Paul-Camilo Zalamea

Education:

2006 – 2010 **PhD in Biology**. Joint program – Université Montpellier II, France and Universidad de Los Andes, Colombia
Thesis title: Cecropia growth pattern periodicity: could a Neotropical genus be a good biological clock to estimate the age of disturbed areas?
Supervisors: Daniel Barthélémy (CIRAD), Patrick Heuret (INRA), Pablo Stevenson (U. de Los Andes)
Graduation date: September 25, 2010

2004 – 2006 **MSc in Biological Sciences**. Universidad de Los Andes, Colombia
Thesis title: Growth periodicity, branching and flowering processes in *Cecropia sciadophylla* (Cecropiaceae) a widespread Neotropical tree (in Spanish).
Supervisors: Pablo Stevenson (U. de Los Andes), Patrick Heuret (INRA)
Graduation date: March 18, 2006

1999 – 2004 **BSc in Biology**. Universidad de Los Andes, Colombia.
Thesis title: Plant architecture of two pioneer trees in the Amazon basin, the case of *Cecropia sciadophylla* and *Cecropia ficifolia* (in Spanish).
Supervisors: Pablo Stevenson (U. de Los Andes), Santiago Madriñán (U. de Los Andes)
Graduation date: April 9, 2005

Professional appointments:

January 2020 **Assistant Professor** – University of South Florida, Department of Integrative Biology, Tampa, USA.

2017 – Dec 2019 **Post-doctoral fellow** – Microbial Ecology Initiative funded by a Simons Foundation grant. Smithsonian Tropical Research Institute (STRI), Panama.

2012 – 2016 **Post-doctoral fellow** – University of Illinois - STRI, Panama.

2011 **Lecturer** (one year). Department of Biology, Universidad de Los Andes, Colombia.

2011 **Lecturer** (one year) **and Head of the Biology program**. Department of Sciences, Universidad de La Salle, Colombia.

2010 – 2011 **Associate researcher** (14 months). Instituto Alexander von Humboldt, Colombia.

2010 **Lecturer** (one semester). Department of Biology, Universidad de Los Andes, Colombia.

Articles in preparation:

25. **Zalamea P-C.,** Sarmiento C., Arnold A.E., Davis A.S., Dalling J.W. Seed-associated fungi in neotropical pioneers influence seed persistence, germination, and survival. In preparation for ***The ISME Journal.***

24. Treiber E.L., Torres M., **Zalamea P-C.**, Madriñán S., Weiblen G.W. The phylogenetic utility of RAD Sequencing in *Cecropia* (Cecropieae:Urticaceae). In preparation for ***American Journal of Botany.***

23. Dalling J.W., Davis A.S., Arnold A.E., Sarmiento C., **Zalamea P-C.** Extending plant defense theory to seeds/seed defense syndromes. This is an invitation to

contribute a review article on the subject of Seed Defense Syndromes for Volume 51 of ***Annual Review of Ecology, Evolution, and Systematics***.

Articles in review:

22. Ruzi S§., **Zalamea P-C.,** Roche D†., Achury R†., Dalling J.W., Suarez A. Can variation in seed removal patterns of Neotropical pioneer tree species be explained by local ant community composition? Major revision in ***Biotropica***. †undergraduate student author. §graduate student author.

Articles published in peer-reviewed journals:

21. Thompson J†*., Slot M., Dalling J.W., Winter K., Turner B.L., **Zalamea P-C*. 2019.** Species-specific effects of phosphorus addition on tropical tree seedling response to elevated CO_2. ***Functional Ecology,*** 33(10): 1871-1881. †undergraduate student author, *equal contribution.

20. Shaffer J.P., **Zalamea P-C.,** Sarmiento C., Gallery R.E., Dalling J.W., Davis A., Baltrus D.A., Arnold A.E. **2018**. Context-dependent and variable effects of endohyphal bacteria on interactions between fungi and seeds. ***Fungal Ecology***, 36: 117-127.

19. **Zalamea P-C.,** Dalling J.W., Sarmiento C., Arnold A.E., Delevich C†., Berhow M.A., Ndobegang A†., Gripenberg S., Davis A.S. **2018.** Dormancy-defense syndromes and trade-offs between physical and chemical defenses in seeds of pioneer species. ***Ecology*****,** 99(9): 1988–1998. †undergraduate student author.

18. Gripenberg S., Rota J., Kim J., Wright S.J., Garwood N.C., Fricke E.C., **Zalamea, P-C.,** Salminen J-P. **2018.** Seed polyphenols in a diverse tropical plant community. ***Journal of Ecology***, 106: 87-100.

17. Sarmiento C., **Zalamea P-C.**, Dalling J.W., Davis A.S., Stump S.M., U'Ren J., Arnold A.E. **2017.** Soilborne fungi have strong host-affinity and host-specific effects on seed germination and survival in a lowland tropical forest. ***Proceedings of the National Academy of Sciences,*** 114(43): 11458-11463.

16. Turner B.L., **Zalamea P-C.,** Condit R., Winter K., Wright S.J., Dalling J.W. **2017.** No evidence that boron influences tree species distributions in lowland tropical forests. ***New Phytologist***, 214 (1): 108-119.

15. Ruzi S§., Roche D†., **Zalamea P-C.,** Robison A†., Dalling J.W. **2017.** Species identity influences secondary removal of seeds of Neotropical pioneer tree species. ***Plant Ecology***, 218: 983–995. †undergraduate student author. §graduate student author.

14. **Zalamea P-C.,** Turner B.L., Winter K., Jones F.A., Sarmiento C., Dalling, J.W. **2016.** Seedling growth responses to phosphorus reflect adult distribution patterns of tropical trees. ***New Phytologist,*** 212 (2): 400-408.

13. Shaffer J.P., Sarmiento C., **Zalamea P-C.,** Gallery R.E., Davis A., Baltrus D.A., Arnold A.E. **2016.** Diversity, specificity, and phylogenetic relationships of endohyphal bacteria in fungi that inhabit tropical seeds and leaves. ***Frontiers in Ecology and Evolution,*** 4:116. doi: 10.3389/fevo.2016.00116.

12. **Zalamea P-C.,** Sarmiento C., Arnold A.E., Davis A., Dalling J.W. **2015.** Do soil microbes and abrasion by soil particles influence persistence and loss of physical

dormancy in seeds of tropical pioneers? ***Frontiers in Plant Science,*** 5:799. *doi: 10.3389/fpls.2014.00799.*

11. Quintero I†., Gonzalez-Caro S†., **Zalamea P-C.,** Cadena C. D. **2014.** Asynchrony of seasons: genetic differentiation associated with geographic variation in climatic seasonality and reproductive phenology. ***The American Naturalist,*** 184(3): 352–363. † undergraduate student author.

10. Tiansawat P., Davis A.S., Berhow M.A., **Zalamea P-C.,** Dalling, J.W. **2014.** Investment in seed physical defense is associated with species' light requirement for regeneration and seed persistence: Evidence from *Macaranga* species in Borneo. ***PLoS ONE,*** *9(6): e99691. doi: 10.1371/journal.pone.0099691.*

9. **Zalamea P-C.,** Sarmiento C., Rodríguez M†., Nicolini E., Stevenson P., Heuret P. **2013.** Effect of rainfall seasonality on the growth of *Cecropia sciadophylla*: intra-annual variation in leaf production and node length. ***Journal of Tropical Ecology,*** 29 (4): 361–365. † undergraduate student author.

8. **Zalamea P-C.,** Heuret P., Rodríguez M†., Berthouly A., Sarmiento C., Nicolini E., Guitet S., Delnatte C†., Barthélémy D., Stevenson P. **2012.** The genus *Cecropia*: a biological clock to estimate the age of recent disturbed areas in the Neotropics. ***PLoS ONE,*** *7(8): e42643. doi:10.1371/journal.pone.0042643.* † undergraduate student author.

7. Letort V, Heuret P., **Zalamea P-C.,** de Reffey P., Nicolini E. **2012.** Analyzing the effects of local environment on the source-sink balance of *Cecropia sciadophylla*: a new methodology based on model inversion. ***Annals of Forest Science,*** 69(2): 167–180.

6. Webber B.L., Born C., Conn B.J., Hadiah J.T., **Zalamea P-C. 2011.** What is in a name? That which we call *Cecropia peltata* by any other name would be as invasive? ***Plant Ecology & Diversity,*** 4 (2-3): 289–293.

5. **Zalamea P-C.,** Munoz F., Stevenson P., Paine C.E.T., Sarmiento C., Sabatier D., Heuret P. **2011.** Continental-scale patterns of *Cecropia* reproductive phenology: Evidence from herbarium specimens. ***Proceedings of the Royal Society B: Biological Sciences,*** 278 (1717): 2437–2445.

4. **Zalamea P-C.,** Stevenson P., Madriñán S., Aubert P-M†., Heuret P. **2008.** Growth pattern and age determination for *Cecropia sciadophylla* (Urticaceae). ***American Journal of Botany,*** 95 (3): 263–271. †undergraduate student author.

Articles published in other journals:

3. **Zalamea P-C.,** Sarmiento C., Dalling J.W., Arnold A.E., Davis A.S. **2018.** Tropical pioneer seeds have different dormancy-defense syndromes that help them to survive in the soil seed bank. ***Bulletin of the Ecological Society of America*** https://doi.org/10.1002/bes2.1451.

Book chapter:

2. Stump S.M., Sarmiento C., **Zalamea P-C.,** Dalling J.W., Davis A., Shaffer J.P., Arnold A.E. **2019**. Colonization of seeds by soilborne fungi: linking seed dormancy-defense syndromes, evolutionary constraints, and fungal traits. In: *Seed Endophytes: Biology and Biotechnology* (eds. Verma S., White J.) pages: 465 – 481 Springer publishing, https://doi.org/10.1007/978-3-030-10504-4_22.

1. Letort V, Heuret P., **Zalamea P-C.,** Nicolini E., de Reffey P. **2009.** Analysis of *Cecropia sciadophylla* morphogenesis based on a sink-source dynamic model. In: *Plant Growth Modelling, Simulation, Visualization and Applications* (eds. L. Baogou, M. Jaeger & Y. Guo) pp 10-17. IEEE Computer Society, Conference Publishing Services, Beijing (CHINA), ISBN: 978-0-7695-3988-1.

Grants and fellowships:

2018 Microbiome Grant – Simons seed award – Smithsonian Tropical Research Institute (US $12,500). Co-PI in collaboration with James W. Dalling, Benjamin Turner, and Klaus Winter.

2017 Microbial Ecology Initiative funded by a Simons Foundation grant. Smithsonian Tropical Research Institute (US $148,000 Postdoctoral salary for three years + US $79,500 for research and other allowances). PI.

2015 NSF – BIO-OCE REU (Research Experience for Undergraduates) Mentor-Student Travel Scholarship (US $3,000).

2013 Smithsonian Tropical Research Institute. Travel Grant (US $800).

2011 Banco de La República, Fundación para la Promoción de la Investigación y la Tecnología. Colombia. Travel Grant (US $500).

2007 – 2010 EcosNord, Paris 13 and Colciencias, France-Colombia. Co-PI in collaboration with Daniel Barthélemy, Patrick Heuret, and Pablo Stevenson (~US $15,000).

2006 – 2009 CIRAD, France. Actions Incitatives d'Appui aux Doctorants (~US $15,000).

2006 – 2009 IRD (Institut de Recherche pour le Développement, France) - Doctoral grant (~US $60,000).

2008 Universidad de Los Andes, Department of Biology. PhD "*Semilla*" Award (~US $5,000).

2004 Universidad de Los Andes, Department of Biology. Master "*Semilla*" Award (~US $2,000).

2004 – 2005 Universidad de Los Andes, Faculty of Sciences. Postgraduate Science Award (~US $15,000).

Teaching experience:

Spring 2019 – Invited lecturer. M.Sc. program - Biodiversité, écologie et évolution. Université Paul Sabatier, Toulouse, France. 2 hours total.

Fall 2018 – Lecturer and field instructor. Cambridge University, Tropical Field Course. Smithsonian Tropical Research Institute, Panama. One-week full time.

Spring 2018 - Lecturer. Princeton University, Tropical Ecology course. Smithsonian Tropical Research Institute, Panama. 2 hours total.

Spring 2017 - Lecturer and field instructor. Integrative Graduate Education and Research Traineeship. STRI-IGERT Course. Smithsonian Tropical Research Institute, Panama. One-week full time.

Spring 2016 - Lecturer and field instructor. Undergraduate field course in Tropical Forest Field Ecology, STRI - UNACHI, Panama. Two-weeks full time.

Spring 2013 - Lecturer and field instructor. Integrative Graduate Education and Research Traineeship. STRI-IGERT Course. Smithsonian Tropical Research Institute, Panama. One-week full time.

Fall 2011 - Plant and Animal development (BIOL02). La Salle University, 3 Credits, 50% Effort.

Fall 2011 – General Ecology (CBR01). La Salle University, 2 Credits, 100% Effort.
Fall 2010, Spring 2011 - Plant Physiology (BIOL 3302). Los Andes University, 3 Credits, 100% Effort.
Spring 2010 - Biodiversity Seminar. San Bartolomé La Merced High School, 32 hours total.
Spring 2010 - Conservation Biology (BIOL 3324). Los Andes University, 3 Credits, 50% Effort.
September 2007, September 2008 - Introduction to Tropical rain forest phenology. Forêts Tropicales Humides, organized by the Agro Paris-Tech-ENGREF, Kourou, French Guiana. Three hours lecture each year.
Spring 2006 - Conservation Biology (BIOL 3324). Los Andes University, 3 Credits, 50% Effort.
September 2005, 2006, 2007, 2008 - Lecturer and field Instructor. Forêts Tropicales Humides, organized by the Agro Paris-Tech-ENGREF, Kourou, French Guiana. Four-weeks full time every year.
Fall 2004, Spring 2005, Fall 2005 - Ecology laboratory section (BIOL2309). Los Andes University, 1 Credit, 100% Effort.

Talks as invited speaker:

- **2019-1 Zalamea P-C.** Plant-soil-microbial interactions: Consequences for plant performance and tree species distributions. *Smithsonian Tropical Research Institute*. *Tupper Seminar,* Panama. 4/2019.
- **2018-1 Zalamea P-C.** Extending plant defense theory to seeds: understanding how interactions of dormancy and soil microbes affect survival and coexistence. *APANAC 2018 XVII Congreso Nacional de Ciencia y Tecnologia*. Ciudad de Panama, Panama. 10/2018.
- **2017-2 Zalamea P-C.** Different ways to persist in the soil: dormancy-defense syndromes and trade–offs between physical and chemical defenses in seeds. *The School of Plant Sciences – Special Seminar*. The University of Arizona, Tucson, USA. 04/2017.
- **2017-1 Zalamea P-C.** Reconciling host generalism of seed-associated fungi with their host-specific effects. *The School of Plant Sciences – Seminar Series*. The University of Arizona, Tucson, USA. 04/2017.
- **2016-1 Zalamea P-C.** Seed-fungal interactions in the soil: Impacts of fungal diversity on seed fate in tropical pioneer trees. *Smithsonian Tropical Research Institute*. *Science Symposium*. *Tropical Microbial Ecology & Evolution*. Panama City, Panama. 10/2016.
- **2015-3 Zalamea P-C.** Suelos en los trópicos: nutrientes, semillas y microorganismos. *Smithsonian Tropical Research Institute*. *Introducción a las Ciencias Biológicas – Curso de Gigante*. Panama. 11/2015.
- **2015-2 Zalamea P-C.** Suelos en los trópicos: fósforo y microorganismos como factores relevantes para entender la diversidad y distribución de especies. *Universidad de Los Andes, Seminario del Departamento de Ciencias Biológicas*, Colombia. 09/2015.
- **2015-1 Zalamea P-C.** Estrategias de defensa en semillas de árboles pioneros. *Organization for Tropical Studies, Barro Colorado Island*, Panama. 05/2015.
- **2015-1 Zalamea P-C. November 2013**. The journey of the seeds: germinate, remain in the soil or die. Insights about seed defenses. *Smithsonian Tropical Research Institute*. Bambi Talk, Barro Colorado Island, Panama.
- **2012-2 Zalamea P-C.** *Cecropia* growth pattern periodicity: could a Neotropical genus be a good biological clock to estimate the age of recently disturbed areas? *Smithsonian Tropical Research Institute*. *Tupper Seminar,* Panama. 12/2012.
- **2012-1 Zalamea P-C.,** Munoz F., Stevenson P., Paine C.E.T., Sarmiento C., Sabatier D., Heuret P. Application of Fourier spectral analysis to study phenology: the case of *Cecropia* in the Neotropics. *Association for Tropical Biology and Conservation (ATBC) 2012 Meeting*. Bonito, Brazil. 06/2012.

Talks in meetings and symposiums:

- **2018-2** Jones J.M., Ferrer A., Heath K., **Zalamea P-C.**, Dalling, J. W. Wood and soil nutrient concentrations affect fungal decomposition of wood. *American Geophysical Union, Fall Meeting 2018*, abstract #B33O-2887.
- **2018-1** Treiber E.L., Torres M., **Zalamea P-C.**, Madriñán S., Weiblen G.W. Phylogeny of *Cecropia* (Cecropieae: Urticaceae) inferred from restriction-site associated DNA sequences. *Botany 2018 Meeting*. Rochester, Minnesota, USA. 07/2018.
- **2017-1 Zalamea P-C.,** Sarmiento C., Davis A.S., Arnold A.E., Dalling J.W. Seed-associated fungi in neotropical pioneers influence seed persistence, germination, and survival. *ATBC 2017 Meeting*. Merida, Mexico. 07/2017.
- **2016-4 Zalamea P-C.,** Sarmiento C., Delevich C., Ndobegang A., Berhow M.A., Davis A.S., Arnold A.E., Dalling J.W. Physical and chemical defenses in tropical pioneer seeds: trade-offs and seed defense syndromes. *ATBC 2016 Meeting*. Montpellier, France. 06/2017.
- **2016-3** Sarmiento C., **Zalamea P-C.,** Hislop L., Ndobegang A., Davis A.S., Dalling J.W., Arnold A.E. Experimental manipulation of fungal communities reveals host-specic effects on seed persistence and survival. *ATBC 2016 Meeting*. Montpellier, France. 06/2017.
- **2016-2** Dalling J.W., **Zalamea P-C.,** Sarmiento C., Heineman K., Lopez O., Wright S.J., Turner B.L. Nutrient availability in tropical rain forests: the paradigm of phosphorus limitation. *ATBC 2016 Meeting*. Montpellier, France. 06/2017.
- **2016-1 Zalamea P-C.,** Turner B.L., Condit R., Winter K., Wright S.J., Dalling J.W. Tree species distributions in tropical forests: why boron is not the most important nutrient on Barro Colorado Island. *STRI Fellows and Interns Symposium.* Panama. 02/2016.
- **2015-4 Zalamea P-C.,** Turner B.L., Winter K., Jones F.A., Sarmiento C., Dalling J.W. Seedling responses to phosphorus correlate with regional distributions of tropical tree species. *ATBC 2015 Meeting*. Honolulu, USA. 07/2015.
- **2015-3** Thompson J., **Zalamea P-C.,** Slot M., Winter K., Turner B.L., Dalling J.W. Effect of phosphorus limitation on tropical tree responses to rlevated CO_2. *ATBC 2015 Meeting*. Honolulu, USA. 07/2015.
- **2015-2** Sarmiento C., **Zalamea P-C.,** Dalling J.W., Davis A., Arnold A.E. Seed-associated fungi: Effects on seed survival and germination of tropical pioneer species. *ATBC 2015 Meeting*. Honolulu, USA. 07/2015.
- **2015-1 Zalamea P-C.,** Turner B.L., Winter K., Jones F.A., Sarmiento C., Dalling J.W. Regional distributions of tropical tree species predict seedling responses to phosphorus. *NNB4 Meeting*. Panama City, Panama. 01/2015.
- **2014-1** Ruzi S.A., **Zalamea P-C.,** Dalling J., Suarez A.V. Chemical cues associated with ant-mediated seed dispersal. *Entomological Society of America, Annual Meeting*. Portland, USA. 11/2014.
- **2013-2 Zalamea P-C.,** Sarmiento C., Roche D.P., Arnold A.E., Davis A., Dalling J.W. Physical defenses, persistence in the soil, and fungal associations of tropical pioneer tree seeds. *ATBC 2013 Meeting*. San José, Costa Rica. 06/2013.
- **2013-1** Sarmiento C., Dalling J.W., **Zalamea P-C.,** Davis A., Arnold A.E. Seed - fungal interactions in tropical trees: Exploring fungal diversity in pioneer seeds. *ATBC 2013 Meeting*. San José, Costa Rica. 06/2013.
- **2011-3 Zalamea P-C.,** González S., Pedraza C., Álvarez E. Congruencia entre biomasa aérea y diversidad de árboles en bosques de montaña: caso de La Planada, Colombia. *VI Congreso Colombiano de Botánica*. Cali, Colombia. 08/2011.
- **2011-2** Paine C.E.T., **Zalamea P-C.,** Heuret P. The effects of competition and climate on the growth of *Cecropia*. *ATBC 2011 Meeting*. Arusha, Tanzania. 06/2011.

- **2011-1 Zalamea P-C.,** Munoz F., Stevenson P., Paine C.E.T., Sarmiento C., Sabatier D., Heuret P. Continental-scale patterns of *Cecropia* reproductive phenology. *ATBC 2011 Meeting*. Arusha, Tanzania. 06/2011.
- **2010-2 Zalamea P-C.,** Sarmiento C., Rodríguez M., Nicolini E., Stevenson P., Heuret P. Annual growth pattern of *Cecropia sciadophylla*: a comparison between two populations with contrasting precipitation seasonality. *Botany 2010 Meeting*. Providence, USA. 08/2010.
- **2010-1 Zalamea P-C.,** Heuret P., Rodríguez M., Berthouly A., Sarmiento C., Nicolini E., Guitet S., Delnatte C., Barthélémy D., Stevenson P. The genus *Cecropia*: a biological clock to estimate the age of disturbed areas in the Neotropics. *ATBC 2010 Meeting*. Bali, Indonesia. 07/2010.
- **2009-1** Bernal M., **Zalamea P-C.,** Stevenson P., Nicolini E., Heinz C., Beauchene J., Gueroult M., Madriñán S., Heuret P. **April 2009**. Relación entre el crecimiento primario y secundario en las especies pioneras *Jacaranda copaia* (Bignoniaceae) y *Cecropia sciadophylla* (Urticaceae). *Congreso Colombiano de Botánica*. Pasto, Colombia. 04/2009.
- **2008-2 Zalamea P-C.,** Stevenson P., Nicolini E., Sarmiento C., Rodriguez M., Heuret P. Périodicité et variabilité dans les processus de croissance, ramification et floraison pour 5 populations de *Cecropia sciadophylla* sur le plateau Guyanais et dans le bassin Amazonien. *Séminaire du Groupe d'Etude de l'Arbre*. Montpellier, France. 10/2008.
- **2008-1 Zalamea P-C.,** Heuret P., Nicolini E., Sarmiento C., Fonty E., Rutishauser E., Stevenson P. The coexistence of two *Cecropia* species: a morphological study. *Botany 2008 Meeting*. Vancouver, Canada. 07/2008.

Selected posters:

- Delevich C., **Zalamea P-C.,** Dalling J.W. Does microbial-mediated plant-soil feedback regulate congeneric recruitment in the genus *Cecropia*? *ATBC 2015 Meeting*. Honolulu, USA. **Best Poster Prize in Plant Biology at the ATBC 2015.** 07/2015.
- Ruzi S.A., Roche D., **Zalamea P-C.,** Dalling J., Suarez A.V. Factors influencing ant-mediated seed dispersal of neotropical pioneer tree species on Barro Colorado Island, Panama. Entomological Society of America, Annual Meeting. Austin, USA. 11/2013.
- Garcia K., Shaffer J., Sarmiento C., **Zalamea P-C.,** Dalling J.W., Davis A., Baltrus D.A., Gallery R.E., Arnold A.E. Diversity and evolutionary relationships of bacteria affiliated with tropical seeds and seed-associated fungi. *The American Phytopathological Society and The Mycological Society of America Joint Meeting*, Austin, USA. 08/2013.

Students mentored:

2019	Korina Valencia **(**Recently graduated, Universidad Icesi, Colombia).
2018-present	Daniela Varón **(**Recently graduated, Universidad Icesi, Colombia).
2018	Grant Ksenak (Undergraduate student, Butler University, USA).
2017-2018	Maria Juliana Pardo (Recently graduated, Universidad de Los Andes, Colombia).
2017	Maria Carolina Amorocho (Recently graduated, Universidad Nacional, Colombia).
2013-2018	Selina Ruzi (Graduate student, University of Illinois, USA).
2015	Elizabeth Ryan (Recently graduated, Brown University, USA).
2015	Lilian Hislop (Undergraduate student, University of Illinois, USA).
2014-2015	Carolyn Delevich (Recently graduated, Ohio State University, USA).
2014	Jennifer Thompson (Undergraduate student, University of California Santa Cruz, USA).
2014	Venus Kuo (Undergraduate student, University of Illinois, USA).
2014	Adam Beswick (Undergraduate student, Butler University, USA).
2013-2015	Ariel Perez (Recently graduated, Universidad de Panama, Panama).

2013	Abigail Robison (Undergraduate student, Butler University, USA).
2012-2013	Daniel Roche (Recently graduated, University of Illinois, USA).
2011-2012	Ignacio Quintero (Undergraduate student, Universidad de Los Andes, Colombia).
2006	Guillermo Fernandez (Undergraduate student, Universidad de Los Andes, Colombia).

Reviewer for (last five years):

Peer-reviewed journals
Biological Reviews (x2), Journal of Ecology (x5), Journal of Vegetation Science (x2), Frontiers in Plant Science (x2), Biotropica (x6), Plant and Soil (x3), Seed Science Research (x2), American Journal of Botany (x2), Forest Ecology and Management (x4), Ecological Applications, Methods in Ecology and Evolution, Molecular Ecology, Ecosphere, Plant Ecology and Diversity, Ecology and Evolution, Plant Ecology, Basic and Applied Ecology, Journal of Tropical Ecology, Botany, Journal of Tropical Forest Science, European Journal of Entomology, Revue d'Ecologie (Terre et Vie).

Funding agencies
National Geographic Society, USA.
French National research Agency (ANR) 2017, CE20 Panel - Animal biology, plant biology, and micro-organism biology, France.

Languages:
Spanish: native language
English: Fluent (speaking, reading, writing)
French: Fluent (speaking, reading); intermediate (writing)