Chapter 02 Bibliography

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General Phylogeography

John C Avise et al. "Intraspecific phylogeography: the mitochondrial DNA bridge between population genetics and systematics". In: *Annual review of ecology and systematics* 18.1 (1987), pp. 489–522

John C Avise et al. *Phylogeography: the history and formation of species*. Harvard university press, 2000

John C Avise. "Phylogeography: retrospect and prospect". In: *Journal of biogeography* 36.1 (2009), pp. 3–15

L Lacey Knowles. "Statistical phylogeography". In: *Annual Review of Ecology, Evolution, and Systematics* 40 (2009), pp. 593–612

Leslie J Rissler. "Union of phylogeography and landscape genetics". In: *Proceedings of the National Academy of Sciences* 113.29 (2016), pp. 8079–8086

Southeastern Phylogeography

Lisa N Barrow et al. "Evaluating hypotheses of expansion from refugia through comparative phylogeography of south-eastern Coastal Plain amphibians". In: *Journal of biogeography* 44.12 (2017), pp. 2692–2705

Jacob F Degner et al. "Fat frogs, mobile genes: unexpected phylogeographic patterns for the ornate chorus frog (Pseudacris ornata)". In: *Molecular Ecology* 19.12 (2010), pp. 2501–2515

MF Osentoski and T Lamb. "Intraspecific phylogeography of the gopher tortoise, Gopherus polyphemus: RFLP analysis of amplified mtDNA segments". In: *Molecular Ecology* 4.6 (1995), pp. 709–718

Robert Makowsky et al. "Phylogeographic analysis and environmental niche modeling of the plain-bellied watersnake (Nerodia erythrogaster) reveals low levels of genetic and ecological differentiation". In: *Molecular phylogenetics and evolution* 55.3 (2010), pp. 985–995

Nathan D Jackson and Christopher C Austin. "The combined effects of rivers and refugia generate extreme cryptic fragmentation within the common ground skink (Scincella lateralis)". In: *Evolution: International Journal of Organic Evolution* 64.2 (2010), pp. 409–428

Catherine E Newman and Leslie J Rissler. "Phylogeographic analyses of the southern leopard frog: the impact of geography and climate on the distribution of genetic lineages vs. subspecies". In: *Molecular Ecology* 20.24 (2011), pp. 5295–5312

Indigo Specific

Kenneth L Krysko, Leroy P Nuñez, et al. "Pliocene–Pleistocene lineage diversifications in the Eastern Indigo Snake (*Drymarchon couperi*) in the southeastern United States". In: *Molecular phylogenetics and evolution* 98 (2016), pp. 111–122

Kenneth L Krysko, Michael C Granatosky, et al. "A cryptic new species of Indigo Snake (genus *Drymarchon*) from the Florida Platform of the United States". In: *Zootaxa* 4138.3 (2016), pp. 549–569

Methods

Travis C Glenn et al. "Adapterama III: Quadruple-indexed, triple-enzyme RADseq libraries for about $ 1 USD per Sample (3RAD)". in: *bioRxiv* (2017)

Shawna J Zimmerman et al. "An empirical comparison of population genetic analyses using microsatellite and SNP data for a species of conservation concern". In: *BMC genomics* 21 (2020), pp. 1–16

Chapter 02 Annotated Bibliography

Avise: Phylogeography: retrospect and prospect **avise2009retrospectandprospect**

John C Avise. "Phylogeography: retrospect and prospect". In: *Journal of biogeography* 36.1 (2009), pp. 3–15.

Avise et al.: Phylogeography: the history and formation of species **avise2000phylogeography**

John C Avise et al. *Phylogeography: the history and formation of species*. Harvard university press, 2000.

Avise et al.: Intraspecific phylogeography: the mitochondrial DNA bridge between population genetics and systematics **avise1987intraspecific**

John C Avise, Jonathan Arnold, R Martin Ball, Eldredge Bermingham, Trip Lamb, Joseph E Neigel, Carol A Reeb, and Nancy C Saunders. "Intraspecific phylogeography: the mitochondrial DNA bridge between population genetics and systematics". In: *Annual review of ecology and systematics* 18.1 (1987), pp. 489–522.

Barrow et al.: Evaluating hypotheses of expansion from refugia through comparative phylogeography of south-eastern Coastal Plain amphibians **barrow2017CoastalComparison**

Lisa N Barrow, J Angel Soto-Centeno, Alexa R Warwick, Alan R Lemmon, and Emily Moriarty Lemmon. "Evaluating hypotheses of expansion from refugia through comparative phylogeography of south-eastern Coastal Plain amphibians". In: *Journal of biogeography* 44.12 (2017), pp. 2692–2705.

Annotations: An interesting study that looked at four frog species in the southeast to determine if Florida was a glacial refugia. They used whole mitochondrial genome sequences to estimate divergence time phylogenties, estimate the origin of each species, the direction of migration from that origin, and the rate of origin. They found that none of the species had origin in Florida, as would be predicted by the Florida refugia hypothesis, and some of the species lineage structure did not correspond with geography (e.g., Anaxyrus terrestris). However, Hyla cinerea and Hyla squirella both showed similar patters of diversity to Indigo

snakes, at least based on what Krysko et al 2016 showed. Finally, they did use ecological niche modelling to show overlap in the current SDM and historic SDM.

Degner et al.: Fat frogs, mobile genes: unexpected phylogeographic patterns for the ornate chorus frog (Pseudacris ornata) **degner2010pseudacrisphylogeography**

Jacob F Degner, Diana M Silva, Tyler D Hether, Juan M Daza, and Eric A Hoffman. "Fat frogs, mobile genes: unexpected phylogeographic patterns for the ornate chorus frog (Pseudacris ornata)". In: *Molecular Ecology* 19.12 (2010), pp. 2501–2515.

Annotations: The authors used microsatellite data to look at genetic structure within Pseudacris ornata, and found that the phylogeographic breaks for the species did not coincide with typical regions. Instead, the attribued the low vagility of the species to the reduced gene flow between populations and the increases level of structure. There does still appear to be some evidence of an Atlantic vs Gulf grouping, but it is not nearly as pronounced as it is in other species.

Glenn et al.: Adapterama III: Quadruple-indexed, triple-enzyme RADseq libraries for about $ 1 USD per Sample (3RAD) **glenn2017adapterama**

Travis C Glenn, Natalia J Bayona-Vasquez, Troy J Kieran, Todd W Pierson, Sandra L Hoffberg, Peter A Scott, Kerin E Bentley, John W Finger, Patrick R Watson, Swarnali Louha, et al. "Adapterama III: Quadruple-indexed, triple-enzyme RADseq libraries for about $ 1 USD per Sample (3RAD)". In: *bioRxiv* (2017).

Jackson et al.: The combined effects of rivers and refugia generate extreme cryptic fragmentation within the common ground skink (Scincella lateralis) **jackson2010combined**

Nathan D Jackson and Christopher C Austin. "The combined effects of rivers and refugia generate extreme cryptic fragmentation within the common ground skink (Scincella lateralis)". In: *Evolution: International Journal of Organic Evolution* 64.2 (2010), pp. 409–428.

Annotations: This paper used a fairly extensive multi-locus dataset containing both mitochondrial and nuclear markers to test the role of plio-pleistocene glaciation on diversification within Scincella lateralis, but also to explore the role of smaller rivers on driving diversification. They found that an intermediate hypothesis combining both mechanisms best explained how diversity of scincella lateralis came to be. The oldest lineages and those with the highest amounts of genetic diversity were found in the southeast, and separated by seemingly small rivers.

Knowles: Statistical phylogeography **knowles2009statistical**

L Lacey Knowles. "Statistical phylogeography". In: *Annual Review of Ecology, Evolution, and Systematics* 40 (2009), pp. 593–612.

Krysko et al.: A cryptic new species of Indigo Snake (genus *Drymarchon*) from the Florida Platform of the United States **krysko2016cryptic**

Kenneth L Krysko, Michael C Granatosky, Leroy P Nunez, and Daniel J Smith. "A cryptic new species of Indigo Snake (genus *Drymarchon*) from the Florida Platform of the United States". In: *Zootaxa* 4138.3 (2016), pp. 549–569.

Annotations: Builds on krysko et al 2016 about the pliocene diversify of *couperi*. Formally describes the Gulf (*Dryamrchon kolpbasileus* and Atlantic lineaages as separate species. Includes a morphological analysis that places the Mississippi populations in with the new Gulf Coast species. The PCAs do seem to pull apart by lineage, however, a DPCA maybe more appropriate and many geography doesn't seem to be well separating in the analysis.

Krysko et al.: Pliocene–Pleistocene lineage diversifications in the Eastern Indigo Snake (*Drymarchon couperi*) in the southeastern United States **krysko2016pliocene**

Kenneth L Krysko, Leroy P Nuñez, Catherine A Lippi, Daniel J Smith, and Michael C Granatosky. "Pliocene–Pleistocene lineage diversifications in the Eastern Indigo Snake (*Drymarchon couperi*) in the southeastern United States". In: *Molecular phylogenetics and evolution* 98 (2016), pp. 111–122.

Annotations: This study used two mitochondrial markers and a single nuclear locus to estimate divergence times for *Dyrmarchon couperi* from the sister species and for the timing of the split between the two clades. The two sister species split nearly 6mya and the two *couperi* lineages split about 2 mya.

Makowsky et al.: Phylogeographic analysis and environmental niche modeling of the plain-bellied watersnake (Nerodia erythrogaster) reveals low levels of genetic and ecological differentiation **makowsky2010NerodiaerythrogasterPhylogeography**

Robert Makowsky, John C Marshall Jr, John McVay, Paul T Chippindale, and Leslie J Rissler. "Phylogeographic analysis and environmental niche modeling of the plain-bellied watersnake (Nerodia erythrogaster) reveals low levels of genetic and ecological differentiation". In: *Molecular phylogenetics and evolution* 55.3 (2010), pp. 985–995.

Annotations: The study used cytb, coI and cmos to look at phylogeographic patterns of Nerodia erythrogaster. They don't include any samples from Florida, however, the region between the Tombigbee and Apalachicola Rivers seems to be an intermediate zone for the central and eastern clades of the species. Although, there aren't any really strong correlations to geologic barriers for the whole of Nerodia erythrogaster.

Newman et al.: Phylogeographic analyses of the southern leopard frog: the impact of geography and climate on the distribution of genetic lineages vs. subspecies **newman2011LeopardFrogPhylogeography**

Catherine E Newman and Leslie J Rissler. "Phylogeographic analyses of the southern leop-

ard frog: the impact of geography and climate on the distribution of genetic lineages vs. subspecies". In: *Molecular Ecology* 20.24 (2011), pp. 5295–5312.

Annotations: This paper used both mitochondrial and microsatellite markers to better understand how Rana sphenocephala speh. and Rana s. utricularia (northern thing) are distributed in the US. The nothern thing spans the Al./Appalachian Suture Zone, but the two sub-species were separated by the North Florida Suture. Mitochondrial data suggested that there is a lot of genetic diversity found in the coastal range of R. sphenocephala, and that the nother northern subspecies contained only three mitochondrial haplotypes. Further, the microsatellite data revealed the presence of a coastal haplotype group and a continental group.

Osentoski et al.: Intraspecific phylogeography of the gopher tortoise, Gopherus polyphemus: RFLP analysis of amplified mtDNA segments **osentoski1995intraspecific**

MF Osentoski and T Lamb. "Intraspecific phylogeography of the gopher tortoise, Gopherus polyphemus: RFLP analysis of amplified mtDNA segments". In: *Molecular Ecology* 4.6 (1995), pp. 709–718.

Annotations: This study looked at the phylogeographic structure of Gopher tortoises and found three main clusterings based on RFLP data. There is an eastern and western clade, typical of many species, but also a mid-florida clade that appears to be restricted to the Tampa region. The authors postulate that the Brooksville and Lake Wales Ridges may have been a refugia for this mid-florida clade, and where it originally diversified from. The Lake Wales ridge runs through central Florida ends near Lake Placid where there is substantial genetic diversity for the EIS. The ridge was comprised of sand islands that may have acted as stepping stones for EIS to move from the larger late miocene islands to their current distributions.

Rissler: Union of phylogeography and landscape genetics **rissler2016union**

Leslie J Rissler. "Union of phylogeography and landscape genetics". In: *Proceedings of the National Academy of Sciences* 113.29 (2016), pp. 8079–8086.

Zimmerman et al.: An empirical comparison of population genetic analyses using microsatellite and SNP data for a species of conservation concern **zimmerman2020empirical**

Shawna J Zimmerman, Cameron L Aldridge, and Sara J Oyler-McCance. "An empirical comparison of population genetic analyses using microsatellite and SNP data for a species of conservation concern". In: *BMC genomics* 21 (2020), pp. 1–16.