

VIVIANA LONDOÑO LEMOS

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EDUCATION

University of Minnesota Twin Cities, the United States
Fourth-year Ph.D. candidate Currently
Plant and Microbial Biology Program
Advisor: Jennifer Powers, Ph.D.
Thesis topic: Seed and seedling ecology in tropical dry forest

Universidad de los Andes Bogotá, Colombia
M.Sc. Biological Science Oct 2018
Advisors: Santiago Madriñán Restrepo, Ph.D. & Alba Marina Torres González, Ph.D.
Thesis: Germination ecology in a Caribbean seasonally dry forest: on the Fabaceae seed germination niche hypothesis

Universidad del Valle Cali, Colombia
B.Sc Biology Nov 2012
Advisor: Alba Marina Torres González, Ph.D.
Thesis: Floristic composition and structure of a tropical dry forest in regeneration in the Ecopark Bataclán (Cali, Colombia)

PROFESSIONAL EXPERIENCE

Chief of Science Department Cartagena, Colombia
Cartagena Botanical Garden Jul 2018 – Jul 2021
Job duties: Planned, led, and managed projects related to research and outreach in the Cartagena Botanical Garden. Secure funds for projects by grant applications. Curatorship of Cartagena Botanical Garden herbarium and nursery.

Plant Nursery Biologist Cartagena Colombia
Cartagena Botanical Garden Feb 2017 – Jun 2017
Job duties: Generated propagation protocols in the nursery of native species of the tropical dry forest of the Colombian Caribbean

Consulting biologist Buenaventura, Colombia
Consorcio L.S. Jun 2015 – Nov 2015
Job duties: Monitored the phenology vascular epiphytes transferred by the construction of the school La Cristalina and communicated scientific objectives of the project to community schools in the area

Consulting biologist Dagua, Colombia
Consorcio ECC Apr 2014 – Apr 2015
Job duties: Communicated activities of rescue and relocation of epiphytes for road construction to the local communities in the area and evaluated the phenology of the transferred plants.

Consulting biologist Dagua, Colombia
CONAMBIENTE S.A.S. Oct 2012 – Dec 2013
Job duties: Development of an inventory of epiphytes and Cactus of Mulaló - Loboguerrero project, Colombia, and evaluated phenology and health of vascular epiphytes transferred to La Guinea sector, Colombia

RESEARCH EXPERIENCE

- Research associate** Cartagena, Colombia
Cartagena Botanical Garden Dec 2019 – Jul 2021
Project: Composition, structure, and function of vegetation in a relic of dry tropical forest in the Cartagena Botanical Garden
Research groups: Laboratory of Botany and Systematics (Universidad de los Andes) and Cartagena Botanical Garden, *Funded by* Banco de la República de Colombia
Job duties: Evaluated composition, structure, and function of the vegetation of a tropical dry forest in the Cartagena Botanical Garden by the construction of a permanent plot
- Research associate** Cartagena, Colombia
Cartagena Botanical Garden May 2019 – Feb 2020
Project: Participatory propagation of tropical dry forest in the Montes de María
Research group: Cartagena Botanical Garden, *Funded by* Natural Wealth Program, USAID
Job duties: Developed and communicated propagation protocols for native tropical dry forest tree species with the local communities in Montes de María (Colombia) to start restoration actions in main water basins in the area
- Graduate research** Cartagena, Colombia
Universidad de los Andes Jan 2016 – Jun 2018
Project: Germination Ecology of the tropical dry forest of the Colombian Caribbean, with emphasis on the hypothesis of germination niche of Fabaceae (Master thesis project)
Research groups: Laboratory of Botany and Systematics (Universidad de los Andes, Bogotá, Colombia) and Ecology and Plan Diversity (Universidad del Valle, Cali, Colombia), *Funded by* a joint call between Universidad de los Andes and Universidad del Valle
Job duties: Evaluated germination and seed traits relation of native Colombian Caribbean tropical dry forest tree species and tested the germination niche hypothesis for the evaluated species
- Research associate** Buga, Colombia
Universidad del Valle Nov 2014 – Dec 2016
Project: Monitoring and registration of functional, structural, and phylogenetic data from El Vínculo Regional Natural Park, Buga, Colombia
Research groups: Ecology and Plan Diversity (Universidad del Valle), *Funded by* Alexander von Humboldt Institute
Job duties: Establishment and measurement of two censuses of a permanent plot in a Colombian tropical dry forest and evaluation of the dynamics of the vegetation composition and structure
- Research assistant** Cali, Colombia
Universidad del Valle Nov 2014 – Dec 2016
Project: Updating the Arboreal Inventory of the Meléndez Campus of the Universidad del Valle
Research group: Ecology and Plan Diversity (Universidad del Valle), *Funded by* Universidad del Valle.
Job duties: Development of the tree inventory on the campus of Universidad del Valle
- Young Researcher Fellowship** Cali, Colombia
Universidad del Valle May 2012 – May 2013
Project: Flora of Cali
Research group: Biology of Plants and Microorganisms (Universidad del Valle), *Funded by* COLCIENCIAS (science department of Colombia nowadays Minciencias) as the program of Young Researcher and Innovator
Job duties: Development of the tree inventory of the urban flora of Cali, Colombia

Undergraduate research
Universidad del Valle

Cali, Colombia
Feb 2011 – Jul 2012

Project: Floristic Composition and Structure of a Forest in the Regeneration of the Ecoparque Bataclán (Cali, Colombia), framed in the project “Carbon Stock and Dynamics of the Vegetation in Forests in the Regeneration of the Ecoparque Bataclán (Cali, Colombia)” (Undergraduate thesis project)

Research group: Ecology and Plant Diversity (Universidad del Valle), Funded by the Administrative Department of Environmental Management of Cali DAGMA

Job duties: Evaluation of two restoration strategies in an urban eco-park in Cali by the establishment of permanent plots to measure vegetation composition, structure, and carbon stock

Undergraduate assistant
Universidad del Valle

Cali, Colombia
Sep 2011 – Apr 2013

Project: Reproductive Biology of *Samanea saman*, *Pithecellobium dulce*, *Tabebuia rosea*, and *Jacaranda caucana* in the Academic Botanical Garden of the Universidad del Valle

Research group: Ecology and Plant Diversity (Universidad del Valle), Funded by Universidad del Valle

Job duties: Monitored phenology of tree species on the campus of Universidad del Valle

TEACHING EXPERIENCE

Graduate teaching assistant

Teaching assistant

Universidad de los Andes

Bogotá, Colombia
Jan 2016 – Jun 2018

- Providing teacher support and instructing courses within Systematic Botany Laboratories, Cellular Biology, and General Biology Laboratories courses
- Assistant curator of the ANDES Herbarium and research assistant

Guest lectures

Guest lecture

University of Minnesota

Saint Paul, MN, USA
Fall 2023, Fall 2024

- Invited to a PMB2022-Botany class as a guest speaker on soil seed bank
- Invited to two PMB8180 courses as a guest speaker on science communication

Guest lecture

Universidad del Magdalena

Santa Marta, Colombia
September 2024

- Invited to a Plant Physiology class as a guest speaker on seed physiology

Field courses

Field Course Instructor

Association for Tropical Biology and Conservation 2022

Cartagena, Colombia
July 2022

- Served as the instructor of the field course “Seed banking and propagation for restoration projects: a hands-on experience at the Cartagena Botanical Garden.”

PUBLICATIONS

Peer-reviewed papers

- **Londoño-Lemos, V.**, Torres-González, A.M., & Madriñán, S. (2024). Linking Seed Traits and Germination Responses in Caribbean Seasonally Dry Tropical Forest Species. *Plants*, 13(10), 1318.
- Gomes Alves, E., Aquino Santana, R., Quaresma Dias-Júnior, C., Botía, S., Taylor, T., Yáñez-Serrano, A. M., Kesselmeier, J., Bourtsoukidis, E., Williams, J., de Assis, P. I. L. S., Martins, G., Souza, R., Duvoisin Júnior, S., Guenther, A., Gu, D., Tsokankunku, A., Sörgel, M., Nelson, B., Pinto, D., Komiyama, S., Rosa, D. M., Weber, B., Barbosa, C., Robin, M., Feeley, K. J., Duque, A., **Londoño-Lemos, V.**, Contreras, M. P., Idarraga, A., López, N., Husby, C., & Jestrow, B. & Cely

- Toro, I. M. (2023). Intra-and interannual changes in isoprene emission from central Amazonia. *Atmospheric Chemistry and Physics*, 23(14), 8149-8168.
- **Londoño-Lemos, V.**, Tapasco-García, J., Escobar-Hadechini, O., & Madriñán, S. (2022). Vegetación leñosa de un remanente de bosque seco tropical en el Caribe colombiano. *Colombia forestal*, 25(1), 51-66.
 - Cárdenas-Henao, M., **Londoño-Lemos, V.**, Llano-Almario, M., González-Colorado, Á. M., Rivera-Hernández, K. L., Vargas-Figueroa, J. A., Duque-Palacio, O. L., Torres-González, A. M., Jiménez-Taquinas, A. C., & Moreno-Cavazos, M. P. (2015). Fenología de cuatro especies arbóreas de bosque seco tropical en el Jardín Botánico Universitario, Universidad del Valle (Cali), Colombia. *Actualidades Biológicas*, 37(103), 121-130.
 - Soto-Medina, E., **Londoño-Lemos, V.**, & Díaz-Escandón, D. (2015). Epiphytes from a forest type transition zone in the Choco biogeographic region, Valle del Cauca, Colombia. *Revista de Biología Tropical*, 63(4), 915-926.
 - **Londoño Lemos, V.**, & Torres González, A. M. (2015). Estructura y composición vegetal de un bosque seco tropical en regeneración en Bataclán (Cali, Colombia). *Colombia forestal*, 18(1), 71-85.
 - Torres, A. M., Adarve, J. B., Cárdenas, M., Vargas, J. A., **Londoño-Lemos, V.**, Rivera, K., Home-Ramírez, J. K., Duque-Palacio, O. L., & González, Á. M. (2012). Dinámica sucesional de un fragmento de bosque seco tropical del Valle del Cauca, Colombia. *Biota colombiana*, 13(2).
 - Adarve, J. B., Torres, A. M., Home, J., Vargas, J. A., Rivera, K., Duque, O. L., Cárdenas-Henao, M., **Londoño-Lemos, V.** & González, A. M. (2010). Estructura y riqueza florística del Parque Natural Regional el Vínculo-Buga, Colombia. *Cespedesia*, 32(90/91), 23-38.

Data-papers

- **Londoño-Lemos, V.**, Escobar-Hadechini, O., Tapasco-García, J., & Madriñán, S. (2022). Composición y estructura vegetal de una parcela de vegetación en un relicto de bosque seco tropical en el Caribe colombiano. *Biota colombiana*, 23(1).
- **Londoño-Lemos, V.**, Torres- González, A.M. (2018). Composición florística y estructura de una parcela permanente en bosques secos tropicales del Parque Natural Regional El Vinculo. *GBIF*.

Science outreach publications

- **Londoño-Lemos, V.**, Contreras, M.P., Lissbrant, S., & Madriñán, S. (2021). Permanent Plots: A tool to achieve Climate Change Awareness. *Roots* 18(1): 14-17.
- Torres Meza, J. D., Escobar Hadechini, O. A., Vásquez González, ML, Mejía Rodríguez, E. P., Culma Suárez, N. S., Madriñán, S., **Londoño-Lemos, V.** (2021). Plántulas y Juveniles del Jardín Botánico de Cartagena “Guillermo Piñeres”. Field Museum guide # 1324, Chicago.
- **Londoño-Lemos, V.**, Herrera Medina, Y., Hernández Vélez, C. (2020). Propagación Participativa del Bosque Seco Tropical en los Montes de María. Experiencias de propagación y siembra de plantas nativas con la comunidad de Camarón. *Jardín Botánico de Cartagena "Guillermo Piñeres"*, Colombia. ISBN: 978-958-5461-53-6
- Díaz, A., Castellanos-Castro, C., Calderón-Hernández, M., Guzman, M., **Londoño-Lemos, V.**, Mancipe Murillo, C., Suárez Ballesteros, C., Di Sacco, A., Santaella, M., Díaz, J. (2020). Red Colombiana de Conservación de Semillas. Ficha 301. En: Moreno, L. A. & Andrade, G. I. (Eds.). Biodiversidad 2019. Estado y tendencias de la biodiversidad continental de Colombia. Bogotá, D. C., Colombia: Instituto de Investigación de Recursos Biológicos Alexander von Humboldt. 92p.
- Herrera Medina, Y., Pérez-Martínez, L.V., **Londoño-Lemos, V.**, Ahumada Cabarcas, D. (2020). Guía de especies de flora y fauna de la Ciénaga de La Virgen. *Jardín Botánico de Cartagena "Guillermo Piñeres"*, Colombia.
- Contreras, M. P., **Londoño-Lemos, V.**, Madriñán, S. (2019). Bolívar – Semillas del Jardín Botánico de Cartagena “Guillermo Piñeres”. Field Museum guide # 1099, Chicago.
- Pérez-Martínez, L. V. & **Londoño-Lemos, V.** (2017). Árboles y adaptación al cambio climático ¿Cómo propagar 12 especies nativas del bosque seco tropical y del manglar en la Ciénaga de La Virgen? *Jardín Botánico de Cartagena "Guillermo Piñeres"*, Colombia. ISBN: 978-958-59781-0-2

TALKS AND PRESENTATION

Talks at Universities and Botanical Gardens

- **Botany in Action Engagement week 2024 Phipps Conservatory and Botanical Gardens.** September 19-22, 2024. Pittsburgh, Pennsylvania, USA. Speaker for the Peek Behind the Petals talk as a Botany in Action Fellow 2024: “Exploring the Tropical Dry Forest Soil Seed Bank: The Hidden Savings for the Future”
- **Plant and Microbial Biology Department Seminar.** September 17, 2024. Invited as a guest speaker for the seminar to discuss a science communication project: “A Journey Through the Dry Forest.”

Talks at Meetings and Scientific Events

- **Association of Tropical Biology and Conservation 2022 Conference.** July 10 - 24, 2022. Centro de Convenciones de Cartagena, Cartagena, Colombia. Speaker for a Symposium: “Differential nutrient limitation of early growth in N-Fixing legumes and non-Legumes in the tropical dry forest.”
- **X Colombian Congress of Botany.** August 18 - 22, 2019. Universidad de la Amazonia, Florencia, Caquetá, Colombia. As a speaker at the Seed Ecology Studies Symposium, Colombian Seed Bank Symposium, and Colombian Herbarium Symposium.
- **Botany 2018 Conference.** July 21 - 26, 2018. Mayo Civic Center, Rochester, Minnesota, United States. Speaker for an oral presentation: “Seed Ecology of Woody species in the Colombian Caribbean tropical dry forest.”
- **IX Colombian Congress of Botany.** July 23 - 27, 2017. Universidad Tecnológica y Pedagógica, Tunja, Boyacá, Colombia. As a speaker at the Colombian Herbarium Symposia, an oral presentation and a poster on seed ecology in the Caribbean tropical dry forest and a poster in the Plant Ecology section on the Urban Flora de Cali.
- **VIII Colombian Congress of Botany.** August 2 - 6, 2015. Universidad de Caldas. Manizales, Caldas, Colombia. As a speaker at the Ecology of Tropical Dry Forest Symposium and the Epiphytes Symposium.
- **VII Colombian Botany Congress.** August 6 – 10, 2013. Universidad del Tolima, Ibagué, Colombia. As a speaker at the Ecology of Tropical Dry Forest Symposium.
- **VI Colombian Botany Congress.** August 11 - 15, 2011. Universidad del Valle – Pontificia Universidad Javeriana, Cali, Colombia. As a speaker for an oral presentation and a poster in the Plant Ecology section. Participation in the Logistic Committee.
- **XLV National Congress of Biological Sciences.** October 5 – 8, 2010. Universidad del Quindío, Armenia, Colombia. As a speaker for an oral presentation: “Relation of hummingbird’s peak with floral morphology in a tropical rain forest in Colombia.”
- **XLIV National Congress of Biological Sciences.** October 7 - 10, 2009. Universidad del Cauca, Popayán, Colombia. As a speaker for an oral presentation: “Hemiptera associated with *Croton gossypifolius* in a tropical dry forest in Colombia.”

HONORS AND AWARDS

Council of Graduate Students (COGS) Grants **2024**
 Selected by the Council of Graduate Students (COGS) of the University of Minnesota for one of the Research Support Grants. USD 500

Carol H. and Wayne A. Pletcher Graduate Fellowship **2024**
 Selected by the Carol H. and Wayne A. Pletcher Graduate Fellowship committee of the College of Biological Sciences of the University of Minnesota as one of the 2024 Fellows to conduct research in biological Sciences. USD 5,000

Botany in Action Fellowship **2024**
 Selected by the Phipps Conservatory and Botanical Gardens as one of the 2024 Botany in Action Fellows For research and Educational outreach. USD 6,000

Boreas Leadership Graduate Leader

2023 – 2024

Selected by the Institute on the Environment at the University of Minnesota as one of the two Boreas Sustainability Leadership cohort graduate leaders. This group focuses on exploring interdisciplinary work with communities. USD 2,000

Bell Museum Natural History Award

2023

Selected by the Bell Museum Award Committee, the award aims to support projects related to the study of field biology, whole organisms, museum collections, and science education. USD 2,500

Boreas Leadership Graduate Student

2021 – 2023

Selected by the Institute on the Environment at the University of Minnesota as one of the cohort members of the Boreas Sustainability Leadership cohort. This group focuses on exploring interdisciplinary work with communities. USD 400

Fullbright-Minciencias Scholarship

2020

Selected by the Fulbright Commission of Colombia for Doctoral studies scholarship in the United States. USD 89,000

Travel grant to Botany Conference 2018

2018

Winner of the Botanical Society of America Developing Nations Travel Grants to BOTANY conference in Rochester, MN. USD 1,000

Young Researcher Fellowship COLCIENCIAS

2012 – 2013

COLCIENCIAS (science department of Colombia nowadays Minciencias) fund to develop research in Colombia for one year after finishing undergraduate studies. USD 8,500

Academic Undergraduate Scholarship

2007 – 2009

Universidad del Valle scholarship for occupying one of the top five positions in academic performance in the first, second, fourth, and fifth semesters as an undergraduate. USD 300

SYNERGISTIC ACTIVITIES

- Organizer of the “Statistics Workshop for Biologists 2023” to promote statistics knowledge sharing among graduate students at the University of Minnesota
- Attending the 2023 Seed Conservation Techniques training course by the Millennium Seed Bank Partnership by the Royal Botanical Gardens of Kew, London, England.
- Working on The Dry Forest Coloring Book for Children. Outreach project in five languages between the Powers Lab and Market Science at the University of Minnesota, Saint Paul, MN, The United States. 2021-2024.
- Mentor in the Mentorship program for Fulbright Colombia 2022
- Founder member of the Colombian Seed Conservation Group (2019-2021)

STUDENT GROUPS AND PROFESSIONAL ASSOCIATIONS

- Phytograds Board (Graduate Student Association of the Plant and Microbial Biology Program of the University of Minnesota) (2022 – 2023)
- Association for Tropical Biology and Conservation (2022-2023)
- Asociación Colombiana de Botánica (2011-2019)

JOURNAL REVIEWER

- Acta Biológica Colombiana (Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, Colombia), 2023
- Naturwissenschaften (Springer, United States), 2023
- Colombia Forestal (Universidad Distrital Francisco José de Caldas, Colombia), 2022-2023
- Biotropica (Wiley-Blackwell, United States), 2024
- Ecology Letters (Wiley-Blackwell, United States), 2024

GRANT REVIEW ACTIVITIES

- The Council of Graduate Students (COGS) of the University of Minnesota grants 2022-2023
- Impact Goals Grants Institute on the Environment University of Minnesota, 2022
- Academic evaluator Fulbright Colombia “Call for scholarships to research and education 2023”, 2022

STUDENT MENTORSHIP AND EVALUATION

- Part of the evaluation committee of a master student of the Master in Conservation and Biodiversity use at the Pontificia Universidad Javeriana, Bogotá, Colombia 2024
- Part of the evaluation committee of a master student of the Master in Science - Biology at the Universidad Nacional de Colombia, Bogotá, Colombia 2024
- Co-advisor of one undergraduate student of the Biological Sciences Program at the Universidad de los Andes, Colombia, 2019
- Co-advisor of one Master student of the Master in Biological Sciences at the Universidad de los Andes, Colombia, 2020-2021
- Part of the evaluation committee of a master student proposal for the Master in Conservation and Biodiversity use at the Pontificia Universidad Javeriana, Bogotá, Colombia 2022