

JACQUELYN LEE FITZGERALD

Chicago Botanic Garden
Plant Conservation Science Center
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EDUCATION

- 2019- **PhD Candidate**, Plant Biology and Conservation
Northwestern University, Evanston, IL, USA
Chicago Botanic Garden, Glencoe, IL, USA
Advisor: Dr. Paul J CaraDonna
- 2016 **B.S., Biological Sciences**
North Carolina State University, Raleigh, NC, USA
Concentration in Evolution, Ecology, and Conservation

RESEARCH APPOINTMENTS

- 2020- **Principal Investigator**
Rocky Mountain Biological Laboratory
Gothic, CO, USA
- 2019-24 **Graduate Research Fellow (NSF-GRFP)**
National Science Foundation

PUBLICATIONS

Refereed journal articles

- in press* **Fitzgerald, J.L., J.E. Ogilvie, P.J. CaraDonna.** *Intraspecific body size variation across distributional moments reveals trait filtering processes.* Special issue of Journal of Animal Ecology.
- 2022 **Fitzgerald, J.L., J.E. Ogilvie, P.J. CaraDonna.** 2022. *Ecological drivers and consequences of bumble bee body size variation.* Environmental Entomology, 51, no 6: 1055-1068.

- 2021 **Fitzgerald, J.L.**, K.L. Stuble, L.M. Nichols, S.E. Diamond, T.R. Wentworth, S.L. Pelini, N.J. Gotelli, N.J. Sanders, R.R. Dunn, CA. Penick. 2021. *Abundance of spring- and winter-active arthropods declines with warming*. Ecosphere, 12, no. 4: e03473.
- 2020 Pinilla-Gallego, M.S., E.E. Williams, A. Davies, **J.L. Fitzgerald**, S. McArt, R.E. Irwin. 2020. *Within-colony transmission of microsporidian and trypanosomatid parasites in honey bee and bumble bee colonies*. Environmental Entomology, 49, no. 6: 1393-1401.
- 2019 Beasley, D.E., **J.L. Fitzgerald**, A. Fowler, K. Keleher, M.M. Lopez-Urbe, S.D. Frank, D.R. Tarpy, R.R. Dunn. *Do Bee Wings Adapt for Flight in Urban Environments?* 2019. Southeastern Naturalist , 18, no. 2:183–191

Manuscripts in preparation

Fitzgerald, J.L., J.E. Ogilvie, P.J. CaraDonna. *Morphological covariation and foraging specialization in bumble bees*. [writing phase]

GRANTS, FELLOWSHIPS, & AWARDS (total = \$162,186)

2024	Theodore Roosevelt Memorial Research Grant	\$1,000
	RMBL Graduate Fellowship Enderlein Fund	\$800
	Northwestern University Plant Biology and Conservation Research Award	\$1,650
2023	Rocky Mountain Biological Laboratory Graduate Fellowship Hunter Endowment	\$1,450 \$900
	Northwestern University Plant Biology and Conservation Research Award	
2022	Lewis and Clark Fund for Exploration and Field Research	\$4,800
	Rocky Mountain Biological Laboratory Graduate Fellowship Hunter Endowment	\$1,200 \$750
	Northwestern University Plant Biology and Conservation Research Award	\$500
	Colorado Mountain Club Foundation	
2021	Rocky Mountain Biological Laboratory Graduate Fellowship Snyder Endowment	\$1,500 \$1,200
	Northwestern University Plant Biology and Conservation Research Award	\$750
	American Alpine Club Research Grant	\$250
	Northwestern University Data Visualization Contest (1 st place)	
2020	Rocky Mountain Biological Laboratory Graduate Fellowship Hunter Endowment	\$1,200
2019	National Science Foundation Graduate Research Fellowship Award	\$138,000

2015	National Science Foundation / Society for the Study of Evolution Travel Grant	\$2,256
	Atlantic Coast Conference Inter-Institutional Academic Collaborative Fellowship	\$2,980
2014	North Carolina State University Undergraduate Research Award	\$1,000
2013	Gamma Sigma Delta recognition of Outstanding Academic Achievement Sigma Xi Undergraduate Research Award	

CONFERENCE PRESENTATIONS

Contributed talks

- 2024 **Fitzgerald, J.L.**, J.E. Ogilvie, P.J. CaraDonna. Trait scaling and foraging in bumble bees. Entomological Society of America Annual Meeting, Phoenix, AZ, USA.
- 2023 **Fitzgerald, J.L.**, P.J. CaraDonna. *Intraspecific variation of thermal tolerance in bumble bees*. Ecological Society of America Annual Meeting, Portland, OR, USA.
- 2022 **Fitzgerald, J.L.**, J.E. Ogilvie, P.J. CaraDonna. *Drivers and Consequences of Bumble Bee Body Size Variation*. Ecological Society of America Annual Meeting, Montreal, Canada.
- 2016 **Fitzgerald, J.L.**, M. Lopez-Uribe, D. Beasley, D. Tarpy. *Morphometric Wing Analysis of Urban Bees*. Southern Appalachian Honeybee Research Consortium, Clemson, SC, USA.
- 2015 **Fitzgerald, J.L.**, T. Wentworth, C. Penick, K. Stuble, R. Dunn. *Seasonal Effects of Climate Warming on Forest-Floor Arthropod Communities*. Association of Southeastern Biologists Annual Meeting, Chattanooga, TN, USA.

Posters

- 2021 **Fitzgerald, J.L.**, J.E. Ogilvie, P.J. CaraDonna. *Intraspecific body size variation in subalpine bumble bees*. Ecological Society of America Annual Meeting, Virtual.
- 2015 **Fitzgerald, J.L.**, T. Wentworth, C. Penick, K. Stuble, R. Dunn. *Seasonal Effects of Climate Warming on Forest-Floor Arthropod Communities*. Evolution Annual Meeting, Guarujá, São Paulo, Brazil.
- 2014 **Fitzgerald, J.L.**, R. Wong. *Visualizing the expression of brain aromatase in Zebrafish: Identifying brain regions associated with estrogenic endocrine disruption*. W. M. Keck Center for Behavioral Biology Symposium, Raleigh, NC.

2013 **Fitzgerald, J.L.**, C. Bachman, K. Henkel, and G. Jou. *Species adaptation to environmental stressors*. NC State College of Agriculture and Life Sciences Undergraduate Research Symposium, Raleigh, NC.

TEACHING

Instructor

2023-24 *Analytical Toolkit for Ecologists* (PBC 470/499), Northwestern University

Guest Lecture

2022 "Evolution of Pollination," *Pollination Ecology* (BIOL_SCI 101), Northwestern University

2022 "Pollinators and Climate Change," *Pollination Ecology* (BIOL_SCI 101), Northwestern University

2022 "Bumble Bees and Climate Change," *Critical Topics in Ecology and Conservation* (PBC 451), Northwestern University

Teaching Assistant

2020 *Evolutionary Processes* (BIO 342), Northwestern University

2016 *Ecology* (BIO 360), North Carolina State University

MENTORING

Undergraduate student advisor

2024 Olivia Schenker, Rocky Mountain Biological Laboratory

2023 Hannah Burke, Rocky Mountain Biological Laboratory

2022-23 Brayden Saunders, Lake Forest College & Rocky Mountain Biological Laboratory

High school student advisor

2023 Megan Li, Hockaday School & Rocky Mountain Biological Laboratory

2023 Savannah Chun, Hockaday School & Rocky Mountain Biological Laboratory

PROFESSIONAL SERVICE

2022-24 Graduate Student Coordinator, Rocky Mountain Biological Laboratory

2021-23 Graduate Student Representative to the Science Department, Chicago Botanic Garden

2020-21 Graduate Mentor, NSF-GRFP workshop, Botanical Society of America

- 2019- Manuscript reviewer (* = multiple assignments)
*Global Change Biology**, *Ecology**, *Functional Ecology**, *Journal of Animal Ecology**, *Ecology Letters*, *Ecosphere*, *Oecologia*, *Plant Biology*, *Journal of Pollination Biology*, *Western North American Naturalist*

PROFESSIONAL DEVELOPMENT

- 2024 Workshop, *Integrating Theory and Data in Plant Pollinator Interactions*, Rocky Mountain Biological Laboratory, Gothic, CO, USA
- 2024 Workshop, *Communicating Science*, National Institute for Theory and Mathematics in Biology, Chicago, IL, USA
- 2020 Workshop, *Public Writing Workshop*. Center for Civic Engagement, Northwestern University, Evanston, IL, USA
- 2019 Workshop, *Bee Diversity and Identification in North Carolina*, North Carolina State University, Raleigh, NC, USA

SELECT SCIENCE COMMUNICATION & OUTREACH

- 2022-24 Expert Hike Leader, Wildflower Festival, Crested Butte, CO, USA
- 2018-24 Program on Bees and Pollination
1. sustainNU, Evanston, IL, 2024
 2. Amigos International, Gothic, CO, 2022
 3. Citizens Climate Lobby Wildlife Action Team, Virtual, 2022
 4. Crested Butte Land Trust, Rocky Mountain Biological Laboratory, Gothic, CO, 2021
 5. College First, Chicago Botanic Garden, Glencoe, IL, 2020
 6. Appalachian State University Academy at Middle Fork, Walkertown, NC, 2019
 7. Erwin Montessori School, Greensboro, NC, 2018
- 2015-18 Presenter, North Carolina Museum of Natural Sciences
1. *Pollinator Booth*. Prairie Ridge Ecostation, Raleigh, NC, 2018. ~300 attendees
 2. *Carnivorous Plants of North Carolina*. BugFest, North Carolina Museum of Natural Sciences, Raleigh, NC, 2017 ~35,000 attendees
 3. *The Physics of Ant Colonies*. BugFest, North Carolina Museum of Natural Sciences, Raleigh, NC, 2015. ~35,000 attendees
- 2018 Popular Science Writing
1. "How Bee Hotels Support Urban Pollinators and Educate Locals on One College Campus," *Entomology Today*
 2. "New proposal for Denver airport development prioritizes prairie habitat and connectivity," *Conservation Corridor*
 3. "Wind energy infrastructure may funnel wildlife movement," *Conservation Corridor*
- 2015 Co-organizer, The Insects of M.C. Escher. College Night at the North Carolina Museum of Art, Raleigh, NC. ~1,600 attendees