

CURRICULUM VITAE
LINDSEY NOELE SWIERK

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Education

- 2009-2014 **PhD** in Ecology, minor in Statistics. Penn State University, University Park, PA.
Advisor: Prof. Tracy Langkilde.
- 2007-2008 **MES** (Master of Environmental Studies) in Environmental Biology. University of Pennsylvania, Philadelphia, PA.
Advisors: Prof. Fred Scatena (University of Pennsylvania) and Prof. Stephen Madigosky (Widener University).
- 2003-2007 **BA**, Biology and Environmental Science. Magna Cum Laude, with distinction in Environmental Science. University of Pennsylvania. Philadelphia, PA.

Professional Appointments

- 2015- **Gaylord Donnelley Postdoctoral Fellow.** School of Forestry and Environmental Studies, Yale University.
- 2014 **Vision & Change Postdoctoral Fellow.** Department of Biology, Penn State University.

Research Experience

- 2009-2013 **Graduate Research Fellow.** Intercollege Graduate Degree Program in Ecology. Penn State University.
- 2008 **Graduate Researcher.** Amazon Conservatory of Tropical Studies, Iquitos, Peru.
- 2007 **Field Assistant.** Stellenbosch University, South Africa. Supervisor: Dr. Lynda Sharpe
- 2006 **Field Assistant.** Area de Conservación Guanacaste, Guanacaste, Costa Rica. <http://janzen.sas.upenn.edu>. Supervisor: Dr. Dan Janzen.
- 2006 **Research Assistant.** Casper Laboratory, University of Pennsylvania. Supervisor: Dr. Brenda Casper.
- 2004-2006 **Research Assistant.** Marine Biogeochemistry Laboratory, University of Pennsylvania. Supervisor: Dr. Andrea Grottoli

Research Grants and Fellowships

- 2016 **Sophie Danforth Conservation Biology Fund.** Roger Williams Park Zoo/Rhode Island Zoological Society. \$1,000.
- Scientific Product Grant.** Wildlife Acoustics, Inc. \$3,047
- 2015 **Gaylord Donnelley Environmental Fellowship.** Yale Institute for Biospheric Studies. \$104,000.
- American Postdoctoral Fellowship.** American Association of University Women (declined). \$30,000.
- Darwin Fellowship – Finalist.** University of Massachusetts, Amherst. (application withdrawn)
- President’s and Chancellor’s Postdoctoral Fellowship – Finalist.** University of California, Berkeley.
- 2014 **Vision & Change Fellows Program.** Biology Department, Penn State University. \$42,000.
- 2010-2013 **Graduate Research Fellowship.** The National Science Foundation. \$120,500. International Travel Allowance awarded in 2011. \$1,000
- 2012 **Ernst Mayr Fellowship,** awarded to the highest-ranking pre-doctoral research proposal. Smithsonian Tropical Research Institute (declined). \$2,000
- 2011 **Gaige Award.** American Society of Ichthyologists and Herpetologists. \$500
- 2010 **Student Research Award.** Animal Behavior Society. \$600
- Grant-in-Herpetology.** Society for the Study of Amphibians and Reptiles. \$500
- 2009 **University Graduate Fellowship,** awarded to scholastically outstanding prospective students. Penn State University. \$38,000
- 2008 **MES Capstone Research Award.** University of Pennsylvania. \$1,800
- 2007 **The Greg and Susan Walker Endowed Research Award.** University of Pennsylvania. \$800
- 2006 **Research Experience for Undergraduates.** The National Science Foundation. \$2,000

Honors and Awards

- 2014 **Alumni Association Dissertation Award** in recognition of outstanding achievement in scholarship and professional accomplishment. The Graduate School, Penn State.
- 2013 **Intercollege Graduate Student Outreach Achievement Award** in recognition of outstanding achievements in bringing scholarship to the community to benefit society. The Graduate School, Penn State.
- Graduate Student Service Award** to recognize the graduate student who has best combined high academic achievement with leadership in University and other public activities. Union and Student Activities, Penn State.
- Conference Travel Award** (2010 - 2013). Biology Department, Penn State University.
- 2012 **Frank A. Andersen Award** given annually on a competitive basis for conference travel. Ecology Graduate Program, Penn State.
- 2008 **Braddock Award**, an incentive fellowship awarded to outstanding applicants to the graduate program. Penn State University.
- Fund for Excellence in Graduate Recruitment Award**, an incentive fellowship awarded to outstanding applicants to the graduate program. Penn State.

Teaching Experience

- 2014 **Instructor of Record**, Animal Behavior (Biol 429). Penn State University.
- 2013 **Guest Lecturer**, General Ecology (Biol 463). Penn State University.
- 2008 **Teaching Assistant**, Penn State University.
- Biology: Basic Concepts and Biodiversity.
- 2007-2008 **Teaching Assistant**, University of Pennsylvania.
- Introductory Biology I, Introductory Biology II, Introduction to Environmental Analysis, Environmental Case Studies

Publications (* indicates undergraduate mentee)

- 19) Tennesen, JB, SE Parks, **L Swierk**, LK Reinert, WM Holden, LA Rollins-Smith, T Langkilde. *In review*. Frogs adapt to physiologically costly traffic noise. **Proceedings of the Royal Society B**.
- 18) Putman, B, K Azure*, **L Swierk**. *In revision*. Dewlap size in male water anoles (*Anolis aquaticus*) associates with consistent inter-individual variation in boldness. **Current Zoology**.

- 17) Assis, BA, **L Swierk**, T Langkilde. *In revision*. Performance, behavior, and morphology may offset reproductive cost of ornamentation in female lizards. **Journal of Zoology**.
- 16) **Swierk, L**, JFF Boyer*, J Chang*, M Petelo*, S Drobnik. *In revision*. Costs of conspicuousness: dewlap color influences attack rate on *Anolis* models in an experimental test. **Evolutionary Ecology**.
- 15) Owen, DAS, MS Smylie, **L Swierk**. 2018. A new blood sampling method for smaller anurans that preserves critical features of specimens. **Herpetological Review** 49: 34-36.
- 14) Lambert, MR, BE Carlson, MS Smylie, **L Swierk**. 2017. Ontogeny of sexual dichromatism in the explosively breeding wood frog. **Herpetological Conservation and Biology** 12: 447-456.
- 13) Boyer, JFF* and **L Swierk**. 2017. Rapid body color brightening is associated with exposure to a stressor in an *Anolis* lizard. **Canadian Journal of Zoology** 95: 213-219.
-Selected as Editor's Choice
- 12) Petelo, M* and **L Swierk**. 2017. Trait allometries generate super-honesty in *Anolis* dewlaps and may underlie sexual dimorphism. **Integrative Zoology** 12: 97-111.
- 11) Stephenson, BP, N Ihász, DC Byrd, J Swierk, **L Swierk**. 2016. Temperature-dependent colour change as a function of sex and directionality of temperature shift in the eastern fence lizard (*Sceloporus undulatus*). **Biological Journal of the Linnean Society** 120: 396-409.
- 10) **Swierk, L**, JB Tennessen, and T Langkilde. 2015. Sperm depletion may not limit male reproduction in a capital breeder. **Biological Journal of the Linnean Society** 116: 684-690.
- 9) **Swierk, L** and SR Madigosky. 2014. Environmental perceptions and resource use in rural communities of the Peruvian Amazon (Iquitos and vicinity, Maynas Province). **Tropical Conservation Science** 7: 382-402.
- 8) **Swierk, L**, SP Graham and T Langkilde. 2014. The stress of scramble: sex differences in behavior and physiological stress response in a time-constrained mating system. **Behavioral Ecology and Sociobiology** 68: 1761 - 1768.
- 7) **Swierk, L** and T Langkilde. 2013. Bearded ladies: Females suffer fitness consequences when bearing male traits. **Biology Letters** 9: 20130644.
- 6) **Swierk, L** and T Langkilde. 2013. Sizing-up the competition: Factors modulating male display behavior during mate competition. **Ethology** 119: 948 - 959.
- 5) **Swierk, L**, A Myers*, and T Langkilde. 2013. Male mate preference is influenced by both female behaviour and morphology. **Animal Behaviour** 85: 1451 - 1457.

- 4) Brossman, KH*, B Carlson, **L Swierk** and T Langkilde. 2013. Aquatic tail size carries over to the terrestrial phase without impairing locomotion in adult eastern red-spotted newts (*Notophthalmus v. viridescens*). **Canadian Journal of Zoology** 91: 7 - 12.
- 3) **Swierk, L**, M Ridgway* and T Langkilde. 2012. Female lizards discriminate between potential reproductive partners using multiple male traits when territory cues are absent. **Behavioral Ecology and Sociobiology** 66: 1033 -1043.
- 2) **Swierk, L** and T Langkilde. 2009. Micronutrient input into a mangrove ecosystem in Jobos Bay, Puerto Rico, by the exotic green iguana *Iguana iguana*. **Current Zoology** 55(6): 50-53.
- 1) Young, S and **L Swiacki** (former name). 2006. Surveying the forest biodiversity of Evansburg State Park: Plant community classification and species diversity assessment. **International Journal of Botany** 2: 293-299.

Peer-reviewed notes and natural history contributions

- 4) **Swierk, L** and S Drobniak. *In review*. *Ameiva festiva* (= *Holcosus festivus*) (Central American Whiptail Lizard): Juvenile coloration. **Herpetological Review**.
- 3) **Swierk, L**. 2015. *Rana sylvatica* (Wood Frog): Clutch size measurement. **Herpetological Review** 46: 544.
- 2) **Swierk, L**. 2013. Highveld Grasslands. In: Biomes and Ecosystems: An Encyclopedia (RW Howarth, Ed.). Ipswich: Salem Press.
- 1) **Swierk, L**. 2012. *Rana sylvatica* (Wood Frog): Larval duration. **Herpetological Bulletin** 119: 39.

Publications in preparation

- 6) Guo, KC* and **L Swierk**. Can a cool tropical forest lizard take the heat?: The effect of temperature and microhabitat on locomotor performance in *Anolis aquaticus*.
- 5) Rosier, RL, **L Swierk**, and T Langkilde. Do bigger lizards have it all? Investigation of an energetic tradeoff between growth and reproductive status.
- 4) **Swierk, L** and T Langkilde. Same-sex mating behaviors provide fitness advantages in a scramble breeding system.
- 3) **Swierk, L** and T Langkilde. Consequences of a lack of mate choice in *Rana sylvatica* breeding aggregations.
- 2) Morgan, A* and **L Swierk**. Hiding in plain sight: Rapid color change permits disruptive camouflage in *Anolis aquaticus*.
- 1) **Swierk, L** and T Langkilde. Operational sex ratio alters male mating tactics and affects female fitness in a rapidly fluctuating reproductive environment.

Invited talks* (*18 additional contributed presentations)

- 4) "Rapid Responses to Natural and Anthropogenic Change: A Herpetological Perspective," Binghamton University, State University of New York, Binghamton, NY. March, 2018.
- 3) "Using flexible tactics to cope with challenges during a time-constrained breeding season," Yale Peabody Museum of Natural History, New Haven, CT. May, 2016.
- 2) "Mixed signals?: The function of a sexual trait in *Sceloporus undulatus* communication," Organization for Tropical Studies, Las Cruces Biological Station, Costa Rica. July, 2015.
- 1) "Picky boys and bearded ladies: using behavior to cope with reproductive constraints" University of Massachusetts, Amherst, MA. February, 2015.

Professional Service:*Journal Peer Review:*

Animal Behaviour, Animal Biology, Biological Journal of the Linnean Society, Comparative Biochemistry and Physiology, Current Zoology, Ethology, Functional Ecology, Herpetological Conservation and Biology, Integrative and Comparative Biology, Journal of Natural History, Nature Education, Physiological and Biochemical Zoology, Physiology & Behavior, Tropical Conservation Science

Granting Bodies Peer Review:

National Science Foundation (Evolutionary Processes Cluster, Population and Community Ecology)

Media coverage of research:

Science Magazine, National Geographic, Scientific American, Los Angeles Times, The Guardian Express, Christian Science Monitor, Science News, The Scientist, LiveScience, California Academy of Sciences

Undergraduate Mentorship

25 undergraduate researchers mentored

- 4 received university-level research awards
- 5 co-authored peer-reviewed manuscripts (& 3 on forthcoming MS)
- 8 presented research at national/regional scientific meetings

2015 – Research Mentor, Native American and Pacific Islander Research Experience (NAPIRE) program in Costa Rica, Louis Stokes Alliance for Minority Participation, National Science Foundation.

2014 – Mentor, Society of Conservation Biology (SCB) Africa Section Communications/Mentoring Programme.

2010 – 2014 Judge, Undergraduate Research Exhibition, Penn State University.

2011 – 2013 Developed and coordinated the Undergraduate Research Skills Seminar Series. Langkilde Laboratory, Penn State University.

Scientific Outreach and Leadership

- 2013 Research Mentor, SEECoS (Summer Experience in the Eberly College of Science) and Upward Bound Math and Science Center, University Park, PA
Volunteer, Children's Science Fair at the Central PA Arts Fest, State College, PA
- 2008 – 2013 Founder and advisor, *Higher Education Mentoring* (a Penn State student mentoring organization for inner-city high-school students). Bronx, NY.
- 2012 Natural history volunteer, Discovery Space Museum, University Park, PA
- 2011 Coordinator of ecology exhibit, WPSU Eventapalooza, University Park, PA
Natural history volunteer, Bellefonte Children's Garden, Bellefonte, PA
Host, Inside the Scientist's Studio, Graduate Women in Science, Penn State.
Coordinated ecology field trip for inner-city middle-school students, CarbonEARTH NSF GK-12 Program, Harrisburg, PA.
- 2010 – 2011 Co-chair, Graduate Women in Science, Girl Scout Workshops, Penn State.
Executive Board, Ecology Graduate Student Organization, Penn State University.
Research presentation, Penn State Eberly College of Science's Teacher Academy, University Park, PA.
Judge, Annual State Meeting of the PA Junior Academy of Science, University Park, PA
- 2009 Panelist, Girl Scout Workshop, Graduate Women in Science, University Park, PA
- 2004 – 2008 Part-time manager, Live Animal Center, Academy of Natural Sciences. Philadelphia, PA.