

## CURRICULUM VITAE

### DIANA GAMBA

Email: [dgamba333@gmail.com](mailto:dgamba333@gmail.com)

## EDUCATION

2020. PhD, Biology: Ecology, Evolution and Systematics, University of Missouri – St. Louis, St. Louis, MO. Thesis Title: Investigating drivers of genetic structure in plants: global, regional and local scales. (Advisor: Dr. Nathan Muchhala).

2013. M.Sc. (with honors), Biology: Ecology and Systematics, San Francisco State University, San Francisco, CA. Thesis Title: Systematics of the Octopleura clade of *Miconia* (Melastomataceae: Miconieae) in tropical America. (Advisor: Dr. Frank Almeda).

2010. B.S., Biology (mention in Botany), Universidad del Valle, Cali, Colombia.  
Thesis Title: Flowering and fruiting of five species in the forest of Alejandría (Risaralda, Colombia). (Advisor: Dr. Philip Silverstone-Sopkin).

## FELLOWSHIPS

Fall 2019. Raven Fellowship at the University of Missouri – St. Louis.

2014–2017. Christensen Fund Fellowship Program in Plant Conservation.

2011–2013. California Academy of Sciences Lakeside Foundation Fellowship.

2008–2009. Tuition award for academic excellence. Universidad del Valle – Biology.

## WORKSHOPS AND COURSES

Summer 2019. Midwest Phylogenetics Workshop. University of Minnesota Itasca Biological Station, Shevlin, MN.

Summer 2015. R Basics Workshop. Missouri Botanical Garden, St. Louis, MO.

Winter 2014–2015. Field Ecology: Skills for Science and Beyond. Organization for Tropical Studies (OTS)–University of Costa Rica, San José, Costa Rica.

2011. SPNHC Georeferencing Workshop. UC Berkeley, Berkeley, CA.

## PUBLICATIONS

**Gamba, D.** & N. Muchhala. (2020). Global patterns of population genetic differentiation in seed plants. *Molecular Ecology* 29 (18): 3413–3428. <https://doi.org/10.1111/mec.15575>

**Gamba, D.** & F. Almeda. (2018). New combinations in the Neotropical genus *Miconia* (Melastomataceae: Miconieae). *Phytotaxa* 357 (4): 298–300.  
<https://doi.org/10.11646/phytotaxa.357.4.6>

**Gamba, D.**, N.R. Maguiña, C.A. Calderón-Acevedo, K. Torres, N. Muchhala. (2017). Seed dispersal for the unusual inflated berries of *Burmeistera* (Campanulaceae). *Neotropical Biodiversity* 3 (1): 10–17. <http://dx.doi.org/10.1080/23766808.2016.1258868>

Li, J., E.E. Terry, E. Fejer, **D. Gamba**, N. Hartmann, J. Logsdon, D. Michalski, L.E. Rois, M.J. Scuderi, M. Kunst, M.E. Hughes. (2016). Achilles is a circadian clock-controlled gene that regulates immune function in *Drosophila*. *Brain, Behavior, and Immunity* 61: 127–136. <http://dx.doi.org/10.1016/j.bbi.2016.11.012>

**Gamba, D.** & F. Almeda. (2015). *Miconia solearis*, a new combination to replace the illegitimate *Miconia magnifolia* (Melastomataceae: Miconieae) in Tropical America. *Phytotaxa* 219 (2). <http://dx.doi.org/10.11646/phytotaxa.219.2.11>

**Gamba, D.**, F. Almeda & M. Alvear. (2014). *Miconia indicoviolacea* (Melastomataceae: Miconieae): a new Colombian species from the western flanks of the Cordillera Occidental. *Phytotaxa* 177 (3): 171–176. <http://dx.doi.org/10.11646/phytotaxa.177.3.5>

**Gamba, D.** & F. Almeda. (2014). Systematics of the Octopleura clade of *Miconia* (Melastomataceae: Miconieae) in tropical America. *Phytotaxa* 179 (1): 001–174. <http://dx.doi.org/10.11646/phytotaxa.179.1.1>

## PUBLICATIONS IN PREPARATION

**Gamba, D.**, A. Linan & N. Muchhala. (2021). Flowering asynchrony contributes to genetic divergence in tropical plants. *In revision*. *New Phytologist*.

**Gamba, D.** & N. Muchhala. (2021). A global test of fine-scale genetic structure of plants shows importance of growth form, pollinators, and latitudinal region.

**Gamba, D.** & N. Muchhala. (2021). Pollination by hummingbirds strongly decreases genetic structure between and within Neotropical plant populations relative to pollination by insects.

**Gamba, D.**, R. Maguiña, C.A. Calderón-Acevedo & N. Muchhala. (2021). Nectar extraction efficiency in Lonchophylline and Glossophagine bats: Does tongue morphology matter?

**Gamba, D.**, C. Lorts, A. Haile, S. Sahay, L. Lopez, T. Xia, E. Kulesza, D. Elango, J. Kerby, M. Yifru, C. Bulafu, T. Wondimu, K. Glowacka, J.R. Lasky. (2021). Genomics and physiology of local adaptation to elevation in *Arabidopsis thaliana*.

## ORAL PRESENTATIONS

2020. Investigating drivers of genetic structure in plants: global, regional, and local scales. Ecology Colloquium. Penn State University, University Park, PA.

2020. Investigating drivers of angiosperm divergence: from population differentiation to speciation. Early Career Scientist Symposium. Yale University, New Haven, CT.

2020. Drivers of population genetic structure in plants: global, regional and local scales. UMD Biology Department Seminar. University of Minnesota – Duluth, Duluth, MN.
2019. Meta-analysis of population differentiation in seed plants shows importance of mating system, growth form, pollination mode, and latitude. Botany 2019, Tucson, AZ.
2019. Out of synch: Seasonal asynchrony drives genetic differentiation in tropical plants. Botany 2019, Tucson, AZ.
2018. Flowering asynchrony contributes to genetic divergence in Andean angiosperms. 7th Annual SLEEC retreat. Maryville University, St. Louis, MO.
2014. Nectar extraction efficiency in three species of Lonchophyllinae and Glossophaginae bats in a tropical cloud forest (Napo, Ecuador). 44th Annual Meeting of the North American Society for Bat Research Albany, NY.
2013. Systematics of the Octopleura clade of *Miconia* (Melastomataceae: Miconieae) in Tropical America. VII Colombian Congress of Botany, Universidad del Tolima, Ibagué, Tolima, Colombia.
2013. Systematics of the Octopleura clade of *Miconia* (Melastomataceae: Miconieae) in Tropical America. California Botanical Society Centennial Celebration – 24th Graduate Student Meeting, UC Berkeley, Berkeley, CA.

## POSTERS

2016. Seed dispersal for the unusual inflated berries of *Burmeistera* (Campanulaceae). Botany 2016, Savannah, GA.
2015. RNA-seq transcriptomic profile reveals genes regulated by the circadian candidate CG17386 in *Drosophila melanogaster*. 51st Missouri Academy of Sciences Annual Meeting. Missouri Western State University, St. Joseph, MO.
2014. Systematics of the Octopleura clade of *Miconia* (Melastomataceae: Miconieae) in Tropical America. 61st Annual Systematics Symposium, Missouri Botanical Garden, St. Louis, MO.
2013. Systematics of the Octopleura clade of *Miconia* (Melastomataceae: Miconieae) in Tropical America. Botany 2013, New Orleans, LA.
2009. Phenological aspects and floral aperture dynamics of four weedy species at the Biology Microstation, Universidad del Valle (Cali, Colombia). V Colombian Congress of Botany, Universidad de Nariño, Pasto, Nariño, Colombia.

## PROFESSIONAL EXPERIENCE

2019. Colloquium organizer (with Nathan Muchhala) for the Botany 2019 meeting: Ecological factors that drive patterns of population genetic structure in plants.
2014. Collector and Field assistant. An Inventory of Finca Las Camelias, Florida, Valle, Colombia.
2013. Field Assistant. *Cercis occidentalis* (Fabaceae: Cercideae) project (Master's thesis of Camille Nowell), San Francisco State University, San Francisco, CA.
- 2011–2013. Collaborator in the NSF Project PBI Miconieae (Melastomataceae): A Planetary Biodiversity Inventory. California Academy of Sciences, San Francisco, CA.
- 2009–2010. Curatorial and Collecting Assistant. CUVIC Herbarium, Universidad del Valle, Cali, Colombia.

## TEACHING EXPERIENCE

Fall 2020. Guest Lecturer for BIOL 448: Ecology of Plant Reproduction. Eberly College of Sciences, Penn State University.

Fall 2018–Spring 2019. Teaching Assistant for BIOL 1821: Introductory Biology – Organisms and the Environment. University of Missouri – St. Louis.

## MENTORING/OUTREACH EXPERIENCE

2020. Colloquium evaluator for science communication. Ecology Colloquium, Eberly College of Sciences, Penn State University.

2019. Mentor of undergraduate students in the PLANTS Mentor Program for the Botany 2019 meeting. Sponsored by the Botanical Society of America.

2017–Spring 2019. Mentor of senior high-school students in the Jennings-UMSL Mentorship Program (JUMP). Sponsored by the Whitney R. Harris World Ecology Center.

2016. Online Mentor in Planting Science: Master Plant Science Team. Sponsored by the Botanical Society of America.

2011–2013. California Academy of Sciences. Participation in public events and programs: Nightlife, Discovery Evening, Project Lab – Public Floor, Tours to CAS Herbarium, Careers in Science (2012 Trinity Alps Summer Field Trip).

2009. Poster Writer and Organizer of: Life and Work of Charles Darwin. Exhibition in the José Celestino Mutis library, part of the Darwin 200 celebration, Universidad del Valle, Cali, Valle, Colombia.

## SERVICES

Reviewer for *Molecular Phylogenetics and Evolution*, Elsevier (2014), *Phytotaxa*, Magnolia Press (2018), and *Conservation Genetics*, Springer Nature Group (2019).

## AWARDS & HONORS

2018. Whitney Harris World Ecology Center Graduate Student Research Grant (\$3033).

2018. Complimentary membership to the American Society of Plant Taxonomists.

2017. Arnold B. Grobman Excellence in Research Award, UMSL Biology (\$500).

2017. Lewis and Clark Fund for Exploration and Field Research, American Philosophical Society (\$5000).

2017. Whitney Harris World Ecology Center Graduate Student Research Grant (\$4000).

2016. Botanical Society of America Graduate Student Research Grant (\$500).

2016. Society of Systematic Biologists Graduate Student Research Grant (\$1300).

2015. American Society of Plant Taxonomists Graduate Student Research Grant (\$1500).

2015. Whitney Harris World Ecology Center Graduate Student Research Grant (\$4000).

2013. Best Paper in the Completed Research Category. California Botanical Society 24th Graduate Student Meeting (\$100).

2013. Graduate Student Award for Distinguished Achievement. San Francisco State University.

2013. Graduate Student Speaker for the Biology Commencement Ceremony. San Francisco State University, Biology Department.
2013. Complimentary membership to the American Association for the Advancement of Science: AAAS/Science Program for Excellence in Science. Included an online subscription to Science, for three years. San Francisco State University, Biology Department.

## **LANGUAGES**

Native language: Spanish; Fluent in English; Medium Fluent in French.

## **REFERENCES**

- Dr. Jesse Lasky ([jrl35@psu.edu](mailto:jrl35@psu.edu))
- Dr. Nathan Muchhala ([muchhlan@umsl.edu](mailto:muchhlan@umsl.edu))
- Dr. Robert Ricklefs ([ricklefs@umsl.edu](mailto:ricklefs@umsl.edu))
- Dr. Christine Edwards ([christine.edwards@mobot.org](mailto:christine.edwards@mobot.org))
- Dr. Carmen Ulloa ([carmen.ulloa@mobot.org](mailto:carmen.ulloa@mobot.org))