

# Curriculum Vitae

## Ana María Bedoya

Postdoctoral Researcher  
 Department of Biological Sciences  
 Louisiana State University  
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### EDUCATION

2015–2021	Ph.D. Biology Department, University of Washington, Seattle, WA. Dissertation: Evolution of aquatic plants in rivers and wetlands across the Andes in northern South America. Faculty mentor: Richard G. Olmstead
2013	M.Sc. Biological Sciences, Universidad de los Andes Bogotá, Colombia
2011	B.Sc. Biology, Universidad de los Andes, Bogotá, Colombia

### APPOINTMENTS

2021–present	Postdoctoral researcher, Louisiana State University, US
2023–present	Research Affiliate, University of Rhode Island, US
2020–2021	Research Assistant. Department of Biology, University of Washington, US
2020	Instructor of record. Plant identification and Classification. Department of Biology, University of Washington, US
2015–2021	Teaching Assistant. Department of Biology, University of Washington, US
2014–2015	Research Assistant. Universidad de los Andes, Colombia
2012–2013	Teaching Assistant. Universidad de los Andes, Colombia

### GRANTS, FELLOWSHIPS & AWARDS

2021	Denton Writing Fellowship, University of Washington, US - \$16,000
2020	George R. Cooley Award. Awarded by the American Society of Plant Taxonomists for best contributed paper in Plant Systematics. Botany conference, US - \$500
2020	Denton Writing Fellowship, University of Washington, US - \$16,000
2019	Delzie Demaree Travel Award. 66 <sup>th</sup> Fall Symposium at the Missouri Botanical Garden, US - 250 USD
2018	Boeing International Fellowship. Graduate school at the University of Washington, US - \$16,000
2017	Exploration fund grant. The Explorers Club, US - \$2,000
2017	Giles Botanical Field Research Award. University of Washington, US - \$3,500
2016	American Society of Plant Taxonomists (ASPT) Graduate student Award, US - \$750
2016	Botanical Society of America (BSA) Graduate Student Research Award, US - \$500
2015–2019	COLCIENCIAS fellowship for graduate studies, Colombia - \$38,000
2015	WRF Hall International Endowed Fellowship. University of Washington, US - \$48,000

2015	Best contributed Paper—Graduate Student. VIII Colombian Congress of Botany, Colombia
2014–2015	Fellowship award for young researchers funded by COLCIENCIAS and the Botany and Systematics Laboratory. Universidad de los Andes, Colombia - \$5,500
2013	Funding for graduate research-Proyecto Semilla, Universidad de los Andes, US - \$1,750
	Total: \$148,750

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## PUBLICATIONS

### Peer-reviewed, Accepted, and In Press

\*\* Indicates undergraduate author \* Indicates co-first author

15. **Bedoya, A.M.** Accepted. Botany and Geogenomics: constraining geological hypotheses in the Neotropics with large-scale genetic data derived from plant DNA. *American Journal of Botany*. <https://doi.org/10.32942/X2W02F>
14. Frost, L., **A.M. Bedoya\***, and L. Lagomarsino. 2024. Artifactual Orthologs and the Need for Diligent Data Exploration in Complex Phylogenomic Datasets: A museomic case study from the Andean flora. *Systematic Biology*, syad076
13. Ball, L., **A.M. Bedoya**, L. Lagomarsino. 2023. A target enrichment probe set for resolving phylogenetic relationships in the coffee family, Rubiaceae. *Applications in Plant Sciences* 11:e11554.
12. **Bedoya, A.M.** and A.J. Pérez-Castañeda. 2023. New records of riverweeds (Podostemaceae) from the tropical Andes (Colombia and Ecuador): getting our feet wet to bypass collection bias in Neotropical rivers. *Phytotaxa* 585: 274–280.
11. Muñoz-Sánchez, A.M.\*\*, L. Rojas-Castellanos, M. Medina-Merchán, and **A.M. Bedoya**. 2023. Plants associated with humid environments of the Coroncoco wetland (Villavicencio, Colombia). *Field Museum Field Guides*. 1303.
10. O’Leary, N., P. Lu-Irving, F.R.G. Salimena, T.R. dos Santos Silva, P.H. Cardoso, F. Mirra, J. Schaefer, P. Moroni, **A.M. Bedoya**, L.F. Viccini, C. Bitencourt, V.A. Thode, and R.G. Olmstead. 2023. Making Lantaneae (Verbenaceae) taxonomy useful: A phylogenetic classification. *TAXON* 72: 572–589.
9. **Bedoya, A.M.**, and R.G. Olmstead. 2022. Strange but common in isolated environments: new records of *Marathrum* (Podostemaceae) in rivers of Colombia. *Aquatic Botany* 177: 103483.
8. **Bedoya, A.M.**, A.D. Leaché, and R.G. Olmstead. 2021. Andean uplift, drainage basin formation, and the evolution of plants living in fast-flowing aquatic ecosystems in northern South America. *New Phytologist* 232: 2175–2190.
- Media coverage: Villanueva-Almanza, L. 2021. A new study reveals how the Andes have shaped the history of aquatic plants. *Botany One*. <https://www.botany.one/2021/08/a-new-study-reveals-how-the-andes-have-shaped-the-history-of-aquatic-plants/>. Spanish version: <https://www.botany.one/es/2021/08/un-nuevo-estudio-muestra-como-los-andes-han-determinado-la-historia-de-plantas-acuaticas/>
- Media coverage: Quintero-Díaz, D. 2021. Las plantas que esconden en su ADN los cambios de los ríos de Colombia. <https://www.elespectador.com/ambiente/blog-el-rio/las-plantas-que-esconden-en-su-adn-los-cambios-de-los-rios-de-colombia/>
7. Lu-Irving, P., **A.M. Bedoya**, F.R. Salimena, T.R. Dos Santos Silva, L.V. Viccini, R.G. Olmstead. 2021. Phylogeny and biogeography in *Lantana* and *Lippia* (Verbenaceae). *American Journal of Botany* 108: 1354–1373.
6. **Bedoya, A.M.**, and A.D. Leaché. 2021. Characterization of a pericentric inversion in Plateau Fence Lizards (*Sceloporus tristichus*): Evidence from chromosome-scale genomes. *G3: Genes, Genomes, Genetics* 11, jkab036.
5. **Bedoya, A.M.**, B.R. Ruhfel, C.T. Philbrick, S. Madriñán, C.P. Bove, A. Mesterházy, and R.G. Olmstead. 2019. Plastid genomes of five species of riverweeds (Podostemaceae): structural organization and comparative analysis in Malpighiales. *Frontiers in Plant Science* 10: 1035.
4. Olmstead, R.G., and **A.M. Bedoya**. 2019. Whole genomes: the holy grail. A commentary on: ‘Molecular phylogenomics of tribe Shoreeae (Dipterocarpaceae) using whole plastid genomes.’ *Annals of Botany* 123, iv–v.

3. Madriñán, S., Rial, A., **A.M. Bedoya**, M. Fernández. 2017. Plantas acuáticas de la Orinoquia Colombiana. Ediciones Uniandes. ISBN: 978-958-774-526-9. pp. 656. <https://www.jstor.org/stable/10.7440/j.ctv11vcdzh>
2. Fernández, M., **A.M. Bedoya**, S. Madriñán, 2015. Plantas acuáticas de las planicies inundables de la Orinoquia colombiana. *Biota Colombiana* 16: 96–105.
1. **Bedoya, A.M.**, and S. Madriñán. 2015. Evolution of the aquatic habit in *Ludwigia* (Onagraceae): morpho-anatomical adaptive strategies in the Neotropics. *Aquatic Botany* 120: 352–362.

#### Preprints/In Review

1. Brightly, W., **A.M. Bedoya**, M. Carlson, M.G. Rottersman, and C.A.E. Strömberg. *In Review*. Correlated evolution of dispersal traits and habitat preference in the melicgrasses (Poaceae: Meliceae). *Annals of Botany*.
2. **Bedoya, A.M.**, C. Taylor, A. Mumford, and L. Lagomarsino. The interplay of biogeographic history, floral morphology, and climatic niche in a distinct group of Netropical plants. Target journal: *Proceedings of the Royal Society B*. <https://doi.org/10.32942/X2R60H>

## HERBARIUM CURATION

#### Herbaria Visited

Colombian National Herbarium (COL), Universidad de los Andes, Colombia (ANDES), New York Botanical Garden (NY), Missouri Botanical Garden (MO), UW Herbarium at Burke Museum (WTU), Universidad de Antioquia (HUA), University of Massachusetts Herbarium (MASS), Instituto de Investigación de Recursos Biológicos Alexander von Humboldt Herbarium (FMB), Jardín Botánico José Celestino Mutis Herbarium (JBB), Instituto Amazónico de Investigaciones Científicas SINCHI (COAH), Louisiana State University (LSU).

#### Curatorial Activities

Field collection and exploration

Specimen identification

Voucher Annotation

Accessioning

Creation of a silica-dried companion collection

Processing of governmental collection and export permits

Processing of memorandums of understanding for exchange of samples across herbaria

## TEACHING EXPERIENCE

#### Instructor

2020 Plant identification and classification. Department of Biology, University of Washington, US

#### Guest Lecturer

2023 Allopatric speciation. Evolution. Louisiana State University

2022 Plantas acuáticas: Biología y Evolución. Universidad del Rosario, Colombia

2021 Plantas acuáticas: Biología y Evolución. Universidad EAFIT, Colombia

*Graduate Teaching Assistant*

- 2016–2021 Plant identification and classification. Department of Biology, University of Washington, US  
 2019 Applied Phylogenetics. Department of Biology, University of Washington, US  
 2017–2018 Trends in Land Plant Evolution. Department of Biology, University of Washington, US  
 2016–2017 Introductory Biology. Department of Biology, University of Washington, US  
 2012–2013 Botany. Departamento de Ciencias Biológicas, Universidad de los Andes, Colombia

*Undergraduate Teaching Assistant*

- 2010–2011 Botany. Departamento de Ciencias Biológicas, Universidad de los Andes, Colombia

*Mentoring*

- Aislinn Mumford. Graduate student (LSU)  
 Katherin Arango. Graduate student (LSU)  
 Diego Paredes-Burneo. Graduate student (LSU)  
 Janet Masaray. Graduate student (LSU)  
 Laymon Ball. Graduate student (LSU)  
 Ana María Muñoz. Undergraduate student (Universidad de Los Llanos, Colombia)  
 Samuel Peláez Vélez. Undergraduate student (EAFIT, Colombia)  
 Tomás Pinzón. Undergraduate student (Universidad de los Andes, Colombia)
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**CONTRIBUTED PAPERS & POSTERS**

- 2023 **Bedoya, A.M.**, C. Taylor, A. Mumford, L. Lagomarsino. 2023. Biogeographic history, floral morphology, and the realized climatic niche of *Palicourea Botany conference, US*. *Oral presentation*  
 2023 **Bedoya, A.M.**, A.J. Pérez-Castañeda, and R.G. Olmstead. 2023. Getting our feet wet to bypass collection bias in Neotropical rivers. *Botany conference, US*. *Oral presentation*  
 2022 **Bedoya, A.M.**, and R.G. Olmstead. Andean uplift, drainage basin connections through time, and the evolution of plants in rivers in northern South America. *ATBC Conference, Colombia*. *Oral presentation*  
 2021 **Bedoya, A.M.**, A.D. Leaché, and R.G. Olmstead. Evolution of aquatic plants in rivers and wetlands of northern South America: what have we learned from getting out feet wet? *Evolution meetings, virtual*. *Oral presentation*  
 2021 **Bedoya, A.M.**, A.D. Leaché, and R.G. Olmstead. Evolution of aquatic plants in rivers and wetlands of northern South America: what have we learned from getting out feet wet? *Botany conference, virtual*. *Oral presentation*  
 2021 Carlson, M., M. Rottersman, **A.M. Bedoya**, W. Brightly, C. Strömberg. Habitat-driven evolution of seed dispersal strategies in onion grasses. *Botany conference, virtual*. *Poster presentation*  
 2020 **Bedoya, A.M.**, and R.G. Olmstead. Andean uplift, drainage basin formation and the evolution of riverweeds (Podostemaceae). *Botany conference, virtual*. *Oral presentation*  
 2019 **Bedoya, A.M.**, and R.G. Olmstead. Evolutionary processes in aquatic plants in the dynamic landscape of northern South America. *66<sup>th</sup> Annual Fall Symposium at the Missouri Botanical Garden, US*. *Poster presentation*  
 2019 **Bedoya, A.M.**, B. Ruhfel, S. Madriñán, C. Bove, A. Mesterházy, and R.G. Olmstead. Structural organization of plastid genomes of five species of riverweeds (Podostemaceae) and comparative analysis in Malpighiales. *Botany conference, US*. *Oral presentation*  
 2019 **Bedoya, A.M.**, and R.G. Olmstead. Phylogenetics and species delimitation in *Marathrum* (riverweeds-Podostemaceae). *Botany conference, US*. *Oral presentation*  
 2019 **Bedoya, A.M.**, and R.G. Olmstead. Investigating the evolution of aquatic plants in northern South America: a preliminary look at preliminary data. *Graduate student symposium at the University of Washington, US*. *Oral presentation*  
 2018 **Bedoya, A.M.**, and R.G. Olmstead. Investigating the evolution of aquatic plants in northern South America: phylogenetics, population genetics, and a sequenced genome. *XII Latin American Botanical Conference, Ecuador*. *Oral presentation*

- 2017 **Bedoya, A.M.**, S. Madriñán, and R.G. Olmstead. Reconstructing the evolution of the aquatic habit in *Ludwigia* (Onagraceae). What could this group tell us about the impact of Andean uplift on the evolution of aquatic plants in northern South America? *Botany conference, US. Oral presentation*
- 2015 **Bedoya, A.M.**, and S. Madriñán. Evolución del hábito acuático en *Ludwigia* (Onagraceae): estrategias morfo-anatómicas en el Neotrópico. *VIII Congreso Colombiano de Botánica, Colombia. Oral presentation*
- 2013 Fernández-Lucero, **Bedoya, A.M.**, A. Rial, A., S. Madriñán. Plantas acuáticas de la Orinoquia Colombiana. *VII Congreso Colombiano de Botánica, Colombia. Poster presentation*
- 2013 **Bedoya, A.M.**, Fernández, M., Rial, A., S. Madriñán. Aquatic plants of the Orinoco basin of Colombia: Inventory, plant communities, and their habitats. *Botany conference, US. Poster presentation*
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#### INVITED TALKS

- 2024 (Scheduled) Smithsonian Tropical Research Institute Seminar
- 2023 UT Austin Integrative Biology Seminar
- 2023 UMass Amherst Life Sciences Seminar
- 2023 Cal Poly Humboldt University. Department of Biological Sciences seminar
- 2023 1st Podostemaceae regional workshop. Universidad Nacional de Misiones, Argentina
- 2023 Chicago Botanical Garden Seminar
- 2023 University of Washington. Department of Biology Seminar
- 2022 Biological diversification in Andean-Amazon biomes Symposium. Association for Tropical Biology and Conservation Conference. Cartagena, Colombia
- 2022 SUNY Oswego, USA. Department of Biological Sciencesw
- 2022 University of Wisconsin-Madison, USA. Department of Biology Seminar
- 2022 Smithsonian Tropical Research Institute Seminar
- 2021 University of Hawai'i at Mānoa, USA. Department of Biology Seminar
- 2021 Louisiana State University, USA. Department of Biology Seminar
- 2021 Universidad del Rosario, Colombia. Department of Biology Seminar
- 2021 Universidad EAFIT, Colombia. Ciclo de charlas Colombia Biodiversa
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#### PROFESSIONAL SERVICE

##### Journal peer-review

- American Journal of Botany  
Annals of Botany  
Ecology and Evolution  
Frontiers in Plant Science  
Industrial Crops and Products  
Journal of Ecology and the Natural Environment  
Mitochondrial DNA Part B  
Molecular Phylogenetics and Evolution  
Nature Ecology & Evolution  
Nature Scientific Reports

##### NSF

Ad hoc reviewer. DEB. Systematics & Biodiversity Science cluster

##### Committees

- 2023 Reviewer ASPT Graduate Student Grants

2021–2024	American Society of Plant Taxonomists DEI Committee
2020–2024	American Society of Plant Taxonomists Publications Committee
2018–2019	Student member of the Graduate and Postdoc committee. Department of Biology, University of Washington
2017	Student member of the Seminar committee. Department of Biology, University of Washington

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## OUTREACH

2023	Science on-tap. Using plant DNA to travel back in time. Tin Roof Brewery. Louisiana State University
2023	Las Bio-Charlas. Botánica y Geogenómica. Louisiana State University.
2023	Girls' Day at the Museum. Louisiana State University Natural History Museum. Chat Leader.
2022	Contributing to building the Molecular Laboratory facilities that the Colombian National University and training students in wet-lab techniques for DNA extraction
2022	Podcast interview: Historiadoras de La Tierra: viajes en el tiempo para entender la biodiversidad. <a href="https://www.shotsdeciencia.com/podcast/episode/8ff8e270/e17-historiadoras-de-la-tierra-viajes-en-el-tiempo-para-entender-la-biodiversidad">https://www.shotsdeciencia.com/podcast/episode/8ff8e270/e17-historiadoras-de-la-tierra-viajes-en-el-tiempo-para-entender-la-biodiversidad</a>
2021	Invited speaker for a broad audience. GIZ Colombia, Asociación Tonina, Proyecto Triángulo del Puma de la Reserva Natural Yarumí. <a href="https://www.youtube.com/watch?v=8a2kLpk67Wo">https://www.youtube.com/watch?v=8a2kLpk67Wo</a>
2020	Science for the public. Plantas acuáticas. Ciencia Café pa' sumeré. <a href="https://www.youtube.com/watch?v=mD8uL77ie0A">https://www.youtube.com/watch?v=mD8uL77ie0A</a>
2020	Science for the public. Research featured in the documentary 'Plantas de Río'. Vencejo Films
2019	Girls in Science. Assistant for Paleobotany course. Fall
2019	'Scientist of the month program'. Education through interviews for 7 <sup>th</sup> grade students. Evergreen high school, Seattle, WA. Fall
2019	Girls in Science. Development and implementation of a program for an herbarium inspired course. Six-week duration. Burke Museum. Winter
2018	Science writing for the public. Post on the Burke Museum blog. 'Returning to Colombia in search of river-weed plants.' <a href="https://www.burkemuseum.org/news/returning-colombia-search-river-weed-plants">https://www.burkemuseum.org/news/returning-colombia-search-river-weed-plants</a>
2017	Creepy crawlly cocktails. Showcase of creepy cool plants
2017	Girls in Science. Assistant for plant physiology exercises
2017	Behind the Scenes at the Burke museum. Showcase of herbarium collections from Colombia
2017	Science writing for the public. Post on the Burke museum blog. 'Searching for river-weed plants in Northern South America.' <a href="https://www.burkemuseum.org/news/searching-river-weed-plants-northern-south-america">https://www.burkemuseum.org/news/searching-river-weed-plants-northern-south-america</a>

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## PROFESSIONAL SOCIETY MEMBERSHIP

American Society of Plant Taxonomists (ASPT)  
Association for Tropical Biology and Conservation (ATBC)  
Botanical Society of America (BSA)  
International Association for Plant Taxonomy (IAPT)  
Society of Systematic Biologists (SSB)

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## COURSES & SEMINARS

- 2022 ROOT & SHOOT equity in leadership training. Representative member of ASPT
- 2018 Plant morphology: Linking phenotype to development. Summer short course. Instructors: Dr. Peter Endress, Dr. Cynthia Jones, Dr. Pamela Diggle, Dr. Ned Friedman. Arnold Arboretum of Harvard, US
- 2014 Intensive Short Course on Phylogenetic Comparative Methods in R. Conducted at Universidad de los Andes, Bogotá, Colombia. With support from the National Science Foundation, the American Society of Naturalists, Universidad de los Andes, and the University of Idaho. Instructors: Dr. Liam Revell and Dr. Luke Harmon. Colombia
- 2013 The art of science. Universidad de los Andes, Bogotá, Colombia. Instructor: Dr. Roel Snieder. Colombia
- 2010 Simposio Internacional: Encuentro con la Biodiversidad 2010. Universidad de los Andes, Colombia
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## ACADEMIC REFERENCES

Dr. Richard G. Olmstead  
Professor Emeritus  
Biology Department  
University of Washington, Seattle  
Email: olmstead@uw.edu

Dr. Laura Lagomarsino  
Assistant Professor and Herbarium Director  
Department of Biological Sciences  
Louisiana State University, Baton Rouge  
Email: llagomarsino1@lsu.edu

Dr. Adam Leaché  
Professor of Biology and Curator of Herpetology  
Biology Department  
University of Washington, Seattle  
Email: leache@uw.edu

Dr. Caroline Strömberg  
Estella B. Leopold Professor of Biology and Curator  
of Paleobotany  
University of Washington, Seattle  
Email: caestrom@uw.edu