

# Cristian Román-Palacios

College of Information Science  
University of Arizona  
1103 E 2nd St  
Richard P. Harvill Building Room 320B  
Tucson, AZ 85719  
+1 (520)-631-5219 | [datadiversitylab.github.io](https://datadiversitylab.github.io)  
[cromanpa@arizona.edu](mailto:cromanpa@arizona.edu)

## Chronology of Education

- 2016–2020 **Ph.D. in Ecology and Evolution**, *The University of Arizona, Tucson, AZ.*
- 2016–2019 **M.Sc. in Ecology and Evolution**, *The University of Arizona, Tucson, AZ.*
- 2011–2015 **B.Sc. in Biology**, *Universidad del Valle, Colombia.*

**Major fields:** Biological data science, evolutionary biology, biodiversity loss, climate change, machine learning, bioinformatics, and biostatistics.

## Chronology of Employment

- 2023–current **Assistant Professor**, *University of Arizona*, College of Information Science.
- 2021–2023 **Assistant Professor of Practice**, *University of Arizona*, College of Information Science.
- 2021 **Staff Researcher**, *University of California, Los Angeles.*
- 2021 **Postdoctoral Researcher**, *Temple University.*

## Affiliations and Leadership

- 2024–current **Elected Faculty Senator**, *University of Arizona*, College of Information Science.
- 2024–current **Appointed Faculty Member**, *University of Arizona*, Diversity, Equity, and Inclusion Committee, Faculty Senate.
- 2024–current **Affiliated Faculty**, *University of Arizona*, Bio5 Institute.
- 2024–current **Affiliated Faculty**, *University of Arizona*, Climate Change Adaptation and Mitigation through Biodiversity Informatics Education and Mentoring (CAMBIUM).
- 2024–current **Affiliated Faculty**, *University of Arizona*, Southwest Center on Resilience for Climate Change and Health (SCORCH).
- 2023–current **Affiliated Faculty**, *University of Arizona*, Bridging Biodiversity and Conservation Science (BBCS).
- 2022–current **Affiliated Faculty**, *University of Arizona*, Department of Mathematics.

## ■ Honors and Awards

- 2025 **Excellence in Research Award** *College of Information Science, University of Arizona*
- 2022 **Afro-Colombian of the Year (STEM)** *El Espectador and Fundación Color de Colombia*
- 2022 **Award for Faculty Leadership** *College of Information Science, University of Arizona*
- 2021–2022 **Early Career Fellow** *Center for Diverse Leadership in Science, University of California, Los Angeles*
- 2020 **Graduate Award in Scholarship** *College of Science, University of Arizona*
- 2015 **Best National Score in Biology** *Colombia – ICFES, Saber Pro*
- 2011–2016 **Outstanding Academic Achievement** *School of Natural and Exact Sciences, Universidad del Valle*

## ■ Service/Outreach

### Local/State Outreach

- 2020 **Youth Advisory Council Member**, Office of Congressman Raúl M. Grijalva, Tucson, AZ
- 2018 **Science Fair Judge**, Davis Bilingual Magnet Elementary School, Tucson, AZ
- 2018 **Science Fair Judge**, Sam Hughes Elementary School, Tucson, AZ
- 2018 **Presenter**, Ecology and Evolutionary Biology Booth, Science City, Tucson Festival of Books, University of Arizona, Tucson, AZ

### National/International Outreach

#### *Grant Ad Hoc Reviewer*

- 2023 Graduate Research Fellowship Program (GRFP), Ecology and Evolutionary Biology, National Science Foundation
- 2022 Graduate Research Fellowship Program (GRFP), Ecology and Evolutionary Biology, National Science Foundation
- 2021 Colombian Administrative Department of Science, Technology and Innovation (Spanish: *Departamento Administrativo de Ciencia, Tecnología e Innovación; Colciencias*)

#### *Journal Article Ad Hoc Reviewer*

- 2024 *Journal of Biogeography* (JIF 3.56), *European Journal of Taxonomy* (JIF 1.19), *Annals of Botany* (JIF 3.43)
- 2023 *Nature Ecology & Evolution* (JIF 14.1), *Methods in Ecology and Evolution* (JIF 6.65), *Papéis Avulsos de Zoología* (JIF 0.74)
- 2022 *Zootaxa* (JIF 0.8), *Journal of Insect Biodiversity* (JIF 0.7)
- 2021 *EntomoBrasilis* (JIF 0.68)
- 2020 *Journal of Insect Biodiversity* (JIF 0.7), *EntomoBrasilis* (JIF 0.68)

- 2019 *Mammal Review* (JIF 4.3), *Annals of Botany* (JIF 3.43), *American Journal of Botany* (JIF 2.29), *Amphibia–Reptilia* (JIF 1.0), *Biota Colombiana* (JIF 0.85), *EntomoBrasilis* (JIF 0.68)
- 2018 *Molecular Phylogenetics and Evolution* (JIF 3.6), *International Journal of Tropical Biology and Conservation* (JIF 0.8), *Biota Colombiana* (JIF 0.85), *EntomoBrasilis* (JIF 0.68)
- 2017 *Biota Colombiana* (JIF 0.85), *EntomoBrasilis* (JIF 0.68)

*National Professional Organization Service*

- 2022–2024 **Member of the Technical Committee**, Association for Computing Machinery Southeast Conference (ACMSE).

*International Professional Organization Service*

- 2021–current **Contributor and Reviewer**, Tools and R Packages for Open Science (ROpenSci).
- 2027 **Co-chair and Main Organizer**, Colombian National Conference on Evolution, Cali, Colombia
- 2021 **Member of the Scientific Committee**, First Latinoamerican Congress on Evolution. Phylogeny and Biogeography Track (Spanish: *Primer Congreso Latinoamericano de Evolución - Línea de Filogenética y Biogeografía*)

*Other*

- 2021 **Instructor**, bilingual semester-long course on fundamental Geographic Information Systems (GIS) for community leaders in Los Angeles (n = 10). Co-taught with Dr. Paige Hoel. Delivered in partnership with Esperanza Community Housing and the Center for Diverse Leadership in Science, University of California, Los Angeles
- 2017 **Invited Speaker**, joint event hosted by the Office of Latin American Partnership Initiatives (OLAPI), University of Arizona, and the Colombian Institute of Educational Credit and Technical Studies Abroad (ICETEX; Spanish: *Instituto Colombiano de Crédito Educativo y Estudios Técnicos en el Exterior*). Presentation focused on key differences between U.S. and Colombian academic systems and pathways to graduate education in the U.S.

**Departmental Committees**

- 2019 **Graduate Student Representative**, Faculty Search Committee, Department of Ecology and Evolutionary Biology, University of Arizona

**College Committees**

- 2022–current **Member**, Curriculum Committee, College of Information Science, University of Arizona
- 2025 **Reviewer**, Graduate Admissions Committee, College of Information Science, University of Arizona

- 2021–2023 **Reviewer**, Graduate Admissions Committee, College of Information Science, University of Arizona
- 2020 **Member**, Race and Climate Committee, College of Science, University of Arizona
- 2017–2018 **Graduate Student Representative** for the Department of Ecology and Evolutionary Biology in the Climate Committee at the College of Science, University of Arizona

#### University Committees

- 2024–current **Appointed Faculty Member**, Diversity, Equity, and Inclusion Committee, Faculty Senate, University of Arizona
- 2021 **Reviewer**, Dr. Maria Teresa Velez – Marshall Foundation Dissertation Scholarship Committee, University of Arizona

### █ Publications/Creative Activity (Published or Accepted)

\*highlights \*\*indicates work based on graduate school years

+ indicates co-author is a University of Arizona graduate student

++ indicates co-author is a University of Arizona undergraduate student

#### Refereed journal articles, published or accepted in final form

50. Alberti, M., Grimm, N. B., Palkovacs, E. P., Urban, M. C., Verrelli, B. C., Anderson, P., Carlen, E. J., Cocciardi, J. M., Cook, E. M., Fortin, M.-J., Gotanda, K. M., Hobbie, S. E., Johnson, M. T. J., Li, D., Malesis-Dahm, A. N., Miles, L. S., Munshi-South, J., **Román-Palacios, C.**, Phifer-Rixey, M., Salazar-Valenzuela, D., Savage, A. M., Snyder, R., Winchell, K. M., and Zhou, Y. (In press). Evolving Nature-Based Solutions for Urban Resilience. *Science*.
49. Alam, M. N. U.<sup>+</sup>, Basava, K., Chitransh, A.<sup>+</sup>, Fattah, H. A.<sup>+</sup>, Garcia-Verdugo, H. D., Lo, S. H., **Román-Palacios, C** & Van Boxel, D. (2025). Machine learning in biological research: key algorithms, applications, and future directions. *BMC biology*, 23(1), 324.
48. Basava, K., & **Román-Palacios, C** (2025). A Web App for the Animal Culture Database and a Template for Deploying Comparative Trait Databases With Shiny. *Ecology and Evolution*, 15(8), e71913.
47. Alam, M. N. U.<sup>+</sup>, **Román-Palacios, C**, Copetti, D., & Wing, R. A. (2025). Universal orthologs infer deep phylogenies and improve genome quality assessments. *BMC biology*, 23(1), 224.
46. García-Verdugo, H. D., & **Román-Palacios, C**. 2025. LabOps: A flexible self-hosted workflow of open source tools for efficient collaboration within research laboratories. *PLOS Computational Biology*, 21(7), e1013248.

45. Basava, K., Alam, M. N. U.<sup>+</sup>, Roberts, L.<sup>+</sup>, Martinet, K., Cherry, P.<sup>++</sup>, García-Verdugo, H., & **Román-Palacios, C.** 2025. Mapping nonhuman cultures with the Animal Culture Database. *Scientific Data*, 12(1), 1-11.
44. Zeng, Y., & **Román-Palacios, C.** 2025. Macroevolutionary Rates of Species Interactions: Approximate Bayesian Inference from Cophylogenies. *bioRxiv*, 2025-05.
43. Tripathi, A., [11 co-authors], **Román-Palacios, C.**, [9 co-authors], and Lynch-Stieglitz, J. 2025. Clumped isotope thermometry in foraminifera as a tool in paleoceanography: New planktic and benthic data and constraints on non-thermal effects. *Authorea Preprints* (10.22541/essoar.173775834.43995341/v1).
42. Martinet, K. M., **Román-Palacios, C.**, and Harmon, L. J. 2025. SSARP: An R Package for Easily Creating Species-and Speciation-Area Relationships Using Web Databases. *bioRxiv*, 2024-12.
41. Elliot Gould, ... [184 authors]..., **Cristian Román-Palacios**, ... (68 authors)..., Emily M. Tompkins. 2023. Same data, different analysts: variation in effect sizes due to analytical decisions in ecology and evolutionary biology. *BMC Biology*: 23:35.
40. Arnold, A., Mering, J., Chari, L., **Román-Palacios, C.**, [21 co-authors], and Tripathi, A. 2024. Comparative clumped isotope temperature relationships in freshwater carbonates. *The Depositional Record*. Early view.
39. Savage, A. M., [7 co-authors], **Román-Palacios, C.**, [15 co-authors], Gotanda, K. M. 2024. Online toolkits for collaborative and inclusive global research in urban evolutionary ecology. *Ecology and evolution*, 14(6), e11633.
38. Estacio, I., **Román-Palacios, C.**, Hoover, J., Li, X., and Lim, C. 2024. Open-source automatic extraction of Urban Green Space: Application to assessing improvement in green space access. *ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, 10, 65-72.
37. Ehsani, M.R.<sup>++</sup>, Behrangi, A., **Román-Palacios, C.**, Huffman, G.J. and Adler, R.F., 2024. Using CloudSat to Advance the Global Precipitation Climatology Project (GPCP) over Antarctica. *Remote Sensing of Environment*, 308, p.114199.
36. Sarria-Rodríguez, V., Gonzalez-Obando, R., Rivera-Franco, N., Cardenas-Henao, H. and **Román-Palacios, C.**, 2024. Holarctic Lineages Cannot Inform Diversity and Evolution in the Neotropics—the barklice family Psocidae as a case study. *Insect Systematics and Evolution*, 1(aop), pp.1-14.
35. Savage, A., Willmott, M., Moreno, P., Li, D., Malesis, A., Jagiełło, Z., Miles, L., Kuzyo, H., **Román-Palacios, C.**, Salazar, D. and Verrelli, B., 2024. Online toolkits for collaborative and inclusive global research in urban evolutionary ecology. *Authorea Preprints*.

34. **Cristian Román-Palacios**. (2023). Digest: Unveiling the role of chemical communication in lizard diversification. *Evolution*, qpad148.
33. **Cristian Román-Palacios**. (2023). The phruta R package: increasing access, reproducibility, and transparency in phylogenetic analyses. *Methods in Ecology and Evolution*, 14:2284-2299. *Shortlisted for the 2023 Robert May Prize*
32. Xiao-Yu Zhu, Shi-Yang Wu, Yi-Jiao Liu, Yun Bai, **Cristian Román-Palacios**, Zheng Li, Zhu-Qing He. (2022). *Goniurosaurus wangshu* sp. nov., a new species of Tiger Gecko from Guangdong, China (Squamata: Eublepharidae). *Zootaxa*, 5188: 544-558.
31. Shi-Yang Wu, Xiao-Yu Zhu, Yi-Jiao Liu, Gustavo Silva De Miranda, **Cristian Román-Palacios**, Zheng Li, Zhu-Qing He. (2022). A new species of whip spider, *Sarax sinensis* sp. nov., from Fujian, China (Arachnida: Amblypygi: Charinidae). *Zootaxa*, 5162: 397-409.
30. **Cristian Román-Palacios**, Daniela Moraga-Lopez, and John J. Wiens (2022). The origins of global biodiversity on land, sea, and freshwater. *Ecology Letters*, 25:1376-1386. *Shortlisted for the 2022 Early Career Researcher Award at Ecology Letters*
29. **Cristian Román-Palacios**, April M. Wright, and Josef C. Uyeda (2021). *treedata.table*: A wrapper for *data.table* that enables fast manipulation of large phylogenetic trees matched to data. *PeerJ*, 9: e12450.
28. Xiao-Yu, Zhu, Shi-Yang Wu, S. Y., Yi-Juao Liu, Chris R. Reardon, **Cristian Román-Palacios**, Zheng Li, Zhu-Qing He. A new species of whip spider, *Weygoldtia hainanensis* sp. nov., from Hainan, China (Arachnida: Amblypygi: Charinidae). *Zootaxa*, 5082(1), 65-76.
27. Xiao-Yu Zhu, Yi-Jiao, Liu, Yun, Bai, **Cristian Román-Palacios**, Zheng Li, Zhu-Qing He. *Goniurosaurus chengzheng* sp. nov., a new species of Leopard Gecko from Guangxi, China (Squamata: Eublepharidae). *Zootaxa* 996(3), 540-554, doi:10.11646/zootaxa.4996.3.8.
26. **Cristian Román-Palacios**, Cesar A. Medina, Shing H. Zhan, Michael S. Barker. Animal chromosome counts reveal similar range of chromosome numbers but with less polyploidy in animals compared to flowering plants. **Journal of Evolutionary Biology**, doi:10.1111/jeb.13884.
25. Robert N Ulrich, Maxence Guillermic, Julia Campbell, Abbas Hakim, Rachel Han, Shayleen Singh, Justin D Stewart, **Cristian Román-Palacios**, Hannah M Carroll, Ilian DeCorte, Rosaleen E Gilmore, Whitney Doss, Aradhna Tripathi, Justin B Ries, Robert A Eagle. 2021. Patterns of element incorporation in calcium carbonate biominerals recapitulate phylogeny for a diverse range of marine calcifiers. **Frontiers in Earth Science, section Geochemistry**, doi:10.3389/feart.2021.641760.

24. Tania Hernandez-Hernandez\*, Elizabeth C. Miller\*, **Cristian Román-Palacios\***, and John J. Wiens\*. 2021. Speciation across the Tree of Life. **Biological Reviews**, doi:10.1111/brv.12698. *\*Equal contribution*
23. Elizabeth C. Miller\*, and **Cristian Román-Palacios\***. 2021. Evolutionary time explains the global distribution of freshwater fish diversity. **Global Ecology and Biogeography**, 30:749-763, doi:10.1111/geb.13253. *\*Equal contribution*
22. Xiao-Yu Zhu, Guang-Yu Chen, **Cristian Román-Palacios**, Zheng Li, Zhu-Qing He. 2020. *Goniurosaurus gezhi*, a new gecko species from Guangxi, China (Squamata: Sauria: Eublepharidae). **Zootaxa**, 4852:211–222.
21. **Cristian Román-Palacios\***, Yherson F. Molina\*, and Michael S. Barker. 2020. Polyploidy increases overall diversity despite higher turnover than diploids in the Brassicaceae. **Proceedings of the Royal Society of London**, 287:20200962. *\*Equal contribution*
20. **Cristian Román-Palacios**, and John J. Wiens. 2020. Recent responses to climate change reveal the drivers of species extinction and survival. **Proceedings of the National Academy of Sciences of the United States of America**, 117:4211–4217. *\*\*Recommended in Faculty Opinions (former Faculty1000)*.  
*\*\*Featured in stories on several news and science related sites. These include news outlets in the U.S. (e.g. CNN, USA Today, CBS News, Yahoo News, AOL, MSN, Fox News, New York Post, New York Daily News, Arizona Daily Star [with interview], Miami Herald, Kansas City Star, Indianapolis Star, Sacramento Bee, Charlotte Observer, and Detroit Free Press, Salt Lake Tribune), and other countries including the United Kingdom (Daily Mail, The Independent, The London Economic, The Irish Sun, Metro), India (Tribune India, India Times Post, Outlook India, The Week, Canindia, ProKerala), Australia (10Daily), France (Slate, Free, Futura-Science), Italy (Galileo), Spain (La Vanguardia), Sweden (ETC), Poland (Polish Press Agency), Russia (Life), Slovenia (Delo), Bulgaria (Novinite), Brazil (Galileu), and Latin America (infosurhoy). Featured on science websites including Popular Science (with interview), Wildlife.org (with interview), Futurity, IFL Science, ZME Science, SciTech Daily, Muy Interesante (Spain), and the NSF News site. Interview for the climate magazine The Grist. Interview on podcast The Climate Pod. TV interview on KVOA (Tucson; lead story). Radio interview on BBC World Service.*
19. **Cristian Román-Palacios**, Joshua Scholl, and John J. Wiens. 2019. Evolution of diet across the animal Tree of Life. **Evolution Letters**, 4:339–347. *\*\*Featured in a news story in Science, and other science-related websites (phys.org, Science Daily, and UA News. Newspaper column in Södermanlands Nyheter. Radio interview on Arizona Science.*

18. Andreas Meyer, **Cristian Román-Palacios**, and John J. Wiens. 2018. BMM gives misleading results in simulated and empirical datasets. **Evolution**, 72:2257–2266.
17. Alfonso N. Garcia-Aldrete, Nancy S. Carrejo, Julian Mendivil, Nadia Calderón, Oscar Saenz, Jefferson Panche, **Cristian Román-Palacios**, and Ranulfo Obando-Obando. 2018. Checklist of ‘Psocoptera’(Psocodea) of Colombia and identification key to families. **Dugesiana**, 25:77-103.
16. **Cristian Román-Palacios**, and John J. Wiens. 2018. The Tortoise and the Finch: testing for island effects on diversification using two iconic Galápagos radiations. **Journal of Biogeography**, 45:1701–1702.  
*\*\*Highlighted as Editor’s Choice.*
15. **Cristian Román-Palacios**, Rosario Castañeda, and Jose Julian Tavera. 2018. When did *Anolis* lizards diverge? A comparison of multiple dating strategies. **Molecular Phylogenetics and Evolution**, 127:655-668.
14. **Cristian Román-Palacios**, Jakob Damgaard, Cheng, Lanna, Felipe Ferraz Figueiredo Moreira, Tom A. Weir, and Herbert Zettle. 2018. Molecular phylogeny of sea skaters and their freshwater relatives (Hemiptera: Heteroptera: Gerridae: Halobatinae). **Journal of Insect Systematics and Evolution**, 51:139–240.
13. **Cristian Román-Palacios**, and Alejandro Valencia-Zuleta. 2018. On the Data Deficient amphibians from Colombia. **Revista de Biología Tropical**, 66:1272-1281.
12. **Cristian Román-Palacios**, Yherson Franchesco Molina-Henao, and Ranulfo Gonzalez-Obando. 2017. On the divergence of Psocidae (Psocodea, Psocomorpha): Fossils or biogeography. **Boletín del Museo de Entomología de la Universidad del Valle**, 17:37-46.
11. **Cristian Román-P**, Sara Fernández–Garzón, Alejandro Valencia–Zuleta, Andrés F. Jaramillo–Martínez, and Ronald A. Viáfara–Vega. 2017. Lista anotada de la herpetofauna del departamento del Quindío, Colombia. **Biota Colombiana**, 18:251-281.
10. **Cristian Román-Palacios**, Sara Fernandez-Garzon, Jenny Johana Gallo-Franco, Alan Giraldo-Lopez, Monica Hernandez-Lopez, Jun Ishida-Castañeda, and Wilmar Bolivar-Garcia. 2017. Uso de microhábitat por anuros en un fragmento de bosque seco intervenido del Magdalena medio, Guarinocito, Colombia. **Boletín Científico Centro De Museos Museo De Historia Natural**, 20:181-196.
9. **Cristian Román-Palacios**, and Cesar Román Valencia. 2017. Dieta y reproducción de *Bryconamericus caucanus* (Characiformes: Characidae) en La Venada, Río Quindío, Colombia. **Revista MVZ Córdoba**, 2:1-17.

8. **Cristian Román-Palacios**, Alfonso Neri García-Aldrete, and Ranulfo Gonzalez Obando. 2016. Historical biogeography of Thyrsophorini psocids and description of a new Neotropical species of *Thyrsopsocopsis* (Psocodea: Psocomorpha: Psocidae). **European Journal of Entomology**, 194:1-16.
7. **Cristian Roman-Palacios**, Ranulfo Obando-Gonzalez, and Alfonso Neri Aldrete. 2016. Uncovering the diversity of the neotropical genus *Elaphopsocus* ('Psocoptera': Psocidae: Amphigerontiinae): from one to ten species. **Zootaxa**, 4162:373-380.
6. **Cristian Román-Palacios**, and Alfonso N. García Aldrete. 2015. A new Neotropical genus of Blastini (Psocodea:'Psocoptera': Psocidae: Amphigerontiinae). **Zootaxa**, 4000:392-396.
5. Daniela Moraga Lopez, and **Cristian Román-Palacios**. 2015. Information criteria on multimodel selection of parametric regression: Biological applications. **Revista Comunicaciones en Estadística**, 8:45-57.
4. **Cristian Román-Palacios**, Ranulfo Gonzalez Obando, and Alfonso N. Garcia Aldrete. 2015. The genus *Elaphopsocus* Roesler (Psocodea:'Psocoptera': Psocidae) with six new species from Brazil and Colombia. **Zootaxa**, 3957:151-168.
3. **Cristian Román-Palacios**, and Cesar Román Valencia. 2015. Hábitos tróficos de dos especies sintópicas de carácidos en una quebrada de alta montaña en los Andes de Colombia. **Revista Mexicana de Biodiversidad**, 86:1-7.
2. **Cristian Román-Palacios**, Alfonso N. García Aldrete, and Ranulfo Gonzalez Obando. 2014. *Elaphopsocoides*, a new genus of Psocidae (Psocodea: 'Psocoptera') from Valle del Cauca, Colombia. **Zootaxa**, 3873:93-100.
1. **Cristian Román-Palacios**, Cesar Román Valencia, and Donald C. Taphorn. 2014. Trophic and reproductive ecology of a neotropical characid fish *Hemibrycon brevispini* (Teleostei: Characiformes). **Caldasia**, 36:289-304.

## Other Scholarship

### Computer Programs / Open Code

BarrioMap	Shiny app for participatory urban planning.	Available at <a href="https://github.com/RomanPalacios-lab/BarrioMap">https://github.com/RomanPalacios-lab/BarrioMap</a>
plagiarized	Tool for detecting plagiarism in coding assignments.	Available at <a href="https://viz.datascience.arizona.edu/plagiarized/">https://viz.datascience.arizona.edu/plagiarized/</a>
phruta	R package for streamlined phylogenetic workflows.	Available at <a href="https://github.com/ropensci/phruta">https://github.com/ropensci/phruta</a>
autogradeR	R package for automated grading in data science courses.	Available at <a href="https://github.com/cromanpa94/autogradeR">https://github.com/cromanpa94/autogradeR</a>

- bayclumpr R package for analyzing clumped isotope data. Available at <https://cran.r-project.org/web/packages/bayclumpr/>
- BayClump Shiny app for visualizing clumped isotope datasets. Available at <https://github.com/Tripati-Lab/BayClump>
- BTOpenNLP Tool for training NLP models using OpenNLP. Available at <https://github.com/cromanpa94/BTOpenNLP>
- treedata.table R package for phylogenetic data handling with `data.table`. Available at <https://github.com/ropensci/treedata.table>
- rBT R wrapper for BayesTraits phylogenetic modeling. Available at <https://github.com/cromanpa94/rBT>

### Other

- Outreach Cristian Román-Palacios. 2020. “Respuestas al cambio climático revelan los factores causantes de la extinción y sobrevivencia de las especies.” *Boletín Colombiano de Biología Evolutiva*, 8: 22–24.
- Outreach Cristian Román-Palacios. 2019. “Five tips for nailing your US-based graduate-school applications.” *Nature*, 10.1038/d41586-019-00845-z.
- Outreach Cristian Román-Palacios. 2017. “P-valores, alpha y beta: ¿Cuánto nos equivocamos en Biología?” *Boletín del Posgrado en Ciencias Biología, Universidad del Valle*, 3: 24–26.
- Outreach Cristian Román-Palacios. 2016. “¿Conservan las áreas protegidas la biodiversidad en Colombia?” *Boletín del Posgrado en Ciencias Biología, Universidad del Valle*, 2: 79–82.

## Scholarly Presentations

### Colloquia and Seminars (Invited)

#### *Research Talks*

- 2026 University Tennessee, Knoxville. Host: Dr. Brian O’Meara
- 2025 Encuentros: Ciencia y Comunidad, Charles Darwin Research Station (CDRS) (Spanish: *Estación Científica Charles Darwin*, Puerto Ayora, Santa Cruz Island, Galápagos, Ecuador; Host: MSc Andrea Carvajal-Román
- 2025 The Aquatic Ecology & Evolution spring seminar series, University of Bern and the Swiss Federal Institute of Aquatic Science and Technology, Switzerland; Host: Dr. Ole Seehausen
- 2025 Geosciences Seminar Series, University of California, Los Angeles; Host: Dr. Aradhna Tripathi
- 2023 The Institute of Ecology (Spanish: *Instituto de Ecología*), Xalapa, Mexico. Host: Graduate students and Dr. Fabricio Villalobos
- 2023 Louisiana State University. Host: Department of Biology

- 2023 University of The Andes (*Universidad de los Andes*, Bogotá, Colombia). Host: Department of Biology
- 2023 University of Arizona. Host: College of Information Science
- 2022 University of California, Los Angeles. Host: Dr. Aradhna Tripathi
- 2022 Rutgers University, Camden. Host: Center for Computational and Integrative Biology (CCIB)
- 2021 Rutgers University, Camden. Host: Dr. Anthony Geneva
- 2019 Universidad del Valle, Colombia. Host: Dr. Ranulfo Gonzalez
- 2019 Universidad Nacional de Colombia, Colombia. Host: Dr. Carlos Sarmiento
- 2019 Universidad del Quindío, Colombia. Host: Dr. Cesar Román
- 2019 Universidad del Valle, Colombia. Host: Dr. Ranulfo Gonzalez
- 2018 Congress of the Colombian Entomological Society (*Congreso de la Sociedad Colombiana de Entomología*), Cali, Colombia

*Workshops and Guest Lectures*

- 2023 **Workshop instructor**, Introduction to Machine Learning and Macroevolution, Instituto de Ecología (INECOL), Xalapa, Mexico
- 2023 **Instructor**, National Summer Undergraduate Research Project, University of Arizona — “Introduction to Data Science and Visualization”
- 2022 **Instructor**, Data Science Institute, University of Arizona — Lecture for Data Science Ambassadors Cohort
- 2021 **Instructor**, University of California, Los Angeles — Introduction to R and ggplot2
- 2021 **Instructor**, University of California, Los Angeles — “Introduction to Biostatistics”

*Research Networks*

- 2024 National Science Foundation, Research Collaborative Network on Urban EcoEvo, Seattle, USA
- 2022 National Science Foundation, Research Collaborative Network on Urban EcoEvo
- 2022 National Science Foundation, US Long-Term Ecological Research, Long Term Ecological Research Network, Network
- 2022 National Science Foundation, Research Collaborative Network, Urban EcoEvo

*Panels*

- 2022 ASU Biocollections JEDI Panel, Arizona State University

**Conference Symposium (Submitted)**

*Presentations and Participation*

- 2024 United Nations Biodiversity Conference

*Recent Conference Participation and Presentations*

- 2023 World Climate Research Programme (WCRP) Open Science Conference — Poster on GIS and community health with Esperanza Community Housing and the Center for Diverse Leadership in Science (UCLA)
- 2023 Race, Ethnicity, and Place Conference, Washington DC — Presenter: “Crossing the Digital / Analog Divide in Teaching Community-Centered, Spatial Justice Practice” (with Mackenzie Waller and Ariana Cantú)
- 2023 useR — Attendee
- 2023 latinR — Attendee
- 2023 iConference — Early Career Symposium Attendee
- 2022 Princeton Workshop: “Leakage and the Reproducibility Crisis in ML-based Science”
- 2022 Society of Systematic Biologists, Standalone Meeting, Mexico City
- 2018 Evolution Meeting, Montpellier, France — Poster: “On the Interplay Between Diversification Rates, Hybridization, Geography, and Sexual Selection: A Case Study with Corvid Birds”
- 2018 Anolis Symposium — Presentation (by Rosario Castañeda): “When Did *Anolis* Lizards Diverge? A Comparison of Multiple Dating Strategies”
- 2018 Origins of Adaptive Radiation Symposium, Waimea, USA — Poster: “The Tortoise and the Finch: Testing for Island Effects on Diversification Using Two Iconic Galápagos Radiations”
- 2017 International Biogeography Society (IBS) Special Meeting: The Biogeography of Ecology
- 2015 National Conference on Evolution, Armenia, Colombia — Poster: “Diversification Histories in Parasitic and Free-Living Lice (Psocodea)”

---

## Media

- 2024 **NPR, USA** (December 2024) — “*Climate Change and Extinction Risk*”
- 2022 **El Espectador, Colombia** (December 2022) — “*Y los ganadores en los premios a los Afrocolombianos del año 2022 son...*”
- 2022 **El Espectador, Colombia** (December 2022) — “*Estos son los nominados en Afrocolombianos del Año 2022*”
- 2022 **Library Journal** (March 2022) — “*After the MLIS*” by Jennifer A. Dixon
- 2020 **Nature Index** (March 2020) — “*Front Line Scientists Call for Mental Health Support in the Wake of Catastrophic Ecosystem Loss*” by Gemma Conroy
- 2016 **Universidad del Valle, Agencia de Noticias** (April 2016) — “*Egresado de Biología de Univalle Gana Beca para Doctorado en USA*”

---

## Community Presentations Related to Research or Teaching

- 2024 The Bio/Diversity Project, The Data Diversity Lab, University of Arizona

- 2023 Talk: Una introducción breve al cambio climático y carbono cero, Semillero de Becarios Quibdó y Buenaventura, Fundación Color de Colombia
- 2022 Python and R coding instructor for Youth Education and Empowerment in STEM, Los Angeles, CA partnered with The Center for Diverse Leadership in Science (CDLS) at the University of California, Los Angeles
- 2022 Talk: Qué hace un biólogo, Devolver ConCiencia, Colombia
- 2018 Data Science Ambassador for The University of Arizona
- 2019 Data carpentry workshop helper. Tucson, AZ
- 2018 Data carpentry workshop helper. Tucson, AZ

## Grants and Contracts

*All grants list percent effort and role where applicable. Amounts in USD.*

### Federal Grants (Funded)

*Principal, Co-Principal Investigator, or Key Personnel*

- 2024 U.S. Geological Survey (USGS) — “Biotic and Abiotic Drivers of Tick-Borne Disease Prevalence” (\$438,945). Co-PI: Cristian Román-Palacios (0% effort); PI: Sabrina McNew. Subaward: \$90,000
- 2024 National Science Foundation (NSF) — “CAMBIUM: Climate Adaptation and Mitigation Through Biodiversity Informatics” (\$3,000,000). Key Personnel: Cristian Román-Palacios (0.85% effort). Subaward: \$250,000
- 2023 National Institutes of Health (NIH) — “SCORCH: Southwest Center for Outreach and Resilience in Climate Change and Health” (\$3,827,073). Co-I: Cristian Román-Palacios (0% effort). Subaward: \$445,845

### University Internal Grants

*Principal Investigator*

- 2024 Faculty Seed Grant, University of Arizona — “Macroevolution of Lifespans Across Animals” (\$15,000). PI: Cristian Román-Palacios
- 2024 VIP Program Catalyst Award, University of Arizona — “Vertically Integrated Projects (VIP)” (\$3,500). PI: Cristian Román-Palacios
- 2023 Innovation and Impact / One Health Initiative, University of Arizona — “Extreme Weather, Power Outages, and One Health” (\$50,000). Co-PI: Cristian Román-Palacios
- 2023 College of Architecture, Planning and Landscape Architecture, University of Arizona — “Open Access Mapping and Formal Planning” (\$20,000). Co-PI: Cristian Román-Palacios

## Private and Foundation Awards

### *Individual and Fellowship Awards*

- 2024 National Geographic — “Supporting Colombian Undergraduates Through Programming and Phylogenetic Methods in R” (\$99,423). PI: Cristian Román-Palacios
- 2022 Center for Diverse Leadership in Science, UCLA — Early Career Fellow (\$2,000)
- 2021 Center for Diverse Leadership in Science, UCLA — Early Career Fellow (\$5,000)
- 2020 Robert W. Hoshaw Memorial Award, University of Arizona (\$5,000)
- 2020 Graduate Award in Scholarship, College of Science, University of Arizona (\$1,000)
- 2020 Galileo Circle Scholarship, University of Arizona (\$1,000)
- 2018 Data Science Fellowship, University of Arizona Libraries (\$1,000)
- 2018 Systematics Research Fund, Linnean Society and Systematics Association (\$1,600)
- 2018 William A. Calder III Memorial Scholarship, University of Arizona (\$4,200)

## Travel and Meeting Awards

### *Conference Travel and Workshop Grants*

- 2023 NSF — “Priming the STEM PhD Pathway” (PI: Monica Brown and Angelina Castagno, Northern Arizona University). Cristian Román-Palacios listed collaborator. Grant amount: \$1,000
- 2018 Evolution 2018 Travel Grant, Society of Systematic Biologists (\$500)
- 2018 Biodiversity Information Standards (TDWG), New Zealand — Travel Grant (\$2,000). *Declined*
- 2016 NSF R Workshop on Methods in Macroevolution (\$750)

## Conference and Event Funding (PI or Organizer)

### *VI Colombian Meeting in Evolution*

- 2017 American Genetics Association (AGA) — Event grant (\$10,000). Co-PI: Cristian Román-Palacios
- 2017 Society for the Study of Evolution (SSE) — Event grant (\$6,000). Co-PI: Cristian Román-Palacios
- 2017 Society for Molecular Biology and Evolution (SMBE) — Event grant (\$25,000). Co-PI: Cristian Román-Palacios

## Other Academic Awards

- 2017 Banco de la República, Colombia — Research grant (\$6,000). PI: Cristian Román-Palacios

2015–2016 Jóvenes Investigadores e Innovadores “Virginia Gutiérrez de Pineda” Program, Colombia (\$7,700)

2011–2016 Outstanding Academic Achievement, School of Natural and Exact Sciences, Universidad del Valle, Colombia (ca. \$10,000)

*Last updated on Friday 8<sup>th</sup> May, 2026*

---

### **Extent of Undergraduate Teaching**

- 2020 Fall Marine Biology (ECOL 170), grader — 127 students  
2020 Summer Genetics (ECOL 320), fully online (5 weeks) — 51 students  
2020 Spring Introductory Biology (ECOL 182L), 2 lab sections — 48 students  
2019 Fall Marine Biology (ECOL 170), grader — 74 students  
2019 Spring Introductory Biology (ECOL 182L), 2 lab sections — 43 students  
2018 Fall Marine Biology (ECOL 170), grader — 127 students  
2018 Spring Introductory Biology (ECOL 182L), 2 lab sections — 46 students  
2017 Fall Marine Biology (ECOL 170), grader — 127 students  
2017 Spring Introductory Biology (ECOL 182L), 2 lab sections — 45 students  
2016 Fall Introductory Biology (ECOL 182L), 2 lab sections — 42 students

---

### **Extent of Graduate Teaching**

- 2026 Spring Data Mining and Discovery (INFO 523) — 8 students  
2025 Fall Biodiversity Data Science (ECOL 596X) — 6 students  
2024 Summer Data Mining and Discovery (INFO 523) — 22 students  
2023 Summer Data Mining and Discovery (INFO 523) — 23 students  
2023 Spring Data Mining and Discovery (INFO 523) — 18 students  
2022 Fall Data Mining and Discovery (INFO 523) — 23 students  
2022 Summer Data Mining and Discovery (INFO 523) — 20 students  
2022 Spring Data Mining and Discovery (INFO 523) — 30 students  
2021 Fall Data Mining and Discovery (INFO 523) — 20 students

---

### **Extent of Co-Convened (Undergraduate/Graduate) Teaching**

- 2023 Spring Introduction to Machine Learning (ISTA 421 / INFO 521) — 38 students  
2022 Fall Introduction to Machine Learning (ISTA 421 / INFO 521) — 43 students  
2022 Spring Introduction to Machine Learning (ISTA 421 / INFO 521) — 37 students  
2021 Fall Introduction to Machine Learning (ISTA 421 / INFO 521), co-taught with Dr. Clayton Morrison — 34 students

---

### **Extent of Graduate level Teaching (Arizona Global)**

- 2025 Summer Introduction to Machine Learning (GreatLearning INFO 521)  
2025 Spring Introduction to Machine Learning (GreatLearning INFO 521)  
2024 Winter Introduction to Machine Learning (GreatLearning INFO 521)  
2024 Fall Introduction to Machine Learning (GreatLearning INFO 521)

- 2024 Summer Introduction to Machine Learning (GreatLeaning INFO 521)
- 2024 Spring Introduction to Machine Learning (GreatLeaning INFO 521)
- 2023 Winter Introduction to Machine Learning (GreatLeaning INFO 521)
- 2023 Fall Introduction to Machine Learning (GreatLeaning INFO 521)
- 2023 Summer Introduction to Machine Learning (GreatLeaning INFO 521)
- 2023 Spring Introduction to Machine Learning (GreatLeaning INFO 521)
- 2023 Fall Introduction to Machine Learning (Upgrad INFO 521)
- 2023 Spring Introduction to Machine Learning (Upgrad INFO 521)
- 2022 Fall Introduction to Machine Learning (Upgrad INFO 521)
- 2022 Spring Introduction to Machine Learning (Upgrad INFO 521)
- 2021 Fall Introduction to Machine Learning (Upgrad INFO 521)
- 2021 Spring Introduction to Machine Learning (Upgrad INFO 521)

---

### **Invited Guest Lectures (Graduate and Undergraduate level)**

- 2024 ECOL 596W - Special Topics in Ecology and Evolution A, Department of Ecology and Evolutionary Biology. Instructor: Dr. Sabrina McNew

---

### **Individual Student Contact**

#### **Graduate Advising — Main or Co-Advisor**

- 2024 Swetha Kolloju — MSc in Information Science (co-advised with Dr. Sarah Bratt)
- 2024 Pradnya Raut — MSc in Information Science (Main advisor)
- 2024 Erika Kirkpatrick — MSc in Data Science (Main advisor)
- 2024 HM Abdul Fattah — MSc in Data Science (Main advisor)
- 2024 Shih-Hsuan Lo — MSc in Data Science (Main advisor)
- 2024 Jiayue He — MSc in Data Science (Main advisor)
- 2024 Ani Chitransh — MSc in Data Science (Main advisor)
- 2024 Tom Olla — MSc in Data Science (Main advisor)
- 2024 Rob Speer — MSc in Data Science (Main advisor)
- 2024 Gloria Moraa Angwenyi — MSc in Data Science (Main advisor)
- 2023 Yi Chien Lee — MSc in Management Information Systems (Main advisor)
- 2023 Ethan Davis — MSc in Data Science (Main advisor)
- 2023 Katie Stringham — MSc in Data Science (Main advisor)
- 2023 Darwood Martin — MSc in Data Science (Main advisor)
- 2023 YuanJea Hew — MSc in Data Science (Main advisor)
- 2023 Tingting Thompson — MSc in Data Science (Main advisor)
- 2023 Shophie Fournier — MSc in Data Science (Co-advisor)
- 2022–2023 Laura Palacios — MSc in Data Science (Main advisor)

- 2022 Eastern Kang — MSc in Data Science (Co-advisor)
- 2022 Kyle Arechiga — MSc in Information (Main advisor)
- 2022 Quan Gan — MSc in Information (Main advisor)
- 2022 Wonkyun Yim — MSc in Information (Main advisor)

#### **Graduate Advising — Other Roles**

- 2022–2023 Reza Ehsani — Ph.D. in Hydrology and Atmospheric Sciences (Minor advisor)
- 2022–2023 Salena Torres Ashton — Ph.D. student, Data Science Ambassadors Fellowship (Mentor)

### **Collaboration with Undergraduate and Graduate Students on Research Projects**

#### **Undergraduate Research Mentorship**

- 2024–current Delaney Scott-Martin — BSc in Ecology and Evolutionary Biology and Anthropology (Research advisor)
- 2024–2025 Paige Cherry — BSc in Information Science (Research advisor)
- 2022–2023 Kyle Clements — BSc in Computer Science (Research advisor)

#### **Independent Studies and Fellowships**

- 2023 Sarthak Saldar — MSc in Data Science (Co-advisor)

#### **Career Counseling**

### **Thesis Supervision and Committee Membership**

#### **Undergraduate Theses**

- 2018 Valentina Sarria Rodríguez — Undergraduate thesis: "Systematics and Evolution of Neotropical Psocidae", Universidad del Valle, Colombia — Honorable mention

#### **Theses in Progress**

- 2024–current MD Nafis Alam — Ph.D. in Plant Sciences (Co-advisor), University of Arizona

#### **Theses Completed — Co-Chair**

- 2022–2024 Danielle Van Boxel — Ph.D. in Applied Mathematics (Co-advisor), University of Arizona

#### **Thesis Committee Membership**

- 2023 Mike's student
- 2024–current Zeinab Alizadeh — Ph.D. Committee Member, University of Arizona
- 2024–current Henry Desee — Ph.D. Committee Member, University of Arizona
- 2023–current Rachel Laura — Ph.D. Committee Member, University of Arizona
- 2023–current Shoma Bommena — Ph.D. Committee Member, University of Arizona
- 2024–2025 Brian McGinnis — Ph.D. Committee Member, University of Arizona
- 2023–2024 Hamidreza Vashaghian — Ph.D. Committee Member, University of Arizona
- 2023 Marcelo Cutrim — Ph.D. Committee Member, Instituto Nacional de Pesquisas da Amazônia (INPA), Brazil

### **Ph.D. Comprehensive Exam Committee**

2023 Lia Ossana — Ph.D. in Environmental and Natural Resources (Minor Advisor),  
University of Arizona

### **Postdoctoral Researchers Supervised**

2024–current Dr. Kristen Martinet — Postdoctoral Researcher, College of Information Science,  
University of Arizona

2024–current Dr. Kiran Basava — Postdoctoral Researcher, College of Information Science,  
University of Arizona

2024–current Ian Estacio — Postdoctoral Researcher, College of Information Science, Univer-  
sity of Arizona

2024–2025 Yichao Zeng — Postdoctoral Researcher, College of Information Science, Uni-  
versity of Arizona

### **Trained Staff**

2023–2024 Héctor García — Laboratory Manager, College of Information Science, University  
of Arizona

### **Trained Student Workers**

2024–current Isabella Ortiz — BSc in Information Science, iSchool (Advising team)

2024–2025 Eleanor Tuck — BSc in Information Science, iSchool (Advising team)

2024 Maddy Raker — BSc in Information Science, iSchool (Advising team)

---

## **Contributions to Instructional Innovations and Collaborations**

### **Development of Online or Other Course Materials**

INFO 523 Design and development of course materials for Data Mining and Discovery

INFO 521 Curricular contributions to Introduction to Machine Learning (graduate section)

ISTA 421 Curricular contributions to Introduction to Machine Learning (undergraduate  
section)

*Last updated on Friday 8<sup>th</sup> May, 2026*