and III haplotypes within Micronesia and between Micronesia and Australia respectively through air commerce remains a possibility.

Finally, the presence of clade IV restricted to the Madang Province in New Guinea but not found elsewhere on that island would suggest it is restricted to this location. However, further sampling from other islands may reveal clade IV to have been introduced to New Guinea from another region. The origin of this clade cannot be currently identified based on the limited number of samples available.

V.4 Conclusion

This preliminary study on *Tapinoma melanocephalum* has attempted to confirm genetically the morphological identification of sampled specimens throughout Oceania. The low number of samples positively amplified has restricted the scope of this research, but has nevertheless provided some interesting observations that could provide a basis for future research.

Firstly, the identification of the ghost ant in most parts of the world does not present any issues due to its characteristic phenotype. However, identification within the Indo-Pacific region is more difficult due to similar phenotypic appearance with closely related (and sometimes undescribed) taxa. Among the 71 samples successfully amplified for this study, phylogenetic tree-based analyses revealed that 14 samples grouped among other *Tapinoma* species but not within the ghost ant clade. It was however not possible to determine the individual species these specimens belonged to due to the lack of published genetic data for this genus. This reinforces the necessity for the sampling and sequencing of morphologically identified *Tapinoma* specimens including the subspecies of *Tapinoma melanocephalum*. This would not only help to confirm the positive identification of specimens based on morphology, but would also increase current knowledge on the taxonomy of this genus (and species). The investigation of additional mitochondrial DNA and nuclear DNA markers should also help in investigating the limit of the species including its distribution (Janda, M. 2012. pers. comm. 16 October). This may help point towards the region of origin of the ghost ant.

The genetic signatures unique to specific regions and the dispersal of some haplotypes between different locations possessed the potential to shed light on the trajectories employed by human societies within Oceania. However, the lack of working samples from other locations within the Indo-Pacific, including mainland and Island Southeast Asia, prevents any conclusive remarks on the origin and dispersal trajectories of the clades identified across the sampled area. Based on historical records and current trade and commerce, some dispersal patterns have been suggested. Phylogenetic analyses have suggested at least two isolated introductions of the ghost ant in Oceania. The first one is found throughout Micronesia and most likely originated from the Philippines, although the timing of its dispersal throughout the numerous islands cannot be positively identified. The other appears to have originated from New Guinea and may have dispersed recently though human commerce to Pohnpei in Micronesia. However, whether New Guinea is the true origin of this clade or if it was introduced from elsewhere in Southeast Asia remains to be determined.

The quick ability of *Tapinoma melanocephalum* in relocating its nest based on a small number of individuals, and its close association with humans, presents an issue when attempting to retrace the timing of past human migrations. Old genetic signals may be covered by more recent ones as a consequence of re-introductions of which the frequency has no doubt increased with the intensification of trade and commerce in the area in the last century (Fisher, B. 2012. pers. comm., 25 September). In order to reduce modern genetic signals caused by recent human movements and provide a time depth to past human migrations based on the phylogeny of the ghost ants, I suggest investigating colonies found in more 'wilder' disturbed habitats. These colonies may possess genetic signals more closely related to the genetic signals of ghost ants when they were first introduced on these islands as opposed to colonies found within specific urban centres where recent re-introductions are more likely and frequent.

V.5 Acknowledgments

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V.6 Materials and Methods

V.6.1 Sample Collection and DNA Extraction

A total of 206 samples were collected from various sites across Oceania and North America (Supplementary Table 1): Austral Islands (n=3), Australia (n=2), Borneo (n=1), Caribbean (n=4), Fiji (n=17), Florida (n=2), Angaur Island (n=1), Chuuk (n=4), Guam (n=3), Palau (n=61), Pohnpei (n=13), Yap (n=2), Philippines (n=5), PNG (n=82), Society Islands (n=2) and USA (n=4). The sampling was undertaken between 2008 and 2012 during ecological surveys of Indo-Australian ant fauna as well as additional targeted sampling. These aimed to obtain population-genetic samples of selected ant species. Samples originating from Papua New Guinea were obtained during whole-community surveys of canopy ant fauna (39) and phylogeographic surveys of ants across the island in order to obtain a more comprehensive coverage of selected ant taxa (more details can be found at http://www.newguineants.org/methods (40)). Regarding Micronesia, the specimens were collected following a sampling methodology similar to that used for the phylogeographic surveys in New Guinea.

The specimens were either collected by hand from discovered nests or collected from bait traps (sugar-based, meat-based) and foraging pathways. These methods ensured that in a majority of cases, only nest mates from a single colony were collected for each sample. The habitats surveyed focused primarily on undisturbed areas (*i.e.* primary forests), but at least a third of the sampling effort targeted transformed habitats including secondary forests, gardens and human settlements. The specimens were stored in 99.8% ethanol before DNA extraction. The DNA was isolated at the Evolution and Ecology of Social Insect Laboratory at the Biology Centre, The Academy of Sciences of the Czech Republic in Ceske Budejovice, Czech Republic using Qiagen DNeasy Blood and Tissue Kit (Qiagen, Germany).

V.6.2 DNA Amplification and Sequencing

The forward primer LCO1490 (5'-GGTCAACAAATCATAAAGATATTGG-3') and the reverse primer HCO2198 (5'-TAAACTTCAGGGTGACCAAAAAATCA-3') were used to amplify a 658bp fragment (excluding primers) of the COI gene. The PCR amplification was performed in 25μl containing 2μl extract, 0.76x PCR Gold Buffer, 1.89mM $MgCl_2$, 1.04U *Taq*, 0.18mM dNTP and 0.75μM of each primer. The PCR thermal cycling reactions consisted of a 2 minute denaturation step at 94°C, followed by 35 cycles of 30s denaturation at 94°C, 30s annealing at 47°C, 1min 30s at 72°C, then a 10 minute final extension step at 72°C. The PCR amplifications were visualised on a 0.5x agarose gel. No contamination was identified for the DNA extraction and the PCR blanks. Sequencing was performed on a 48-capillary 3730 DNA Analyser in a DNA laboratory located in a physically separated building. The sequencing primers were identical to the ones used for DNA amplification. Sequencing was undertaken on both strands.

V.6.3 DNA Sequence Analysis

Of the 206 samples extracted, only 71 (34%) were successfully amplified across the full 658bp: one from Guam, three from Chuuk, two from Yap, 12 from Pohnei, 52 from across New Guinea and one from Queensland, Australia. No amplifications were possible from any of the samples from the Americas. In order to confirm the samples were *Tapinoma melanocephalum,* all COI gene sequences of *Tapinoma* species found within NCBI were added to the dataset: these comprised 55 *Tapinoma* specimens from six previously published studies (27-32). The specimens included *Tapinoma opacum* (n=1), *Tapinoma erraticum* (n=1), *Tapinoma sessile* (n=41), *Tapinoma subtile* (n=4) and eight other non-specified *Tapinoma* species (Supplementary Table ST2). These sequences combined with my own were displayed on Geneious (Geneious Pro 5.3.4 created by Biomatters. Available from http://www.geneious.com) and aligned using MAFFT v7.017 (33) followed by visual confirmation. In order to encompass the specimens from other studies, the fragment length was reduced to 601bp. Sequences were collapsed into haplotypes using DnaSP v5.10 (34). The Bayesian phylogenetic analyses was performed with MrBayes v3.2 (35) (Bayesian tree) and models parameters were identified by MEGA 6 (GTR + I + G) (36). The Neighbour-joining tree was performed in Geneious using the Tamura-Nei model.

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V.8 Supplementary Materials

V.8.1 Supplementary Information SI1

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CTCCCTCTATTTTATTATTAACTATCAGAAATTTCATTAGATCAGGGGTAGGAACAGGCTGGACTGTTTACCCCCC
ATTAGCCTCCAATATTTATCACAATGGAGCGTCAGTAGATCTAGCTATTTTTTCCCTCCATATTGCCGGAATATCT
TCAATCTTAGGGGCAATTAACTTTATTTCCACTATTATCAATATACATCATAAGCATCTAAGAATAGATAAAATTC
CCCTTTTAGTTTGATCAATTTTAATTACCGCCATCCTACTTCTTCTGTCTCTTCCCGTTCTGGCAGGAGCCATTAC
TATGCTTATCACAGATCGAAACTTAAATACATCATTTTTTGACCCCAGAGGAGGTGGAGACCCTATTCTCTACCAA
CA

>Hap_34
GTTCTTCAATAAGAATAATTATCCGATTAGAATTAGGATCTTCTTGTTCTTTAATTAATAATGAACAAATTTATAA
TTCTATAGTTACTAGACATGCATTCATTATAATTTTTTTTATAGTAATACCTTTTATAATTGGAGGTTTTGGTAAT
TTTTTAGTTCCTTTAATATTAGGATCTCCTGATATAGCTTACCCACGAATAAATAATATAAGATTTTGACTTTTAC
CTCCCTCTATTTCATTATTATTATTAAGAAATTTTATTAATGACGGTGTTGGAACAGGATGAACAGTTTACCCCCC
TTTATCATCCAATATTTTTCATAATGGCCCATCAGTAGATTTAGCTATTTTTTCTCTTCATATCGCTGGTATATCC
TCTATTTTAGGAGCAATTAATTTTATCTCTACAATTTTAAATATACATCACAAAAATATTTCTATTGATAAAATTA
CCTTACTTGTTTGATCTATCCTAATTACTGCCATTCTTCTACTTTTATCCTTACCTGTCTTAGCCGGAGCTATTAC
CATATTATTAACAGATCGAAATCTTAATACTTCTTTTTTTGATCCTTCTGGAGGAGGCGATCCTATTCTTTATCAA
CA

V.8.2 Supplementary Table 1: List of the 206 sampled analysed in this study. Only 71 (see Table 1) were successfully amplified.

Sampled ID	Country	Region	Site
Tap 13340	Austral Islands	Rimatara Is.	Mato forest,4m
Tap 13356	Austral Islands	Rimatara Is.	Mato forest,4m
Tap 13342	Austral Islands	Rurutu Is.,	Agric.field on southern plateau,200m
858.TAP.1.1	Australia	Queensland	N/A
CSM 0729	Australia	Queensland	Murray Falls
Bo 4 Tap	Borneo	Sarawak	Gunung Mulu NP
305	Caribbean	Jamaica	N/A
323	Caribbean	Jamaica	N/A
106	Caribbean	N/A	N/A
145	Caribbean	N/A	N/A
Tap 13344	Polynesia	Fiji Vanua Levu	Mt.Delaikoro,2,75km ENEDogoru Vlg.
FLORIDA MONTG. BOT.G	Florida	N/A	Montgomery Botanical Garden
FLORIDA M136	Florida	N/A	Montgomery Botanical Garden
JCM0192A-064170	Micronesia	Angaur Island	N/A
803.TAP.1.1	Micronesia	Chuuk	N/A
804.TAP.1.1	Micronesia	Chuuk	N/A
805.TAP.1.1	Micronesia	Chuuk	N/A
807.TAP.1.1	Micronesia	Chuuk	Tol
799.TAP.1.1	Micronesia	Guam	N/A
800.TAP.1.1	Micronesia	Guam	N/A
853.TAP.1.1	Micronesia	Guam	N/A
JCM259A-064811	Micronesia	Palau	Pulo Anna Island
JCM0258A-064806	Micronesia	Palau	Pulo Anna Island
JCM0262A-064824	Micronesia	Palau	Merir Island
JCM0261A-064815	Micronesia	Palau	Pulo Anna Island
JCM264A-064852	Micronesia	Palau	Merir Island
JCM0265A-064869	Micronesia	Palau	Merir Island
JCM0232A-064602	Micronesia	Palau	N/A
JCM0238A-064654	Micronesia	Palau	N/A
JCM101A-052493	Micronesia	Palau	Peleliu
JCM0109A-052546	Micronesia	Palau	Airai
JCM0273A-064910	Micronesia	Palau	Kayangel
JCM0267A-064876	Micronesia	Palau	Hatahobei
JCM0272A-064894	Micronesia	Palau	Kayangel
JCM0220A-064458	Micronesia	Palau	Peleliu
JCM219A-064451	Micronesia	Palau	Peleliu
JCM0216A-064417	Micronesia	Palau	Peleliu
JCM0262B-064825	Micronesia	Palau	Merir Island
JCM0310A-065081	Micronesia	Palau	Kayangel
JCM134A-052692	Micronesia	Palau	Kayangel
JCM136A-052715	Micronesia	Palau	Ngaremlengui
JCM0170A-052977	Micronesia	Palau	Airai
JCM0173A-052995	Micronesia	Palau	Ngatpang
JCM174C-064005	Micronesia	Palau	Ngatpang
JCM0027A-052310	Micronesia	Palau	Pulo Anna Island
JCM049A-052766	Micronesia	Palau	Ngatpang
JCM20F-052286	Micronesia	Palau	Ngatpang
JCM0281A-064989	Micronesia	Palau	Ngaremlengui
JCM0287A-065019	Micronesia	Palau	Sonsorol
JCM0120A-052-599	Micronesia	Palau	Peleliu
JCM125A-052627	Micronesia	Palau	Kayangel
JCM0245A-064714	Micronesia	Palau	Sonsorol
JCM0194A-064196	Micronesia	Palau	Angaur
JCM0193A-064181	Micronesia	Palau	Angaur
JCM0199A-064257	Micronesia	Palau	Angaur
JCM0197A-064228	Micronesia	Palau	Angaur
JCM0227A-064537	Micronesia	Palau	Peleliu
JCM0225A-064520	Micronesia	Palau	Peleliu
JCM0224A-064497	Micronesia	Palau	Peleliu
JCM0223A-064481	Micronesia	Palau	Peleliu
JCM0249A-064751	Micronesia	Palau	Sonsorol
JCM0134A-052692	Micronesia	Palau	Kayangel
JCM0136A-052715	Micronesia	Palau	Ngaremlengui
JCM0248A-064745	Micronesia	Palau	Sonsorol
JCM0246A-064730	Micronesia	Palau	Sonsorol
JCM0206A-064336	Micronesia	Palau	Aimeliik
JCM0200A-064276	Micronesia	Palau	Angaur
JCM0208B-064353	Micronesia	Palau	Ngatpang
JCM0255A-064795	Micronesia	Palau	Pulo Anna Island
JCM0115A-052572	Micronesia	Palau	Ngchesar
JCM0254A-064790	Micronesia	Palau	Pulo Anna Island
JCM252A-064773	Micronesia	Palau	Sonsorol
830.TAP.1.1	Micronesia	Pohnpei	N/A
830.TAP.2.1	Micronesia	Pohnpei	N/A
831.TAP.1.1	Micronesia	Pohnpei	Kepirohi Falls
831.TAP.2.1	Micronesia	Pohnpei	Kepirohi Falls
831.TAP.3.1	Micronesia	Pohnpei	Kepirohi Falls
831.TAP.4.1	Micronesia	Pohnpei	Kepirohi Falls
831.TAP.5.1	Micronesia	Pohnpei	Kepirohi Falls
831.TAP.6.1	Micronesia	Pohnpei	Kepirohi Falls
838.TAP.1.1	Micronesia	Pohnpei	Nett
838.TAP.2.1	Micronesia	Pohnpei	Nett
838.TAP.3.1	Micronesia	Pohnpei	Nett
838.TAP.4.1	Micronesia	Pohnpei	Nett
838.TAP.5.1	Micronesia	Pohnpei	Nett
839.TAP.1.1	Micronesia	Yap	N/A
843.TAP.1.1	Micronesia	Yap	Stone trail
Tap 13330	Palau	Airai	N/A
Tap 13335	Palau	Airai	N/A
Tap 13334	Palau	Koror Maple	N/A
Tap 13328	Palau	Koror Tuna	N/A
Tap 13327	Palau	Mangrove	N/A
Tap 13331	Palau	Ngardman	N/A
Tap 13332	Palau	Ngardman	N/A
Tap 13333	Palau	Ngatpong	N/A

Tap 13336	Palau	Ngchese	N/A
Tap 13338	Palau	Palau	N/A
PHIL-SQ/0082	Philippines	Camarines Sur	Panicuason Village
PHIL-SQ/0081	Philippines	Camarines Sur	Panicuason Village
PHIL-SQ/0074	Philippines	Palawan Island	Puerto Princesa City
PHIL-SQ/0068	Philippines	Palawan Island	Puerto Princesa City
PHIL-SQ/0020	Philippines	Panicuason	N/A
Tap 13337	PNG	Baitabag,Madang	N/A
Tap 13339	PNG	Central p.Port Moresby	N/A
Tap/ MJ 13367	PNG	Central p.Port Moresby	Sogeri rd.
Tap/ MJ 13368	PNG	Central p.Port Moresby	Sogeri rd.
Tap/ MJ 13369	PNG	Central p.Port Moresby	Magi hwy
Tap/ MJ 13370	PNG	Central p.Port Moresby	N/A
FOGOMAIU PG, B3T-IH	PNG	Fogomaiu	N/A
MJ14045	PNG	Fogomaiu	N/A
MJ9392	PNG	Fogomaiu	N/A
Tap 13350	PNG	Madang	Mis
Tap 13351	PNG	Madang	Mis
Tap 13352	PNG	Madang	Mis
Tap 13353	PNG	Madang	Mis
Tap 13354	PNG	Madang	Mis
Tap 13355	PNG	Madang	Mis
SC3	PNG	Madang	N/A
Tap 13362	PNG	Madang lagune	Lepa isl.
Tap 13363	PNG	Madang lagune	Sinub isl.
Tap 13364	PNG	Madang lagune	Wongat isl.
HP 0036	PNG	Madang p. Wannang vill.	N/A
HP 0038	PNG	Madang p. Wannang vill.	N/A
HP 0049	PNG	Madang p. Wannang vill.	N/A
HP 0449	PNG	Madang p. Wannang vill.	N/A
HP 0450	PNG	Madang p. Wannang vill.	N/A
HP 0451	PNG	Madang p. Wannang vill.	N/A
HP 0452	PNG	Madang p. Wannang vill.	N/A
HP 0453	PNG	Madang p. Wannang vill.	N/A
HP 0454	PNG	Madang p. Wannang vill.	N/A
HP 0455	PNG	Madang p. Wannang vill.	N/A
HP 0456	PNG	Madang p. Wannang vill.	N/A
HP 0457	PNG	Madang p. Wannang vill.	N/A
HP 0458	PNG	Madang p. Wannang vill.	N/A
HP 0459	PNG	Madang p. Wannang vill.	N/A
HP 0460	PNG	Madang p. Wannang vill.	N/A
HP 0461	PNG	Madang p. Wannang vill.	N/A
HP 0462	PNG	Madang p. Wannang vill.	N/A
HP 0463	PNG	Madang p. Wannang vill.	N/A
HP 0464	PNG	Madang p. Wannang vill.	N/A
HP 0465	PNG	Madang p. Wannang vill.	N/A
HP 0466	PNG	Madang p. Wannang vill.	N/A
HP 0467	PNG	Madang p. Wannang vill.	N/A
HP 0468	PNG	Madang p. Wannang vill.	N/A
HP 0469	PNG	Madang p. Wannang vill.	N/A
HP 0470	PNG	Madang p. Wannang vill.	N/A
HP 0471	PNG	Madang p. Wannang vill.	N/A
HP 0472	PNG	Madang p. Wannang vill.	N/A
Tap 13359	PNG	Madang p.Astrolabe bay	South coas rd.
Tap 13361	PNG	Madang p.Baitabag	Coll1
Tap 13360	PNG	Madang p.Baitabag vill.	Coll1
Tap/ MJ 13390	PNG	Madang p.Baitabag vill.	N/A
Tap/ MJ 13391	PNG	Madang p.Baitabag vill.	N/A
Tap/ MJ 13392	PNG	Madang p.Baitabag vill.	N/A
Tap/ MJ 13393	PNG	Madang p.Baitabag vill.	N/A
Tap 13365	PNG	Madang p.Nagada	Madang lagune
Tap/ MJ 13386	PNG	Madang p.Nagada	Madang lagune
Tap/ MJ 13387	PNG	Madang p.Nagada	Madang lagune
Tap/ MJ 13388	PNG	Madang p.Nagada	Madang lagune
Tap/ MJ 13389	PNG	Madang p.Nagada	Madang lagune
Tap 13345	PNG	Madang p.Ohu	N/A
Tap 13346	PNG	Madang p.Ohu	Consv.Coll2
Tap 13347	PNG	Madang p.Ohu	Ohu Consv.area
Tap 13348	PNG	Madang p.Ohu	N/A
Tap/ MJ 13366	PNG	Madang p.Ohu	Ohu Consv.area
Tap 13358	PNG	Madang,Astrolabe bay Ramu Hwy.South Coast	N/A
Tap 13319	PNG	Port Moresby	Comfort Inn, room
MJ14133	PNG	Telefomin, Mianmir	N/A
MJ009	PNG	Telefomin, Mianmir	N/A
Tap/ MJ 13380	PNG	Western prov. Daru	N/A
Tap/ MJ 13382	PNG	Western prov. Daru	hotel
Tap/ MJ 13383	PNG	Western prov. Daru	hotel
Tap/ MJ 13384	PNG	Western prov. Daru	hotel
Tap/ MJ 13385	PNG	Western prov. Daru	Dorogori vill.savannah
Tap/ MJ 13381	PNG	Western prov. Daru Isl.	airport-mangroves edge
Tap/ MJ 13371	PNG	Western prov.Weam	Plot 1
Tap/ MJ 13372	PNG	Western prov.Weam	Plot 2
Tap/ MJ 13373	PNG	Western prov.Weam	Plot 1
Tap/ MJ 13374	PNG	Western prov.Weam	Plot 1
Tap/ MJ 13375	PNG	Western prov.Weam	Plot 3
Tap/ MJ 13376	PNG	Western prov.Weam	Plot 3
Tap/ MJ 13377	PNG	Western prov.Weam	Plot 3
Tap/ MJ 13378	PNG	Western prov.Weam	Plot 3
Tap/ MJ 13379	PNG	Western prov.Weam	Plot 1
FJVL03_M01_09	Polynesia	Fiji	Koroyanitu Eco Park
FJVL03_M01_23	Polynesia	Fiji	Koroyanitu Eco Park
FJVL110_M05_04	Polynesia	Fiji	Navai Village
FJVL01_M01_07_84000	Polynesia	Fiji	Koroyanitu Eco Park
FJVL41_M01_01	Polynesia	Fiji	Dogotuki
FJLK82-M02-04	Polynesia	Fiji	Lakeba
FJLK81-M01-01	Polynesia	Fiji	Lakeba
FJLK82-M02-10	Polynesia	Fiji	Lakeba
FJLK82-M02-20	Polynesia	Fiji	Lakeba
FJLK86-M03-11	Polynesia	Fiji	Yasayasmoala

FJLK82-M02-03	Polynesia	Fiji	Lakeba
FJGA66-M03-12	Polynesia	Fiji	Gau
FJGA66-M03-20	Polynesia	Fiji	Gau
FJLK82-M02-19	Polynesia	Fiji	Lakeba
FJ4593-M01-15	Polynesia	Fiji	Yasawa
FJ4594-M02-09	Polynesia	Fiji	Yasawa
Tap 13341	Society Islands	Raiatea Is.,Mt.Tapioi sum.	near Uturoa,300m
Tap 13357	Society Islands	Raiatea Is.Marae Taputapuatea,3m	N/A
CSM1986	USA	Florida	Monroe, Key West
CSM1447	USA	Florida	Monroe, Key West
Tap 13343	USA	Greenhouse	N/A
Tap 13349	USA	HI,Oahu Is.Sand Isl.Matson Container Yard.3m	N/A

V.8.3 Supplementary Table 2: List of *Tapinoma* species from Genbank used in this study

Name	Genbank Nb	Species	Country	Location Specific	Source
T_sessile27	GU373557	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile_HQ978902	HQ978902	*Tapinoma sessile*	USA	Massachusetts	Direct Submission to Genbank
T_sessile24	GU373554	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile26	GU373556	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile25	GU373555	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile29	GU373559	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile28	GU373558	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile34	GU373564	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile35	GU373565	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile_HQ978870	HQ978870	*Tapinoma sessile*	USA	Massachusetts	Direct Submission to Genbank
T_sessile32	GU373562	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile33	GU373563	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile38	GU373568	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile39	GUY373569	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile37	GU373567	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile36	GU373566	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile30	GU373560	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile31	GU373561	*Tapinoma sessile*	USA	Northeast USA	Menke *et al.* (2010) (28)
T_sessile19	GU373549	*Tapinoma sessile*	USA	Southeast	Menke *et al.* (2010) (28)
T_sessile20	GU373550	*Tapinoma sessile*	USA	Southeast	Menke *et al.* (2010) (28)
T_sessile23	GU373553	*Tapinoma sessile*	USA	Southeast	Menke *et al.* (2010) (28)
T_sessile21	GU373551	*Tapinoma sessile*	USA	Southeast	Menke *et al.* (2010) (28)
T_sessile22	GU373552	*Tapinoma sessile*	USA	Southeast	Menke *et al.* (2010) (28)
T_sessile17	GU373547	*Tapinoma sessile*	USA	Southeast	Menke *et al.* (2010) (28)
T_sessile18	GU373548	*Tapinoma sessile*	USA	Southeast	Menke *et al.* (2010) (28)
T_sessile14	GU373544	*Tapinoma sessile*	USA	Southeast	Menke *et al.* (2010) (28)
T_sessile15	GU373545	*Tapinoma sessile*	USA	Southeast	Menke *et al.* (2010) (28)
T_sessile16	GU373546	*Tapinoma sessile*	USA	Southeast	Menke *et al.* (2010) (28)
T_sessile10	GU373540	*Tapinoma sessile*	USA	Rocky Mountains	Menke *et al.* (2010) (28)
T_sessile11	GU373541	*Tapinoma sessile*	USA	Rocky Mountains	Menke *et al.* (2010) (28)
T_sessile13	GU373543	*Tapinoma sessile*	USA	Rocky Mountains	Menke *et al.* (2010) (28)
T_sessile9	GU373539	*Tapinoma sessile*	USA	Rocky Mountains	Menke *et al.* (2010) (28)
T_sessile12	GU373542	*Tapinoma sessile*	USA	Rocky Mountains	Menke *et al.* (2010) (28)
T_sessile6	GU373536	*Tapinoma sessile*	USA	Rocky Mountains	Menke *et al.* (2010) (28)
T_sessile7	GU373537	*Tapinoma sessile*	USA	Rocky Mountains	Menke *et al.* (2010) (28)
T_sessile8	GU373538	*Tapinoma sessile*	USA	Rocky Mountains	Menke *et al.* (2010) (28)
T_sessile5	GU373535	*Tapinoma sessile*	USA	Rocky Mountains	Menke *et al.* (2010) (28)
T_sessile4	GU373534	*Tapinoma sessile*	USA	Rocky Mountains	Menke *et al.* (2010) (28)
T_sessile1	GU373531	*Tapinoma sessile*	USA	West Coast	Menke *et al.* (2010) (28)
T_sessile2	GU373532	*Tapinoma sessile*	USA	West Coast	Menke *et al.* (2010) (28)
T_sessile3	GU373533	*Tapinoma sessile*	USA	West Coast	Menke *et al.* (2010) (28)
T_sp_KC418583	KC418583	Unknown *Tapinoma*	Costa Rica	Guanacaste, Cacao-Sendero Circular	Smith *et al.* (2012) (31)
T_sp_KC419533	KC419533	Unknown *Tapinoma*	Costa Rica	Guanacaste, Cacao-Sendero Arenales	Smith *et al.* (2012) (31)
T_sp_KC418937	KC418937	Unknown *Tapinoma*	Costa Rica	Guanacaste, Cacao-Sendero Circular	Smith *et al.* (2012) (31)
T_sp_KC419372	KC419372	Unknown *Tapinoma*	Costa Rica	Guanacaste, Cacao-Sendero Circular	Smith *et al.* (2012) (31)
T_subtile1	GU709718	*Tapinoma subtile*	Mayotte	Malagasy, Gorgora Kandza	Fisher & Smith (2008) (29)
T_subtile3	GU709721	*Tapinoma subtile*	Mayotte	Malagasy, Tanaraki	Fisher & Smith (2008) (29)
T_subtile2	GU709720	*Tapinoma subtile*	Mayotte	Malagasy, Mont Benara	Fisher & Smith (2008) (29)
T_subtile4	GU709723	*Tapinoma subtile*	Mayotte	Malagasy, Mont Benara	Fisher & Smith (2008) (29)
T_sp KC417917	KC417917	Unknown *Tapinoma*	Costa Rica	Guanacaste, Orosi	Smith *et al.* (2012) (31)
T_sp_KC418414	KC418414	Unknown *Tapinoma*	Costa Rica	Guanacaste, Orosi	Smith *et al.* (2012) (31)
T_sp_KC419719	KC419719	Unknown *Tapinoma*	Costa Rica	Guanacaste, Orosi	Smith *et al.* (2012) (31)
T_erraticum	GU388394	*Tapinoma erraticum*	France	Blere, Indre et loire	Menke *et al.* (2010) (28)
T_opacum	DQ353340	*Tapinoma opacum*	Unknown	Unknown	Moreau *et al.* (2006) (27)
T_species DQ176063	DQ176063	Unknown *Tapinoma*	Madagascar	Antsiranana	Smith *et al.* (2012) (31)

VI. Conclusion

This thesis aimed to assess the reliability of maternal genetic data to infer the origins and early history of dogs and chickens using statistical tests conducted on modern populations worldwide. Mitochondrial DNA has been a tool extensively used for phylogenetic and phylogeographic studies conducted on a variety of animals, and particularly domesticates. However, a majority of these studies have focused on modern data to infer about the past. Continual human (and thus animal) migrations and interactions across the world, as well as human management of animals, have most likely impacted upon the maternal genetic structure of dogs and chickens. Such events and actions would have reduced the power of mitochondrial DNA to infer the origins and past dispersals of these two domesticates. Yet, the extent to which humans have affected the maternal genetic structure and variation of indigenous dogs and chickens across the world has never before been tested statistically.

Major dog studies have relied upon haplotype frequencies and number of unique and universal haplotypes across regions to deduce the domestication centre and subsequent dispersals. As for chickens, many studies have evaluated the maternal genetic diversity of these animals within countries. Only one study looked at a continent (Africa) as a whole. No studies have compiled the extensive available data to conduct a statistical analysis on a global scale. Based on extensive datasets comprising of primary data and sequences compiled from previous studies (total: dogs, n=2,587; chickens, n=4,199), I used Wright's *F*-statistics and analysis of molecular variance (AMOVA) to provide statistical support for mitochondrial DNA structure and variation between modern indigenous populations of dogs and chickens across the world. I also investigated the presence of mtDNA genetic structure and variation in ancient dogs based on a dataset of 88 ancient samples, (37.5% of which I amplified successfully). The results were explored further using archaeological and historical data to interpret the extent to which past dispersals could be retraced from modern dog and chicken data in light of the assessed genetic impact caused by human actions through time on these populations.

I first explored whether or not mitochondrial DNA structure could still be observed within modern dog populations and chicken populations worldwide, and the extent of mitochondrial DNA variation between each of these species' populations. The results differed with dogs exhibiting a lack of maternal genetic structure and variation between the eight indigenous geographically distinct populations, while chickens displayed a certain amount of mtDNA structure. An additional test conducted between non-breed dogs and dog populations consisting of breeds officially recognised by the American Kennel Club and the United Kennel Club, revealed no mitochondrial genetic differentiation between these two groups. This demonstrated that the homogenous gene pool observed within modern dog populations across the world was not a recent phenomenon; indeed, this homogeneity was probably already observed in dogs a few centuries ago. Regarding chickens, their mtDNA variation between indigenous populations across eight regions (in addition to commercial breeds) allowed understanding of past dispersals when combined with archaeological and historical data.

A number of scenarios may explain such differentiation in modern maternal genetic data between dogs and chickens, none of them exclusive of one another. First, management strategies differ greatly between these two domesticates. Although most dogs tend to remain within the vicinity of their owners or their village/neighbourhood (pets and street dogs respectively), these animals have the freedom to move around their territories. Village dogs, in particular, will migrate to wherever food is available (1). Dogs are also much more likely, given their close companionship with humans, to travel long distances with their owners. Hybridisation between indigenous dogs and newly-introduced ones is, in this case, possible. Procreation is not strictly managed by humans, unless the dog in question is a pure-bred and strict breeding practices are applied. On the contrary, chickens are usually kept in closed areas where their breeding is controlled. Even in China and Vietnam where indigenous chicken populations are left to roam freely, these animals never venture far and their populations are located in such remote locations that admixture between populations is very rare (2,3) This close keeping would have helped towards preserving mitochondrial DNA structure within chickens compared to dogs.

Wild progenitors and the extent of their natural habitat is another possible contributing factor. Dogs are descended from the gray wolf, which was distributed across the Holartic (4). Such a wide natural range would have led to episodes of admixture between wolves and dogs following the domestication of the later and thus affecting their mtDNA diversity. The Red Jungle fowl (the wild ancestor of chickens), however, possesses a much more restricted natural habitat, which covers Southeast Asia as well as parts of South and East Asia. Consequently, chickens brought along by human societies during their dispersals out of Asia would not have been able to hybridise with their wild ancestors and would thus have retained, to a certain extent, their genetic signature. This observation would also have contributed to the preservation of mitochondrial DNA structure and diversity between chicken populations. Obviously, care needs to be taken as the known geographical extent of the wild progenitors is usually inferred from the modern distribution, which may not be a direct representation of past distributions.

Intentional dispersion of dogs and chickens combined with the differing management strategies and lifestyle of these two animals seem, however, the most likely cause for the lack of mtDNA genetic structure within dogs and the presence of mtDNA genetic structure within chickens, which brings us to the second theme explored in this thesis.

Human migrations have occurred throughout history. Following domestication, human societies rarely travelled without their animals as they provided secure resources when attempting to settle potentially challenging environments. Recurrent migrations across regions, however, would have led to admixture between populations, blurring and sometimes erasing the original regional genetic signature. Animal movements via human agency was true in the past and is still true today, particularly with the advance in the development of modes of transport allowing quick journeys around the world. Based on the lack of mtDNA genetic structure in dogs and the presence of some mtDNA genetic structure within chicken populations, it would seem that human movement and trade have affected both domesticates in different ways.

It would appear that human movements and trade following the domestication and initial dispersal of the chicken did not have a major impact on indigenous chicken populations across regions. Known crossbreeding between chickens originating from different regions has been well documented in Europe and China in the last few centuries. For instance, records exists for the import of East Asian chickens into Europe to create the Fancy Fowl. The ancestry of such new breeds can be researched through historical records. The origins of commercial breeds (broilers, layers and sire lines) have also been documented and these breeds have been bred based on particular selective traits. In China, it is known that indigenous chicken populations currently hybridise with commercial breeds (2) and several studies have been undertaken to examine the impact this has had on the mtDNA genetic diversity of these populations. The issue with this main assertion, however, lies in the fact that no mitochondrial DNA analysis has been conducted on ancient chicken bones. This is unsurprising given the fragile nature of these remains but such an analysis would be essential for comparison between past and modern mtDNA structure and therefore to confirm this main observation.

The dogs present a different story. Based on the results of the statistical tests conducted across populations, it would appear that numerous admixture episodes between previously independent dog lineages have taken place. These most likely resulted from human migrations, leading to a modern worldwide homogenous gene pool already present in the last few centuries. The next step was to investigate whether or not this homogeneity was already present in the past or whether it was the result of more recent human movements. Given the impact Europeans have had on dog lineages in America upon their arrival in the New World (a near-total replacement of pre-Columbian native dog lineages by Europeans dogs - at least based on village dogs (5,6), I decided to test for mitochondrial DNA genetic structure and variation between three populations across the world (America, Europe, Southeast Asia/Island Southeast Asia). These signatures dated prior to the European conquest of the Americas and subsequent colonial expansions. Results showed that mitochondrial DNA structure existed in the past and that variation could be observed between the three populations. Consequently, the modern homogenisation of dogs seen today most likely resulted from European colonial expansion. This is not entirely surprising: these colonial episodes resulted from the development of transoceanic travel, which would have allowed for an easier dispersal of dogs throughout the world. Subsequent episodes of admixture between these European dogs and indigenous dogs from other regions would have blurred and/or erased past genetic signatures.

These observations have led me to the question regarding the extent to which modern mitochondrial DNA can be used to retrace the early dispersals of these two domesticates. Chapter III has quite clearly demonstrated that the mitochondrial DNA structure of dogs has been heavily affected by recent human movements. Consequently, positively inferring past human dispersals from modern dog mitochondrial DNA data does not appear plausible. Modern mitochondrial DNA of chickens (chapter IV), however, do allow for a certain reconstruction of the past. Through this analysis, it has been shown that both native European breeds and indigenous African populations have very low genetic differentiation with South Asian populations. This demonstrated that modern chickens native to Europe and Africa most likely originated from South Asia. Archaeological and historical data do indeed support this hypothesis. In contrast, Island Southeast Asian and Oceanian chickens were more closely related to Asian populations with the exception of South Asia. This is unsurprising given chickens were most likely introduced in these areas by the Lapita Cultural Complex, of which the origins remain debated in the literature, but which have been assumed to be East or Southeast Asian. Finally, a clear differentiation existed between South Asian and other Asian populations. Various scenarios have been presented to explain such an observation. These include: independent domestication episodes, current hybridisation with the wild ancestors in Asian populations but not in South Asia and the admixture of indigenous Asian populations (except South Asia) with commercial varieties.

Considering dogs and chickens have both been dispersed throughout the world through intentional human actions, I attempted to test whether or not species dispersed unintentionally via human agency could be used as proxies to retrace human migrations. In order to conduct this research, I used the ghost ant *Tapinoma melanocephalum*, a 'tramp ant' closely associated with human societies which has the particular ability to relocate its colony quickly and with very few individuals. This species had not been previously genetically investigated. Although the number of successful DNA amplifications and sequencing was low compared to the original sample size (only 34%), four clades were identified and the possibility of two independent introductions of the ghost ant in Oceania was suggested. Furthermore, shared haplotypes within islands combined with historical records and reports of first sightings suggested possible trading routes. The lack of working samples from more eastern locations such as mainland Southeast Asia, Indonesia or the Philippines, however, prevented any conclusions to be made regarding introductory pathways. Although modern human movements may have affected the clade and haplotype distribution pattern observed, ghost ants appear to be promising proxies in retracing past human migrations, particularly when combined with historical records.

Statistical tests including Wright's *F*-statistics and AMOVA conducted on mitochondrial DNA fragments of 2,587 indigenous dogs from eight geographically distinct populations have shown that modern dog maternal genetic data cannot be used to infer the origin and the early dispersal of this main domesticate. A lack of mitochondrial genetic structure and variation between these populations clearly show the impact recent human movements have had on their mitochondrial DNA diversity. Regarding chickens, the presence of mtDNA structure and variation between indigenous chicken populations across the world demonstrated that modern maternal genetic data can, to a certain extent, be used to retrace their origin and migratory pathways. However, these results need to be combined with additional lines of evidence in order to provide a more accurate and reliable interpretation of the past. Finally, perhaps a better proxy to infer about past dispersals and indirectly past human migrations, are species unintentionally dispersed throughout regions by human societies. The ghost ant *Tapinoma melanocephalum* appears a promising candidate but further works needs to be conducted regarding its phylogeny and phylogeography to properly assess its potential.

The next step in genetically investigating the origins of dogs and chickens and retracing their early history and dispersals is to look at ancient material. Ancient material provides a direct window into the past. Genetic research directly undertaken on these remains would provide a clear understanding of their past genetic diversity and implications regarding their origins and dispersals. This has clearly been demonstrated in Chapter III with my ancient dog data. The collaboration between zooarchaeologists and geneticists is crucial here. With secure dating of ancient remains and mitochondrial and nuclear data, the resolution of past events provided by genetic analyses will be more refined.

The development of more powerful sequencing techniques has allowed full genomes to be generated. Specific nuclear genes associated with the domestication process of an animal can thus be researched and identified, which will provide additional information on domestication not available when investigating mtDNA. Such genes have already been identified by Erikson *et al.* (7) who showed that *Gallus sommeratii*, or the grey jungle fowl, most likely contributed to the domestic chicken genome: some domestic chickens, particularly in Europe and Africa (Larson 2012. pers.comm, 8) possess the distinct 'yellow skin' allele. The latter is absent among Red Jungle Fowls but present in Grey Jungle Fowl. Consequently, by establishing these genes, the domestication processes can be further explored. That is not to say mitochondrial DNA is to be discarded. On the contrary, it holds crucial information on maternal lineages. However, this study has clearly shown that fragments of the control region used in multiple studies do not provide a high enough resolution to positively infer the past. Full mitochondrial genomes have to be compared with other lines of data such as the Y-chromosome or the sequencing of the nuclear genome and specific genes to provide for a better understanding of the origins and early dispersals of dogs and chickens.

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Supplementary Appendix 1

Using ancient DNA to study the origins and dispersal of ancestral Polynesian chickens across the Pacific

Vicki A. Thomson[a], Ophélie Lebrasseur[b], Jeremy J. Austin[a,c,1], Terry L. Hunt[d,e], David A. Burney[f], Tim Denham[g], Nicolas J. Rawlence[a,h], Jamie R. Wood[i], Jaime Gongora[j], Linus Girdland Flink[b,k], Anna Linderholm[b], Keith Dobney[l], Greger Larson[b], and Alan Cooper[a,1]

[a]Australian Centre for Ancient DNA, School of Earth and Environmental Sciences, University of Adelaide, Adelaide, SA 5005, Australia; [b]Durham Evolution and Ancient DNA, Department of Archaeology, and [k]School of Biological and Biomedical Sciences, Durham University, Durham DH1 3LE, United Kingdom; [c]Sciences Department, Museum Victoria, Melbourne, VIC 3001, Australia; [d]Clark Honors College and [e]Department of Anthropology, University of Oregon, Eugene, OR 97403; [f]National Tropical Botanical Garden, Kalaheo, HI 96741; [g]School of Archaeology and Anthropology, ANU College of Arts and Social Sciences, The Australian National University, Canberra, ACT 0200, Australia; [h]Allan Wilson Centre for Molecular Ecology and Evolution, Department of Zoology, University of Otago, Dunedin 9016, New Zealand; [i]Landcare Research, Lincoln 7640, New Zealand; [j]Faculty of Veterinary Science, University of Sydney, Sydney, NSW 2006, Australia; and [l]Department of Archaeology, University of Aberdeen, Aberdeen AB24 3UF, Scotland

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The human colonization of Remote Oceania remains one of the great feats of exploration in history, proceeding east from Asia across the vast expanse of the Pacific Ocean. Human commensal and domesticated species were widely transported as part of this diaspora, possibly as far as South America. We sequenced mitochondrial control region DNA from 122 modern and 22 ancient chicken specimens from Polynesia and Island Southeast Asia and used these together with Bayesian modeling methods to examine the human dispersal of chickens across this area. We show that specific techniques are essential to remove contaminating modern DNA from experiments, which appear to have impacted previous studies of Pacific chickens. In contrast to previous reports, we find that all ancient specimens and a high proportion of the modern chickens possess a group of unique, closely related haplotypes found only in the Pacific. This group of haplotypes appears to represent the authentic founding mitochondrial DNA chicken lineages transported across the Pacific, and allows the early dispersal of chickens across Micronesia and Polynesia to be modeled. Importantly, chickens carrying this genetic signature persist on several Pacific islands at high frequencies, suggesting that the original Polynesian chicken lineages may still survive. No early South American chicken samples have been detected with the diagnostic Polynesian mtDNA haplotypes, arguing against reports that chickens provide evidence of Polynesian contact with pre-European South America. Two modern specimens from the Philippines carry haplotypes similar to the ancient Pacific samples, providing clues about a potential homeland for the Polynesian chicken.

Lapita | Pacific colonization | phylogeography | archaeology | migration

The colonization of the remote Pacific was one of the last great human migrations, but despite the recent nature of the events, the timing and routes remain an area of considerable debate. The first colonization of Western Polynesia occurred around 3,250–3,100 calendar years before present (cal B.P.) as part of the eastward migration of Lapita pottery-bearing peoples (1). This migration occurred only a few hundred years after the emergence of this distinctive pottery tradition in the Bismarck Archipelago around 3,470–3,250 cal B.P., although its antecedents can be traced to Island Southeast Asia (ISEA) (2–5). Following the initial movement into Western Polynesia, a prolonged 1,800-y hiatus, or "pause," is apparent before further colonization (6), potentially relating to the need to develop sailing technology essential for crossing the vast ocean barrier to the east (between Samoa and the Society Islands, 2,400 km; Fig. 1). The huge navigational achievement of colonizing the remote East Polynesian triangle (an oceanic region roughly the size of North America) then occurred rapidly (<300 y) (6). Although the overall chronology of the eastern Pacific island colonization has recently been further resolved, the precise details of this intensive migratory episode remain unclear (6).

Human commensal and early domesticated species were widely, but not ubiquitously, dispersed as people colonized the Pacific. As a result, they provide an opportunity to study colonization events and subsequent movements for islands and regions where they were successfully introduced, especially through the use of biomolecular techniques, including ancient DNA. In the Asia–Pacific region, the complex histories of Pacific island colonizations have been investigated using the biological elements associated with these cultures, such as bottle gourds (7, 8), sweet potatoes (9), pigs (10, 11), dogs (12), Pacific rats (13), and chickens (14–17). However, studies of commensals and domesticates in the Pacific to date have provided limited resolution of dispersal routes, due to low amounts of genetic diversity in many groups and overwriting of genetic signals by subsequent introductions, especially for cotransported species like rats (10, 13, 18).

Ancient and modern DNA from chickens provide an opportunity to study human-mediated dispersal across the Pacific due to the extent of genetic and phenotypic diversity and the range of archaeological material available. Although recent studies of

Significance

Ancient DNA sequences from chickens provide an opportunity to study their human-mediated dispersal across the Pacific due to the significant genetic diversity and range of archaeological material available. We analyze ancient and modern material and reveal that previous studies have been impacted by contamination with modern chicken DNA and, that as a result, there is no evidence for Polynesian dispersal of chickens to pre-Columbian South America. We identify genetic markers of authentic ancient Polynesian chickens and use them to model early chicken dispersals across the Pacific. We find connections between chickens in the Micronesian and Bismarck Islands, but no evidence these were involved in dispersals further east. We also find clues about the origins of Polynesian chickens in the Philippines.

Author contributions: V.A.T., J.J.A., J.G., and A.C. designed research; V.A.T., O.L., N.J.R., J.R.W., L.G.F., and A.L. performed research; T.L.H., D.A.B., and K.D. contributed new reagents/analytic tools; V.A.T., J.J.A., and A.C. analyzed data; and V.A.T., J.J.A., T.D., G.L., and A.C. wrote the paper.

The authors declare no conflict of interest.

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Data deposition: The sequences reported in this paper have been deposited in the GenBank database (accession nos. KJ000585–KJ000642).

[1]To whom correspondence may be addressed. E-mail: alan.cooper@adelaide.edu.au or jeremy.austin@adelaide.edu.au.

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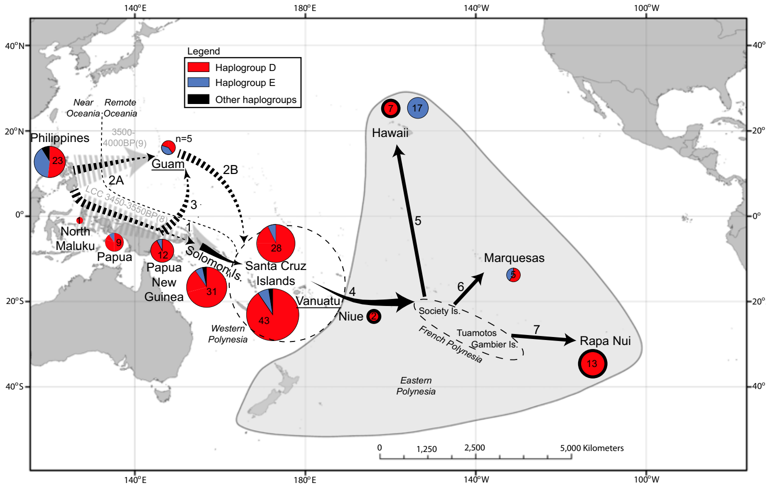

Fig. 1. Map showing samples and localities mentioned in this study. Samples from Vanuatu and Guam previously published in Dancause et al. (26) are underlined, with haplogroup frequencies of the chicken specimens indicated by pie charts (thick outlines indicate ancient samples). Colors refer to haplotype/haplogroup: D haplogroup in red, E haplogroup in blue, and all other haplotypes are in black. Gray arrows represent movements inferred from archaeological data (49), whereas black arrows represent routes tested in BayeSSC analysis (dashed arrows indicate movements tested in different scenarios, whereas solid arrows are constant across the different scenarios). 1, introduction of chickens within Near Oceania; 2, alternate hypothesis proposed by (38); 3, introduction of chickens from New Guinea into Micronesia; 4–7, spread of chickens from Western Polynesia into, and within, Eastern Polynesia. Dashed line indicates demarcation between Near and Remote Oceania, Western Polynesia is defined by a dashed circle, and Eastern Polynesia is indicated by a gray shaded triangle.

domestic chicken breeds have highlighted how the domestication process and subsequent breeding have resulted in a 70% loss of nuclear genetic diversity (19), substantial phylogeographic structure remains within the mitochondrial (mtDNA) sequences of chickens worldwide (20–23). Furthermore, an extensive reference dataset of >3,000 mtDNA control region (CR) sequences and >60 whole mtDNA genomes is available from across the natural range of wild and semiwild birds, as well as domestic breeds of chicken, permitting the reconstruction of phylogeographic patterns of domestic chickens and associated human cultures. Despite these intensive surveys, a resolved worldwide chicken mtDNA phylogeny has not been developed, and this is an essential prerequisite to interpreting short ancient DNA sequences. The current phylogenetic framework for chickens is based on Liu et al. (24), who identified nine highly divergent haplogroups (designated A–I) using mtDNA CR sequences, with an additional four recently described on the basis of whole mtDNA genomes (W–Z) (25). However, there is little information about the support for these topologies, and only neighbor-joining trees have been reported to date.

Phylogeographic studies have identified that one particular mtDNA lineage (CR haplogroup D) is largely limited to the Asia–Pacific region (24), whereas many of the other haplogroups are ubiquitous worldwide, potentially as a result of historical dispersal with European colonialists (e.g., haplogroups A, B, and E), and are therefore generally phylogeographically uninformative. Previous studies of modern and ancient chickens have identified both haplogroup D and E in the Pacific (14–17, 26), making interpretation of colonization history difficult due to potentially contrasting origins and dispersal histories (24). Indeed, the presence of haplogroup E in the Pacific has been used to infer a link between Polynesia and pre-Columbian South America, although both the phylogenetic signal and radiocarbon dating of the samples have been questioned (27–29). This issue has recently taken on more significance as other studies of ancient genetic diversity in South America emphasize the importance of evidence for pre-European Polynesian contact (17, 30).

In this study, we first quantify the support for previously defined chicken mtDNA CR haplogroups using recently published whole mitochondrial genomes (WMGs) (25). We then use the resulting robust evolutionary framework to analyze the spatial and temporal patterns of mtDNA CR haplotypes in ancient and modern Pacific chickens to examine their origins in ISEA (31), the dispersal of chickens into Near Oceania and Western Polynesia, potential connections between the New Guinea region and Micronesia, and the claimed introduction of Polynesian chickens to South America (14).

Results

The 61 WMG dataset (25) contained 363 single-nucleotide polymorphisms (SNPs), of which 154 were potentially phylogenetically informative, with 62 (17%) located in the rapidly evolving CR (32). Bayesian and maximum likelihood inference analyses of the WMG dataset supported the haplogroup framework defined by Liu et al. (24) and Miao et al. (25) and, importantly, produced robust support for haplogroups A–G and Z (i.e., haplogroups where multiple individuals were sequenced), as shown in Fig. 2. Robust support values were also obtained for phylogenetic trees based on the WMG data without the CR sequences (*SI Appendix*, Fig. S1), but were less robust when based only on the highly variable CR sequences alone, likely due to issues with substitution rate heterogeneity (32) (*SI Appendix*, Fig. S2). However, the short (201 bp), hypervariable region of the CR used in previous studies contains >12× the average diversity per base compared with the rest of the WMG, and has the advantage of being available for a worldwide dataset of >1,000 chicken sequences. The comparative phylogenetic dataset constructed from these sequences identified 274 unique haplotypes, which we termed H001–H274 (*SI Appendix*, Dataset S6).

Of the 37 Polynesian archaeological chicken bones analyzed to study the temporal and spatial patterns within Polynesia, 22 (59%) yielded positive and repeatable PCR amplification and DNA sequencing results for a 330 bp region (which included the hypervariable 201 bp; Niue, $n = 2/8$; Hawai'i, $n = 7/11$; Rapa Nui, $n = 13/18$; *SI Appendix*, Table S1). All of the 22 positive ancient samples produced mtDNA CR sequences belonging to haplogroup D. Two samples that could not be reliably reproduced (from Niue and Rapa Nui) each generated a single PCR product with different non-D haplotypes (from haplogroup A and E, respectively; *SI Appendix*, Table S1 and Dataset S1). However, when DNase (double-strand–specific Shrimp DNase) pretreatment was used to remove potential contaminating DNA from reagents (33), these sequences were no longer detected (*SI Appendix*). Two of the 124 modern feather samples examined could not be successfully amplified (one from the Marquesas and another from Hawai'i). The large majority of the resulting 122 modern sequences belonged to haplogroup D ($n = 90/122$, 74%; *SI Appendix*, Figs. S3–S7), with haplogroup E sequences present at a lower frequency ($n = 27/122$, 22%). The remaining five samples fell within haplogroups A, B, and I ($n = 1$, 3, and 1, respectively, each <2.5%).

Previous studies of Pacific chickens have reported elevated levels of haplogroup E among ancient specimens (up to 48%) (14–16), in direct contrast to our results. However, the contamination of laboratory consumables with DNA from modern domestic species, including chickens, is a well-known problem in ancient DNA research (34), and this would also likely generate

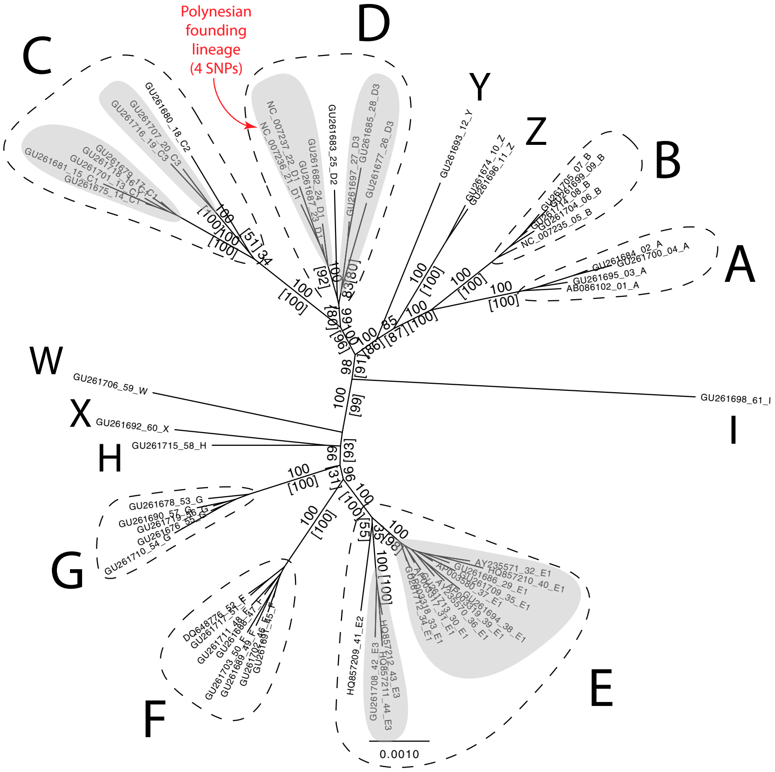

Fig. 2. Phylogenetic tree based on WMG data from Miao et al. (25). Bayesian posterior probability and maximum likelihood bootstrap (in parentheses) support values are shown on branches. All haplogroups with more than one individual have robust support and concur with the designations of Liu et al. (24).

haplogroup E sequences, due to the ubiquity of the latter worldwide (*SI Appendix*, Dataset S2) (24). To examine this potential explanation, we reexamined key samples from a previous study that linked ancient Polynesian chickens to South American archaeological specimens (14). Four of the six bone samples from Rapa Nui used in the previous study were available for reexamination, but only three gave replicable results (*SI Appendix*, Dataset S1). However, these included the individual bone reported to have generated the critical single haplogroup E sequence (H268 of our unique haploptypes) used to link Rapa Nui and South America (sample PAQANA011; *SI Appendix*, Fig. S8) (14). In direct contrast to the previous results, our reanalysis of an independent sample of PAQANA011 using Shrimp DNase PCR pretreatment yielded a haplogroup D sequence (haplotype H239; *SI Appendix*, Dataset S6) identical to those of the other two Rapa Nui specimens we reexamined. This result was subsequently confirmed through independent replication of a subsample of the same specimen at Durham University (*SI Appendix*, Dataset S3).

Our results further revealed that the PAQANA011 specimen contained low amounts of DNA, with elevated levels of DNA template damage (*SI Appendix*, Dataset S4), and strongly suggests the previously reported haplogroup E sequence was the result of contamination with modern chicken DNA. A further 10 samples excavated from the same site on Rapa Nui (Anakena) were also examined, and all yielded replicable haplogroup D sequences (haplotype H239; *SI Appendix*, Dataset S1). Together with the haplogroup D results of the previous study (14), this means that all 15 different bones examined at the Anakena site have yielded H239 sequences.

To investigate the conflict between the results obtained here and those previously reported from ancient Pacific specimens (14–16), we calculated the probability of detecting the reported proportions of D and E haplogroups given the different datasets. If haplogroup E was authentically present within ancient Pacific chickens at the levels previously reported (48%) (14–16), then the probability that all 22 of our ancient samples would belong to haplogroup D is negligible (P value = 1.3×10^{-7}). In contrast, our results suggest that if haplogroup E was present at all in ancient Pacific chickens, it must have been in less than 13% (at the 95% probability level; *SI Appendix*, Fig. S9). It is possible that if haplogroup E was present in very low frequencies among ancient Pacific chickens (e.g., <10%), we did not detect it within the 22 ancient samples we examined simply due to stochastic sampling effects (P value = 0.098). However, if E was actually present at only 10% in the ancient Pacific chickens, then it is also highly unlikely that haplogroup E sequences would have been detected in 15/31 (48%) of the specimens in previous studies (P value = 6.9×10^{-9}).

A median-joining network of the haplogroup D chicken sequences revealed that all of the ancient Pacific sequences generated in this study ($n = 22$) and those from previous studies ($n = 16$) (14, 16) together comprise only five different haplotypes (Fig. 3), none of which have been found outside the Pacific region. Four of these five are from Polynesia and cluster together, possessing a diagnostic motif of four SNPs (A → G at base 281, C → T at base 296, T → C at base 306, A → G at base 342 compared with NC_007235; *SI Appendix*, Dataset S5). The four diagnostic SNPs were also detected in four additional haplotypes within the diversity of sequences from modern chickens sampled across the western Pacific and the Philippines, but only from Vanuatu, Santa Cruz, Philippines, and Guam (Fig. 3) (26). Indeed one of the previously published WMGs, from the Philippines (NC_007236; 25), contains all four of these diagnostic SNPs (*SI Appendix*, Figs. S1 and S2). Fig. 3 shows that the most common ancient haplotype, H239, forms the central node from which the other three ancient Polynesian D haplotypes radiate, consistent with a recent rapid expansion. The central haplotype was also the most common sequence in modern Pacific chicken populations, being present on almost all Pacific islands sampled.

South America. Given that at least some of the previously reported ancient Pacific chicken data appear to be due to contamination, and the fact that all of the authenticated or reliable ancient Pacific chicken sequences are restricted to the unique

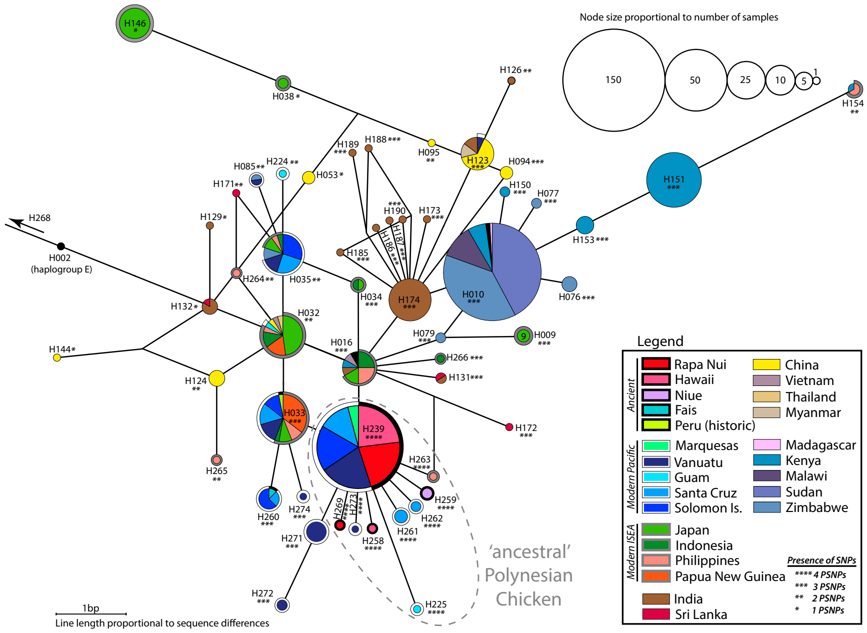

Fig. 3. Unrooted haplogroup D network generated using 201 bp of mitochondrial CR analyzed in this study, including 144 sequences generated in this study and 1,226 sequences from GenBank (14, 21–24, 26, 27, 43–46). Labels on nodes are unique haplotype numbers from this study (*SI Appendix*, Dataset S6). Colors reflect sampling location, with outline around pie charts representing ancient samples (black), modern Pacific (white), and modern ISEA (gray).

Pacific group of haplogroup D sequences, we performed approximate Bayesian coalescent simulations to evaluate the evidence for the pre-Columbian introduction of chickens to South America. The coalescent simulations provided no evidence to support prehistoric dispersal of chickens from Polynesia to South America either when the datasets included (*i*) ancient sequences only from haplogroup D or (*ii*) all sequences reported from ancient specimens (Haplogroups B, E, and D) (14–16) (*SI Appendix*, Fig. S11 and Tables S2–S5). The analyses reveal that the more likely route and explanation for South American chicken diversity appears to be via Europe and early historical introductions, or as modern DNA contamination of experiments (*SI Appendix*, Fig. S11). A single D haplotype sequence (H033) has been reported from post-European contact Peru (16), but this sequence is common within ISEA populations, and could have been associated with early-colonial Spanish trade. Importantly, it has not been found among the ancient Pacific chicken sequences.

Micronesia and Western Polynesia. To investigate early human-mediated dispersal patterns within the Asia–Pacific region, we examined modern chickens from islands across ISEA, Micronesia, and Western Polynesia, because few specimens of ancient chickens were available from this area [however, see Fais D haplotype sample from Storey et al. (16)]. Although the ISEA sequences are scattered across the haplogroup D network, the majority of haplotypes from modern Pacific chickens are genetically clustered together (H032–35, H085, H224–225, H260, H262, H271–274; Fig. 3). Within Micronesia, haplogroup D has been reported from modern chickens in Guam ($n = 3/5$; H032, H224, and H225; 26), although interestingly, these particular D haplotypes are not shared with any other Pacific island group. In fact, two of these haplotypes have only ever been found in Guam (H224 and H225), whereas the third Guam haplotype is shared with the Philippines, Japan, Indonesia, and Papua New Guinea (H032). The modern haplogroup D chickens in Guam do not appear to be significantly genetically differentiated from those in the Philippines, Japan, and Indonesia (*SI Appendix*, Table S6).

An investigation of the discordant haplogroup D lineages in Micronesia and Polynesia using coalescent simulations identified an early movement of chickens between New Guinea and Micronesia as the most likely of five models tested (*SI Appendix*, Fig. S12 and Tables S7 and S8). The simulations suggest that chickens were transported between Micronesia and islands in the Bismarck Sea off the coast of New Guinea and New Britain around 3,850 years ago (ya), without further onward transportation of chickens into Western and Eastern Polynesia (*SI Appendix*, Fig. S12). In contrast, the origins of the chickens currently found in Polynesia appear to be via the standard southern route from New Guinea to the Solomon Islands, the Santa Cruz Islands, Vanuatu, and further eastward (Fig. 1, arrows 1 and 4–7, and *SI Appendix*, Fig. S12).

Discussion

Our results indicate that a small cluster of mtDNA haplogroup D sequences, defined by a diagnostic combination of four CR SNPs (which we term the "ancestral Polynesian motif"), represent the founding lineages of chickens transported as prehistoric domesticates across the Pacific and ultimately ending up in Polynesia (i.e., "Polynesian chickens"). We suggest that the most common haplotype in ancient samples (H239) represents the core mtDNA lineage of Polynesian chickens, and that the one- or two-step derivatives in ancient Pacific island specimens (Fig. 3) represent in situ evolution following colonization. This hypothesis is supported by the geographic distribution of the ancient daughter lineages, which are unique to each Pacific island group, and the elevated frequency of lineages with the four diagnostic SNPs in the eastern Pacific (*SI Appendix*, Fig. S10). Although mtDNA is maternally inherited as a single genetic locus, limiting the ability to recover complex colonization histories, our data establish clear hypotheses that can be tested with genomic data from both modern and ancient chickens, and other groups such as humans, commensals, and other domesticates. It is important to note that in situations like the Pacific, phylogeographic signals in domestic species are likely to represent processes of initial human dispersal and later trade patterns.

Our findings contrast substantially with previous studies (14–16), which we suggest stems from our strict adherence to contamination reduction measures—for example, the use of Shrimp DNase. By removing a key source of potential contamination with domestic chicken DNA (PCR reagents), the use of Shrimp DNase has allowed us to recharacterize the crucial ancient Rapa Nui sample from a prior study (PAQANA011) as haplogroup D and not, as previously reported, haplogroup E. Consequently, we cast doubt on the authenticity of other haplogroup E sequences reported from ancient Pacific chicken specimens, where such procedures were not used. Perhaps more importantly, we suggest it will be very difficult to categorically rule out contamination as the source of haplogroup E sequences in ancient samples, due to the sporadic presence of domesticate DNA in laboratory consumables (34) and the likelihood that any such contamination would result in haplogroup E sequences. Importantly, sequencing longer stretches of such contaminating templates (17) does not provide any additional support for authenticity.

Our recharacterization of the Rapa Nui PAQANA011 specimen as haplogroup D has implications for the other E sequences reported by Storey et al. (14), including the putative ancient Chilean chicken sequence from El Arenal-1 used to propose a prehistoric link between Polynesia and South America. Coalescent simulations using "all ancient haplogroups" and the modern data found that a European–South America route was more likely than a direct link between haplogroup E chicken sequences in Polynesia and South America, due to the phylogeographic signals within the worldwide dataset showing more similarities between chickens from Europe and South America. Perhaps more generally, these findings highlight how haplogroup E sequences are uninformative in nature and lack phylogeographic signal worldwide. A clear understanding of the nature and extent of Polynesian contact with South America will require genomic analyses of both ancient and modern populations of humans, commensals, and domesticates.

The distribution of the nine D haplotypes currently known to share the ancestral motif provides a unique genetic signature that can be used to trace the human dispersal of chickens through ISEA and the Pacific islands. Our reconstruction of the chicken colonization history of Micronesia highlights how simulations with CR data can provide sufficient phylogeographic signal to generate new hypotheses regarding trade and migration scenarios. Although it has been proposed that many commensals and domesticates are late arrivals to the Micronesian islands compared with humans (35), we have reconstructed a link between chickens from islands in the Bismarck Sea and Micronesia that dates to ~3,850 B.P. Such an early date is broadly consistent with archaeological evidence for human settlement of Saipan at 3,300–3,500 B.P. (36) and Palau at almost 4,000 B.P. (35), however few comparably early zoo-archaeological remains have been found in Micronesia to date (10, 13, 37). The inferred link between chickens from the Bismarcks and Micronesia without subsequent eastward movement does not support a two-wave model of Polynesian origins (14, 15, 38) where an earlier Lapita migration wave (2,800–3,500 ya) was mixed with a second, later wave moving through Micronesia to Western Polynesia (1,500–2,000 ya). Our simulations suggest that there was little interaction between chickens from Micronesia and the islands further eastward. One caveat concerning the power of the simulation analysis is the small number of Micronesian samples [one ancient Fais (16) and five modern Guam (26) specimens] and the expected historical and recent turnover of chicken populations in the region. Reassuringly, the ancient Fais haplotype H260 is present in modern chickens from the Santa Cruz (n = 2) and Solomon Islands (n = 5), apparently surviving any later introgression. Our reconstruction of the colonization history of Micronesian chickens demonstrates the potential power of coalescent simulations to test hypothesized migration and trade routes in archaeology and anthropology.

The only ISEA location where the ancestral SNP motif has been detected are Camiguin and Manila in the Philippines, and a link with this area is consistent with other lines of evidence about early Polynesian origins (3, 4, 31). The other Philippine chicken haplotypes are spread throughout the haplogroup D network (Fig. 3), reflecting relatively high genetic diversity (haplotype diversity = 0.89; *SI Appendix*, Table S9).

Despite extensive European settlement in the Pacific region over the last few centuries, many native chicken populations appear to contain relatively high frequencies of founding mitochondrial lineages—for example, the Marquesas, Solomon Islands, Vanuatu (26), and the Santa Cruz Islands—suggesting a high level of genetic continuity on these islands since prehistoric times. In addition to the two ancient haplotypes detected in modern samples, many other D haplotypes are also present in modern Pacific chicken populations, from the Santa Cruz Islands, Solomon Islands, and Vanuatu (26). Therefore, Polynesian chickens may be one of the few examples where ancestral genetic patterns can still be observed in a domesticated species. Chickens on remote Pacific islands may also contain Polynesian nuclear genomic lineages, and if so, would represent one of the few surviving examples of precolonial domestic chickens.

Conclusion

Although mtDNA lacks the power of genomic loci to reconstruct complex evolutionary histories, we show that an informative region of the chicken mitochondrial genome can be used to trace their human dispersal in the Pacific. The analysis of ancient and modern specimens reveals a unique Polynesian genetic signature, which can be traced back to ISEA, and promises to allow further resolution of migration and trading routes in the area. Importantly, we reveal that a previously reported connection between pre-European South America and Polynesian chickens most likely resulted from contamination with modern DNA, and that this issue is likely to confound ancient DNA studies involving haplogroup E chicken sequences. These observations reaffirm the potential of coalescent simulations of genetic data to evaluate new hypotheses regarding the dispersal of humans, commensals, and domesticates derived from archaeology. These hypotheses can be further grounded using genomic-scale studies in combination with direct dating and genetic investigation of new archaeological samples.

Materials and Methods

Samples. Thirty-seven ancient chicken bones were collected for analysis, comprising eight from Niue, 11 from Hawai'i, and 18 from Rapa Nui excavated from deposits at Anakena by T.L.H. [including the six samples previously analyzed by Storey et al. (14); *SI Appendix*, Dataset S1]. Modern feather samples from ISEA and the Pacific (n = 124) were also examined to investigate current phylogeographic patterns (for location details, see Fig. 1 and *SI Appendix*, Figs. S3–S6, Table S1, and Dataset S6). The ancient samples were extracted, amplified (using primers in *SI Appendix*, Fig. S13), and sequenced at the Australian Centre for Ancient DNA (ACAD) in Adelaide, South Australia, according to a range of strict protocols (39), including numerous controls. Importantly, we included Shrimp DNase pretreatment in all PCR reactions, before adding template DNA, to remove any contaminating double-stranded DNA introduced via PCR reagents and plastic-ware (*SI Appendix*) (33). Independent external replication with direct sequencing of the PAQANA011 ancient sample was performed in a dedicated ancient DNA laboratory in the Archaeology Department at Durham University following strict laboratory procedures (39). The initial and independently replicated PCR fragments from bone sample PAQANA011 were also cloned and sequenced at the ACAD laboratories (*SI Appendix*, Dataset S4). Modern samples were extracted, with the highly variable 201 bp of the CR amplified and sequenced in a physically separate pre-PCR clean laboratory at the University of Adelaide and in the Archaeology Department at Durham University, following standard protocols (39).

WMG Analysis. To determine the robustness of the current standard chicken phylogenetic framework for the analysis of the short ancient sequences, all 61 WMG sequences (25) were downloaded and aligned; PartitionFinder (40) was used to identify the number of preferred partitions and their substitution model; and phylogenetic trees were produced using both Bayesian (MrBayes v3.2; 41) and maximum likelihood estimation (RaxML v7.0.4; 42). See *SI Appendix* for more details.

CR Sequence Analysis. In addition to the 144 CR sequences generated in this study, we downloaded 1,226 worldwide mtDNA CR chicken sequences from GenBank to establish the geographic distribution for each chicken haplogroup (14, 21–24, 26, 27, 43–46). To allow direct comparisons of the CR haplotypes, the 1,370 chicken sequences were aligned and trimmed to the highly variable 201 bp common to all of our 144 newly generated sequences (referred to as "201 bp CR dataset"). The 201 bp CR dataset was collapsed to unique haplotypes using Collapse v1.2, resulting in 274 unique haplotypes (H001–H274; *SI Appendix*, Dataset S6; referred to as "unique CR haplotype dataset"). ModelGenerator (47) was used to establish the best model to fit the unique CR haplotype dataset (GTR+I+G). The haplogroup of each of our 144 newly generated sequences was established by comparison with sequences of known haplogroup designation from Liu et al. (24) (*SI Appendix*, Dataset S6). As the majority of the new 144 CR sequences were identified as haplogroup D, a Median Joining Network (using Network v4.6; 48) was generated for just the D haplogroup (*SI Appendix*). All new sequences were uploaded to GenBank (KJ000585–KJ000642; *SI Appendix*, Dataset S6).

Statistical Analysis. To examine the discrepancies between the composition and phylogeographic distribution of haplogroups reported by Storey et al. (14, 16) and those generated in this study, we tested the likelihood of detecting the reported proportions under different scenarios. A linear regression plot was also generated to visualize the correlation between occurrence of the four characteristic CR SNPs of the Polynesian chicken and longitude using the standard plotting function in R.

Bayesian Coalescent Simulations. Given the importance of pre- and post-Columbian mtDNA sequences from Chile and Peru, respectively (14, 16), we tested whether coalescent simulations and approximate Bayesian computation of the 201 bp CR dataset could reconstruct a prehistoric link between the Pacific and South America (*SI Appendix*). To explore likely demographic histories for chickens in Micronesia and Polynesia, we also used BayeSSC to simulate alternate hypotheses of migration routes for comparison with the observed phylogeographic patterns within the Pacific.

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Supplementary Materials and Methods

Sample collection.

Thirty-seven ancient chicken bones were collected for analysis, comprising: eight ancient chicken bones from archaeological sites at Paluki and Anatoloa in Niue; 11 ancient Hawaiian chicken bones from an excavation at Makauwahi Cave on Kauai, Hawaii collected by DB; and 18 Rapa Nui chicken bones excavated from deposits at Anakena collected by TH. The 18 Rapa Nui bones include the six samples previously analyzed by Storey *et al.* (1) (Table S1). One hundred and twenty four modern feather samples were also examined to investigate recent phylogeographic patterns. These included 107 modern feathers from ISEA and Remote Oceania collected by GL and KD in 2008 and 2009: 28 from the Santa Cruz Islands, 31 from the Solomon Islands, 13 from Papua New Guinea, 10 from Indonesia, 23 from the Philippines and two from Vietnam. An additional 17 naturally shed modern feather samples were collected from the Marquesas (French Polynesia, n=6) by TH, and Kokee, Kauai (Hawaii, n=11) by TH/DB. Details on the locations of these modern samples can be found in Table S1 and are shown in Fig. 1.

Ancient DNA Extraction, Amplification, and Sequencing.

The samples were extracted, amplified, and sequenced in specialist ancient DNA (aDNA) laboratories at the Australian Centre for Ancient DNA (ACAD) in Adelaide, South Australia, according to a range of strict protocols and including controls (2). Ancient bone samples (n=37) were extracted and PCR experiments set up in the physically remote ACAD ancient laboratory, whereas the feathers (n=17) were extracted and PCR experiments set up in the physically remote ACAD pre-PCR clean-room laboratory. Independent external replication of the ACAD9068 (PAQANA011) ancient sample was performed in a dedicated aDNA lab in the Archaeology Department at Durham University following strict laboratory procedures (2).

ACAD ancient bone extractions.

Each chicken bone was ground to fine powder in a Mikrodismembrator (5000 rpm, for 10 seconds). Approximately 70 mg of bone powder was decalcified concurrently with protein digestion by incubation at 55 °C overnight in 1mL of extraction buffer (consisting of 0.4725 M EDTA (pH=8.0), 0.2 % sodium dodecyl sulphate (SDS), and 0.7 mg.ml^{-1} Proteinase K). After digestion, samples were centrifuged at 10,000 rpm for 5 mins and the supernatant was transferred to an Amicon ultra-4 (Millipore), which was centrifuged at 4000 xg until only 100 µL supernatant remained. The supernatant was washed with 1 mL molecular grade water and centrifuged again (at 4000 xg until only 100 µl remained). An equal volume of ATL buffer (Qiagen DNeasy kit) was then added, mixed, and the supernatant removed to a 2 mL screw-cap tube. The supernatant was incubated for 10–60 mins at room temperature on a rotary mixer after the addition of an equal volume of AL buffer (Qiagen DNeasy kit) and 0.02 µg.µl^{-1} of carrier RNA. After the incubation, an equal volume of ethanol (100 %) was added, and then the total volume was transferred to a Qiagen DNeasy spin column where it was incubated at room temperature for 10–60 mins. The extraction then followed the Qiagen DNeasy kit instructions, with the following exceptions at the elution stage: 100–150 µL of warmed AE buffer was added and then incubated at room temperature for 10–30 mins, before being centrifuged at 8,000 rpm for 1 min, this step was repeated to finish with 200–300 µL of total volume.

ACAD PCR amplification and sequencing of ancient samples.

A 330 base pair (bp) segment of the mtDNA CR was amplified and sequenced from each specimen in short overlapping fragments (Table S10, Fig. S13), which is necessary to ensure amplification of the short damaged fragments of ancient DNA samples. PCRs were set up using 25 µL volumes containing a final concentration of 1 U Platinum Taq DNA Polymerase High Fidelity (Invitrogen), 1 x PCR Buffer (Platinum, Invitrogen), 3 mM MgSO4, 200 µM each dNTP, 2 mg.ml^{-1} rabbit serum albumin (Sigma), 1 µM forward and reverse primers and 2-3 µl of template DNA. PCR reactions were performed on a Corbett Research Palm Cycler using the following cycling conditions: 94 °C for 2 min, 55 cycles of 94 °C for 30 s, 55 °C for 30 s, 68 °C for 30 s, and a final extension of 10 min at 68 °C. Amplifications of extraction and PCR controls were performed in all experiments to monitor contamination. PCR products were separated by electrophoresis on a 3.5 % agarose gel. Successful PCR products (10 µl) were purified using 0.8 µl of EXOSAP (Fermentas) at final concentration of 0.38 U/µl Exonuclease I, and 0.05 U/µl Shrimp Alkaline Phosphotase, and thermal cycled at 37 °C for 30 mins, 80 °C for 15 mins, and 15 °C for 3 mins on a Corbett Research Palm Cycler. The forward and reverse complements of each fragment were sequenced from the same PCR reaction using the same primers as for the PCR, and Big Dye Terminator v3.1 cycle-sequencing chemistry, followed by vacuum clean up on a Multiscreen®$_{384}$ SEQ plate (Millipore). The sequencing run was conducted on an ABI 3130XC capillary sequencer.

Primers GG144F/GG387R and GG316F/GG586R (1) were used initially to amplify a portion of the mitochondrial (mtDNA) control region but as the PCR products amplified from these primers (fragment 1 and 2) are 250bp and 305bp respectively; additional primers were designed to cover the same range of mtDNA control region. Primer GG144F was paired with A1781 (187bp as fragment 3) and A1780 was paired with GG387R (151bp as fragment 4) to cover the equivalent DNA sequence as fragment 1 but in two overlapping fragments (Table S10). Primers A1958 and A1959 (192bp as fragment 5) were used to cover the balance of the mtDNA CR under study for the ancient samples. The use of this alternative primer set meant that a sequence gap was introduced in some ancient sequences equivalent to the primer binding region (Fig. S13). Further trimming to the sequence length shared across all chicken specimens resulted in a final sequence length of 201bp.

Durham Bone extractions as replication for PAQANA011.

DNA extraction of the replicate ancient chicken bone fragment PAQANA011 was performed in a dedicated aDNA lab in the Archaeology department at Durham University following strict laboratory procedures as per commonly used guidelines (2). All equipment and work surfaces were cleaned before and after each use with a dilute solution of bleach (10 %) followed by ethanol (99 %). The ancient chicken bone (~0.05 g) was pulverized in a Micro-dismembrator, digested in 0.425 M EDTA, 0.05 % SDS, 0.05 M Tris-HCI and 0.333 mg.ml^{-1} proteinase K and incubated overnight on a rotary mixer at 50 ^{o}C until fully dissolved. 2 ml of solution was then concentrated in a Millipore Amicon Ultra-4 30 KDa MWCO to a final volume of 100 µl. The concentrated extract was purified using the QIAquick PCR Purification Kit following manufacturers recommendations, except that the final elution step was performed twice to produce a final volume of 100 µl. A negative extraction control was performed alongside the ancient bone sample.

Durham PCR amplification and sequencing of ancient samples.

PCRs were setup in 25 µl reactions using 1.25 U Taq GOLD (Applied Biosystems), 1 x Gold buffer (Applied Biosystems), 2.5 mM $MgCl_2$, 0.5 µg.µl^{-1} bovine serum albumin (BSA), 200 µM of each dNTP, 0.8 µM of each forward and reverse primers, and 2-5 µl of aDNA extract. We used PCR primers (5'-3') GG144F and GG387R; GG316F, and GG586R (1). One PCR negative control was included for every three aDNA template PCR tubes. We ran a total of 22 PCRs with aDNA template, eight PCR negative controls and two PCR negative extraction control. Neither the PCR negative controls nor the negative extraction control produced bands (PCR product) when analyzed by gel-electrophoresis. PCR cycling conditions were 95^{o}C for 5 min, 50 cycles of 94 °C for 45 sec, 54 °C for 45 sec and 72 °C for 45 sec, followed by 72 °C for 10 min. PCR products were stored at -20 °C. Sanger sequencing on the Applied Biosystems 3730 DNA Analyser was performed at the DNA sequencing service in the School of Biological and Biomedical Sciences at Durham University.

Modern DNA Extraction, Amplification, and Sequencing.

ACAD modern feather extractions.

Approximately 5 mm of each feather tip was rehydrated overnight with 1 ml phosphate buffered saline (PBS) on a rotary mixer at room temperature. On day 2, the supernatant was removed, the feather tip was macerated using a clean scalpel blade, and the sample was digested in 440 µl of digestion buffer (comprising ATL buffer (Qiagen DNeasy kit) with 1.8 mg.ml^{-1} Proteinase K, and 90 mM Dithiothreitol) overnight at 55 °C on a rotary mixer. After digestion, 400 µL of AL buffer (Qiagen DNeasy kit) and 0.02 µg.µl^{-1} of carrier RNA was added and incubated at room temperature on a rotary mixer for 10–30 mins, after which 400 µL of 100 % ethanol was added. The supernatant (650 µl) was incubated on a Qiagen DNeasy spin column for 10–30 mins before being centrifuged at 8000rpm for 1 min. This incubation was then repeated until all of the supernatant had been centrifuged through the column. The feather extraction protocol then followed that of the bone extraction procedure above.

ACAD PCR amplification and sequencing of modern feather samples.

PCR amplifications and sequencing of the 2 overlapping fragments were performed as per the ancient bone samples (see above).

Durham modern feather extraction

At Durham University, modern feathers from ISEA and Near Oceania were extracted in a pre-PCR clean room after Cooper & Poinar (2), using a protocol designed by Pfeiffer *et al.* (3) alongside the QIAquick PCR purification Kit (QIAGEN Ltd, UK). The tip of each feather was sampled (approximately 1cm cut into smaller fragments) and digested in 340µl extraction buffer containing 100mM Tris-HCl, pH8, 100mM NaCl, 3mM $CaCl_2$, 2% SDS (w/v), 40mM DTT and 250µg/ml proteinase K following the protocol by Pfeiffer *et al.* (3). The samples were incubated overnight at 56°C on a rotary mixer. Following digestion, the samples were purified using the QIAquick PCR purification Kit (QIAGEN Ltd, UK) following the manufacturers' instructions. An extraction control was used for every run of seven samples. The quantity of DNA present within each extract was measured using the Quant-iT HS Assay Kit (Invitrogen) used with the

Qubit fluorometer following the manufacturers' instructions.

Durham PCR amplification and sequencing of modern feather samples.

The amplification of a 201bp fragment of the CR (a subset of the 330bp amplified from the ancient samples) was undertaken through PCR in a physically separated clean laboratory. The forward primer GG144F and the reverse primer GG387R (see Table S10) were used to amplify this 201bp fragment (excluding primers). The PCR amplifications were performed in a 25μl reaction mix containing 1μl of extract, 0.96x PCR Gold Buffer, 2.4mM $MgCl_2$, 1.2U *Taq*, 0.24mM dNTP and 0.96μM of each primer. The PCR thermal cycling reactions consisted of 90s initial denaturation step at 94°C, followed by 35 cycles of 30s denaturation at 94°C, 30s annealing at 54°C, 30s extension at 72°C then a 10 minute final extension step at 72°C. The PCR products were visualized on a 0.5x agarose gel. Sequencing was performed on an ABI 3730 sequencer in the DNA-dedicated laboratory of the School of Biological and Biomedical Sciences.

Cloning of PAQANA011 at ACAD.

The PCR products generated from bone sample PAQANA011 were cloned using Stratagene and/or Topo cloning kits using manufacturers instructions (after an A-tailing reaction). The A-tailing reaction consisted of a 20 µl volume reaction containing 0.125 U HotMaster Taq, 2.5 µM dATP, 10x HotMaster buffer, 17 µl cleaned PCR products. The Buffer, dATP's and Taq were activated at 94 °C for 2 mins prior to addition of the PCR products then a further incubation at 72 °C for 10 mins. The A-tailed PCR products were then cleaned up using an Isopropanol precipitation and resuspended in 10 µl of PCR grade water. Sanger sequencing of the cloned PCR products were performed according to the procedures outlined above.

Phylogenetic inference

WMG: To determine the robustness of the current phylogenetic framework used for chicken research, the 61 WMG sequences from that study were downloaded and aligned using the Muscle algorithm in Geneious v5.6 (4). PartitionFinder v1.0.1 (5) was used to identify the number of preferred partitions and their substitution model (CR with HKY plus Gamma; codon 1, codon 2 and tRNA with HKY; and codon 3 with GTR). MrBayes v3.2 was used to generate a phylogenetic tree using four runs of four independent chains of 100 million iterations, less 25% as burnin (6). Tests for convergence to stationarity were performed by analyzing the standard deviation of split frequencies (< 0.01). RaxML v7.0.4 was used to generate a maximum likelihood tree with the same partitions as above, with bootstrapping performed via 100 iterations followed by an optimized maximum likelihood search (7).

To establish the level of phylogenetic concordance between topologies produced by WMGs versus the highly variable 201bp of the CR, the WMG data was split into two subsets, the 201bp fragment of the CR and the WMG excluding all of the CR. Each subset was rerun for the PartitionFinder and MrBayes analyses separately (*i.e.* the CR was run separately from the WMG data minus the CR), using the same parameters as above except only 2 million iterations were required to obtain a standard deviation of less than 0.01 for the four chains.

mtDNA CR: In addition to the 144 CR sequences generated in this study, we downloaded 1226 worldwide mtDNA CR chicken sequences from Genbank (1, 8-17) to establish the geographic distribution for each chicken haplogroup (n=1370). Although additional CR sequences have since been uploaded to Genbank (total chicken CR sequences are currently >3000), overall haplogroup designations are not changed with the inclusion of additional sequences (18). To allow direct comparisons of the CR haplotypes, the 1370 chicken sequences were aligned and trimmed to the 201bp common to our 144 newly generated sequences (referred to as 'full CR dataset'), with any indels removed. The 201bp hypervariable fragment is a useful region for reconstructing recent evolutionary events when DNA template length is a constraint (19, 20), such as in ancient DNA studies. For ease and clarity, the 1370 CR sequences were collapsed to unique haplotypes using Collapse v1.2 with manual adjustments where missing data caused short sequences to be considered different haplotypes, resulting in 274 unique haplotypes (H001-H274, see Dataset S6; referred to as 'unique CR haplotype dataset'). The haplogroup of each of our 144 newly generated sequences was established by comparison to sequences of known haplogroup designation from Liu *et al.* (13) (see Dataset S6). The phylogenetic robustness of the full 330bp length (both fragment 1 & 2) was investigated using PhyML (21) to establish that inclusion of additional length sequences did not change the haplogroup designation of the new sequences (Fig. S14), with ModelGenerator (22) used to establish the model of best fit. We also explored the unique CR haplotype dataset in SplitsTree4 (23), using the NeighborNet algorithm, and found that the data appeared not to be tree-like, probably due to saturation and substitution rate heterogeneity (18). As the majority of the new 144 CR sequences were identified as haplogroup D, a Median Joining Network (using Network v4.6; 24) was also generated for just the D haplogroup. DNAsp was used to generate the input file for the Network program. As DNAsp does not allow ambiguous bases and as these ambiguous bases were assumed to reflect sequencing errors, each ambiguous base was modified to reflect the more common of the possible bases within the haplogroup. Default weights were used in Network. To examine the discrepancies between the composition and phylogeographic distribution of haplogroups reported by Storey *et al*. (1, 25, 26) and those generated in this study, we tested the likelihood of detecting the reported proportions. Tests of statistical significance were performed using the binom.test command and probability distribution graphs were created using the dbinom command (Fig. S9), in the R 'stats' package (27). A linear regression plot (Fig. S10) was also generated to visualize the correlation between occurrence of the characteristic 4 CR SNPs of the Polynesian chicken and longitude using the standard plotting function in R (27). Population genetic and differentiation statistics were estimated in Arlequin v3.5 (28) for each population.

Bayesian Serial Simcoal (BayeSSC) simulations

Bayesian coalescent simulations (using Bayesian Serial Simcoal – BayeSSC v1.0; 29) were used to model eight possible scenarios of chicken colonization of the New World via either 1) Polynesia or 2) Europe. Low level migration between populations was 1) permitted or 2) not permitted, and two separate datasets were examined: 1) only containing haplogroup D ancient samples (representing authenticated Polynesian chicken signals); and 2) containing all putative ancient haplotypes (ancient samples from haplogroups B, D, E; 1, 25, 26; this paper). In order to test between the different migration routes in BayeSSC, we modeled the same uniform priors for modern population deme size and population growth for each of the migration scenarios to maintain similar demographic parameters.

All eight of the South American migration simulations were performed using common uniform priors on modern effective population sizes (MSEA: 10,000-2,000,000; ISEA: 10,000-1,000,000; Europe: 10,000-1,000,000; South America: 1,000-1,000,000; and Pacific: 1,000-1,000,000), with the total panmixia model having a uniform prior with a slightly lower minimum and slightly higher maximum (10,000-10,000,000). The uniform prior on the growth rate since the last migration event (which differs for each model – see Figure S11) was also common across all eight migration scenarios (growth rate of -0.00001, which equates to 0.001% per generation). Although the generation time of free-ranging domestic chickens is not known, we have estimated a generation time of a year. We considered this appropriate as we were attempting to model early historic chicken populations, which would have had relatively short life spans and low fecundity due to their value as a food source of both meat and eggs. The samples included in the BayeSSC simulations and the migration matrices used are provided in Tables S2-3 and S4-5, respectively.

To explore likely demographic histories for chickens in western Polynesia, we also used BayeSSC to simulate alternate migration route hypotheses for comparison with the observed phylogeographic patterns within the Pacific. Sequences in the 201bp CR dataset from the Pacific and ISEA that had location details (n=177) were used to model five possible scenarios of migration routes through western Polynesia, Micronesia and eastern Polynesia (see Fig. S12): a total panmixia model; two models that describe the colonization of Micronesia but with no onward link to Polynesia (one from the Philippines-Micronesia [P-M; arrow 2A in Fig. 1] and the other from New Guinea-Micronesia [NG-M; arrow 3]); and two models that describe Micronesia as a stopping point in an onward route to Polynesia (one from the Philippines-Micronesia-West Polynesia [P-M-WP; arrows 2A and 2B] and the other from New Guinea-Micronesia-West Polynesia [NG-M-WP; arrows 3 and 2B]). Note that the alternate scenario of migration from Micronesia to New Guinea was not tested. The Pacific migration scenarios also had common uniform priors on modern effective population sizes (Philippines: 10,000-2,000,000; PNG: 10,000-2,000,000; Micronesia: 1,000-1,000,000; Melanesia: 1,000-1,000,000; Western Polynesia: 1,000-1,000,000; Eastern Polynesia: 1,000-1,000,000), and a common uniform prior on growth rate since the last migration event at 750 BP (growth rate of -0.00001, which equates to 0.001% per generation). The samples included in the Pacific BayeSSC simulations and the migration matrices used are provided in Tables S7 and S8, respectively

Supplementary Information

Ancient Pacific sample (PAQANA011)

Repeated amplifications and Sanger sequencing of Storey *et al.*'s PAQANA011 sample (1) placed it within the D haplogroup (Dataset S3), however it also highlighted 10 type 2 transitions (C-to-T or G-to-A) across the 12 amplicons. This type of transition is commonly observed in aDNA because of post-mortem template damage, with the hydrolytic loss of amino-groups from cytosine converting the base to uracil, which DNA polymerases read as a thymine base (30). As these internal PCR replications confirmed the discrepancy between our extraction (ACAD9068) and Storey *et al.*'s (1) published sequence (EF535246) for bone sample PAQANA011, we had it independently replicated by another aDNA laboratory at Durham University (Dataset S3).

A subsample of the PAQANA011 bone was sent to Durham University, where it was extracted and three PCR amplifications were performed for each of fragments 1 and 2 of the mtDNA CR (as only fragment 1 is diagnostic to haplogroup level and below, it is this fragment that is compared to the Liu *et al.* (13) dataset in the discussion). Two different haplotypes were detected across the three amplicons of fragment 1 for PAQANA011. Two amplicons matched each other and fell within clade D. The third amplicon matched Haplotype A35, which is found in chickens from China and Japan (13), as well as two other Genbank samples: AM746039 (14) and AB263973, both of which are commercial breeds. Liu *et al.* (13) found almost 95% of domestic chickens to belong to clades A, B, C, E, F, and G, which suggests the presence of clade A (this study) and clade E (1) amplicons from this sample may reflect lab consumable/reagent contamination by modern domestic chicken DNA. Although fragment 2 is not as phylogeographically informative as fragment 1, amplification of this fragment did reinforce the highly damaged/degraded nature of this particular sample, which may have allowed modern chicken DNA (at low levels in lab reagents/consumables) to occasionally outcompete the endogenous DNA. Across the three amplicons of fragment 2, seven randomly distributed C-to-T transitions were found to differentiate the sequences from our extract of this sample (ACAD9068; see Dataset S3). Although the damaged sites tended to be within the longer amplicons, this was not always the case.

Cloning of the PCR amplicons from both labs (ACAD and Durham University) was undertaken at ACAD to confirm the Sanger sequencing results and to establish whether the C=>T transitions were due to post-mortem damage. At the base pairs where C=>T transitions were initially detected, few differences were detected between the clones, which suggests that each amplicon was formed by amplification from a single damaged template (Dataset S4). However, at least four matching (non-damaged) amplicons were retrieved for both fragments 1 and 2, so that a consensus sequence could be generated (Dataset S4).

Shrimp DNase experiment to test ACAD3890 and ACAD9060 samples

From the 24 ancient samples successfully amplifying DNA, two samples (ACAD3890 from Niue, and ACAD9060 from Rapa Nui) yielded haplotypes other than from clade D. ACAD3890 matched Liu *et al.'s* haplotype 'A34', which is found in only one modern sample from Xinjiang, China (13). ACAD3890 had poor amplification/sequencing success (n=1/31), with only one amplicon (102bp) amplifying and sequencing successfully (using primers A1780 and GG387R). The second sample, ACAD9060, matched E01 found commonly worldwide (China, n=19; India, n=10; Sri Lanka, n=20; Japan, n=27; Iran, n=3; Turkmenistan, n=3; UK, n=2; Europe, n=34; Chile, n=25, Kenya, n=58) (11, 13, 15, 16). This sample also did not amplify often (n=8/14), with the E01 haplotype only occurring once (all other PCR amplicons could not be successfully sequenced). Accordingly, contamination by modern chicken DNA was suspected as the source of both the A34 and E01 haplotypes, however due to the stringent aDNA procedures in place at the ACAD, there is limited opportunity for modern chicken DNA to enter the lab. The possibility of contamination in the laboratory consumables/reagents was tested by the addition of Shrimp DNase to three sets of subsequent PCR reactions for all 24 samples. Shrimp DNase is an endonuclease that cleaves phosphodiester bonds in double stranded DNA. It is often used to treat PCR master mixes prior to the addition of extracted DNA in order to break down contaminating modern DNA in PCR reagents.

No DNA was successfully amplified after Shrimp DNase treatment of PCR's for the ACAD3890 sample, while Shrimp DNase treatment of PCR's for ACAD9060 sporadically gave haplotype D sequence across a variety of fragment sizes (210bp, 190bp, 129bp, and 90bp), plus one sequence (116bp) that could not be assigned to any haplogroup – it had 7 mismatches from its closest BLAST matches (94% identity). Both of these results suggest PCR reagent contamination by modern chicken DNA was the likely source of the original A34 and E01 haplotypes. When ACAD9060 did give a D haplotype, it matched the D haplotype from the other ancient Pacific samples for fragment 1, however fragment 2 could not be amplified so this sample was excluded from further analyses. The possibility of laboratory consumable/reagent contamination needs to be discussed more in aDNA studies, especially when the use of a simple PCR additive, such as Shrimp DNase, can rule out one source of possible contamination (i.e. PCR reagents; 31). This additive (or similar) is essential for aDNA studies of commensal or domesticated species, where DNA from modern populations of the same species may permeate factories where lab consumables and/or reagents are produced (32).

Although the overall percentage of E haplotypes (15/53, 28%) detected in ancient Polynesian chicken samples is higher than the nominal 5% contamination rate of modern domestic species found in lab consumables (32), low levels of preserved endogenous DNA may allow any contaminating modern chicken DNA to outcompete them in PCR reactions (unless an endonuclease such as Shrimp DNase is used to remove contaminating DNA in PCR lab reagents). Previously, some of the Storey *et al.* co-authors have reported low amplification success from Mele Havea (Tonga) and Paluki (Niue) (33) — and in our analyses of Paluki material we identified a non-D haplotype to be contamination from PCR reagents (Dataset S1).

Haplogroup E vs. haplogroup D

More broadly, haplogroup D has been found to closely follow the distribution of cockfighting in India, Indonesia, China and Japan (13). Many Polynesian societies have traditionally supported cockfighting (called 'faatitoraamoa' in Tahitian; 34), for example Tahitians had many songs and religious traditions (including 'Ruaifaatoa', the god of cockfighting) connected to faatitoraamoa (35). In contrast many of the other haplogroups are ubiquitous worldwide, potentially as a result of early historic dispersal with European colonialists (*e.g.* haplogroups A, B, and E) and are therefore likely to be phylogeographically uninformative and the predominant contamination of laboratory consumables.

To investigate the conflicting results obtained here versus those previously reported by Storey *et al.* (1, 25, 26), we calculated the probability of detecting the reported proportions of D and E haplogroups given the different datasets. Tests of statistical significance were performed using the binom.test command and probability distribution graphs were created using the dbinom command in the R 'stats' package (Fig. S9; 1, 25, 26). It is possible that if haplogroup E was present in low frequencies amongst ancient Pacific chickens (*e.g.* 10%) we did not detect it within our 22 ancient samples simply due to stochastic sampling effects (P-value = 0.098). However, if E was actually present at only 10% of the ancient Pacific chickens then it is highly unlikely that Storey *et al.* would also have detected 15/31 ancient Pacific chickens as having haplogroup E sequences (P-value = 6.9×10^{-9}).

BayeSSC coalescent simulations for testing South American link

A European source of South American chickens was also the more likely scenario when only haplogroup D sequences were considered to represent authentic Polynesian chickens (*i.e.* simulations using all modern chicken data, but only haplogroup D ancient samples). This is perhaps not surprising as the only ancient haplogroup D sample from South America (from early historic Peru) does not share a haplotype with any ancient population in Eastern Polynesia. In fact, the most geographically proximate Pacific populations sharing the early historic Peruvian haplotype (H033) are Vanuatu, Santa Cruz and the Solomon Islands, and all ISEA populations contain this common haplotype. The movement of chickens between South America and the Philippines via the Manila galleon trade in the 1500s (20, 25) may provide a possible explanation for the presence of this common ISEA haplotype in early historic Peru.

BayeSSC coalescent simulations for testing migration routes to Micronesia

The Bayesian simulations suggest the most likely scenario of those tested involved movement of chickens between Micronesia and the Bismarck Sea at a relatively early date (although post-human arrival in Micronesia) but with little interaction with chickens further eastward. A link between the long-distance trade and communication network of Yap (in Micronesia) and the Bismarck region has previously been postulated by Kirch based on linguistics, with further archaeological evidence suggesting Fais was originally settled from Yap about 100 AD (36, 37). An early migration route linking the Bismarcks with islands in Micronesia, via the proposed trade hub of the 'Yapese Empire', is therefore not surprising. A newly-discovered Lapita migration route along the southern coast of PNG at 2500 BP, further highlights the extensive nature of early Polynesian networks (38).

Only one ancient specimen has likely influenced the Bismarck/Micronesian link (a Fais sample dated to 600 ± 40 BP with H260; 25). However, the coalescent has still been able to reconstruct the true history even though the same haplotype is present in modern chickens from the Solomon and Santa Cruz Islands (*i.e.* the coalescent hasn't been overwhelmed by a shared haplotype). Rather, it is the entire Micronesian chicken population (including ancient H260 and modern H032, H224, and H225 haplotypes) that has contributed to the coalescent reconstruction of the migration model. As the timing of this Bismarck-Micronesia link is based purely on coalescent simulations using an inferred mutation rate, the proposed Bismarck-Micronesia migration route is not necessarily temporally robust.

Issues with previous radiocarbon dates

The three pre-Columbian dates reported in Storey *et al.* (NZA 26115, NZA28271 and NZA28272; 1) were performed without ultrafiltration of high molecular weight collagen, or the removal of exogenous organic matter through XAD-2 purification. It is also notable that the oldest sample (NZA26115) was a very small sample characterized by a low collagen yield, and lacks analytical data. Previous work has shown that neither C:N ratios, nor d13C:d15N ratios are indicators of reliable radiocarbon dates (39). Given the importance of this result it would be highly desirable that these (and other) specimens were re-dated using the most advanced methodologies available. These would include d13C measurements of individual amino acids (40) to properly examine the potential for dietary marine carbon to produce an erroneously older (pre-Columbian) date.

Table S1. Pacific samples used in this study with corresponding haplogroups discussed in the text.

	Locations		*# of samples*			*No, of successful samples by haplogroup*					*References*
	Island	*Site name*	*# attempted*	*# successful*	*# contaminated*	*D*	*E*	*A*	*B*	*I*	
ANCIENT	Rapa Nui	Anakena	18	13	1#	13	1#				This study
	Hawaii	Makauwahi	11	7	0	7					
	Niue	Anatoloa	2	2	0	2					
		Paluki	6	0	1#			1#			
MODERN	Hawaii	Kokee	11	10	0		10				
	Marquesas	-	6	5	0	3	2				
	Vanuatu	Efate		14		11	2	1			Dancause *et al.* (10)
		Tanna		3		3					
		Aneityum		19		19					
		Ambae		7		7					
	Guam	-		5		3	2				
	Santa Cruz	Anuta Island		7		7					This study
		Tikopia		7		5	2				
		Nendo Island		5		5					
		Vanikoro Island		5		5					
		Temotu Neo		2		2					
		Utupua Island		2		2					
	Solomon Islands	Nggela Island		9		7	2				
		Makira-Ulawa		6		6					
		Rendova Island		6		5			1		
		Russell Island		5		5					
		Treasury Island		5		5					
	Papua New Guinea	Karkar Island		6		5	1				
		Witu Island		4		4					
		Watom Island		3		3					
	Indonesia	Baik Island		4		4					
		Mulia		2		2					
		Enarotali		1			1				
		Nabire		1		1					
		Ternate Island		1		1					
		Wamena		1		1					
	Philippines	Camiguin		8		3	4			1	
		Pintuyan Town		4		3	1				
		Jagna Province		3		2	1				
		Cebu City		2			2				
		Balicasag Island		1			1				
		Palawan		1		1					
		Pamalican Island		1		1					
		Panglao Island		1		1					
		Merlia Farm		1				1			
		Unknown		1		1					
	Vietnam	Ho Chi Minh		2					2		

* Haplotype designation from Liu *et al.* (13)

Results not replicable and identified as contamination after Shrimp DNase treatment.

Table S2. Data used in Bayesian Serial Simcoal (BayeSSC) analysis for investigating the origins of South American chickens. This dataset uses ancient samples from all haplogroups i.e. it includes samples from all haplogroups (this paper, plus those amplified without Shrimp DNase: 1, 25, 26, 41).

Age of sample (years BP)	Sequences included	Region	Temporal scale	Site	Reference
0	795 sequences	MSEA	Modern	China, Laos, Myanmar, Vietnam, Thailand, Malaysia	(9, 13, 42)
2700	THABNW003	MSEA	Ancient	Ban Non Wat site, Thailand	(25)
0	330 sequences	ISEA	Modern	Philippines, Japan, Indonesia, New Guinea	(13, 16)
0	58 sequences	Europe	Modern	Europe	(13)
980	ESPALB002	Europe	Ancient	Albarracin (Teruel) site, Spain	(25)
350	ESPLCT001	Europe	Ancient	La Cartuja (Seville) site, Spain	(25)
0	39 sequences	South America	Modern	Chile,	(11)
350	PRUTOR001	South America	Ancient	Torata Alta site, Peru	(25)
657	CHLARA001	South America	Ancient	El Arenal-1 site, Chile	(1)
536	CHLARA004	South America	Ancient	El Arenal-1 site, Chile	(41)
350	PRULOC001	South America	Ancient	Locumbilla Winery site, Peru	(25)
540	CHLARA003	South America	Ancient	El Arenal-1 site, Chile	(41)
0	122 sequences	Pacific	Modern	Guam, Solomon Islands, Santa Cruz, Vanuatu, Marquesas, Hawaii	this paper
660	ACAD9057, ACAD9067	Pacific	Ancient	Anakena site, Rapa Nui	this paper
680	ACAD9066, ACAD9068, ACAD9070, ACAD9072, ACAD9073, ACAD9074	Pacific	Ancient	Anakena site, Rapa Nui	this paper
700	PAQANA010, ACAD9071	Pacific	Ancient	Anakena site, Rapa Nui	(this paper; 1)
700	ACAD9069, ACAD9065	Pacific	Ancient	Anakena site, Rapa Nui	This paper
670	PAQANA006	Pacific	Ancient	Anakena site, Rapa Nui	(1)
600	ACAD9075, ACAD9076	Pacific	Ancient	Anakena site, Rapa Nui	this paper
534	ACAD8136, ACAD8668, ACAD8670, ACAD8671, ACAD8672, ACAD8674, ACAD8675	Pacific	Ancient	Makauwahi cave site, Hawaii	this paper
1285	ACAD3895, ACAD3896	Pacific	Ancient	Anatoloa site, Niue	this paper
2000	Tonga HB, Tonga TD	Pacific	Ancient	Mele Havea site; Tongoleleka site, Tonga	(1)
1000	ASMFTF001	Pacific	Ancient	Fatu-ma-Futi site, American Samoa	(1)
810	FSMFSP001	Pacific	Ancient	FSPO-4 site, Fais	(25)
2775	SLB33001	Pacific	Ancient	SE-SZ-33 site, Santa Cruz	(25)
228	PAQHAN001	Pacific	Ancient	Hangahahave site, Rapa Nui	(1)
1550	FSMFSP002, FSMFSP003	Pacific	Ancient	FSPO-8 site; FSPO-4 site, Fais	(25)
2605	VUTTEO003	Pacific	Ancient	Teouma site, Vanuatu	(26)
910	HWIKUA001	Pacific	Ancient	Kualoa, O'ahu, Hawaii	(1)
1590	NIUPKI009	Pacific	Ancient	Paluki site, Niue	(1)
2974	VUTTEO006	Pacific	Ancient	Teouma site, Vanuatu	(26)

Table S3. Data used in Bayesian Serial Simcoal (BayeSSC) analysis for investigating the origins of South American chickens. This dataset uses ancient samples from only haplogroup D (this paper; 1, 25).

Age of sample (years BP)	Sequences included	Region	Temporal scale	Site	Reference
0	795 sequences	MSEA	Modern	China, Laos, Myanmar, Vietnam, Thailand, Malaysia	(9, 13, 42)
0	330 sequences	ISEA	Modern	Philippines, Japan, Indonesia, New Guinea	(13, 16)
0	58 sequences	Europe	Modern	Europe	(13)
0	39 sequences	South America	Modern	Chile,	(11)
350	PRUTOR001	South America	Ancient	Torata Alta site, Peru	(25)
0	122 sequences	Pacific	Modern	Guam, Solomon Islands, Santa Cruz, Vanuatu, Marquesas, Hawaii	this paper
660	ACAD9057, ACAD9067	Pacific	Ancient	Anakena site, Rapa Nui	this paper
680	ACAD9066, ACAD9068, ACAD9070, ACAD9072, ACAD9073, ACAD9074	Pacific	Ancient	Anakena site, Rapa Nui	this paper
700	PAQANA010, ACAD9071	Pacific	Ancient	Anakena site, Rapa Nui	(this paper; 1)
700	ACAD9069, ACAD9065	Pacific	Ancient	Anakena site, Rapa Nui	This paper
670	PAQANA006	Pacific	Ancient	Anakena site, Rapa Nui	(1)
600	ACAD9075, ACAD9076	Pacific	Ancient	Anakena site, Rapa Nui	this paper
534	ACAD8136, ACAD8668, ACAD8670, ACAD8671, ACAD8672, ACAD8674, ACAD8675	Pacific	Ancient	Makauwahi cave site, Hawaii	this paper
1285	ACAD3895, ACAD3896	Pacific	Ancient	Anatoloa site, Niue	this paper
810	FSMFSP001	Pacific	Ancient	FSPO-4 site, Fais	(25)
228	PAQHAN001	Pacific	Ancient	Hangahahave site, Rapa Nui	(1)

Table S4. Migration matrix used in the BayeSSC investigation of the origins of South American chickens (ancient samples from all haplogroups). The matrix represents the ratio of the lineages in each row that will migrate to each column backwards through time (i.e. reconstructed via the coalescence).

	MSEA	ISEA	Europe	South America	Pacific
MSEA	0	0	0.00001	0	0
ISEA	0.00001	0	0.00001	0	0.00001
Europe	0.00001	0	0	0.0000001	0
South America	0	0	0.0001	0	0
Pacific	0	0.00001	0.0001	0.0000001	0

Table S5. Migration matrix used in the BayeSSC investigation of the origins of South American chickens for models via Europe (D haplogroup ancient samples only). The matrix represents the ratio of the lineages in each row that will migrate to each column backwards through time (i.e. reconstructed via the coalescence).

	MSEA	ISEA	Europe	SthAm	Pacific
MSEA	0	0	0.00001	0	0
ISEA	0.00001	0	0.00001	0	0.00001
Europe	0.00001	0	0	0.0000001	0
SthAm	0	0	0.0001	0	0
Pacific	0	0.00001	0.0001	0.0000001	0

Table S6. F_{ST} population differentiation statistics for all modern haplogroup D populations

n		Japan	Indonesia	Philippines	PNG	Guam	Santa Cruz	Solomon Island	Vanuatu	Marquesas	Vietnam	China	Thailand	Myanmar
33	Japan	0												
19	Indonesia	0.19**	0											
12	Philippines	0.15*	0.03	0										
12	PNG	0.35**	0.50**	0.26**	0									
3	Guam	0.09	0.10	-0.05	0.59**	0								
26	SantaCruz	0.28**	0.22**	0.13**	0.22**	0.14	0							
28	SolomonIs	0.29**	0.21**	0.13**	0.20**	0.15	-0.01	0						
40	Vanuatu	0.31**	0.34**	0.24**	0.34**	0.27**	0.08**	0.11**	0					
3	Marquesas	0.23**	0.51**	0.15*	1.00**	0.25	0.02	0.10	-0.08	0				
2	Vietnam	-0.08	-0.20	-0.24	0.94	-0.29	0.14	0.16	0.24	0.77	0			
23	China	0.13**	0.25**	0.16**	0.44**	0.10	0.36**	0.37**	0.38	0.30	-0.04	0		
2	Thailand	0.05	0.07	-0.09	0.94**	-0.13	0.31	0.34	0.44	0.86	0.00	0.09	0	
2	Myanmar	0.36**	0.77**	0.45**	1.00*	0.45	0.69**	0.71**	0.67	1.00	0.86	0.13	0.89	0

* p-value < 0.05; ** p-value < 0.01.

Table S7. Data used in Bayesian Serial Simcoal (BayeSSC) analysis for investigating the prehistoric colonization history of chickens in Micronesia. This dataset uses ancient samples from only haplogroup D (it includes samples from both this paper and Storey *et al.* (1, 25)).

Age of sample (years BP)	15 sample groups	Region	Temporal scale	Site	Reference
0	15 samples	Philippines	Modern	Philippines	(this paper; 9, 13, 42)
0	15 samples	NG	Modern	PNG	this paper
0	5 samples	Micronesia	Modern	Micronesia	(10)
0	32 samples	Solomons	Modern	Solomon Islands	this paper
0	71 samples	Western Polynesia	Modern	Santa Cruz & Vanuatu	this paper
0	14 samples	Eastern Polynesia	Modern	Hawaii & Marquesas	this paper
810	FSMFSP001	Micronesia	Ancient	FSPO-4 site, Fais	(25)
1285	2 samples	Central Polynesia	Ancient	Niue	this paper
660	ACAD9057, ACAD9067	Eastern Polynesia	Ancient	Anakena site, Rapa Nui	this paper
680	ACAD9066, ACAD9068, ACAD9070, ACAD9072, ACAD9073, ACAD9074	Eastern Polynesia	Ancient	Anakena site, Rapa Nui	this paper
700	PAQANA010, ACAD9071	Eastern Polynesia	Ancient	Anakena site, Rapa Nui	(this paper; 1)
700	ACAD9069, ACAD9065	Eastern Polynesia	Ancient	Anakena site, Rapa Nui	this paper
670	PAQANA006	Eastern Polynesia	Ancient	Anakena site, Rapa Nui	(1)
600	ACAD9075, ACAD9076	Eastern Polynesia	Ancient	Anakena site, Rapa Nui	this paper
534	ACAD8136, ACAD8668, ACAD8670, ACAD8671, ACAD8672, ACAD8674, ACAD8675	Eastern Polynesia	Ancient	Makauwahi cave site, Hawaii	this paper

Table S8. Migration matrix used in the BayeSSC investigating the prehistoric colonization history of chickens in Micronesia (D haplogroup ancient samples only). The matrix represents the ratio of the lineages in each row that will migrate to each column backwards through time (i.e. reconstructed via the coalescence).

	Philippines	New Guinea	Micronesia	Solomon Islands	Western Polynesia	Eastern Polynesia
Philippines	0	0	0.00001	0	0	0
New Guinea	0.00001	0	0.00001	0.00001	0	0
Micronesia	0.00001	0.00001	0	0.00001	0	0
Solomon Islands	0	0.0001	0.00001	0	0.00001	0
Western Polynesia	0	0.000001	0	0.00001	0	0.00001
Eastern Polynesia	0	0	0	0	0.00001	0

Table S9. Population genetic summary statistics for haplogroup D in the Asia-Pacific region.

	n	#Hap	Hdiv	nDiv (%)	Ts	Tv	Tajima's D	Fu's FS
Vietnam	2	2	1.00	0.50	1	1	0.00	0.00
Thailand	2	2	1.00	0.50	1	0	0.00	0.00
Guam	3	3	1.00	1.99	6	0	0.00	0.13
Philippines	12	6	0.89	1.65	12	0	-0.69	-1.09
Japan	33	8	0.81	2.08	11	1	1.33	1.50
Santa Cruz	26	6	0.81	0.83	6	0	0.19	-0.35
China	23	7	0.78	1.83	1	1	1.68	0.97
Vanuatu	40	8	0.76	0.81	9	1	-0.92	-1.51
Indonesia	19	6	0.74	0.53	4	0	-0.21	-2.16
Solomon Islands	28	4	0.71	0.76	4	0	1.25	1.45
Myanmar	2	1	0.00	0.00	0	0	0	-
Marquesas	3	1	0.00	0.00	0	0	0	-
PNG	12	1	0.00	0.00	0	0	0	-

n – number of samples; #Hap – number of haplotypes; Hdiv – haplotype diversity; nDiv – nucleotide diversity; Ts – transitions; Tv – transversions.

Table S10. Primer sequences

Primer name	Primer sequence (5’ to 3’)	Reference
GG144F	ACCCATTATATGTATACGGGCATTAA	(1)
GG387R	CGAGCATAACCAAATGGGTTAGA	(1)
GG316F	AACAAGTCACCTAACTATGAATGGTTAC	(1)
GG586R	AGTTATGCATGGGATGTGCCTGACCGA	(1)
A1780F	CAGCTCCAAACCACTACCAAG	This paper
A1781R	AGGTGACTTGTTGGGGGAAG	This paper
A1958F	TCTAACTCATTTGGTTATGCTCG	This paper
A1959R	AGTTATGTATGGGATGTGCCTGACCGA	This paper

Supplementary Figures

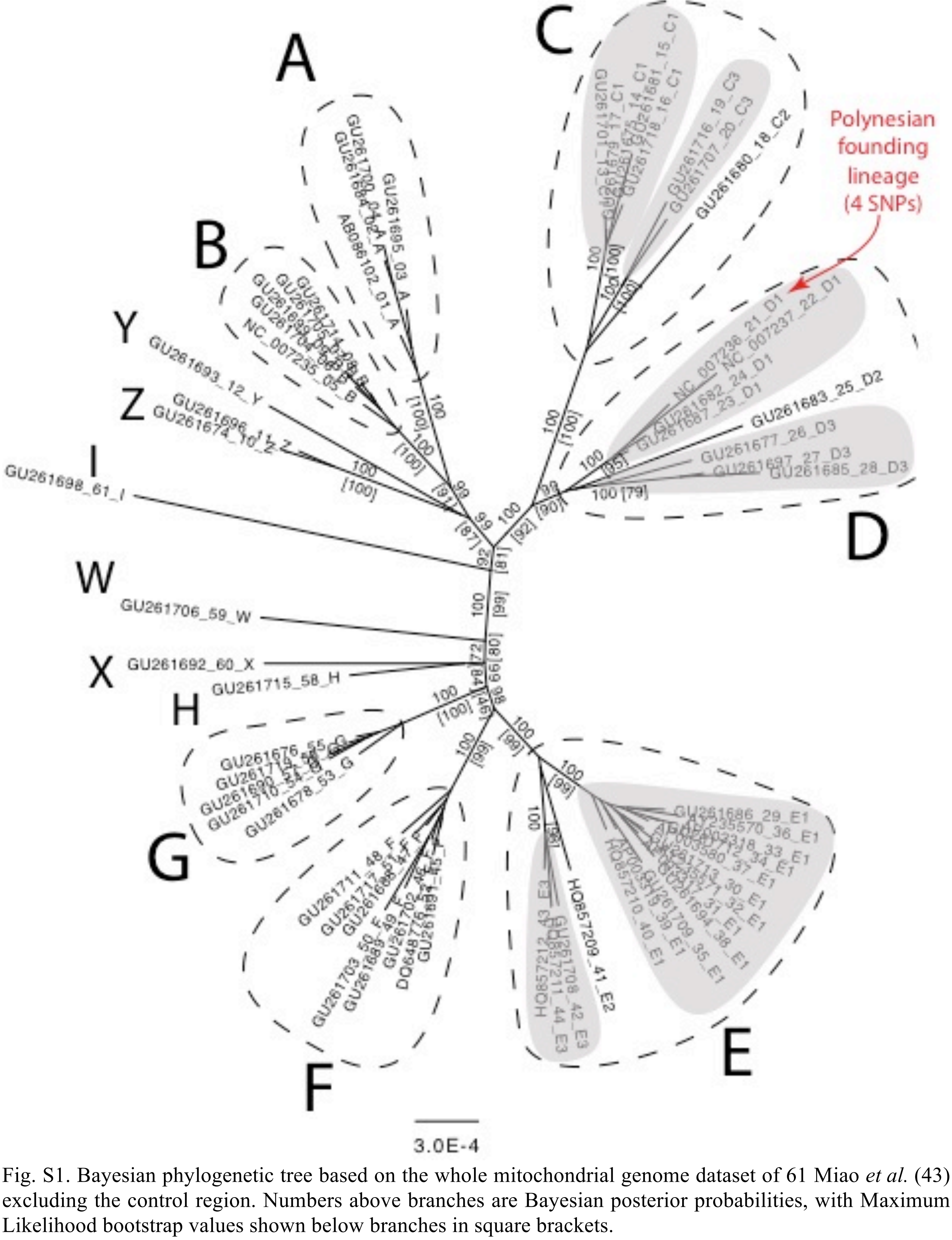

Fig. S1. Bayesian phylogenetic tree based on the whole mitochondrial genome dataset of 61 Miao *et al.* (43) excluding the control region. Numbers above branches are Bayesian posterior probabilities, with Maximum Likelihood bootstrap values shown below branches in square brackets.

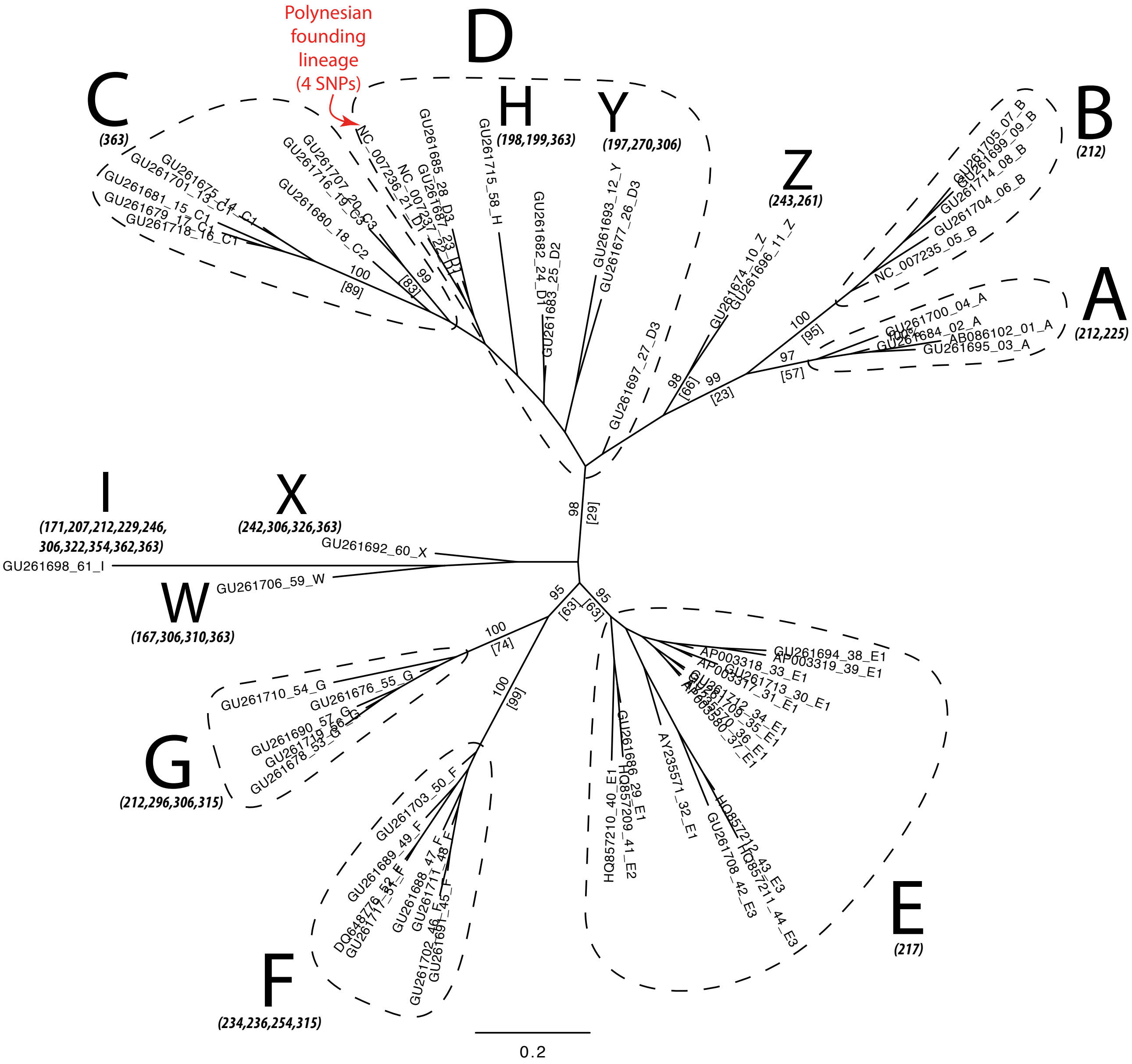

Fig. S2. Bayesian phylogenetic tree based on 201bp fragment of the control region from 61 WMG sequences of Miao *et al.* (43). Numbers above branches are Bayesian posterior probabilities, with Maximum Likelihood bootstrap values shown below branches in square brackets. The WMG sequence that contains all 4 ancestral Polynesian SNPs is highlighted in red. Below each haplogroup label are the nucleotide positions that differentiate the haplogroup from Haplogroup D (*i.e.* Haplogroup D defining SNPs).

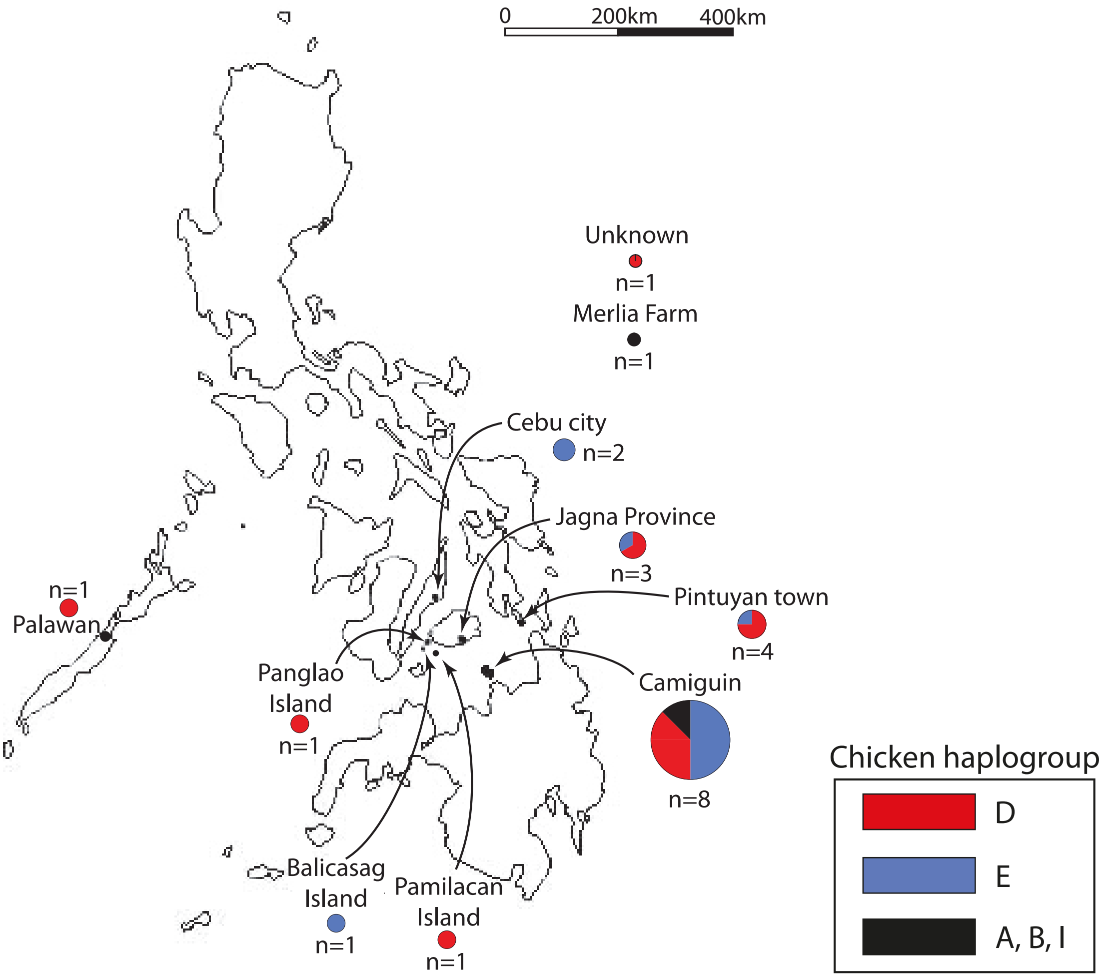

Fig. S3. Map showing haplogroups of chicken samples from the Philippines (n=23).

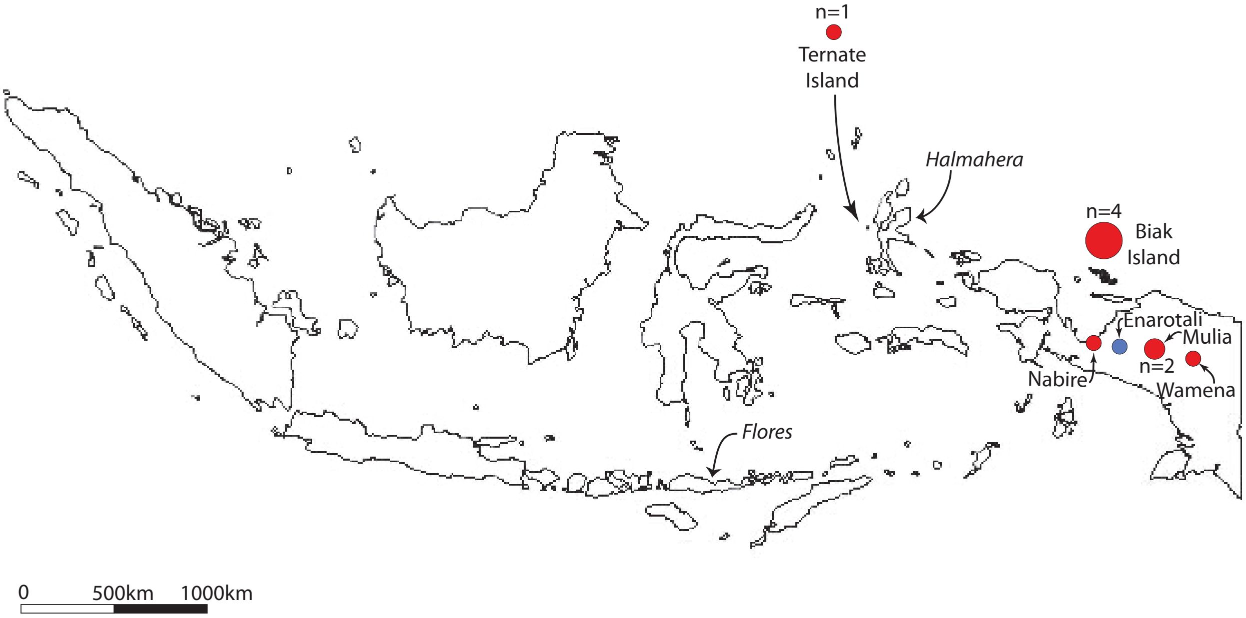

Fig. S4. Map showing haplogroups of chicken samples from the Indonesia (n=10).

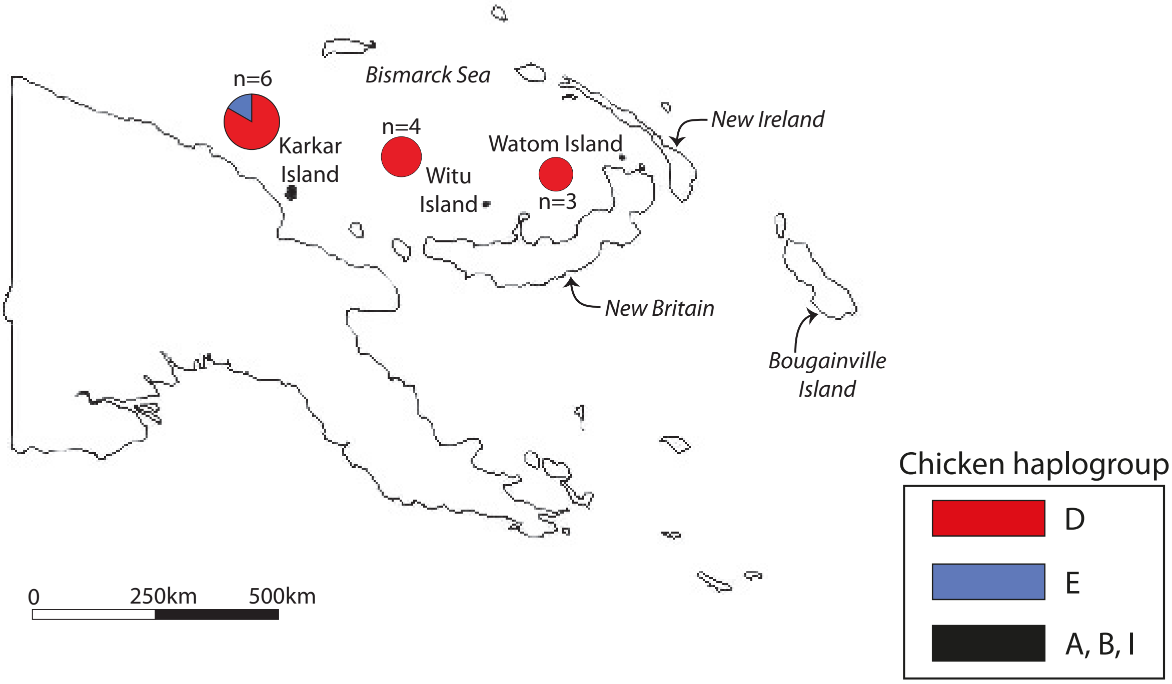

Fig. S5. Map showing haplogroups of chicken samples from the Papua New Guinea (n=13).

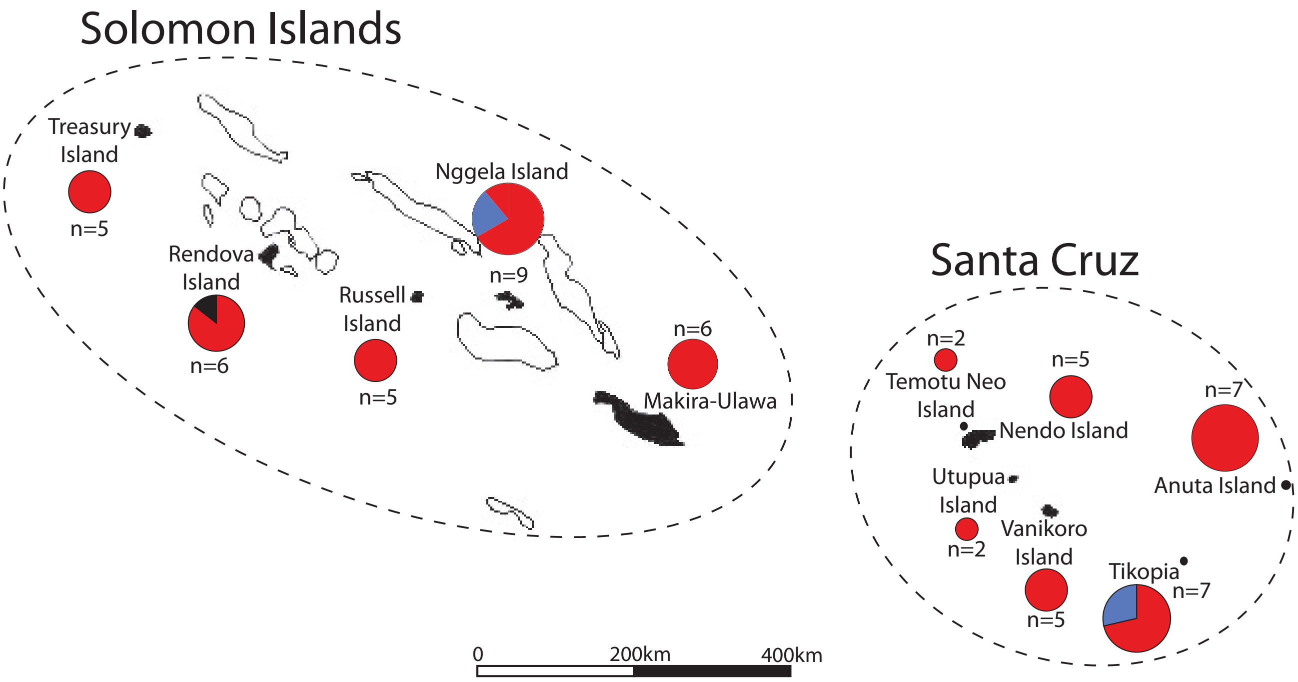

Fig. S6. Map showing haplogroups of chicken samples from the Solomon Islands (n=31) and Santa Cruz (n=28).

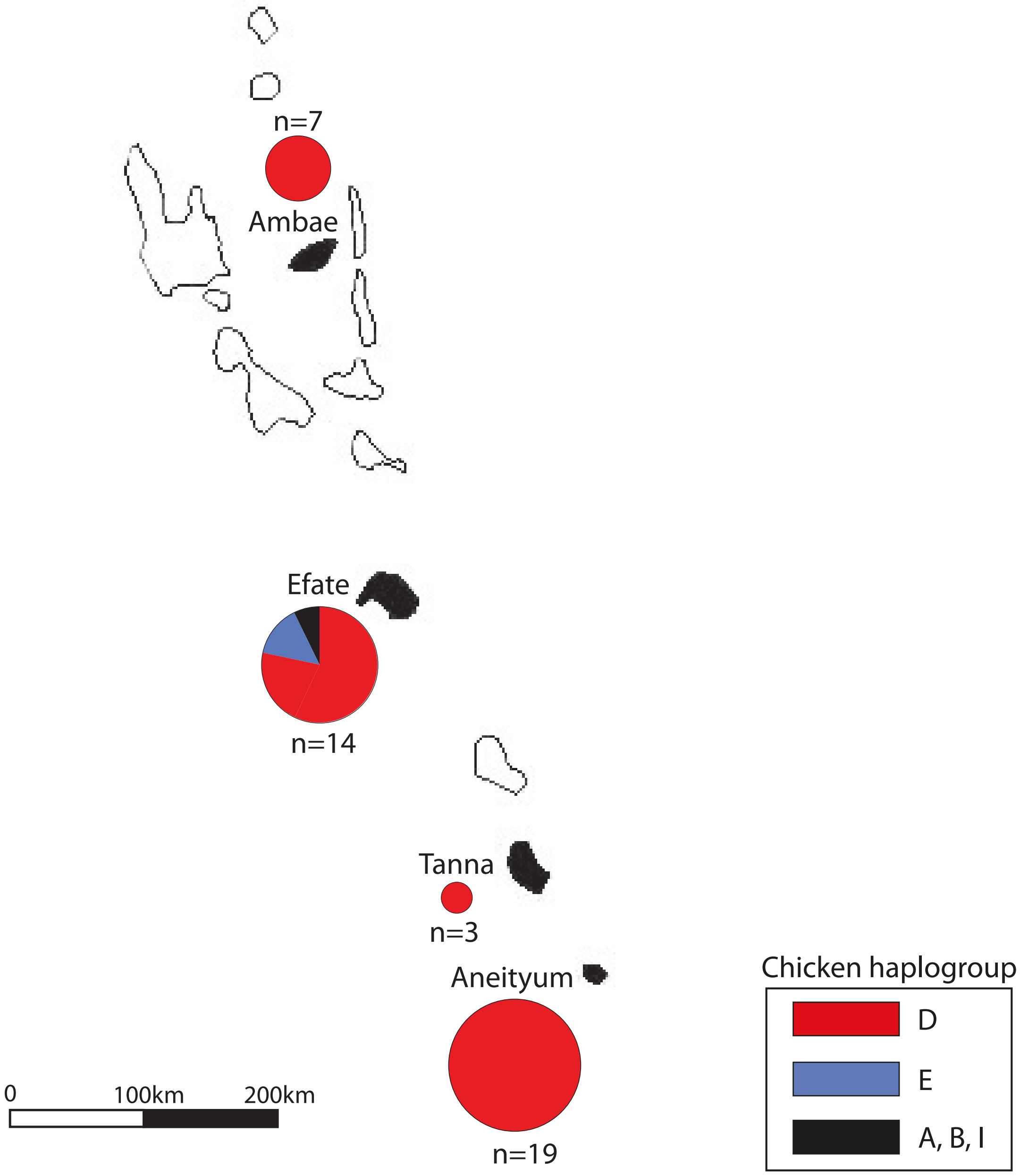

Fig. S7. Map showing haplogroups of chicken samples from the Vanuatu (n=43), Dancause *et al.* (2010).

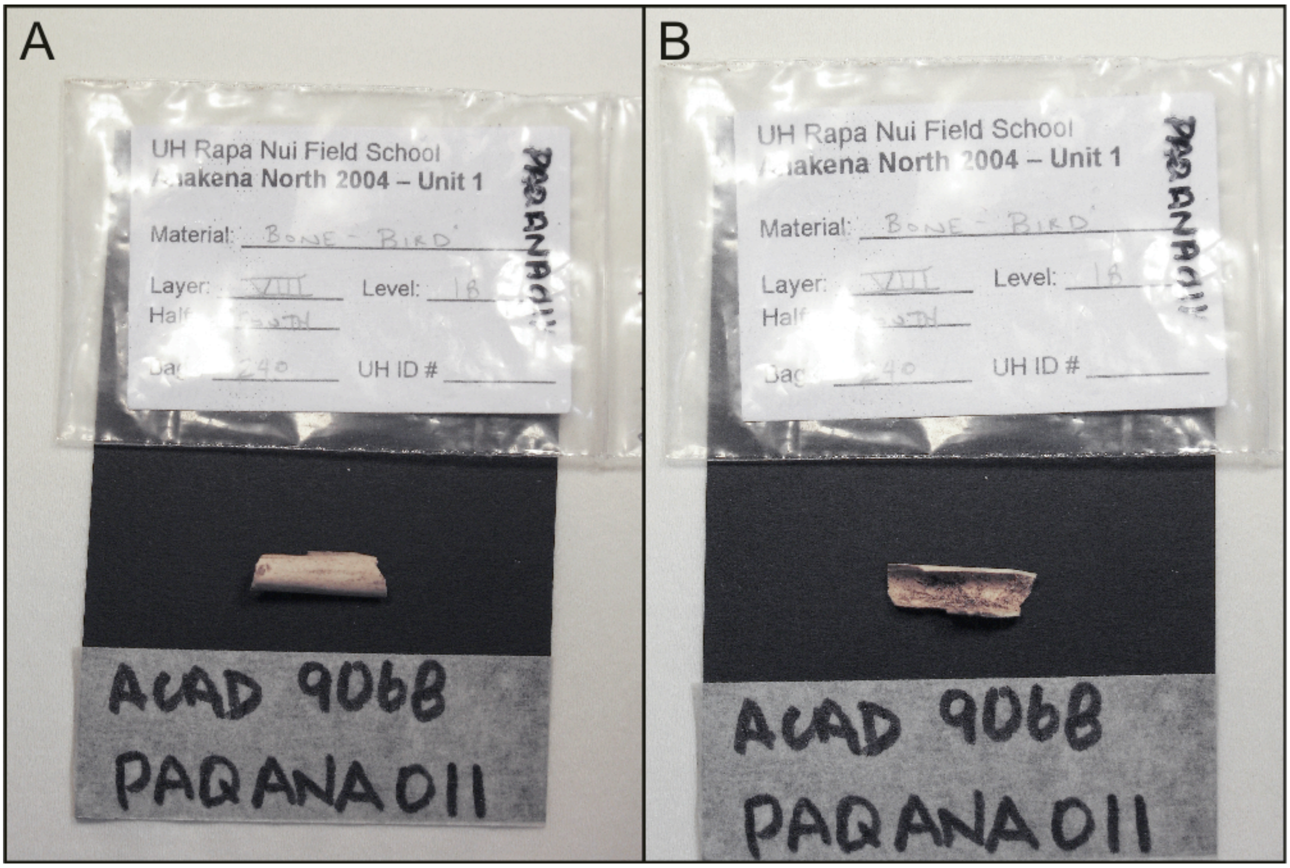

Fig. S8. Photos showing sample PAQANA011, the sample from Rapa Nui that Storey *et al.* (1) found to be Haplogroup E but when re-analyzed for this paper at ACAD and replicated at Durham was actually found to be Haplogroup D. Photo A shows the exterior of the bone and photo B shows the interior of the bone upon arrival at the ACAD lab (*i.e.* prior to subsampling for analysis and replication).

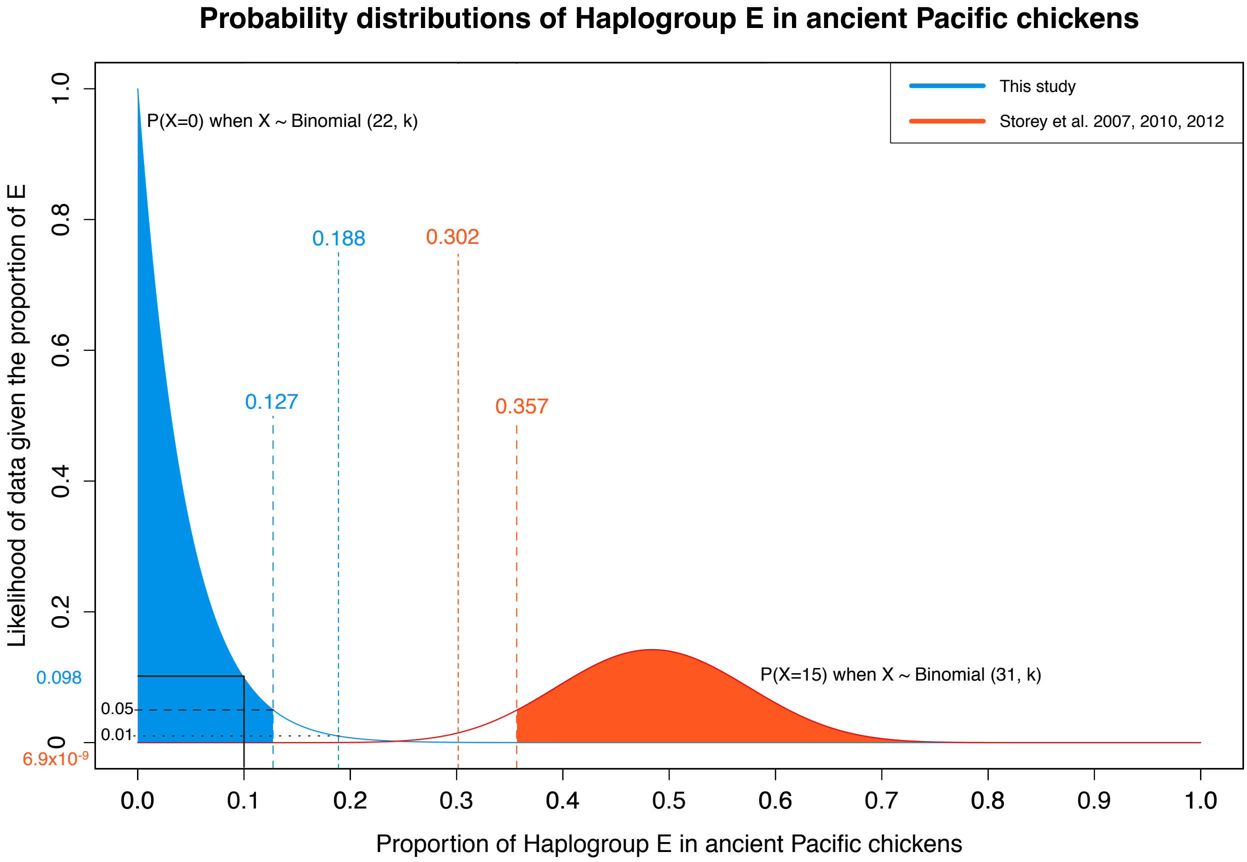

Fig. S9. Binomial probability distribution showing the probability of detecting the observed number of haplogroup E sequences (for a range of hypothetical frequencies of E in the ancient Pacific chicken population). For example, if we assume that haplogroup E is actually present at a frequency of 0.1 (i.e. 10%) in the total ancient population, then the probability of detecting 0/22 haplogroup E sequences is 0.098 (this study), but the probability of Storey *et al.* (1, 25, 26) detecting 15/31 haplogroup E sequences is $6.9x10^{-9}$.

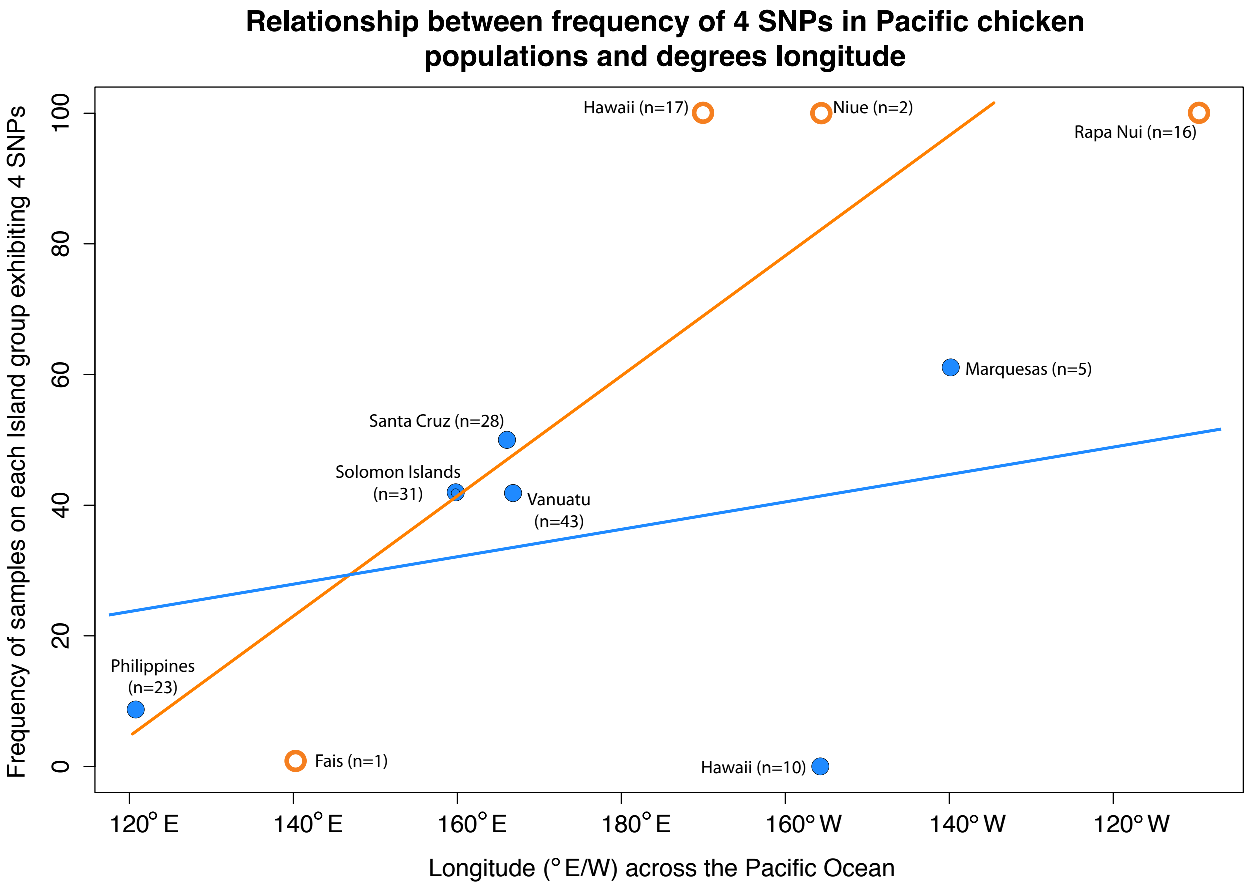

Fig. S10. Linear regression plot showing the positive correlation between frequency of haplotypes with all four diagnostic SNPs and longitude. The higher frequency of these 4 SNPs in the east (right hand side of the graph) is apparent with both modern (blue solid) and ancient (orange outline) samples. With both modern and ancient datasets combined, the correlation is relatively low but the linear relationship is statistically significant (R^2=0.4201 and ANOVA P-value = 0.04 for modern and ancient combined). Each island group is labeled with sample numbers in brackets, but note that no ancient haplogroup E samples are included due to suspected issues with authenticity.

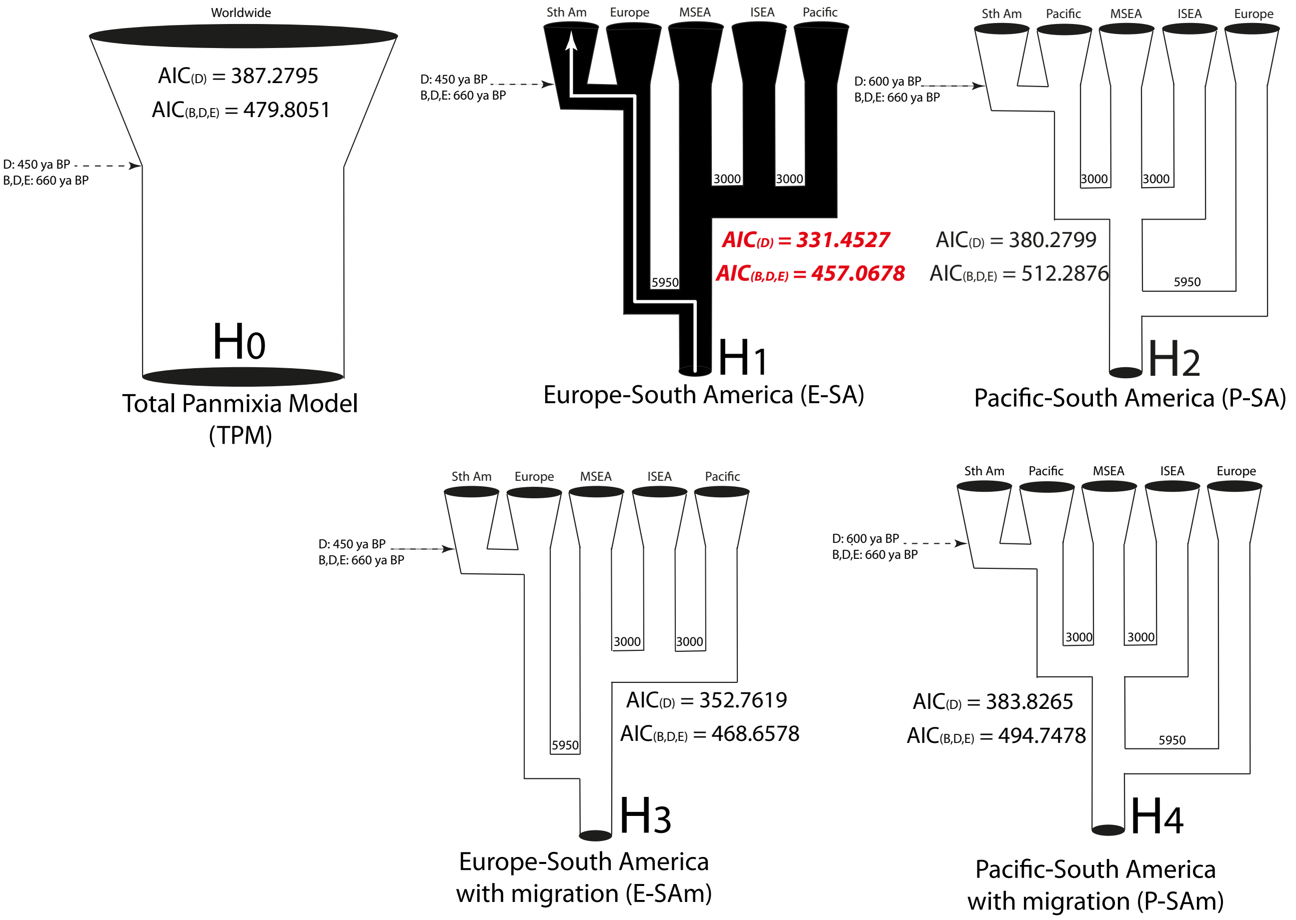

Fig. S11. Serial Coalescent Simulations and Approximate Bayesian Computation models with respect to reconstructing the origin of South American chicken populations. The null hypothesis was modeled as the Total Panmixia Model, TPM (H0). Each population (South America, Europe, MSEA, ISEA, Pacific) was sampled at random from a panmictic population. Eight alternate scenarios were also tested: route from Europe-South America with or without migration, H1 or H3 respectively, with each model having two variations, based on different datasets (only D haplogroup ancient samples or B, D and E haplogroup ancient samples), and a route from Pacific-South America with or without migration, H2 or H4 respectively, with each model having two variations, based on different datasets (only D haplogroup ancient samples or B, D and E haplogroup ancient samples).

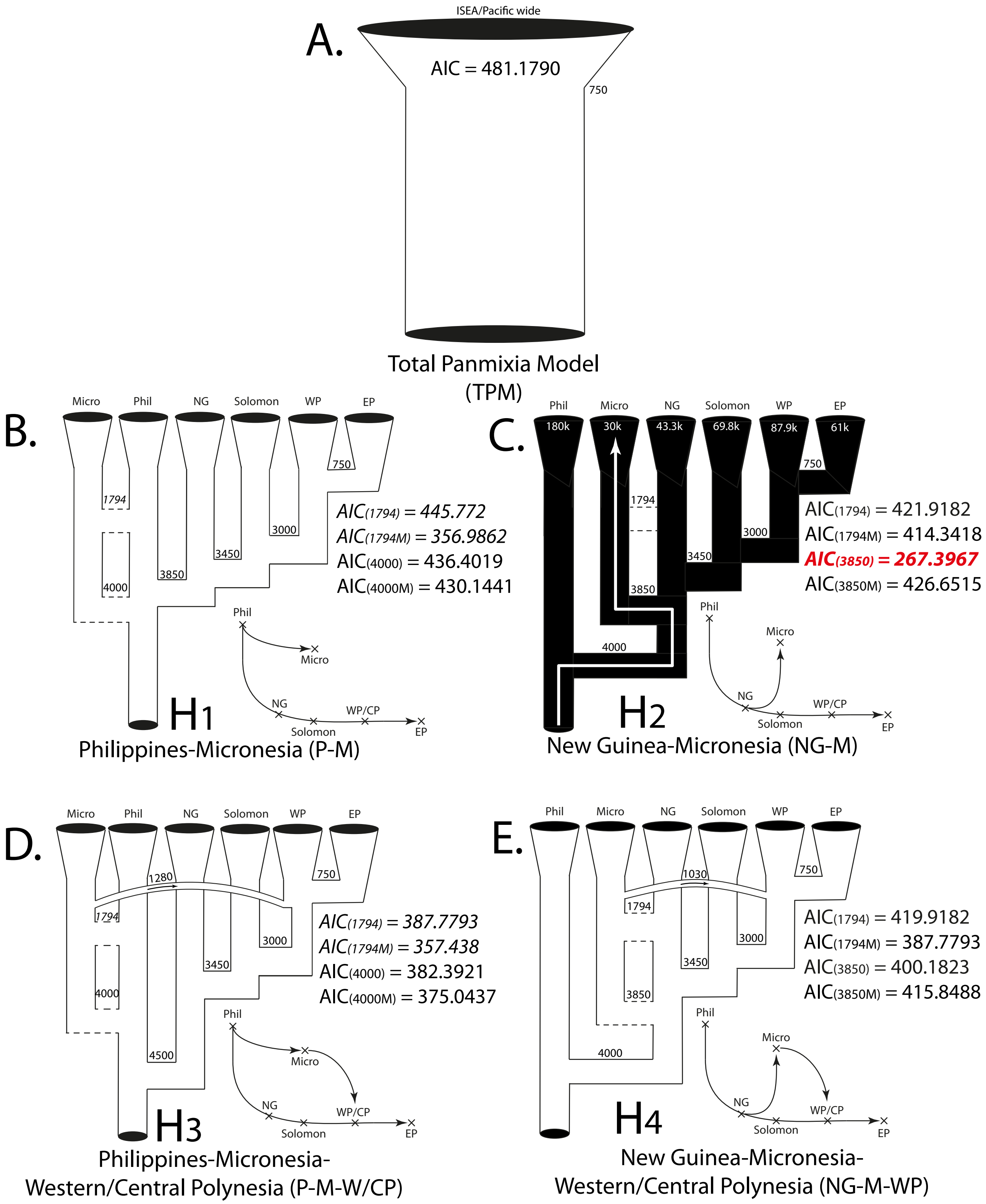

Fig. S12. Serial Coalescent Simulations and Approximate Bayesian Computation models with respect to how Micronesia fits into the wider Pacific story. (A) Total Panmixia Model, TPM. Each population (the Philippines, New Guinea, Micronesia, the Solomon Islands, Western/Central Polynesia, and Eastern Polynesia) was sampled at random from a panmictic population. (B) Philippines-Micronesia model, P-M. This model has four variations, based on two temporal versions for the migration from the Philippines to Micronesia (1794 yrs BP or 4000 yrs BP; dotted lines) and two levels of migration since 750 yrs BP (no migration or a migration matrix; see Table S8). (C) New Guinea-Micronesia, NG-M. This model has four variations, based on two temporal versions for the migration from New Guinea to Micronesia (1794 yrs BP or 3850 yrs BP) and two levels of migration since 750 yrs BP (no migration or a migration matrix; see Table S8). (D) Philippines-Micronesia-Western/Central Polynesia, P-M-W/CP. This model includes a percentage of migration from Micronesia to Western Central Polynesia based on a prior uniform distribution ranging from 750-1794 yrs BP. Again this model has four variations, based on two temporal versions for the migration from the Philippines to Micronesia (1794 yrs BP or 4000 yrs BP) and two levels of migration since 750 yrs BP (no migration or a migration matrix; see Table S8). (E) New Guinea-Micronesia-Western/Central Polynesia, NG-M-W/CP. This model includes a percentage of migration from Micronesia to Western/Central Polynesia based on a prior uniform distribution ranging from 750-1794 yrs BP. Again this model has four variations, based on two temporal versions for the migration from the Philippines to Micronesia (1794 yrs BP or 4000 yrs BP) and two levels of migration since 750 yrs BP (no migration or a migration matrix; see Table S8).

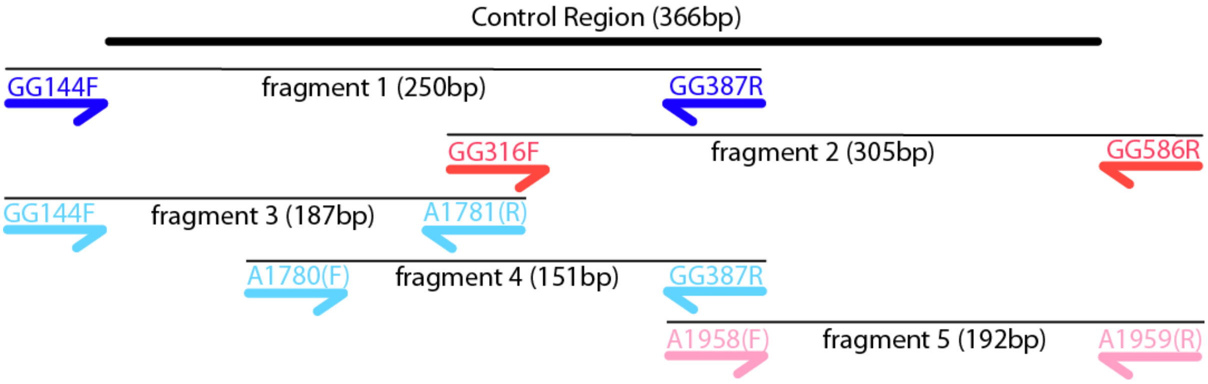

Fig. S13. Details of primer arrangement showing the 366 bp target region, prior to trimming sequences to the length common across both ancient and modern datasets (201 bp). This hyper-variable 201 bp portion of the control region is within fragment 1.

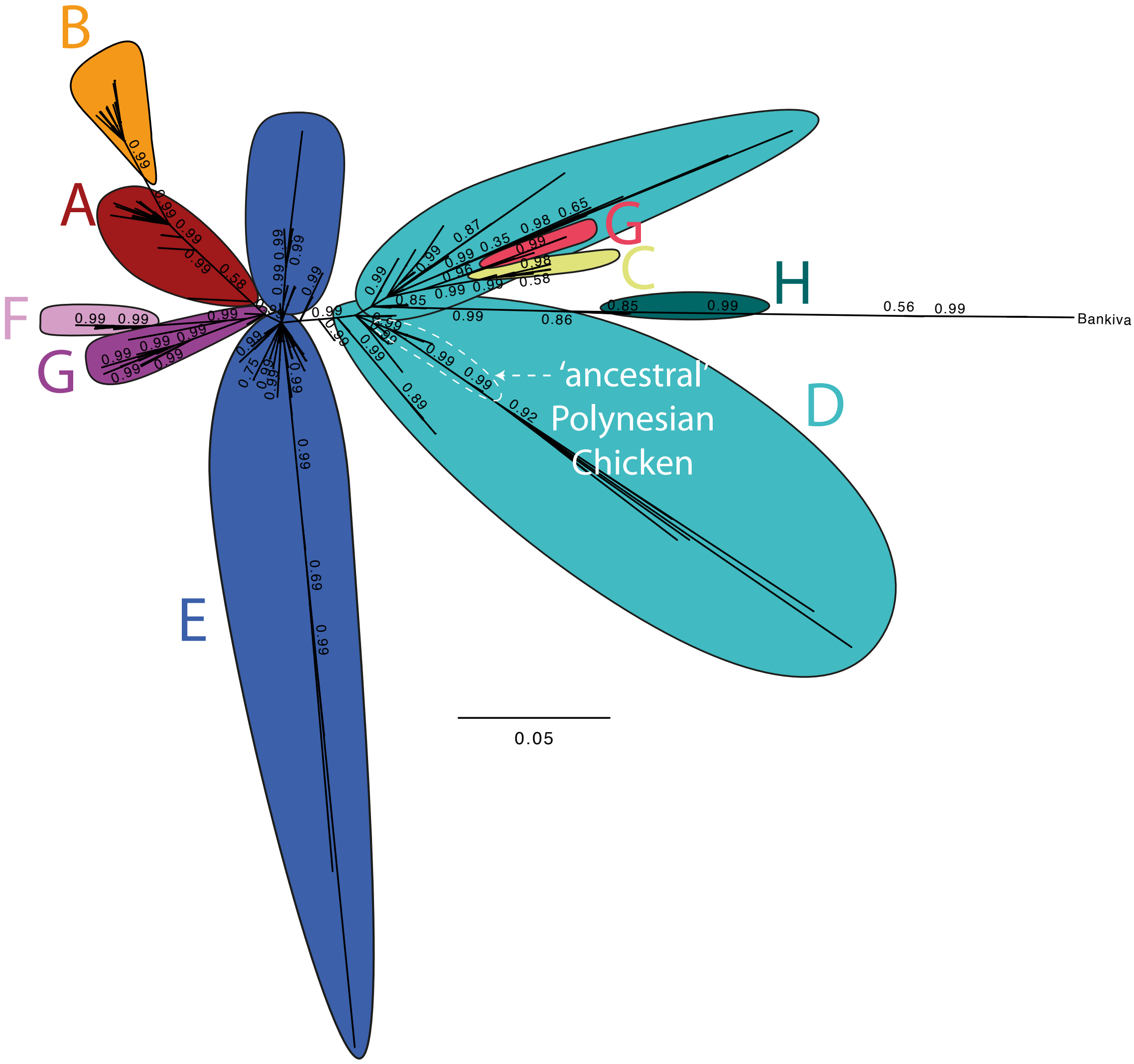

Fig. S14. Maximum Likelihood tree constructed using PhyML with 330bp of mitochondrial control region (mtDNA CR) for 1254 *Gallus gallus* sequences worldwide (see Dataset S6 for list of samples), with *G. g. bankiva* as an outgroup. All 1226 modern sequences used for reference purposes were included, plus the 22 ancient Pacific bone samples and 6 modern feather samples from the Marquesas, as only these were sequenced for the 330 bp fragment of the mtDNA CR. Colors and labels in this figure represent each of the nine worldwide chicken haplogroups initially identified in Liu *et al.* (13), with the addition of our 'ancestral' Polynesian chicken group. The support values on branches are estimated using a Chi^2-based approximate Likelihood Ratio Test (aLRT) – the 'ancestral' Polynesian chicken group has branch support of 0.999.

Dataset S1 - Location and dating information for the chicken samples successfully analyzed in this study, plus Storey *et al.*'s (1, 25, 26) and Dancause *et al.* (10) Pacific samples (see http://dx.doi.org/10.6084/m9.figshare.897928).

Dataset S2 – Summary of Pacific samples from this study plus those from Storey *et al*. (1, 25, 26) without the use of Shrimp DNase, and the presence of the ancient haplotypes in modern chicken populations (see http://dx.doi.org/10.6084/m9.figshare.897927).

Dataset S3 – Replication of PAQANA011 - internal (extract ACAD9068 using repeated PCR and Sanger sequencing) and external (at Durham University), and compared to Storey et al.'s (2007) EF535246 (PAQANA011) sequence (see http://dx.doi.org/10.6084/m9.figshare.897929).

Dataset S4 – Cloning results of ACAD internal replication and external replication at Durham (see http://dx.doi.org/10.6084/m9.figshare.897930).

Dataset S5 – Variable sites across all unique haplotypes with number of 'Polynesian' SNPs (columns with PSNPs are highlighted by dark outline) (see http://dx.doi.org/10.6084/m9.figshare.897932).

Dataset S6 - Unique haplotype details of all sequences used in the study (see http://dx.doi.org/10.6084/m9.figshare.897931).

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