

## WILLIAM E. PETERMAN

School of Environment and Natural Resources  
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### PROFESSIONAL EXPERIENCE

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- 2015–present *Assistant Professor of Wildlife Ecology and Management*, School of Environment and Natural Resources, The Ohio State University
- 2014–2015 *Postdoctoral Research Associate*, Illinois Natural History Survey, Prairie Research Institute, University of Illinois, Champaign, IL
- 2013–2014 *Postdoctoral Fellow*, Division of Biological Sciences, University of Missouri, Columbia, MO

### EDUCATION

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#### Degrees

- 2013 **Ph.D.** University of Missouri, Division of Biological Sciences; Columbia, MO (Advisors: Raymond Semlitsch and Lori Eggert)
- 2008 **M.A.** University of Missouri, Division of Biological Sciences; Columbia, MO (Advisor: Raymond Semlitsch)
- 2005 **B.S.** Butler University, Department of Biological Sciences; Indianapolis, IN (High Honors)

#### Certificates / Training

- 2012–2013 Preparing future faculty, University of Missouri
- 2008 Graduate certificate in GIS technologies, University of Missouri

### RESEARCH INTERESTS

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Distribution /Abundance Modeling	Ecophysiology	Global Climate Change
Landscape Ecology	Landscape Genetics	Network / Graph Theory
Spatial Population Dynamics	Quantitative Ecology	Urban Ecology

### PUBLICATIONS (Undergraduate co-authors underlined; \*Corresponding author)

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#### Peer Reviewed

- 2016 Crawford, J.A. **W.E. Peterman**, A.R. Kuhns, and L.S. Eggert. Influence of pond occupancy and connectivity on metapopulation genetic structure of a threatened salamander in an agroecosystem. *Landscape Ecology* 31:2231–2244.
- 2016 **Peterman, W.E.**, J.A. Crawford, and D.J. Hocking. Effects of elevation on plethodontid salamander body size. *Copeia* 104:202–208.
- 2016 Rhoden, C.M., C.A. Taylor, and **W.E. Peterman**. Highway to heaven? Roadsides as preferred habitat for two narrowly endemic crayfish. *Freshwater Science* 35:974–983.
- 2016 Anderson, T.L., B.H. Ousterhout, D.L. Drake, J.J. Burkhart, F. Rowland, **W.E. Peterman**, and R.D. Semlitsch. Differences in larval allometry among three ambystomatid salamanders. *Journal of Herpetology* 50:464–470.
- 2016 Connette, G.M., M.S. Osbourn, and **W.E. Peterman**. Distribution of a stream-breeding salamander, *Desmognathus ocoee*, in terrestrial habitat underscores the ecological importance of low-order streams. *Copeia* 104:149–156.

- 2016 **Peterman, W.E., E.R. Brocato**, R.D. Semlitsch, and L.S. Eggert. Reducing bias in population and landscape genetic inferences: The effects of sampling related individuals and multiple life stages. *PeerJ* 4:e1813.
- 2016 Milanovich, J.R. and **W.E. Peterman**. Burton and Likens revisited: Examining the spatial variation of the standing crop of nutrients within a terrestrial salamander in a forest ecosystem. *Copeia* 104:165:171.
- 2016 Villemey, A., **W.E. Peterman**, M. Richard, A. Ouin, I. Van Halder; V.M. Stevens, M. Baguette, P. Roche, F. Archaux. Butterfly dispersal in farmland: a replicated landscape genetics study on the meadow brown butterfly (*Maniola jurtina*). *Landscape Ecology* 31:1629–1641.
- 2016 **Peterman, W.E.**, T.L. Anderson, D.L. Drake, B.H. Ousterhout, and R.D. Semlitsch. Assessing modularity in genetic networks to manage spatially structured metapopulations. *Ecosphere* 7:e01231
- 2016 Ruiz-Lopez, M.J., C. Barelli, F. Rovero, K. Hedges, C. Roos, **W.E. Peterman\***, and N. Ting. A novel landscape genetics approach demonstrates the effects of human disturbance on a primate indicator species in a biodiversity hotspot. *Heredity* 116:167–176.
- 2015 Anderson, T.L., J.L. Heemeyer, **W.E. Peterman\***, B.H. Ousterhout, D.L. Drake, and R.D. Semlitsch. Using ThermoChron iButton temperature data loggers to measure hydroperiod of vernal wetlands. *Wetlands Ecology and Management* 23:1039–1047.
- 2015 Anderson, T.L., B.H. Ousterhout, **W.E. Peterman**, D.L. Drake, and R.D. Semlitsch. Life history differences influence the impacts of drought on aquatic survival and occupancy of two pond-breeding salamanders. *Ecological Applications* 25:1896–1910.
- 2015 Ousterhout, B.H., T.L. Anderson, D.L. Drake, **W.E. Peterman**, and R.D. Semlitsch. Habitat traits and species interactions differentially affect abundance and body size in pond-breeding amphibians. *Journal of Animal Ecology* 84:914–924.
- 2015 Connette, G.M., J.A. Crawford, and **W.E. Peterman**. Climate change and shrinking salamanders: Alternative mechanisms for changes in plethodontid salamander body size. *Global Change Biology* 21:2834–3843.
- 2015 Milanovich, J.R., D.J. Hocking, **W.E. Peterman**, and J.A. Crawford. Effective use of trails for assessing terrestrial salamander abundance and detection: A case study at Great Smoky Mountains National Park. *Natural Areas Journal* 35:590–598
- 2015 Drake, D.L., B.H. Ousterhout, C.D. Shulse, D.J. Hocking, **W.E. Peterman**, T.A. Anderson, K.L. Lohraff, C.A. Conner, E.H. Harper, J.R. Johnson, T.A.G. Rittenhouse, B.B. Rothermel, L.S. Eggert, and R.D. Semlitsch. Pond-breeding amphibian community composition in Missouri. *American Midland Naturalist* 174:180–187.
- 2015 Semlitsch, R.D., **W.E. Peterman**, T.L. Anderson, D.L. Drake, and B.H. Ousterhout. Diversity, abundance, and disturbance relationships for pond-breeding amphibians. *PLoS ONE* 10:e0123055.
- 2015 Anderson, T.L., D.J. Hocking, C.A. Conner, J.E. Earl, E.B. Harper, M.J. Osbourn, **W.E. Peterman**, T.A.G. Rittenhouse, and R.D. Semlitsch. The influence of priority effects on metamorph traits and recruitment of two pond-breeding salamanders. *Oecologia*. 17:761–773. (cover photo)
- 2015 **Peterman, W.E.**, T.L. Anderson, B.H. Ousterhout, D.L. Drake, R.D. Semlitsch, and L.S. Eggert. Differential dispersal shapes population structure and patterns of genetic differentiation in two sympatric pond breeding salamanders. *Conservation Genetics* 16:59–69.
- 2014 **Peterman, W.E.** and R.D. Semlitsch. Spatial variation in water loss predicts terrestrial salamander distribution and population dynamics. *Oecologia* 176:357–369.
- 2014 **Peterman, W.E.**, G.M. Connette, R.D. Semlitsch, and L.S. Eggert. Ecological resistance surfaces predict fine scale genetic differentiation in a terrestrial woodland salamander. *Molecular Ecology* 23:2402–2413.

- 2014 Ryan, T.J., **W.E. Peterman**, J.D. Stephens, and S.C. Sterrett. Movements and habitat use of the snapping turtle in an urban landscape. *Urban Ecosystems* 17:613–623.
- 2014 Mackey, M.J., G.M. Connette, **W.E. Peterman**, and R.D. Semlitsch. Do golf courses reduce the ecological value of headwater streams for salamanders in the Appalachian Mountains? *Landscape and Urban Planning* 125:17–27.
- 2014 **Peterman, W.E.**, T.L. Anderson, D.L. Drake, B.H. Ousterhout, and R.D. Semlitsch. Maximizing pond biodiversity across the landscape: a case study of larval ambystomatid salamanders. *Animal Conservation* 17:275–285.
- 2013 Crawford, J.A. and **W.E. Peterman**. Biomass and habitat partitioning of *Desmognathus* on wet rock-faces in the southern Appalachian Mountains. *Journal of Herpetology* 47:580–584.
- 2013 **Peterman, W.E.**, L.R. Pauley, E.R. Brocato, E.C. Stuart, R.D. Semlitsch, and L.S. Eggert. Development and characterization of twenty-two microsatellite loci for the ringed salamander (*Ambystoma annulatum*) using paired-end Illumina shotgun sequencing. *Conservation Genetics Resources*. 5:993–995.
- 2013 **Peterman, W.E.**, E.R. Brocato, L.R. Pauley, E.C. Stuart, R.D. Semlitsch, and L.S. Eggert. Development and characterization of eighteen microsatellite loci for the spotted salamander (*Ambystoma maculatum*) using paired-end Illumina shotgun sequencing. *Conservation Genetics Resources* 5:989–991.
- 2013 **Peterman, W.E.**, T.A.G Ritenhouse, J.E. Earl, and R.D. Semlitsch. Demographic network and multi-season occupancy modeling of *Rana sylvatica* reveal spatial and temporal patterns of population connectivity and persistence. *Landscape Ecology* 28:1601–1613.
- 2013 **Peterman, W.E.** and R.D. Semlitsch. Fine-scale habitat associations of a terrestrial salamander: The role of environmental gradients and implications for population dynamics. *PLoS ONE* 8: e62184.
- 2013 Gifford, M. E., T. A. Clay, and **W. E. Peterman**. The effects of temperature and activity on intraspecific scaling of metabolic rates in a lungless salamander. *Journal of Experimental Zoology Part A: Ecological Genetics and Physiology* 319:230–236.
- 2013 **Peterman, W.E.**, J.L. Locke, and R.D. Semlitsch. Spatial and temporal patterns of water loss in heterogeneous landscapes: Using plaster models as amphibian analogues. *Canadian Journal of Zoology* 91:135–140.
- 2013 **Peterman, W.E.**, J.A. Crawford, and A.R. Kuhns. Using species distribution and occupancy modeling to guide survey efforts and assess species status. *Journal for Nature Conservation* 2:114–121.
- 2013 **Peterman, W.E.**, S.M. Feist, R.D. Semlitsch, and L.S. Eggert. Conservation and management of peripheral populations: Spatial and temporal influences on the genetic structure of wood frog (*Rana sylvatica*) populations. *Biological Conservation* 158:351–358.
- 2013 Hocking, D.J., G.M. Connette, C.A. Conner, B.R. Scheffers, S.E. Pittman, **W.E. Peterman**, R.D.Semlitsch. Effects of experimental forest management on a terrestrial, woodland salamander in Missouri. *Forest Ecology and Management*. 287:32–39.
- 2013 Spatola, B.N., **W.E. Peterman\***, G.M. Connette, N.T. Stephens, D.B. Shepard, K.H. Kozak, R.D. Semlitsch, and L.S. Eggert. Development of microsatellite loci for the western slimy salamander (*Plethodon albagula*) using 454 sequencing. *Conservation Genetics Resources* 5:267–270.
- 2012 **Peterman, W.E.**, G.M. Connette, B.N. Spatola, L.S. Eggert, and R.D. Semlitsch. Transferability of microsatellite loci: Identification of polymorphic loci in *Ambystoma annulatum* and review of cross-species microsatellite use in the genus *Ambystoma*. *Copeia*. 2012:570–577.
- 2012 Belden, L.K., **W.E. Peterman**, S.A. Smith, L.R. Brooks, E.F. Benfield, W. Black, Z. Yang, and J.M. Wojdak. *Metagonimoides oregonensis* (Digenea, Heterophyidae) infection in *Desmognathus quadramaculatus* salamander larvae. *Journal of Parasitology*. 98:760–767.

- 2012 Milanovich, J.R., **W.E. Peterman**, K. Barrett, M. Hopton. Do species distribution models predict species richness in urban and natural green spaces? A case study using amphibians. *Landscape and Urban Planning*. 107:409–418.
- 2011 **Peterman, W.E.**, J.A. Crawford, and R.D. Semlitsch. Effects of even-aged timber harvest on stream salamanders: Support for the evacuation hypothesis. *Forest Ecology and Management* 262:2344–2353.
- 2011 Osbourn, M.S., D.J. Hocking, C.A. Conner, **W.E. Peterman**, and R.D. Semlitsch. Use of fluorescent visible implant Alphanumeric tags to individually mark juvenile ambystomatid salamanders. *Herpetological Review* 42:43–47.
- 2010 Milanovich, J.R., **W.E. Peterman**, N.P. Nibbelink, and J.C. Maerz. Projected loss of a salamander diversity hotspot as a consequence of projected global climate change. *PLoS ONE* 5:e12189.
- 2009 **Peterman, W.E.** and T.J. Ryan. Basking behavior of Emydid turtles (*Chrysemys picta*, *Graptemys geographica*, and *Trachemys scripta*) in an urban landscape. *Northeastern Naturalist* 16: 629–636.
- 2009 Camp, C.D., **W.E. Peterman**, J. Milanovich, T. Lamb, J.C. Maerz, and D.B. Wake. A new genus and species of lungless salamander (family Plethodontidae) from the Appalachian highlands of the south-eastern United States. *Journal of Zoology* 279: 86–94.
- 2009 **Peterman, W.E.** and R.D. Semlitsch. Efficacy of riparian buffers in mitigating local population declines and the effects of even-aged timber harvest on larval salamanders. *Forest Ecology and Management* 257: 8–14.
- 2008 **Peterman, W.E.**, J.A. Crawford, and R.D. Semlitsch. Productivity and significance of headwater streams: population structure and biomass of the black-bellied salamander (*Desmognathus quadramaculatus*). *Freshwater Biology* 53: 347–357. (cover photo)
- 2008 **Peterman, W.E.** and S.C. Truslow. Density estimation of larval *Eurycea wilderae*: a comparison of mark–recapture and depletion sampling. *Herpetological Review* 39: 438–441.
- 2007 **Peterman, W. E.** *Gyrinophilus porphyriticus danielsi* (blue-ridge spring salamander) and *Desmognathus monticola* (seal salamander). Predation/regurgitation. *Herpetological Review* 38: 433.
- 2006 **Peterman, W.E.** and R.D. Semlitsch. Effects of tricaine methanesulfonate (MS–222) concentration on anesthetization and recovery in four Plethodontid salamanders. *Herpetological Review* 37: 303–304.

### **Book Sections**

- 2016 Rittenhouse, T.A.G., and **W.E. Peterman**. Connectivity of Wetlands. Pages 1-12 in C. M. Finlayson, M. Everard, K. Irvine, R. J. McInnes, B. A. Middleton, A. A. van Dam, and N. C. Davidson, editors. *The Wetland Book: I: Structure and Function, Management and Methods*. Springer Netherlands, Dordrecht.
- 2016 Rittenhouse, T.A.G., and **W.E. Peterman**. Source-Sink Dynamics of Wetlands. Pages 1-8 in C. M. Finlayson, M. Everard, K. Irvine, R. J. McInnes, B. A. Middleton, A. A. van Dam, and N. C. Davidson, editors. *The Wetland Book: I: Structure and Function, Management and Methods*. Springer Netherlands, Dordrecht.

### **Reports**

- 2015 Eggert, L.S., R.D. Semlitsch, T.L. Anderson, J.J. Burkhart, A. Messerman, B. Ousterhout, **W.E. Peterman**, F.E. Rowland. Multi-Scale Approach to Understanding Source-Sink Dynamics of Amphibians. SERDP RC-2155

### **Popular Articles**

- 2014 Semlitsch, R.D, **W.E. Peterman**, L.S. Eggert. Understanding the complex spatial and temporal variation in source-sink dynamics of salamanders. *Natural Selections: Department of Defense Natural Resources Programs*, Fall 2014.

- 2013 Semlitsch, R.D., T.L. Anderson, D.L. Drake, B.H. Ousterhout, **W.E. Peterman**, and C.D. Shulse. Small, clustered wetlands promote amphibian persistence. National Wetlands Newsletter, volume 35, number 5

### ***Preprint Publications***

- 2014 **Peterman, W.E.** ResistanceGA: An R package for the optimization of resistance surfaces using genetic algorithms. bioRxiv doi: dx.doi.org/10.1101/005127

### ***Under Revision / Review***

- In review Crawford, J.A., C.A. Phillips, **W.E. Peterman**, I.E. MacAllister, N.A. Wesslund, A.R. Kuhns, and M.J. Dreslik. Seasonal dynamics of chytrid infection in amphibians on military and public lands in the Midwestern United States.
- In review Khimoun, A, **W.E. Peterman**, C. Eraud, B. Faivre, N. Navarro, and S. Garnier. Landscape genetic analyses reveal fine-scale effects of forest fragmentation in an insular tropical bird.
- Accepted Burkhart, J.J., **W.E. Peterman**, E.R Brocato, K. Romine, M.M Willis, B.H. Ousterhout, T.L. Anderson, D.L. Drake, F. Rowland, R.D. Semlitsch, and L.S. Eggert. The influence of breeding phenology on the genetic structure of four pond-breeding salamanders. DOI: 10.1002/ece3.3060
- In review **Peterman, W.E.** and M. Gade. The importance of assessing parameter sensitivity when using biophysical models: A case study with a plethodontid salamander.
- In review **Peterman, W.E.**, T.L. Anderson, B.H. Ousterhout, D.L. Drake, F.E. Rowland, J.J. Burkhart, and R.D. Semlitsch. Using spatial demographic network models to optimize habitat creation, restoration, and preservation.
- In review Rhoden, C.M., **W.E. Peterman**, C.A. Taylor. Maxent-directed field surveys identify new populations of narrowly endemic habitat specialists.

### **GRANTS AND AWARDS**

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#### ***External Awards—\$1,750,566***

- 2017 Great Smoky Mountains Conservation Association. Short-term Effects of Wildfire on Salamander Populations in Great Smoky Mountains National Park. Co-PI with D.J. Hocking, J.A. Crawford, and J.R. Milanovich.
- 2016–2022 Ohio Division of Wildlife (State Wildlife Grant via USFWS). Forest management effects on the population ecology of Timber Rattlesnakes (*Crotalus horridus*).
- 2016–2018 Illinois Department of Natural Resources (State Wildlife Grant via USFWS). Distribution, abundance, and recruitment of amphibian SGNC from the Vermilion River Conservation Opportunity Area. With A.R. Kuhns, J.A. Crawford, and C.A. Phillips.
- 2011–2015 Department of Defense (Strategic Environmental Research and Development Program). “Multi-scale approach to understanding source-sink dynamics of amphibians” With R.D. Semlitsch and L.S. Eggert.
- 2012–2013 National Geographic Society (Waitt Grant). Climate change effects on elevational distributions of salamanders in Great Smoky Mountains National Park. With J.A. Crawford, J.R. Milanovich, and D.J. Hocking.
- 2009–2011 U.S. Army Corps of Engineers (Construction Engineering Research Laboratory). “Occupancy and detectability of chytrid fungus (*Batrachochytrium dendrobatidis*) in amphibian populations on U.S. military installations” With C.A. Phillips, J.A. Crawford, and M.J. Lannoo.
- 2006–2007 United States Forest Service (Southern Research Station Grant). “Beyond the edge: effects of riparian zone width on stream salamanders in the southern Appalachian mountains”. With J.A. Crawford and R.D. Semlitsch.

### ***Internal Awards—\$47,300***

2010–2012 University of Missouri Research Board. “Does landscape connectivity predict genetic structure?” With R.D. Semlitsch and L.S. Eggert.

### ***Graduate Awards—\$23,557***

2012–2013 Theodore Roosevelt Memorial Grant. “Effects of genetic diversity on growth, survival, and performance in wood frogs (*Rana sylvatica*)”

2012 Douglas D. Randall Young Scientist Development Fund. “The ties that bind: Fine scale habitat associations of terrestrial salamanders and implications for population dynamic”

2012–2013 Trans World Airlines Scholarship. “Growth, survival, and performance in peripheral wood frog (*Rana sylvatica*) populations”

2010 Best student poster, 2010 Midwest Fish & Wildlife Conference. “Using graph theory and occupancy modeling to assess population connectivity and persistence of Missouri wood frogs”

2009–2010 Prairie Biotic Research Grant. “From wasteland to prairie land: impacts of prairie restoration and management of reclaimed surface mines on crawfish frogs populations and amphibian species richness”

2008 Highlands Biological Station Research Grant. “Effects of Riparian Logging on Allelic Diversity of Plethodontid Salamanders”

2007–2008 Chicago Herpetological Society Research Grant. “Road effects on stream salamander assemblages in the southern Appalachian mountains”

2005–2007 Highlands Biological Station Research Grant. “Effects of Riparian Buffer Width on Larval Salamander Population Dynamics”

### **PROFESSIONAL WORKING GROUPS**

2008 Appalachian salamander conservation working group. Hosted by Smithsonian’s National Zoological Park, Front Royal, VA

### **PRESENTATIONS**

#### ***Invited Seminars***

2017 Biology Seminar Series, invited guest of the Biological Organization of Graduate Students. Eastern Kentucky University, Richmond, KY

2017 Biological Sciences Seminar Spring Series. Ohio University, Athens, OH

2016 Response of Amphibians and Reptiles to Anthropogenic Disturbance, Organized Symposia at The Wildlife Society Conference, Raleigh, North Carolina

2016 Department of Biology Seminar Series. John Carroll University, Cleveland, OH.

2016 Ecology, Evolution, and Environmental Biology Seminar Series. Miami University, Oxford, OH

2015 Ecology, Evolution, and Organismal Biology Seminar Series. The Ohio State University, Columbus, OH

2015 Application of Network Models in Wildlife Ecology, Organized Symposia at The Wildlife Society Conference, Winnipeg, Canada

2014 Illinois State Museum Researcher Seminar Series, Springfield, IL

2014 Program in Ecology, Evolution, and Conservation Biology Seminar Series. University of Illinois at Urbana-Champaign

2014 Wildlife Seminar Series. Auburn University, Auburn, AL

- 2014 Biology Seminar Series. Butler University, Indianapolis, IN
- 2013 Ecology, Evolution, and Behavior Seminar. University of Missouri, Columbia, MO
- 2010 Natural Areas Conference; Osage Beach, MO. Special Symposia on ecological genetics.
- 2009 Midwest Herpetological Symposium; Chicago, IL

**Oral Presentations**

- 2016 **Peterman, W.E.** Effects of climate change on *Plethodon shermani*. Special Conference on the Biology of Plethodontid Salamanders. Highlands, North Carolina.
- 2015 **Peterman, W.E.** et al. Implementing source-sink models for management recommendations. Ecological Society of America; Baltimore, MD (Ignite format)
- 2014 **Peterman, W.E.** Maximizing genetic and demographic connectivity of ringed salamanders. Ringed Salamander Symposium, University of Missouri, Columbia, MO
- 2014 **Peterman, W.E.** Abundance, physiology, and population dynamics: Fine-scale landscape genetics of a terrestrial salamander. 6th Conference on the Biology of Plethodontid Salamanders, Tulsa, OK
- 2012 **Peterman, W.E.,** R.D. Semlitsch. The ties that bind: Fine scale habitat associations of terrestrial salamanders and implications for population dynamics. Ecological Society of America; Portland, OR
- 2011 **Peterman, W.E.,** T.A. Rittenhouse, J.E. Earl, and R.D. Semlitsch. Patterns in time and space: Population connectivity and persistence of Missouri wood frogs. Missouri Herpetological Society Meeting; Reis Biological Station, MO
- 2011 **Peterman, W.E.,** T.A. Rittenhouse, J.E. Earl, and R.D. Semlitsch. Patterns in time and space: Population connectivity and persistence of Missouri wood frogs. Ecological Society of America; Austin, TX
- 2008 **Peterman, W.E.** Effects of riparian buffer width on stream salamander populations in the Southern Appalachian Mountains. Ecology seminar series; University of Missouri
- 2007 **Peterman, W.E.,** J.A. Crawford, and R.D. Semlitsch. Productivity and significance of headwater streams: population structure and biomass of the black-bellied salamander (*Desmognathus quadramaculatus*). 5th Conference on the Biology of Plethodontid Salamanders; San Cristobal de las Casas, Mexico

**Poster Presentations** – (presented)

- 2014 **Peterman, W.E.** et al. Landscape Effects on Amphibian Species Richness and Wetland Conservation Coefficients. Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, TN
- 2014 **Peterman, W.E.** Abundance, physiology, and population structure: fine-scale landscape genetics of a terrestrial salamander. Prairie Lighting Symposium, Prairie Research Institute, University of Illinois, Champaign, IL
- 2013 **Peterman, W.E.,** R.D. Semlitsch, and L.S. Eggert. Abundance, physiology, and population structure: Fine-scale landscape genetics of a terrestrial salamander. Ecological Society of America, Minneapolis, MN
- 2013 **Peterman, W.E.** et al. Patterns in time and space: Using graph theory and occupancy modeling to assess population connectivity and persistence of Missouri wood frogs. Midwest Fish and Wildlife Conference; Minneapolis, MN (**Best student poster**)
- 2010 Crawford, J.A., **W.E. Peterman,** and A.R. Kuhns. Assessing the distribution of a secretive species using ecological niche and occupancy models. Southeast PARC Meeting; Ocala, FL
- 2008 **Peterman, W.E.** and T.J. Ryan. Movement and habitat use of the common snapping turtle in an urban landscape. **2008.** Midwest Fish and Wildlife Conference; Columbus, OH

- 2008 Crawford, J.A., A.R. Kuhns, and **W.E. Peterman**. Using ecological niche modeling to prioritize sampling areas for Jefferson salamanders in Illinois. Midwest Fish and Wildlife Conference; Columbus, OH
- 2008 **Peterman, W.E.**, R.D. Semlitsch, and J.A. Crawford. Effects of riparian buffer width on stream salamander populations. Southeastern Partners for Amphibian and Reptile Conservation; Athens, GA
- 2008 Camp, C.D., **W.E. Peterman**, J. Milanovich, T. Lamb, J.C. Maerz, and D.B. Wake. A new, tiny salamander from the Appalachian foothills in northern GA, Southeastern Partners for Amphibian and Reptile Conservation; Athens, GA
- 2007 Camp, C.D., **W.E. Peterman**, J. Milanovich, T. Lamb, J.C. Maerz, and D.B. Wake. A new, tiny salamander from the Appalachian foothills in northern GA, 5th Conference on the Biology of Plethodontid Salamanders; San Cristobal de las Casas, Mexico

**Poster Presentations** – (student presented)

- 2016 Wilk, A. and W.E. Peterman. Effects of habitat patch size on the abundance of red-backed salamanders (*Plethodon cinereus*). Fall Student Poster Forum, The Ohio State University
- 2017 Wilk, A. and W.E. Peterman. Effects of habitat patch size on the abundance of red-backed salamanders (*Plethodon cinereus*). 57<sup>th</sup> Ohio Fish and Wildlife Management Association, The Ohio State University, Columbus, OH.

**GRADUATE STUDENT ADVISING**

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- 2016–present **Kate Donlon**, Ph.D. student, The Ohio State University, School of Environment and Natural Resources (Advisor)
- 2016–present **Meaghan Gade**, Ph.D. student, The Ohio State University, School of Environment and Natural Resources (Advisor)
- 2016–present **Philip Gould**, Ph.D. student, The Ohio State University, School of Environment and Natural Resources (Advisor)
- 2016–present **Andrew Hoffman**, Ph.D. student, The Ohio State University, School of Environment and Natural Resources (Advisor)
- 2017–present **Mason Murphy**, Ph.D. student, Miami University, Department of Biology (Dissertation Committee Member)
- 2017–present **Robert Denton**, Ph.D. student, The Ohio State University, Ecology, Evolution, and Organismal Biology (Dissertation Committee Member)
- 2015–present **Alicia Brunner**, M.S. student, The Ohio State University, School of Environment and Natural Resources (Thesis Committee Member)
- 2014–2016 **Cody Rhoden**, M.S. student, University of Illinois, Illinois Natural History Survey (Thesis Committee Member)

**UNDERGRADUATE STUDENT ADVISING**

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- 2015–present **Andrew Wilk**: Forest patch size and isolation effects on genetic diversity of red-backed salamanders. Recipient of 2016 URO Summer Research Fellowship. Presented research at Fall Student Poster Forum and Ohio Fish and Wildlife Management Association meetings.
- 2012–2014 **Emily Brocato**: Assessing the effects that sampling different amphibian life stages has on population genetic inferences. Development and optimization of microsatellite primers for ringed and spotted salamanders for use in population genetic studies of source-sink dynamics. Presented research at the University of Missouri Undergraduate Research Forum (Spring 2013). Co-author on two peer-



reviewed manuscripts published in Conservation Genetics Resources, and is co-author on another manuscript to be submitted to PeerJ. Currently working at the University of Missouri Core Facility.

- 2012–2013 **Rio Schondelmeyer:** Conducted cattle tank experiment to assess the relationship between genetic diversity, environmental stress, and fitness. Presented research at the University of Missouri Undergraduate Research Forum (Summer 2012) and at Undergraduate Research Day at the state capital building in Jefferson City, MO (Fall 2012). Research will lead to two peer reviewed publications.
- 2012–2013 **Luke Pauley:** Development and optimization of microsatellite primers for ringed and spotted salamanders for use in population genetic studies of source-sink dynamics. Presented research at the University of Missouri Undergraduate Research Forum (Spring 2013). Co-author on two peer-reviewed manuscripts published in Conservation Genetics Resources. Currently in doctoral program at University of Wisconsin-Madison.
- 2011–2013 **Brett Spatola:** Development and optimization of microsatellite primers for landscape genetics research on the western slimy salamander. Presented research at the University of Missouri Undergraduate Research Forum (Summer 2011, Spring 2012). This research led a co-authored manuscript published in Conservation Genetics Resources. Currently in doctoral program at University of California-Davis.
- 2011–2012 **Jeremy Locke:** Oversaw research to develop plaster models for amphibian water loss studies. Presented research at the University of Missouri Undergraduate Research Forum (Spring 2012). Research has led to a manuscript published in Canadian Journal of Zoology.
- 2011–2012 **Elsa Stuart:** Development and optimization of microsatellite primers for ringed and spotted salamanders for use in population genetic studies of source-sink dynamics. Co-author on two peer-reviewed manuscripts published in Conservation Genetics Resources. Currently a Veterinary Medicine student at the University of Missouri.
- 2010–2011 **Sheena Feist:** Worked through the NSF sponsored UMEB program, oversaw the data collection, analysis, and writing of research on the population genetics of peripheral populations of wood frogs in Missouri. Presented research at the University of Missouri Undergraduate Research Forum (Summer 2010) and at the Ecological Society of America (2011). This research led to a co-authored manuscript published in Biological Conservation. Completed Masters at University of Missouri; currently the Conservation Resources Biologist, Mississippi Museum of Natural Science.
- 2007–2008 **Josh Wisdom:** Supervised development and implementation of summer research quantifying the effects of riparian forest removal on stream salamander population densities. Presented research at the University of Missouri Undergraduate Research Forum (Summer 2007). Data contributed to publication in Forest Ecology and Management.
- 2007–2008 **Sam Truslow:** Helped develop, implement, analyze, and publish study on the effectiveness of different sampling methodologies. Research led to a co-authored manuscript in Herpetological Review. Currently a land steward with the Nature Conservancy, VA.

## **TEACHING**

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- 2017 ENR 8890.01: Design of Ecological Field Studies (SP17). A 2-credit graduate seminar course designed to teach beginning early career scientists the principles of ecological study design in the context of wildlife, conservation, ecological, behavioral, and evolutionary research.
- 2016 ENR 4900.02: Environment and Natural Resources Management for Forestry Fisheries and Wildlife (fall semester). A 3-credit course taught to 30–40 undergraduate students to provide the opportunity to integrate ideas, concepts and tools learned during their academic careers to natural resources planning, problem solving and decision-making.
- 2016–present ENR 5370: Management of Wildlife Habitats (spring semester). A 2-credit course taught to 30–40 grad/undergrad students to introduce the principles of wildlife- habitat relationships, concepts of

landscape ecology as they relate to habitat configuration, and the conservation and management of wildlife habitats.

- 2015 Applied Landscape Conservation of Amphibians, Highlands Biological Station, Highlands, NC. A two-week course focused on the challenges of managing and conserving amphibians at the landscape scale. Students learn how the principles and tools of landscape ecology can be used monitor and manage amphibian populations.
- 2006–2012 General Biology for non-majors, Teaching Assistant, University of Missouri. Taught two sections of 24 students each semester. Responsibilities included instructing 2-hour labs and leading 50-minute discussion following each lab.
- 2005 General Ecology, Teaching Assistant, University of Missouri. Taught one section of 24 students in writing-intensive, field-based lab course. Oversaw labs, instructed students in methods of data collection, analysis, and presentation through writing.

## **SERVICE**

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### ***Ohio State University***

- 2015–present Honors Committee (School of Environment and Natural Resources)
- 2016–present CFAES Recognition Program Awards Selection Committee
- 2016 Search Committee Member to fill Zoo and Wildlife Medicine position in Veterinary Preventative Medicine

### ***Outreach***

- 2016–present Gave natural history talk in spring and fall at John Beltz Retreat Center to >25 parishioners of Overbrook Presbyterian Church.
- 2016 Presented at the ‘Wildlife and Human Interactions’ program organized by David Apsley, discussing conservation and management of Timber Rattlesnakes in Ohio. The audience consisted of 20 interested community members who gathered at Vinton Furnace Experimental Forest.
- 2016 Worked with ODNR to take photographer/filmmaker in the field to get footage of Timber Rattlesnakes and our research with them. Two informational videos were produced and shared on the ODNR’s Facebook and Vimeo pages.
- 2013–present Expert reviewer for Vital Signs (<http://vitalsignsme.org/>) online education program. I review species identification and comment on pictures of amphibian species observed by elementary school and community groups surveying vernal pools. This educational program is run through the Gulf of Maine Research Institute.
- 2012 Plethodontid salamander and biodiversity lecture for field ecology group of middle and high School students at Great Smoky Mountains Institute at Tremont.
- 2005–2009 Herpetology leader for Bioblitz; Columbia, MO (<http://bioblitz.missouri.edu/>)
- 2005–2007 Salamander Meander; Highlands, NC. Lectured on the biodiversity Appalachian salamanders and led an interpretive walk around Highlands Biological Field Station.

### ***Professional Service***

- 2016 Judge for student poster presentations, The Wildlife Society Conference, Raleigh, NC
- 2014 Judge, Henri Seibert Award (best student presentations in ecology), Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, TN.

### ***Service at the University of Missouri***

- 2008–2013 Seminar speaker host (7 seminars), Ecology and Biology Seminar Series  
2012–2013 Graduate student representative on faculty divisional council committee  
2011 Organized and led graduate semester-long seminar on Bayesian modeling with WinBUGS  
2010–2011 President, Biology Graduate Student Association  
2010 Science Saturday Instructor; Columbia, MO  
2006–2007 Treasurer, Biology Graduate Student Association  
2005–2006 Treasurer BioBlitz; Columbia, MO

### **WORKSHOPS**

- 2015 Spatial Capture-Recapture Modeling. Workshop hosted by the University of Georgia and led by R. Chandler and A. Royle (4-day workshop)  
2012 Hierarchical models for abundance, distribution and species richness in spatially structured populations using unmarked/R and WinBUGS. Workshop hosted by USGS Patuxent Wildlife Research Center and led by A. Royle, M. Kéry, and R. Chandler (4-day workshop)  
2008 Species distribution modeling workshop hosted by the American Museum of Natural History at the Southwest Research Station, Portal, AZ (5-day workshop)

### ***External Reviewer***

Animal Conservation	Herpetological Conservation and Biology
Aquatic Conservation: Marine and Freshwater Ecosystems	Herpetological Journal
Biological Conservation	Herpetological Review
Biological Journal of the Linnean Society	Hydrobiologia
Canadian Journal of Zoology	Integrative Zoology
Cities and the Environment	Journal of Applied Ecology
Conservation Genetics	Journal of Ethology
Copeia	Journal of Herpetology
Diversity and Distributions	Journal of Wildlife Management
Ecography	Landscape and Urban Planning
Ecological Applications	Landscape Ecology
Forest Ecology and Management	Molecular Ecology
Forests	Molecular Ecology Resources
Freshwater Biology	Open Journal of Ecology
Freshwater Science	Population Ecology
Global Change Biology	PLoS ONE
Global Ecology and Biogeography	Scientific Reports
Herpetologica	Urban Ecosystems

### ***Professional Membership***

- Ecological Society of America  
Society for the Study of Amphibians and Reptiles  
The American Society of Ichthyologists and Herpetologist  
The Herpetologists' League  
The Wildlife Society