



1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21

Supplementary Information for

The genomic diversity of Taiwanese Austronesian groups: implications for the 'Into and Out of Taiwan' models

Dang Liu^{*}, Albert Min-Shan Ko and Mark Stoneking^{*}

^{*}Corresponding authors: Dang Liu and Mark Stoneking
Email: dang.liu@pasteur.fr and stoneking@eva.mpg.de

This PDF file includes:

- Supplementary text
- SI References
- Figures S1 to S17
- Table S1

22 **Supplementary Information Text**

23

24 **Extended Materials and Methods**

25

26 **Sample and data information**

27 Sampling of Taiwanese individuals was done in Ko et al (1); we selected a total of 43 Austronesian (37
28 highlanders from Atayal, Bunun, Rukai, Paiwan, Ami; 1 Tao; and 5 Makatao lowlanders) and 12
29 Taiwanese Han (Hakka; Minnan) individuals and generated their genome-wide data on the Affymetrix
30 Human Origins array. The ethics committees of the China Medical University, the Taiwan National
31 Health Research Institutes, and the University of Leipzig Medical Faculty have approved this study.
32 Informed consent was obtained from all participants. We first merged the new data with published data
33 on the same array from comparative modern populations (2-9) and we kept only autosomal markers for
34 our analyses. For quality control of the merged data of modern individuals, we excluded sites with more
35 than 5% missing data in the entire dataset and sites with more than 50% missing data and/or Hardy-
36 Weinberg equilibrium p values below 0.00005 within a group (except for groups with only one individual).
37 We removed individuals with more than 5% missing data and we excluded one individual from 1st
38 degree kinship pairs. Data missingness and Hardy-Weinberg equilibrium were calculated using PLINK
39 v1.9 (10) while the individuals to be removed to avoid 1st degree relatedness (kinship coefficient \geq
40 0.177) were inferred using KING (11), as implemented in PLINK v2 (12). This gives a filtered dataset of
41 modern individuals consisting of 540,697 SNPs and 1,664 individuals. Next, we further merged the
42 filtered dataset with comparative ancient genomes (5, 6, 9, 13-21). Six positions with more than two
43 variants or that were inconsistent between the array and sequencing data were excluded. Ancient
44 individuals with $<15,000$ informative sites were also removed. This gives a filtered dataset of modern
45 and ancient individuals consisting of 540,691 SNPs and 1,958 individuals. For Principal Component
46 Analysis (PCA), ADMIXTURE, and DyStruct analyses (described in below sections), variants were
47 pruned beforehand for linkage disequilibrium using PLINK v1.9, excluding one variant from pairs with
48 $r^2 > 0.4$ within windows of 200 variants and a step size of 25 variants. Metadata are in Table S1.

49

50 **PCA analyses**

51 PCA was done with smartpca v16000 (22). Projection of groups on PCA was done with the "lsqproject"
52 and "shrinkmode" options.

53

54 **ADMIXTURE and DyStruct analyses**

55 The clustering algorithm was first run by ADMIXTURE v1.3.0 (23). From $K = 2$ to $K = 15$, we performed
56 100 replicates for each K with random seeds. ADMIXTURE outliers with >0.01 of the turquoise (Han-
57 related) component were excluded for the Amis (TA199, TA81), Bunun (bun55, bun32), Atayal_HO
58 (NA13600), and Kankanaey (Igorot11) groups in the F-statistics based analyses (e.g., f_3 , f_4 , qpAdm,
59 admixture graph, described in the below sections). We also performed DyStruct v1.1.0 (24)
60 incorporating time-series data from ancient genomes for the model. We transformed the age of ancient
61 genomes into generations using a generation time of 30 years (25) and binned every 50 generations
62 into a time point using the script bin_sample_times.py. From $K = 2$ to $K = 15$, we performed 25 replicates
63 for each K with random seeds. Then, we used the script plot_Q.py to plot the highest likelihood results
64 for the best K of ADMIXTURE ($K=9$, with the lowest cross-validation error) and DyStruct ($K=8$, with the
65 highest likelihood). Scripts bin_sample_times.py and plot_Q.py are provided by the authors of DyStruct
66 (available here: <https://github.com/tyjo/dystruct/tree/master/supp/scripts>).

67

68 **F3 and F4 statistics and qpAdm analyses**

69 We used admixr v0.9.1 (26) to compute f_3 - and f_4 -statistics from ADMIXTOOLS v7.0.2 (2), with
70 significance assessed through block jackknife resampling across the genome. We also used admixr to
71 compute qpAdm from ADMIXTOOLS with option inbreed = "YES" (required if using a single individual
72 as a source or outgroup). We merged additional outgroups (27-35) to follow Yang et al (18), with
73 metadata available in Table S1. The target groups are all Taiwanese groups and selected Tai-Kadai
74 (Dong_Guizhou, Dong_Hunan, Gelao, Li, Maonan, Mulam, Zhuang), Han (Han_Fujian,
75 Han_Guangdong, Han_Shandong, Han_Shanghai, Han_Henan, Han_Hubei), ancient nEA
76 (Xiaojingshan_7800BP, Xiaogao_8700BP, Wuzhuangguoliang_5000BP) and ancient sEA
77 (Suogang_4550BP, Xitoucun_4500BP, Tanshishan_4350BP, Hanben_1550BP, Shenxian_1300BP,
78 BaBanQinCen_1500BP) groups; the source groups are nEA Boshan_8200BP and sEA
79 Liangdao_7750BP; the outgroups are Mota_4470BP, Ust_Ishim_44350BP, Kostenki_38050BP,
80 Iran_10000BP, Yana_31850BP, Karelia_8450BP, Okunevo_4300BP, Indus_Periphery_4500BP,
81 New_Guinea_Highlander, Onge, Upward_Sun_River_11400BP, Tianyuan_40000BP,

82 Longlin_10550BP, Kolyma_9750BP, Jomon_2800BP, Qihe_11550BP, Bianbian_9500BP, Mbuti,
83 French, Australian, Tu, She, Ami, Kinh, and Baining. In contrast to the outgroups used in Yang et al,
84 we substituted the 7 kya Pha Faen genome (14) (which overlaps with the Onge in terms of Hoabinhian-
85 related ancestry) with the 10 kya Longlin genome (19) to provide more distinct sEA outgroups. We
86 excluded results with negative values inferred for either one of the sources, p-values > 0.05, or the
87 absolute values of the standard error > 0.25.

88 89 **Data phasing**

90 Phasing was done by SHAPEIT version 4.1.3 (36), with the East Asian (without the Kinh Vietnamese
91 merged in our data set) and South Asian populations as a reference panel, and the recombination map
92 from the 1000 Genomes Phase3 (37). To prepare the reference panel, we extracted the East and South
93 Asian individuals as well as the overlapping sites with our data for each chromosome from the 1000
94 Genomes Phase3 data using bcftools version 1.4 (<http://samtools.github.io/bcftools/>; last accessed 10
95 July, 2020). The phasing accuracy of SHAPEIT4 can be enhanced by increasing the number of
96 conditioning neighbors in the Positional Burrows–Wheeler Transform (PBWT) on which haplotype
97 estimation is based (36). We ran phasing with the options `-pbwt-depth 8` for 8 conditioning neighbors
98 and left other parameters as default.

99 100 **ChromoPainter, fineSTRUCTURE and GLOBETROTTER analyses**

101 ChromoPainter v2 (38) was run on the phased dataset focusing only on the Austronesian, Tai-Kadai,
102 and Sino-Tibetan speaking groups, with sample sizes for each population group randomly down-
103 sampled to 7 (all individuals were used for groups with sample sizes below 7). We began with 10
104 iterations of the EM (expectation maximization) process to estimate the switch rate and global mutation
105 probability using chromosomes 1, 5, 10, 15, and 20. With the estimated switch and global mutation
106 rates, we ran the chromosomal painting process for all chromosomes, which then gave the output for
107 downstream analyses. We first attempted to paint the chromosomes of each individual, using all of the
108 samples in the dataset as both donors and recipients, via the `-a` argument. The EM estimation of switch
109 rate and global mutation probability were ~ 409.33 and ~ 0.00048 , respectively, which were then used
110 as the starting values for these parameters for all donors in the painting process. To specifically study
111 the contribution of the THI groups (Formosan branches) as sources for other Austronesians (Malayo-
112 Polynesian branch), we also performed another run using all the samples except for the non-THI
113 Austronesians as both donors and recipients; the non-THI Austronesians were used only as recipients.
114 The EM estimation of switch rate and global mutation probability for this analysis were ~ 430.08 and \sim
115 0.00064 , respectively.

116 `fineSTRUCTURE v4.0.1` (38) was run on the first ChromoPainter output using all of the samples
117 in the dataset as both donors and recipients. First, 1 million burn-in steps were used (`-x`) and 1 million
118 further iterations were sampled (`-y`) keeping every 10000th sample (`-z`). To infer a tree (`-m T`), we ran
119 an additional 100,000 burn-in steps (`-x`) and used the maximum number of 3000 tree comparisons for
120 splitting/merging (`-t`). We processed and plotted the results in R with the assistance of `fineSTRUCTURE`
121 R Tools (<https://people.maths.bris.ac.uk/~madjl/finestructure/finestructureR.html>).

122 To investigate the admixture of Austronesian and Han ancestries in the Lowland group Makatao,
123 GLOBETROTTER (39) was run on the second ChromoPainter output using the THI/TOI Austronesian,
124 Tai-Kadai, and Sino-Tibetan groups as surrogates. We first tested the certainty and potential waves of
125 admixture events, and then estimated the major and minor sources as well as the dates of admixture.
126 A single pulse of admixture was inferred for the Makatao. The standard error was computed from the
127 distribution of admixture dates accessed through 100 bootstraps. A generation time of 30 years was
128 used for transforming generations to years (25).

129 130 **Identity by descent (IBD) analyses**

131 We identified shared IBD blocks between each pair of individuals and homozygous-by-descent (HBD)
132 blocks within each individual using RefinedIBD (40). Both identified IBD and HBD blocks are considered
133 as IBD blocks in our analyses, which is analogous to pairwise shared coalescence (PSC) segments in
134 a previous study (41). The IBD blocks within a 0.6 cM gap were merged using the program `merge-ibd-`
135 `segments` from the RefinedIBD website (<https://faculty.washington.edu/browning/refined-ibd.html>),
136 allowing only 1 inconsistent genotype between the gap and block regions. We used IBD blocks at least
137 2 cM in length shared by individuals within a population to investigate the demography of each
138 population group. Then, we used IBD blocks in 1-5 cM, 5-10 cM, and over 10 cM ranges to investigate
139 the sharing between individuals from different populations in different time periods (41). To visualize
140 the sharing between populations, the pairs with an average of at least 0.5 shared IBD blocks (i.e., on
141 average half of the pairs share IBD blocks) were kept to reduce noise and false positives. The average

142 of the summed IBD length/number of blocks between two groups was calculated by dividing the
143 summed IBD length/number of blocks between all pairs of individuals from the two groups by the
144 product of the number of individuals from one group and the number of individuals from the other group.
145

146 **Admixture graph analyses**

147 We selected groups to test our questions concerning the admixture profile of the Lowland group
148 Makatao (Fig. S6), and the Into-Taiwan (Fig. S10) and Out-of-Taiwan (Fig. S14) events. For ancient
149 groups, we removed individuals with more than 30% missing data except for individual TON002 from
150 ~2.6 kya Tonga, who is the highest quality ancient Lapita individual and is needed for the Out-of-Taiwan
151 model. We used ADMIXTOOLS 2 (42) to compute pairwise f_2 statistics between the groups using
152 `extract_f2()` with `maxmiss=1` (no SNPs excluded) and then extracted the allele frequency products from
153 the computed f_2 blocks using `f2_from_precomp()` with `afprod=TRUE` (which will result in more precise
154 f_4 -statistics when there are large amounts of missing data, as described on the tool website:
155 <https://uqrmaie1.github.io/admixtools/>). Finally, for each of the scenarios, we searched for the best-
156 fitting admixture graph by running ten independent runs of `find_graphs()` and selected the one with the
157 lowest score (computed through the residuals between the expected and observed f -statistics given the
158 data). We further confirmed a fitting graph by testing the graph with the lowest score using `qpgraph()`
159 to check if the absolute value of the worst-fitting Z score is below 3. We started with no migrations
160 (`numadmix=0`) and then added migrations until we found a fitting graph, which we denoted as the best-
161 fitting graph for that scenario. We also added different admixture constraints for searching the graphs
162 depending on our questions; for the admixture profile of the Makatao, at least 1 admixture for the
163 Makatao, and no admixtures for the Atayal, Rukai, and Amis; for the Into-Taiwan event(s), no
164 admixtures for the ~8.2 kya Boshan and ~7.7 kya Liangdao; for the Out-of-Taiwan event(s), no
165 admixtures for the New Guinea Highlander, Atayal, and Rukai.
166

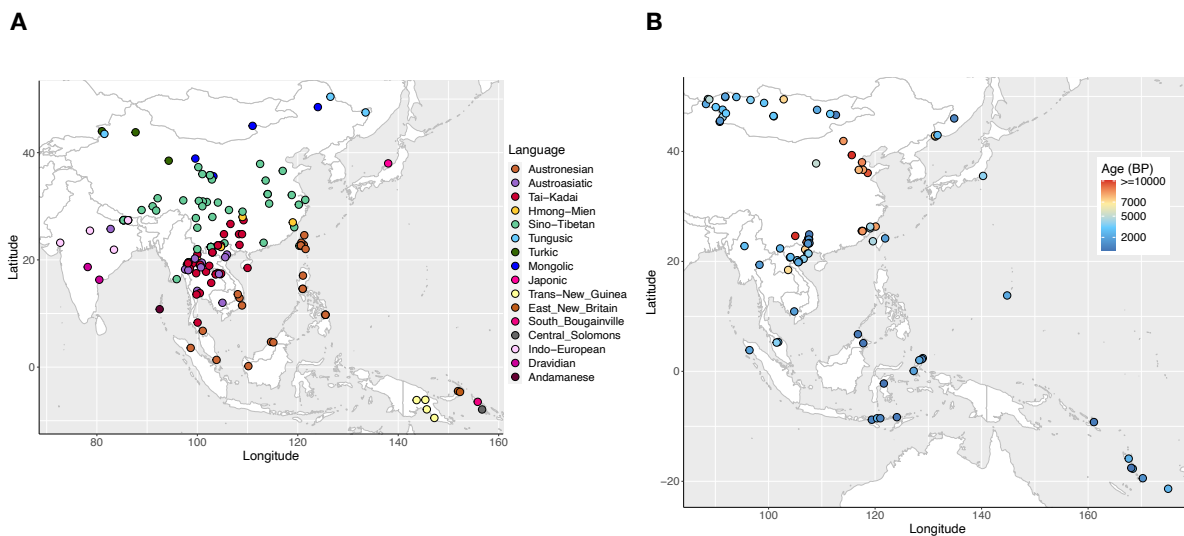
167 **SI References**

- 169 1. A. M. Ko *et al.*, Early Austronesians: into and out of Taiwan. *Am J Hum Genet* **94**, 426-436
170 (2014).
- 171 2. N. Patterson *et al.*, Ancient admixture in human history. *Genetics* **192**, 1065-1093 (2012).
- 172 3. I. Lazaridis *et al.*, Ancient human genomes suggest three ancestral populations for present-
173 day Europeans. *Nature* **513**, 409-413 (2014).
- 174 4. P. Qin, M. Stoneking, Denisovan Ancestry in East Eurasian and Native American Populations.
175 *Mol Biol Evol* **32**, 2665-2674 (2015).
- 176 5. P. Skoglund *et al.*, Genomic insights into the peopling of the Southwest Pacific. *Nature* **538**,
177 510-513 (2016).
- 178 6. M. Lipson *et al.*, Ancient genomes document multiple waves of migration in Southeast Asian
179 prehistory. *Science* **361**, 92-95 (2018).
- 180 7. D. Liu *et al.*, Extensive Ethnolinguistic Diversity in Vietnam Reflects Multiple Sources of
181 Genetic Diversity. *Mol Biol Evol* **37**, 2503-2519 (2020).
- 182 8. W. Kutanan *et al.*, Reconstructing the Human Genetic History of Mainland Southeast Asia:
183 Insights from Genome-Wide Data from Thailand and Laos. *Mol Biol Evol* **38**, 3459-3477
184 (2021).
- 185 9. C. C. Wang *et al.*, Genomic insights into the formation of human populations in East Asia.
186 *Nature* **591**, 413-+ (2021).
- 187 10. S. Purcell *et al.*, PLINK: A Tool Set for Whole-Genome Association and Population-Based
188 Linkage Analyses. *The American Journal of Human Genetics* **81**, 559-575 (2007).
- 189 11. A. Manichaikul *et al.*, Robust relationship inference in genome-wide association studies.
190 *Bioinformatics* **26**, 2867-2873 (2010).
- 191 12. C. C. Chang *et al.*, Second-generation PLINK: Rising to the challenge of larger and richer
192 datasets. *GigaScience* **4**, 1-16 (2015).
- 193 13. M. A. Yang *et al.*, 40,000-Year-Old Individual from Asia Provides Insight into Early Population
194 Structure in Eurasia. *Current Biology* **27**, 3202-3208.e3209 (2017).
- 195 14. H. McColl *et al.*, The prehistoric peopling of Southeast Asia. *Science* **361**, 88-92 (2018).
- 196 15. M. Lipson *et al.*, Population Turnover in Remote Oceania Shortly after Initial Settlement.
197 *Current Biology* **28**, 1157-1165.e1157 (2018).
- 198 16. C. Posth *et al.*, Language continuity despite population replacement in Remote Oceania.
199 *Nature Ecology and Evolution* **2**, 731-740 (2018).
- 200 17. M. Lipson *et al.*, Three Phases of Ancient Migration Shaped the Ancestry of Human
201 Populations in Vanuatu. *Curr Biol* **30**, 4846-4856 e4846 (2020).

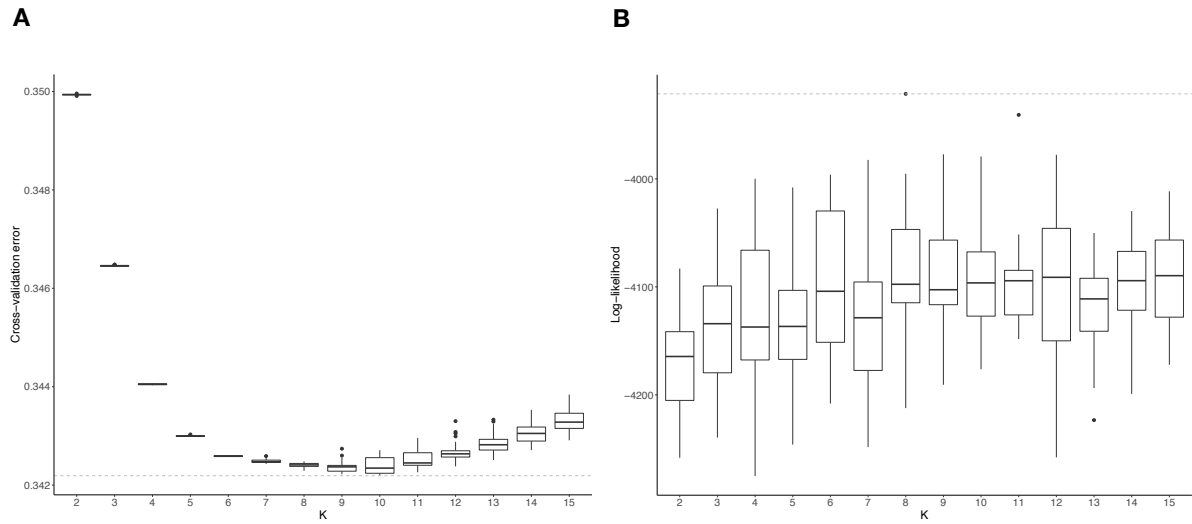
- 202 18. M. A. Yang *et al.*, Ancient DNA indicates human population shifts and admixture in northern
203 and southern China. *Science* **369**, 282-+ (2020).
- 204 19. T. Y. Wang *et al.*, Human population history at the crossroads of East and Southeast Asia
205 since 11,000 years ago. *Cell* **184**, 3829-+ (2021).
- 206 20. I. Pugach *et al.*, Ancient DNA from Guam and the peopling of the Pacific. *Proc Natl Acad Sci*
207 *U S A* **118** (2021).
- 208 21. S. Oliveira *et al.*, Ancient genomes from the last three millennia support multiple human
209 dispersals into Wallacea. *Nat Ecol Evol* **6**, 1024-1034 (2022).
- 210 22. N. Patterson, A. L. Price, D. Reich, Population Structure and Eigenanalysis. *PLoS genetics* **2**,
211 e190 (2006).
- 212 23. D. H. Alexander, J. Novembre, K. Lange, Fast model-based estimation of ancestry in
213 unrelated individuals. *Genome research* **19**, 1655-1664 (2009).
- 214 24. T. A. Joseph, I. Pe'er, Inference of Population Structure from Time-Series Genotype Data. *Am*
215 *J Hum Genet* **105**, 317-333 (2019).
- 216 25. J. N. Fenner, Cross-cultural estimation of the human generation interval for use in genetics-
217 based population divergence studies. *Am J Phys Anthropol* **128**, 415-423 (2005).
- 218 26. M. Petr, B. Vernot, J. Kelso, admixr —R package for reproducible analyses using
219 ADMIXTOOLS *Bioinformatics* 10.1093/bioinformatics/btz030, 1-2 (2019).
- 220 27. Q. Fu *et al.*, Genome sequence of a 45,000-year-old modern human from western Siberia.
221 *Nature* **514**, 445-449 (2014).
- 222 28. A. Seguin-Orlando *et al.*, Paleogenomics. Genomic structure in Europeans dating back at
223 least 36,200 years. *Science* **346**, 1113-1118 (2014).
- 224 29. M. Gallego Llorente *et al.*, Ancient Ethiopian genome reveals extensive Eurasian admixture
225 throughout the African continent. *Science* **350**, 820-822 (2015).
- 226 30. I. Lazaridis *et al.*, Genomic insights into the origin of farming in the ancient Near East. *Nature*
227 **536**, 419-424 (2016).
- 228 31. Q. Fu *et al.*, The genetic history of Ice Age Europe. *Nature* **534**, 200-205 (2016).
- 229 32. J. V. Moreno-Mayar *et al.*, Early human dispersals within the Americas. *Science* **362** (2018).
- 230 33. P. B. Damgaard *et al.*, The first horse herders and the impact of early Bronze Age steppe
231 expansions into Asia. *Science* **360** (2018).
- 232 34. V. M. Narasimhan *et al.*, The formation of human populations in South and Central Asia.
233 *Science* **365** (2019).
- 234 35. M. Sikora *et al.*, The population history of northeastern Siberia since the Pleistocene. *Nature*
235 **570**, 182-188 (2019).
- 236 36. O. Delaneau, J. F. Zagury, M. R. Robinson, J. L. Marchini, E. T. Dermitzakis, Accurate,
237 scalable and integrative haplotype estimation. *Nat Commun* **10**, 5436 (2019).
- 238 37. C. Genomes Project *et al.*, A global reference for human genetic variation. *Nature* **526**, 68-74
239 (2015).
- 240 38. D. J. Lawson, G. Hellenthal, S. Myers, D. Falush, Inference of Population Structure using
241 Dense Haplotype Data. *Plos Genetics* **8** (2012).
- 242 39. G. Hellenthal *et al.*, A Genetic Atlas of Human Admixture History. *Science* **343**, 747-751
243 (2014).
- 244 40. B. L. Browning, S. R. Browning, Improving the accuracy and efficiency of identity-by-descent
245 detection in population data. *Genetics* **194**, 459-471 (2013).
- 246 41. H. Al-Asadi, D. Petkova, M. Stephens, J. Novembre, Estimating recent migration and
247 population-size surfaces. *PLoS genetics* **15**, e1007908 (2019).
- 248 42. R. Maier, P. Flegontov, O. Flegontova, P. Changmai, D. Reich, On the limits of fitting complex
249 models of population history to genetic data. *bioRxiv* 10.1101/2022.05.08.491072 (2022).

250

251

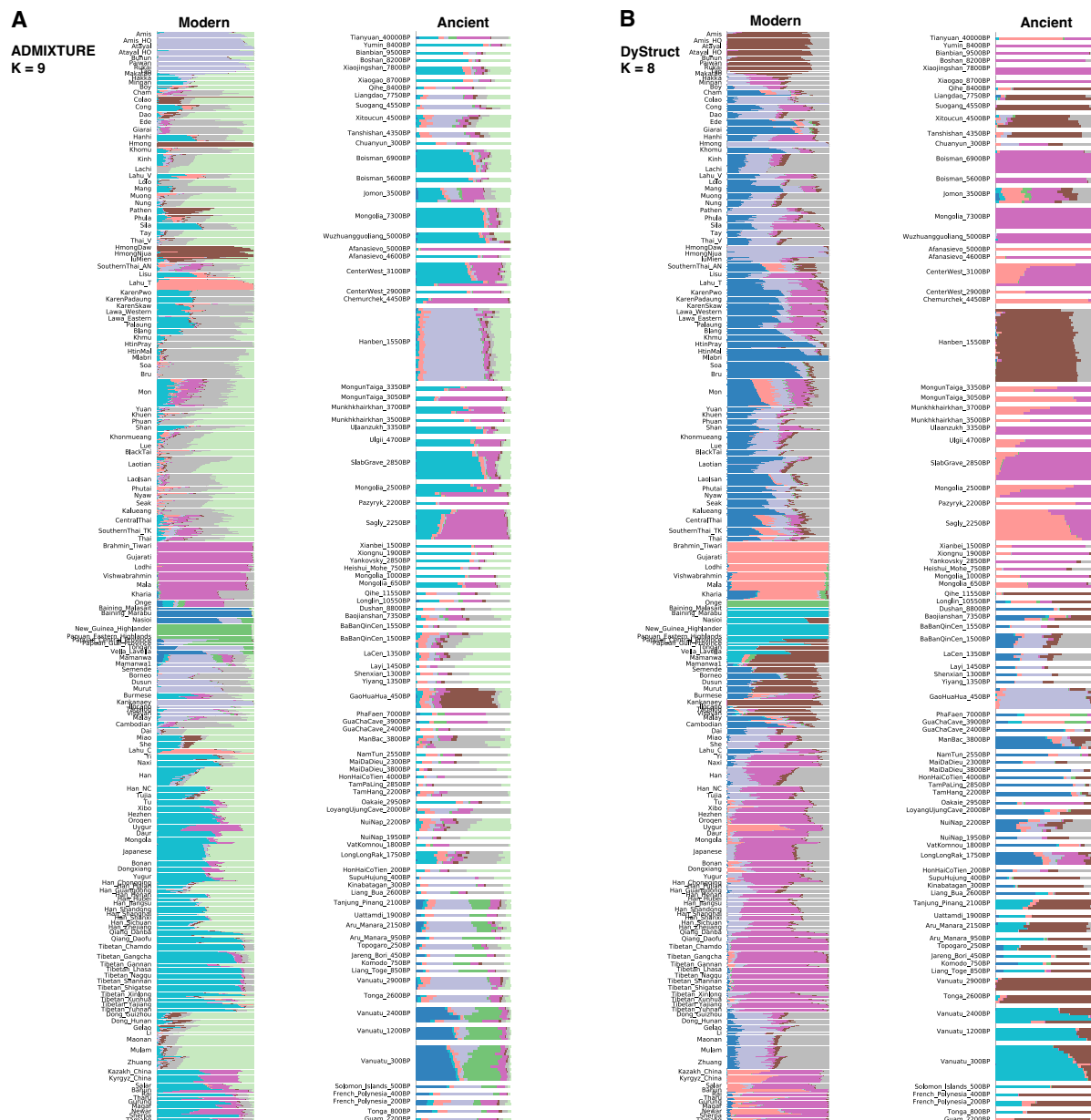


254
255 **Fig. S1. Map of comparative data.** Maps of comparative (A) modern and (B) ancient published data,
256 colored by languages and sample ages, respectively. More details are in Table S1.
257



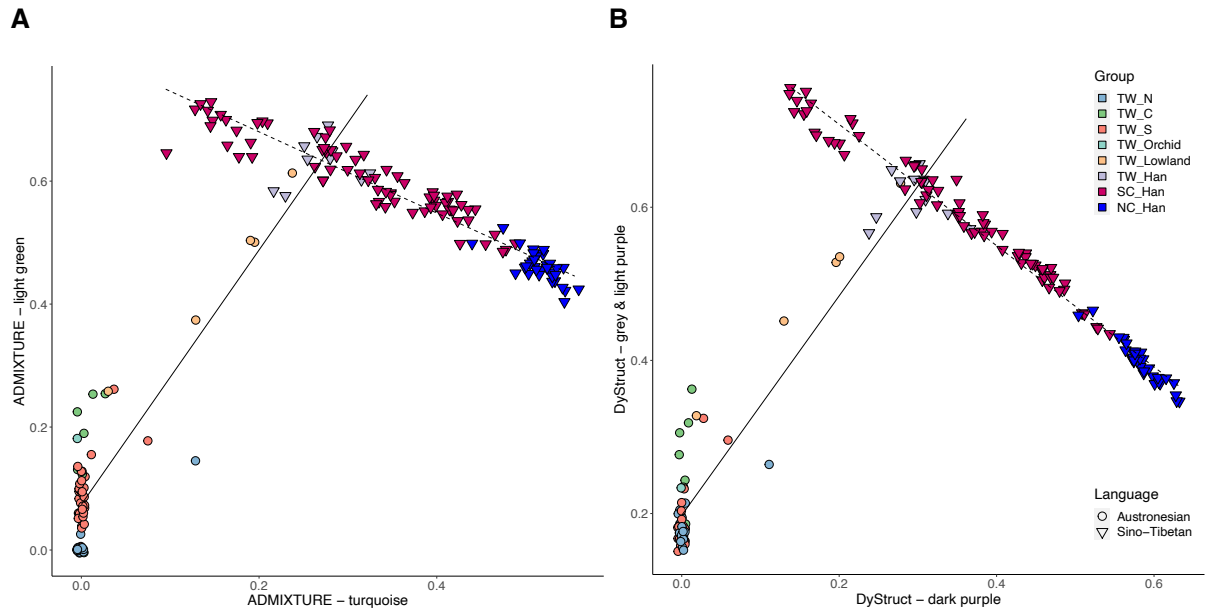
258
 259
 260
 261
 262
 263
 264

Fig. S2. Identifying the best-fitting K for ADMIXTURE and DyStruct analyses. (A) Cross-validation error plot for ADMIXTURE from K = 2 to K = 15. The best-fitting K (lowest cross-validation error) is K = 9. (B) Likelihood plot for DyStruct from K = 2 to K = 15, indicating that the best-fitting K (highest likelihood) is K = 8. We ran 100 independent runs for ADMIXTURE (20 for DyStruct) for each K, and we show the runs with the highest likelihood for the best-fitting values of K in Fig. 2.



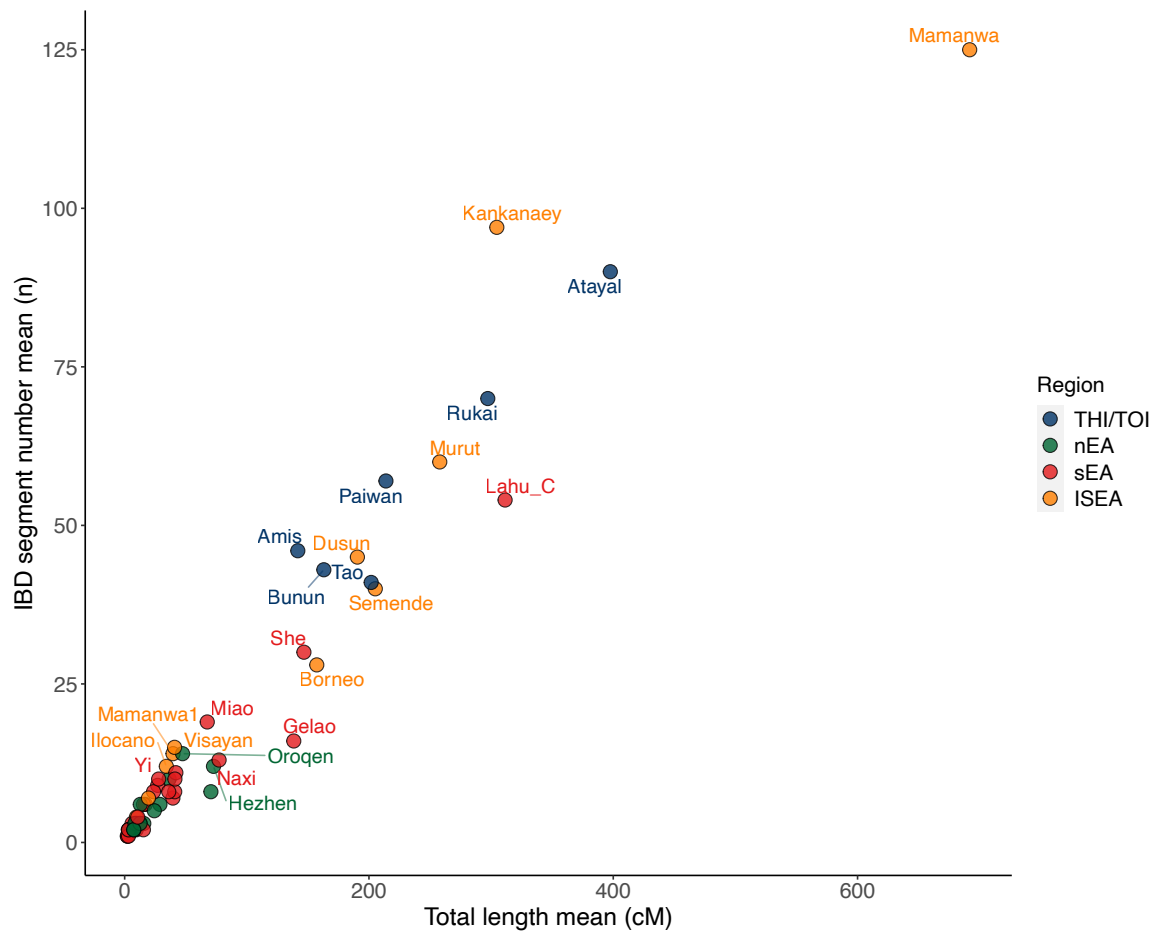
266
267
268
269
270

Fig. S3. Full results of the best-fitting K for the ADMIXTURE and DyStruct analyses. The highest likelihood run of (A) ADMIXTURE for K = 9 and (B) DyStruct for K = 8, with the modern groups listed on the left and the ancient samples on the right.

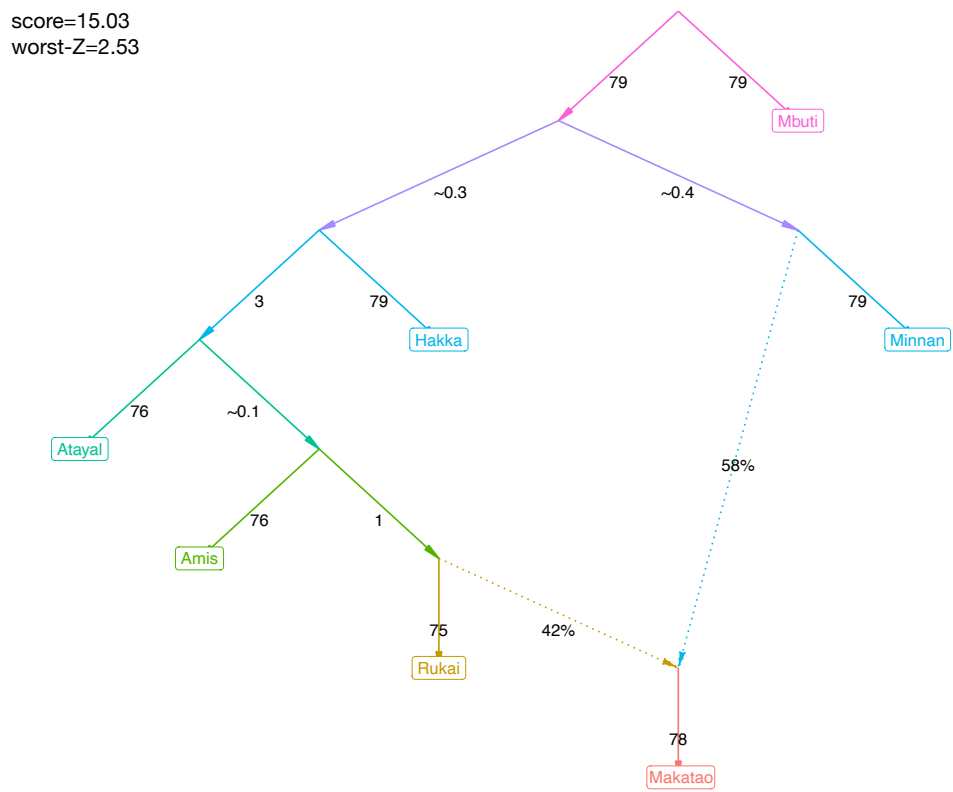


271
 272
 273
 274
 275
 276
 277
 278
 279
 280
 281
 282

Fig. S4. ADMIXTURE and DyStruct Han-related components in the Taiwanese groups. We plotted the components that showed in some Taiwanese groups and were largely shared with the Han groups from China from the best-fitting K of (A) ADMIXTURE and (B) DyStruct results. Individuals were plotted as dots/triangles (according to language) and colored by groups. TW denotes Taiwan, and N, C, S denote northern, central, southern Highland groups, respectively. SC_Han/NC_Han denote the southern/northern Han groups from China. The light green ADMIXTURE (grey and light purple DyStruct) component is negatively correlated with the turquoise ADMIXTURE (dark purple DyStruct) component for the Chinese Han groups ($r^2=0.921$, $p=0$ for ADMIXTURE; $r^2=0.983$, $p=0$ for DyStruct), but they are positively correlated in the Taiwanese groups ($r^2=0.913$, $p=0$ for ADMIXTURE; $r^2=0.926$, $p=0$ for DyStruct).

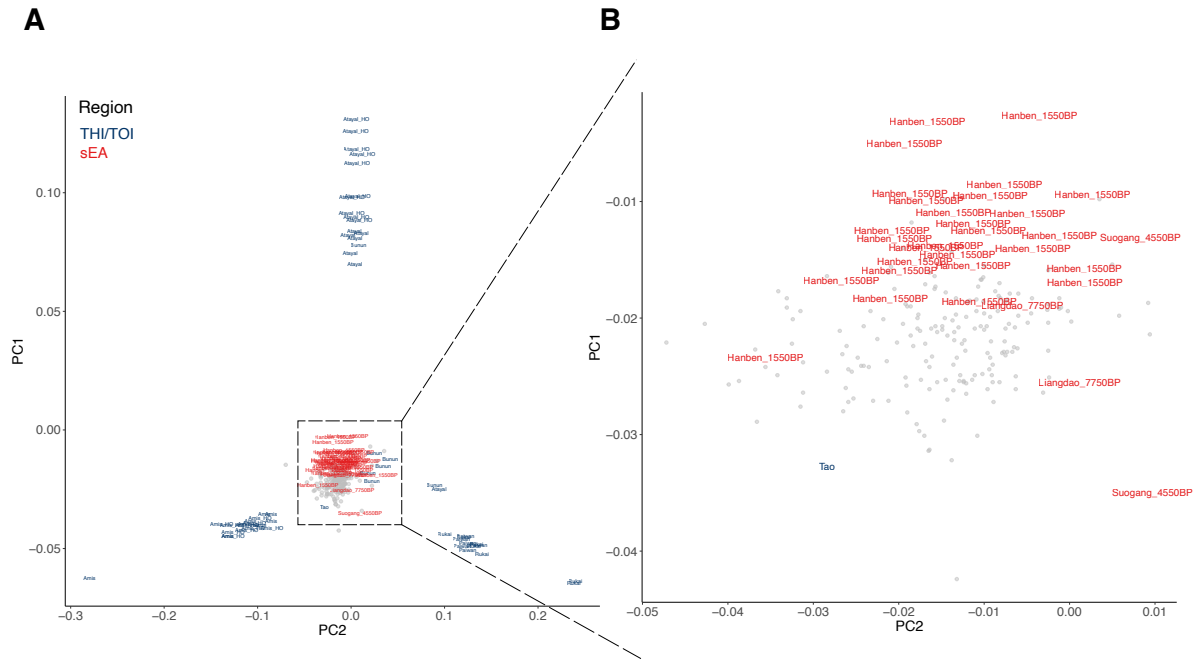


283
 284 **Fig. S5. Within group IBD sharing.** We plotted on the x-axis the mean of the summed length of IBD
 285 segments, and on the y-axis the mean number of IBD segments for groups from nEA, sEA, and ISEA
 286 (colored accordingly). The THI/TOI groups are highlighted in another color.
 287



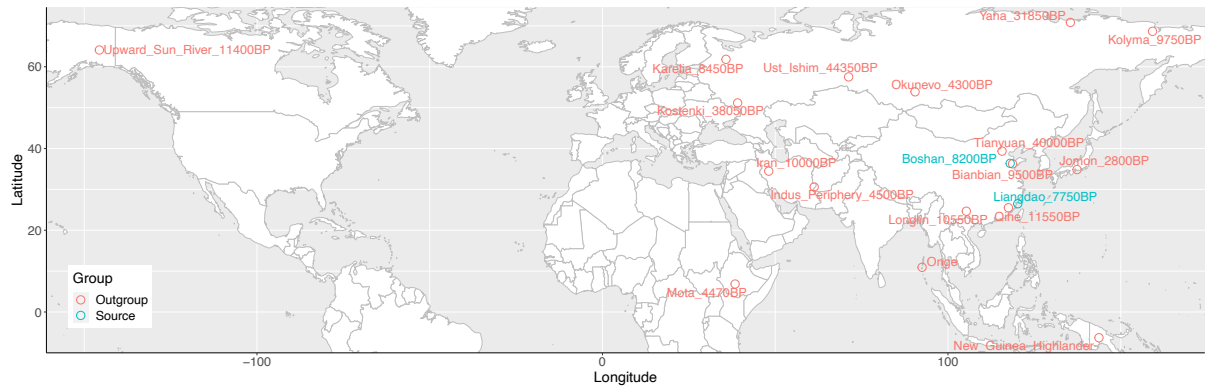
289
290
291
292
293
294

Fig. S6. Best-fitting admixture graph for investigating admixture in the Lowland group Makatao. The numbers on the solid branch lines are in genetic drift units while those on the dashed lines indicate ancestry proportions. The ADMIXTOOLS 2 graph score and the worst-fitting Z score are shown on the top-left.

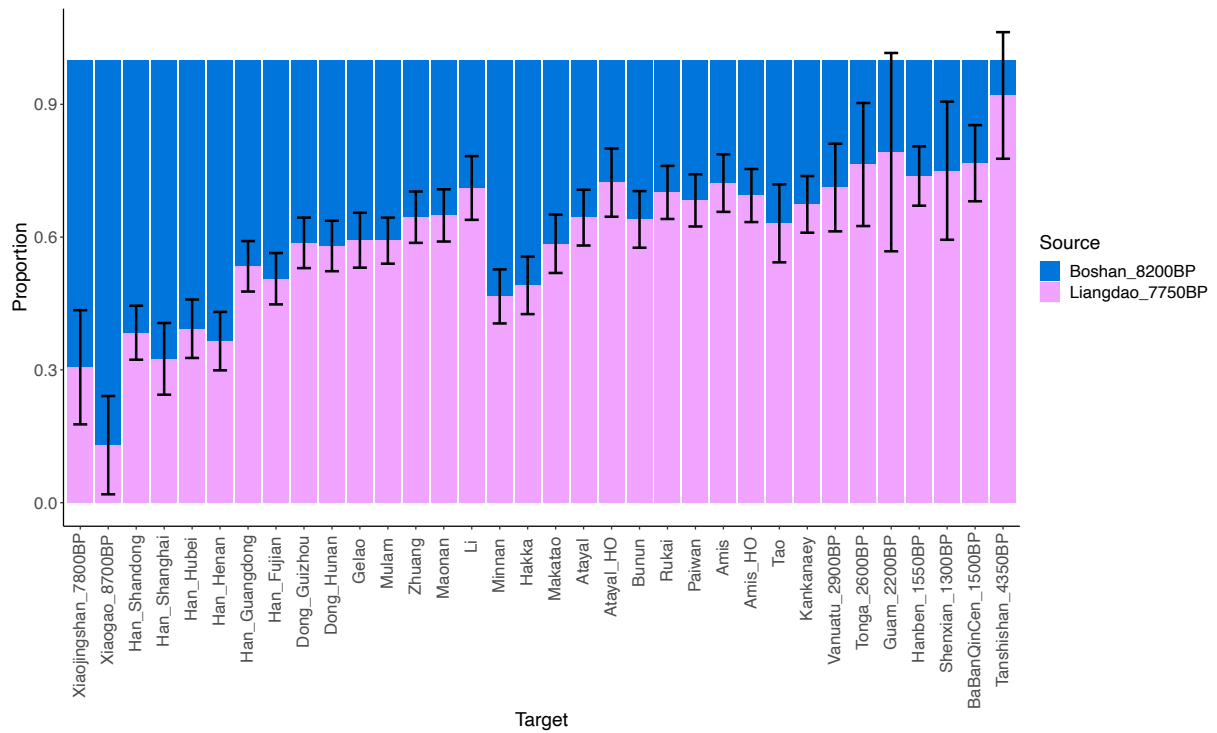


295
 296
 297
 298
 299
 300

Fig. S7. THI/TOI PCA with a focus on the projected ancient Taiwan-related individuals. (A) the full results and (B) zoom-in of (A) on the projected ancient sEA individuals. Our focusing groups are colored by regions while the other projected ancient individuals are colored in grey to provide an overall background variation.



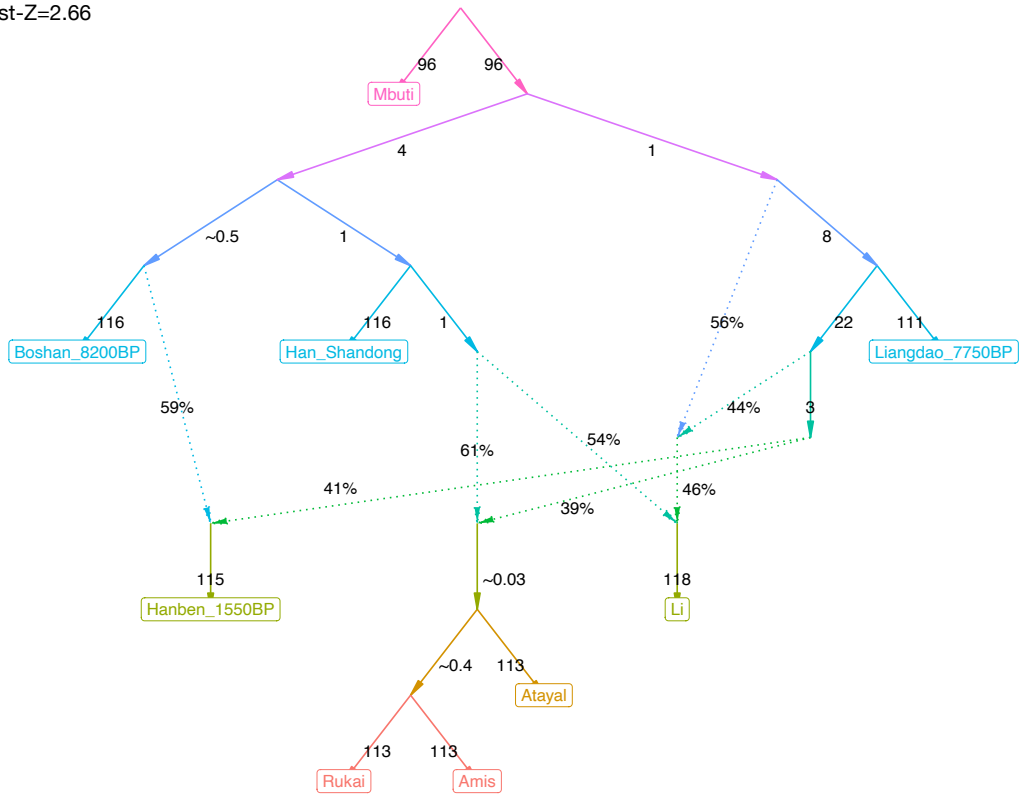
301
 302 **Fig. S8. Map of source groups and outgroups for qpAdm.**
 303



304
 305
 306
 307

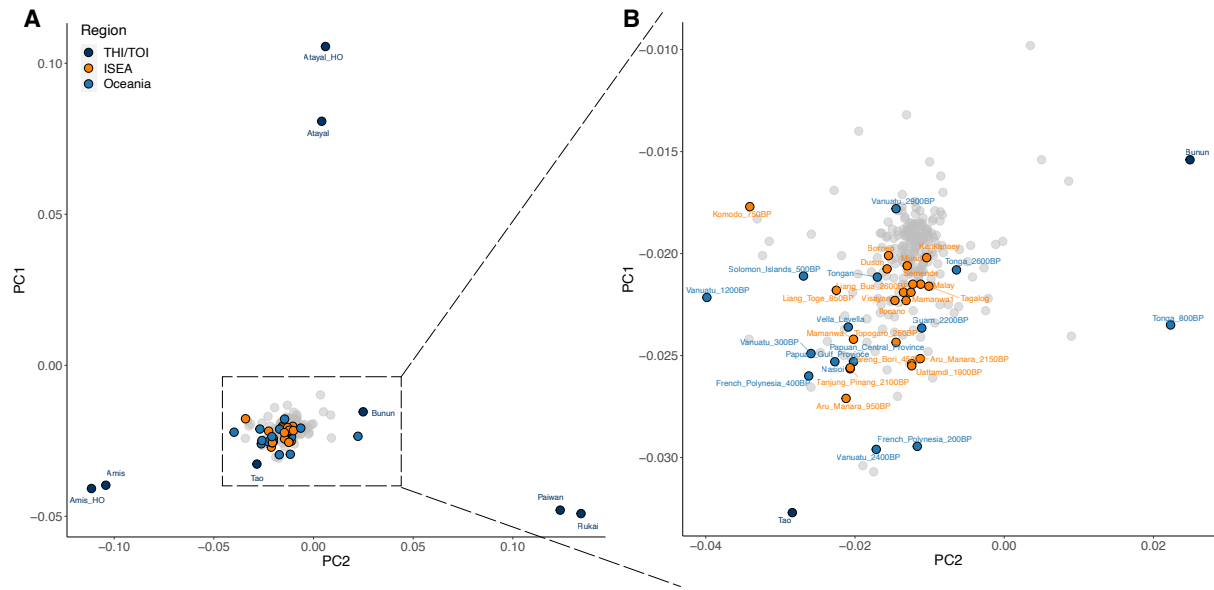
Fig. S9. Bar plot visualization of the qpAdm results. The error bars indicate the mean +/- one standard error.

score=23.18
 worst-Z=2.66



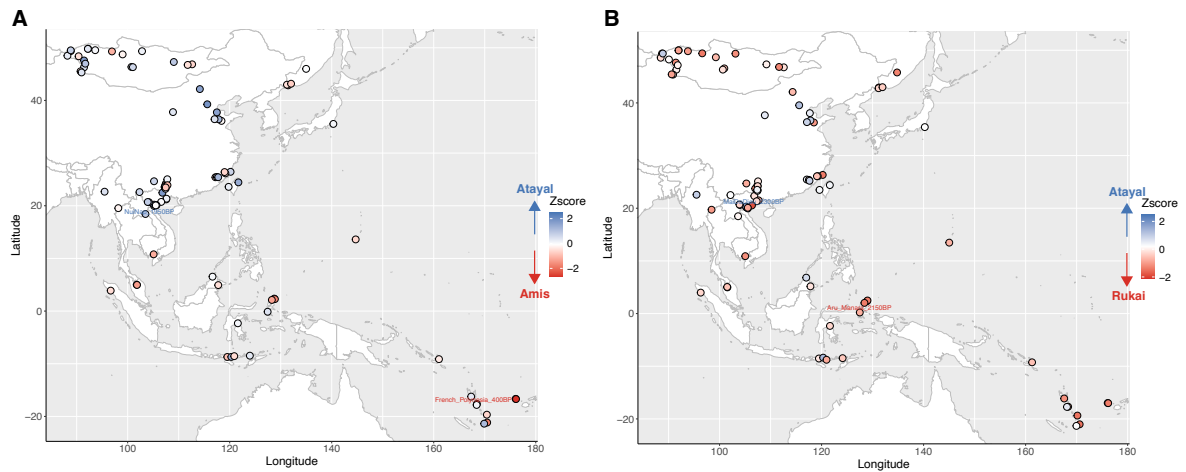
308
 309
 310
 311
 312

Fig. S10. Best-fitting admixture graph for the Into-Taiwan events. The numbers on the solid lines are in genetic drift units while those on the dashed lines indicate ancestry proportions. The ADMIXTOOLS 2 graph score and the worst-fitting Z score are shown on the top-left.



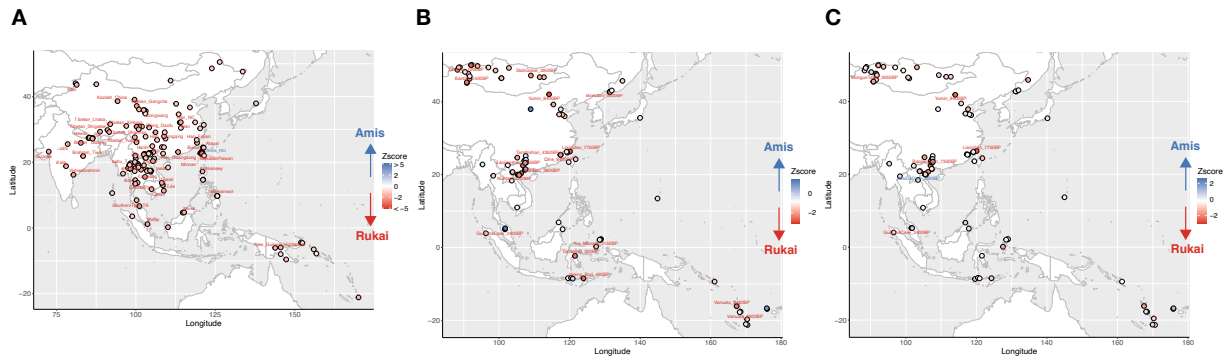
313
 314
 315
 316
 317
 318
 319
 320

Fig. S11. THI/TOI PCA with a focus on the projected Austronesian-related ISEA/Oceanian groups. The PCA was computed using only the THI/TOI groups. (A) the full results and (B) zoom-in of (A) show the projected modern and ancient groups with a focus on the ISEA/Oceanian groups whose individuals have at least 10% Austronesian-related (purple) component in ADMIXTURE K=9 (Fig. 2; Fig. S3). Dots represent the median position of individuals from a group. Our focusing groups are colored by regions while the other projected groups are colored in grey to provide an overall background variation.



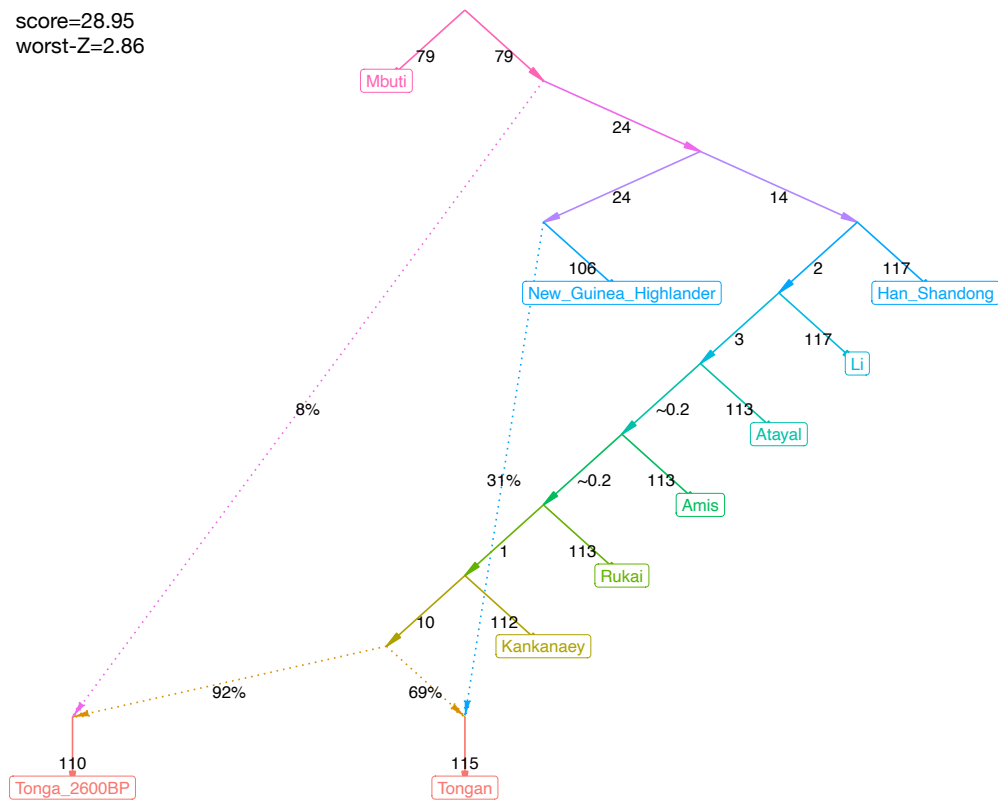
321
 322
 323
 324
 325
 326
 327
 328
 329

Fig. S12. Differential allelic sharing to the ancient groups from East Asia and Oceania between the Atayal and Rukai/Amis using only transversions and the French as an outgroup. Results of the form $f_4(\text{Atayal}, X; \text{ancient groups from East Asia and Oceania}, \text{French})$ where X is Amis (A) / Rukai (B). The ancient groups are plotted as dots on the map, colored in proportion to Z score. Positive values (in blue) indicate more sharing with the Atayal while negative values (in red) indicate more sharing with the Amis/Rukai. Significant values (absolute Z score value ≥ 2) are further labelled with the population name.



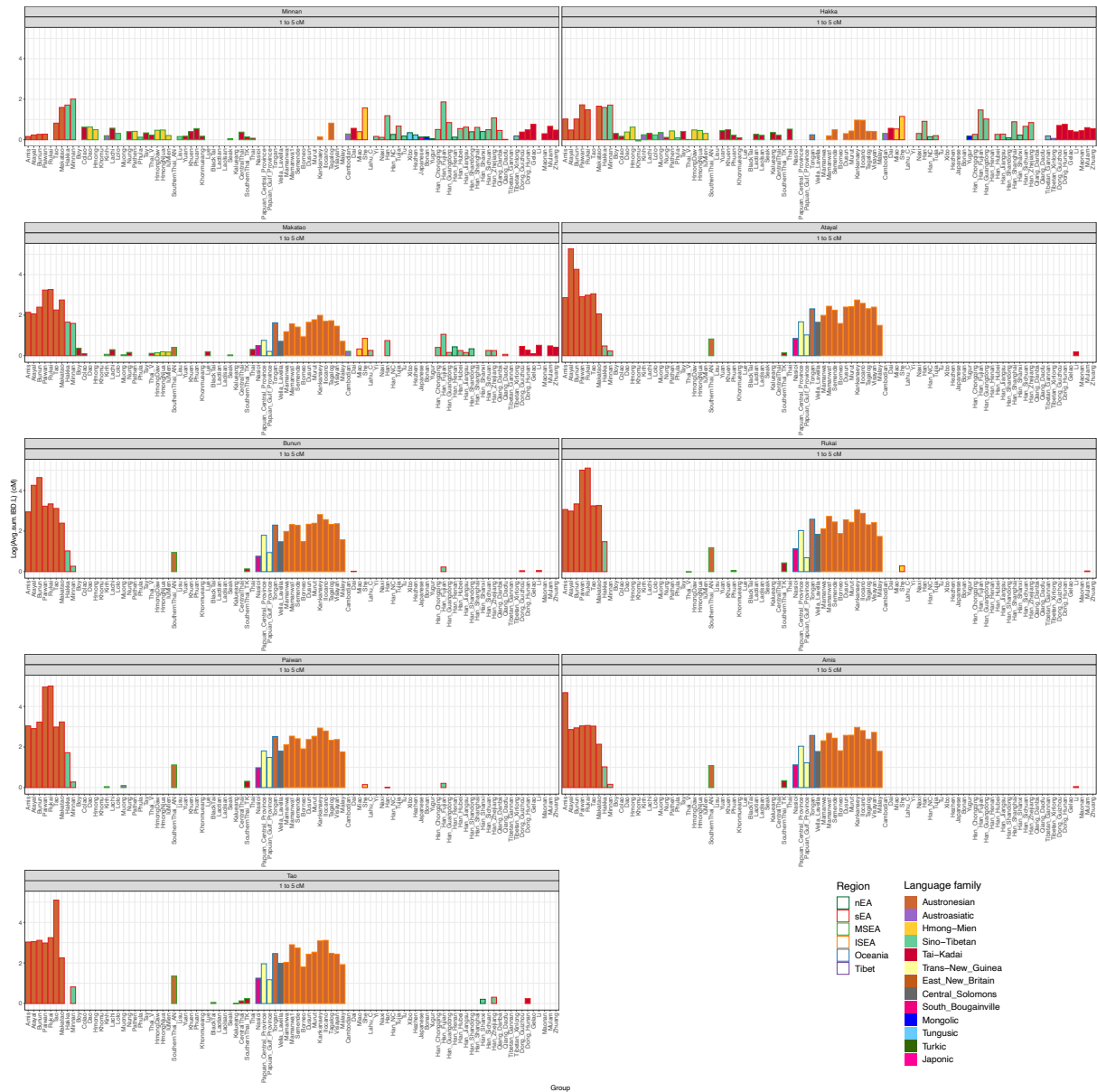
330
 331 **Fig. S13. Differential allelic sharing to the modern/ancient groups from East Asia and Oceania**
 332 **between the Atayal and Rukai/Amis.** Results of the form $f_4(\text{Amis, Rukai; Y, Mbuti})$ where Y are
 333 modern (A) / ancient (B) groups from East Asia and Oceania. Additional tests (C) are results of the form
 334 $f_4(\text{Amis, Rukai; ancient groups, French})$ using only transversions, which reduces false positives caused
 335 by DNA damage and/or attraction to deep outgroups but also the statistical power due to the decreased
 336 number of SNPs. The modern/ancient groups are plotted as dots on the map, colored in proportion to
 337 Z score. Positive values (in blue) indicate more sharing with the Amis while negative values (in red)
 338 indicate more sharing with the Rukai. Significant values (absolute Z score value ≥ 2) are labelled with
 339 the population name.
 340

score=28.95
worst-Z=2.86



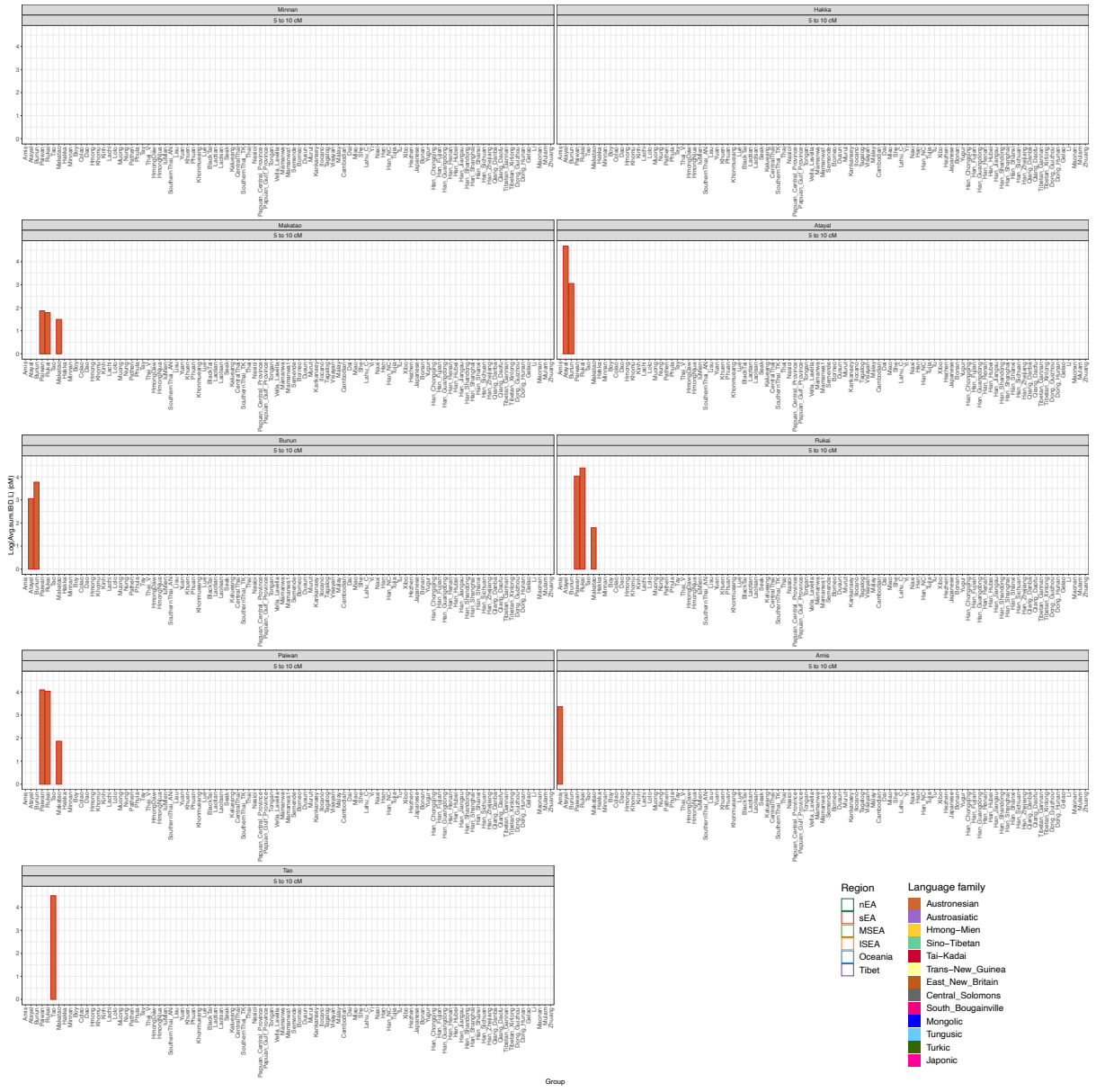
341
342
343
344
345

Fig. S14. Best-fitting admixture graph for the Out-of-Taiwan events. The numbers on the solid lines are in genetic drift units while those on the dashed lines indicate the ancestry proportions. The ADMIXTOOLS 2 graph score and the worst-fitting Z score are shown on the top-left.



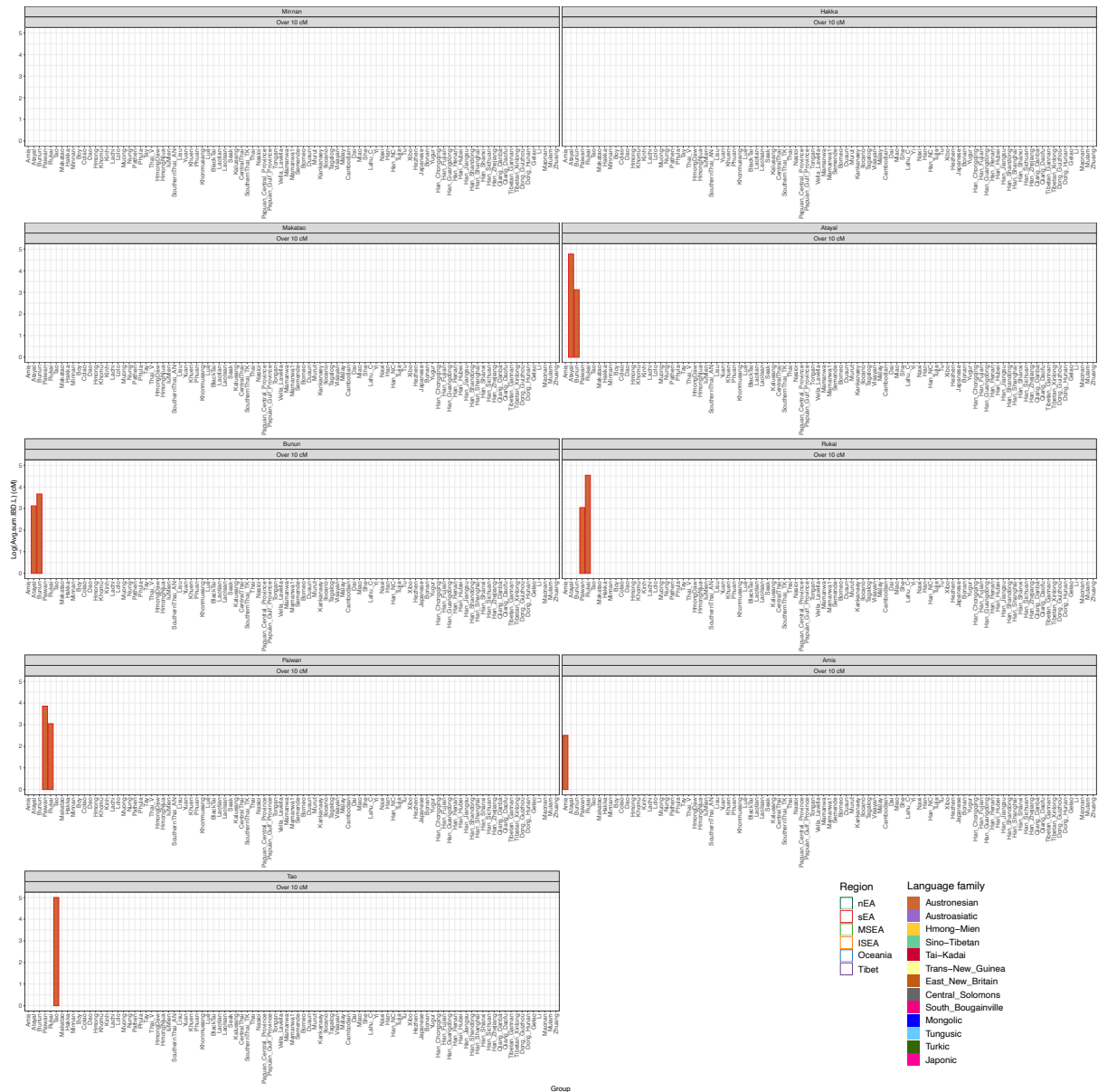
346
 347
 348
 349
 350
 351
 352
 353

Fig. S15. Quantification of all IBD sharing between each Taiwanese group and East Asian (including other Taiwanese) and Oceanian groups in segment size range of 1 to 5 cM. The average summed IBD length between the Taiwanese groups (in rows) and other East Asian and Oceanian groups is depicted in the bar plots; filled bars are colored according to the languages spoken by the compared East Asian/Oceanian groups shown on the x-axis while the outline color of the empty bars indicates their regions.



354
 355
 356
 357
 358
 359
 360
 361

Fig. S16. Quantification of all IBD sharing between each Taiwanese group and East Asian (including other Taiwanese) and Oceanian groups in segment size range of 5 to 10 cM. The average summed IBD length between the Taiwanese groups (in rows) and other East Asian and Oceanian groups is depicted in the bar plots; filled bars are colored according to the languages spoken by the compared East Asian/Oceanian groups shown on the x-axis while the outline color of the empty bars indicates their regions.



362
 363
 364
 365
 366
 367
 368
 369

Fig. S17. Quantification of all IBD sharing between each Taiwanese group and East Asian (including other Taiwanese) and Oceanian groups in segment size range of over 10 cM. The average summed IBD length between the Taiwanese groups (in rows) and other East Asian and Oceanian groups is depicted in the bar plots; filled bars are colored according to the languages spoken by the compared East Asian/Oceanian groups shown on the x-axis while the outline color of the empty bars indicates their regions.

370 **Supplementary Tables**

371

372 **Table.S1. Metadata of the individuals in this study.** In the column “Region”, sEA is southern East
 373 Asia, nEA is northern East Asia, MSEA is Mainland Southeast Asia, and ISEA is Island Southeast Asia.
 374 The column “CP_Group” shows the group used for the grouping in the ChromoPainter analyses. In the
 375 column “QC”, imiss stands for missingness per individual, kin stands for 1st degree kinship, and ancient
 376 individuals only used in qpAdm as outgroups are noted.
 377

Individual_ID	Population	Region	Country	Type	Age	Language	Latitude	Longitude	CP_Group	TW_Group	Reference	QC
TA199	Amis	sEA	Taiwan	modern	0	Austronesian	22.84	121.19	Amis	TW_S	This_study	PASS
TA29	Amis	sEA	Taiwan	modern	0	Austronesian	22.84	121.19	Amis	TW_S	This_study	PASS
TA245	Amis	sEA	Taiwan	modern	0	Austronesian	22.84	121.19	Amis	TW_S	This_study	PASS
TA81	Amis	sEA	Taiwan	modern	0	Austronesian	22.84	121.19	Amis	TW_S	This_study	PASS
TA258	Amis	sEA	Taiwan	modern	0	Austronesian	22.84	121.19	Amis	TW_S	This_study	PASS
TA95	Amis	sEA	Taiwan	modern	0	Austronesian	22.84	121.19	Amis	TW_S	This_study	PASS
TA101	Amis	sEA	Taiwan	modern	0	Austronesian	22.84	121.19	Amis	TW_S	This_study	PASS
TA131	Amis	sEA	Taiwan	modern	0	Austronesian	22.84	121.19	Amis	TW_S	This_study	PASS
TA138	Amis	sEA	Taiwan	modern	0	Austronesian	22.84	121.19	Amis	TW_S	This_study	PASS
ata34	Atayal	sEA	Taiwan	modern	0	Austronesian	24.61	121.3	Atayal	TW_N	This_study	PASS
ata46	Atayal	sEA	Taiwan	modern	0	Austronesian	24.61	121.3	Atayal	TW_N	This_study	PASS
ata30	Atayal	sEA	Taiwan	modern	0	Austronesian	24.61	121.3	Atayal	TW_N	This_study	PASS
ata141	Atayal	sEA	Taiwan	modern	0	Austronesian	24.61	121.3	Atayal	TW_N	This_study	PASS
ata10	Atayal	sEA	Taiwan	modern	0	Austronesian	24.61	121.3	Atayal	TW_N	This_study	PASS
ata4	Atayal	sEA	Taiwan	modern	0	Austronesian	24.61	121.3	Atayal	TW_N	This_study	PASS
ata1	Atayal	sEA	Taiwan	modern	0	Austronesian	24.61	121.3	Atayal	TW_N	This_study	PASS
bun55	Bunun	sEA	Taiwan	modern	0	Austronesian	23.21	120.7	Bunun	TW_C	This_study	PASS
bun34	Bunun	sEA	Taiwan	modern	0	Austronesian	23.21	120.7	Bunun	TW_C	This_study	PASS
bun32	Bunun	sEA	Taiwan	modern	0	Austronesian	23.21	120.7	Bunun	TW_C	This_study	PASS
bun38	Bunun	sEA	Taiwan	modern	0	Austronesian	23.21	120.7	Bunun	TW_C	This_study	PASS
bun30	Bunun	sEA	Taiwan	modern	0	Austronesian	23.21	120.7	Bunun	TW_C	This_study	PASS
bun39	Bunun	sEA	Taiwan	modern	0	Austronesian	23.21	120.7	Bunun	TW_C	This_study	PASS
bun48	Bunun	sEA	Taiwan	modern	0	Austronesian	23.21	120.7	Bunun	TW_C	This_study	PASS
pai10	Paiwan	sEA	Taiwan	modern	0	Austronesian	22.68	120.69	Paiwan	TW_S	This_study	PASS
pai3	Paiwan	sEA	Taiwan	modern	0	Austronesian	22.68	120.69	Paiwan	TW_S	This_study	PASS
pai58	Paiwan	sEA	Taiwan	modern	0	Austronesian	22.68	120.69	Paiwan	TW_S	This_study	PASS
pai20	Paiwan	sEA	Taiwan	modern	0	Austronesian	22.68	120.69	Paiwan	TW_S	This_study	PASS
pai103	Paiwan	sEA	Taiwan	modern	0	Austronesian	22.68	120.69	Paiwan	TW_S	This_study	PASS
pai55	Paiwan	sEA	Taiwan	modern	0	Austronesian	22.68	120.69	Paiwan	TW_S	This_study	PASS
pai25	Paiwan	sEA	Taiwan	modern	0	Austronesian	22.68	120.69	Paiwan	TW_S	This_study	imiss
ruk487	Rukai	sEA	Taiwan	modern	0	Austronesian	22.7	120.61	Rukai	TW_S	This_study	PASS
ruk540	Rukai	sEA	Taiwan	modern	0	Austronesian	22.7	120.61	Rukai	TW_S	This_study	PASS
ruk111	Rukai	sEA	Taiwan	modern	0	Austronesian	22.7	120.61	Rukai	TW_S	This_study	PASS
ruk502	Rukai	sEA	Taiwan	modern	0	Austronesian	22.7	120.61	Rukai	TW_S	This_study	PASS
ruk538	Rukai	sEA	Taiwan	modern	0	Austronesian	22.7	120.61	Rukai	TW_S	This_study	PASS
ruk499	Rukai	sEA	Taiwan	modern	0	Austronesian	22.7	120.61	Rukai	TW_S	This_study	PASS
ruk535	Rukai	sEA	Taiwan	modern	0	Austronesian	22.7	120.61	Rukai	TW_S	This_study	PASS
tao45	Tao	sEA	Taiwan	modern	0	Austronesian	22.03	121.55	Tao	TW_Orchid	This_study	PASS

pin33	Makatao	sEA	Taiwan	modern	0	Austronesian	22.6	120.61	Makatao	TW_Lowland	This_study	PASS
pin29	Makatao	sEA	Taiwan	modern	0	Austronesian	22.6	120.61	Makatao	TW_Lowland	This_study	PASS
pin74	Makatao	sEA	Taiwan	modern	0	Austronesian	22.6	120.61	Makatao	TW_Lowland	This_study	PASS
pin126	Makatao	sEA	Taiwan	modern	0	Austronesian	22.6	120.61	Makatao	TW_Lowland	This_study	PASS
pin81	Makatao	sEA	Taiwan	modern	0	Austronesian	22.6	120.61	Makatao	TW_Lowland	This_study	PASS
hak95	Hakka	sEA	Taiwan	modern	0	Sino-Tibetan	22.67	120.6	Hakka	TW_Han	This_study	PASS
hak19	Hakka	sEA	Taiwan	modern	0	Sino-Tibetan	22.67	120.6	Hakka	TW_Han	This_study	PASS
hak13	Hakka	sEA	Taiwan	modern	0	Sino-Tibetan	22.67	120.6	Hakka	TW_Han	This_study	PASS
hak23	Hakka	sEA	Taiwan	modern	0	Sino-Tibetan	22.67	120.6	Hakka	TW_Han	This_study	PASS
hak33	Hakka	sEA	Taiwan	modern	0	Sino-Tibetan	22.67	120.6	Hakka	TW_Han	This_study	PASS
hak36	Hakka	sEA	Taiwan	modern	0	Sino-Tibetan	22.67	120.6	Hakka	TW_Han	This_study	PASS
min186	Minnan	sEA	Taiwan	modern	0	Sino-Tibetan	22.63	120.31	Minnan	TW_Han	This_study	PASS
min235	Minnan	sEA	Taiwan	modern	0	Sino-Tibetan	22.63	120.31	Minnan	TW_Han	This_study	PASS
min396	Minnan	sEA	Taiwan	modern	0	Sino-Tibetan	22.63	120.31	Minnan	TW_Han	This_study	PASS
min305	Minnan	sEA	Taiwan	modern	0	Sino-Tibetan	22.63	120.31	Minnan	TW_Han	This_study	PASS
min321	Minnan	sEA	Taiwan	modern	0	Sino-Tibetan	22.63	120.31	Minnan	TW_Han	This_study	PASS
min76	Minnan	sEA	Taiwan	modern	0	Sino-Tibetan	22.63	120.31	Minnan	TW_Han	This_study	PASS
BoY180	Boy	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.1	Boy	N.A.	Liu_et_al_2020	PASS
BoY181	Boy	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.1	Boy	N.A.	Liu_et_al_2020	kin
BoY182	Boy	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.1	Boy	N.A.	Liu_et_al_2020	PASS
BoY184	Boy	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.1	Boy	N.A.	Liu_et_al_2020	PASS
BoY185	Boy	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.1	Boy	N.A.	Liu_et_al_2020	PASS
BoY186	Boy	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.1	Boy	N.A.	Liu_et_al_2020	kin
BoY188	Boy	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.1	Boy	N.A.	Liu_et_al_2020	kin
BoY189	Boy	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.1	Boy	N.A.	Liu_et_al_2020	PASS
BoY190	Boy	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.1	Boy	N.A.	Liu_et_al_2020	PASS
BoY191	Boy	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.1	Boy	N.A.	Liu_et_al_2020	kin
BoY192_2	Boy	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.1	Boy	N.A.	Liu_et_al_2020	kin
BoY193_2	Boy	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.1	Boy	N.A.	Liu_et_al_2020	kin
Cham58	Cham	MSEA	Vietnam	modern	0	Austronesian	11.5	108.9	Cham	N.A.	Liu_et_al_2020	PASS
Cham64	Cham	MSEA	Vietnam	modern	0	Austronesian	11.5	108.9	Cham	N.A.	Liu_et_al_2020	PASS
Cham66	Cham	MSEA	Vietnam	modern	0	Austronesian	11.5	108.9	Cham	N.A.	Liu_et_al_2020	PASS
Cham75	Cham	MSEA	Vietnam	modern	0	Austronesian	11.5	108.9	Cham	N.A.	Liu_et_al_2020	PASS
Cham80	Cham	MSEA	Vietnam	modern	0	Austronesian	11.5	108.9	Cham	N.A.	Liu_et_al_2020	PASS
Cham83	Cham	MSEA	Vietnam	modern	0	Austronesian	11.5	108.9	Cham	N.A.	Liu_et_al_2020	PASS
Cham89	Cham	MSEA	Vietnam	modern	0	Austronesian	11.5	108.9	Cham	N.A.	Liu_et_al_2020	PASS
Cham127	Cham	MSEA	Vietnam	modern	0	Austronesian	11.5	108.9	Cham	N.A.	Liu_et_al_2020	PASS
Cham133	Cham	MSEA	Vietnam	modern	0	Austronesian	11.5	108.9	Cham	N.A.	Liu_et_al_2020	PASS
Cham137	Cham	MSEA	Vietnam	modern	0	Austronesian	11.5	108.9	Cham	N.A.	Liu_et_al_2020	PASS
CoLao566	Colao	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Colao	N.A.	Liu_et_al_2020	PASS
CoLao567	Colao	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Colao	N.A.	Liu_et_al_2020	PASS
CoLao568	Colao	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Colao	N.A.	Liu_et_al_2020	PASS
CoLao569	Colao	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Colao	N.A.	Liu_et_al_2020	PASS
CoLao570	Colao	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Colao	N.A.	Liu_et_al_2020	PASS

CoLao571	Colao	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Colao	N.A.	Liu_et_al_2020	PASS
CoLao572	Colao	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Colao	N.A.	Liu_et_al_2020	PASS
CoLao573	Colao	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Colao	N.A.	Liu_et_al_2020	PASS
CoLao574	Colao	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Colao	N.A.	Liu_et_al_2020	PASS
CoLao575	Colao	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Colao	N.A.	Liu_et_al_2020	PASS
CoLao576	Colao	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Colao	N.A.	Liu_et_al_2020	PASS
CoLao577	Colao	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Colao	N.A.	Liu_et_al_2020	PASS
Cong410	Cong	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Cong	N.A.	Liu_et_al_2020	PASS
Cong411	Cong	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Cong	N.A.	Liu_et_al_2020	PASS
Cong412	Cong	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Cong	N.A.	Liu_et_al_2020	kin
Cong413	Cong	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Cong	N.A.	Liu_et_al_2020	PASS
Cong414	Cong	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Cong	N.A.	Liu_et_al_2020	PASS
Cong415	Cong	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Cong	N.A.	Liu_et_al_2020	PASS
Cong416	Cong	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Cong	N.A.	Liu_et_al_2020	PASS
Cong420	Cong	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Cong	N.A.	Liu_et_al_2020	PASS
Cong421	Cong	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Cong	N.A.	Liu_et_al_2020	PASS
Cong423	Cong	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Cong	N.A.	Liu_et_al_2020	PASS
Cong424	Cong	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Cong	N.A.	Liu_et_al_2020	PASS
Cong425	Cong	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Cong	N.A.	Liu_et_al_2020	PASS
Dao50	Dao	MSEA	Vietnam	modern	0	Hmong-Mien	22.7	104.7	N.A.	N.A.	Liu_et_al_2020	PASS
Dao51	Dao	MSEA	Vietnam	modern	0	Hmong-Mien	22.7	104.7	N.A.	N.A.	Liu_et_al_2020	PASS
Dao52	Dao	MSEA	Vietnam	modern	0	Hmong-Mien	22.7	104.7	N.A.	N.A.	Liu_et_al_2020	PASS
Dao623	Dao	MSEA	Vietnam	modern	0	Hmong-Mien	22.7	104.7	N.A.	N.A.	Liu_et_al_2020	PASS
Dao624_2	Dao	MSEA	Vietnam	modern	0	Hmong-Mien	22.7	104.7	N.A.	N.A.	Liu_et_al_2020	PASS
Dao625	Dao	MSEA	Vietnam	modern	0	Hmong-Mien	22.7	104.7	N.A.	N.A.	Liu_et_al_2020	PASS
Dao626	Dao	MSEA	Vietnam	modern	0	Hmong-Mien	22.7	104.7	N.A.	N.A.	Liu_et_al_2020	PASS
Dao627	Dao	MSEA	Vietnam	modern	0	Hmong-Mien	22.7	104.7	N.A.	N.A.	Liu_et_al_2020	PASS
Dao629	Dao	MSEA	Vietnam	modern	0	Hmong-Mien	22.7	104.7	N.A.	N.A.	Liu_et_al_2020	PASS
Dao630	Dao	MSEA	Vietnam	modern	0	Hmong-Mien	22.7	104.7	N.A.	N.A.	Liu_et_al_2020	PASS
Dao631	Dao	MSEA	Vietnam	modern	0	Hmong-Mien	22.7	104.7	N.A.	N.A.	Liu_et_al_2020	PASS
Dao632	Dao	MSEA	Vietnam	modern	0	Hmong-Mien	22.7	104.7	N.A.	N.A.	Liu_et_al_2020	PASS
Ede61	Ede	MSEA	Vietnam	modern	0	Austronesian	12.9	108.1	Ede	N.A.	Liu_et_al_2020	PASS
Ede74	Ede	MSEA	Vietnam	modern	0	Austronesian	12.9	108.2	Ede	N.A.	Liu_et_al_2020	PASS
Ede95	Ede	MSEA	Vietnam	modern	0	Austronesian	12.7	108.8	Ede	N.A.	Liu_et_al_2020	PASS
Ede97	Ede	MSEA	Vietnam	modern	0	Austronesian	12.7	108	Ede	N.A.	Liu_et_al_2020	PASS
Ede102	Ede	MSEA	Vietnam	modern	0	Austronesian	13	108.4	Ede	N.A.	Liu_et_al_2020	PASS
Ede112	Ede	MSEA	Vietnam	modern	0	Austronesian	12.9	108.9	Ede	N.A.	Liu_et_al_2020	PASS
Ede123	Ede	MSEA	Vietnam	modern	0	Austronesian	12.9	108.2	Ede	N.A.	Liu_et_al_2020	PASS
Ede736	Ede	MSEA	Vietnam	modern	0	Austronesian	12.8	108.6	Ede	N.A.	Liu_et_al_2020	PASS
Ede737	Ede	MSEA	Vietnam	modern	0	Austronesian	13	108.4	Ede	N.A.	Liu_et_al_2020	PASS
Ede738	Ede	MSEA	Vietnam	modern	0	Austronesian	12.7	108.8	Ede	N.A.	Liu_et_al_2020	PASS
Ede740	Ede	MSEA	Vietnam	modern	0	Austronesian	12.7	108.8	Ede	N.A.	Liu_et_al_2020	PASS
Giarai60	Giarai	MSEA	Vietnam	modern	0	Austronesian	13.2	108.7	Giarai	N.A.	Liu_et_al_2020	PASS
Giarai67	Giarai	MSEA	Vietnam	modern	0	Austronesian	13.3	108.4	Giarai	N.A.	Liu_et_al_2020	PASS

Giarai91	Giarai	MSEA	Vietnam	modern	0	Austronesian	13.6	108.1	Giarai	N.A.	Liu_et_al_2020	PASS
Giarai100	Giarai	MSEA	Vietnam	modern	0	Austronesian	13.2	108.7	Giarai	N.A.	Liu_et_al_2020	PASS
Giarai107	Giarai	MSEA	Vietnam	modern	0	Austronesian	13.3	108.4	Giarai	N.A.	Liu_et_al_2020	PASS
Giarai124	Giarai	MSEA	Vietnam	modern	0	Austronesian	13.6	107.8	Giarai	N.A.	Liu_et_al_2020	PASS
Giarai134	Giarai	MSEA	Vietnam	modern	0	Austronesian	14.1	107.6	Giarai	N.A.	Liu_et_al_2020	PASS
Giarai716	Giarai	MSEA	Vietnam	modern	0	Austronesian	13.8	107.7	Giarai	N.A.	Liu_et_al_2020	PASS
Giarai718	Giarai	MSEA	Vietnam	modern	0	Austronesian	14.2	108	Giarai	N.A.	Liu_et_al_2020	PASS
Giarai719	Giarai	MSEA	Vietnam	modern	0	Austronesian	14	108	Giarai	N.A.	Liu_et_al_2020	PASS
Giarai722	Giarai	MSEA	Vietnam	modern	0	Austronesian	13.3	108.4	Giarai	N.A.	Liu_et_al_2020	PASS
Giarai723	Giarai	MSEA	Vietnam	modern	0	Austronesian	13.6	107.8	Giarai	N.A.	Liu_et_al_2020	PASS
HaNhi44	Hanhi	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Hanhi	N.A.	Liu_et_al_2020	PASS
HaNhi45	Hanhi	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Hanhi	N.A.	Liu_et_al_2020	PASS
HaNhi46	Hanhi	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Hanhi	N.A.	Liu_et_al_2020	PASS
HaNhi315	Hanhi	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Hanhi	N.A.	Liu_et_al_2020	PASS
HaNhi317	Hanhi	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Hanhi	N.A.	Liu_et_al_2020	PASS
HaNhi319	Hanhi	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Hanhi	N.A.	Liu_et_al_2020	PASS
HaNhi320	Hanhi	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Hanhi	N.A.	Liu_et_al_2020	PASS
HaNhi321	Hanhi	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Hanhi	N.A.	Liu_et_al_2020	PASS
HaNhi322	Hanhi	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Hanhi	N.A.	Liu_et_al_2020	kin
HaNhi323_2	Hanhi	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Hanhi	N.A.	Liu_et_al_2020	PASS
HaNhi328	Hanhi	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Hanhi	N.A.	Liu_et_al_2020	PASS
HaNhi329	Hanhi	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Hanhi	N.A.	Liu_et_al_2020	PASS
Hmong194	Hmong	MSEA	Vietnam	modern	0	Hmong-Mien	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
Hmong195	Hmong	MSEA	Vietnam	modern	0	Hmong-Mien	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
Hmong196_2	Hmong	MSEA	Vietnam	modern	0	Hmong-Mien	21.4	103	N.A.	N.A.	Liu_et_al_2020	kin
Hmong197_1	Hmong	MSEA	Vietnam	modern	0	Hmong-Mien	21.4	103	N.A.	N.A.	Liu_et_al_2020	kin
Hmong198	Hmong	MSEA	Vietnam	modern	0	Hmong-Mien	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
Hmong199	Hmong	MSEA	Vietnam	modern	0	Hmong-Mien	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
Hmong200	Hmong	MSEA	Vietnam	modern	0	Hmong-Mien	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
Hmong201	Hmong	MSEA	Vietnam	modern	0	Hmong-Mien	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
Hmong202	Hmong	MSEA	Vietnam	modern	0	Hmong-Mien	21.4	103	N.A.	N.A.	Liu_et_al_2020	kin
Hmong203	Hmong	MSEA	Vietnam	modern	0	Hmong-Mien	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
Hmong204	Hmong	MSEA	Vietnam	modern	0	Hmong-Mien	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
Hmong205	Hmong	MSEA	Vietnam	modern	0	Hmong-Mien	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
KhoMu235	Khomu	MSEA	Vietnam	modern	0	Austroasiatic	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
KhoMu236	Khomu	MSEA	Vietnam	modern	0	Austroasiatic	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
KhoMu237	Khomu	MSEA	Vietnam	modern	0	Austroasiatic	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
KhoMu238	Khomu	MSEA	Vietnam	modern	0	Austroasiatic	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
KhoMu239	Khomu	MSEA	Vietnam	modern	0	Austroasiatic	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
KhoMu240	Khomu	MSEA	Vietnam	modern	0	Austroasiatic	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
KhoMu241	Khomu	MSEA	Vietnam	modern	0	Austroasiatic	21.4	103	N.A.	N.A.	Liu_et_al_2020	kin
KhoMu242	Khomu	MSEA	Vietnam	modern	0	Austroasiatic	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
KhoMu244	Khomu	MSEA	Vietnam	modern	0	Austroasiatic	21.4	103	N.A.	N.A.	Liu_et_al_2020	kin
KhoMu245_2	Khomu	MSEA	Vietnam	modern	0	Austroasiatic	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS

KhoMu246	Khomu	MSEA	Vietnam	modern	0	Austroasiatic	21.4	103	N.A.	N.A.	Liu_et_al_2020	kin
KhoMu247	Khomu	MSEA	Vietnam	modern	0	Austroasiatic	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
Kinh01_1	Kinh	MSEA	Vietnam	modern	0	Austroasiatic	21.4	103	N.A.	N.A.	Liu_et_al_2020	PASS
Kinh03	Kinh	MSEA	Vietnam	modern	0	Austroasiatic	21.2	106	N.A.	N.A.	Liu_et_al_2020	PASS
Kinh05	Kinh	MSEA	Vietnam	modern	0	Austroasiatic	21	105.9	N.A.	N.A.	Liu_et_al_2020	PASS
Kinh06	Kinh	MSEA	Vietnam	modern	0	Austroasiatic	21	105.9	N.A.	N.A.	Liu_et_al_2020	PASS
Kinh07	Kinh	MSEA	Vietnam	modern	0	Austroasiatic	21	105.9	N.A.	N.A.	Liu_et_al_2020	PASS
Kinh08	Kinh	MSEA	Vietnam	modern	0	Austroasiatic	21	105.9	N.A.	N.A.	Liu_et_al_2020	PASS
Kinh09	Kinh	MSEA	Vietnam	modern	0	Austroasiatic	21	105.9	N.A.	N.A.	Liu_et_al_2020	PASS
Kinh10	Kinh	MSEA	Vietnam	modern	0	Austroasiatic	21	105.9	N.A.	N.A.	Liu_et_al_2020	PASS
Kinh11_1	Kinh	MSEA	Vietnam	modern	0	Austroasiatic	21	105.9	N.A.	N.A.	Liu_et_al_2020	PASS
Kinh12	Kinh	MSEA	Vietnam	modern	0	Austroasiatic	21	105.9	N.A.	N.A.	Liu_et_al_2020	PASS
Kinh14	Kinh	MSEA	Vietnam	modern	0	Austroasiatic	21	105.9	N.A.	N.A.	Liu_et_al_2020	PASS
Kinh15	Kinh	MSEA	Vietnam	modern	0	Austroasiatic	22	106.9	N.A.	N.A.	Liu_et_al_2020	PASS
LaChi530	Lachi	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Lachi	N.A.	Liu_et_al_2020	PASS
LaChi532	Lachi	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Lachi	N.A.	Liu_et_al_2020	PASS
LaChi533	Lachi	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Lachi	N.A.	Liu_et_al_2020	PASS
LaChi534	Lachi	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Lachi	N.A.	Liu_et_al_2020	PASS
LaChi535	Lachi	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Lachi	N.A.	Liu_et_al_2020	PASS
LaChi554	Lachi	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Lachi	N.A.	Liu_et_al_2020	PASS
LaChi555	Lachi	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Lachi	N.A.	Liu_et_al_2020	PASS
LaChi556	Lachi	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Lachi	N.A.	Liu_et_al_2020	PASS
LaChi557	Lachi	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Lachi	N.A.	Liu_et_al_2020	PASS
LaChi558	Lachi	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Lachi	N.A.	Liu_et_al_2020	PASS
LaChi559	Lachi	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Lachi	N.A.	Liu_et_al_2020	PASS
LaChi560	Lachi	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Lachi	N.A.	Liu_et_al_2020	PASS
LaHu342	Lahu_V	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Lahu	N.A.	Liu_et_al_2020	PASS
LaHu344	Lahu_V	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Lahu	N.A.	Liu_et_al_2020	PASS
LaHu347	Lahu_V	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Lahu	N.A.	Liu_et_al_2020	PASS
LaHu348	Lahu_V	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Lahu	N.A.	Liu_et_al_2020	PASS
LaHu350	Lahu_V	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Lahu	N.A.	Liu_et_al_2020	PASS
LaHu351	Lahu_V	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Lahu	N.A.	Liu_et_al_2020	PASS
LaHu352	Lahu_V	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Lahu	N.A.	Liu_et_al_2020	kin
LaHu353	Lahu_V	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Lahu	N.A.	Liu_et_al_2020	kin
LaHu354	Lahu_V	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Lahu	N.A.	Liu_et_al_2020	kin
LaHu355	Lahu_V	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Lahu	N.A.	Liu_et_al_2020	PASS
LaHu356	Lahu_V	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Lahu	N.A.	Liu_et_al_2020	PASS
LaHu360	Lahu_V	MSEA	Vietnam	modern	0	Sino-Tibetan	22.4	102.7	Lahu	N.A.	Liu_et_al_2020	kin
LoLo469	Lolo	MSEA	Vietnam	modern	0	Sino-Tibetan	23.1	105.4	Lolo	N.A.	Liu_et_al_2020	PASS
Lolo470	Lolo	MSEA	Vietnam	modern	0	Sino-Tibetan	23.1	105.4	Lolo	N.A.	Liu_et_al_2020	PASS
LoLo471	Lolo	MSEA	Vietnam	modern	0	Sino-Tibetan	23.1	105.4	Lolo	N.A.	Liu_et_al_2020	PASS
LoLo472	Lolo	MSEA	Vietnam	modern	0	Sino-Tibetan	23.1	105.4	Lolo	N.A.	Liu_et_al_2020	kin
LoLo473	Lolo	MSEA	Vietnam	modern	0	Sino-Tibetan	23.1	105.4	Lolo	N.A.	Liu_et_al_2020	PASS
LoLo474	Lolo	MSEA	Vietnam	modern	0	Sino-Tibetan	23.1	105.4	Lolo	N.A.	Liu_et_al_2020	PASS

LoLo475	Lolo	MSEA	Vietnam	modern	0	Sino-Tibetan	23.1	105.4	Lolo	N.A.	Liu_et_al_2020	PASS
LoLo476	Lolo	MSEA	Vietnam	modern	0	Sino-Tibetan	23.1	105.4	Lolo	N.A.	Liu_et_al_2020	PASS
LoLo477	Lolo	MSEA	Vietnam	modern	0	Sino-Tibetan	23.1	105.4	Lolo	N.A.	Liu_et_al_2020	kin
LoLo478	Lolo	MSEA	Vietnam	modern	0	Sino-Tibetan	23.1	105.4	Lolo	N.A.	Liu_et_al_2020	PASS
LoLo479	Lolo	MSEA	Vietnam	modern	0	Sino-Tibetan	23.1	105.4	Lolo	N.A.	Liu_et_al_2020	PASS
LoLo480	Lolo	MSEA	Vietnam	modern	0	Sino-Tibetan	23.1	105.4	Lolo	N.A.	Liu_et_al_2020	PASS
Mang273	Mang	MSEA	Vietnam	modern	0	Austroasiatic	22.4	102.7	N.A.	N.A.	Liu_et_al_2020	PASS
Mang274	Mang	MSEA	Vietnam	modern	0	Austroasiatic	22.4	102.7	N.A.	N.A.	Liu_et_al_2020	PASS
Mang276	Mang	MSEA	Vietnam	modern	0	Austroasiatic	22.4	102.7	N.A.	N.A.	Liu_et_al_2020	PASS
Mang278_2	Mang	MSEA	Vietnam	modern	0	Austroasiatic	22.4	102.7	N.A.	N.A.	Liu_et_al_2020	PASS
Mang284_1	Mang	MSEA	Vietnam	modern	0	Austroasiatic	22.4	102.7	N.A.	N.A.	Liu_et_al_2020	PASS
Mang289	Mang	MSEA	Vietnam	modern	0	Austroasiatic	22.4	102.7	N.A.	N.A.	Liu_et_al_2020	PASS
Mang290	Mang	MSEA	Vietnam	modern	0	Austroasiatic	22.4	102.7	N.A.	N.A.	Liu_et_al_2020	PASS
Mang291	Mang	MSEA	Vietnam	modern	0	Austroasiatic	22.4	102.7	N.A.	N.A.	Liu_et_al_2020	PASS
Mang298	Mang	MSEA	Vietnam	modern	0	Austroasiatic	22.4	102.7	N.A.	N.A.	Liu_et_al_2020	PASS
Mang307_1	Mang	MSEA	Vietnam	modern	0	Austroasiatic	22.4	102.7	N.A.	N.A.	Liu_et_al_2020	PASS
Mang308	Mang	MSEA	Vietnam	modern	0	Austroasiatic	22.4	102.7	N.A.	N.A.	Liu_et_al_2020	PASS
Mang310	Mang	MSEA	Vietnam	modern	0	Austroasiatic	22.4	102.7	N.A.	N.A.	Liu_et_al_2020	kin
Muong35	Muong	MSEA	Vietnam	modern	0	Austroasiatic	20.4	105.6	N.A.	N.A.	Liu_et_al_2020	PASS
Muong36	Muong	MSEA	Vietnam	modern	0	Austroasiatic	20.4	105.6	N.A.	N.A.	Liu_et_al_2020	PASS
Muong38	Muong	MSEA	Vietnam	modern	0	Austroasiatic	20.5	105.4	N.A.	N.A.	Liu_et_al_2020	PASS
Muong39	Muong	MSEA	Vietnam	modern	0	Austroasiatic	20.7	105.6	N.A.	N.A.	Liu_et_al_2020	PASS
Muong40	Muong	MSEA	Vietnam	modern	0	Austroasiatic	20.9	105.5	N.A.	N.A.	Liu_et_al_2020	PASS
Muong41	Muong	MSEA	Vietnam	modern	0	Austroasiatic	20.7	105.6	N.A.	N.A.	Liu_et_al_2020	PASS
Muong42	Muong	MSEA	Vietnam	modern	0	Austroasiatic	20.7	105.6	N.A.	N.A.	Liu_et_al_2020	PASS
Muong43	Muong	MSEA	Vietnam	modern	0	Austroasiatic	20.5	105.4	N.A.	N.A.	Liu_et_al_2020	PASS
Muong121	Muong	MSEA	Vietnam	modern	0	Austroasiatic	20.5	105.4	N.A.	N.A.	Liu_et_al_2020	PASS
Muong132	Muong	MSEA	Vietnam	modern	0	Austroasiatic	20.5	105.4	N.A.	N.A.	Liu_et_al_2020	PASS
Nung47	Nung	MSEA	Vietnam	modern	0	Tai-Kadai	22.8	105	Nung	N.A.	Liu_et_al_2020	PASS
Nung48	Nung	MSEA	Vietnam	modern	0	Tai-Kadai	22.8	105	Nung	N.A.	Liu_et_al_2020	PASS
Nung49	Nung	MSEA	Vietnam	modern	0	Tai-Kadai	22.9	106.1	Nung	N.A.	Liu_et_al_2020	PASS
Nung664	Nung	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Nung	N.A.	Liu_et_al_2020	PASS
Nung672_1	Nung	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Nung	N.A.	Liu_et_al_2020	PASS
Nung674	Nung	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Nung	N.A.	Liu_et_al_2020	PASS
Nung677	Nung	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Nung	N.A.	Liu_et_al_2020	PASS
Nung678	Nung	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Nung	N.A.	Liu_et_al_2020	PASS
Nung680	Nung	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Nung	N.A.	Liu_et_al_2020	PASS
Nung681	Nung	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Nung	N.A.	Liu_et_al_2020	PASS
Nung687	Nung	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Nung	N.A.	Liu_et_al_2020	PASS
Nung691	Nung	MSEA	Vietnam	modern	0	Tai-Kadai	22.7	104.7	Nung	N.A.	Liu_et_al_2020	PASS
PaThen494	Pathen	MSEA	Vietnam	modern	0	Hmong-Mien	22.4	104.7	N.A.	N.A.	Liu_et_al_2020	PASS
PaThen495	Pathen	MSEA	Vietnam	modern	0	Hmong-Mien	22.4	104.7	N.A.	N.A.	Liu_et_al_2020	PASS
PaThen496	Pathen	MSEA	Vietnam	modern	0	Hmong-Mien	22.4	104.7	N.A.	N.A.	Liu_et_al_2020	PASS
PaThen497	Pathen	MSEA	Vietnam	modern	0	Hmong-Mien	22.4	104.7	N.A.	N.A.	Liu_et_al_2020	PASS

SH07	New_Guinea_Highlander	Oceania	Papua_New_Guinea	modern	0	Trans-New_Guinea	-6.15	143.66	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
NG17	New_Guinea_Highlander	Oceania	Papua_New_Guinea	modern	0	Trans-New_Guinea	-6.15	143.66	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
SH08	New_Guinea_Highlander	Oceania	Papua_New_Guinea	modern	0	Trans-New_Guinea	-6.15	143.66	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
NG24	Papuan_Eastern_Highlands	Oceania	Papua_New_Guinea	modern	0	Trans-New_Guinea	-6.1	145.4	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
NG10	Papuan_Eastern_Highlands	Oceania	Papua_New_Guinea	modern	0	Trans-New_Guinea	-6.1	145.4	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
NG11	Papuan_Eastern_Highlands	Oceania	Papua_New_Guinea	modern	0	Trans-New_Guinea	-6.1	145.4	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
NG28	Papuan_Eastern_Highlands	Oceania	Papua_New_Guinea	modern	0	Trans-New_Guinea	-6.1	145.4	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
CP3	Papuan_Central_Province	Oceania	Papua_New_Guinea	modern	0	Trans-New_Guinea	-9.48	147.2	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
CP7	Papuan_Central_Province	Oceania	Papua_New_Guinea	modern	0	Trans-New_Guinea	-9.48	147.2	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
CP10	Papuan_Central_Province	Oceania	Papua_New_Guinea	modern	0	Trans-New_Guinea	-9.48	147.2	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
CP13	Papuan_Central_Province	Oceania	Papua_New_Guinea	modern	0	Trans-New_Guinea	-9.48	147.2	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
CP14	Papuan_Central_Province	Oceania	Papua_New_Guinea	modern	0	Trans-New_Guinea	-9.48	147.2	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
GP3	Papuan_Gulf_Province	Oceania	Papua_New_Guinea	modern	0	Trans-New_Guinea	-7.88	145.69	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
GP4	Papuan_Gulf_Province	Oceania	Papua_New_Guinea	modern	0	Trans-New_Guinea	-7.88	145.69	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
GP6	Papuan_Gulf_Province	Oceania	Papua_New_Guinea	modern	0	Trans-New_Guinea	-7.88	145.69	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
Y4349	Tongan	Oceania	Kingdom_of_Tonga	modern	0	Austronesian	-21.19	-175.18	Tongan	N.A.	Qin_and_Stoneking_2015	PASS
Y4383	Tongan	Oceania	Kingdom_of_Tonga	modern	0	Austronesian	-21.19	-175.18	Tongan	N.A.	Qin_and_Stoneking_2015	PASS
Y4914	Tongan	Oceania	Kingdom_of_Tonga	modern	0	Austronesian	-21.19	-175.18	Tongan	N.A.	Qin_and_Stoneking_2015	PASS
Y6254	Tongan	Oceania	Kingdom_of_Tonga	modern	0	Austronesian	-21.19	-175.18	Tongan	N.A.	Qin_and_Stoneking_2015	PASS
Y5707	Tongan	Oceania	Kingdom_of_Tonga	modern	0	Austronesian	-21.19	-175.18	Tongan	N.A.	Qin_and_Stoneking_2015	PASS
Y5718	Tongan	Oceania	Kingdom_of_Tonga	modern	0	Austronesian	-21.19	-175.18	Tongan	N.A.	Qin_and_Stoneking_2015	PASS
VL43	Vella_Lavella	Oceania	Solomon_Islands	modern	0	Central_Solomons	-7.9	156.7	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
KO39	Vella_Lavella	Oceania	Solomon_Islands	modern	0	Central_Solomons	-7.9	156.7	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
VL02	Vella_Lavella	Oceania	Solomon_Islands	modern	0	Central_Solomons	-7.9	156.7	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
VL08	Vella_Lavella	Oceania	Solomon_Islands	modern	0	Central_Solomons	-7.9	156.7	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
VL09	Vella_Lavella	Oceania	Solomon_Islands	modern	0	Central_Solomons	-7.9	156.7	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
VL11	Vella_Lavella	Oceania	Solomon_Islands	modern	0	Central_Solomons	-7.9	156.7	N.A.	N.A.	Qin_and_Stoneking_2015	PASS
PH10_1	Mamanwa	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH65_1	Mamanwa	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH2	Mamanwa	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH35_1	Mamanwa	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH38_1	Mamanwa	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH4	Mamanwa	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH45_1	Mamanwa	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH66_2	Mamanwa	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH67_2	Mamanwa	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH72_3	Mamanwa	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH77_1	Mamanwa	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH8	Mamanwa	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH9	Mamanwa	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH50_1	Mamanwa1	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH52_3	Mamanwa1	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS

PH53_1	Mamanwa1	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH55_2	Mamanwa1	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
PH56_1	Mamanwa1	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Mamanwa	N.A.	Qin_and_Stoneking_2015	PASS
Smd1_1	Semende	ISEA	Indonesia	modern	0	Austronesian	3.58	98.67	Semende	N.A.	Qin_and_Stoneking_2015	PASS
Smd10_1	Semende	ISEA	Indonesia	modern	0	Austronesian	3.58	98.67	Semende	N.A.	Qin_and_Stoneking_2015	PASS
Smd14_1	Semende	ISEA	Indonesia	modern	0	Austronesian	3.58	98.67	Semende	N.A.	Qin_and_Stoneking_2015	PASS
Smd15_1	Semende	ISEA	Indonesia	modern	0	Austronesian	3.58	98.67	Semende	N.A.	Qin_and_Stoneking_2015	PASS
Smd18_1	Semende	ISEA	Indonesia	modern	0	Austronesian	3.58	98.67	Semende	N.A.	Qin_and_Stoneking_2015	PASS
Smd19_1	Semende	ISEA	Indonesia	modern	0	Austronesian	3.58	98.67	Semende	N.A.	Qin_and_Stoneking_2015	PASS
Smd3_1	Semende	ISEA	Indonesia	modern	0	Austronesian	3.58	98.67	Semende	N.A.	Qin_and_Stoneking_2015	PASS
Smd5_1	Semende	ISEA	Indonesia	modern	0	Austronesian	3.58	98.67	Semende	N.A.	Qin_and_Stoneking_2015	PASS
Smd6_1	Semende	ISEA	Indonesia	modern	0	Austronesian	3.58	98.67	Semende	N.A.	Qin_and_Stoneking_2015	PASS
Smd9_1	Semende	ISEA	Indonesia	modern	0	Austronesian	3.58	98.67	Semende	N.A.	Qin_and_Stoneking_2015	PASS
Bor1_5	Borneo	ISEA	Indonesia	modern	0	Austronesian	0.18	110.16	Borneo	N.A.	Qin_and_Stoneking_2015	PASS
Bor16_1	Borneo	ISEA	Indonesia	modern	0	Austronesian	0.18	110.16	Borneo	N.A.	Qin_and_Stoneking_2015	PASS
Bor2_3	Borneo	ISEA	Indonesia	modern	0	Austronesian	0.18	110.16	Borneo	N.A.	Qin_and_Stoneking_2015	PASS
Bor20_1	Borneo	ISEA	Indonesia	modern	0	Austronesian	0.18	110.16	Borneo	N.A.	Qin_and_Stoneking_2015	PASS
Bor3_3	Borneo	ISEA	Indonesia	modern	0	Austronesian	0.18	110.16	Borneo	N.A.	Qin_and_Stoneking_2015	PASS
Bor4_5	Borneo	ISEA	Indonesia	modern	0	Austronesian	0.18	110.16	Borneo	N.A.	Qin_and_Stoneking_2015	PASS
Bor6_1	Borneo	ISEA	Indonesia	modern	0	Austronesian	0.18	110.16	Borneo	N.A.	Qin_and_Stoneking_2015	PASS
Bor7_2	Borneo	ISEA	Indonesia	modern	0	Austronesian	0.18	110.16	Borneo	N.A.	Qin_and_Stoneking_2015	PASS
Bor9_3	Borneo	ISEA	Indonesia	modern	0	Austronesian	0.18	110.16	Borneo	N.A.	Qin_and_Stoneking_2015	PASS
Dusun4	Dusun	ISEA	Brunei	modern	0	Austronesian	4.71	114.67	Dusun	N.A.	Skoglund_et_al_2016	PASS
Dusun7	Dusun	ISEA	Brunei	modern	0	Austronesian	4.71	114.67	Dusun	N.A.	Skoglund_et_al_2016	PASS
Dusun8	Dusun	ISEA	Brunei	modern	0	Austronesian	4.71	114.67	Dusun	N.A.	Skoglund_et_al_2016	PASS
Dusun10	Dusun	ISEA	Brunei	modern	0	Austronesian	4.71	114.67	Dusun	N.A.	Skoglund_et_al_2016	PASS
Dusun11	Dusun	ISEA	Brunei	modern	0	Austronesian	4.71	114.67	Dusun	N.A.	Skoglund_et_al_2016	PASS
Dusun12	Dusun	ISEA	Brunei	modern	0	Austronesian	4.71	114.67	Dusun	N.A.	Skoglund_et_al_2016	PASS
Dusun14	Dusun	ISEA	Brunei	modern	0	Austronesian	4.71	114.67	Dusun	N.A.	Skoglund_et_al_2016	PASS
Dusun21	Dusun	ISEA	Brunei	modern	0	Austronesian	4.71	114.67	Dusun	N.A.	Skoglund_et_al_2016	PASS
Dusun22	Dusun	ISEA	Brunei	modern	0	Austronesian	4.71	114.67	Dusun	N.A.	Skoglund_et_al_2016	PASS
Dusun23	Dusun	ISEA	Brunei	modern	0	Austronesian	4.71	114.67	Dusun	N.A.	Skoglund_et_al_2016	PASS
Murut2	Murut	ISEA	Brunei	modern	0	Austronesian	4.62	115.14	Murut	N.A.	Skoglund_et_al_2016	PASS
Murut3	Murut	ISEA	Brunei	modern	0	Austronesian	4.62	115.14	Murut	N.A.	Skoglund_et_al_2016	PASS
Murut4	Murut	ISEA	Brunei	modern	0	Austronesian	4.62	115.14	Murut	N.A.	Skoglund_et_al_2016	PASS
Murut5	Murut	ISEA	Brunei	modern	0	Austronesian	4.62	115.14	Murut	N.A.	Skoglund_et_al_2016	PASS
Murut6	Murut	ISEA	Brunei	modern	0	Austronesian	4.62	115.14	Murut	N.A.	Skoglund_et_al_2016	PASS
Murut9	Murut	ISEA	Brunei	modern	0	Austronesian	4.62	115.14	Murut	N.A.	Skoglund_et_al_2016	PASS
Murut11	Murut	ISEA	Brunei	modern	0	Austronesian	4.62	115.14	Murut	N.A.	Skoglund_et_al_2016	PASS
Murut13	Murut	ISEA	Brunei	modern	0	Austronesian	4.62	115.14	Murut	N.A.	Skoglund_et_al_2016	PASS
Murut15	Murut	ISEA	Brunei	modern	0	Austronesian	4.62	115.14	Murut	N.A.	Skoglund_et_al_2016	PASS
Murut17	Murut	ISEA	Brunei	modern	0	Austronesian	4.62	115.14	Murut	N.A.	Skoglund_et_al_2016	PASS
Burm4	Burmese	MSEA	Myanmar	modern	0	Sino-Tibetan	16.41	95.89	Burmese	N.A.	Skoglund_et_al_2016	PASS
Burm7	Burmese	MSEA	Myanmar	modern	0	Sino-Tibetan	16.41	95.89	Burmese	N.A.	Skoglund_et_al_2016	PASS

Burm8	Burmese	MSEA	Myanmar	modern	0	Sino-Tibetan	16.41	95.89	Burmese	N.A.	Skoglund_et_al_2016	PASS
Burm9	Burmese	MSEA	Myanmar	modern	0	Sino-Tibetan	16.41	95.89	Burmese	N.A.	Skoglund_et_al_2016	PASS
Burm10	Burmese	MSEA	Myanmar	modern	0	Sino-Tibetan	16.41	95.89	Burmese	N.A.	Skoglund_et_al_2016	PASS
Burm12	Burmese	MSEA	Myanmar	modern	0	Sino-Tibetan	16.41	95.89	Burmese	N.A.	Skoglund_et_al_2016	PASS
Burm13	Burmese	MSEA	Myanmar	modern	0	Sino-Tibetan	16.41	95.89	Burmese	N.A.	Skoglund_et_al_2016	PASS
Burm14	Burmese	MSEA	Myanmar	modern	0	Sino-Tibetan	16.41	95.89	Burmese	N.A.	Skoglund_et_al_2016	PASS
Burm15	Burmese	MSEA	Myanmar	modern	0	Sino-Tibetan	16.41	95.89	Burmese	N.A.	Skoglund_et_al_2016	PASS
Burm16	Burmese	MSEA	Myanmar	modern	0	Sino-Tibetan	16.41	95.89	Burmese	N.A.	Skoglund_et_al_2016	PASS
Igorot3	Kankanaey	ISEA	Philippines	modern	0	Austronesian	17.07	121.03	Kankanaey	N.A.	Skoglund_et_al_2016	PASS
Igorot4	Kankanaey	ISEA	Philippines	modern	0	Austronesian	17.07	121.03	Kankanaey	N.A.	Skoglund_et_al_2016	PASS
Igorot5	Kankanaey	ISEA	Philippines	modern	0	Austronesian	17.07	121.03	Kankanaey	N.A.	Skoglund_et_al_2016	PASS
Igorot6	Kankanaey	ISEA	Philippines	modern	0	Austronesian	17.07	121.03	Kankanaey	N.A.	Skoglund_et_al_2016	PASS
Igorot10	Kankanaey	ISEA	Philippines	modern	0	Austronesian	17.07	121.03	Kankanaey	N.A.	Skoglund_et_al_2016	PASS
Igorot11	Kankanaey	ISEA	Philippines	modern	0	Austronesian	17.07	121.03	Kankanaey	N.A.	Skoglund_et_al_2016	PASS
Igorot13	Kankanaey	ISEA	Philippines	modern	0	Austronesian	17.07	121.03	Kankanaey	N.A.	Skoglund_et_al_2016	PASS
Igorot17	Kankanaey	ISEA	Philippines	modern	0	Austronesian	17.07	121.03	Kankanaey	N.A.	Skoglund_et_al_2016	PASS
Igorot21	Kankanaey	ISEA	Philippines	modern	0	Austronesian	17.07	121.03	Kankanaey	N.A.	Skoglund_et_al_2016	PASS
Igorot23	Kankanaey	ISEA	Philippines	modern	0	Austronesian	17.07	121.03	Kankanaey	N.A.	Skoglund_et_al_2016	PASS
Luz2	Ilocano	ISEA	Philippines	modern	0	Austronesian	14.6	120.98	Ilocano	N.A.	Skoglund_et_al_2016	PASS
Luz6	Ilocano	ISEA	Philippines	modern	0	Austronesian	14.6	120.98	Ilocano	N.A.	Skoglund_et_al_2016	PASS
Luz5	Tagalog	ISEA	Philippines	modern	0	Austronesian	14.6	120.98	Tagalog	N.A.	Skoglund_et_al_2016	PASS
Luz8	Tagalog	ISEA	Philippines	modern	0	Austronesian	14.6	120.98	Tagalog	N.A.	Skoglund_et_al_2016	PASS
Luz9	Tagalog	ISEA	Philippines	modern	0	Austronesian	14.6	120.98	Tagalog	N.A.	Skoglund_et_al_2016	PASS
Luz10	Tagalog	ISEA	Philippines	modern	0	Austronesian	14.6	120.98	Tagalog	N.A.	Skoglund_et_al_2016	PASS
Luz11	Tagalog	ISEA	Philippines	modern	0	Austronesian	14.6	120.98	Tagalog	N.A.	Skoglund_et_al_2016	PASS
Vizaya1	Visayan	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Visayan	N.A.	Skoglund_et_al_2016	PASS
Vizaya2	Visayan	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Visayan	N.A.	Skoglund_et_al_2016	PASS
Vizaya3	Visayan	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Visayan	N.A.	Skoglund_et_al_2016	PASS
Vizaya4	Visayan	ISEA	Philippines	modern	0	Austronesian	9.76	125.51	Visayan	N.A.	Skoglund_et_al_2016	PASS
Malay2	Malay	ISEA	Singapore	modern	0	Austronesian	1.35	103.82	Malay	N.A.	Skoglund_et_al_2016	PASS
Malay5	Malay	ISEA	Singapore	modern	0	Austronesian	1.35	103.82	Malay	N.A.	Skoglund_et_al_2016	PASS
Malay6	Malay	ISEA	Singapore	modern	0	Austronesian	1.35	103.82	Malay	N.A.	Skoglund_et_al_2016	PASS
Malay10	Malay	ISEA	Singapore	modern	0	Austronesian	1.35	103.82	Malay	N.A.	Skoglund_et_al_2016	PASS
Malay11	Malay	ISEA	Singapore	modern	0	Austronesian	1.35	103.82	Malay	N.A.	Skoglund_et_al_2016	PASS
Malay13	Malay	ISEA	Singapore	modern	0	Austronesian	1.35	103.82	Malay	N.A.	Skoglund_et_al_2016	PASS
Malay14	Malay	ISEA	Singapore	modern	0	Austronesian	1.35	103.82	Malay	N.A.	Skoglund_et_al_2016	PASS
Malay20	Malay	ISEA	Singapore	modern	0	Austronesian	1.35	103.82	Malay	N.A.	Skoglund_et_al_2016	PASS
Malay21	Malay	ISEA	Singapore	modern	0	Austronesian	1.35	103.82	Malay	N.A.	Skoglund_et_al_2016	PASS
NA13607	Amis_HO	sEA	Taiwan	modern	0	Austronesian	22.8	121.2	Amis	TW_S	Lazaridis_et_al_2014	PASS
NA13608	Amis_HO	sEA	Taiwan	modern	0	Austronesian	22.8	121.2	Amis	TW_S	Lazaridis_et_al_2014	PASS
NA13609	Amis_HO	sEA	Taiwan	modern	0	Austronesian	22.8	121.2	Amis	TW_S	Lazaridis_et_al_2014	PASS
NA13610	Amis_HO	sEA	Taiwan	modern	0	Austronesian	22.8	121.2	Amis	TW_S	Lazaridis_et_al_2014	PASS
NA13611	Amis_HO	sEA	Taiwan	modern	0	Austronesian	22.8	121.2	Amis	TW_S	Lazaridis_et_al_2014	PASS
NA13612	Amis_HO	sEA	Taiwan	modern	0	Austronesian	22.8	121.2	Amis	TW_S	Lazaridis_et_al_2014	PASS

EYG40	Yugur	nEA	China	modern	0	Mongolic	38.9	99.6	N.A.	N.A.	Wang_C_et_al_2021	PASS
EYG06	Yugur	nEA	China	modern	0	Mongolic	38.9	99.6	N.A.	N.A.	Wang_C_et_al_2021	PASS
EYG25	Yugur	nEA	China	modern	0	Mongolic	38.9	99.6	N.A.	N.A.	Wang_C_et_al_2021	PASS
EYG42	Yugur	nEA	China	modern	0	Mongolic	38.9	99.6	N.A.	N.A.	Wang_C_et_al_2021	PASS
EYG46	Yugur	nEA	China	modern	0	Mongolic	38.9	99.6	N.A.	N.A.	Wang_C_et_al_2021	PASS
EYG24	Yugur	nEA	China	modern	0	Mongolic	38.9	99.6	N.A.	N.A.	Wang_C_et_al_2021	PASS
Han516	Han_Chongqing	sEA	China	modern	0	Sino-Tibetan	29.3	106.3	Han	N.A.	Wang_C_et_al_2021	PASS
Han1968	Han_Chongqing	sEA	China	modern	0	Sino-Tibetan	29.3	106.3	Han	N.A.	Wang_C_et_al_2021	PASS
Han2150	Han_Chongqing	sEA	China	modern	0	Sino-Tibetan	29.3	106.3	Han	N.A.	Wang_C_et_al_2021	PASS
Han1994	Han_Fujian	sEA	China	modern	0	Sino-Tibetan	26.1	119.3	Han	N.A.	Wang_C_et_al_2021	PASS
Han1467	Han_Fujian	sEA	China	modern	0	Sino-Tibetan	26.1	119.3	Han	N.A.	Wang_C_et_al_2021	PASS
Han1619	Han_Fujian	sEA	China	modern	0	Sino-Tibetan	26.1	119.3	Han	N.A.	Wang_C_et_al_2021	PASS
Han1900	Han_Fujian	sEA	China	modern	0	Sino-Tibetan	26.1	119.3	Han	N.A.	Wang_C_et_al_2021	PASS
Han1934	Han_Fujian	sEA	China	modern	0	Sino-Tibetan	26.1	119.3	Han	N.A.	Wang_C_et_al_2021	PASS
Han1207	Han_Guangdong	sEA	China	modern	0	Sino-Tibetan	23.2	113.2	Han	N.A.	Wang_C_et_al_2021	PASS
Han1235	Han_Guangdong	sEA	China	modern	0	Sino-Tibetan	23.2	113.2	Han	N.A.	Wang_C_et_al_2021	PASS
Han1415	Han_Guangdong	sEA	China	modern	0	Sino-Tibetan	23.2	113.2	Han	N.A.	Wang_C_et_al_2021	PASS
Han1432	Han_Guangdong	sEA	China	modern	0	Sino-Tibetan	23.2	113.2	Han	N.A.	Wang_C_et_al_2021	PASS
Han1434	Han_Guangdong	sEA	China	modern	0	Sino-Tibetan	23.2	113.2	Han	N.A.	Wang_C_et_al_2021	PASS
Han2087	Han_Guangdong	sEA	China	modern	0	Sino-Tibetan	23.2	113.2	Han	N.A.	Wang_C_et_al_2021	PASS
Han2088	Han_Guangdong	sEA	China	modern	0	Sino-Tibetan	23.2	113.2	Han	N.A.	Wang_C_et_al_2021	PASS
Han894	Han_Henan	nEA	China	modern	0	Sino-Tibetan	34.8	113.6	Han	N.A.	Wang_C_et_al_2021	PASS
Han1226	Han_Henan	nEA	China	modern	0	Sino-Tibetan	34.8	113.6	Han	N.A.	Wang_C_et_al_2021	PASS
Han1243	Han_Henan	nEA	China	modern	0	Sino-Tibetan	34.8	113.6	Han	N.A.	Wang_C_et_al_2021	PASS
Han1713	Han_Henan	nEA	China	modern	0	Sino-Tibetan	34.8	113.6	Han	N.A.	Wang_C_et_al_2021	PASS
Han1714	Han_Henan	nEA	China	modern	0	Sino-Tibetan	34.8	113.6	Han	N.A.	Wang_C_et_al_2021	PASS
Han788	Han_Hubei	sEA	China	modern	0	Sino-Tibetan	30.5	114.3	Han	N.A.	Wang_C_et_al_2021	PASS
Han789	Han_Hubei	sEA	China	modern	0	Sino-Tibetan	30.5	114.3	Han	N.A.	Wang_C_et_al_2021	PASS
Han874	Han_Hubei	sEA	China	modern	0	Sino-Tibetan	30.5	114.3	Han	N.A.	Wang_C_et_al_2021	PASS
Han2161	Han_Hubei	sEA	China	modern	0	Sino-Tibetan	30.5	114.3	Han	N.A.	Wang_C_et_al_2021	PASS
Han2162	Han_Hubei	sEA	China	modern	0	Sino-Tibetan	30.5	114.3	Han	N.A.	Wang_C_et_al_2021	PASS
Han1452	Han_Jiangsu	sEA	China	modern	0	Sino-Tibetan	32.1	118.8	Han	N.A.	Wang_C_et_al_2021	PASS
Han1962	Han_Jiangsu	sEA	China	modern	0	Sino-Tibetan	32.1	118.8	Han	N.A.	Wang_C_et_al_2021	PASS
Han2054	Han_Jiangsu	sEA	China	modern	0	Sino-Tibetan	32.1	118.8	Han	N.A.	Wang_C_et_al_2021	PASS
Han2057	Han_Jiangsu	sEA	China	modern	0	Sino-Tibetan	32.1	118.8	Han	N.A.	Wang_C_et_al_2021	PASS
Han2058	Han_Jiangsu	sEA	China	modern	0	Sino-Tibetan	32.1	118.8	Han	N.A.	Wang_C_et_al_2021	PASS
Han2076	Han_Jiangsu	sEA	China	modern	0	Sino-Tibetan	32.1	118.8	Han	N.A.	Wang_C_et_al_2021	PASS
Han2090	Han_Jiangsu	sEA	China	modern	0	Sino-Tibetan	32.1	118.8	Han	N.A.	Wang_C_et_al_2021	PASS
Han4	Han_Shandong	nEA	China	modern	0	Sino-Tibetan	36.6	117	Han	N.A.	Wang_C_et_al_2021	PASS
Han25	Han_Shandong	nEA	China	modern	0	Sino-Tibetan	36.6	117	Han	N.A.	Wang_C_et_al_2021	PASS
Han853	Han_Shandong	nEA	China	modern	0	Sino-Tibetan	36.6	117	Han	N.A.	Wang_C_et_al_2021	PASS
Han1329	Han_Shandong	nEA	China	modern	0	Sino-Tibetan	36.6	117	Han	N.A.	Wang_C_et_al_2021	PASS
Han1616	Han_Shandong	nEA	China	modern	0	Sino-Tibetan	36.6	117	Han	N.A.	Wang_C_et_al_2021	PASS
Han1840	Han_Shandong	nEA	China	modern	0	Sino-Tibetan	36.6	117	Han	N.A.	Wang_C_et_al_2021	PASS

Ta80	Tamang	SouthA sia	Nepal	modern	0	Sino- Tibetan	27.4	86.2	Tamang	N.A.	Wang_C_et_al_ 2021	PASS
Ta52	Tamang	SouthA sia	Nepal	modern	0	Sino- Tibetan	27.4	86.2	Tamang	N.A.	Wang_C_et_al_ 2021	PASS
Ta05	Tamang	SouthA sia	Nepal	modern	0	Sino- Tibetan	27.4	86.2	Tamang	N.A.	Wang_C_et_al_ 2021	PASS
Ta03	Tamang	SouthA sia	Nepal	modern	0	Sino- Tibetan	27.4	86.2	Tamang	N.A.	Wang_C_et_al_ 2021	PASS
TY	Tianyuan_40000 BP	nEA	China	ancient	40000	N.A.	39.4	115.5	N.A.	N.A.	Yang_et_al_201 7	PASS
Yumin	Yumin_8400BP	nEA	Mongolia	ancient	8375	N.A.	42	114.2	N.A.	N.A.	Yang_et_al_202 0	PASS
Bianbian	Bianbian_9500B P	nEA	China	ancient	9513	N.A.	36.1	118.5	N.A.	N.A.	Yang_et_al_202 0	PASS
BS	Boshan_8200BP	nEA	China	ancient	8180	N.A.	36.5	117.9	N.A.	N.A.	Yang_et_al_202 0	PASS
XJS1309_M7	Xiaojingshan_780 0BP	nEA	China	ancient	7797	N.A.	36.5	117.9	N.A.	N.A.	Yang_et_al_202 0	PASS
XJS1311_M16	Xiaojingshan_780 0BP	nEA	China	ancient	7861	N.A.	36.5	117	N.A.	N.A.	Yang_et_al_202 0	PASS
XJS1309_M4	Xiaojingshan_780 0BP	nEA	China	ancient	7806	N.A.	36.5	117	N.A.	N.A.	Yang_et_al_202 0	PASS
Xiaogao	Xiaogao_8700BP	nEA	China	ancient	8684	N.A.	37.9	117.6	N.A.	N.A.	Yang_et_al_202 0	PASS
Qihe2_d	Qihe_8400BP	sEA	China	ancient	8394	N.A.	25.4	117.6	N.A.	N.A.	Yang_et_al_202 0	PASS
LD1	Liangdao_7750B P	sEA	Taiwan	ancient	8190	N.A.	26.3	120.2	N.A.	N.A.	Yang_et_al_202 0	PASS
LD2	Liangdao_7750B P	sEA	Taiwan	ancient	7575	N.A.	26.3	120.2	N.A.	N.A.	Yang_et_al_202 0	PASS
SuogangB1_d	Suogang_4550B P	sEA	Taiwan	ancient	4550	N.A.	23.5	119.6	N.A.	N.A.	Yang_et_al_202 0	PASS
SuogangB3_d	Suogang_4550B P	sEA	Taiwan	ancient	4550	N.A.	23.5	119.6	N.A.	N.A.	Yang_et_al_202 0	PASS
L5705	Xitoucun_4500B P	sEA	China	ancient	4333	N.A.	26.2	119.1	N.A.	N.A.	Yang_et_al_202 0	PASS
L5700	Xitoucun_4500B P	sEA	China	ancient	4474	N.A.	26.2	119.1	N.A.	N.A.	Yang_et_al_202 0	PASS
L5692_d	Xitoucun_4500B P	sEA	China	ancient	4474	N.A.	26.2	119.1	N.A.	N.A.	Yang_et_al_202 0	imiss
L5706_d	Xitoucun_4500B P	sEA	China	ancient	4467	N.A.	26.2	119.1	N.A.	N.A.	Yang_et_al_202 0	PASS
L5704_d	Xitoucun_4500B P	sEA	China	ancient	4502	N.A.	26.2	119.1	N.A.	N.A.	Yang_et_al_202 0	PASS
L5703_d	Xitoucun_4500B P	sEA	China	ancient	4572	N.A.	26.2	119.1	N.A.	N.A.	Yang_et_al_202 0	imiss
L5701_d	Xitoucun_4500B P	sEA	China	ancient	4329	N.A.	26.2	119.1	N.A.	N.A.	Yang_et_al_202 0	PASS
L7415	Tanshishan_4350 BP	sEA	China	ancient	4333	N.A.	26.1	119.2	N.A.	N.A.	Yang_et_al_202 0	PASS
L7417_d	Tanshishan_4350 BP	sEA	China	ancient	4472	N.A.	26.1	119.2	N.A.	N.A.	Yang_et_al_202 0	PASS
L5698_d	Tanshishan_4350 BP	sEA	China	ancient	4318	N.A.	26.2	119.1	N.A.	N.A.	Yang_et_al_202 0	imiss
L5696_d	Tanshishan_4350 BP	sEA	China	ancient	NA	N.A.	26.2	119.1	N.A.	N.A.	Yang_et_al_202 0	imiss
L5694	Chuanyun_300B P	sEA	China	ancient	308	N.A.	25.6	117.3	N.A.	N.A.	Yang_et_al_202 0	PASS
I3354	Boisman_6900B P	nEA	Russia	ancient	7237	N.A.	42.79	131.28	N.A.	N.A.	Wang_C_et_al_ 2021	PASS
I1196	Boisman_6900B P	nEA	Russia	ancient	7058	N.A.	42.79	131.28	N.A.	N.A.	Wang_C_et_al_ 2021	PASS
I1198	Boisman_6900B P	nEA	Russia	ancient	6872	N.A.	42.79	131.28	N.A.	N.A.	Wang_C_et_al_ 2021	PASS
I1193	Boisman_6900B P	nEA	Russia	ancient	6832	N.A.	42.79	131.28	N.A.	N.A.	Wang_C_et_al_ 2021	PASS
I3355	Boisman_6900B P	nEA	Russia	ancient	6821	N.A.	42.79	131.28	N.A.	N.A.	Wang_C_et_al_ 2021	PASS
I1197	Boisman_6900B P	nEA	Russia	ancient	6804	N.A.	42.79	131.28	N.A.	N.A.	Wang_C_et_al_ 2021	PASS
I1190	Boisman_6900B P	nEA	Russia	ancient	6675	N.A.	42.79	131.28	N.A.	N.A.	Wang_C_et_al_ 2021	PASS
I1194	Boisman_6900B P	nEA	Russia	ancient	6652	N.A.	42.79	131.28	N.A.	N.A.	Wang_C_et_al_ 2021	PASS
I14819	Boisman_5600B P	nEA	Russia	ancient	5625	N.A.	42.79	131.28	N.A.	N.A.	Wang_C_et_al_ 2021	PASS
I3356	Boisman_5600B P	nEA	Russia	ancient	5605	N.A.	42.79	131.28	N.A.	N.A.	Wang_C_et_al_ 2021	PASS
I1206	Boisman_6900B P	nEA	Russia	ancient	6954	N.A.	42.79	131.28	N.A.	N.A.	Wang_C_et_al_ 2021	PASS
I13886	Jomon_3500BP	nEA	Japan	ancient	4003	N.A.	35.55	140.16	N.A.	N.A.	Wang_C_et_al_ 2021	PASS
I13884	Jomon_3500BP	nEA	Japan	ancient	4351	N.A.	35.55	140.16	N.A.	N.A.	Wang_C_et_al_ 2021	PASS
I6341	Jomon_3500BP	nEA	Japan	ancient	4200	N.A.	45.37	141.03	N.A.	N.A.	Wang_C_et_al_ 2021	PASS
I13882	Jomon_3500BP	nEA	Japan	ancient	3234	N.A.	35.55	140.16	N.A.	N.A.	Wang_C_et_al_ 2021	PASS

I13885	Jomon_3500BP	nEA	Japan	ancient	3216	N.A.	35.55	140.16	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13883	Jomon_3500BP	nEA	Japan	ancient	2859	N.A.	35.55	140.16	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6358	Mongolia_7300BP	nEA	Mongolia	ancient	7167	N.A.	48.29	115.1	N.A.	N.A.	Wang_C_et_al_2021	PASS
I7021	Mongolia_7300BP	nEA	Mongolia	ancient	7050	N.A.	48	113.93	N.A.	N.A.	Wang_C_et_al_2021	PASS
I11696	Mongolia_7300BP	nEA	Mongolia	ancient	7528	N.A.	49.39	102.7	N.A.	N.A.	Wang_C_et_al_2021	PASS
I11698	Mongolia_7300BP	nEA	Mongolia	ancient	7520	N.A.	49.39	102.7	N.A.	N.A.	Wang_C_et_al_2021	PASS
I11697	Mongolia_7300BP	nEA	Mongolia	ancient	7500	N.A.	49.39	102.7	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13179	Mongolia_7300BP	nEA	Mongolia	ancient	7515	N.A.	49.39	102.7	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13698	Mongolia_7300BP	nEA	Mongolia	ancient	7504	N.A.	49.53	103.28	N.A.	N.A.	Wang_C_et_al_2021	PASS
I14000	Mongolia_7300BP	nEA	Mongolia	ancient	7480	N.A.	49.53	103.28	N.A.	N.A.	Wang_C_et_al_2021	PASS
S97.EC	Wuzhuangguolia ng_5000BP	nEA	China	ancient	5050	N.A.	37.82	109.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
S123.EC	Wuzhuangguolia ng_5000BP	nEA	China	ancient	5050	N.A.	37.82	109.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
18R21262.EC	Wuzhuangguolia ng_5000BP	nEA	China	ancient	5050	N.A.	37.82	109.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
S91.EC	Wuzhuangguolia ng_5000BP	nEA	China	ancient	5050	N.A.	37.82	109.05	N.A.	N.A.	Wang_C_et_al_2021	imiss
S118.EC	Wuzhuangguolia ng_5000BP	nEA	China	ancient	5050	N.A.	37.82	109.05	N.A.	N.A.	Wang_C_et_al_2021	imiss
S120.EC	Wuzhuangguolia ng_5000BP	nEA	China	ancient	5050	N.A.	37.82	109.05	N.A.	N.A.	Wang_C_et_al_2021	imiss
18R21265.EC	Wuzhuangguolia ng_5000BP	nEA	China	ancient	5050	N.A.	37.82	109.05	N.A.	N.A.	Wang_C_et_al_2021	imiss
18R21266.EC	Wuzhuangguolia ng_5000BP	nEA	China	ancient	4785	N.A.	37.82	109.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6221	Afnasievo_5000BP	nEA	Mongolia	ancient	4996	N.A.	46.4	100.82	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13957	Afnasievo_4600BP	nEA	Mongolia	ancient	4625	N.A.	49.34	88.71	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6347	CenterWest_3100BP	nEA	Mongolia	ancient	3295	N.A.	49.31	95.45	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6264	CenterWest_3100BP	nEA	Mongolia	ancient	3275	N.A.	45.92	100.83	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6262	CenterWest_3100BP	nEA	Mongolia	ancient	3270	N.A.	45.92	100.83	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13766	CenterWest_3100BP	nEA	Mongolia	ancient	3208	N.A.	46.43	100.82	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13767	CenterWest_3100BP	nEA	Mongolia	ancient	3198	N.A.	48.11	102.55	N.A.	N.A.	Wang_C_et_al_2021	PASS
I12975	CenterWest_3100BP	nEA	Mongolia	ancient	3110	N.A.	51.5	100.67	N.A.	N.A.	Wang_C_et_al_2021	PASS
I7039	CenterWest_3100BP	nEA	Mongolia	ancient	3066	N.A.	47.42	92.23	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13505	CenterWest_3100BP	nEA	Mongolia	ancient	3001	N.A.	46.43	100.82	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6362	CenterWest_3100BP	nEA	Mongolia	ancient	2921	N.A.	46.06	92.03	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6351	CenterWest_2900BP	nEA	Mongolia	ancient	2885	N.A.	49.7	93.8	N.A.	N.A.	Wang_C_et_al_2021	PASS
I12978	Chemurchek_4450BP	nEA	Mongolia	ancient	4472	N.A.	46.12	91.57	N.A.	N.A.	Wang_C_et_al_2021	PASS
I12957	Chemurchek_4450BP	nEA	Mongolia	ancient	4462	N.A.	46.12	91.57	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3620	Hanben_1550BP	sEA	Taiwan	ancient	1857	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3615	Hanben_1550BP	sEA	Taiwan	ancient	1833	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3617	Hanben_1550BP	sEA	Taiwan	ancient	1644	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3616	Hanben_1550BP	sEA	Taiwan	ancient	1641	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3621	Hanben_1550BP	sEA	Taiwan	ancient	1595	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3618	Hanben_1550BP	sEA	Taiwan	ancient	1550	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3731	Hanben_1550BP	sEA	Taiwan	ancient	1550	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3727	Hanben_1550BP	sEA	Taiwan	ancient	1550	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3736	Hanben_1550BP	sEA	Taiwan	ancient	1550	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13692	Hanben_1550BP	sEA	Taiwan	ancient	1550	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I8074	Hanben_1550BP	sEA	Taiwan	ancient	1550	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I14929	Hanben_1550BP	sEA	Taiwan	ancient	1550	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS

I14931	Hanben_1550BP	sEA	Taiwan	ancient	1550	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I8080	Hanben_1550BP	sEA	Taiwan	ancient	1550	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I14933	Hanben_1550BP	sEA	Taiwan	ancient	1550	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I14934	Hanben_1550BP	sEA	Taiwan	ancient	1550	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I8076	Hanben_1550BP	sEA	Taiwan	ancient	1550	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I14925	Hanben_1550BP	sEA	Taiwan	ancient	1550	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	imiss
I3614	Hanben_1550BP	sEA	Taiwan	ancient	1550	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3728	Hanben_1550BP	sEA	Taiwan	ancient	1496	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3619	Hanben_1550BP	sEA	Taiwan	ancient	1473	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I8075	Hanben_1550BP	sEA	Taiwan	ancient	1459	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13695	Hanben_1550BP	sEA	Taiwan	ancient	1459	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I8081	Hanben_1550BP	sEA	Taiwan	ancient	1409	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3732	Hanben_1550BP	sEA	Taiwan	ancient	1235	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I8072	Hanben_1550BP	sEA	Taiwan	ancient	1550	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3734	Hanben_1550BP	sEA	Taiwan	ancient	1575	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3735	Hanben_1550BP	sEA	Taiwan	ancient	1532	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3612	Hanben_1550BP	sEA	Taiwan	ancient	1800	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3611	Hanben_1550BP	sEA	Taiwan	ancient	1715	N.A.	24.33	121.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I12973	Mongolia_2500BP	nEA	Mongolia	ancient	3226	N.A.	49.41	102.69	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13174	MongunTaiga_3350BP	nEA	Mongolia	ancient	3410	N.A.	47.07	91.83	N.A.	N.A.	Wang_C_et_al_2021	PASS
I12976	MongunTaiga_3350BP	nEA	Mongolia	ancient	3332	N.A.	49.36	88.71	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6363	MongunTaiga_3050BP	nEA	Mongolia	ancient	3095	N.A.	45.35	90.85	N.A.	N.A.	Wang_C_et_al_2021	PASS
I7033	MongunTaiga_3050BP	nEA	Mongolia	ancient	3066	N.A.	49.96	92.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
I12955	Munkhkhairkhan_3700BP	nEA	Mongolia	ancient	3824	N.A.	49.7	96.8	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13173	Munkhkhairkhan_3700BP	nEA	Mongolia	ancient	3722	N.A.	47.07	91.83	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6348	Munkhkhairkhan_3700BP	nEA	Mongolia	ancient	3632	N.A.	49.39	102.7	N.A.	N.A.	Wang_C_et_al_2021	PASS
I12958	Munkhkhairkhan_3500BP	nEA	Mongolia	ancient	3483	N.A.	47.07	91.83	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13964	Ulaanzukh_3350BP	nEA	Mongolia	ancient	3350	N.A.	46.77	111.6	N.A.	N.A.	Wang_C_et_al_2021	PASS
I12972	Ulaanzukh_3350BP	nEA	Mongolia	ancient	3347	N.A.	46.77	111.6	N.A.	N.A.	Wang_C_et_al_2021	PASS
I14037	Ulaanzukh_3350BP	nEA	Mongolia	ancient	3306	N.A.	46.77	111.6	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13180	Ulgii_4700BP	nEA	Mongolia	ancient	4862	N.A.	49.3	88.83	N.A.	N.A.	Wang_C_et_al_2021	PASS
I12977	Ulgii_4700BP	nEA	Mongolia	ancient	4822	N.A.	49.36	88.71	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6361	Ulgii_4700BP	nEA	Mongolia	ancient	4483	N.A.	49.34	88.71	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6357	SlabGrave_2850BP	nEA	Mongolia	ancient	2200	N.A.	47.7	106.4	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6364	Mongolia_2500BP	nEA	Mongolia	ancient	2927	N.A.	45.39	90.8	N.A.	N.A.	Wang_C_et_al_2021	PASS
I14194	Mongolia_2500BP	nEA	Mongolia	ancient	2834	N.A.	46.77	111.6	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13504	Mongolia_2500BP	nEA	Mongolia	ancient	2368	N.A.	50.7	99.2	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13965	Mongolia_2500BP	nEA	Mongolia	ancient	2270	N.A.	48.68	88.38	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6263	Pazyryk_2200BP	nEA	Mongolia	ancient	2221	N.A.	48.68	88.38	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6224	Sagly_2250BP	nEA	Mongolia	ancient	2225	N.A.	49.96	92.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6232	Sagly_2250BP	nEA	Mongolia	ancient	2239	N.A.	49.96	92.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
I12970	Sagly_2250BP	nEA	Mongolia	ancient	2286	N.A.	49.96	92.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
I7029	Sagly_2250BP	nEA	Mongolia	ancient	2225	N.A.	49.96	92.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
I7027	Sagly_2250BP	nEA	Mongolia	ancient	2278	N.A.	49.96	92.05	N.A.	N.A.	Wang_C_et_al_2021	PASS

I6356	Sagly_2250BP	nEA	Mongolia	ancient	2250	N.A.	49.96	92.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
I7030	Sagly_2250BP	nEA	Mongolia	ancient	2244	N.A.	49.96	92.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
I7024	Sagly_2250BP	nEA	Mongolia	ancient	2244	N.A.	49.96	92.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
I7022	Sagly_2250BP	nEA	Mongolia	ancient	2244	N.A.	49.96	92.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
I7023	Sagly_2250BP	nEA	Mongolia	ancient	2226	N.A.	49.96	92.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6233	Sagly_2250BP	nEA	Mongolia	ancient	2225	N.A.	49.96	92.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6226	Sagly_2250BP	nEA	Mongolia	ancient	2220	N.A.	49.96	92.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
I12960	SlabGrave_2850 BP	nEA	Mongolia	ancient	3332	N.A.	46.92	102.76	N.A.	N.A.	Wang_C_et_al_2021	PASS
I12969	SlabGrave_2850 BP	nEA	Mongolia	ancient	3001	N.A.	47.18	109.19	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6352	SlabGrave_2850 BP	nEA	Mongolia	ancient	2949	N.A.	46.9	102.77	N.A.	N.A.	Wang_C_et_al_2021	PASS
I7032	SlabGrave_2850 BP	nEA	Mongolia	ancient	2849	N.A.	48.69	110.19	N.A.	N.A.	Wang_C_et_al_2021	PASS
I12971	SlabGrave_2850 BP	nEA	Mongolia	ancient	2849	N.A.	49.15	114.87	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13963	SlabGrave_2850 BP	nEA	Mongolia	ancient	2829	N.A.	47.19	109.19	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6349	SlabGrave_2850 BP	nEA	Mongolia	ancient	2781	N.A.	45.3	113.85	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6365	SlabGrave_2850 BP	nEA	Mongolia	ancient	2744	N.A.	49.66	99.93	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6359	SlabGrave_2850 BP	nEA	Mongolia	ancient	2700	N.A.	50.12	100.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6369	SlabGrave_2850 BP	nEA	Mongolia	ancient	2554	N.A.	47.38	110.32	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13175	Xianbei_1500BP	nEA	Mongolia	ancient	1483	N.A.	45.39	90.8	N.A.	N.A.	Wang_C_et_al_2021	PASS
I6228	Xiongnu_1900BP	nEA	Mongolia	ancient	1919	N.A.	49.96	92.05	N.A.	N.A.	Wang_C_et_al_2021	PASS
I1202	Yankovsky_2850 BP	nEA	Russia	ancient	2850	N.A.	43.06	131.89	N.A.	N.A.	Wang_C_et_al_2021	PASS
I3358	Heishui_Mohe_7 50BP	nEA	Russia	ancient	769	N.A.	45.91	134.88	N.A.	N.A.	Wang_C_et_al_2021	PASS
I12974	Mongolia_650BP	nEA	Mongolia	ancient	682	N.A.	47.38	110.32	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13961	Mongolia_650BP	nEA	Mongolia	ancient	609	N.A.	46.15	114.87	N.A.	N.A.	Wang_C_et_al_2021	PASS
I13176	Mongolia_1000BP	nEA	Mongolia	ancient	1011	N.A.	45.35	90.85	N.A.	N.A.	Wang_C_et_al_2021	PASS
Qihe3	Qihe_11550BP	sEA	China	ancient	11552	N.A.	25.4	117.6	N.A.	N.A.	Wang_T_et_al_2021	PASS
Longlin_1	Longlin_10550BP	sEA	China	ancient	10563	N.A.	24.64	105.17	N.A.	N.A.	Wang_T_et_al_2021	PASS
Dushan4_1	Dushan_8800BP	sEA	China	ancient	8784	N.A.	23.6	107.13	N.A.	N.A.	Wang_T_et_al_2021	PASS
Baojianshan5_M2	Baojianshan_735 0BP	sEA	China	ancient	7368	N.A.	22.34	106.85	N.A.	N.A.	Wang_T_et_al_2021	PASS
Baojianshan5_M1	Baojianshan_735 0BP	sEA	China	ancient	7368	N.A.	22.34	106.85	N.A.	N.A.	Wang_T_et_al_2021	PASS
BalongKD07	BaBanQinCen_1 550BP	sEA	China	ancient	1552	N.A.	24.15	107.51	N.A.	N.A.	Wang_T_et_al_2021	PASS
BalongKD10	BaBanQinCen_1 500BP	sEA	China	ancient	1489	N.A.	24.15	107.51	N.A.	N.A.	Wang_T_et_al_2021	PASS
QinchangKD14	BaBanQinCen_1 500BP	sEA	China	ancient	1476	N.A.	24.1	107.51	N.A.	N.A.	Wang_T_et_al_2021	PASS
QinchangKD13	BaBanQinCen_1 500BP	sEA	China	ancient	1442	N.A.	24.1	107.51	N.A.	N.A.	Wang_T_et_al_2021	PASS
BandaKD15	BaBanQinCen_1 500BP	sEA	China	ancient	1435	N.A.	24.05	107.5	N.A.	N.A.	Wang_T_et_al_2021	PASS
CenxunKP05	BaBanQinCen_1 500BP	sEA	China	ancient	1387	N.A.	23.4	107.4	N.A.	N.A.	Wang_T_et_al_2021	PASS
BandaKD11	BaBanQinCen_1 500BP	sEA	China	ancient	1387	N.A.	24.05	107.5	N.A.	N.A.	Wang_T_et_al_2021	PASS
BalongKD06	BaBanQinCen_1 500BP	sEA	China	ancient	1500	N.A.	24.15	107.51	N.A.	N.A.	Wang_T_et_al_2021	imiss
BalongKD08	BaBanQinCen_1 500BP	sEA	China	ancient	1500	N.A.	24.15	107.51	N.A.	N.A.	Wang_T_et_al_2021	imiss
CenxunKP13	LaCen_1350BP	sEA	China	ancient	1411	N.A.	23.4	107.4	N.A.	N.A.	Wang_T_et_al_2021	PASS
LadaKH01	LaCen_1350BP	sEA	China	ancient	1388	N.A.	24	107.6	N.A.	N.A.	Wang_T_et_al_2021	PASS
CenxunKP07	LaCen_1350BP	sEA	China	ancient	1330	N.A.	23.4	107.4	N.A.	N.A.	Wang_T_et_al_2021	PASS
LayiKD01	Layi_1450BP	sEA	China	ancient	1468	N.A.	24.08	107.62	N.A.	N.A.	Wang_T_et_al_2021	PASS
ShenxianKP09	Shenxian_1300BP	sEA	China	ancient	1315	N.A.	23.31	107.59	N.A.	N.A.	Wang_T_et_al_2021	PASS
YiyangKP17	Yiyang_1350BP	sEA	China	ancient	1387	N.A.	23.33	107.5	N.A.	N.A.	Wang_T_et_al_2021	PASS

HuatuyanNL06	GaoHuaHua_450BP	sEA	China	ancient	500	N.A.	25.1	107.66	N.A.	N.A.	Wang_T_et_al_2021	PASS
HuatuyanNL18	GaoHuaHua_450BP	sEA	China	ancient	500	N.A.	25.1	107.66	N.A.	N.A.	Wang_T_et_al_2021	PASS
HuatuyanNL04	GaoHuaHua_450BP	sEA	China	ancient	500	N.A.	25.1	107.66	N.A.	N.A.	Wang_T_et_al_2021	imiss
Yinwang	GaoHuaHua_450BP	sEA	China	ancient	500	N.A.	23.82	107.52	N.A.	N.A.	Wang_T_et_al_2021	imiss
HuatuyanNL11	GaoHuaHua_450BP	sEA	China	ancient	446	N.A.	25.1	107.66	N.A.	N.A.	Wang_T_et_al_2021	PASS
HuatuyanNL17	GaoHuaHua_450BP	sEA	China	ancient	434	N.A.	25.1	107.66	N.A.	N.A.	Wang_T_et_al_2021	PASS
GaofengNL23	GaoHuaHua_450BP	sEA	China	ancient	421	N.A.	25.11	107.7	N.A.	N.A.	Wang_T_et_al_2021	imiss
HuaqiaoNL26	GaoHuaHua_450BP	sEA	China	ancient	419	N.A.	25.11	107.66	N.A.	N.A.	Wang_T_et_al_2021	PASS
HuatuyanNL21	GaoHuaHua_450BP	sEA	China	ancient	405	N.A.	25.1	107.66	N.A.	N.A.	Wang_T_et_al_2021	PASS
HuatuyanNL02	GaoHuaHua_450BP	sEA	China	ancient	386	N.A.	25.1	107.66	N.A.	N.A.	Wang_T_et_al_2021	PASS
HuatuyanNL19	GaoHuaHua_450BP	sEA	China	ancient	375	N.A.	25.1	107.66	N.A.	N.A.	Wang_T_et_al_2021	PASS
La368	PhaFaen_7000BP	MSEA	Laos	ancient	7040	N.A.	18.55	103.52	N.A.	N.A.	McColl_et_al_2018	PASS
Ma911	GuaChaCave_3900BP	MSEA	Malaysia	ancient	3872	N.A.	5.15	101.69	N.A.	N.A.	McColl_et_al_2018	PASS
Ma912	GuaChaCave_2400BP	MSEA	Malaysia	ancient	2409	N.A.	5.15	101.69	N.A.	N.A.	McColl_et_al_2018	PASS
I0627	ManBac_3800BP	MSEA	Vietnam	ancient	3963	N.A.	20.54	106.41	N.A.	N.A.	Lipson_et_al_2018	PASS
I1137	ManBac_3800BP	MSEA	Vietnam	ancient	3763	N.A.	20.54	106.41	N.A.	N.A.	Lipson_et_al_2018	PASS
I1859	ManBac_3800BP	MSEA	Vietnam	ancient	3765	N.A.	20.54	106.41	N.A.	N.A.	Lipson_et_al_2018	PASS
I2731	ManBac_3800BP	MSEA	Vietnam	ancient	3718	N.A.	20.54	106.41	N.A.	N.A.	Lipson_et_al_2018	PASS
I2947_new	ManBac_3800BP	MSEA	Vietnam	ancient	3750	N.A.	20.54	106.41	N.A.	N.A.	Lipson_et_al_2018	PASS
Vt778	NamTun_2550BP	MSEA	Vietnam	ancient	2549	N.A.	22.42	102.32	N.A.	N.A.	McColl_et_al_2018	PASS
Vt777	MaiDaDieu_2300BP	MSEA	Vietnam	ancient	2275	N.A.	20.13	105.32	N.A.	N.A.	McColl_et_al_2018	PASS
Vt833	MaiDaDieu_3800BP	MSEA	Vietnam	ancient	3788	N.A.	20.13	105.32	N.A.	N.A.	McColl_et_al_2018	PASS
Vt880	HonHaiCoTien_4000BP	MSEA	Vietnam	ancient	4000	N.A.	21.4	107.47	N.A.	N.A.	McColl_et_al_2018	PASS
La364	TamPaLing_2850BP	MSEA	Laos	ancient	2865	N.A.	20.77	104.01	N.A.	N.A.	McColl_et_al_2018	PASS
La727	TamHang_2200BP	MSEA	Laos	ancient	2320	N.A.	20.77	104.01	N.A.	N.A.	McColl_et_al_2018	PASS
La898	TamHang_2200BP	MSEA	Laos	ancient	2000	N.A.	20.77	104.01	N.A.	N.A.	McColl_et_al_2018	PASS
I4011_new	Oakaie_2950BP	MSEA	Myanmar	ancient	2950	N.A.	22.76	95.39	N.A.	N.A.	Lipson_et_al_2018	PASS
In661	LoyangUjungCave_2000BP	MSEA	Indonesia	ancient	1917	N.A.	3.85	96.47	N.A.	N.A.	McColl_et_al_2018	PASS
In662	LoyangUjungCave_2000BP	MSEA	Indonesia	ancient	2152	N.A.	3.85	96.47	N.A.	N.A.	McColl_et_al_2018	PASS
Vt779	NuiNap_2200BP	MSEA	Vietnam	ancient	2242	N.A.	19.98	105.69	N.A.	N.A.	McColl_et_al_2018	PASS
Vt781	NuiNap_2200BP	MSEA	Vietnam	ancient	2248	N.A.	19.98	105.69	N.A.	N.A.	McColl_et_al_2018	PASS
Vt796	NuiNap_2200BP	MSEA	Vietnam	ancient	2143	N.A.	19.98	105.69	N.A.	N.A.	McColl_et_al_2018	PASS
Vt808	NuiNap_2200BP	MSEA	Vietnam	ancient	2255	N.A.	19.98	105.69	N.A.	N.A.	McColl_et_al_2018	PASS
I2497	NuiNap_2200BP	MSEA	Vietnam	ancient	2000	N.A.	19.98	105.69	N.A.	N.A.	Lipson_et_al_2018	PASS
I2948_new	NuiNap_1950BP	MSEA	Vietnam	ancient	1948	N.A.	19.98	105.69	N.A.	N.A.	Lipson_et_al_2018	PASS
I1680_new	VatKomnou_1800BP	MSEA	Cambodia	ancient	1810	N.A.	10.98	104.97	N.A.	N.A.	Lipson_et_al_2018	PASS
Th519	LongLongRak_1750BP	MSEA	Thailand	ancient	1792	N.A.	19.55	98.27	N.A.	N.A.	McColl_et_al_2018	PASS
Th521	LongLongRak_1750BP	MSEA	Thailand	ancient	1785	N.A.	19.55	98.27	N.A.	N.A.	McColl_et_al_2018	PASS
Th530	LongLongRak_1750BP	MSEA	Thailand	ancient	1756	N.A.	19.55	98.27	N.A.	N.A.	McColl_et_al_2018	PASS
Th531	LongLongRak_1750BP	MSEA	Thailand	ancient	1687	N.A.	19.55	98.27	N.A.	N.A.	McColl_et_al_2018	PASS
Th703	LongLongRak_1750BP	MSEA	Thailand	ancient	1758	N.A.	19.55	98.27	N.A.	N.A.	McColl_et_al_2018	PASS
Vt719	HonHaiCoTien_200BP	MSEA	Vietnam	ancient	223	N.A.	21.4	107.47	N.A.	N.A.	McColl_et_al_2018	PASS
Ma554	SupuHujung_400BP	MSEA	Malaysia	ancient	383	N.A.	6.7	116.8	N.A.	N.A.	McColl_et_al_2018	PASS
Ma555	Kinabatangan_300BP	MSEA	Malaysia	ancient	299	N.A.	5.08	117.87	N.A.	N.A.	McColl_et_al_2018	PASS

LIA001002.TF1.1	Liang_Bua_2600BP	ISEA	Indonesia	ancient	2600	N.A.	-8.53	120.44	N.A.	N.A.	Oliveira_et_al_2021	PASS
TanjungPinang1.TF	Tanjung_Pinang_2100BP	ISEA	Indonesia	ancient	2100	N.A.	2	128.42	N.A.	N.A.	Oliveira_et_al_2021	PASS
TanjungPinang2.TF	Tanjung_Pinang_2100BP	ISEA	Indonesia	ancient	2100	N.A.	2	128.42	N.A.	N.A.	Oliveira_et_al_2021	PASS
TanjungPinang4.TF	Tanjung_Pinang_2100BP	ISEA	Indonesia	ancient	2100	N.A.	2	128.42	N.A.	N.A.	Oliveira_et_al_2021	PASS
TanjungPinang6.TF	Tanjung_Pinang_2100BP	ISEA	Indonesia	ancient	2100	N.A.	2	128.42	N.A.	N.A.	Oliveira_et_al_2021	PASS
Uattamdi1.TF	Uattamdi_1900BP	ISEA	Indonesia	ancient	1900	N.A.	0.05	127.41	N.A.	N.A.	Oliveira_et_al_2021	PASS
AMA001.B0101.TF1.1	Aru_Manara_2150BP	ISEA	Indonesia	ancient	2150	N.A.	2.3	128.8	N.A.	N.A.	Oliveira_et_al_2021	PASS
AMA0038.A0101.TF1.1	Aru_Manara_2150BP	ISEA	Indonesia	ancient	2150	N.A.	2.3	128.8	N.A.	N.A.	Oliveira_et_al_2021	PASS
AMA004.AB0101.TF1.1	Aru_Manara_2150BP	ISEA	Indonesia	ancient	2150	N.A.	2.3	128.8	N.A.	N.A.	Oliveira_et_al_2021	PASS
AMA005.A0101.TF1.1	Aru_Manara_2150BP	ISEA	Indonesia	ancient	2150	N.A.	2.3	128.8	N.A.	N.A.	Oliveira_et_al_2021	PASS
AMA009.AB0101.TF1.1	Aru_Manara_950BP	ISEA	Indonesia	ancient	950	N.A.	2.3	128.8	N.A.	N.A.	Oliveira_et_al_2021	PASS
TOP002.A0101.TF1.1	Topogaro_250BP	ISEA	Indonesia	ancient	250	N.A.	-2.2	121.66	N.A.	N.A.	Oliveira_et_al_2021	PASS
TOP004.A0101.TF1.1	Topogaro_250BP	ISEA	Indonesia	ancient	250	N.A.	-2.2	121.66	N.A.	N.A.	Oliveira_et_al_2021	PASS
JAB001.A0101.TF1.1	Jareng_Bori_450BP	ISEA	Indonesia	ancient	450	N.A.	-8.42	124.12	N.A.	N.A.	Oliveira_et_al_2021	PASS
KMO001.A0101.TF1.1	Komodo_750BP	ISEA	Indonesia	ancient	750	N.A.	-8.6	119.44	N.A.	N.A.	Oliveira_et_al_2021	PASS
LIT001.A0101.TF1.1	Liang_Toge_850BP	ISEA	Indonesia	ancient	850	N.A.	-8.65	120.99	N.A.	N.A.	Oliveira_et_al_2021	PASS
Lapita_I1368	Vanuatu_2900BP	Oceania	Vanuatu	ancient	2983	N.A.	-17.79	168.37	N.A.	N.A.	Skoglund_et_al_2016	PASS
Lapita_I1369	Vanuatu_2900BP	Oceania	Vanuatu	ancient	3045	N.A.	-17.79	168.37	N.A.	N.A.	Skoglund_et_al_2016	PASS
Lapita_I1370	Vanuatu_2900BP	Oceania	Vanuatu	ancient	3083	N.A.	-17.79	168.37	N.A.	N.A.	Skoglund_et_al_2016	PASS
Lapita_Sk10	Tonga_2600BP	Oceania	Tonga	ancient	2594	N.A.	-21.18	-175.12	N.A.	N.A.	Skoglund_et_al_2016	PASS
TON001	Tonga_2600BP	Oceania	Tonga	ancient	2625	N.A.	-21.18	175.11	N.A.	N.A.	Posth_et_al_2018	PASS
TON002	Tonga_2600BP	Oceania	Tonga	ancient	2625	N.A.	-21.18	175.11	N.A.	N.A.	Posth_et_al_2018	PASS
MAL006	Vanuatu_2400BP	Oceania	Vanuatu	ancient	2665	N.A.	-16.07	167.45	N.A.	N.A.	Posth_et_al_2018	imiss
MAL004	Vanuatu_2400BP	Oceania	Vanuatu	ancient	2567	N.A.	-16.07	167.45	N.A.	N.A.	Posth_et_al_2018	PASS
MAL002	Vanuatu_2400BP	Oceania	Vanuatu	ancient	2525	N.A.	-16.07	167.45	N.A.	N.A.	Posth_et_al_2018	PASS
TAN002	Vanuatu_2400BP	Oceania	Vanuatu	ancient	2490	N.A.	-19.33	169.34	N.A.	N.A.	Posth_et_al_2018	PASS
MAL001	Vanuatu_2400BP	Oceania	Vanuatu	ancient	2240	N.A.	-15.9	167.3	N.A.	N.A.	Posth_et_al_2018	PASS
MAL008	Vanuatu_2400BP	Oceania	Vanuatu	ancient	2238	N.A.	-16.07	167.45	N.A.	N.A.	Posth_et_al_2018	imiss
MAL007	Vanuatu_2400BP	Oceania	Vanuatu	ancient	2038	N.A.	-16.07	167.45	N.A.	N.A.	Posth_et_al_2018	PASS
FUT002	Vanuatu_1200BP	Oceania	Vanuatu	ancient	1238	N.A.	-19.52	170.23	N.A.	N.A.	Posth_et_al_2018	PASS
FUT006	Vanuatu_1200BP	Oceania	Vanuatu	ancient	1209	N.A.	-19.52	170.23	N.A.	N.A.	Posth_et_al_2018	PASS
FUT007	Vanuatu_1200BP	Oceania	Vanuatu	ancient	1204	N.A.	-19.52	170.23	N.A.	N.A.	Posth_et_al_2018	PASS
FUT001	Vanuatu_1200BP	Oceania	Vanuatu	ancient	1159	N.A.	-19.52	170.23	N.A.	N.A.	Posth_et_al_2018	PASS
LHA001	Tonga_800BP	Oceania	Tonga	ancient	844	N.A.	-21.18	-175.12	N.A.	N.A.	Posth_et_al_2018	PASS
MAI002	Solomon_Islands_500BP	Oceania	Solomon_Islands	ancient	467	N.A.	-9.25	161.22	N.A.	N.A.	Posth_et_al_2018	PASS
TAP003	French_Polynesia_400BP	Oceania	French_Polynesia	ancient	366	N.A.	-16.84	-151.36	N.A.	N.A.	Posth_et_al_2018	PASS
TAP004	French_Polynesia_200BP	Oceania	French_Polynesia	ancient	228	N.A.	-16.84	-151.36	N.A.	N.A.	Posth_et_al_2018	PASS
TAP002	French_Polynesia_200BP	Oceania	French_Polynesia	ancient	203	N.A.	-16.84	-151.36	N.A.	N.A.	Posth_et_al_2018	PASS
TAN001	Vanuatu_300BP	Oceania	Vanuatu	ancient	202	N.A.	-19.56	169.28	N.A.	N.A.	Posth_et_al_2018	PASS
I1370	Vanuatu_2900BP	Oceania	Vanuatu	ancient	2945	N.A.	-17.79	168.37	N.A.	N.A.	Lipson_et_al_2018_b	imiss
I1369	Vanuatu_2900BP	Oceania	Vanuatu	ancient	2885	N.A.	-17.79	168.37	N.A.	N.A.	Lipson_et_al_2018_b	imiss
I1368	Vanuatu_2900BP	Oceania	Vanuatu	ancient	2870	N.A.	-17.79	168.37	N.A.	N.A.	Lipson_et_al_2018_b	imiss
I5951	Vanuatu_2900BP	Oceania	Vanuatu	ancient	2820	N.A.	-17.79	168.37	N.A.	N.A.	Lipson_et_al_2018_b	PASS
I4451	Vanuatu_2400BP	Oceania	Vanuatu	ancient	2260	N.A.	-17.69	168.29	N.A.	N.A.	Lipson_et_al_2018_b	PASS

I3921	Vanuatu_1200BP	Oceania	Vanuatu	ancient	1260	N.A.	-16.71	168.13	N.A.	N.A.	Lipson_et_al_2018_b	PASS
I5259_published	Vanuatu_300BP	Oceania	Vanuatu	ancient	480	N.A.	-17.64	168.21	N.A.	N.A.	Lipson_et_al_2018_b	PASS
I4450	Vanuatu_300BP	Oceania	Vanuatu	ancient	215	N.A.	-17.68	168.53	N.A.	N.A.	Lipson_et_al_2018_b	PASS
I4105	Vanuatu_300BP	Oceania	Vanuatu	ancient	150	N.A.	-16.89	168.3	N.A.	N.A.	Lipson_et_al_2018_b	PASS
I4419	Vanuatu_300BP	Oceania	Vanuatu	ancient	140	N.A.	-17.8	168.52	N.A.	N.A.	Lipson_et_al_2018_b	PASS
I4424	Vanuatu_300BP	Oceania	Vanuatu	ancient	140	N.A.	-17.77	168.29	N.A.	N.A.	Lipson_et_al_2018_b	PASS
I4106	Vanuatu_300BP	Oceania	Vanuatu	ancient	140	N.A.	-16.89	168.3	N.A.	N.A.	Lipson_et_al_2018_b	PASS
I4425	Vanuatu_300BP	Oceania	Vanuatu	ancient	135	N.A.	-17.65	168.4	N.A.	N.A.	Lipson_et_al_2018_b	PASS
I5265	Vanuatu_2900BP	Oceania	Vanuatu	ancient	2875	N.A.	-17.79	168.39	N.A.	N.A.	Lipson_et_al_2020	imiss
I5266	Vanuatu_2900BP	Oceania	Vanuatu	ancient	2875	N.A.	-17.79	168.39	N.A.	N.A.	Lipson_et_al_2020	PASS
I5268	Vanuatu_2900BP	Oceania	Vanuatu	ancient	2995	N.A.	-17.79	168.39	N.A.	N.A.	Lipson_et_al_2020	imiss
I5267	Vanuatu_2900BP	Oceania	Vanuatu	ancient	3050	N.A.	-17.79	168.39	N.A.	N.A.	Lipson_et_al_2020	imiss
I6188	Vanuatu_2400BP	Oceania	Vanuatu	ancient	2400	N.A.	-17.7	168.27	N.A.	N.A.	Lipson_et_al_2020	imiss
I14493	Vanuatu_300BP	Oceania	Vanuatu	ancient	350	N.A.	-17.64	168.15	N.A.	N.A.	Lipson_et_al_2020	PASS
I10969	Vanuatu_300BP	Oceania	Vanuatu	ancient	350	N.A.	-17.64	168.15	N.A.	N.A.	Lipson_et_al_2020	PASS
I10968	Vanuatu_300BP	Oceania	Vanuatu	ancient	350	N.A.	-17.64	168.15	N.A.	N.A.	Lipson_et_al_2020	PASS
I10967	Vanuatu_300BP	Oceania	Vanuatu	ancient	180	N.A.	-17.64	168.2	N.A.	N.A.	Lipson_et_al_2020	PASS
I10966	Vanuatu_300BP	Oceania	Vanuatu	ancient	350	N.A.	-17.64	168.2	N.A.	N.A.	Lipson_et_al_2020	PASS
EFE005	Vanuatu_300BP	Oceania	Vanuatu	ancient	234	N.A.	-17.81	168.52	N.A.	N.A.	Lipson_et_al_2020	PASS
SP4210.all	Guam_2200BP	Oceania	US	ancient	2200	N.A.	13.62	144.87	N.A.	N.A.	Pugach_et_al_2021	PASS
SP4211.all	Guam_2200BP	Oceania	US	ancient	2200	N.A.	13.62	144.87	N.A.	N.A.	Pugach_et_al_2021	PASS
mota.SG	Mota_4470BP	Africa	Ethiopia	ancient	4470	N.A.	6.797495	38.207852	N.A.	N.A.	Llorente_et_al_2015	PASS (qpAdm)
Ust_Ishim_published.DG	Ust_Ishim_44350BP	nEA	Russia	ancient	44366	N.A.	57.7	71.1	N.A.	N.A.	Fu_et_al_2014	PASS (qpAdm)
Kostenki14.SG	Kostenki_38050BP	nEA	Russia	ancient	38052	N.A.	51.23	39.3	N.A.	N.A.	Seguin-Orlando_et_al_2014	PASS (qpAdm)
I1290	Iran_10000BP	WestAsia	Iran	ancient	9806	N.A.	34.45	48.116	N.A.	N.A.	Lazaridis_et_al_2016	PASS (qpAdm)
I1944	Iran_10000BP	WestAsia	Iran	ancient	9800	N.A.	34.45	48.116	N.A.	N.A.	Narasimhan_et_al_2019	PASS (qpAdm)
I1945	Iran_10000BP	WestAsia	Iran	ancient	9800	N.A.	34.45	48.116	N.A.	N.A.	Narasimhan_et_al_2019	PASS (qpAdm)
I1947	Iran_10000BP	WestAsia	Iran	ancient	9992	N.A.	34.45	48.116	N.A.	N.A.	Narasimhan_et_al_2019	PASS (qpAdm)
I1949	Iran_10000BP	WestAsia	Iran	ancient	10042	N.A.	34.45	48.116	N.A.	N.A.	Narasimhan_et_al_2019	PASS (qpAdm)
I1954	Iran_10000BP	WestAsia	Iran	ancient	10162	N.A.	34.45	48.116	N.A.	N.A.	Narasimhan_et_al_2019	PASS (qpAdm)
I1951	Iran_10000BP	WestAsia	Iran	ancient	9848	N.A.	34.45	48.116	N.A.	N.A.	Narasimhan_et_al_2019	PASS (qpAdm)
I7527	Iran_10000BP	WestAsia	Iran	ancient	9900	N.A.	34.45	48.116	N.A.	N.A.	Narasimhan_et_al_2019	PASS (qpAdm)
Yana_old.SG	Yana_31850BP	nEA	Russia	ancient	31850	N.A.	70.72	135.42	N.A.	N.A.	Sikora_et_al_2019	PASS (qpAdm)
I0061.SG	Karelia_8450BP	nEA	Russia	ancient	8450	N.A.	61.65	35.65	N.A.	N.A.	Fu_et_al_2016	PASS (qpAdm)
I2123	Indus_Periphery_4500BP	WestAsia	Turkmenistan	ancient	4211	N.A.	38.21228	62.03443	N.A.	N.A.	Narasimhan_et_al_2019	PASS (qpAdm)
I11456_published	Indus_Periphery_4500BP	WestAsia	Iran	ancient	4500	N.A.	30.649857	61.400311	N.A.	N.A.	Narasimhan_et_al_2019	PASS (qpAdm)
I11459_published	Indus_Periphery_4500BP	WestAsia	Iran	ancient	4699	N.A.	30.649857	61.400311	N.A.	N.A.	Narasimhan_et_al_2019	PASS (qpAdm)
I11466_published	Indus_Periphery_4500BP	WestAsia	Iran	ancient	4200	N.A.	30.649857	61.400311	N.A.	N.A.	Narasimhan_et_al_2019	PASS (qpAdm)
I8726	Indus_Periphery_4500BP	WestAsia	Iran	ancient	5000	N.A.	30.649857	61.400311	N.A.	N.A.	Narasimhan_et_al_2019	PASS (qpAdm)
I8728_published	Indus_Periphery_4500BP	WestAsia	Iran	ancient	4500	N.A.	30.649857	61.400311	N.A.	N.A.	Narasimhan_et_al_2019	PASS (qpAdm)
I11458_published	Indus_Periphery_4500BP	WestAsia	Iran	ancient	4600	N.A.	30.649857	61.400311	N.A.	N.A.	Narasimhan_et_al_2019	imiss
USR1.SG	Upward_Sun_River_11400BP	America	US	ancient	11425	N.A.	64.22	-145.7	N.A.	N.A.	Moreno-Mayar_et_al_2017	PASS (qpAdm)

Kolyma_River.SG	Kolyma_9750BP	nEA	Russia	ancient	9775	N.A.	68.6	159.1	N.A.	N.A.	Sikora_et_al_2019	PASS (qpAdm)
IK002.SG	Jomon_2800BP	nEA	Japan	ancient	2782	N.A.	35.0183	137.294	N.A.	N.A.	McColl_et_al_2018	PASS (qpAdm)
RISE515.SG	Okunevo_4300BP	nEA	Russia	ancient	4196	N.A.	53.156486	90.207811	N.A.	N.A.	Damgaard_et_al_2018	PASS (qpAdm)
RISE667.SG	Okunevo_4300BP	nEA	Russia	ancient	4300	N.A.	53.156486	90.207811	N.A.	N.A.	Damgaard_et_al_2018	PASS (qpAdm)
RISE670.SG	Okunevo_4300BP	nEA	Russia	ancient	3959	N.A.	53.156486	90.207811	N.A.	N.A.	Damgaard_et_al_2018	PASS (qpAdm)
RISE671.SG	Okunevo_4300BP	nEA	Russia	ancient	4300	N.A.	53.156486	90.207811	N.A.	N.A.	Damgaard_et_al_2018	PASS (qpAdm)
RISE672.SG	Okunevo_4300BP	nEA	Russia	ancient	4300	N.A.	53.156486	90.207811	N.A.	N.A.	Damgaard_et_al_2018	PASS (qpAdm)
RISE674.SG	Okunevo_4300BP	nEA	Russia	ancient	4064	N.A.	53.156486	90.207811	N.A.	N.A.	Damgaard_et_al_2018	PASS (qpAdm)
RISE675.SG	Okunevo_4300BP	nEA	Russia	ancient	4517	N.A.	53.708561	90.359808	N.A.	N.A.	Damgaard_et_al_2018	PASS (qpAdm)
RISE677.SG	Okunevo_4300BP	nEA	Russia	ancient	4409	N.A.	53.708561	90.359808	N.A.	N.A.	Damgaard_et_al_2018	PASS (qpAdm)
RISE680.SG	Okunevo_4300BP	nEA	Russia	ancient	4300	N.A.	53.708561	90.359808	N.A.	N.A.	Damgaard_et_al_2018	PASS (qpAdm)
RISE681.SG	Okunevo_4300BP	nEA	Russia	ancient	4300	N.A.	53.708561	90.359808	N.A.	N.A.	Damgaard_et_al_2018	PASS (qpAdm)
RISE683.SG	Okunevo_4300BP	nEA	Russia	ancient	3973	N.A.	53.708561	90.359808	N.A.	N.A.	Damgaard_et_al_2018	PASS (qpAdm)
RISE684.SG	Okunevo_4300BP	nEA	Russia	ancient	4239	N.A.	53.708561	90.359808	N.A.	N.A.	Damgaard_et_al_2018	PASS (qpAdm)
RISE685.SG	Okunevo_4300BP	nEA	Russia	ancient	4300	N.A.	53.708561	90.359808	N.A.	N.A.	Damgaard_et_al_2018	PASS (qpAdm)
RISE719.SG	Okunevo_4300BP	nEA	Russia	ancient	4300	N.A.	54.371767	91.506856	N.A.	N.A.	Damgaard_et_al_2018	PASS (qpAdm)

378
379