

# Liam J. Revell

## Curriculum Vitae

Professor, Department of Biology, University of Massachusetts Boston, Boston MA, U.S.A.

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Google Scholar: <https://scholar.google.com/citations?user=2GWMBj8AAAAJ>

*phytools*: <http://blog.phytools.org>; <https://github.com/liamrevell/phytools>

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### PROFESSIONAL APPOINTMENTS:

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|--------------|---|
| 2022-present | University of Massachusetts Boston, Department of Biology, Boston, Massachusetts<br>Professor           |
| 2015-2022    | University of Massachusetts Boston, Department of Biology, Boston, Massachusetts<br>Associate Professor |
| 2011-2015    | University of Massachusetts Boston, Department of Biology, Boston, Massachusetts<br>Assistant Professor |

### OTHER PAST & PRESENT AFFILIATIONS:

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|-----------|---|
| 2018-2024 | Universidad Católica de la Santísima Concepción, Facultad de Ciencias, Concepción (Chile)<br>Investigador Adjunto           |
| 2017-2018 | Universidad del Rosario, Programa de Biología, Bogotá (Colombia)<br>Profesor Asociado de la Carrera                         |
| 2016-2017 | Universidad de los Andes, Departamento de Ciencias Biológicas, Bogotá (Colombia)<br>Visiting Professor (sabbatical scholar) |
| 2009-2011 | National Evolutionary Synthesis Center (NESCent), Durham, North Carolina<br>Postdoctoral Fellow                             |

### EDUCATION:

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|-----------|--|
| 2006-2009 | Harvard University, Cambridge, Massachusetts<br>Organismic and Evolutionary Biology (Adv: Jonathan B. Losos)<br>Doctor of Philosophy, June 2009              |
| 2003-2006 | Washington University in St. Louis, St. Louis, Missouri<br>Evolution, Ecology and Population Biology (Adv: Jonathan B. Losos)<br>Master of Arts, August 2006 |
| 1999-2003 | Boston University, Boston, Massachusetts<br>Biology (Adv: Christopher J. Schneider)<br>Bachelor of Arts, summa cum laude with distinction, May 2003          |
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### PUBLICATIONS:

(20,249 total citations; h-index 41; i10-index 68; [Google Scholar profile](#))

### PEER-REVIEWED BOOKS:

- Revell, L. J. and L. J. Harmon (2022) *Phylogenetic Comparative Methods in R*. Princeton University Press, Princeton NJ. 440 pp. [link](#)

## PEER-REVIEWED ARTICLES AND BOOK CHAPTERS:

- Revell, L. J. (2026) Ancestral reconstruction: Theory & practice. *Encyclopedia of Evolutionary Biology, 2nd edition* (C. A. De Moraes Russo, J. B. Wolf, eds.), vol. 5, pp. 1-8. [doi](#)
- Drake, A. G., L. J. Revell, C. P. Klingenberg, J. C. Lattimer, N. C. Nelson, M. J. Schmidt, A. L. Zwingenberger, J. K. Moyer, and J. B. Losos (2025) Copy-cat evolution: Divergence and convergence within and between cat and dog breeds. *PNAS* 122: e2413780122. [doi](#)
- Revell, L. J. (2025) Ancestral state reconstruction of phenotypic characters. *Evolutionary Biology* 52: 1-25. [doi](#)
- Revell, L. J., K. P. Schliep, D. L. Mahler, and T. Ingram (2024) Testing for heterogeneous rates of discrete character evolution on phylogenies. *Journal of Evolutionary Biology* 37: 1591-1602. [doi](#)
- Revell, L. J. 2024. phytools 2.0: An updated R ecosystem for phylogenetic comparative methods (and other things). *PeerJ* 12: e16505. [doi](#)
- Michaud, R., T. J. Hagey, L. F. De León, L. J. Revell, and K. J. Avilés-Rodríguez (2023) Geometric morphometric assessment of toe shape in forest and urban lizards following hurricane disturbances. *Integrative Organismal Biology* 5: obad025. [doi](#)
- Thurman, T. J., T. M. Palmer, J. J. Kolbe, A. M. Askary, K. M. Gotanda, O. Lapiedra, T. R. Kartzinel, N. Man in't Veld, L. J. Revell, J. E. Wegener, T. W. Schoener, D. A. Spiller, J. B. Losos, R. M. Pringle, and R. D. H. Barrett (2023) The difficulty of predicting evolutionary change in response to novel ecological interactions: A field experiment with *Anolis* lizards. *American Naturalist* 201: 537-556. [doi](#)
- Avilés-Rodríguez, K. J., L. F. De León, and L. J. Revell (2023) Population density of the tropical lizard *Anolis cristatellus* in urban and forested habitats after a major hurricane. *Tropical Ecology* 64: 122-132. [doi](#)
- Winchell, K. M., S. C. Campbell-Staton, J. B. Losos, L. J. Revell, B. C. Verelli, and A. J. Geneva. 2023. Genome-wide parallelism underlies contemporary adaptation in urban lizards. *PNAS* 120: e2216789120. [doi](#)
- Gunderson, A. R. and L. J. Revell (2022) Testing for genetic assimilation with phylogenetic comparative analysis: Conceptual, methodological, and statistical considerations. *Evolution* 76: 1942-1952. [doi](#)
- Revell, L. J., K. S. Toyama, and D. L. Mahler (2022) A simple hierarchical model for heterogeneity in the evolutionary correlation a phylogenetic tree. *PeerJ* 10: e13910. [doi](#)
- López-Córdova, D. A., J. Avaria-Llautureo, P. M. Ulloa, H. E. Braid, L. J. Revell, D. Fuchs, and C. M. Ibáñez (2022) Mesozoic origin of coleoid cephalopods and their abrupt shifts of diversification patterns. *Molecular Phylogenetics and Evolution* 166: 107331. [doi](#)
- Sander, P. M., E. M. Griebeler, N. Klein, J. Velez Juarbe, T. Wintrich, L. J. Revell, and L. Schmitz (2021) Early giant reveals faster evolution of large body size in ichthyosaurs than in cetaceans. *Science* 374: eabf5787. [doi](#)
- Revell, L. J. (2021) covid19.Explorer: A web application and R package to explore United States COVID-19 data. *PeerJ* 9: e11489. [doi](#)
- Revell, L. J. (2021) A variable-rate quantitative trait evolution model using penalized-likelihood. *PeerJ* 9: e11997. [doi](#)
- Avilés-Rodríguez, K. J., K. M. Winchell, L. F. De León, and L. J. Revell (2021) Phenotypic response to a major hurricane in *Anolis* lizards in urban and forest habitats. *Biological Journal of the Linnean Society* 133: 880-895. [doi](#)
- Zhu, Z.-X., F. J. Escobedo, L. J. Revell, T. Brandeis, J. Xie, and H.-F. Wang. 2021. Using phylogenetic diversity to explore the socioeconomic and ecological drivers of a tropical, coastal urban forest. *Urban Forestry & Urban Greening* 67: 127111. [doi](#)
- Winchell, K. M., K. P. Schliep, D. L. Mahler, and L. J. Revell (2020) Phylogenetic signal and evolutionary correlates of urban tolerance in a widespread neotropical lizard clade. *Evolution* 74: 1274-1288. [doi](#)
- Reynolds, R. G., J. J. Kolbe, R. E. Glor, M. López-Darias, C. V. Gómez Pourroy, A. S. Harrison, K. de Queiroz, L. J. Revell, and J. B. Losos (2020) Phylogeographic and phenotypic outcomes of brown anole colonization across the Caribbean provide insight into the beginning stages of an adaptive radiation. *Journal of Evolutionary Biology* 33: 468-494. [doi](#)
- Quach, Q. N., R. G. Reynolds, and L. J. Revell (2020) Historical allopatry and secondary contact or primary intergradation in the Puerto Rican Crested Anole, *Anolis cristatellus*, on Vieques Island in the

- Caribbean. *Biological Journal of the Linnean Society* 129: 114-127. [doi](#)
- Prado-Irwin, S. R., L. J. Revell, and K. M. Winchell (2019) Variation in tail morphology across urban and forest populations of the crested anole (*Anolis cristatellus*). *Biological Journal of the Linnean Society* 128: 632-644. [doi](#)
  - Revell, L. J. (2019) learnPopGen: an R package for population genetic simulation and numerical analysis. *Ecology and Evolution* 9: 7896-7902. [doi](#)
  - Bawa, K. S., T. Ingty, L. J. Revell, and K. N. Shivaprakash (2019) Correlated evolution of flower size and seed number in flowering plants (monocotyledons). *Annals of Botany* 123: 181-190. [doi](#)
  - Winchell, K. M., D. Briggs, and L. J. Revell (2019) Perils of city life: Patterns of injury and fluctuating asymmetry in urban lizards. *Biological Journal of the Linnean Society* 126: 276-288. [doi](#)
  - Revell, L. J., K. Schliep, E. Valderrama, and J. E. Richardson (2018) Graphs in phylogenetic comparative analysis: Anscombe's quartet revisited. *Methods in Ecology and Evolution* 9: 2145-2154. [doi](#)
  - Winchell, K. M., I. Maayan, J. R. Fredette, and L. J. Revell (2018) Linking locomotor performance to morphological shifts in urban lizards. *Proceedings of the Royal Society, B* 285: 20180229. [doi](#)
  - Revell, L. J. (2018) Comparing the rates of speciation and extinction between phylogenetic trees. *Ecology and Evolution* 8: 5303-5312. [doi](#)
  - Revell, L. J., L. E. González-Valenzuela, A. Alfonso, L. A. Castellanos-García, C. E. Guarnizo, and A. J. Crawford (2018) Comparing evolutionary rates between trees, clades, and traits. *Methods in Ecology and Evolution* 9: 994-1005. [doi](#)
  - Winchell, K. M., E. J. Carlen, A. R. Puente-Rolón, and L. J. Revell (2018) Divergent habitat use of two urban lizard species. *Ecology and Evolution* 8: 25-35. [doi](#)
  - Reynolds, R. G., T. R. Strickland, J. J. Kolbe, B. G. Falk, G. Perry, L. J. Revell, and J. B. Losos (2017) Archipelagic genetics in a widespread Caribbean anole. *Journal of Biogeography* 44: 2631-2647. [doi](#)
  - Arcila, D., R. Vari, J. W. Armbruster, M. L. J. Stiassny, K. D. Kol, M. H. Sabaj, J. Lundberg, L. J. Revell, G. Ortí, and R. Betancur-R. (2017) Genome-wide gene genealogy interrogation advances resolution of recalcitrant groups in the Tree of Life. *Nature Ecology & Evolution* 1: 0020. [doi](#)
  - Tyler, R. K., K. M. Winchell, and L. J. Revell (2016) Tails of the city: Caudal autotomy in the tropical lizard, *Anolis cristatellus*, in urban and natural areas of Puerto Rico. *Journal of Herpetology* 50: 435-441. [doi](#)
  - Reynolds, R. G., D. C. Collar, S. A. Pasachnik, M. L. Niemiller, A. R. Puente-Rolón, and L. J. Revell (2016) Ecological specialization and morphological diversification in Greater Antillean boas. *Evolution* 70: 1882-1895. [doi](#)
  - Winchell, K. M., R. G. Reynolds, S. Prado-Irwin, A. R. Puente-Rolón, and L. J. Revell (2016) Phenotypic shifts in urban areas in the tropical lizard, *Anolis cristatellus*. *Evolution* 70: 1009-1022. [doi](#)
  - Harrison, A. S., L. J. Revell, and J. B. Losos (2015) Correlated evolution of microhabitat, morphology, and behavior in West Indian *Anolis* lizards: A test of the habitat matrix model. *Behaviour* 152: 1187-1207. [doi](#)
  - Revell, L. J., D. L. Mahler, R. G. Reynolds, and G. J. Slater (2015) Placing cryptic, recently extinct, or hypothesized taxa into an ultrametric phylogeny using continuous character data: A case study with the lizard *Anolis roosevelti*. *Evolution* 69: 1027-1035. [doi](#)
  - Reynolds, R. G., A. R. Puente-Rolón, R. Platenberg, K. Tyler, P. J. Tolson, and L. J. Revell (2015) Large divergence and low diversity suggest genetically informed conservation strategies for the endangered Virgin Islands Boa (*Chilabothrus monensis*). *Global Ecology and Conservation* 3: 487-502. [doi](#)
  - Collar, D. C., P. C. Wainwright, M. E. Alfaro, L. J. Revell, and R. S. Mehta (2014) Biting disrupts integration to spur skull evolution in eels. *Nature Communications* 5: 5505. [doi](#)
  - Stuart, Y. E., T. S. Campbell, R. G. Reynolds, P. A. Hohenlohe, L. J. Revell, and J. B. Losos (2014) Rapid evolution of a native species following invasion by a congener. *Science* 346: 463-466. [doi](#)
  - Revell, L. J., and S. A. Chamberlain (2014) Rphylip: An R interface for PHYLIP. *Methods in Ecology and Evolution* 5: 976-981. [doi](#)
  - Revell, L. J. (2014) Graphical methods for visualizing comparative data on phylogenies. Chapter 4 in *Modern phylogenetic comparative methods and their application in evolutionary biology: Concepts and practice* (L. Z. Garamszegi ed.). [pdf](#)
  - Reynolds, R. G., A. R. Puente-Rolón, M. Barandiaran, and L. J. Revell (2014) Hispaniolan boa (*Chilabothrus striatus*) on Vieques Island, Puerto Rico. *Herpetology Notes* 7: 121-122. [pdf](#)

- Revell, L. J. (2014) Ancestral character estimation under the threshold model from quantitative genetics. *Evolution* 68: 743-759. [doi](#)
- Reynolds, R. G., M. L. Niemiller, and L. J. Revell (2014) Toward a tree-of-life for the boas and pythons: Multilocus species-level phylogeny with unprecedented taxon sampling. *Molecular Phylogenetics and Evolution* 71: 201-213. [doi](#)
- Revell, L. J. (2013) Two new graphical methods for mapping trait evolution on phylogenies. *Methods in Ecology and Evolution* 4: 754-759. [doi](#)
- Mahler, D. L., T. Ingram, L. J. Revell, and J. B. Losos (2013) Exceptional convergence on the macroevolutionary landscape in island lizard radiations. *Science* 341: 292-295. [doi](#)
- Reynolds, R. G., M. L. Niemiller, S. B. Hedges, A. Dornburg, A. R. Puente-Rolón and L. J. Revell (2013) Molecular phylogeny and historical biogeography of West Indian boid snakes (*Chilabothrus*). *Molecular Phylogenetics and Evolution* 68: 461-470. [doi](#)
- Puente-Rolón, A. R., R. G. Reynolds, and L. J. Revell (2013) Preliminary genetic analysis supports cave populations as targets for conservation in the endemic endangered Puerto Rican boa (Boidae: *Epicrates inornatus*). *PLoS ONE* 8: e63899. [doi](#)
- Muñoz, M. M., N. G. Crawford, T. J. McGreevy, N. J. Messana, R. D. Tarvin, L. J. Revell, R. M. Zandvliet, J. M. Hopwood, E. Mock, A. L. Schneider, and C. J. Schneider (2013) Divergence in coloration and the evolution of reproductive isolation in the *Anolis marmoratus* species complex. *Molecular Ecology* 22: 2668-2682. [doi](#)
- Reynolds, R. G., A. R. Puente-Rolón, R. N. Reed, and L. J. Revell (2013) Genetic analysis of a novel invasion of Puerto Rico by an exotic constricting snake. *Biological Invasions* 15: 953-959. [doi](#)
- Revell, L. J. (2013) A comment on the use of stochastic character maps to estimate evolutionary rate variation in a continuously valued trait. *Systematic Biology* 62: 339-345. [doi](#)
- Revell, L. J. and R. G. Reynolds (2012) A new Bayesian method for fitting evolutionary models to comparative data with intraspecific variation. *Evolution* 66: 2697-2707. [doi](#)
- Revell, L. J. (2012) phytools: An R package for phylogenetic comparative biology (and other things). *Methods in Ecology and Evolution* 3: 217-223. [doi](#)
- Slater, G. J., L. J. Harmon, D. Wegmann, P. Joyce, L. J. Revell, and M. E. Alfaro (2012) Fitting models of continuous trait evolution to incompletely sampled comparative data using Approximate Bayesian Computation. *Evolution* 66: 752-762. [doi](#)
- Sanger, T. J., L. J. Revell, J. J. Gibson-Brown, and J. B. Losos (2012) Repeated modification of early limb morphogenesis programs underlies the evolution of relative long bone length variation among *Anolis* lizards. *Proceedings of the Royal Society, B* 279: 739-748. [doi](#)
- Revell, L. J., D. L. Mahler, P. R. Peres-Neto, and B. D. Redelings (2012) A new phylogenetic method for identifying exceptional phenotypic diversification. *Evolution* 66: 135-146. [doi](#)
- Kolbe, J. J., L. J. Revell, B. Székely, E. D. Brodie III, and J. B. Losos (2011) Convergent evolution of phenotypic integration and its alignment with morphological diversification in Caribbean *Anolis* ecomorphs. *Evolution* 65: 3608-3624. [doi](#)
- Revell, L. J. (2010) Phylogenetic signal and linear regression on species data. *Methods in Ecology and Evolution* 1: 319-329. [doi](#)
- Mahler, D. L., L. J. Revell, R. E. Glor, and J. B. Losos (2010) Ecological opportunity and the rate of morphological evolution in the diversification of Greater Antillean anoles. *Evolution* 64: 2731-2745. [doi](#)
- Lindenfors, P., L. J. Revell, and C. L. Nunn (2010) Sexual dimorphism in primate aerobic capacity: A phylogenetic test. *Journal of Evolutionary Biology* 23: 1183-1194. [doi](#)
- Johnson, M. A., L. J. Revell, and J. B. Losos (2010) Behavioral convergence and adaptive radiation: Effects of habitat use on territorial behavior. *Evolution* 64: 1151-1159. [doi](#)
- Lovely, K. R., D. L. Mahler, and L. J. Revell (2010) The rate and pattern of tail autotomy in five species of Puerto Rican anoles. *Evolutionary Ecology Research* 12: 67-88. [pdf](#)
- Revell, L. J., D. L. Mahler, J. R. Sweeney, M. Sobotka, V. E. Fancher, and J. B. Losos (2010) Nonlinear selection and the evolution of variances and covariances for continuous characters in an anole. *Journal of Evolutionary Biology* 23: 407-421. [doi](#)
- Revell, L. J. (2009) Size-correction and principal components for interspecific comparative studies. *Evolution* 63: 3258-3268. [doi](#)
- Revell, L. J. and D. C. Collar (2009) Phylogenetic analysis of the evolutionary correlation using

- likelihood. *Evolution* 63: 1090-1100. [doi](#)
- Revell, L. J., L. J. Harmon, and D. C. Collar (2008) Phylogenetic signal, evolutionary process, and rate. *Systematic Biology* 57: 591-601. [doi](#)
  - Revell, L. J. (2008) On the analysis of evolutionary change along single branches in a phylogeny. *American Naturalist* 172: 140-147. [doi](#)
  - Revell, L. J., and L. J. Harmon (2008) Testing quantitative genetic hypotheses about the evolutionary rate matrix for continuous characters. *Evolutionary Ecology Research* 10: 311-331. [pdf](#)
  - Revell, L. J., and A. S. Harrison (2008) PCCA: A program for phylogenetic canonical correlation analysis. *Bioinformatics* 24: 1018-1020. [doi](#)
  - Johnson, M. A., M. Leal, L. Rodríguez Schettino, A. Chamizo Lara, L. J. Revell, and J. B. Losos (2008) A phylogenetic perspective on foraging mode evolution in West Indian *Anolis* lizards. *Animal Behaviour* 75: 555-563. [doi](#)
  - Revell, L. J., M. A. Johnson, J. A. Schulte II, J. J. Kolbe, and J. B. Losos (2007) A phylogenetic test for adaptive convergence in rock-dwelling lizards. *Evolution* 61: 2898-2912. [doi](#)
  - Revell, L. J. (2007) Testing the genetic constraint hypothesis in a phylogenetic context: A simulation study. *Evolution* 61: 2720-2727. [doi](#)
  - Revell, L. J. (2007) The G matrix under fluctuating correlational mutation and selection. *Evolution* 61: 1857-1872. [doi](#)
  - Revell, L. J., L. J. Harmon, R. B. Langerhans, and J. J. Kolbe (2007) A phylogenetic approach to determining the importance of constraint on phenotypic evolution in the neotropical lizard *Anolis cristatellus*. *Evolutionary Ecology Research* 9: 261-282. [pdf](#)
  - Revell, L. J., L. J. Harmon, and R. E. Glor (2005) Underparameterized model of sequence evolution leads to bias in the estimation of diversification rates from molecular phylogenies. *Systematic Biology* 54: 973-983. [doi](#)

SUBMITTED ARTICLES & PRE-PRINTS (in review or revision):

- Revell, L. J. and M. Leal. Reproductive character displacement in an ecological community. Submitted to *Evolution*.
- Reynolds, R. G., A. H. Miller, A. Ríos-Franceschi, C. Huffine, J. Fredette, N. F. Angeli, S. I. Vega-Castillo, L. J. Revell, and A. R. Puente-Rolón. Molecular phylogeny of Puerto Rico Bank dwarf geckos (Squamata: Sphaerodactylidae: *Sphaerodactylus*). (bioRxiv [pre-print](#))
- Cummings, C. O., P. Sebastini, L. J. Revell, J. Runstadler, and N. J. Hill. Phylogenetic signal of avian influenza prevalence modified by climate and sedentary behavior in wild birds. Submitted to *Ecology and Evolution*.
- Revell, L. J., and L. J. Harmon. A discrete character evolution model for phylogenetic comparative biology with  $\Gamma$ -distributed rate heterogeneity among branches of the tree. Submitted to *PeerJ*. (bioRxiv [pre-print](#))
- Harmon, L. J., and L. J. Revell. A semiparametric method to test for correlated evolution in a phylogenetic context. Submitted to *PeerJ*. (bioRxiv [pre-print](#))
- Martinet, K. M., M. S. Juhn, F. C. Boucher, L. J. Harmon, L. J. Revell, S. I. A. Foerster, A. J. Shultz, K. Burns, and M. Alfaro. A wrapped Brownian motion model for traits on a circular scale. Submitted to *Systematic Biology*.
- Revell, L. J., L. R. V. Alencar, M. E. Alfaro, J. Dain, N. J. Hill, M. Jones, K. M. Martinet, V. Romero-Alarcon, and L. J. Harmon. Unlocking a flexible set of phylogenetic models for discrete and continuous trait evolution using discretized stochastic diffusion. Submitted to *Evolutionary Biology*. (bioRxiv [pre-print](#))

**SOFTWARE (latest public release):**

AUTHOR AND MAINTAINER:

- Revell, L. J. (2011-26) phytools: Phylogenetic tools for comparative biology (and other things). R package version 2.5-6. <http://CRAN.R-project.org/package=phytools>; <https://github.com/liamrevell/>

- phytools; and <http://blog.phytools.org>.
- Revell, L. J. (2020-23) covid19.Explorer: A COVID-19 Explorer. R package version 8.4. <https://github.com/liamrevell/covid19.Explorer>.
  - Revell, L. J. (2012-22) learnPopGen: Population genetic simulations & numerical analysis. R package version 1.0.6. <http://CRAN.R-project.org/package=learnPopGen>; <http://github.com/liamrevell/learnPopGen>; and <http://www.phytools.org/PopGen/>.
  - Revell, L. J. and S. A. Chamberlain (2013-22) Rphylop: An R interface for PHYLIP. R package version 0.1-31. <http://github.com/liamrevell/Rphylop>.
  - Revell, L. J. and C. L. Revell (2017-20) ishihara: Ishihara color-vision test. R package version 0.3. <http://github.com/liamrevell/ishihara>.
  - Revell, L. J. (2019) wastools: Tools for Biostatistics (following Whitlock & Schluter 2015). R package version 0.0.2. <https://github.com/liamrevell/wastools>.
  - Revell, L. J. (2017) physketch: Drawing phylogenetic objects in R environment. R package version 0.1. <http://github.com/liamrevell/physketch>.
  - Revell, L. J. (2008) pcca: A program for phylogenetic canonical correlation analysis. (no longer supported).
  - Revell, L. J. (2006) IDC: A program for the calculation of independent contrasts. (no longer supported).
  - Revell, L. J. (2006) skewers: A program for Cheverud's random skewers method of matrix comparison. (no longer supported).
  - Revell, L. J. (2006) multi\_mantel: A program for multiple matrix regression and hypothesis testing. (no longer supported).

#### CONTRIBUTOR:

- Harmon, L., M. Pennell, C. Brock, J. Brown, W. Challenger, J. Eastman, R. Fitzjohn, R. Glor, G. Hunt, L. Revell, G. Slater, J. Uyeda, J. Weir, and CRAN team (2020-25) geiger: Analysis of evolutionary diversification. R package version 2.0.11. <https://CRAN.R-project.org/package=geiger>.
- Schliep, K., E. Paradis, L. de Oliveira Martin, A. Potts, I. Bardel-Kahr, T. W. White, C. Stachniss, M. Kendall, K. Halabi, R. Bilderbeek, K. Winchell, L. Revell, M. Gilchrist, J. Beaulieu, B. O'Meara, L. Qu, J. Brown, and S. Claramunt (2021-25) phangorn: Phylogenetic reconstruction and analysis. R package version 2.12.1. <https://CRAN.R-project.org/package=phangorn>.

#### WEB PROJECTS:

- Romero-Alarcon, V. and L. J. Revell (2022-26) Guane: A flexible shiny platform for learning, teaching, and analysis in phylogenetic comparative biology. <http://www.phytools.org/Guane>.
- Revell, L. J. (2020-23) Excess mortality explorer and COVID-19 infection estimator application. <http://covid19-explorer.org>.

#### GRANTS AND AWARDS:

##### SIGNIFICANT AWARDS OR RECOGNITION:

2025	American Association for the Advancement of Science (AAAS) Honorary Fellow, elected class of 2024. <a href="#">link</a>
2024	Outstanding Research for Tenured Faculty Award, College of Science and Mathematics, University of Massachusetts Boston.
2012	American Society of Naturalists Jasper Loftus-Hills Young Investigator Prize.
2009	Best Student Oral Presentation, Division of Systematics and Evolutionary Biology, SICB annual meeting.
2003	Phi Beta Kappa, Boston University. Boston University E. Ray Speare male scholar athlete of the year.

**FUNDED NATIONAL SCIENCE FOUNDATION (NSF) AWARDS:**

Total NSF funding: \$1,635,011

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| 2018-2024 | NSF ABI Development: Computational infrastructure for phylogenetic & macroevolutionary analysis in the R environment (\$454,589). (Co-written by K. Schliep.)  |
| 2014-2020 | NSF CAREER: Phylogenetic tools for studying phenotypic diversification in the tree of life (\$852,556).  |
| 2017-2018 | NSF Dissertation Research: Adaptive responses to urbanization in the tropical lizard <i>Anolis cristatellus</i> (\$19,756). (Dissertation improvement grant for K. Winchell.)  |
| 2014-2018 | NSF Collaborative Research: Urban adaptation and its role in the success of biological invasion in <i>Anolis</i> lizards (\$296,420). (Collaborative award with J. Kolbe, Univ. Rhode Island, & D. Warner, Auburn Univ.) |
| 2006-2008 | NSF Dissertation Research: The evolution and importance of genetic constraint in <i>Anolis cristatellus</i> (\$11,690). (Dissertation improvement grant, co-PI with J. Losos.)   |

**PENDING GRANTS IN REVIEW:**

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| 2026-2029 | NSF Collaborative Research: New Methods for Viral Phylodynamics in R (\$678,260). (Collaborative proposal with N. Hill, UMass-Boston, and W. Puryear & J. Runstadler, Tufts.) |
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**OTHER GRANTS, HONORS, AND AWARDS:**

Total other funding (not including declined awards): \$149,542

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|-----------|--|
| 2025-2026 | University of Massachusetts Boston Proposal Development Grant Program: New Methods for Viral Phylodynamics (\$20,000).   |
| 2025      | Tufts IRACDA Faculty Program: New Methods for Viral Phylodynamics (\$29,250).  |
| 2020-2023 | FONDECYT Regular 2020 (Chile): ShinyPhytools: A web platform for phylogenetic comparative methods (\$80,592).  |
| 2014      | American Society of Naturalists Workshop Sponsorship for Latin American Macroevolutionary Analysis Workshop. Universidad de los Andes, Bogotá, Colombia (with L. Harmon, Univ. Idaho, & A. Crawford, U. los Andes) (\$1,400).  |
| 2008      | David Rockefeller Center for Latin American Studies (Harvard) Term-Time Research Travel Grant for a research trip to Puerto Rico (\$1,500).<br>Museum of Comparative Zoology (Harvard) Putnam Expedition Grant for a comparative analysis of phenotypic and genetic differentiation in two species of Puerto Rican anoles (\$3,000).<br>National Science and Engineering Research Council of Canada (NSERC) post-doctoral fellowship (\$80,000 CDN; declined). |
| 2007      | Museum of Comparative Zoology (Harvard) Putnam Expedition Grant for the study of natural selection in a Puerto Rican lizard (\$8,300).   |
| 2003      | Boston University UROP Faculty Matching Grant for the study of evolution in a Guadeloupean lizard (\$2,000).   |
| 2001      | Boston University UROP summer research fellowship for the study of behavioral ecology and evolution in a Guadeloupean lizard (\$3,500).  |

**INVITED AND CONTRIBUTED PRESENTATIONS:****INVITED PRESENTATIONS:**

- Revell, L. J. 2026. Unlocking a flexible set of phylogenetic models for discrete & continuous trait evolution. University of Massachusetts Amherst, invited seminar. Amherst, Massachusetts.
- Revell, L. J. 2025. Unlocking a flexible set of new models for discrete & continuous trait evolution in phylogenetic comparative biology. Harvard University, invited seminar. Cambridge, Massachusetts.

- Revell, L. J. 2025. Unlocking a flexible set of phylogenetic models for discrete and continuous trait evolution. University of Connecticut, invited seminar. Storrs, Connecticut.
- Revell, L. J. 2025. Unlocking a flexible set of new models for discrete and continuous characters in phylogenetic comparative biology. Universidad San Sebastián sede Concepción, invited seminar. Concepción, Chile.
- Revell, L. J. 2025. Unlocking a flexible set of phylogenetic models for discrete and continuous trait evolution. Universidade de São Paulo, invited seminar. São Paulo, Brazil.
- Revell, L. J. 2025. *phytools* 2.0, bounded Brownian motion, and an invaluable lesson in intellectual humility. University of Massachusetts Boston, invited seminar. Boston, Massachusetts.
- Revell, L. J. 2024. *phytools* 2.0: An updated R ecosystem for phylogenetic comparative methods (and other things). University of Missouri, invited seminar. Columbia, Missouri.
- Revell, L. J. 2024. *phytools* 2.0: An updated R ecosystem for phylogenetic comparative methods (and other things). Oklahoma State University, invited seminar. Stillwater, Oklahoma.
- Revell, L. J. 2024. *phytools* 2.0: An updated R ecosystem for phylogenetic comparative methods (and other things). Florida State University, invited seminar. Tallahassee, Florida.
- Revell, L. J. 2024. Some observations about ancestral state reconstruction of discrete phenotypic characters. Florida State University, invited seminar. Tallahassee, Florida ([recorded](#)).
- Revell, L. J. 2023. *phytools* 2.0: An updated R ecosystem for phylogenetic comparative methods (and other things). Boston University, invited seminar. Boston, Massachusetts.
- Revell, L. J. 2023. *phytools* 2.0: An updated R ecosystem for phylogenetic comparative methods (and other things). Temple University, invited seminar. Philadelphia, Pennsylvania.
- Revell, L. J. 2023. *phytools* 2.0: An updated R ecosystem for phylogenetic comparative methods (and other things). University of Massachusetts Dartmouth, invited seminar. Dartmouth, Massachusetts.
- Revell, L. J. 2023. Looking ‘through a tree darkly’ at the history of life using phylogenies. George Washington University, invited seminar. Washington, D.C.
- Revell, L. J. 2023. Looking ‘through a tree darkly’ at the history of life using phylogenies. Lund University, invited seminar. Lund, Sweden.
- Revell, L. J. 2023. Looking ‘through a tree darkly’ at the history of life using phylogenies. Florida International University, invited seminar. Miami, Florida.
- Revell, L. J. 2022. Looking ‘through a tree darkly’ at the history of life using phylogenies. Louisiana State University, invited seminar. Baton Rouge, Louisiana.
- Revell, L. J. 2022. Looking ‘through a tree darkly’ at the history of life using phylogenies. Tulane University, invited seminar. New Orleans, Louisiana.
- Revell, L. J. 2022. Looking ‘through a tree darkly’ at the history of life using phylogenies. University of Alabama in Huntsville, invited seminar. Huntsville, Alabama.
- Revell, L. J. 2022. Looking ‘through a tree darkly’ at the history of life using phylogenies. University of Wyoming, invited seminar. Laramie, Wyoming.
- Revell, L. J. 2022. Looking ‘through a tree darkly’ at the history of life using phylogenies. University of Vienna, invited seminar. Vienna, Austria.
- Revell, L. J. 2022. Phylogenetic tools for measuring evolutionary tempo & mode on the tree of life. University of Louisiana, invited seminar. Lafayette, Louisiana.
- Revell, L. J. 2022. Phylogenetic tools for measuring evolutionary tempo & mode on the tree of life. Brown University, invited seminar. Providence, Rhode Island.
- Revell, L. J. 2021. Measuring variation in the tempo & mode of evolution across the tree of life. University of Alabama, invited virtual seminar. Tuscaloosa, Alabama.
- Revell, L. J. 2020. Midiendo el tiempo y modo de evolución a través del árbol de la vida. Universidad San Francisco de Quito, COCIBA invited virtual seminar. Quito, Ecuador ([recorded](#)).
- Revell, L. J. 2019. Measuring variation in the tempo & mode of evolution across the tree of life. National Museum of Natural History, Zoology invited seminar. Washington, D.C.
- Revell, L. J. 2019. Studying evolutionary rate variation across the tree of life. University of Oklahoma, invited seminar. Norman, Oklahoma.
- Revell, L. J. 2018. Dos nuevos métodos filogenéticos aplicados a casos herpetológicos. Universidad del Rosario, invited seminar. Bogotá, Colombia.
- Revell, L. J. 2018. Herramientas filogenéticas para estudiar variación en diversificación a través del

- árbol de la vida. Universidad de Concepción, invited seminar. Concepción, Chile.
- Revell, L. J. 2018. Herramientas filogenéticas por la biología comparada. Universidad Católica de la Santísima Concepción, invited seminar. Concepción, Chile.
  - Revell, L. J. 2017. Dos nuevos métodos filogenéticos aplicados a casos herpetológicos. VIII Congreso Chileno de Herpetología, invited plenary. Concepción, Chile.
  - Revell, L. J. 2017. Respuestas evolutivas a la urbanización en una lagartija caribeña. Instituto de Ciencias Naturales, Universidad Nacional de Colombia, invited seminar. Bogotá, Colombia.
  - Revell, L. J. 2016. Evolución en respuesta a la urbanización en la lagartija puertorriqueña, *Anolis cristatellus*. Centro Regional Universitario, Universidad Nacional del Comahue, invited seminar. Bariloche, Argentina.
  - Revell, L. J. 2016. Evolución y ecología de las lagartijas del género *Anolis* en áreas urbanas del Caribe. 1er Congreso Colombia de Herpetología, invited plenary. Medellín, Colombia.
  - Revell, L. J. 2016. Phylogenetic tools for studying diversification in the tree of life. University of Florida, invited seminar. Gainesville, Florida.
  - Revell, L. J. 2016. Evolución en respuesta a la urbanización en la lagartija puertorriqueña, *Anolis cristatellus*. Universidad de los Andes, invited seminar. Bogotá, Colombia.
  - Revell, L. J. 2016. Herramientas filogenéticas para estudiar la diversificación fenotípica en el árbol de la vida. Biomix lab group, invited seminar. Universidad de los Andes, Bogotá, Colombia.
  - Revell, L. J. 2015. La ecología y la evolución de *Anolis cristatellus* en áreas urbanas de Puerto Rico. Universidad Austral de Chile, invited seminar. Valdivia, Chile.
  - Revell, L. J. 2015. La ecología y la evolución del lagartijo caribeño, *Anolis cristatellus*, en áreas urbanas de Puerto Rico. Invited plenary, XVI Congreso Argentino de Herpetología, San Miguel de Tucumán, Argentina.
  - Revell, L. J. 2015. Phylogenetic tools for studying phenotypic diversification in the tree of life. Stony Brook University, invited seminar. Stony Brook, New York.
  - Revell, L. J. 2015. La ecología y la evolución del lagartijo *Anolis cristatellus* en áreas urbanas de Puerto Rico. Laboratory for Integrative Ecology, University of Puerto Rico, Río Piedras, invited seminar. Río Piedras, Puerto Rico.
  - Revell, L. J. 2014. Placing cryptic, recently extinct, or hypothesized taxa into an ultrametric phylogeny using continuous character data. Modern Phylogenetic Comparative Methods, invited plenary. Sevilla, Spain.
  - Revell, L. J. 2014. Phylogenetic tools for studying phenotypic diversification in the tree of life. American Museum of Natural History, Richard Gilder Graduate School invited seminar. New York, New York.
  - Revell, L. J. 2014. Phylogenetic tools for studying phenotypic diversification in the tree of life. University of Massachusetts Boston Special Junior Faculty Seminar Series, invited seminar. Boston, Massachusetts.
  - Revell, L. J. 2014. Evolutionary approaches for studying global environmental change. Claremont McKenna College, invited Brown Bag Lunch seminar. Claremont, California.
  - Revell, L. J. 2014. Evolutionary approaches for studying global environmental change. North Carolina State University, invited seminar. Raleigh, North Carolina.
  - Revell, L. J. 2013. Ancestral character estimation under the threshold model from quantitative genetics. Mathematics for an Evolving Biodiversity, Montreal Quebec, invited seminar. Montreal, Quebec.
  - Revell, L. J. 2013. Phylogenetic methods for studying phenotypic diversification in the tree of life. University of Puerto Rico, Río Piedras, invited seminar. Río Piedras, Puerto Rico.
  - Revell, L. J. 2013. New tools for studying macroevolution on phylogenies. University of North Carolina at Chapel Hill, invited seminar. Chapel Hill, North Carolina.
  - Revell, L. J. 2013. New tools for studying macroevolution on phylogenies. University of Colorado Boulder, invited seminar. Boulder, Colorado.
  - Revell, L. J. 2012. Phylogenetic approaches for studying adaptive radiation: New tools in comparative biology. Clark University, invited seminar. Worcester, Massachusetts.
  - Revell, L. J. 2012. New phylogenetic methods for studying the phenotypic axis of adaptive radiation. Imperial College London, invited seminar. Silwood Park, United Kingdom.
  - Revell, L. J. 2012. ASN Young Investigator Prize: New tools for the phylogenetic analysis of phenotypic trait data. Joint Congress on Evolutionary Biology ('Evolution'), Ottawa, Ontario.
  - Revell, L. J. 2011. New tools for phylogenetic comparative biology. University of Massachusetts Lowell,

invited seminar. Lowell, Massachusetts.

- Revell, L. J. 2010. Phylogenetic signal in comparative biology. College of Charleston, invited seminar. Charleston, South Carolina.
- Revell, L. J. 2010. Alternative paradigms in phylogenetic comparative biology. University of Quebec at Montreal, invited seminar. Montreal, Quebec.
- Revell, L. J. 2010. Alternative paradigms in phylogenetic comparative biology. University Program in Ecology, Duke University, invited seminar. Durham, North Carolina.
- Revell, L. J. 2010. Alternative paradigms in phylogenetic comparative biology. University of Massachusetts Boston, invited seminar. Boston, Massachusetts.
- Revell, L. J. 2005. Quantitative genetics in anoles: A preliminary analysis. University of Puerto Rico, Río Piedras, invited seminar. Río Piedras, Puerto Rico.

#### CONTRIBUTED PRESENTATIONS & POSTERS:

- Revell, L. J. 2025. A new biogeographic model for phylodynamics (and other things). SSE, SSB, ASN Joint Meeting ('Evolution Meeting'). Athens, Georgia.
- Revell, L. J. 2024. Bounded Brownian motion and the most important phylogenetic comparative methods paper you've probably never read. III Joint Congress on Evolutionary Biology ('Evolution Meeting'). Montreal, Quebec, Canada ([recorded](#)).
- Revell, L. J. and D. L. Mahler. 2023. Some observations about ancestral state reconstruction under the hidden-rates model. SSE, SSB, ASN Joint Meeting ('Evolution Meeting'). Albuquerque, New Mexico.
- Revell, L. J. 2022. Beyond the  $Mk$  model for studying discrete character evolution on trees. Congress of the European Society for Evolutionary Biology (ESEB). Prague, Czechia.
- Revell, L. J. 2022. Beyond the  $Mk$  model for studying discrete character evolution on trees. SSE, SSB, ASN Joint Meeting ('Evolution Meeting'). Cleveland, Ohio.
- Revell, L. J. 2021. A variable-rate quantitative trait evolution model using penalized-likelihood. SSE, SSB, ASN Joint Meeting ('Evolution Meeting'). Online ([recorded](#)).
- Revell, L. J. 2020. Methods for analyzing discrete character evolution on phylogenies (poster presentation). SSB 2020 – Systematics in the Swamp. Gainesville, Florida.
- Revell, L. J. 2019. Some new methods for analyzing discrete character evolution on phylogenies (poster presentation). SSE, SSB, ASN Joint Meeting ('Evolution Meeting'). Providence, Rhode Island.
- Revell, L. J. 2019. Can we detect differences in the rate of character evolution between clades of anoles? VI Simposio de Herpetología Puertorriqueña. Arecibo, Puerto Rico.
- Revell, L. J. 2018. Can we detect differences in the rate of character evolution between clades of anoles? VII *Anolis* Symposium. Miami, Florida.
- Revell, L. J., K. Schliep, E. Valderrama, and J. E. Richardson. 2018. Graphs in phylogenetic comparative analysis: Anscombe's quartet revisited (poster presentation). II Joint Congress on Evolutionary Biology ('Evolution Meeting'). Montpellier, France.
- Revell, L. J. 2017. Some additional new methods for plotting phylogenies & comparative data. SSE, SSB, ASN Joint Meeting ('Evolution Meeting'). Portland, Oregon.
- Revell, L. J., K. P. Schliep, and C. E. Hernández Ulloa. 2016. Consensus trees and their suitability for macroevolutionary analysis. SSE, SSB, ASN Joint Meeting ('Evolution Meeting'). Austin, Texas.
- Revell, L. J. 2014. Placing cryptic, recently extinct, or hypothesized taxa into an ultrametric phylogeny using continuous character data: A case study. SSE, SSB, ASN Joint Meeting ('Evolution Meeting'). Raleigh, North Carolina.
- Revell, L. J., K. M. Winchell, J. J. Kolbe, and D. A. Warner. 2013. Evolución en respuesta a la urbanización en el lagartijo común de Puerto Rico, *Anolis cristatellus*. IV Simposio de Herpetología Puertorriqueña. Arecibo, Puerto Rico.
- Revell, L. J. 2013. New graphical methods for visualizing comparative data on phylogenies. SSE, SSB, ASN Joint Meeting ('Evolution Meeting'). Snowbird, Utah.
- Revell, L. J. 2012. SSB Symposium: The various sources of error and their effects on phylogenetic comparative analyses. I Joint Congress on Evolutionary Biology ('Evolution Meeting'). Ottawa, Ontario. (Symposium co-organizer with Cécile Ané.)
- Revell, L. J. 2012. Analyzing continuous character evolution on a phylogeny. Society for Integrative and Comparative Biology. Charleston, South Carolina ([slides](#)).

- Revell, L. J. and K. P. Schliep. 2011. Introduction to *phytools* and *phangorn*: Phylogenetic tools for R. Phyloseminar.org: Free online seminars about phylogenetics ([recorded](#)).
- Revell, L. J. 2011. Phylogenetic methods for studying the phenotypic axis of adaptive radiation. SSE, SSB, ASN Joint Meeting ('Evolution Meeting'). Norman, Oklahoma.
- Revell, L. J. 2010. Phylogenetic signal and the analysis of interspecies data. Society for the Study of Evolution Joint Meeting. Portland, Oregon.
- Revell, L. J., K. R. Lovely, and D. L. Mahler. 2010. Predation and tail autotomy in *Anolis* lizards. Society for Integrative and Comparative Biology. Seattle, Washington.
- Revell, L. J. 2009. Ecology and evolution of tail autotomy in several lizard species. NESCent Brown Bag Lunch seminar. Durham, North Carolina.
- Revell, L. J. 2009. Some multivariate comparative methods for continuous characters. SSE, SSB, ASN Joint Meeting ('Evolution Meeting'). Moscow, Idaho.
- Revell, L. J., D. C. Collar, and L. J. Harmon. 2009. The measurement and interpretation of phylogenetic signal. Society for Integrative and Comparative Biology. Boston, Massachusetts.
- Revell, L. J. 2008. Phylogenetic comparative methods and quantitative genetic constraint. SSE, SSB, ASN Joint Meeting ('Evolution Meeting'). Minneapolis, Minnesota.
- Revell, L. J. 2007. Bringing phylogenetic comparative approaches to the study of quantitative genetic constraint. SSE, SSB, ASN Joint Meeting ('Evolution Meeting'). Christchurch, New Zealand.
- Revell, L. J. 2006. Constraint and the evolution of a Caribbean anole, *Anolis cristatellus*. American Society of Ichthyologists and Herpetologists Joint Meeting. New Orleans, Louisiana.
- Revell, L. J. and C. J. Schneider. 2004. Sensory drive and population divergence in *Anolis marmoratus*. American Society of Ichthyologists and Herpetologists Joint Meeting. Norman, Oklahoma.

## TEACHING:

### REGULAR COURSES:

- Instructor, Biology 352: Evolution, University of Massachusetts Boston, Spring 2026.
- Instructor, Biology 634: Methods in Phylogenetic and Macroevolutionary Analysis, University of Massachusetts Boston, Fall 2025.
- Co-instructor (with L. De León), Biology 290: Population Biology, University of Massachusetts Boston, Fall 2025.
- Instructor, Biology 352: Evolution, University of Massachusetts Boston, Spring 2025.
- Guest instructor (primary instructor R. Betancur), SIO 147: Applications in Phylogenetics, Scripps Institution of Oceanography, Fall 2024.
- Co-instructor (with L. De León), Biology 290: Population Biology, University of Massachusetts Boston, Fall 2024.
- Instructor, Biology 381: Evolutionary Trees. An Introduction to Phylogenetics, Phylogenomics, & Phylodynamics, University of Massachusetts Boston, Spring 2024.
- Co-instructor (with L. De León), Biology 290: Population Biology, University of Massachusetts Boston, Fall 2023.
- Instructor, Biology 634: Methods in Phylogenetic and Macroevolutionary Analysis, University of Massachusetts Boston, Spring 2023.
- Co-instructor (with L. De León), Biology 290: Population Biology, University of Massachusetts Boston, Fall 2022.
- Instructor, Biology 697: Rigor & Reproducibility in Biological & Biomedical Research, University of Massachusetts Boston, Spring 2022.
- Instructor, Biology 634: Methods in Phylogenetic and Macroevolutionary Analysis, University of Massachusetts Boston, Fall 2021.
- Instructor, Biology 650: Scientific Communication, University of Massachusetts Boston, Spring 2021.
- Instructor, DCBB022: La Bioestadística en R, Universidad Católica de la Santísima Concepción, (boreal) Fall 2020.
- Instructor, DCBB031: Comunicación Científica en Inglés, Universidad Católica de la Santísima Concep-

- ción, (boreal) Fall 2020.
- Instructor, Biology 634: Methods in Phylogenetic and Macroevolutionary Analysis, University of Massachusetts Boston, Spring 2020.
  - Instructor, Biology 381/382: Ecological Data Analysis (Lecture & Lab), University of Massachusetts Boston, Study Abroad in Chile, (boreal) Fall 2019. (Also program Academic Director.)
  - Instructor, DCBB022: Bioestadística en R, Universidad Católica de la Santísima Concepción, (boreal) Spring 2019.
  - Instructor, DCBB017: Métodos filogenéticos y macroevolutivos, Universidad Católica de la Santísima Concepción, (boreal) Fall 2018.
  - Instructor, Evolución, Universidad del Rosario, Bogotá, Spring 2018.
  - Co-instructor (with A. R. Puente-Rolón), Biology 359: Tropical Ecology, Evolution, and Conservation Biology, University of Massachusetts Boston, Winter 2017.
  - Instructor, CBIO 3442: Métodos filogenéticos en R. Universidad de los Andes, Bogotá, Fall 2016.
  - Regular guest instructor (primary instructor R. Betancur), Biology 6120: Phylogenetic Systematics, University of Puerto Rico, Spring 2016. (Five guest lectures.)
  - Co-instructor (with A. R. Puente-Rolón), Biology 359: Tropical Ecology, Evolution, and Conservation Biology, University of Massachusetts Boston, Winter 2016.
  - Instructor, Biology 348: Animal Behavior, University of Massachusetts Boston, Fall 2015.
  - Instructor, Biology 634: Methods in Phylogenetic and Macroevolutionary Analysis, University of Massachusetts Boston, Fall 2015.
  - Regular guest instructor (primary instructor R. Betancur), Biology 6120: Phylogenetic Systematics, University of Puerto Rico, Spring 2015. (Seven guest lectures.)
  - Co-instructor (with A. R. Puente-Rolón), Biology 359: Tropical Ecology, Evolution, and Conservation Biology, University of Massachusetts Boston, Winter 2015.
  - Instructor, Biology 348: Animal Behavior, University of Massachusetts Boston, Fall 2014.
  - Instructor, Biology 348: Animal Behavior, University of Massachusetts Boston, Spring 2014.
  - Co-instructor (with A. R. Puente-Rolón), Biology 359: Tropical Ecology, Evolution, and Conservation Biology, University of Massachusetts Boston, Winter 2014.
  - Instructor, Biology 697: Methods in Phylogenetic and Macroevolutionary Analysis, University of Massachusetts Boston, Fall 2013.
  - Instructor, Biology 348: Animal Behavior, University of Massachusetts Boston, Spring 2013.
  - Co-instructor (with A. R. Puente-Rolón), Biology 381: Caribbean Tropical Biology, University of Massachusetts Boston, Winter 2013.
  - Instructor, Biology 352: Evolution, University of Massachusetts Boston, Spring 2012.
  - Instructor, Biology 697: Applied Phylogenetic Methods, University of Massachusetts Boston, Spring 2011.

#### WORKSHOPS:

- Co-instructor (with L. J. Harmon), Unlocking the potential of phylogenetic comparative methods in ecology, agriculture, and nature conservation, Nov. 3-7, 2025, Hula Research Center, Tel Hai Academic College, North District, Israel.
- Co-instructor (with L. J. Harmon, A. Meade), Modelando la evolución para comprender el origen de la diversidad y la complejidad de la vida, Aug. 12-14, 2025, Universidad San Sebastián sede Concepción, Concepción, Chile.
- Instructor, Phylogenetic comparative analysis using *phytools* 2.0, Jun. 8, 2025, Universidade de São Paulo, São Paulo, Brazil.
- Co-instructor (with A. Gonzalez-Voyer, L. J. Harmon), Phylogenetic comparative methods in R, Jun. 18-21, 2024, Universidad Nacional Autónoma de México, Mexico City, Mexico.
- Instructor, Introducción a análisis filogenética usando *phytools* 2.0, May 17, 2024, Universidad de Concepción, Concepción, Chile.
- Co-instructor (with J. Boyko, L. J. Harmon), Phylogenetic comparative methods in R, Mar. 22-24, 2024, University of Massachusetts Boston, Boston, Massachusetts.
- Co-instructor (with L. J. Harmon, P. Title), Phylogenetic comparative methods in R, Jan. 16-19, 2024, Stony Brook University, Stony Brook, New York.

- Co-instructor (with M. E. Alfaro, A. Goswami, L. J. Harmon, C. E. Parent, S. A. Price, L. Sallan, E. Sherratt, H. Tatsuta, P. Wainwright; organized by E. P. Economo and D. L. Warren), OIST Workshop on the Evolutionary Analysis of Morphology, Oct. 17-24, 2023, Okinawa Institute of Science and Technology, Okinawa, Japan.
- Co-instructor (with L. J. Harmon, R. Etienne), Phylogenetic comparative methods in R, Oct. 2-6, 2023, Research School Ecology & Evolution, University of Groningen, Noordlaren, the Netherlands.
- Co-instructor (with L. J. Harmon and K. M. Martinet), Codificación con RStudio, Jul. 20-21, Fundación Un Cambio por la Vida, Puerto Ayora, Galápagos, Ecuador.
- Instructor, Phylogenetic comparative methods in R, Mar. 13-16, 2023, Lund University, Lund, Sweden.
- Co-instructor (with L. J. Harmon), Phylogenetic comparative methods in R, Mar. 2-5, 2023, University of Massachusetts Boston, Boston, Massachusetts.
- Instructor, Phylogenetic comparative methods in R, Feb. 3, 2023, Florida International University, Miami, Florida.
- Co-instructor (with L. J. Harmon), Phylogenetic comparative methods in R, Oct. 19-22, 2022, University of Wyoming, Laramie, Wyoming.
- Instructor, Phylogenetic comparative methods in R, Oct. 10, 2022, University of Vienna, Vienna, Austria.
- Co-instructor (with L. J. Harmon), Comparative phylogenetic methods, Oct. 5-8, 2021, Pennsylvania State University, State College, Pennsylvania.
- Co-instructor (with L. J. Harmon), Using *geiger*, *phytools*, and other computational tools to study macroevolution on phylogenies, Feb. 8-18, 2021, Transmitting Science, online.
- Instructor, VI Escuela Latinoamericana de Evolución (ELAevo), Module II: Phylogenies and Comparative Methods, Oct. 11-15, 2019, Universidad de la República, Montevideo, Uruguay.
- Co-instructor (with L. J. Harmon), Using *geiger*, *phytools*, and other computational tools to study macroevolution on phylogenies, Jul. 16-19, 2019, Transmitting Science, Gerakari, Greece.
- Co-instructor (with L. J. Harmon, G. Lloyd, T. Pelletier, S. Price, K. Schliep, D. Warren, & A. Wright), SSB Workshop: New Methods in Phylogenetics and Evolution, June 21, 2019, Providence, Rhode Island.
- Co-instructor (with L. J. Harmon), Postgraduate course: Macroevolution, May 6-10, 2019, Centro Universitario de la Región Este, Maldonado, Uruguay.
- Co-instructor (with L. J. Harmon), Phylogenetics in R, Jan. 6-8, 2019, University of the Witwatersrand, Johannesburg, South Africa.
- Co-instructor (with L. J. Harmon), Using *geiger*, *phytools*, and other computational tools to study macroevolution on phylogenies, Oct. 8-11, 2018, Transmitting Science, Capellades, Spain.
- Co-instructor & co-organizer (with L. J. Harmon, M. E. Alfaro, R. Betancur, and A. Gonzalez-Voyer), Latin American Macroevolutionary Analysis Workshop. Jun. 26-29, 2018, Universidad Nacional Autónoma de México, Mexico City, Mexico.
- Guest instructor (primary instructors B. Shipley, A. Munson, F. DeBello, J. Posada), Functional Traits International Summer School, May 27-June 1. Villa de Leyva, Colombia.
- Instructor, Macroevolución y uso de métodos comparados en R, Dec. 18-21, 2017. Universidad Bernardo O'Higgins, Santiago, Chile.
- Instructor, Inferencia y uso de filogenias en R, Nov. 20-21, 2017. Universidad de Concepción, Concepción, Chile.
- Instructor, Introducción a los métodos comparativos filogenéticos en R, Aug. 14-16, 2017. COLEVOL 2017. Universidad del Valle, Cali, Colombia.
- Co-instructor & co-organizer (with L. J. Harmon, R. Betancur, S. Benitez-Vieyra, and M. Strelin), Latin American Macroevolutionary Analysis Workshop, Aug. 1-4, 2017. Universidad Nacional de Córdoba, Córdoba, Argentina.
- Instructor, Una introducción a los métodos comparativos filogenéticos en R, Dec. 12-16, 2016. Centro Regional Universitario Bariloche, Universidad Nacional del Comahue, Bariloche, Argentina.
- Co-instructor & co-organizer (with L. J. Harmon, M. E. Alfaro, and R. Betancur), Latin American Macroevolutionary Analysis Workshop, Jun. 28-Jul. 1, 2016. San Juan, Puerto Rico.
- Instructor, Using *phytools* (and other R packages) to study macroevolution on phylogenies, Mar. 14-17, 2016. Transmitting Science, Els Hostalets de Pierola, Spain.

- Instructor, Adaptación, filogenias, y el método comparado (Taller en métodos comparados filogenéticos), Dec. 14-16, 2015. Universidad Austral de Chile, Valdivia, Chile.
- Instructor, Una introducción a los métodos comparativos filogenéticos usando el paquete R *phytools*, Oct. 1, 2015. XVI Congreso Argentino de Herpetología, San Miguel de Tucumán, Argentina.
- Co-instructor & co-organizer (with A. Gonzalez-Voyer), Una introducción a los métodos comparativos filogenéticos en R, Aug. 25-28, 2015. Universidad Nacional Autónoma de Mexico (UNAM), Mexico City, Mexico.
- Co-instructor & co-organizer (with L. J. Harmon and M. E. Alfaro), Latin American Macroevolutionary Analysis Workshop, Jul. 2-5, 2015. Ilhabela, Sao Paolo, Brazil.
- Introduction to Statistics in R Graduate Workshop, University of Puerto Rico – Mayagüez, May 2015. (Single-day workshop.)
- Guest instructor (primary instructors S. Arnold and J. Felsenstein), Evolutionary Quantitative Genetics 2014, A NIMBioS Tutorial. Knoxville, Tennessee.
- Guest instructor (primary instructor C. Nunn), AnthroTree Workshop 2014. Durham, North Carolina.
- Co-instructor & co-organizer (with L. J. Harmon and A. J. Crawford), Latin American Macroevolutionary Analysis Workshop, Jul. 8-11, 2014. Universidad de los Andes, Bogotá, Colombia.
- Guest instructor (primary instructors S. Arnold and J. Felsenstein), NESCent Academy: Evolutionary Quantitative Genetics 2013. Durham, North Carolina.
- Guest instructor (primary instructors S. Arnold and J. Felsenstein), NESCent Academy: Evolutionary Quantitative Genetics 2012. Durham, North Carolina.
- Instructor, Introduction to *phytools* mini-workshop. University of California, Los Angeles, January 17, 2012.

#### OTHER MISC. TEACHING:

- Volunteer ESL instructor, St. Peter & St. Andrew's Church, Providence, Rhode Island, 2024 - present.
- Volunteer tutor and teaching assistant, Cambridge School Volunteers (CSV), Cambridge Rindge and Latin School, Spring 2008 – Spring 2009.
- Teaching assistant, Environmental Studies, Washington University in St. Louis, Spring 2006.
- Teaching assistant, Environmental Studies: Biology, Washington University in St. Louis, Fall 2005.
- Teaching assistant, Behavioral Ecology, Washington University in St. Louis, Spring 2005.

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#### STUDENT & POSTDOC MENTORING:

UNDERGRADUATE STUDENTS: Laura D'Andrea (Washington University), 2005-2006; Molly Sobotka (Washington University), 2006; Victoria Fancher (Washington University), 2006; Jonathan Sweeney (Reed College), 2007; Hannah Frank (Harvard University), 2008-2009; Karen Lovely (Harvard University), 2008-2009; Jillian Newman (Northeastern University), 2011-2013; Tiara Butler-Smith (University of Massachusetts Boston), 2011-2013; Karen Kolodzaike (University of Massachusetts Boston), 2012-2014; Sofia Prado-Irwin (Barnard College), 2012; Siedeh Rezaei-Kamalabad (University of Massachusetts Boston (2013); Kathrin Nye (University of Massachusetts Boston), 2013; Ellen Lapuck (University of Massachusetts Boston), 2013-2014; Tanner Strickland (Harvard University), 2013-2014; Kirsten Tyler (University of Massachusetts Boston), 2013-2015; Maia Titcomb (University of Massachusetts Boston), 2013-2014; Jason Fredette (University of Massachusetts Boston), 2014-2015; Derek Briggs (University of Massachusetts Boston), 2015-2017; Cleo Falvey (University of Massachusetts Boston), 2018-2021.

RESEARCH TECHNICIANS: Leidy Viviana Romero Alarcon (Universidad Católica de la Santísima Concepción), 2021-2023.

GRADUATE STUDENTS: Kristin Winchell (University of Massachusetts Boston), 2011-2018; Quynh Quach (University of Massachusetts Boston), 2014-2016; Kevin Avilés-Rodríguez (University of Massachusetts Boston, co-advised by Luis De León), 2015-2021, Leidy Viviana Romero Alarcon (University of Massachusetts Boston), 2023-present.

POSTDOCTORAL RESEARCHERS: Graham Reynolds (University of Massachusetts Boston / Harvard

University), 2011-2015; David Collar (University of Massachusetts Boston), 2014-2015; Klaus Schliep (University of Massachusetts Boston), 2014-2019; Fabio Machado (University of Massachusetts Boston), 2018-2020; Javier Fernández-López (University of Massachusetts Boston), 2021-2022; Myriam Ramírez (Universidad Católica de la Santísima Concepción), 2022-present.

#### THESIS/DISSERTATION TITLES:

- R. Kirsten Tyler. B.S. University of Massachusetts Boston. “Tails of the city: Caudal autotomy in the tropical lizard, *Anolis cristatellus*, in urban and natural areas of Puerto Rico.” (December 2014)
- Quynh Quach. M.S. University of Massachusetts Boston. “Historical allopatry and secondary contact or primary intergradation in the Puerto Rican crested anole, *Anolis cristatellus*, on Vieques Island.” (July 2016)
- Derek Briggs. B.S. University of Massachusetts Boston. “Body size, condition, and dewlap size in urban and natural populations of a tropical lizard species, *Anolis cristatellus* (Dactyloidae).” (May 2017)
- Kristin Winchell. Ph.D. University of Massachusetts Boston. “Evolutionary effects of urbanization on the tropical lizard genus *Anolis*.” (March 2018)
- Kevin Avilés-Rodríguez. Ph.D. University of Massachusetts Boston. (Co-advised by L. De León.) “Measuring the effects of urbanization and Hurricane Maria on the tropical lizard *Anolis cristatellus*: morphometrics, ecology, and population genomics.” (April 2021)
- Cleo Falvey. B.S. University of Massachusetts Boston. “The finer points of urban adaptation: Intraspecific variation in lizard claw morphology.” (May 2021)

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#### SERVICE & SOCIETY MEMBERSHIP:

ASSOCIATE EDITOR: *Methods in Ecology and Evolution* (2013-2015), *Evolution* (2015-2017).

EDITORIAL BOARD MEMBER: *Systematic Biology* (2011-present).

REVIEWER FOR: *American Naturalist*, *Belgian Journal of Zoology*, *Bioinformatics*, *Biological Reviews*, *Biology Letters*, *BMC Evolutionary Biology*, *Centre de Synthèse et d'Analyse de la Biodiversité* (external reviewer), *Comprehensive Physiology*, *Ecography*, *Ecological Applications*, *Ecology Letters*, *Evolution*, *Evolutionary Ecology*, *Functional Ecology*, *Journal of the Royal Society Interface*, *Methods in Ecology and Evolution*, *Molecular Ecology Notes*, *National Science Foundation* (external reviewer & panelist), *Physiological and Biochemical Zoology*, *PLoS ONE*, *PNAS*, *Proceedings of the Royal Society B*, *Systematic Biology*, *Systematic Botany*, *Trends in Ecology and Evolution*, and numerous others.

SOCIETY MEMBERSHIP: American Association for the Advancement of Science, American Society of Naturalists (Workshop Committee member, 2016-2019), Animal Behavior Society, European Society for Evolutionary Biology, Heterodox Academy, Foundation for Individual Rights and Expression, Society for Open, Reliable, and Transparent Ecology and Evolutionary Biology, Society for the Study of Evolution (Lifetime member), Society of Systematic Biologists (Lifetime member; SSB Council, 2016-2018)

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