

Dr. Emily J. Rollinson

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PROFESSIONAL APPOINTMENTS

- 2017 – **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

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

PUBLICATIONS

Refereed publications

- 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.

Submitted, in review, in revision, or in press

- 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*. *Accepted/in press*

Technical publications

- E.J. Rollinson** and N.A. Friedenber**g**. **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. Friedenber**g**. **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. Friedenber**g**, 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. Friedenber**g**, 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.

Datasets

Dataset 325 *contributed to* TRY-DB Plant Trait Database (try-db.org) – 744 georeferenced observations of 3 plant traits; dataset requested by 392 research proposals to TRY-DB since 2017.

TEACHING

East Stroudsburg University, Department of Biological Sciences

Recurring courses

BIOL 115: Introductory Biology II Lab. Spring semesters, 2018 - present

BIOL 200: General Ecology Lab. Fall and Spring semesters, 2017 - present

BIOL 220: Field Botany (with lab). Spring semesters, 2018 – present

BIOL 423/523: Plant Ecology (with lab). Fall semesters, 2017 – present

BIOL 428/528: Biogeography. Fall 2020.

BIOL 495: Seminar I. Fall semesters 2019 – present

BIOL 496: Seminar II. Spring 2018, Spring 2021.

BIOL 583: Research Design and Data Analysis for Biologists. Fall semesters, 2018 – present

Independent studies, research, and internships

BIOL 485: Independent Study (undergraduate)

- Botany Research (1 student × 3 credits, Spring 2021)
- Spatial Ecology (2 students × 3 credits, Spring 2020)
- Plant-Insect Interactions (1 student × 1 credit, Spring 2019)
- Plant Ecology Research (1 student × 1 credit, Spring 2019)
- Plant Population Ecology (1 student × 3 credits, Summer 2019)

BIOL 494: Research in Biology (individualized instruction)

- 1 student × 3 credits, Fall 2020

- 1 student × 3 credits, Spring 2020
- 3 students × 3 credits each, Summer 2019
- 2 students × 3 credits each, Fall 2018

BIOL 571 Independent Research (graduate research problem)

- 2 students × 1 credit each, Spring 2021

BIOL 572/573: Thesis I and II (graduate thesis & research)

- Thesis I (1 student), Fall 2017
- Thesis I (1 student) and Thesis II (2 students), Fall 2019

BIOL 586: Field Experience and Internship. Spring 2018.

BIOL 577: Independent Study (graduate)

- Statistics for Biologists (3 students × 3 credits each, Spring 2018)

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.

STUDENTS

Primary advisor (M.S.)

Alyssa Simeone (current)

Benjamin Hawes (current)

Weston Strubert (graduated 2020; research problem “A Survey of Trees of the ESU Campus and Development of an Educational Guide))

Thesis committees (M.S.)

Lewis Wolff (current)

Sarah Schwartz (current)

Amanda Kutcher (current)

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)

Undergraduate research

Jessica VanWhy (2021, current student)

Brittney Billman (2020, current student)

Danielle Saar (2020, BS Environmental Studies 2020)
 Nijmih Siryani (2019, BS Biology 2020)
 George Schubert (2019, BS Biology/Environmental Studies 2020)
 Sean Gift (2019, BS Environmental Studies 2019)
 Daniel Rinkenberg (2019, BS Environmental Studies 2019)
 Elizabeth Deecher (2018-19, BS Environmental Studies 2019)
 Cole Davis (2018-19, BS Environmental Studies 2019)
 Jessica Burns (2017-18, co-advised with Dr. Howard Whidden)
 Maria Zambuto (Stony Brook University, 2016)
 Karen Lohman (Stony Brook University, 2013)

SELECTED PRESENTATIONS

Invited lectures

- 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.”
- Mar 2017 Swarthmore College, Department of Biology. “Understanding the assembly and composition of riparian plant communities.”
- Feb 2017 East Stroudsburg University, Department of Biological Sciences. “Understanding the assembly and composition of riparian plant communities.”
- Feb 2017 SUNY Plattsburgh, Center for Earth and Environmental Sciences. “Understanding the assembly and composition of riparian plant communities.”
- Dec 2016 Saint Mary’s College, Women in Ecology series (Skype). “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

- 7/31/2020 Rollinson, E.J. 2020. Natural history education and community outreach through the campus arboretum. Lightning talk. *Botanical Society of America Annual Meeting (Virtual)*.
- 10/20/2017 Tsang, S.M. and E. Rollinson. Oral Presentation. Improving geographic range estimates for island endemics. *North American Society for Bat Research, 47th Annual Symposium*.
- 8/29/2017 Tsang, S.M. and E. Rollinson. Oral Presentation. Improving geographic range estimates for island endemics. *3rd 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. *17th Northeast National History Conference.*
- Apr 2016 Rollinson, E.J. Oral Presentation. Introduced species have different traits than natives in riparian plant communities. *16th Northeast Natural History Conference.*
- Aug 2015 Rollinson, E.J. and J. Gurevitch. Poster. Multiple consequences of flood events have differing effects on riparian vegetation. *100th Ecological Society of America Annual Meeting.*
- Jul 2015 Rollinson, E.J. and J. Gurevitch. Oral Presentation. Functional diversity and the assembly of riparian plant communities. *Botanical Society of America Annual Meeting.*
- Jul 2015 Rollinson, E.J. and J. Gurevitch. Poster. Abiotic factors underlying variation in composition of riparian plant communities. *Botanical Society of America Annual Meeting.*
- Apr 2015 Rollinson, E.J. and J. Gurevitch. Poster. Abiotic factors underlying variation in composition of riparian plant communities. *15th Northeast Natural History Conference.*
- Aug 2014 Rollinson, E.J. and 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. *99th Ecological Society of America Annual Meeting.*
- Jul 2013 Rollinson, E. and J. Gurevitch. Poster. The diversity of riparian plant communities of small woodland streams in northern New York State. *Botanical Society of America Annual Conference.*

Presentations with student researchers

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

- 7/28/2020 Deecher, E.**, Billman, B.**, Siryani, N.** 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. *18th 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. *18th*

Northeast Natural History Conference.

- 4/07/2018 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. *49th 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. *94th Annual Meeting of the Pennsylvania Academy of Science.*

GRANTS AND FUNDING

- 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

AWARDS AND HONORS

- 2015 Graduate Student Presentation Award
Ecological Section of the Botanical Society of America
- 2015 Departmental Service Award
Department of Ecology and Evolution, Stony Brook University
- 2009 Dowd-Lester Award for an outstanding senior biology major
Department of Biology, Skidmore College
- 2009 Phi Beta Kappa, elected member, Skidmore College

INSTITUTIONAL SERVICE

- 2018- Greenhouse Committee, Dept. of Biological Sciences, ESU
- 2018 - ESU Green Infrastructure Initiative, Botanical Landscaping (Green Agriculture) Working Group leader
- 2018 – 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 – **Service Learning Committee**
 2017 - **Academic advisor for**
 20 students (Fall 2020)
 13 students (Spring 2020)
 19 students (Fall 2019)
 11 students (Spring 2019)
 19 students (Fall 2018)
 11 students (Spring 2018)
 13 students (Fall 2017)

PROFESSIONAL SERVICE

- 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
 2019 – **Program Committee**, Pennsylvania Botany (pabotany.org)
 2017 – **Organizing Committee**, Pennsylvania Botany
 2017 – **Student Research Committee**, Pennsylvania Botany
 2018 **NSF Reviewer/Panelist**

Reviewer

Book chapters: Intuitive Biostatistics (3rd edition, Oxford University Press, 2017).

Journals:

Natural Areas Journal (2020 × 1)
 Journal of the Pennsylvania Academy of Science (2020 × 1)
 Ecology & Evolution (2019 × 2, 2020 × 2)
 Journal of Vegetation Science (2018 × 2)
 Plant Science Bulletin (2018 × 1, 2019 × 1)
 Plant Ecology (2018 × 1)
 Scientific Reports (2017 × 1)
 Ecology Letters (2015 × 1)
 Reviews on Publons - <https://publons.com/researcher/3428103/emily-rollinson/peer-review/>

OUTREACH ACTIVITIES

- 2/11/2020 **International Day of Women and Girls in Science** hands-on STEM activities at ESU
 7/5/2019 **STEM Careers Panel for Sci-Q Project**, Pocono Environmental Education Center
 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 **4th 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

- 2013 – present **Botanical Society of America** (Sections: Ecological; Teaching; Primarily Undergraduate Institutions)
 2014 - present **Ecological Society of America** (Sections: Early Career Ecologists; Invasion Ecology; Science Communication; Mid-Atlantic; Vegetation Ecology; Researchers at Undergraduate Institutions; Natural History)
 2017 – present **Pennsylvania Academy of Science**
 2017 – present **Commonwealth of Pennsylvania University Biologists** (Assistant Director – ESU)
 2017 – present **Society of Herbarium Curators**
 2018 – present **Brodhead Watershed Association**
 2019 – present **Sigma Xi**, Full Member

PROFESSIONAL DEVELOPMENT

- Fall 2020 Accepted participant 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