

Michelle Elise Spicer

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Yale School of the Environment, 370 Prospect St, New Haven, CT, 06511

PROFESSIONAL APPOINTMENTS:

- 2020-current **National Science Foundation Postdoctoral Research Fellow in Biology,**
Yale School of the Environment
Co-Supervised by Dr. Liza Comita, Yale University
Co-Supervised by Dr. Carrie Woods, University of Puget Sound
- Fall 2019-21 **Visiting Faculty Instructor,** University of Pittsburgh, University Center
for International Studies, Bioethics Program

EDUCATION:

- 2014-2019 **Ph.D. Biological Sciences,** University of Pittsburgh
Graduate Certificate in Latin American Studies
Advisor: Dr. Walter Carson
- 2012-2014 **M.S. Earth and Environmental Science,** Lehigh University
Advisor: Dr. Robert Booth
- 2008-2012 **B.S. Integrated Degree in Engineering, Arts and Science,** Lehigh
University; *Concentrations: Chemical Engineering and Environmental
Sustainability; Spanish Minor*

PUBLICATIONS:

Undergraduate coauthors are underlined

9. Spicer ME, Radhamoni HVN, Duguid MC, Queenborough SA, Comita LS. “Herbaceous plants in forest ecosystems: Patterns, mechanisms, and threats.” 2021. *Plant Ecology* (Published online). doi:10.1007/s11258-021-01202-9
8. Echeverri SA, Miller AE, Chen J, McQueen EW, Plakke M, Spicer M, Hoke KL, Stoddard MC, Morehouse NI. “How signaling geometry shapes the efficacy and evolution of animal communication systems.” 2021. *Integrative and Comparative Biology*:61(3), 787-813. doi:10.1093/icb/icab090
7. Spicer ME, Mellor H, & Carson WP. “Seeing beyond the trees: a comparison of tropical and temperate plant growth forms and their vertical distribution.” 2020. *Ecology*: 101(4). doi:10.1002/ecy.2974
6. Slyder JB, Wenzel J, Royo AA, Spicer ME, & Carson WP. “Post-windthrow salvage logging increases seedling and understory diversity with little impact on composition immediately after logging.” 2019. *New Forests*: 1-12.
5. Spicer ME, Keiser CN, & Pruitt JN. “Spiders, microbes, and sex: Bacterial exposure on copulatory organs alters mating behaviour in funnel-web spiders.” 2019. *Ethology*: 125(10), 677-685.
4. Spicer ME, Suess KF, Wenzel JW, & Carson WP. “Does salvage logging erase a key physical legacy of a tornado blowdown? A case study of tree-tip-up mounds.” 2018. *Canadian Journal of Forest Research*: 48, 976-982.

3. Spicer ME, Stark AY, Adams BJ, Kneale R, Kaspari M, & Yanoviak SP. 2017. “Thermal constraints on foraging of tropical canopy ants.” *Oecologia: 183* (4).
2. Pruitt JN, Howell KA, Gladney SJ, Yang Y, Lichtenstein JLL, Spicer ME, Echeverri SA, & Pinter-Wollman N. 2017. “Behavioral hypervolumes of predator groups and predator-predator interactions shape prey survival rates and selection on prey behavior.” *The American Naturalist: 189*(3).
1. Keturakis CJ, Ni F, Spicer M, Beaver MG, Caram HS, & Wachs IE. 2014. “Monitoring Solid Oxide CO₂ Capture Sorbents in Action.” *ChemSusChem: 7*(12), 3459-3466.

Under review and revision (available upon request):

Spicer ME & Woods, CL. “A case for studying biotic interactions in epiphyte ecology and evolution.” *In revision, Perspectives in Plant Ecology, Evolution, and Systematics.*

Spicer ME, Ortega J, & Carson WP. “Substrate texture mediates vascular epiphyte establishment: experimental evidence from a Panamanian cloud forest.” *Submitted.*

Spicer ME, Royo AA, Wenzel JW, & Carson WP. “Rapid forest understory recovery following combined natural and anthropogenic disturbances.” *Submitted.*

FELLOWSHIPS, SCHOLARSHIPS AND AWARDS:

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| 2020-2024 | Postdoctoral Research Fellowship in Biology, National Science Foundation, <i>Broadening Participation of Groups Under-represented in Biology</i>
4-Year Fellowship (\$275,000) Public abstract link. |
| 2021 | University of Puget Sound Agricola Award (supporting two undergraduate summer research projects) Research Advisor (\$11,821) |
| 2020 | American Association for the Advancement of Science Graduate Student E-Poster Competition, Ecology & Evolution Honorable Mention Announcement link. |
| 2019 | Rea Student Fellowship, Carnegie Museum of Natural History Powdermill Nature Reserve 5-Month Stipend (\$10,000)

Course Development Award, University of Pittsburgh Center for Latin American Studies (for <i>Sustainability in Latin America</i>) (\$1,000) |
| 2018 | Smithsonian Tropical Research Institute Predoctoral Fellowship 1 Year Stipend (\$36,000) Relocation (\$900) Research (\$4,000) (declined)

Andrew Mellon Predoctoral Fellowship 8-Month Stipend (\$23,000)

University of Pittsburgh Department of Biological Sciences Three-Minute Thesis Competition Winner |
| 2017 | Rea Student Fellowship, Carnegie Museum of Natural History Powdermill Nature Reserve 7-Month Stipend (\$12,000) |
| 2016 | Smithsonian Tropical Research Institute Short-Term Fellowship (\$4,000)

University of Pittsburgh Dietrich College of Arts & Sciences Grad Expo 2016 Outstanding Presenter (\$100) |
| 2016-2018 | University of Pittsburgh Center for Latin American Studies Fabiola Aguirre Fellowship Research Fellowship (\$13,000) |

- 2014-2015 University of Pittsburgh Dietrich School of Arts and Sciences Fellowship
8-Month Stipend (\$21,262) and Tuition
- 2014 National Science Foundation Graduate Research Fellowship Award **Honorable Mention**
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RESEARCH FUNDING AND TRAVEL GRANTS:

- 2019 University of Pittsburgh Graduate Student Organization Travel Grant (**\$200**)
Lewis & Clark Fund for Exploration & Field Research, American Philosophical Society (**\$5,000**)
- 2018 University of Pittsburgh Graduate & Professional Student Government Travel Grant (**\$400**)
University of Pittsburgh Graduate Student Organization Travel Grant (**\$200**)
Arthur and Barbara Pape Endowment Award (**\$3969**)
- 2017 University of Pittsburgh College of Arts and Sciences Graduate Student Travel Fund (**\$600**)
Sigma Xi Grants In Aid of Research (**\$1000**)
- 2016 University of Pittsburgh Graduate Student Organization Summer Research Grant (**\$500**)
Leasure K. Darbaker Prize in Botany **\$3779**
- 2015 University of Pittsburgh College of Arts and Sciences Graduate Student Travel Fund (**\$600**)
G. Murray McKinley Research Fund and Arthur and Barbara Pape Endowment Award (**\$2543**)
University of Pittsburgh Center for Latin American Studies Graduate Student Field Research Grant (**\$980**)
- 2014 Lehigh University Graduate Student Senate Travel Grant (**\$150**)
Lehigh University Earth and Environmental Science Department ESA Travel Grant (**\$557**)
- 2013 Lehigh University Earth and Environmental Science Department ESA Travel Grant (**\$500**)
- 2012 SciFund Rocket Hub Crowdfunding Challenge (**\$2024**)
Project video: <http://www.youtube.com/watch?v=hNkgZCWNkvI>
Project blog: <http://intheforgottenforest.wordpress.com>
Lee Iacocca International Internship and Lehigh Environmental Initiative Scholarship (**\$2000**)
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INVITED RESEARCH SEMINARS:

- 2021 Cary Institute of Ecosystem Studies (upcoming) Millbrook, NY

	Smithsonian Tropical Research Institute	(Virtual)
2020	University of Puget Sound	(Virtual)
2019	National Taiwan Normal University	Taipei, Taiwan
	Virginia Native Plant Society Workshop, Keynote Speaker	Charlottesville, VA
	Ecological Society of America Annual Meeting. Abstract	Louisville, KY
2018	Monthly Botanical Society of Western Pennsylvania Meeting	Pittsburgh, PA
2017	Society of Environmental Journalists Annual Conference	Pittsburgh, PA

CONTRIBUTED TALKS AND POSTER PRESENTATIONS:

2021	Sussex Symposium (upcoming)	(Virtual)
	Association for Tropical Biology & Conservation	(Virtual)
2020	SACNAS: The National Diversity in STEM Conference	(Virtual)
	Ecological Society of America Annual Conference	(Virtual)
	American Association for the Advancement of Science	Seattle, WA
	<i>Honorable Mention</i> Announcement link	
2019	SACNAS: The National Diversity in STEM Conference	Honolulu, HI
	Pymatuning Laboratory of Ecology Summer Seminar Series	Linesville, PA
	Science 2019: Question	Pittsburgh, PA
	University of Pittsburgh Department of Biology Retreat	Pittsburgh, PA
	<i>Faculty-selected graduate student talk</i>	
2018	Ecological Society of America Annual Conference	Portland, OR
	Pymatuning Laboratory of Ecology Summer Seminar Series	Linesville, PA
	Science 2018: From A to Z	Pittsburgh, PA
2017	Three Rivers Evolution Event Conference	Pittsburgh, PA
2016	Northeast Natural History Conference	Springfield, MA
	Pymatuning Laboratory of Ecology Summer Seminar Series	Linesville, PA
	University of Pittsburgh Grad Expo	Pittsburgh, PA
	<i>Outstanding Presenter Award</i>	
2015	Ecological Society of America Annual Conference	Baltimore, MD
	Pymatuning Laboratory of Ecology Summer Seminar Series	Linesville, PA
2014	Ecological Society of America Annual Conference	Sacramento, CA
2013	Ecological Society of America Annual Conference	Minneapolis, MN
2012	Lehigh University Environmental Internship Symposium	Bethlehem, PA

TEACHING AND COURSE DEVELOPMENT EXPERIENCE:

Instructor-of-Record and Course Developer:

2019-2021	University of Pittsburgh, Bioethics (<i>Interdisciplinary undergraduate and graduate seminar</i>) BIOETH 1668/2668: Sustainability in Latin America (Enrollment: 5, 5, 4)
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Contributing Instructor:

2021 (virtual) **Yale University, Yale School of the Environment**
 Tropical Forest Landscapes: Conservation, Restoration & Sustainable Use
(Online professional certification course in tropical forest restoration)
 ELTI-1: Fundamentals: Ecological and social concepts (Enrollment: 89)
 ELTI-3: Strategies: Implementing and monitoring techniques (Enr: 76)

Teaching Fellow:

2016-2019 **University of Pittsburgh, Biological Sciences, Pymatuning Laboratory of Ecology** *(Field courses)*
 BIOSC 1420: Wildlife Management (Enrollment: 15) (2019)
 BIOSC 1610: Conservation Biology (Enrollment: 16) (2019)
 BIOSC 1270: Ecology of Fishes (Enrollment: 18) (2018)
 BIOSC 1230: Ornithology (Enrollment: 10, 12) (2016, 2018)
 BIOSC 1160: Forest Ecology (Enrollment: 6) (2016)

Teaching Assistant:

2015-2016 **University of Pittsburgh, Biological Sciences**
 BIOSC 0825: Ecology of the Napo Valley (Enrollment: 12) *(Study abroad field course in Ecuador)*
 BIOSC 0390: Ecology Laboratory (Enrollment: 27, 30) *(Laboratory course)*

2012-2014 **Lehigh University, Earth & Environmental Sciences Department**
 EES 022: Exploring Earth (Enrollment: 42) *(Laboratory course)*
 EES 152: Ecology (Enrollment: 34, 32) *(Laboratory course)*
 EES 004: Science of Environmental Issues (Enrollment: 86) *(Lecture course for non-majors)*

Guest Lecturer:

2020-2021 (virtual) **Yale University, Yale School of the Environment**
 ENV 660a: Forest Dynamics
 ELTI-3: Strategies: Implementing and monitoring techniques (Enr: 76)

North Carolina State Department of Forestry and Environmental Resources
 FOR 504: The Practice of Silviculture

University of Puget Sound, Biology
 BIOL 211: General Ecology

2015-2020 **University of Pittsburgh, Biological Sciences** *(Lecture courses)*
 BIOSC 0370: Ecology (Enrollment: 90) (2015, 2017, 2018, 2019, 2020)
 BIOSC 1375: Tropical Biology (Enrollment: 25) (2018)
 BIOSC 2950: Seminar Journal Club (Enrollment: 16) (2015, 2017)
 BIOSC 1160: Forest Ecology (Enrollment: 6) (2016)
 BIOSC 0825: Ecology of the Napo Valley (Enrollment: 12) (2016)

2013 **Lehigh University, Earth & Environmental Sciences Department**
 EES 028: Conservation and Biodiversity (Enrollment: 40) *(Lecture)*

DIVERSITY, EQUITY, INCLUSION, AND JUSTICE:

- 2021 **Keynote speaker**, *Promoting women in STEM fields*, Pierce College
- 2020-2021 Organized and co-ran *Career Development with the Postdocs Series* (for undergraduate students) University of Puget Sound
Co-ran Anti-Racist Book Club, University of Puget Sound STEM Departments
- 2020 **Invited speaker**, *Indigenous Activism and Sustainability*, University of Pittsburgh Latin American Graduate Organization of Students
Completed SafeZone training (virtual)
Joined 500 Queer Scientists, a public LGBTQ+ scientific community platform
Led undergraduate Q&A, *Grad school demystified*, University of Puget Sound
- 2019 **Completed Diversity & Inclusion Certification Program** (Six 2-hour workshops), University of Pittsburgh
Attendee, Women's+ Networking Conference, University of Pittsburgh Swanson School of Engineering
- 2018 **Invited speaker**, Women Students' Engineering Networking Event, University of Pittsburgh Swanson School of Engineering
Founded and served as president of Women in Science and Engineering Graduate Student Organization, University of Pittsburgh
- 2017 Joined 500 Women Scientists

OUTREACH AND SCIENCE COMMUNICATION:

- Skype a Scientist** Speaker, Eastern Middle School, Greenwich Public School District, CT. 28 April 2021.
- Invited speaker** for Phi Sigma, University of Puget Sound Biology Honors Society. 1 Nov 2020.
- Invited speaker** for Edinboro chapter of TriBeta National Biological Honor Society. 2 Oct 2019.
- "Microbes can change how spiders mate: scientists show that bacteria have unexpected effects in spider sex." **Interview** for *Insider Science*. Rodrigo Pérez Ortega. 20 Aug 2019. [Article](#).
- Taylor Allerdice **High School Outreach** Event. Lab tour and paper discussion at the University of Pittsburgh. 26 Sep 2017; 3 Oct 2018.
- "Deer, forests, and biodiversity." **Podcast interview** on *Go West, Young Podcast*. 1 Nov 2017. [Podcast transcript](#).
- "How have we changed the forest? A discussion of a few human-caused problems in the eastern deciduous forest and what scientists are trying to do about it." **Public discussion**, Powdermill Nature Reserve Science and Nature Series. 8 Aug 2017.
- "Some can, some CAM't communicate." Vimeo **science communication video**, Organization for Tropical Studies Graduate Field Course. [Video link](#).
- "Choices in STEM: Taking a road less travelled...and more awesome!" Guest lecture for **CHOICES Outreach Program** (for middle-school girls interested in STEM), Lehigh University. Summer 2013.

UNDERGRADUATE RESEARCH TRAINEES:**University of Puget Sound (3 total)**

2020-2021	Beatrice Bugos	Fieldwork, lab work, temperate
	Henry Norton	Fieldwork, photo analysis, temperate
	Ellen Bradley	Fieldwork, temperate

University of Pittsburgh (34 total)

2019	Ryan Ferrante	Photo analysis
	Brodie Skrocki	Photo analysis
	Araya Jensen	Fieldwork, tropical
	Hayden Wilke	Fieldwork, tropical
2018-2019	Maya Lehman	Photo analysis
	Barbara Maritsis	Photo analysis
	Madeleine Nawrocki	Photo analysis
	Allison Weissman	Photo analysis
	Brianna Weissman	Photo analysis
	Aaron Lauer	Fieldwork, temperate
	Taylor Morgan	Independent study
	Lauren Wolf	Independent study
	Jaysen Brunner	Fieldwork, tropical
	David Felipe Rodríguez Mora	Fieldwork, tropical
2017-2018	Jessica Brown	Photo analysis
	Evan Kaminski	Photo analysis
	Cheyenne Moore	Fieldwork, temperate
	Margaux Klingensmith	Fieldwork, temperate
	Zoe Merrell	Fieldwork, temperate
2016-2018	Anastasia Jaciewicz	Photo analysis
2014-2017	Hannah Mellor	Independent study, fieldwork, temperate
2015-2016	Sylvia Umegbolu	Fieldwork, temperate
	Sebastian Ho	Fieldwork, temperate
	Catie Schrading	Independent study
	Samantha Sutton	Independent study
	Kayla Maurer	Independent study
2014-2015	Kaila Orlandini	Independent study
	Jemeille Ackourey	Independent study
	Luke Kwiecinski	Independent study
	Dennis Baldwin	Independent study
	Kyle Suess	Fieldwork, temperate
	Laissa Leonis do Canto	Fieldwork, temperate
	Rosa Brandt	Fieldwork, temperate
	Austin Brenek	Fieldwork, temperate

Lehigh University (2 total)

2013	Bob Mason	Fieldwork, temperate
	Suzannah Klaniecki	Fieldwork, temperate

POST-BACCALAUREATE AND GRADUATE MENTORSHIP (5 TOTAL):

2020	Brittany Cavazos (PhD)	Peer Mentor, SACNAS 1on1 Mentoring program
	David Heet (MS)	Peer Mentor, Lehigh Graduate Mentor Collective
2018-2019	Rachel Reeb (PhD)	Peer Mentor, University of Pittsburgh GSO

LEADERSHIP AND SERVICE:

2014-present	Peer-review: <i>Basic and Applied Ecology, Ecological Monographs, Ecology, Folia Geobotanica, Forest Restoration, Journal of Ecology, Journal of Forest Research, Restoration Ecology, Northeast Naturalist, Oecologia, PLOS ONE, Tropical Conservation Science.</i> Publons: https://publons.com/researcher/1675631/michelle-elise-spicer/
2021	New Horizons in Conservation Conference, Yale School of the Environment (Part of Justice, Equity, Diversity, and Sustainability Initiative) Student Poster Judge
2019	Women in Science and Engineering Graduate Student Organization Founder and President College of Arts & Sciences Graduate Student Organization Biological Sciences Departmental Representative Biological Sciences Graduate Student Organization Social Committee Chair
2017-2018	Biological Sciences Graduate Student Organization Vice-President Three Rivers Evolution Event Conference Scientific Planning Committee
2015-2016	University of Pittsburgh Ecology & Evolution Wednesday Seminar Coordinator Salvage Logging Symposium, Carnegie Museum of Natural History Powdermill Nature Reserve Organizational Committee
2013- 2014	Lehigh Environmental Advisory Group Graduate Student Representative Phi Sigma Pi National Honor Fraternity (Δ X Chapter) Alumni Advisor
2012- 2014	Lehigh University EES Graduate Symposium Committee

PROFESSIONAL AFFILIATIONS AND SKILLS:

Memberships:	Ecological Society of America, American Association for the Advancement of Science, Association for Tropical Biology and Conservation, Sigma Xi-The Scientific Research Society, The Torrey Botanical Society, The National Postdoctoral Association
Tree climbing:	Certificate in tree-climbing for research, Cornell University Outdoor Education, November 2015
Computer programs:	Advanced proficiency in R, proficiency in SAS, SPSS, JMP, SigmaPlot, ESRI ArcGIS; basic proficiency in Dev-C++, Mathcad, Matlab
Academic platforms:	Courseweb, Blackboard, Moodle, Canvas, GoogleMeet, Zoom
Languages:	Native fluency in English; Advanced learned fluency in Spanish

REFERENCES:

Dr. Liza S. Comita,
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