

Anthony J Geneva

Curriculum Vitae

Harvard University
Organismic & Evolutionary Biology
Cambridge, MA 02138
☎ +1 (215) 219 8709
✉ geneva@fas.harvard.edu
📄 CrescatScientia.com
github.com/geneva

Training

- 2015 **Post-Doctoral Fellow**, *Organismic & Evolutionary Biology, Harvard University.*
Supervisor: Jonathan Losos
- 2015 **PhD, Ecology & Evolutionary Biology**, *University of Rochester.*
Supervisors: Daniel Garrigan & Richard Glor
- 2007 **MS, Biology**, *Villanova University.*
Supervisors: Todd Jackman & Aaron Bauer
- 2001 **BS, Biology (Genetics)**, *Penn State University.*
Minors: Info. Systems & Statistical Analysis, Info. Science & Technology

Professional Experience

- 2009 **Manager - Laboratory of Molecular Systematics & Ecology.**
2005 The Academy of Natural Sciences, Philadelphia

Forthcoming Publications

- 2017 Sei, M, DG Robinson, **AJ Geneva**, and G Rosenberg. *Doubled Helix: Sagdoidea as the sister group of Helicoidea (Mollusca: Gastropoda: Pulmonata).* *Biological Journal of the Linnean Society (in press).*
- Geneva, AJ** and RE Glor. *Intrinsic Reproductive Isolation among Ecologically Divergent Anolis Lizards.* *Evolution (pending revision).*
- Geneva, AJ** and RE Glor. *The negative impacts of incompletely sampled data on phylogenetic analyses of an empirical dataset.* *PeerJ (pending revision).*
- Geneva, AJ**, AM Kreit, S Neiffer, S Tsang, and RJ Horwitz. *Regional population structure of extant and extirpated populations of the Bridle Shiner (Notropis bifrenatus), using museum and recent specimens.* *Conservation Genetics (in review).*

Journal Publications

2017

MacGuigan, D, **AJ Geneva**, and RE Glor. “A genomic assessment of species boundaries and hybridization in a group of highly polymorphic anoles (*distichus* species complex)”. *Ecology and Evolution* 7, 3657–3671.

2017

Ng, J, **AJ Geneva**, S Noll, and RE Glor. “Signals and speciation: *Anolis dewlap* color as a reproductive barrier”. *Journal of Herpetology* 51 (3), 437–447.

2017

Warren, D, **AJ Geneva**, and R Lanfear. “RWTY (R We There Yet): An R package for examining convergence of Bayesian phylogenetic analyses”. *Molecular Biology and Evolution* 34 (4), 1016–1020.

2016

Geneva, AJ, RG Reynolds, Herrmann NC, AR Puente-Rolón, and KR Aviles-Rodriguez. “*Hemidactylus mabouia* (Wood slave). Distribution.” *Herpetological Review* 47 (3), 423–424.

2016

Mahler, DL, SM Lambert, **AJ Geneva**, J Ng, SB Hedges, RE Glor, and JB Losos. “Discovery of a giant chameleon-like lizard (*Anolis*) on Hispaniola and its significance to understanding replicated adaptive radiations”. *American Naturalist* 188 (3), 357–364.

2016

Reynolds, RG, NC Herrmann, AR Puente-Rolón, **AJ Geneva**, and KR Aviles-Rodriguez. “*Osteopilus septentrionalis* (Cuban Treefrog). Distribution”. *Herpetological Review* 47 (3), 420.

2016

Reynolds, RG, AR Puente-Rolón, KR Aviles-Rodriguez, **AJ Geneva**, and NC Herrmann. “Discovery of a remarkable new boa from Conception Island, Bahamas”. *Breviora* 549 (1), 1–19.

2015

Geneva, AJ, J Hilton, S Noll, and RE Glor. “Multilocus phylogenetic analyses of Hispaniolan and Bahamian trunk anoles (*distichus* species group)”. *Molecular Phylogenetics and Evolution* 87, 105–117.

2015

Geneva, AJ, CA Muirhead, SB Kingan, and D Garrigan. “A new method to scan genomes for introgression in a secondary contact model”. *PLoS one* 10, e0118621.

2015

Graf, DL, H Jones, **Geneva, AJ**, JM Pfeiffer III, and MW Klunzinger. “Molecular phylogenetic analysis supports a Gondwanan origin of the Hyriidae (Mollusca: Bivalvia: Unionida) and the paraphyly of Australasian taxa”. *Molecular Phylogenetics and Evolution* 85, 1–9.

2014

Gamble, T*, **AJ Geneva***, RE Glor, and D Zarkower. “*Anolis* sex chromosomes are derived from a single ancestral pair”. *Evolution* 68 (4), 1027–1041. ***Joint First Authors.**

2014

Garrigan, D, SB Kingan, **AJ Geneva**, JP Vedanayagam, and DC Presgraves. “Genome diversity and divergence in *Drosophila mauritiana*: Multiple signatures of faster X evolution”. *Genome Biology and Evolution* 6 (9), 2444–2458.

- 2014
Graf, DL, **AJ Geneva**, JM Pfeiffer, and AD Chilala. “Phylogenetic analysis of *Prisodontopsis* Tomlin, 1928 and *Mweruella* Haas, 1936 (Bivalvia: Unionidae) from Lake Mweru (Congo basin) supports a Quaternary radiation in the Zambian Congo”. *Journal of Molluscan Studies* 80 (3), 303–314.
- 2014
Van Meter, M, M Kashyap, S Rezazadeh, **AJ Geneva**, TD Morello, A Seluanov, and V Gorbunova. “SIRT6 represses LINE1 retrotransposons by ribosylating KAP1 but this repression fails with stress and age”. *Nature communications* 5, 5011.
- 2013
Arce H, M, RE Reis, **AJ Geneva**, and MH Sabaj Pérez. “Molecular phylogeny of thorny catfishes (Siluriformes: Doradidae)”. *Molecular Phylogenetics and Evolution* 67 (3), 1–18.
- 2013
Ascher, JM, **AJ Geneva**, J Ng, JD Wyatt, and RE Glor. “Phylogenetic analyses of novel squamate *Adenovirus* sequences in wild-caught *Anolis* lizards”. *PLoS ONE* 8 (4), e60977.
- 2013
Geneva, AJ, AM Bauer, RA Sadlier, and TR Jackman. “Terrestrial Herpetofauna of Île des Pins, New Caledonia, with an Emphasis on its Surrounding Islands”. *Pacific Science* 67 (4), 571–593.
- 2013
Lambert, SM, **AJ Geneva**, DL Mahler, and RE Glor. “Using genomic data to revisit an early example of reproductive character displacement in Haitian *Anolis* lizards”. *Molecular Ecology* 22 (15), 3981–3995.
- 2012
Garrigan, D, SB Kingan, **AJ Geneva**, P Andolfatto, AG Clark, KR Thornton, and DC Presgraves. “Genome sequencing reveals complex speciation in the *Drosophila simulans* clade”. *Genome Research* 22 (8), 1499–1511.
- 2012
Stuart, YE, MA Landestoy, DL Mahler, D Scantlebury, **AJ Geneva**, PS VanMiddlesworth, and RE Glor. “Two new introduced populations of the Cuban green anole (*Anolis porcatius*) in the Dominican Republic”. *IRCF Reptiles & Amphibians* 19 (1), 71–75.
- 2011
Scantlebury, DP, J Ng, M Landestoy, **AJ Geneva**, and RE Glor. “Notes on activity patterns of five species of *Sphaerodactylus* (Squamata: Sphaerodactylidae) from the Dominican Republic”. *IRCF Reptiles & Amphibians* 18 (1), 51–55.
- 2011
Schaefer, SA, P Chakrabarty, **AJ Geneva**, and MH Sabaj Perez. “Nucleotide sequence data confirm diagnosis and local endemism of variable morphospecies of Andean astroblepoid catfishes (Siluriformes: Astroblepidae)”. *Zoological Journal of the Linnean Society* 162 (1), 90–102.
- 2011
Whelan, NV, **AJ Geneva**, and DL Graf. “Molecular phylogenetic analysis of tropical freshwater mussels (Mollusca: Bivalvia: Unionoida) resolves the position of *Coelatura* and supports a monophyletic Unionidae”. *Molecular Phylogenetics and Evolution* 61, 504–514.

- 2010 **Geneva, A** and D Garrigan. “Population genomics of secondary contact”. *Genes* 1, 124–142.
- 2010 **Geneva, AJ**, J Ng, D Scantlebury, A Ossip-Klein, S Rudman, A Kelly, C Reinhardt, and RE Glor. “Natural History of West Indian Amphibians and Reptiles”. *Herpetological Review* 41 (2), 249–250.
- 2010 **Geneva, AJ** and RE Roberts. “*Gopherus polyphemus* (Gopher Tortoise). GROWTH”. *Herpetological Review* 41 (2), 213.
- 2009 **Geneva, AJ** and RE Roberts. “The terrestrial herpetofauna of the Atlantic Ridge Preserve State Park”. *Florida Scientist* 72 (2), 121–133.

Research Grants & Fellowships

- 2015 Doctoral Dissertation Improvement Grant, \$19,995
- 2011 Ernst Caspari Fellowship, \$6,000
- 2011 Sigma Xi Grants-in-Aid, \$400
- 2011 Sproull Dissertation Travel Grant, \$800
- 2010 Google Earth Education Initiative, \$5,985 per year, renewed five times
- 2009 Robert L. And Mary L. Sproull University Fellowship, \$44,000
- 2007 Laboratory for Molecular Systematics Small Grants, \$6,166

Awards & Recognition

- 2016 University of Rochester Outstanding Dissertation Award
- 2011 SSAR Best Poster Award - Evolution, Genetics, & Systematics
- 2011 SSAR Graduate Travel Award
- 2009 Accepted to Bodega Applied Phylogenetics Workshop, Bodega Bay, CA
- 2009 Accepted to Estimating Species Tree Workshop, Ann Arbor, MI
- 2008 Sigma Xi Annual Meeting Superior Presentation Award
- 2004 ASIH Graduate Travel Award
- 2004 Villanova Summer Research Fellowship
- 2004 Villanova Graduate Research Fellowship
- 2003 Villanova Summer Research Fellowship

Software Contributions

- **spectrum2stats**: An R package to calculate population genetic summary statistics from site frequency spectra github.com/geneva/spectrum2stats
- **POPBAMTools**: An R package for reading and annotating output from POPBAM github.com/geneva/POPBAMTools

- **msmove**: A modified version of Hudson's ms allowing for finer control and tracking of migrant genealogies github.com/geneva/msmove
- **AFLPTools**: Tools for the curation and analysis of AFLP data github.com/geneva/AFLPTools
- **R We There Yet?**: An R package for the analysis of Markov chain Monte Carlo convergence in Bayesian phylogenetic inference (contributor) github.com/danlwarren/RWTY
- **ngscmd**: A C program to manipulate next-generation sequence data files (contributor) github.com/dgarriga/ngscmd

Teaching Experience

2014	Guest Lecturer, <i>Population Genetics and Phylogeography</i> , Rochester
2014	Teaching Assistant, <i>Amer. Genetic Assoc. Non-Model Genomics Workshop</i> , Cornell
2011	Graduate Coordinator, <i>Freshman Level Advanced Biology</i> , Rochester
2010	Teaching Assistant, <i>Freshman Level Advanced Biology</i> , Rochester
2003	Teaching Assistant, <i>Sophomore Level General Biology</i> , Villanova
2003	Teaching Assistant, <i>Senior Level Evolution</i> , Villanova
2002	Teaching Assistant, <i>Freshman Level General Biology</i> , Villanova
2002	Teaching Assistant, <i>Senior Level Developmental Biology</i> , Villanova

Student Mentoring - Harvard University

- Fatih Sarigöl (MS Thesis) - Population transcriptomics
- Raphaël Scherrer (MS Thesis) - Geographic scale of adaptation
- Martijn van de Schoot (MS Thesis) - Molecular phylogenetics
- Vanessa Lam (Senior Thesis) - Genetics of body color patterning
- Annalie Herrmann (Senior Thesis) - Evolution of sexual dimorphism

Student Mentoring - University of Rochester

- Shannon Keating (Senior Thesis) – Molecular population genomics
- Benjamin Desch (Senior Thesis) – Molecular population genetics
- Daniel MacGuigan - Speciation genomics
- Sabina Noll - Bioinformatics
- Jared Hilton – Multilocus phylogenetics
- Christine Rienhart – Relational databases and analysis

Student Mentoring - Academy of Natural Sciences

NSF-REU (Research Experience for Undergraduates)

- Susan Tsang - Evolutionary genetics of a rare fish
- Patrick Videau - Developing DNA extraction protocols from museum specimens