

Curriculum Vitae

Ana María Bedoya

Assistant Curator
Center for Biodiversity and Evolution
The New York Botanical Garden
Email: abedoya@nybg.org
<https://anamariabedoya.weebly.com/>
Twitter: @botAna_Bedoya

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

Present	Assistant Curator, New York Botanical Garden
Present	Adjunct Professor, The City University of New York
2021–July 2024	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 th 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

PUBLICATIONS

Peer-reviewed, Accepted, and In Press

** Indicates undergraduate author * Indicates co-first author

19. **Bedoya, A.M.**, F. Zapata, M.J. Sanín. *Accepted*. Is Plant Whole Genome Sequencing Advancing Biodiversity for Biodiversity? *Nature Reviews Biodiversity*.
18. Ball, L.D., **A.M. Bedoya**, C.M. Taylor, L.P. Lagomarsino. *Accepted*. Phylogenomics and macroevolution of a florally diverse Neotropical plant clade. *Evolution*.
17. Mansaray, J.K., **A.M. Bedoya**, L.A. Frost, O.C. Degreenia, L.P. Lagomarsino. 2025. Phylogenetic relationships and the repeated loss of traits associated with sicklebill pollination in *Centropogon* subgenus *Centropogon* (Campanulaceae). *American Journal of Botany*. e70016.
16. Brightly, W., **A.M. Bedoya**, M. Carlson, M.G. Rottersman, and C.A.E. Strömberg. 2024. Correlated evolution of dispersal traits and habitat preference in the melicgrasses (Poaceae: Meliceae). *American Journal of Botany*. e16406.
15. **Bedoya, A.M.** 2024. Botany and Geogenomics: constraining geological hypotheses in the neotropics with large-scale genetic data derived from plant DNA. *American Journal of Botany*. e16306 <https://bsapubs.onlinelibrary.wiley.com/doi/10.1002/ajb2.16306>
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 Coroncoro 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 Shoreae (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

20. **Bedoya, A.M.**, C.M. Taylor, A. Mumford, L.D. Ball, and L.P. Lagomarsino. *In Review*. The interplay of biogeographic history, floral morphology, and climatic niche in a hyperdiverse Neotropical plant radiation. *New Phytologist*.

HERBARIUM CURATION

New York Botanical Garden — Curator of Aquatic Plants

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), Herbario Universidad de Panamá (PMA), Smithsonian Tropical Research Institute (STRI).

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 memoradums 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

Students

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)

Student Committees

Zacc Ramn. Masters program (The University of South Alabama)
 Ana María Rueda Urrego. Honors thesis (Universidad EAFIT, Colombia)

SELECTED CONTRIBUTED PAPERS & POSTERS

- 2024 **Bedoya, A.M.**. Botany and Geogenomics: constraining geological hypotheses in the Neotropics with large-scale genetic data derived from plants *International Botanical Conference, Madrid, Spain. Oral presentation*
- 2023 **Bedoya, A.M.**, C. Taylor, A. Mumford, L. Lagomarsino. 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. *66th 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*

INVITED TALKS

- 2025 Universidad de los Andes. Departamento de Ciencias Biológicas
- 2025 University of Wisconsin-Madison. Botany department Seminar
- 2024 Tupper Seminar. Smithsonian Tropical Research Institute
- 2024 Lake Forest College
- 2024 Kennesaw state University
- 2024 Seminarios Asociación Latinoamericana de Botánica
- 2024 New York Botanical Garden Seminar
- 2024 Cornell University Plant Biology Seminar
- 2024 Wake Forest University Biology 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 Botany 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

PROFESSIONAL SERVICE

Journal peer-review

American Journal of Botany
 Annals of Botany
 Botanical Journal of the Linnean Society
 Ecology and Evolution
 Frontiers in Plant Science
 Geology
 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
 New Phytologist
 Systematic Biology

Editorial duties

Associate Editor of *Brittonia*
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

OUTREACH

2025	New York Botanical Garden Science Webinar. <i>Extreme Botany and the Study of Botanical Oddities: An Insight into our Planet's Past</i>
2025	Career Discovery Day. Led in co-partnership with the Green School at NYBG.
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. Shots de Ciencia <https://www.shotsdeciencia.com/podcast/episode/8ff8e270/e17-historiadoras-de-la-tierra-viajes-en-el-tiempo-para-entender-la-biodiversidad>
- 2021 Invited speaker for a broad audience. GIZ Colombia, Asociación Tonina, Proyecto Triángulo del Puma de la Reserva Natural Yarumí. <https://www.youtube.com/watch?v=8a2kLpk67Wo>
- 2020 Science for the public. Plantas acuáticas. Ciencia Café pa' sumeré. <https://www.youtube.com/watch?v=mD8uL77ie0A>
- 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 7th 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.' <https://www.burkemuseum.org/news/returning-colombia-search-river-weed-plants>
- 2017 Creepy crawly 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.' <https://www.burkemuseum.org/news/searching-river-weed-plants-northern-south-america>

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)