

Dr. Emily J. Rollinson

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PROFESSIONAL APPOINTMENTS

- 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

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

PUBLICATIONS

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*.
- 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-Roeher, 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. Friedenber. **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, 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, 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

East Stroudsburg University, Department of Biological Sciences

Recurring courses

BIOL 115: Introductory Biology II Lab
BIOL 200: General Ecology Lecture
BIOL 200: General Ecology Lab
BIOL 220: Field Botany (with lab)
BIOL 423/523: Plant Ecology (with lab)
BIOL 428/528: Biogeography
BIOL 495: Seminar I
BIOL 496: Seminar II
BIOL 583: Research Design and Data Analysis for Biologists

Independent studies, research, and internships

BIOL 485: Independent Study (undergraduate) – 9 students
BIOL 486: Field Experience and Internship – 1 student
BIOL 494: Research in Biology (individualized instruction) – 9 students
BIOL 571 Independent Research (graduate research problem) – 3 students
BIOL 572/573: Thesis I and II (graduate thesis & research) – 2 students
BIOL 586: Field Experience and Internship – 1 student
BIOL 577: Independent Study (graduate) – 4 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

Colloquia & invited lectures

- 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, 47th Annual Symposium*.
- 8/29/2017 Tsang, S.M. & 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-Roeher, 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*.
- 4/24/2016 Rollinson, E.J. Oral Presentation. Introduced species have different traits than natives in riparian plant communities. *16th 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. *15th 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. *99th 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).

- 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 2nd 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 Deecker, 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. *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*.
- 4/7/2018 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. *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 <i>Nijmih Siryani</i>
2018	ESU Summer Undergraduate Research Experience Grant to support student researcher \$2000 to <i>Cole Davis</i>
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

- 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

- 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)
2017 – present, Student Involvement Subcommittee
2019 – present, Program Subcommittee
2021 – present, Chair, Student Involvement Subcommittee
- 2018 – NSF Reviewer/Panelist

Reviewer

Book chapters: Intuitive Biostatistics (3rd edition, Oxford University Press, 2017; 4th edition reviewed in 2020 for forthcoming 5th 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

- 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 **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**
 2014 – present **Ecological Society of America**
 2017 – present **Commonwealth of Pennsylvania University Biologists**
 2018 – present **Pennsylvania Academy of Science**
 2017 – present **Society of Herbarium Curators**
 2018 – present **Brodhead Watershed Association**
 2019 – present **Sigma Xi**, Full Member

PROFESSIONAL DEVELOPMENT

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

Primary advisor (M.S.)

Alyssa Simeone (current)

Benjamin Hawes (2021)

Weston Strubert (2020)

Thesis committees (M.S.)

Christopher Cully (current)

Jenna Fannin (current)

Carly Danoski (current)

Michael Bodnar (current)

Kelly Murman (current)

Lewis Wolff (current)

Amanda Kutcher (current)

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)

Additional comprehensive exam committees (M.S.)

Richard Weinczyk (M.S. Biology Summer 2021)

James Long (M.S. Biology Spring 2020)

Undergraduate research

Caroline Seseeri (2022)

Angela Pappas (2022)

Megan Maloy (2022)

Johanny Przybyla (2022)

Christopher Haines (2021)

Davyd Sharp (2021)

Kayleigh Karpowicz (2021)

Jessica VanWhy (2021-22)

Brittney (Billman) O'Connor (2020-21, BS Environmental Studies & Biology 2021)

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)

Maria Zambuto (Stony Brook University, 2016)

Karen Lohman (Stony Brook University, 2013)