

Supplementary Material

Table S1. List of computer software referred to in Table 2 of the main text. This is intended only as an example of some of the analytical methods that can be used in a complementary manner for phylogeographic inference. All of the software listed here is freely-available.

Software	Website	Reference(s)
ARLEQUIN	http://cmpg.unibe.ch/software/arlequin3/	[1]
AUGIST	http://www.lycaenid.org/augist/	[2]
BAYESASS	http://sites.google.com/site/rannalaorg/software	[3]
BARRIER	http://www.mnhn.fr/mnhn/ecoanthropologie/software/barrier.html	[4]
BEAST	http://beast.bio.ed.ac.uk/	[5]
BEST	http://www.stat.osu.edu/~dkp/BEST/	[6,7]
BOTTLENECK	http://www1.montpellier.inra.fr/URLB/bottleneck/bottleneck.html	[8]
DNASP	http://www.ub.es/dnasp/	[9]
FLUCTUATE	http://evolution.gs.washington.edu/lamarc/lamarc_prog.html	[10,11]
FSTAT	http://www2.unil.ch/popgen/softwares/fstat.htm	[12]
GARLI	https://www.nescent.org/wg_garli/	[13]
GENALEX	http://www.anu.edu.au/BoZo/GenAlEx/	[14]
GENECLASS	http://www1.montpellier.inra.fr/URLB/index.html	[15]
GENELAND	http://www2.imm.dtu.dk/~gigu/Geneland/	[16,17]
GENEPOP	http://genepop.curtin.edu.au/	[18]
GENETICSTUDIO	http://dyerlab.bio.vcu.edu/software/geneticstudio.html	[19]
GEODIS	http://darwin.uvigo.es/software/geodis.html	[20]
IBDWS	http://ibdws.sdsu.edu/~ibdws/	[21]
IM	http://genfaculty.rutgers.edu/hey/software	[22,23]
KINGROUP	http://code.google.com/p/kingroup/	[24]
LDNE	http://fish.washington.edu/xfer/LDNE/	[25]
MIGRATE	http://popgen.sc.fsu.edu/Migrate-n.html	[26,27]
MR BAYES	http://mrbayes.csit.fsu.edu/	[28]
MSVAR	http://www.rubic.rdg.ac.uk/~mab/software.html	[29]
ONESAMP	http://genomics.jun.alaska.edu/asp/Default.aspx	[30]
PHYLIP	http://evolution.genetics.washington.edu/phylip/software.html	[31]
R8S	http://loco.biosci.arizona.edu/r8s/	[32]
SAMOVA	http://cmpg.unibe.ch/software/samova/	[33]
STRUCTURE	http://pritch.bsd.uchicago.edu/structure.html	[34]
TCS	http://darwin.uvigo.es/software/tcs.html	[35]

Supplementary References

1. Excoffier, L.; Laval, G.; Schneider, S. Arlequin (version 3.0): An integrated software package for population genetics data analysis. *Evol. Bioinform. Online* **2005**, *1*, 47–50
2. Oliver, J.C. AUGIST: inferring species trees while accommodating gene tree uncertainty. *Bioinformatics* **2008**, *24*, 2932–2933.
3. Wilson, G.A.; Rannala, B. Bayesian inference of recent migration rates using multilocus genotypes. *Genetics* **2003**, *163*, 1177–1191.

4. Manni, F.; Guérard, E.; Heyer, E. Geographic patterns of (genetic, morphologic, linguistic) variation: How barriers can be detected by using Monmonier's algorithm. *Hum. Biol.* **2004**, *76*, 173–190.
5. Drummond, A.J.; Rambaut, A. BEAST: Bayesian evolutionary analysis by sampling trees. *BMC Evol. Biol.* **2007**, *7*, 214.
6. Liu, L.; Pearl, D.K. Species trees from gene trees: Reconstructing Bayesian posterior distributions of a species phylogeny using estimated gene tree distributions. *Syst. Biol.* **2007**, *56*, 504–514.
7. Liu, L. BEST: Bayesian estimation of species trees under the coalescent model. *Bioinformatics* **2008**, *24*, 2542–2543.
8. Piry, S.; Luikart, G.; Cornuet, J.M. BOTTLENECK: A computer program for detecting recent reductions in the effective population size using allele frequency data. *J. Hered.* **1999**, *90*, 502–503.
9. Rozas, J.; Sánchez-DelBarrio, J.C.; Meseguer, X.; Rozas, R. DnaSP, DNA polymorphism analyses by the coalescent and other methods. *Bioinformatics* **2003**, *19*, 2496–2497.
10. Kuhner, M.K. LAMARC 2.0: Maximum likelihood and Bayesian estimation of population parameters. *Bioinformatics* **2006**, *22*, 768–770.
11. Kuhner, M.K.; Yamato, J.; Felsenstein, J. Maximum likelihood estimation of population growth rates based on the coalescent. *Genetics* **1998**, *149*, 429–434.
12. Goudet, J. FSTAT (version 1.2): A computer program to calculate F-statistics. *J. Hered.* **1995**, *86*, 485–486.
13. Zwickl, D.J. Genetic algorithm approaches for the phylogenetic analysis of large biological sequence datasets under the maximum likelihood criterion. Ph.D. dissertation, The University of Texas at Austin: Austin, TX, USA, 2006.
14. Peakall, R.; Smouse, P.E. GENALEX 6: genetic analysis in Excel. Population genetic software for teaching and research. *Mol. Ecol. Notes* **2006**, *6*, 288–295.
15. Piry, S.; Alapetite, A.; Cornuet, J.-M.; Paetkau, D.; Baudouin, L.; Estoup, A. GeneClass2: A software for genetic assignment and first-generation migrant detection. *J. Hered.* **2004**, *95*, 536–539.
16. Guillot, G.; Estoup, A.; Mortier, F.; Cosson, J.F. A spatial statistical model for landscape genetics. *Genetics* **2005a**, *170*, 1261–1280.
17. Guillot, G.; Mortier, F.; Estoup, A. GENELAND: A computer package for landscape genetics. *Mol. Ecol. Notes* **2005b**, *5*, 712–715.
18. Raymond, M.; Rousset, F. GENEPOLP (version 1.2): Population genetics software for exact tests and ecumenicism. *J. Hered.* **1995**, *86*, 248–249.
19. Dyer, R.J. GeneticStudio: A suite of programs for spatial analysis of genetic-marker data. *Mol. Ecol. Resour.* **2009**, *9*, 110–113.
20. Posada, D.; Crandall, K.A.; Templeton, A.R. GeoDis: A program for the cladistic nested analysis of the geographical distribution of genetic haplotypes. *Mol. Ecol.* **2000**, *9*, 487–488.
21. Jensen, J.L.; Bohonak, A.J.; Kelley, S.T. Isolation by distance, web service. *BMC Genet.* **2005**, *6*, 13.
22. Hey, J.; Nielsen, R. Multilocus methods for estimating population sizes, migration rates and divergence time, with applications to the divergence of *Drosophila pseudoobscura* and *D. persimilis*. *Genetics* **2004**, *167*, 747–760.

23. Hey, J.; Nielsen, R. Integration within the Felsenstein equation for improved Markov chain Monte Carlo methods in population genetics. *Proc. Natl. Acad. Sci. USA* **2007**, *104*, 2785–2790.
24. Konovalov, D.A.; Manning, C.; Henshaw, M.T. KINGROUP: A program for pedigree relationship reconstruction and kin group assignments using genetic markers. *Mol. Ecol. Notes* **2004**, *4*, 779–782.
25. Waples, R.S.; Do, C. LDNE: A program for estimating effective population size from data on linkage disequilibrium. *Mol. Ecol. Resour.* **2008**, *8*, 753–756.
26. Beerli, P.; Felsenstein, J. Maximum-likelihood estimation of migration rates and effective population numbers in two populations using a coalescent approach. *Genetics* **1999**, *152*, 763–773.
27. Beerli, P.; Felsenstein, J. Maximum likelihood estimation of a migration matrix and effective population sizes in n subpopulations by using a coalescent approach. *Proc. Natl. Acad. Sci. USA* **2001**, *98*, 4563–4568.
28. Ronquist, F.; Huelsenbeck, J.P. MRBAYES 3: Bayesian phylogenetic inference under mixed models. *Bioinformatics* **2003**, *19*, 1572–1574.
29. Beaumont, M.A. Detecting population expansion and decline using microsatellites. *Genetics* **1999**, *153*, 2013–2029.
30. Tallmon, D.A.; Koyuk, A.; Luikart, G.H.; Beaumont, M.A. ONeSAMP: A program to estimate effective population size using approximate Bayesian computation. *Mol. Ecol. Resour.* **2008**, *8*, 299–301.
31. Felsenstein, J. PHYLIP (Phylogeny Inference Package) version 3.5c. Distributed by the author. Department of Genetics, University of Washington: Seattle, WA, USA, 1993.
32. Sanderson, M.J. r8s: Inferring absolute rates of molecular evolution and divergence times in the absence of a molecular clock. *Bioinformatics* **2003**, *19*, 301–302.
33. Dupanloup, I.; Schneider, S.; Excoffier, L. A simulated annealing approach to define the genetic structure of populations. *Mol. Ecol.* **2002**, *11*, 2571–2581.
34. Pritchard, J.K.; Stephens, M.; Donnelly, P. Inference of population structure using multilocus genotype data. *Genetics* **2000**, *155*, 945–959.
35. Clement, M.; Posada, D.; Crandall, K.A. TCS: a computer program to estimate gene genealogies. *Mol. Ecol.* **2000**, *9*, 1657–1659.