

JESSIE RACK

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EDUCATION

- 2016 Ph.D. University of Connecticut, Ecology and Evolutionary Biology
Dissertation: Geographic variation and plasticity in behavioral responses of spotted salamander larvae to predator chemical cues.
Advisor: Mark Urban
- 2010 B.S. Slippery Rock University, Biology
- 2005 B.A. West Virginia University, Music; Creative Writing

TEACHING & MENTORING EXPERIENCE

Lecturer, Princeton Writing Program, Princeton University, 2016-present.
Teach a writing seminar that I designed entitled “Sensory Communication.” In this course, my students write about the theories and complexities of animal communication systems, use scientific studies of potential human pheromones to intervene in the philosophical free will-determinism debate, and construct a research paper that targets an intersection of human sensory communication and culture.

Assistant Director, University Writing Center, University of Connecticut, 2015 – 2016.
Served on a leadership team for a large, hybrid writing center and writing in the disciplines program that combined tutoring, writing workshops, research, and support for writing across the curriculum. Tutored student writing and contributed to training, managing, and assessing tutors. Co-facilitated 2-day orientation. Ran campus-wide Personal Statement writing workshops. Oversaw five undergraduate Writing Center tutors in a Science Writing independent study. Maintained social media presence, including Twitter and Facebook.

Tutor, University Writing Center, University of Connecticut, 2014 – 2015.
Tutored student writing of freshman to graduate-level writers of all disciplines at any stage of the writing process. Specific training on First Year Experience (FYE) writers and second language writers.

Teaching Assistant, Limnology, University of Connecticut, Fall 2011.
Worked with students on major independent research projects, and helped assess project grades. Wrote and delivered a lecture on the behavior of aquatic organisms. Attended lectures and supported professor during labs.

Teaching Assistant, Biology 1102: Foundations of Biology, University of Connecticut, Spring 2011
Co-taught two sections of biology labs for non-majors, primarily freshmen. Each lab included a brief lecture, a description and demonstration of the hands-on component, and assisting and supervising students. Graded weekly quizzes and short student essays.

Teaching Assistant, Biology 1102: Foundations of Biology, University of Connecticut, Fall 2010
Co-taught two sections of biology labs for non-majors, primarily freshmen. Duties as described above.

FELLOWSHIPS

- 2015 American Association for the Advancement of Science Mass Media Fellowship
10-week internship at National Public Radio in Washington D.C., plus \$5,000 for living expenses.
- 2012 National Science Foundation Graduate Research Fellowship
\$32,000 annual stipend plus \$12,000 annual cost-of-education allowance to the University of Connecticut.

University of Connecticut Fellowships:

- 2014 Doctoral Dissertation Fellowship
\$2,000 award
- 2010 Outstanding Scholar Fellowship
Three-year fellowship equivalent to a half-time graduate assistantship for the academic year plus a \$2,000 summer stipend.

RESEARCH EXPERIENCE

- 2010 - 2016 University of Connecticut, Storrs, CT
Graduate Research
Dissertation research on the behavioral ecology of predator-prey interactions in salamanders
- 2009 – 2010 Slippery Rock University, Slippery Rock, PA
Undergraduate Research Assistant: Aquatic Research Facility
Designed independent research project: “Behavioral responses to olfactory cues in the convict cichlid, *Amatitlania nigrofasciata*.” Performed animal care and maintenance of cichlid fish.
- 2008 Indiana University, Bloomington, IN
Research Experience for Undergraduates (REU) Participant
Recipient of highly competitive REU appointment. Conducted independent research at the Center for the Integrative Study of Animal Behavior. Project title: “Sexual dimorphism of electrocommunication signals across populations of the weakly electric fish, *Apteronotus albifrons*.”

ACADEMIC PUBLICATIONS

- Ho, WW, **JM Rack** and GT Smith. 2013. Divergence in androgen sensitivity contributes to population differences in sexual dimorphism of electrocommunication behavior. *Hormones and Behavior* 63(1):49-53.

SELECTED SCIENCE JOURNALISM

- 2016 [Building a More Diverse Forest](#). *Connecticut Woodlands Magazine*. Winter 2016, 80(4), 18-21.
- 8/12/2015 “Dining Like Darwin: When Scientists Swallow Their Subjects,” *The Salt*, National Public Radio. <http://www.npr.org/sections/thesalt/2015/08/12/430075644/dining-like-darwin-when-scientists-swallow-their-subjects>
- 8/12/2015 “Not Everybody Likes Kissing,” *Shots*, National Public Radio. <http://www.npr.org/sections/health-shots/2015/08/12/431664215/not-everybody-likes-kissing>

- 7/30/2015 “Scientists Urge Ban On Salamander Imports To U.S. To Keep Fungus At Bay,” *The Two-Way*, National Public Radio.
<http://www.npr.org/sections/thetwo-way/2015/07/30/427472578/scientists-urge-ban-on-salamander-imports-to-u-s-to-keep-fungus-at-bay>
- 6/29/2015 “Why You Should Thank a Caterpillar for Your Mustard and Wasabi,” *The Salt*, National Public Radio.
<http://www.npr.org/sections/thesalt/2015/06/29/418518152/why-you-should-thank-a-caterpillar-for-your-mustard-and-wasabi>
- 6/26/2015 “Save Wildlife, Save Yourself?” *Goats and Soda* blog, National Public Radio
<http://www.npr.org/sections/goatsandsoda/2015/06/26/416858166/save-wildlife-save-yourself>

DIGITAL AND CREATIVE PUBLICATIONS

- 2012 - 2015 Science blogger: *I Spell it Nature*.
 Each post features a poem inspired by the natural world and explains the science behind what the poet observes and describes.
<http://www.ispellitnature.wordpress.com>
- 2014- 2015 Blog Writer for *The World Energy Foundation*
 Blog posts include topics such as renewable energy, humanitarianism, and environmental concerns.
- 2012 “Road Trip, 2006,” (poem) in *Long River Review*, University of Connecticut Press.
- 2005 “Clarity,” (poem) in *Calliope*, West Virginia University Press.

GRANTS AND AWARDS

- 2013 Ralph M. Wetzel Fund to the University of Connecticut’s Department of Ecology and Evolutionary Biology and Connecticut State Museum of Natural History Award (\$400)
- 2012 Ralph M. Wetzel Fund to the University of Connecticut’s Department of Ecology and Evolutionary Biology and Connecticut State Museum of Natural History Award (\$275)
- 2011 Ralph M. Wetzel Fund to the University of Connecticut’s Department of Ecology and Evolutionary Biology and Connecticut State Museum of Natural History Award (\$1200)
- 2011 Sigma Xi Grants-in-Aid of Research (\$400)
- 2009 Beta Beta Beta Alumni Scholarship (\$1000)
- 2009 William R. Sigmund PJAS Award (\$200)
- 2008 Slippery Rock University Faculty/Student Research Grant (\$1710)
- 2008 Frank A. Pugliese “Rock” Scholarship (\$1200)
- 2007 Beta Beta Beta National Biological Honors Society, Lambda Lambda Chapter of Slippery Rock University
- 2004 Waitman Barbe Creative Writing Award, West Virginia University
- 2000 West Virginia University Presidential Scholarship (Cost of attendance for four undergraduate years)

SCIENTIFIC PRESENTATIONS

- 2013 University of Connecticut Ecology & Evolutionary Biology Department Graduate Student Symposium, Storrs, CT
 Talk; Rack J. Tetrodotoxin: chemical defense or chemical cue?
- 2013 Annual meeting of the Society for Integrative and Comparative Biology, San Francisco, CA
 Talk; Rack J. Do *Ambystoma maculatum* larvae evolve to recognize local predator cues?

- 2012 University of Connecticut Ecology & Evolutionary Biology Department Graduate Student Symposium, Storrs, CT
Talk; Rack J. Behavioral responses of *Ambystoma maculatum* larvae to predator chemical cues on a geographic scale.
- 2010 Penn State-Behrend-Sigma Xi: Undergraduate Research Conference, Erie, PA.
Talk; Rack J and SC Beeching. Behavioral response to olfactory cues in the convict cichlid, *Amatitlania nigrofasciata*.
- 2010 Slippery Rock University Symposium for Student Research, Slippery Rock, PA
Talk; Rack J and SC Beeching. Behavioral response to olfactory cues in the convict cichlid, *Amatitlania nigrofasciata*.
- 2009 Annual meeting of the Society for Integrative and Comparative Biology, Boston, MA
Poster; Rack J, WW Ho and GT Smith. Sexual dimorphism of electrocommunication signals across populations of the weakly electric fish, *Apteronotus albifrons*.
- 2008 Indiana University's 2008 Research Experience for Undergraduates in Animal Behavior, Bloomington, IN
Talk; Rack J, WW Ho and GT Smith. . Sexual dimorphism of electrocommunication signals across populations of the weakly electric fish, *Apteronotus albifrons*.

LEADERSHIP

Co-Organizer, Mary W George Freshmen Research Conference, Princeton University, 2016-present
This biannual freshman research conference allows outstanding freshmen to present their previous semester's research projects.

Hiring Committee, Princeton Writing Program Annual Lecturer Search, 2016-present
Screen applications, conduct phone interviews, and assess candidates for disciplinary diversity and potential to succeed as Writing Program lecturers. Due to my disciplinary background, I serve as the primary screener for candidates from the STEM fields

Naturalist, Medomak Family Camp, Summer 2017
Led interpretive hikes for adults and developed environmental education programs for children of all ages

Interpretive Naturalist, Williamstown Rural Lands Foundation, Summer 2016
Ran the Dietze Interpretive Center, engaging with visitors of all ages. Developed and implemented a "Junior Field Naturalist" program, which encouraged curiosity about nature and taught children the foundations of scientific inquiry. Designed educational signage for a public "Wetland Walk."

Organizer and Leader, EEB Book Club, 2014-2016
Led a popular science book club, in which we read and evaluated books by scientists and nonscientists.

Graduate Student Symposium organizing committee, UConn EEB Department 2010-2014
Planned and organized this event for graduate students to present their research to the university. Tasks included securing funding, scheduling opening and keynote speakers, ensuring all speaking spots were filled, moderating sessions, and emceeding the symposium itself.

Secretary, Graduate Student Association, UConn EEB Department, 2012-2013
Kept meeting minutes and attendance, managed email communication and provided regular updates to the GSA's webpage

President, Beta Beta Beta National Biological Honors Society, Lambda Lambda Chapter of Slippery Rock University, 2008-2010.

Ran meetings, planned and executed outreach events, organized group trips.

OUTREACH AND SERVICE

Conserve Wildlife NJ: Amphibian Crossing Project. February 2017-present

Volunteer at nighttime amphibian road crossings, helping breeding amphibians cross the road and collecting data for NJ's Wildlife Conservation Corps.

Stony Brook Millstone Watershed Association, Pennington, NJ, January 2017-present

Help out with special events at the Watershed; conduct bluebird nest monitoring, serve as a trail guardian.

Friends of Hopewell Valley Open Space, Hopewell, NJ, 2016-2017

Assisted the Stewardship Director with the creation of a forest management plan for restoring old-growth characteristics to a local forest property. Helped map the spread of invasive wisteria on a local conserved property.