

Megan O'Connell, Ph.D.

Conservation Research Botanist – Botanical Research Institute of Texas
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Earned Degrees

- 2021 Ph.D., Plant Biology, Integrative Biology Department, University of Texas at Austin
2009 B.A., English Literature, Loyola University, New Orleans – *Magna Cum Laude*

Research Experience

- 2021-present Conservation Research Botanist, Botanical Research Institute of Texas – *Director of the Texas Plant Conservation Research Program and Texas Plant Conservation Alliance*
At BRIT, I have been tasked with developing and soliciting grants for a comprehensive research program investigating the future of Texas's plant communities in the face of global change, targeting the conservation and restoration of rare and endangered plant species of Texas, and developing and managing a statewide network of plant conservation collaborators and an on-site seed bank and propagation center.
- 2014-2021 Ph.D. Candidate/Graduate Researcher, Jha Lab, Department of Integrative Biology, University of Texas at Austin – *Dissertation: Plant-Pollinator Interactions in the Face of Global Change*
For my graduate studies and research I took 26 credits of graduate-level coursework and led the design and development of three research projects, garnered grant support, developed and tested field, lab and molecular protocols, and hired/managed field and lab teams in the US and abroad. I facilitated the organization and processing of thousands of field and molecular samples, managed and analyzed large ecological datasets, and fostered collaborations/wrote several peer-reviewed manuscripts with authors from multiple universities in the US, Spain, Australia, and Panama. I also mentored 3 Panamanian and 6 US undergraduate students, and 2 high school interns, and taught/lectured in both university and public capacities. I also avidly participated in science communication, produced several short films, and engaged my community in conservation and restoration projects.
- 2020-2021 The Pillow Park Project Research and Media Coordinator, Westcave Outdoor Discovery Center
With the support of the St. David's Foundation Parks with Purpose initiative and in collaboration with the Pillow School Park community, we facilitated a community-led redesign of an urban school park in North Austin to improve human well-being and biodiversity conservation. I led the design of a research program looking at how the park improvements may increase nature connectedness and developed the project's public engagement campaign.
- 2015-2016 Undergraduate and Graduate Research Fellow, Smithsonian Tropical Research Institute, Panama City, Panama – *Thesis: Intraspecific leaf functional trait variation along the Panama Canal rainfall gradient*
- 2013-2014 Undergraduate Research Assistant, Department of Botany and Plant Pathology, Oregon State University

Publications

- Castilla, A.R., Rodriguez, M.F., Santos, A., **O’Connell, M.C.**, Treviño, L., Jha, S. (2017) [*Adding landscape genetics and individual traits to the ecosystem function paradigm reveals the importance of species diversity.*](#) PNAS.
- O’Connell, M.C.**, Castilla, A.R., Jha, S. (2018) [*Pollen movement across fragmented tropical forests: paternity analyses reveal the role of landscape and pollinator body size on gene flow in multipaternal plants.*](#) BioTropica.
- O’Connell, M.C.**, Jordan, Z., McGilvray, E., Liere, H., Lin, B.B., Philpott S.M., Jha, S. (2020) [*Reap what you sow: local plant composition mediates bumblebee foraging patterns within urban garden landscapes.*](#) Urban Ecosystems.
- O’Connell, M.C.**, Castilla, A.R., Espinosa, H., Kore, P., Magadi, A., Santos-Murgas, A., Jha, S. (submitted) *Landscape genetic diversity buffers plant reproduction and pollen-mediated gene flow during extreme climate events.* Science.
- O’Connell, M.C.**, Hance, T., Florence, J. (in prep) *Just Listen: Harnessing the power of self-directed design and activation to promote community and well-being in school parks.*

Science Media and Public Engagement

- 2020-2021 [Pillow Park Project](#) Media/Research Coordinator
In collaboration with the WestCave Outdoor Discovery Center, Austin, TX
- 2020 [Biodiversity at Work: Can Bees Help Us Solve Crimes?](#) Video Director/Producer
Produced for the Jha Lab and the UT Austin Biodiversity Center
- 2020 [The Living Coast](#) Narrator
Texas tour with [Montopolis Orchestra](#)
- 2019-2020 [Bayou City](#) Documentary Co-Producer
Produced for Texas Parks and Wildlife and the Wild Texas Film Fest
- 2019 Life without Biodiversity: Can We Survive? – Guest Lecturer
Presentation for “Sustaining the Planet”, UT Austin capstone course
- 2019 [Moving Lines](#) Video Co-Producer
Produced as a part of the International Wildlife Film Festival Filmmakers’ Lab, the USDA and Defenders of Wildlife
- 2019 [How to Think, Dance, and Grocery Shop Like a Bee](#) Guest Lecturer
Presentation for the Science under the Star Series, Brackenridge Field Laboratory
- 2018-2019 [Playing with Fire](#) Video Series Director/Producer
Produced for the UT Austin Entomological Collections and Biodiversity Center
- 2018 [Proposed Border Wall will Harm Texas Biodiversity](#) Video Director
Produced for UT College of Natural Sciences and Frontier in Ecology and the Environment
- 2018 Back to the Wild-ish: Amphibian Reintroduction in Panama Content Creator
Presented at the 2nd International Wildlife Reintroduction Conference, Chicago, IL
- 2017-2018 [Scientist in Residence Video Campaign](#) Media Fellow/Series Producer
Produced for the Environmental Science Institute, Austin, TX
- 2017 [Poster – Multi-paternity and Pollen-Mediated Gene Flow](#) – Presenter
Presented at the Association of Tropical Biology and Conservation, Merida, Mexico
- 2017 [BioVida Panamá – La Rana Dorada](#) Documentary Director/Producer
Screened at SXSW Films for the Forest & Association of Tropical Biology and Conservation

- 2016 Why When Matters When It Comes to Pollination – Presenter
Presented to the Native Plant Society of Texas, Austin, TX
- 2015 Reaching Out: A Discussion of Outreach as a Tropical Ecologist – Co-Presenter
Presented at the Gamboa Lecture Series, Smithsonian Tropical Research Institute

Grants Awarded and Co-Authored

- 2021 - USFWS Recovery of Endangered Species Conservation Award – \$50,000
- 2021 - USDA NIFA Post-Doctoral Fellow, UC Santa Cruz – \$165,000
- 2020 - Parks with Purpose Grant – St. David’s Foundation, Austin, TX – \$175,000
- 2019 - University Graduate Continuing Fellowship – Graduate School, UT Austin – \$44,000
- 2019 - IWFF Filmmaker’s Lab Fellow – International Wildlife Film Festival – \$3,500
- 2018 - EcoLabs Grant Recipient – Department of Integrative Biology, UT Austin – \$6,000
- 2018 - Scientist in Residence Media Fellow – Environmental Science Institute – \$3,000
- 2017 - Integrative Biology Travel Award – Integrative Biology, UT Austin – \$900
- 2017 - Jean Andrews Community Engagement Internship – UT Austin – \$1,500
- 2016 - Scientist in Residence Teaching Fellowship – Environmental Science Institute – \$3,000
- 2016 - STRI Research Fellowship – Smithsonian Tropical Research Institute – \$2,650
- 2015 - NSF Graduate Research Fellowship – National Science Foundation – \$138,000
- 2014 - Integrative Biology Recruitment Fellowship – UT Austin – \$33,750
- 2014 - Undergraduate Research & Innovation Award – Oregon State University – \$1,000
- 2013 - Undergraduate Research Internship – Smithsonian Tropical Research Institute – \$2,000

Teaching Experience

- 2018 Economic Botany, 2 semesters as a GTA, University of Texas at Austin Department of Integrative Biology
- 2016-2017 Scientist in Residence Teaching Fellow, 2 years as a public-school lecturer and curriculum developer, Environmental Science Institute, Laurel Mountain Elementary
- 2013 Introduction to Biology Supplemental Learning Instructor, Oregon State University Department of Integrative Biology
- 2011 AmeriCorps Teaching Assistant, SciTech Middle School, New Orleans Louisiana

Mentorship

Undergraduate Thesis Students: Pragati Kore, Apoorva Magadi, Leticia Lee

Undergraduate Trainees: Jen Schlauch, Nelson Jaen, Hilario Espinosa, Katie Pennartz, Maikol Guevara, Amy Wroblewski

High School Trainees: Yadira Rodriguez, DJ Ojeda, Julia Norton (Girl Scout Golden Bee Project)

References

Dr. Shalene Jha – Graduate Advisor, Associate Professor, University of Texas at Austin

sjha@austin.utexas.edu

Dr. Antonio Castilla – Research Mentor, Research Associate, Michigan State University

casti209@msu.edu

Trevor Hance, MA, JD – Collaborator, Executive Director, Westcave Outdoor Discovery Center

trevor@westcave.org

Dr. Jade Florence – Collaborator, Endangered Species Biologist, U.S. Fish and Wildlife Service

jade_florence@fws.gov