

Cristian Román Palacios | CV

School of Information – 1103 E 2nd St, Tucson, AZ, 85721

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📄 datadiversitylab.github.io/

Professional appointments

University of Arizona <i>Assistant professor</i>	School of Information 2023—present
University of Arizona <i>Assistant professor of Practice</i>	School of Information 2021—2023
University of California, Los Angeles <i>Staff researcher</i>	PI: Dr. Aradhna Tripathi 2021
Temple University <i>Postdoctoral researcher</i>	2021

Additional affiliations

The University of Arizona, Tucson <i>Faculty Advisor, MS in Information Science, School of Information</i>	2023—present
The University of Arizona, Tucson <i>Faculty Advisor, MS in Data Science, School of Information</i>	2022—present
The University of Arizona, Tucson <i>Affiliated Faculty, Applied Mathematics department</i>	2022—present
The University of Arizona, Tucson <i>The Bridging Biodiversity and Conservation Science group, BBBS</i>	2022—present

Education

The University of Arizona, Tucson <i>Ph.D. in Ecology and Evolution</i>	2016–2020
The University of Arizona, Tucson <i>M.Sc. in Ecology and Evolution</i>	2016–2019
Universidad del Valle, Colombia <i>B.Sc. in Biology</i>	2011–2015

Research Interests

Biological data science, evolution, climate change, machine learning, bioinformatics, and biostatistics.

Grants and scholarships (total funding: \$609,095)

23. **2024.** Vertically Integrated Projects (VIP) Program Catalyst Seed Fund Award (\$3,500). PI: Cristian Roman-Palacios.
22. **2023.** Southwest Center for Outreach and Resilience in Climate Change and Health (SCORCH). \$3,827,073. Lead: Kacey Ernst, Co-I: Joseph Hoover, Mona Arora, Millard Keith. Subaward (\$445,845): Data Core (IDVC), Project Lead: Joseph Hoover, Co-I: Chris Chaeha Lim, and Co-I: Cristian Roman-Palacios.
21. **2023.** Priming the STEM Ph.D. pathway: Equity-centered faculty as key stakeholders in BIPOC graduate student success initiatives. Co-facilitated by Monica Brown and Angelina Castagno (Northern Arizona University, Flagstaff; \$1,000)
20. **2023.** Priming the STEM Ph.D. pathway: Equity-centered faculty as key stakeholders in BIPOC graduate student success initiatives. Co-facilitated by Monica Brown and Angelina Castagno (Northern Arizona University, Flagstaff; \$1,000)
19. **2023 -** Extreme Weather, Power Outages, and One Health. University of Arizona Research, Innovation and Impact and the One Health Research Initiative, University of Arizona (**\$50,000 USD**). Co-PI: Chris Chaeha Lim, Co-PI: **Cristian Román-Palacios** and Co-PI: Aaron Lien.
18. **2023 -** Building a Bridge Between Open Access Mapping and Formal Planning Efforts. College of Architecture, Planning and Landscape Architecture, University of Arizona (**\$20,000 USD**). Co-PI: **Cristian Román-Palacios** and Co-PI: Mackenzie Waller.
17. **2022 -** Early Career Fellow, Center for Diverse Leadership in Science at the University of California, Los Angeles (**\$2,000 USD**). PI: **Cristian Román-Palacios**.
16. **2021 -** Early Career Fellow, Center for Diverse Leadership in Science at the University of California, Los Angeles (**\$5,000 USD**). PI: **Cristian Román-Palacios**.
15. **2020 -** Robert W. Hoshaw Memorial Award (Department of Ecology and Evolutionary Biology - University of Arizona, Tucson) (**\$5,000 USD**). PI: **Cristian Román-Palacios**.
14. **2020 -** University of Arizona, College of Science 2020 Graduate Award in Scholarship (**\$1,000 USD**). PI: **Cristian Román-Palacios**.

13. **2020** - Galileo Circle Scholarship (**\$1,000 USD**). PI: **Cristian Román-Palacios**.
12. **2018–2019** - Data Science Fellowship – The University of Arizona libraries (**\$1,000 USD**). PI: **Cristian Román-Palacios**.
11. **2018** - Systematics Research Fund (The Linnean Society and the Systematics Association) (**\$1,600 USD**). PI: **Cristian Román-Palacios**.
10. **2018** - William A Calder III Memorial Scholarship (Department of Ecology and Evolutionary Biology - University of Arizona, Tucson) (**\$4,200 USD**). PI: **Cristian Román-Palacios**.
9. **2018** - Society of Systematic Biologists - Evolution2018 Travel Grant (**\$500 USD**).
8. **2018** - Biodiversity Information Standards – TDWG Meeting (New Zealand) (**\$2,000 USD**). **Declined**
7. **2017** - AGA funds (American Genetics Association) towards organizing the VI Colombian meeting in evolution (**\$10,000 USD**). PI: Yherson Frachesco Molina-Henao, Diego Hernandez, Rosario Castañeda, **Cristian Román-Palacios**, Jose Julian Tavera.
6. **2017** - SSE funds (Society for the Study of Evolution) towards organizing the VI Colombian meeting in evolution (**\$6,000 USD**). PI: Yherson Frachesco Molina-Henao, Diego Hernandez, Rosario Castañeda, **Cristian Román-Palacios**, Jose Julian Tavera.
5. **2017** - SMBE funds (Society for Molecular Biology and Evolution) towards organizing the VI Colombian meeting in evolution (**\$25,000 USD**). PI: Yherson Frachesco Molina-Henao, Diego Hernandez, Rosario Castañeda, **Cristian Román-Palacios**, Jose Julian Tavera.
4. **2017-2018** - Banco de la Republica, Colombia (**\$6,000 USD**). PI: **Cristian Román-Palacios**, Ranulfo Gonzalez-Obando, Heiber Cardenas-Henao, Sergio Helap.
3. **2016** - National Science Foundation. R Methods in Macroevolution Workshop (**\$750 USD**).
2. **2015-2016** - Programa Jóvenes Investigadores e Innovadores “Virginia Gutiérrez de Pineda” (**\$7,700 USD**).
1. **2011-2016** - Awards for Outstanding Academic Achievement, School of Natural and Exact Sciences, Universidad del Valle, Colombia (**ca. \$10,000 USD**).

Awards

6. **2022** - Afro-Colombian of the year (STEM). El Espectador and Fundacion Color de Colombia.
5. **2022** - Award for Faculty Leadership. School of Information, University of Arizona.
4. **2021–2022** - Early Career Fellow, Center for Diverse Leadership in Science at the University of California, Los Angeles.
3. **2020** - University of Arizona, College of Science 2020 Graduate Award in Scholarship. "**For impressive contributions to the literature (over 20 papers on a range of topics, many first authored)**" among more than 1,000 graduate students in 20 departments.
2. **2015** - Best national score in the Colombian education exam. Biology section (Icfes Saber-Pro).
1. **2011-2016** - Award for Outstanding Academic Achievement, School of Natural and Exact Sciences, Universidad del Valle. I only paid student fees throughout college.

Publications

38. Ehsani, M.R., 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.
37. 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.
36. 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*.
35. 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. *EcoEvoRxiv*.
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.

Non peer-reviewed publications

5. **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**. Volumen 8: 22-24.
4. **Cristian Román-Palacios**. 2019. Five tips for nailing your US-based graduate-school applications. **Nature**, 10.1038/d41586-019-00845-z
3. **Cristian Román-Palacios**. 2017. P-valores, alpha y beta: ¿Cuanto nos equivocamos en Biología?. **Boletín del Posgrado en Ciencias Biología. Universidad del Valle**, 3:24-26.
2. **Cristian Román-Palacios**. 2016. ¿Conservan las áreas protegidas la biodiversidad en Colombia?. **Boletín del Posgrado en Ciencias Biología. Universidad del Valle**, 2:79-82.
1. **Cristian Román-Palacios**, and Daniela Moraga Lopez. 2015. Rebuilding the evolutionary and ecological history of the sea skaters *Halobates* spp. (Heteroptera: Gerridae). **PeerJ Preprints**, 3:e1416.

Media coverage

5. **El Espectador, Colombia**. December 2022. *Y los ganadores en los premios a los Afrocolombianos del año 2022 son...*
4. **El Espectador, Colombia**. December 2022. *Estos son los nominados en Afrocolombianos del Año 2022.*
3. **Library Journal**. March 2022. *Jennifer A. Dixon: After the MLIS.*
2. **Nature Index**. March 2020. *Gemma Conroy: Front line scientists call for mental health support in the wake of catastrophic ecosystem loss.*

1. **Universidad del Valle, Agencia de Noticias.** April 2016. *Egresado de biología de Univalle gana beca para doctorado en USA.*

Invited seminars and talks

16. **National Summer Undergraduate Research Project, University of Arizona.** 2023. Introduction to Data Science and Visualization.
15. **Louisiana State University, Baton Rouge.** 2023. Exploring Global Biodiversity Drivers and Creating New Tools To Perform Paleoclimatic Reconstructions.
14. **Universidad de los Andes, Bogota.** 2023. Exploring Global Biodiversity Drivers and Creating New Tools To Perform Paleoclimatic Reconstructions.
13. **University of Arizona, School of Information.** 2023. An Overview of Applied Machine Learning, Reproducibility, and Open Science Using Cases of Study in Biology and Related Fields.
12. **University of Arizona, School of Information.** 2023. Research Blitz.
11. **Arizona State University.** 2022. Invited speaker for ASU Biocollections JEDI Panel.
10. **Data Science Institute, University of Arizona.** 2022. Invited lecture for the Data Science Ambassadors (2022 cohort).
9. **California State University, Los Angeles.** 2022. Diversity patterns and climate change – a selection of study cases.
8. **Rutgers University, Camden.** 2022. Diversity drivers and climatic reconstructions over time.
7. **Rutgers University, Camden.** 2021. Drivers of biodiversity in ecological and evolutionary timescales.
6. **University of California, Los Angeles.** 2021. Introduction to R and ggplot2.
5. **University of California, Los Angeles.** 2021. Introduction to biostatistics.
4. **Universidad del Valle, Colombia.** 2019. Narrando historias a través del Arbol de la Vida: Sistemática, Macroevolución y cambio climático.
3. **Universidad del Quindío, Colombia.** 2019. Diversificación en islas, evolución de la dieta y cambio climático.

2. **Universidad Nacional de Colombia, Colombia.** 2019. Narrando historias a través del Arbol de la Vida: Sistemática, Macroevolución y cambio climático.
1. **Universidad del Valle, Colombia.** 2019. Sistemática, diversificación en islas y extinciones en gradientes altitudinales.

Software

10. **2023.** BarrioMap – A shiny app for community planning. <https://github.com/RomanPalacios-lab/BarrioMap>
9. **2022.** plagiarized – detecting plagiarism in coding assignments. <https://viz.datascience.arizona.edu/plagiarized/>
8. **2022.** Phruta – basic phylogenetics in R. <https://github.com/ropensci/phruta>
7. **2022.** autogradeR – An autograder for data science-related courses in R. <https://github.com/cromanpa94/autogradeR>
6. **2022.** bayclumpr – analysis of clumped isotope data in R. <https://cran.r-project.org/web/packages/bayclumpr/>
5. **2022.** BayClump – A shiny app for the analysis of clumped isotope datasets. <https://github.com/Tripati-Lab/BayClump>
4. **2019.** BTOpenNLP. Building and Training models for openNLP. <https://github.com/cromanpa94/BTOpenNLP>
3. **2019.** treedata.table. Phylogenetic data manipulation using data.table. <https://github.com/ropensci/treedata.table>
2. **2019.** rBT. An R Wrapper for BayesTraits <https://github.com/cromanpa94/rBT>
1. **2017.** rPhylota. An R package. Deprecated. <https://github.com/cromanpa94/rPHYLOTA>

Participation in conferences

23. **World Climate Research Programme (WCRP) Open Science Conference.** 2023. Poster presentation GIS-Community Health with Esperanza Community Housing and The Center for Diverse Leadership in Science at UCLA.

22. **Race, Ethnicity, and Place.** 2023 – Spring. Crossing the digital / analog divide in teaching community-centered, spatial justice practice. Presenter along with Mackenzie Waller and Ariana Cantú. Washington DC.
21. **The Institute of Ecology.** (INECOL; Instituto de Ecología, A.C.). Keynote. Xalapa, Mexico. 2023.
20. **ACM Southeast (ACMSE) conference.** 2024 – Spring. Technical Program Committee.
19. **useR.** 2023. Attendee.
18. **latinR.** 2023. Attendee.
17. **Princeton: Leakage and the Reproducibility Crisis in ML-based Science.** 2022. Attendee.
16. **iConference.** 2023. Attendee at the Early Career Symposium.
15. **ACM Southeast (ACMSE) conference.** 2023 – Fall. Technical Program Committee.
14. **Society of Systematic Biologists, Standalone meeting, Mexico City, SSB 2023.** 2022. Speaker.
13. **NSF – 2023 Urban Eco Evo RCN Workshop.** 2022. Attendee.
12. **NSF – US Long Term Ecological Research Network (LTER) network.** 2022. Invited speaker.
11. **RCN urban eco-evo network.** 2022. Invited speaker.
10. **ACM Southeast (ACMSE) conference.** 2022 – Fall. Technical Program Committee.
9. **ACM Southeast (ACMSE) conference.** 2022 – Spring. Technical Program Committee.
8. **1er Congreso Latinoamericano de Evolucion.** 2021. Integrante comite científico: Filogenia y Biogeografía.
7. **Botany.** 2020. Lightning talk (presented by **Michael S. Barker**): Animal chromosome counts reveal similar range of chromosome numbers but with less polyploidy in animals compared to flowering plants.

6. **Evolution meeting, Montpellier (France).** 2018. Poster: On the interplay between diversification rates, hybridization, geography, and sexual selection: a case study with Corvid birds.
5. **Congreso de la Sociedad Colombiana de Entomología, Cali (Colombia).** 2018. Plenary Talk: Taxonomía y sistemática de Psocidos neotropicales.
4. **Anolis symposium.** 2018. (presented by **Rosario Castañeda**. When did *Anolis* lizards diverge? A comparison of multiple dating strategies.
3. **Origins of Adaptive Radiation, Waimea (USA).** 2018. Poster: The Tortoise and the Finch: testing for island effects on diversification using two iconic Galápagos radiations.
2. **IBS Special Meeting. The Biogeography of Ecology.** 2017. Attendee.
1. **National conference on Evolution, Armenia (Colombia).** 2015. Poster: Diversification histories in parasitic and free-living lice (Psocodea).

Conference organizing committee member

1. **Colombian National conference on Evolution, Cali (Colombia).** 2017. Co-chair and main organizer.

Teaching experience (total students: 1,016)

20. **2023-Summer** - Data Mining and Discovery (INFO-523). The University of Arizona. 23 students.
19. **2023-Spring** - Data Mining and Discovery (INFO-523). The University of Arizona. 18 students.
18. **2023-Spring** - Introduction to Machine Learning (ISTA-421/INFO-521). 38 students.
17. **2022-Fall** - Data Mining and Discovery (INFO-523). The University of Arizona. 23 students.
16. **2022-Fall** - Introduction to Machine Learning (ISTA-421/INFO-521). 43 students.
15. **2022-Summer** - Data Mining and Discovery (INFO-523). The University of Arizona. 20 students.
14. **2022-Spring** - Data Mining and Discovery (INFO-523). The University of Arizona. 30 students.

13. **2022-Spring** - Introduction to Machine Learning (ISTA-421/INFO-521). 37 students.
12. **2021-Fall** - Introduction to Data Mining and Discovery (INFO-523). The University of Arizona. 20 students.
11. **2021-Fall** - Introduction to Machine Learning (ISTA-421/INFO-521). Co-taught with Dr. Clayton Morrison. The University of Arizona. 34 students.
10. **2020-Fall** - Marine Biology (ECOL-170). The University of Arizona. Grader. 127 students.
9. **2020-Summer** - Genetics (ECOL-320). The University of Arizona. Fully online (5 weeks). 51 students.
8. **2020-Spring** - Introductory Biology (ECOL-182L). The University of Arizona. 2 laboratory sections. 48 students.
7. **2019-Fall** - Marine Biology (ECOL-170). The University of Arizona. Grader. 74 students.
6. **2019-Spring** - Introductory Biology (ECOL-182L). The University of Arizona. 2 laboratory sections. 43 students.
5. **2018-Fall** - Marine Biology (ECOL-170). The University of Arizona. Grader. 127 students.
4. **2018-Spring** - Introductory Biology (ECOL-182L). The University of Arizona. 2 laboratory sections. 46 students.
3. **2017-Fall** - Marine Biology (ECOL-170). The University of Arizona. Grader. 127 students.
2. **2017-Spring** - Introductory Biology (ECOL-182L). The University of Arizona. 2 laboratory sections. 45 students.
1. **2016-Fall** - Introductory Biology (ECOL-182L). The University of Arizona. 2 laboratory sections. 42 students.

Academic outreach

11. **2023**. Workshop: Introduction to Machine Learning and macroevolution, The Institute of Ecology (INECOL; Instituto de Ecología, A.C., Xalapa, Mexico).

10. **2023.** Cristian Román-Palacios. Talk: Una introducción breve al cambio climático y carbono cero. Semillero de Becarios Quibdó y Buenaventura, Colombia. Fundacion Color de Colombia.
9. **2022.** Summer instructor for Youth Education and Empowerment in STEM, Los Angeles.
8. **2022.** Cristian Román-Palacios. Talk: Que hace un Biologo. Devolver ConCiencia, Colombia.
7. **2021.** Instructor at 1 semester-long GIS (CDLS, UCLA). Esperanza Community Housing, Los Angeles.
6. **2018–2019.** Data carpentry workshop helper. Tucson, AZ
5. **2018.** Judge at local science fair. Davis Bilingual Magnet Elementary. Tucson, AZ
4. **2018.** Data Science Ambassador for The University of Arizona
3. **2018.** Ecology and Evolutionary Biology stand (Science city). Tucson Festival of books. The University of Arizona.
2. **2018.** Judge at local science fair. Sam Hughes Elementary School. Tucson, AZ.
1. **2017.** Speaker at the "Graduate School Information Session" organized for ICETEX (Colombia). University of Arizona.

Political outreach

1. **2020.** Invited speaker at **Congressman Raúl M. Grijalva's** Youth Advisory Council, March 2020

Participation in committees

6. **2023.** Admissions committee - MS in Data Science, School of Information. The University of Arizona
5. **2022.** Admissions committee - MS in Data Science, School of Information. The University of Arizona
4. **2021.** Marshall Foundation/Maria Teresa Velez fellowship committee. The University of Arizona

3. **2021.** Admissions committee - MS in Data Science, School of Information. The University of Arizona
2. **2020.** College of Science race and climate committee. The university of Arizona
1. **2017–2018.** College of Science Climate Committee. Rep. for the Ecology and Evolutionary Biology department. The university of Arizona

Postdoctoral researchers

1. **2024–present.** **Kiran Basava.** School of Information. University of Arizona

PhD students

1. **2022–2024.** **Danielle Van Boxel.** Ph.D. Student (co-advisor). Applied Mathematics Department. University of Arizona

MSc students

20. **2024.** **HM Abdul Fattah.** MSc Student (advisor). Ms in Data Science. University of Arizona
19. **2024.** **Shih-Hsuan Lo.** MSc Student (advisor). Ms in Data Science. University of Arizona
18. **2024.** **Jiayue He.** MSc Student (advisor). Ms in Data Science. University of Arizona
17. **2024.** **Ani Chitransh.** MSc Student (advisor). Ms in Data Science. University of Arizona
16. **2024.** **Tom Olla.** MSc Student (advisor). Ms in Data Science. University of Arizona
15. **2024.** **Rob Speer.** MSc Student (advisor). Ms in Data Science. University of Arizona
14. **2024.** **Gloria Moraa Angwenyi.** MSc Student (advisor). Ms in Data Science. University of Arizona
13. **2023.** **Yi Chien Lee.** MSc Student (advisor). Ms in Management Information Systems. University of Arizona
12. **2023.** **Ethan Davis.** MSc Student (advisor). Ms in Data Science. University of Arizona
11. **2023.** **Katie Stringham.** MSc Student (advisor). Ms in Data Science. University of Arizona

10. **2023. Darwood Martin.** MSc Student (advisor). Ms in Data Science. University of Arizona
9. **2023. YuanJea Hew.** MSc Student (advisor). Ms in Data Science. University of Arizona
8. **2023. Tingting Thompson.** MSc Student (advisor). Ms in Data Science. University of Arizona
7. **2023. Shophie Fournier.** MSc Student (co-advisor). Ms in Data Science. University of Arizona
6. **2022-2023. Reza Ehsani.** Ph.D. Student (minor advisor). Ph.D. in Hydrology and Atmospheric Sciences. University of Arizona
5. **2022. Eastern Kang.** MSc Data Science (co-advisor). School of Information. University of Arizona
4. **2022. Kyle Arechiga.** MSc in Information (main advisor). School of Information. University of Arizona
3. **2022–2023. Laura Palacios.** MSc in Data Science (main advisor). School of Information. University of Arizona
2. **2022. Quan Gan.** MSc in Information (main advisor). School of Information. University of Arizona
1. **2022. Wonkyun Yim.** MSc in Information (main advisor). School of Information. University of Arizona

Undergraduate students

2. **2022–2023. Kyle Clements.** Undergraduate in CS (research advisor). Computer Science. University of Arizona
1. **2018. Valentina Sarria Rodriguez.** Undergraduate thesis. Systematics and Evolution of Neotropical Psocidae. Universidad del Valle, Colombia/ **Honorable mention**

Other students advised

4. **2024–present. Maddy Raker.** iSchool's Ms.C. Student (co-advisor) advising team. Undergraduate student. University of Arizona

3. **2024–present. Eleanor Tuck.** iSchool’s Ms.C. Student (co-advisor) advising team. Undergraduate student. University of Arizona
2. **2023. Sarthak Saldar.** Ms.C. Student (co-advisor). Ms in Data Science. University of Arizona
1. **2022–2023. Salena Torres Ashton.** Ph.D. Student (advisee for 2 semesters for the Data Science Embassadors Fellowship). School of Information. University of Arizona

Participation in PhD Committees

6. **2023–present. Hamidreza Vashaghian.** University of Arizona.
5. **2023–present. Rachel Laura.** University of Arizona.
4. **2023–present. Shoma Bommena.** University of Arizona.
3. **2023. Marcelo Cutrim.** Instituto Nacional de Pesquisas da Amazônia.
2. **2023–present. Lia Ossana.** Ph.D. candidate (minor advisor). Ph.D. Environmental and Natural Resources. University of Arizona.
1. **2023–present. MD Nafis Ul Alam.** Ph.D. student. Plant Sciences. University of Arizona.

Professional service (agencies)

3. **2023.** NSF GRFP Ecology and Evolution, reviewer
2. **2022.** NSF GRFP Ecology and Evolution, reviewer
1. **2021.** ColCiencias, reviewer

Trained staff

1. **2023–present. Hector Garcia.** Laboratory Manager. School of Information. University of Arizona

Professional service (nonexhaustive)

20. **2024.** Journal of Biogeography (1 manuscript). Reviewer.
19. **2024.** European Journal of Taxonomy (1 manuscript). Reviewer.
18. **2024.** Annals of Botany (1 manuscript). Reviewer.

17. **2023.** Nature Ecology and Evolution (1 manuscript). Reviewer.
16. **2023.** Methods in Ecology and Evolution (1 manuscript). Reviewer.
15. **2023.** Papéis Avulsos de Zoologia (1 manuscript). Reviewer.
14. **2022.** Zootaxa (1 manuscript). Reviewer.
13. **2022.** Journal of Insect Biodiversity (1 manuscript). Reviewer.
12. **2019-2022.** Papéis Avulsos de Zoologia (>5 manuscripts). Reviewer.
11. **2021.** EntomoBrasilis (1 manuscript). Reviewer.
10. **2020.** Journal of Insect Biodiversity (1 manuscript). Reviewer.
9. **2020.** EntomoBrasilis (2 manuscripts). Reviewer.
8. **2019.** Mammal Review (1 manuscript). Reviewer.
7. **2019.** Annals of Botany (1 manuscript). Reviewer.
6. **2019.** American Journal of Botany (1 manuscript). Reviewer.
5. **2019.** Amphibia-Reptilia (1 manuscript). Reviewer.
4. **2018.** Molecular Phylogenetics and Evolution (1 manuscript). Reviewer.
3. **2018-2019.** International Journal of Tropical Biology and Conservation (3 manuscripts). Reviewer.
2. **2017-2019.** Biota Colombiana (2 manuscripts). Reviewer.
1. **2017-2019.** EntomoBrasilis (1 manuscripts). Reviewer.

Languages

Spanish: Native

English: Fluent

Portuguese: Basic

Courses and Internships

9. **2023.** Priming the STEM Ph.D. pathway: Equity-centered faculty as key stakeholders in BIPOC graduate student success initiatives. Co-facilitated by Monica Brown and Angelina Castagno (Northern Arizona University, Flagstaff)

8. **2019.** Nantucket phylogeny developER workshop. Co-taught by April Wright, Josef Uyeda, Klaus Schliep, Claudia Solís-Lemus, and Liam Revell
7. **2017.** Sanderson's Lab, University of Arizona. Project: Plant height and rates of molecular evolution from transcriptomic data in legumes.
6. **2016.** Barker's Lab, University of Arizona. Project: Ploidy and diversification in Brassicaceae.
5. **2016.** Wiens' Lab, University of Arizona. Project: Evolution of diet across the animal Tree of Life.
4. **2016.** Phylogenetic Comparative Methods (Co-taught by Liam Revell [UMASS], Michael Alfaro [UCLA], Luke Harmon [Udaho], and Ricardo Betancur [University of Puerto Rico]). Puerto Rico.
3. **2015.** Zaldívar-Riverón Lab, IB, UNAM, México D.F., México.
2. **2015.** Garcia-Aldrete Lab, IB, UNAM, México D.F., México
1. **2014.** Bioinformática y Genómica Computacional, CorpoGen, Bogotá, Colombia.

Membership to Societies

5. **2023–Present.** SORTEE - Society for Open, Reliable, and Transparent Ecology and Evolutionary biology.
4. **2023–Present.** SSE - Society for the Study of Evolution.
3. **2023–Present.** iSchools.
2. **2022–Present.** SSB - Society of Systematic Biologists.
1. **2021.** SMOBE - Society for Molecular Biology and Evolution.

Membership to Communities

1. **2021–Present.** ROpenSci - open tools for open science. Author and reviewer.

References

- Aradhna Tripathi (atripathi@g.ucla.edu). Atmospheric and Oceanic Sciences, Earth, Planetary, and Space Sciences, UCLA. Los Angeles, California, USA.
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- **Rosemary Gillespie** (gillespie@berkeley.edu). Department of Environmental Science, Policy, and Management, UC Berkeley. Berkeley, California, USA.
- **Lanna Cheng** (lcheng@ucsd.edu). Scripps Institution of Oceanography, UC San Diego. La Jolla, California, USA.

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