

JUAN C. SANTOS

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PROFESSIONAL EXPERIENCE

- 2017 – Assistant Professor**, Biological Sciences, St. John's University, Queens, NY
2014 – 2017 Macrosystems Postdoctoral Fellow. Brigham Young University, UT
 Advisor: Dr. Jack Sites (BYU), Dr. Barry Sinervo (UCSC)
2012 – 2014 Biodiversity Postdoctoral Fellow (Independent position). University of
 British Columbia, BC, Canada
2009 – 2012 National Evolutionary Synthesis Center (NESCent). Duke University, NC
Postdoctoral Fellow Independent Project:
*Multivariate evolutionary analysis: integrating structural equation modeling and
 Phylogenetics*. Mentor: Dr. David W. Pfennig (UNC-Chapel Hill, USA)

EDUCATION

- 2009 Ph.D. Ecology, Evolution and Behavior, University of Texas at Austin**
 Advisor: Dr. David C. Cannatella (UT-Austin)
2009 M.S. Statistics, University of Texas at Austin
 Advisor: Dr. Claus O. Wilke (UT-Austin)
2002 B.A. Biology (Honors), Pontificia Universidad Católica del Ecuador
 Advisor: Dr. Luis A. Coloma (PUCE)

GRANTS AND FINANCIAL SUPPORT

- 2016-2019 Collaborative Research: Phylogenetics of autoresistance in
 poison frogs as revealed by phylogenomics, neurophysiology, and comparative
 ecology (PI: David Cannatella, **Senior Personnel*: Juan C. Santos**)
NSF (National Science Foundation) DEB - 1556967
 2014-2017 Macrosystems postdoctoral fellow. Brigham Young University. Supported by:
NSF EF - 1241885
 2012-2014 Postdoctoral Fellowship at the Biodiversity Research Centre. Independent
 research fellowship. University of British Columbia
 2009-2012 NESCent Postdoctoral Fellowship. Duke University. Supported by:
NSF EF - 0423641 and EF - 0905606
 2009 Carl Gottfried Hartman Graduate Fellowship, University of Texas at Austin
 2008 Travel Award for the Amphibian Tree of Life
 2008 David Bruton, Jr. Graduate Fellowship, UT Austin.
 2007 NSF- Doctoral Dissertation Improvement Grant: *CoPI*. **NSF DEB - 0710033**
 2002-2009 Research assistant supported by **NSF DEB - 9981631** and **DEB - 0334952**
 2007 Frank and Fern Blair Graduate Research Fellowship, UT Austin.

- 2006 Frank and Fern Blair Graduate Research Fellowship, UT Austin.
 2005 Frank and Fern Blair Graduate Research Fellowship, UT Austin.
 2003 Frank and Fern Blair Graduate Research Fellowship, UT Austin.
 2002 College of Natural Sciences, UT Austin, Computer Initiative Award
 2001 Pontificia Universidad Católica del Ecuador, Quito-Ecuador

PUBLICATIONS (PEER-REVIEWED)

- Tarvin, R.D.*, Borghese, C.M.*, Sachs, W., **Santos, J.C.**, Lu, Y., O'Connell, L.A., Cannatella, D.C., Harris, R.A., Zakon, H.H. 2017. Interacting amino acid replacements allow poison frogs to evolve epibatidine resistance. *Science* 357, 1261–1266. * joint first coauthorship. <http://science.sciencemag.org/content/357/6357/1261>
- Roland, A.B., **Santos, J.C.**, Carriker, B.C., Caty, S.N., Tapia, E.E., Coloma, L.A., O'Connell, L.A. 2017. Radiation of the polymorphic Little Devil poison frog (*Oophaga sylvatica*) in Ecuador. *Ecology & Evolution* (in press).
- Taylor, G.W.*, **Santos, J.C.***, Perrault, B. J., Morando, M., Vásquez Almazán, C.R., Sites, J.W. 2017. Sexual dimorphism, phenotypic integration, and the evolution of head structure in casque-headed lizards. *Ecology & Evolution* (early online). * joint first coauthorship with GWT as an undergraduate.
- Tarvin, R.D., Powell, E.A., **Santos, J.C.**, Ron, S.R., Cannatella, D.C. 2017. The birth of aposematism: High phenotypic divergence and low genetic diversity in a young clade of poison frogs. *Molecular Phylogenetics and Evolution* 109 (2017) 283–295.
- Sinervo, B. and other 36 coauthors including **Santos, J.C.** 2017. Climate change and collapsing thermal niches of Mexican endemic reptiles. University of California Working Papers. Mexico Initiative.
- Shik, J., Gomez, E., William, P.T., **Santos, J.C.**, Wcislo, W., Boomsma J.J. (2016) Overcoming co-evolutionary constraint millions of years after fungal crop domestication by attine ants. *PNAS* www.pnas.org/cgi/doi/10.1073/pnas.1606128113
- Tarvin, R.D.*, **Santos, J.C.**, O'Connell L.A., Zakon H.H., Cannatella D.C. (2016) Multiple convergent amino acid replacements in the muscle voltage-gated sodium channel suggest a high genetic lability conferring alkaloid resistance in poison frogs. *Molecular Biology and Evolution*. * Graduate mentee <http://mbe.oxfordjournals.org/content/early/2016/01/18/molbev.msv350.full.pdf+html>
- Santos, J.C.**, Tarvin, R. D.*, O'Connell, L. A. 2015. A review of chemical defense in poison frogs (Dendrobatidae): Ecology, pharmacokinetics and autoresistance. Invited review *Chemical Signals in Vertebrates (CSiV) Volume 13*. ISBN 978-3319220253 * Graduate mentee.
- Santos, J.C.**, Baquero, M.* Barrio-Amorós, C.L., Coloma, L.A., Erdtmann, L.K., Lima, A.P., Cannatella, D.C. 2014. Aposematism increases acoustic diversification and speciation in poison frogs. *Proceedings of the Royal Society B-Biological Sciences* 281:9. DOI: 10.1098/rspb.2014.1761. Published 15 October 2014. * Graduate mentee.
- Shik, J.Z., **Santos, J.C.**, Seal, J.N., Adam Kay, A., Mueller, U.G., Kaspari, M. 2014 Metabolism and the rise of fungus cultivation by ant societies. *American Naturalist* 184 (3): 364-373.

- Santos, J.C.** 2012. Fast molecular evolution associated with high active metabolic rates in poison frogs. *Molecular Biology and Evolution*. 29(8): 2001-2018.
- Barrio-Amorós, C.L., **Santos, J.C.** 2012. Three new cloud frogs (*Aromobates*: Dendrobatidae) from the Andes of Venezuela, with notes on *Aromobates saltuensis* and *A. inflexus*, and the conservation status and phylogeny of *Aromobates*. *Zootaxa* 3422: 1-31.
- Santos, J.C.**, Cannatella, D.C. 2011. Phenotypic integration emerges from aposematism and scale in poison frogs. *Proceedings of the National Academy of Sciences USA* 108: 6175-6180.
- Barrio-Amorós, C.L., Rivero, R., **Santos, J.C.** 2011. New striking dendrobatid frog (Dendrobatidae: Aromobatinae, Aromobates) from the Venezuelan Andes. *Zootaxa* 3063: 39–52.
- Barrio-Amorós, C.L., **Santos, J.C.** 2011. Redescription and generic assignation of *Dendrobates rufulus* Gorzula (Anura, Dendrobatidae) from Chimantá tepui, Venezuela. *Salamandra* 47(3): 155-160.
- Páez-Vacas, M.I.*, Coloma, L.A., **Santos, J.C.** 2010. Systematics of the *Hyloxalus bocagei* complex (Anura: Dendrobatidae): description of two new species and recognition of *H. maculosus*. *Zootaxa Monographs* (2711): 1-149. *Undergraduate mentee.
- Barrio-Amorós, C.L., **Santos, J.C.**, Jovanovic, O. 2010. A new dendrobatid frog (Anura: Dendrobatidae: *Anomaloglossus*) from the Orinoquian rainforest, southern Venezuela. *Zootaxa* 2413: 37-50.
- Barrio-Amorós, C.L., **Santos, J.C.**, Molina, C.R. 2010. Diversity of dendrobatid frogs in Venezuela underestimated: Description of three new *Mannophryne* (Anura: Dendrobatidae: Aromobatinae). *Phyllomedusa* 9(1): 3-35.
- Barrio-Amorós, C.L., **Santos, J.C.** 2010. Amphibia, Anura, Dendrobatidae, *Allobates femoralis* (Boulenger, 1884): First confirmed country records, Venezuela. *CheckList* 6 (2): 208-209.
- Barrio-Amorós, C.L., Rivas, G.A., Molina, C.R., **Santos, J.C.**, Kaiser, H. 2010. Intraspecific variation in the endangered frog *Mannophryne riveroi* (Anura, Dendrobatidae, Aromobatinae), with comments on coloration and natural history. *Herpetological Notes* 3: 151-160.
- Santos, J.C.**, Coloma, L.A., Caldwell, J.P., Summers, K., Ree, R., Cannatella, D.C. 2009. Amazonian amphibian diversity is primarily derived from late Miocene Andean lineages. *PLoS-Biology* 7:3 (March 10, 2009).
- Barrio-Amorós, C.L., **Santos, J.C.** 2009. Description of a new *Allobates* (Anura, Dendrobatidae) from the eastern Andean piedmont, Venezuela. *Phyllomedusa* 8(2): 89-104.
- Ron, S.R., **Santos, J.C.**, Cannatella, D.C. 2006. Phylogeny of the túngara frog genus *Engystomops* (= *Physalaemus pustulosus* species group; Anura: Leptodactylidae). *Molecular Phylogenetics and Evolution* 39:392–403.
- Graham, C.H., Ron, S.R., **Santos, J.C.**, Schneider, C.J., Moritz, C. 2004. Integrating phylogenetics and environmental niche models to explore speciation mechanisms in dendrobatid frogs. *Evolution* 58 (8): 1781-1793.
- Santos, J.C.**, Coloma, L.A., Cannatella D.C. 2003. Multiple recurring origins of aposematism and

diet specialization in poison frogs. *Proceedings of the National Academy of Sciences USA* 100(22): 12792–12797.

Paz-y-Mino, C., Burgos, R., Morillo, S.A., **Santos, J.C.**, Fiallo, B.F., Leone, P.E. 2002. BCR-ABL rearrangement frequencies in chronic myeloid leukemia and acute lymphoblastic leukemia in Ecuador, South America. *Cancer Genetics and Cytogenetics* 132:65-67.

INVITED PRESENTATIONS AT SCIENTIFIC MEETINGS AND SEMINARS

- Santos, J.C.**, Sites, J.W. The environmental context of physiological performance across ectotherms. XI Congreso Latinoamericano de Herpetología. Pontificia Universidad Católica del Ecuador. July 24-28, 2017
- Santos, J.C.**, Tarvin, R.D., O'Connell, L.A., Blackburn, D.C., Coloma, L.A. Diversity within diversity: Eukaryotic symbiont diversity of poison frogs assessed by transcriptomics. XI Congreso Latinoamericano de Herpetología. Pontificia Universidad Católica del Ecuador. July 24-28, 2017
- Caetano, G., **Santos, J.C.**, Sinervo, B. Mappinguari – an R package to process species-based distribution modelling using ecophysiological data. XI Congreso Latinoamericano de Herpetología. Pontificia Universidad Católica del Ecuador. July 24-28, 2017
- Tarvin, R.D., **Santos, J.C.**, Ron, S.R., Cannatella, D.C. Visual signal evolution in *Epipedobates* poison frogs. XI Congreso Latinoamericano de Herpetología. Pontificia Universidad Católica del Ecuador. July 24-28, 2017
- Amador, L., **Santos, J.C.**, D'Elía, G., Núñez, J., Verkade, J.C., Coloma, L.A. Filogenia y delimitación de especies dentro del complejo de especies *Hyloxalus infraguttatus* (Anura, Dendrobatidae). XI Congreso Latinoamericano de Herpetología. Pontificia Universidad Católica del Ecuador. July 24-28, 2017
- López-Hervas, K., Tarvin, R.D., Ron, S., **Santos, J.C.**, Betancourth, M., Amézquita, A., Cannatella, D.C. Es *Epipedobates boulengeri* un complejo de especies? Filogenia molecular de una ranita venenosa. XI Congreso Latinoamericano de Herpetología. Pontificia Universidad Católica del Ecuador. July 24-28, 2017
- Carvajal-Castro, J.D., Casas-Cardona, S., Vargas-Salinas, F., **Santos, J.C.** Análisis comparativo del cuidado parental, transporte de renacuajos y aposematismo en ranas venenosas (Dendrobatidae). XI Congreso Latinoamericano de Herpetología. Pontificia Universidad Católica del Ecuador. July 24-28, 2017
- Tarvin, RD, CM Borghese, W Sachs, **JC Santos**, L Yu, LA O'Connell, DC Cannatella, RA Harris, and HH Zakon. Evolution of alkaloid resistance in poison frogs revealed by comparative phylogenetics. Annual Meeting of the Society for Molecular Biology and Evolution, Austin, Texas. June 2017
- Sinervo, B., **Santos J.C.**, Lara R. NSF Macrosystems PI meeting: Ecophysiological species distribution models for an Amazonian guild of lizards. NSF Headquarters. September 29-30, 2016
- Tarvin, RD, W Sachs, C Borghese, **JC Santos**, LA O'Connell, DC Cannatella, HH Zakon, and A Harris. Evolution of epibatidine resistance in poison frogs. 8th World Congress of Herpetology, Hangzhou, China. August 2016
- Tarvin, RD, W Sachs, C Borghese, **JC Santos**, LA O'Connell, DC Cannatella, HH Zakon, and A Harris. Evolution of epibatidine resistance in poison frogs. Society for the Study of Evolution, Austin, Texas. 2016
- Santos J.C.** Macroecology, Complex Phenotypes and Comparative Transcriptomics using 'Big Data' for Assessing the Biodiversity of Lizards and Amphibians. University of Rhode Island. March 2016
- Santos J.C.** Macroecology, Complex Phenotypes and Comparative Transcriptomics for Assessing the Biodiversity of Lizards and Amphibians. University of Missouri-

- Columbia. February 2016
- Santos J.C.** Macroecology, Complex Phenotypes and Comparative Transcriptomics for Assessing the Biodiversity of Lizards and Amphibians. Imperial College London. UK January 2016
- Santos J.C.** Macroecology, Complex Phenotypes and Comparative Transcriptomics for Assessing the Biodiversity of Lizards and Amphibians. University of Bath. UK December 2015
- Sites J.W. Jr., **Santos J.C.** NSF Macrosystems PI meeting: MSB session on scaling individuals to regions. NSF Headquarters. Alexandria VA, August 2015
- Sinervo B., Pittermann J., **Santos J.C.**, Miles D.B., Sites J.W. Jr., Bauer A., Corl A., Huey R.B. Plant mortality and beyond: quantifying climate-forced extinction risks for lizards, amphibians, and plants. Invited Symposium on Climate Change. Botanical Society of America Meeting. Edmonton (Canada), July 2015
- Taylor G.W.* , **Santos J.C.**, Perrault, B. J.* , Sites J.W. Jr. Sexual dimorphism in head and body structures in *Basiliscus* and *Corytophanes* species. Society for the Study of Amphibians and Reptiles meeting, University of Kansas, Lawrence, July 2015. * Undergraduate mentee
- Santos J.C.**, Caetano G., Colli G.R., Tucker D., Sites J.W. Jr., Sinervo B. Species distribution models of Brazilian *Tropidurus* and *Mabuya* lizards based on eco-physiological and climatological predictors. ASN/SSB/SSE Meetings, Guarujá (Brazil), June 2015
- Santos J.C.**, McGhie M.* , Wagstaff J.* , Pope A.J.* , Sites J.W. Jr., Stephen C. Characterization of genes with detoxifying function in desert iguanas derived from de novo transcriptome assemblies. ASN/SSB/SSE Meetings, Guarujá (Brazil), June 2015. * Undergraduate mentee
- Tarvin R., **Santos J.C.**, O'Connell L.A., Zakon H.H., Cannatella D.C. La base genética de la resistencia contra los alcaloides en *Atelopus* y *Dendrobatidae*. X Congreso de Herpetología Neotropical, Cartagena (Colombia), Diciembre 2014
- Santos, J.C.** Tarvin, R., O'Connell, L. Chemical Ecology of Poison Frogs: Evolution of Alkaloid Sequestration and Autoimmunity. Invited symposium at the Chemical Ecology Society Meeting, University of Illinois-Urbana, July 2014.
- Tarvin, R., **Santos, J.C.**, O'Connell, L., Zakon, H., Cannatella, D.C. Genetic basis of alkaloid resistance in harlequin toads and poison frogs. ASN/SSB/SSE Meetings, Raleigh, NC, June 2014.
- Santos, J.C.** Sistemática, Fenómica and Genómica: Un estudio integrativo de las ranas venenosas. Invited presentation, University of Puerto Rico-Rio Piedras. San Juan, Puerto Rico, April 2014.
- Santos, J.C.** Emergent properties: Aposematism, Phenomics and Biogeography. Invited seminar. Imperial College London, November 2013.
- Santos, J.C.** Emergent properties: Aposematic and Systematics. Biodiversity Lunchtime Internal Seminar Series (BLISS). University of British Columbia, BC April 2013
- Santos, J.C.** Emergent Properties in Poison Frogs: Aposematism, Bioacoustics and Systematics. Biodiversity Research Seminar Series. University of Oklahoma, OK, February 2013
- Santos, J.C.** Emergent properties: Aposematic calls. Biodiversity Research Seminar Series. University of British Columbia, BC September 2012
- Santos, J.C.** Emergent properties in the light of evolution: Aposematism, physiology, and bioacoustics. University of Missouri-St. Louis, MO September 2012
- Santos, J.C.** Faster rates of molecular evolution and metabolic features in poison frogs. Duke University, Durham, NC, May 2012
- Santos, J.C.** The evolution of complex phenotypes in poison frogs: Aposematism, acoustic signals and metabolic rates. East Carolina University, Greenville

- NC, September 2011
- Santos, J.C.** Phenotypic integration in poison frogs. ASN/SSB/SSE Meetings, Norman OK, June 2011
- Santos, J.C.** Phenotypic diversity, phylogeny, and natural history of poison frogs
College of Charleston SC, February 2011
- Santos, J.C.** Rates of molecular evolution and life history traits in poison frogs.
ASN/SSB/SSE Meetings, Portland OR, June 2010
- Santos, J.C.** Metabolic rates and molecular evolution in the poison frogs. Duke
Systematics Group, May 2010
- Santos, J.C.** Evolution of complex traits in poison frogs: scale, metabolic rates,
aposematism, and diet specialization. NESCent BBL Seminars, January 2010
- Santos, J.C.** Phylogeography and evolution of correlated traits under multiple
origins of aposematism in the poison frog family. UT-EEB Population
Biology Seminars, August 2009
- Santos, J.C.** Evolution of alkaloid profiles in poison frogs. ASN/SSB/SSE meetings 2008.
Minneapolis/St. Paul, Minnesota. June, 2008
- Santos, J.C.** Poison frog diversity explained by repeated dispersals during the Miocene-
Pliocene boundary. UT-EEB Population Biology Seminars, March 2008
- Santos, J.C.**, Cannatella, D.C. 2006. Evolution of physiological adaptations associated
with aposematism in poison frogs (Dendrobatidae). Joint Meetings of The
Herpetologist's League and The Society for the Study of Amphibians and
Reptiles. New Orleans, USA; July 2006
- Ron, S.R., Cannatella, D.C., **Santos, J.C.** Filogenia y evolución del canto de *Physalaemus*
del grupo de especies *pustulosus* (Anura: Leptodactylidae): Variaciones sobre
un mismo tema. VII Congreso Latinoamericano de Herpetología.
Cuernavaca, México 2005
- Santos, J.C.**, Coloma, L.A., Caldwell, J.P., Summers, K., Cannatella, D.C. Biogeography
of the Poison Frogs. Joint Meetings of the Herpetologist's League and The
Society for the Study of Amphibians and Reptiles. Tampa, USA; June 2005
- Coloma, L.A., Cannatella, D.C., **Santos, J.C.** Evolution of behavior in poison frogs
(Anura: Dendrobatidae) reconsidered. Animal Behavior Society XLI Meeting,
Oaxaca, México, 2004
- Cannatella, D.C., Ron, S.R., **Santos, J.C.** Phylogenetic relationships in *Physalaemus*: how
comparative analysis provides a framework for studies of behavioral
evolution. Animal Behavior Society XLI Meeting, Oaxaca, México, 2004
- Santos, J.C.**, Coloma, L.A., Caldwell, J.P., Summers, K., Cannatella, D.C. Phylogeny and
diversification of poison frogs (Dendrobatidae). Joint Meetings of The
Herpetologist's League and The Society for the Study of Amphibians and
Reptiles. Oklahoma, USA; May 2004
- Santos, J.C.** Evolution of aposematism and other traits in poison frogs: A phylogenetic
approach. UT-EEB Population Biology Seminars, October 2003
- Santos, J.C.**, Coloma, L.A., Cannatella, D.C. Evolution of aposematism in dendrobatid
frogs. Joint Meetings of the Herpetologist's League and The Society for the
Study of Amphibians and Reptiles. Kansas, USA; July 2002

AWARDS

- 2012 Departmental Postdoctoral Fellow, Department of Ecology and Genetics, Evolutionary Biology Centre, Uppsala University-Sweden (*declined*)
- 2012 Science without Borders program: Young post-doctoral researchers (Atração de Jovens Talentos-Brazil) (*declined*)
- 2012 Smithsonian Postdoctoral Fellow (2012 Competition). Smithsonian Institution, Washington DC (2nd position, *alternative*)
- 2011 Smithsonian Postdoctoral Fellow (2011 Competition). Smithsonian Institution, Washington DC (2nd position, *alternative*)

TEACHING EXPERIENCE

- 2017 Principal Instructor. Biology 1001: Evolution, Classification, Population Biology and Ecology. Undergraduate Core Course. St. John's University
- 2015 Principal Instructor. Biology 559R: Introduction to Phylogenetic Comparative Methods. Graduate Course. Brigham Young University
Course website: <http://www.jcsantosresearch.org/>
This link contains all the course materials.
- 2013 - 2014 *Guest Lecturer on Multivariate Statistics*. University of British Columbia
- 2008 – 2009 *Biostatistics*. Graduate Instructor, University of Texas at Austin.
Developed, organized, taught laboratories and experimental designs for senior undergraduates with a Biology major
- 2007 – 2008 *Physiology and Functional Anatomy*. Graduate Instructor, University of Texas at Austin. Organized and taught laboratories for pre-med/pre-nurse undergraduates
- 2005 – 2006 *Laboratory Experience in Genetics*. Graduate Instructor, University of Texas at Austin. Developed, organized, taught laboratories and experimental designs for undergraduates with a Biology major
- 2003 *Genetics*. Undergraduate Instructor, University of Texas at Austin.
Organized and directed discussion sections for undergraduates

UNDERGRADUATE MENTORING

- 2017 Karem Lopez. Universidad Central del Ecuador (Ecuador)
- 2017 Juan David Carvajal. Universidad del Quindío (Colombia)
- 2014 – 2017 Megan McGhie. Brigham Young University
- 2014 – 2017 Gregory Taylor. Brigham Young University
- 2015 – 2016 Benjamin Bay. Brigham Young University
- 2015 – 2016 Benjamin J. Perrault. Brigham Young University
- 2015 Shayla Draper. Brigham Young University
- 2015 Jadon Wagstaff. Utah Valley University
- 2013 Karen Castillo. Universidad de Nariño (Colombia)
- 2012 N. Lily Negash and Johnny Kim. Duke University
- 2011 Adeeb Minhaj and Barbara Blachut. Duke University
- 2011 Pramodh Ganapathy and Will Hyung. Duke University
- 2010 – 2011 Maria Nayfa. Duke University. Work-study student
- 2010 Undergraduate Diversity at Evolution program with two mentees at the 2010 ASN/SSB/SSE meetings. Portland, OR
- 2009 – 2010 Mónica Páez-Vacas, Pontificia Universidad Católica del Ecuador. Honors

- Thesis (Co-Advisor). Currently: Graduate student at Colorado State University
- 2008 Elaine Klein. University of Texas at Austin. Lab assistant. Currently: Graduate student at San Diego State University.
- 2008 Italo Tapia. Pontificia Universidad Católica del Ecuador
- 2007 – 2008 Margarita Baquero. Pontificia Universidad Católica del Ecuador. Honors Thesis (Co-Advisor). Currently: Instituto Interamericano de Cooperación para la Agricultura (Ecuador)
- 2007 Daniel Scantlebury. University of Texas at Austin. Currently: Graduate student at University of Rochester
- 2006 Rafael Guerrero. Universidad de los Andes, Colombia
Currently: Graduate student at University of Texas at Austin
- 2006 Juliana Gómez. Universidad de los Andes, Colombia

GRADUATE MENTORING

- 2014 – 2017 Sebastian Kirchof. PhD Graduate Research. MFN-Berlin (Germany)
- 2015 – 2017 Emerson Pontes da Silva. MS Ecology. Instituto Nacional de Pesquisas da Amazonia (INPA) - Brazil
- 2014 – 2017 Gabriel Caetano. PhD Graduate Research. University of California, Santa Cruz
- 2013 – 2017 Rebecca Tarvin. PhD Graduate Research. University of Texas at Austin. Currently: Postdoctoral Fellow UT-Austin
- 2016 – 2017 Luisa Diele-Viegas. MS Ecology. Museu Paraense Emílio Goeldi/CZO, C.P. 399, 66017-970 Belém, Pará, Brazil. Currently: Graduate student Universidade Estadual do Rio de Janeiro (UERJ)
- 2012 – 2013 Ailin Blasco. MS Graduate Research. Pontificia Universidad Católica del Ecuador
- 2010 – 2011 Margarita Baquero. Master's Thesis Co-Advisor. Universidad San Francisco de Quito (Ecuador)

PROFESSIONAL SERVICE

Reviewer for *The American Naturalist*, *Biological Conservation*, *BMC Evolutionary Biology*, *Biological Journal of the Linnean Society*, *Biotropica*, *Ethology*, *Journal of Biogeography*, *Journal of Ecology*, *Journal of Thermal Biology*, *Biodiversity and Conservation*, *Current Zoology*, *Caldasia*, *Copeia*, *Functional Ecology*, *Ecology Letters*, *Frontiers in Zoology*, *Genome Biology and Evolution*, *Molecular Biology and Evolution*, *Proceedings of the Royal Society-B Series*, *Revista de Biología Tropical*, *Herpetologica*, *Tropical Zoology*, *Zootaxa*, *Zoological Journal of the Linnean Society*

Master in Sciences (2016): Biology – Proposal Reviewer: *Universidad de Quindío* (Colombia)

Master in Sciences (2015): Biology – Proposal Reviewer: *Universidad de Costa Rica* (Costa Rica)

Master in Sciences (2012-2014): Biology – Final Report Reviewer: *Universidad de los Andes* (Colombia)

Ad hoc reviewer (2014) for Natural Sciences and Engineering Research Council of Canada (NSERC)

PROFESSIONAL SOCIETIES

Society for Molecular Biology & Evolution

Society for the Study of Evolution

Society for the Study of Amphibians and Reptiles

American Society of Naturalists

Society of Systematic Biologists