

## Dr. Emily J. Rollinson

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### PROFESSIONAL APPOINTMENTS

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- 2022 – **Associate Professor of Biology**  
Department of Biological Sciences  
East Stroudsburg University, East Stroudsburg, PA
- 2017 – 22 **Assistant Professor of Biology**  
Department of Biological Sciences  
East Stroudsburg University, East Stroudsburg, PA
- 2016 – 17 **Postdoctoral Research Associate**  
Applied Biomathematics (RAMAS), Setauket, NY

### EDUCATION

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- 2009 – 16 **Stony Brook University** Ph.D., Ecology and Evolution  
2005 – 09 **Skidmore College** B.A., Biology

### PUBLICATIONS

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#### *Refereed publications*

- Schwartz, S., E. Calvente, **E. Rollinson**, D.S. Koon Koon, and N. Chinnici. **2022**. Tick-borne pathogens in questing black-legged ticks (Acari: Ixodidae) from Pike County, Pennsylvania. *Journal of Medical Entomology* 59(5): 1793-1804.
- Schell, J.M., **E.J. Rollinson**, and H. Whidden. **2020**. Detection and distribution of eastern small-footed bats (*Myotis leibii*) in the Delaware Water Gap National Recreation Area. *Journal of the Pennsylvania Academy of Science*. 94(1-2): 7-24.
- Kattje, J., G. Bönisch, S. Díaz, S. Lavorel, I.C. Prentice, P. Leadley, S. Tautenhahn, G. Werner [...] **E.J. Rollinson** [...] and C. Worth. [730 authors.] **2020**. Twelve years of TRY – towards a third generation of plant trait data assimilation and sharing. *Global Change Biology* 26(1): 119-188.
- Opulente, D.A., **E.J. Rollinson**, C. Bernick-Roehr, A.B. Hulfachor, A. Rokas, C.P. Kurtzman, and C.T. Hittinger. **2018**. Factors driving metabolic diversity in the budding yeast subphylum. *BMC Biology* 16:26.
- Lowry, E., **E.J. Rollinson**, A.J. Laybourn, T. Scott, M. Aiello-Lammens, S.M. Gray, J. Mickley, and J. Gurevitch. **2013**. Biological invasions: a field synopsis, systematic review and database of the literature. *Ecology and Evolution* 3(1): 182-196.
- Ness, J.H., M.A. Morales, E. Kenison, E. Leduc, P. Leipzig-Scott, **E. Rollinson**, B.J. Swimm, and D. Von Allmen. **2013**. Reciprocally beneficial interactions between introduced plants and ants are induced by the presence of a third introduced species. *Oikos* 122(5): 695-704.
- Ness J.H., **E.J. Rollinson**, and K.D. Whitney. **2011**. Phylogenetic distance can predict susceptibility to attack by natural enemies. *Oikos* 120(9): 1327-1334.

#### *Technical publications*

- E.J. Rollinson** and N.A. Friedenber. **2018**. Environmentally Effective Siting of Renewables: Large Scale Data and Predictive Models for Birds and Bats. *Program on Technology Innovation*. Electric Power Research Institute, Palo Alto, CA. Product ID 3002014748. Prepared by Applied Biomathematics, Inc. Project Manager: J. Goodrich-Mahoney.

- E.J. Rollinson, C.M. Foley, and N.A. Friedenberg. 2017.** Conservation Plans for Similar Species: Strategies, Methods, and Case Studies. Electric Power Research Institute, Palo Alto, CA. Product ID 3002012102. Prepared by Applied Biomathematics, Inc. Project Manager: R. Goldstein.
- E. Rollinson, S. Ferson, N. Friedenberg, L. Ginzburg, and K. Shoemaker. 2016.** Voluntary Conservation Tools: Approaches to Cost-Effectively Protect Multiple Candidate Species and to Avoid Listing. Electric Power Research Institute, Palo Alto, CA. Product ID 3002007270. Prepared by Applied Biomathematics, Inc. EPRI Project Manager: N. Rao.
- E. Rollinson, N.A. Friedenberg, S. Ferson, and L. R. Ginzburg. 2015.** Defining Critical Habitat under the Endangered Species Act: A Review of Policy, Practices, and Scientific Approaches. Electric Power Research Institute, Palo Alto, CA. **2015.** Product ID 3002006247. Prepared by Applied Biomathematics, Inc. EPRI Project Manager: B. Goldstein.

## TEACHING

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East Stroudsburg University, Department of Biological Sciences

*Recurring courses*

- BIOL 200:** General Ecology Lecture  
**BIOL 200:** General Ecology Lab  
**BIOL 423/523:** Plant Ecology (with lab)  
**BIOL 428/528:** Biogeography  
**BIOL 495:** Seminar I  
**BIOL 583:** Research Design and Data Analysis for Biologists

*Additional courses taught*

- BIOL 115:** Introductory Biology II Lab  
**BIOL 220:** Field Botany (with lab)  
**BIOL 496:** Seminar II

*Independent studies, research, and internships supervised*

- BIOL 485:** Independent Study (undergraduate) – 12 students  
**BIOL 486:** Field Experience and Internship – 3 students  
**BIOL 494:** Research in Biology (individualized instruction) – 11 students  
**BIOL 571:** Independent Research (graduate research problem) – 3 students  
**BIOL 572/573:** Thesis I and II (graduate thesis & research) – 3 students  
**BIOL 586:** Field Experience and Internship – 3 students  
**BIOL 577:** Independent Study (graduate) – 6 students

*Instructor, Stony Brook University, Undergraduate Biology Program.*

- BIO 211:** Statistics and Data Analysis: A Conceptual Approach. Fall 2015.  
**BIO 341:** Plant Diversity (with lab). Summer 2015.  
**BIO 301/ECO 301/GEO 301:** Sustainability of the Long Island Pine Barrens. Summer 2011.

*Teaching Assistant, Stony Brook University, Undergraduate Biology Program.*

- BIO 341:** Plant Diversity (with lab). Spring 2013.  
**BIO 356/BEE 587:** Applied Ecology and Conservation Biology Lab. Spring 2010.  
**BIO 204:** Fundamentals of Scientific Inquiry in the Biological Sciences I. Fall 2009.

## SELECTED PRESENTATIONS

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### *Colloquia & invited lectures*

- 3/27/2024 East Stroudsburg University, Provost's Colloquium Series. "A web of interactions: invasive insects, native plants, and three universities." *Co-presented with Abigail Cahill, Albion College.*
- 11/21/2022 West Chester University, Department of Biology. "Surrounded by distant neighbors: predicting plant invasiveness in desert plant communities."
- 3/14/2022 Botanical Society of Western Pennsylvania. "Surrounded by distant neighbors: predicting plant invasiveness".
- 10/6/2021 Brodhead Watershed Association. "30 years of Streamwatch data: what have we learned?"  
*Also presented 10/15/2021 to Brodhead Watershed Association Streamwatch Committee*
- 4/28/2021 East Stroudsburg University, Provost's Colloquium Series. "Focusing the green blur: cultivating knowledge and awareness of plants."
- 10/04/2019 Skidmore College, Department of Biology. "Invasions, conservation, and restoration: uniting many questions in a single place."
- 5/23/2019 Master Watershed Steward Program, Monroe County Conservation District. "Riparian buffers."
- 5/03/2018 Master Watershed Steward Program, Monroe County Conservation District. "Riparian buffers."
- Dec 2016 Saint Mary's College, Women in Ecology series (Virtual). "Understanding the role of disturbance in the diversity and composition of riverbank plant communities."
- Dec 2015 Long Island Botanical Society. "Biodiversity and biological invasions in streamside plant communities."

### *Contributed presentations (Presenting author is underlined)*

- 7/23/2021 Rollinson, E.J. & J. Kilgore. Oral Presentation (Short/lightning format). Course-based field research experiences during remote learning. *Botanical Society of America Annual Meeting (Virtual).*
- 7/20/2021 Rollinson, E.J. & J. Ness. Oral Presentation. Surrounded by increasingly distant things: community phylo-proximity as predictor of invasion dynamics. *Botanical Society of America Annual Meeting (Virtual).*
- 7/31/2020 Rollinson, E.J. Oral Presentation (Short/lightning format). Natural history education and community outreach through the campus arboretum. *Botanical Society of America Annual Meeting (Virtual).*
- 10/20/2017 Tsang, S.M. & E. Rollinson. Oral Presentation. Improving geographic range estimates for island endemics. *North American Society for Bat Research, 47<sup>th</sup> Annual Symposium.*
- 8/29/2017 Tsang, S.M. & E. Rollinson. Oral Presentation. Improving geographic range estimates for island endemics. *3<sup>rd</sup> Southeast Asian Gateway Evolution Meeting.*
- 8/7/2017 Rollinson, E.J. Oral Presentation. Trait diversity and composition of introduced and native components of riparian plant communities. *Ecological Society of America Annual Meeting.*
- 6/26/2017 Rollinson, E.J. Oral Presentation. An experimental approach to understanding the role of flooding in riparian plant communities. *Botanical Society of America Annual Meeting.*
- 6/26/2017 Opulente, D., E. Rollinson, A. Hulfachor, C. Bernick-Roehr, A. Rokas, C. Kurtzman, C. Hittinger. The evolution of Saccharomycotina yeasts. *Society for the Study of Evolution Annual Meeting.*
- 4/24/2017 Rollinson, E.J. Oral Presentation. Partitioning the Effects of Concurrent Consequences of Floods in Riparian Plant Communities. *17<sup>th</sup> Northeast National History Conference.*
- 4/24/2016 Rollinson, E.J. Oral Presentation. Introduced species have different traits than natives in riparian plant communities. *16<sup>th</sup> Northeast Natural History Conference.*

- 8/11/2015 Rollinson, E.J. & J. Gurevitch. Poster. Multiple consequences of flood events have differing effects on riparian vegetation. *100th Ecological Society of America Annual Meeting*.
- 7/28/2015 Rollinson, E.J. & J. Gurevitch. Oral Presentation. Functional diversity and the assembly of riparian plant communities. *Botanical Society of America Annual Meeting*.
- 7/27/2015 Rollinson, E.J. & J. Gurevitch. Poster. Abiotic factors underlying variation in composition of riparian plant communities. *Botanical Society of America Annual Meeting*.
- 4/20/2015 Rollinson, E.J. & J. Gurevitch. Poster. Abiotic factors underlying variation in composition of riparian plant communities. *15<sup>th</sup> Northeast Natural History Conference*.
- 8/12/2014 Rollinson, E.J. & J. Gurevitch. Oral Presentation. Riparian plant communities differ from upslope communities at regional but not local scales in species richness, and at both scales in species' identities. *99<sup>th</sup> Ecological Society of America Annual Meeting*.
- 7/29/2013 Rollinson, E. & J. Gurevitch. Poster. The diversity of riparian plant communities of small woodland streams in northern New York State. *Botanical Society of America Annual Meeting*.

*Presentations with student researchers*

(\*ESU graduate student; \*\*ESU undergraduate student; presenting author is underlined).

- 10/20/2023 Kaires, P.\*\* and E. Rollinson. Poster. Using herbaria to track phenology changes in *Erythronium americanum*. *Pennsylvania Botany Symposium*.
- 4/26/2023 Kaires, P.\*\* and E. Rollinson. Poster. Using herbaria to track phenology changes in *Erythronium americanum*. *ESU 2023 Student Research and Creative Activity Symposium*.
- 4/22/2023 Kaires, P.\*\* and E. Rollinson. Poster. Using herbaria to track phenology changes in *Erythronium americanum*. *2023 Northeast Natural History Conference*.
- 1/5/2023 Cahill, A.E., E.J. Rollinson, K. Ferrero, P. Mayo, E. Deecher\*\*, B. O'Connor\*\*, and N. Siryani\*\*. Oral Presentation. Population sizes of introduced milkweed aphids (*Aphis nerii*) and their effect on plant traits. *Society for Integrative and Comparative Biology Annual Meeting*.
- 4/19/2022 Przybyla, J.\*\*, A. Pappas\*\*, M. Maloy\*\*, and E. Rollinson. Poster. Tolerance to prolonged flooding of five wild rye species. *ESU 2022 Student Research and Creative Activity Symposium and Sigma Xi Research Forum*.
- 11/6/2021 Karpowicz, K.\*\*, B. O'Connor\*\*, D. Sharp\*\*, J. Kilgore, and E. Rollinson. Poster. Anthropogenic impacts alter richness-abundance relationship in woody plant communities. *Pennsylvania Botany Symposium (Virtual)*.
- 7/19/2021 Karpowicz, K.\*\*, B. O'Connor\*\*, D. Sharp\*\*, J. Kilgore, and E. Rollinson. Poster. Anthropogenic impacts alter richness-abundance relationship in woody plant communities. *Botanical Society of America Annual Meeting (Virtual)*.
- 4/17/2021 Machrone, A.\*, W. Strubert\*, J. VanWhy\*\*, C.T. Klingler, T. Master, and E. Rollinson. Poster. Campus resources for natural history education: development, benefits, and outreach. *2021 Northeast Natural History Conference (Virtual)*.
- 4/10/2021 O'Connor, B.\*\*, E. Deecher\*\*, and E.J. Rollinson. Mini-Presentation. Effects of invasive aphids on common milkweed ecology. *Commonwealth of Pennsylvania University Biologists Annual Meeting (Virtual)*. Presentation won 2<sup>nd</sup> place in Ecology session.
- 1/2/2021 Cahill, A.E., E.J. Rollinson, I. Corona Avila, K. Ferrero, K. Holmer, P. Mayo, E. Deecher\*\*, B. Billman\*\*, and N. Siryani\*\*. Oral Presentation. Abundance and genetic variation in populations of the introduced milkweed aphid in eastern North America. *Society for Integrative and Comparative Biology Annual Meeting (Virtual)*.
- 7/28/2020 Deecher, E.\*\*, B. Billman\*\*, N. Siryani\*\*, and E.J. Rollinson. Poster. Effects of invasive aphids on common milkweed ecology. *Botanical Society of America Annual Meeting (Virtual)*.
- 4/13/2019 Strubert, W.\* and E.J. Rollinson. Oral Presentation. Effects of riparian plant invasions on stream macroinvertebrate communities. *2019 Northeast Natural History Conference*.
- 4/12/2019 Deecher, E.\*\* and E.J. Rollinson. Poster. Effect of aphid density on monarch abundances in

- milkweed populations. *2019 Northeast Natural History Conference*.
- 4/10/2019 Deecher, E.\*\* and E.J. Rollinson. Poster. Effect of aphid density on monarch abundances in milkweed populations. *ESU 2019 Student Research and Creative Activity Symposium*.
- 4/10/2019 Strubert, W.\* and E.J. Rollinson. Oral Presentation. Effects of riparian plant invasions on stream macroinvertebrate communities. *ESU 2019 Student Research and Creative Activity Symposium, Sigma Xi Forum*.
- 11/2/2018 Davis, C.\*\*, W. Strubert\*, and E.J. Rollinson. Poster. Plant diversity and abundance of invasive species in riparian zones. *2018 Pennsylvania Botany Symposium*.
- 11/2/2018 Strubert, W.\* and E.J. Rollinson. Poster. Effects of riparian plant invasions on stream macroinvertebrate communities. *2018 Pennsylvania Botany Symposium*. Presentation won first place in graduate student poster competition.
- 4/14/2018 Strubert, W.\* and E.J. Rollinson. Poster. Effects of riparian plant invasions on stream macroinvertebrate communities. *18<sup>th</sup> Northeast Natural History Conference*.
- 4/14/2018 Burns, J.R.\*\*, E.J. Rollinson, and H.P. Whidden. Poster. Habitat preferences and species distribution models for bats in the Delaware Water Gap National Recreation Area. *18<sup>th</sup> Northeast Natural History Conference*.
- 4/7/2018 Burns, J.R.\*\*, E.J. Rollinson, and H.P. Whidden. Poster. Habitat preferences and species distribution models for bats in the Delaware Water Gap National Recreation Area. *49<sup>th</sup> Annual Meeting of the Commonwealth of Pennsylvania University Biologists*.
- 3/24/2018 Burns, J.R.\*\*, E.J. Rollinson, and H.P. Whidden. Oral Presentation. Habitat preferences and species distribution models for bats in the Delaware Water Gap National Recreation Area. *94<sup>th</sup> Annual Meeting of the Pennsylvania Academy of Science*.

## GRANTS AND FUNDING

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- 2023 **Wild Resources Conservation Program Grant**, PA Department of Conservation of Natural Resources; Emily Rollinson personnel (PI Dr. Thomas LaDuke)  
\$43,241 (\$32,430 from WRCP + match)
- 2022 **State Wildlife Grant**, US Fish and Wildlife Service  
*Pennsylvania Fish and Boat Commission & Pennsylvania Game Commission; ESU subrecipient*  
PA – The Effects of Fire-based Management Activities on Amphibians and Reptiles in Pennsylvania’s State Game Lands, Emily Rollinson Co-PI (PI Dr. Thomas LaDuke)  
\$537,983.46 to ESU (\$349,689.24 from SWG + match)
- 2019 **ESU Faculty Development and Research Mini Grant** Round 1 (Fall 2019) \$1199
- 2019 **ESU Summer Undergraduate Research Experience Grant** to support student researcher \$2000 to *Nijmih Siryani*
- 2018 **ESU Summer Undergraduate Research Experience Grant** to support student researcher \$2000 to *Cole Davis*
- 2018 **ESU Faculty Development and Research Mini Grant** for summer research expenses \$1200
- 2015 **Graduate Student Excellence Award** for proposed research expenses  
Department of Ecology and Evolution, Stony Brook University, \$700
- 2014 **Departmental Excellence Research Award** for proposed research expenses  
Department of Ecology and Evolution, Stony Brook University, \$1607
- 2010 **National Science Foundation Graduate Research Fellowship**, \$120,000

## INSTITUTIONAL SERVICE

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- 2022 - 23 **Planning Committee**, 54<sup>th</sup> Annual Meeting of the Commonwealth of PA University Biologists, East Stroudsburg University, 4/1/2023
- 2022 – **Graduate Program Coordinator**, Dept. of Biological Sciences, ESU
- 2021 – **Graduate Program Committee**, Dept. of Biological Sciences, ESU
- 2021 – **CAS Living Learning Communities** working group, ESU
- 2020 – **Pi Epsilon (National Environmental Sciences Honor Society)**, Faculty Advisor, ESU
- 2018 – **Greenhouse Committee**, Dept. of Biological Sciences, ESU
- 2018 – **ESU Green Campus Initiative**  
Team lead for Botanical Landscaping Group
- 2018 – 20 **ESU Environmental Club**, Faculty Co-Advisor
- 2018 – **Commonwealth of Pennsylvania University Biologists**, Assistant Director at ESU
- 2017 – **ESU Campus Arboretum Guide**, Faculty Advisor
- 2017 – **STEM Living Learning Community Steering Committee**
- 2017 – **Academic advisor** for Biology majors (general/no concentration)

## PROFESSIONAL SERVICE

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- 2022 – **Education Committee**, Botanical Society of America
- 2021 – **Advisory Committee**  
PA Dept. of Conservation & Natural Resources, Wild Resources Conservation Program
- 2020 – **Associate Editor**, Ecology and Evolution (open access journal, Wiley)
- 2020 **NSF Reviewer/Panelist**
- 2019 – **Streamwatch Committee**, Brodhead Watershed Association
- 2019 – **Board of Directors**, Brodhead Watershed Association
- 2017 – **Organizing Committee**, Pennsylvania Botany (pabotany.org)  
2021 – present, **Chair**, Student Involvement Subcommittee  
2019 – present, Program Subcommittee  
2017 – present, Student Involvement Subcommittee
- 2018 **NSF Reviewer/Panelist**

### *Reviewer*

**Book chapters:** Intuitive Biostatistics (3<sup>rd</sup> edition, Oxford University Press, 2017; 4<sup>th</sup> edition reviewed in 2020 for forthcoming 5<sup>th</sup> edition).

**Journals:** American Journal of Botany, Natural Areas Journal, Journal of the Pennsylvania Academy of Science, Ecology & Evolution, Journal of Vegetation Science, Plant Science Bulletin, Plant Ecology, Scientific Reports, Ecology Letters

**Reviews on Publons:** <https://publons.com/researcher/3428103/emily-rollinson/peer-review/>

## OUTREACH ACTIVITIES

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- 2/23/2024 **International Day of Women and Girls in Science** hands-on STEM activities at ESU
- 6/27/2023 **Herbarium Activity**, Pocono Environmental Education Center Sci-Q summer program
- 2/17/2023 **International Day of Women and Girls in Science** hands-on STEM activities at ESU
- 6/29/2022 **Plant Ecology Discussion**, Summer STEM Academy at Pine Bush Schools
- 7/5/2022 **Herbarium Activity**, Pocono Environmental Education Center Sci-Q summer program
- 7/2/2021 **Plant Ecology Discussion**, Summer STEM Academy at Pine Bush Schools

- 6/6/2021 **Wildlands Conservancy**, Tour of ESU Arboretum  
 4/24/2021 **Pocono Heritage Land Trust BioBlitz**, Botany Team  
 2/11/2020 **International Day of Women and Girls in Science** hands-on STEM activities at ESU  
 7/5/2019 **STEM Careers Panel**, Pocono Environmental Education Center Sci-Q summer program  
 7/3/2019 **Plant Ecology Discussion**, Summer STEM Academy at Pine Bush Schools  
 6/7/2019 **Stony Acres BioBlitz**, Botany Team lead  
 2/11/2019 **International Day of Women and Girls in Science** discussion panel at ESU  
 9/27/2018 **Edible Plants Hike**, ESU Biology Club  
 9/23/2018 **Brodhead Watershed Association**, tour of ESU Campus Arboretum  
 9/18/2018 **4<sup>th</sup> Annual Women in Science Symposium**, ESU representative (Lacawac Sanctuary and Wayne Pike Workforce Alliance)  
 6/30/2018 **Upper Delaware BioBlitz**, Botany Team member  
 2015 – 19 **Letters to a PreScientist**, scientist mentor (prescientist.org), K-6 students  
 2015 – 19 **PlantingScience**, scientist mentor (plantingscience.org), grades 6-12

## PROFESSIONAL SOCIETIES – CURRENT MEMBERSHIPS

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- 2013 – present **Botanical Society of America**  
 2017 – present **Commonwealth of Pennsylvania University Biologists**  
 2018 – present **Brodhead Watershed Association**

## PROFESSIONAL DEVELOPMENT

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- 9/4/2020 – 11/13/2020 Participated in **“EREN-NEON Flexible Learning Projects Faculty Mentoring Network: Teaching Ecology During A Pandemic”**  
 QUBES EREN-NEON FMN (Quantitative Undergraduate Biology Education and Synthesis Project: Ecological Research as Education Network, National Ecological Observatory Network Faculty Network)  
 10/3/2019 Participated in workshop: **Impacts and Management of Jumping Worms**  
 North American Invasive Species Management Association Conference, Saratoga Springs, NY  
 5/17–18/2018 Participated in **NSF Grant Writing Workshop**  
 Dr. Cedric Williams & PASSHE Faculty Professional Development Council, Lock Haven University, PA

## STUDENTS

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### *Graduate research advisor (M.S.)*

- Alexander Kidd (current)  
 Benjamin Hawes (2021)  
 Weston Strubert (2020)

### *Thesis committees (M.S.)*

- Sherin Paul (current)  
 Elizabeth Signore (current)  
 Samuel Does (current)  
 Charles Brill (current)  
 Alexander Greenwood (M.S. Biology Fall 2022)

Michael Bodnar (M.S. Biology Spring 2023)  
Amanda Kutcher (M.S. Biology Fall 2022)  
Sarah Schwartz (M.S. Biology Fall 2021)  
Amanda Layden (M.S. Biology Spring 2020)  
Spirit Rutzler (external reader, Green Mountain College; M.S. Environmental Studies Spring 2019)  
Jonathan Adamski (M.S. Biology Spring 2019)  
Kristine Bentkowski (M.S. Biology Spring 2019)  
Justin Clarke (M.S. Biology Spring 2019)  
Joseph Schell (M.S. Biology Spring 2019)

*Comprehensive exam committees in addition to above (M.S.)* – 7 graduate students  
*Undergraduate research* – 19 undergraduate researchers