

THOMAS L. ANDERSON

Department of Biology
Southern Illinois University Edwardsville
Campus Box 1651
Edwardsville, IL 62026

Office: 618-650-3907
thander@siue.edu
tlandersonresearch.weebly.com

PROFESSIONAL EXPERIENCE

2020-present	Assistant Professor, Dept. of Biology, Southern Illinois University Edwardsville
2018-2020	Postdoctoral Researcher, Dept. of Biology, Appalachian State University & Dept. of Biology, Southeast Missouri State University
2018-2019	Instructor, School of Natural Resources/Division of Biological Sciences, University of Missouri
2016–2017	Postdoctoral Researcher, Dept. of Ecology and Evolutionary Biology, University of Kansas
2011–2016	Graduate Research and Teaching Assistant, Division of Biological Sciences, University of Missouri
2008–2011	Graduate Research Assistant, Watershed Studies Institute, Murray State University

EDUCATION

2011–2016	<i>PhD</i> , University of Missouri, Division of Biological Sciences Adviser: Raymond D. Semlitsch
2008–2011	<i>MS</i> , Water Science, Murray State University Adviser: Howard H. Whiteman
2001–2006	<i>BS</i> , Biology, University of Wisconsin-Eau Claire

RESEARCH INTERESTS

My general research interests encompass both population and community ecology, with specific interest in species interactions (e.g., competition, predation), drivers of population and community structure and spatiotemporal variability in demography. I have primarily used pond-breeding amphibians and aquatic invertebrates as model organisms, with some big-data investigations into spatiotemporal variability of a variety of taxa, such as freshwater plankton and white-tailed deer.

PEER-REVIEWED ARTICLES (* = graduate student co-author, ** = undergrad co-author)

41. **Anderson, T.L.**, J.J. Burkhart, J. Bianci-Gaskill*, and J.M. Davenport. *Accepted*. Limited population and community effects of hatching asynchrony in a pond-breeding salamander. *Ecosphere*
40. Stemp, K.M.*, **T.L. Anderson** and J.M. Davenport. 2022. Multiple predator effects and functional redundancy pond predators. *Journal of Herpetology* 56: 18-26

39. Stemp, K.M.*, **T.L. Anderson** and J.M. Davenport. 2021. The effects of intraguild interactions (or lack of) on prey diversity in experimental ponds food webs. *Food Webs* 29: e00207
38. **Anderson, T.L.**, J.E. Earl, D.J. Hocking, M.S. Osbourn, T.A.G. Rittenhouse and J.R. Johnson. 2021. Demographic effects of phenological variation in natural populations of two pond-breeding salamanders. *Oecologia* 196: 1073-1083
37. Gunn, J.C.*, S. Clement*, J. Gaskill*, J. Kansman*, and **T.L. Anderson**. 2021. Effects of habitat complexity on giant water bug (*Belostoma*) functional response to ram-horn snail prey (*Helisoma*). *Hydrobiologia* 848: 4585-4597
36. **Anderson, T.L.**, J.J. Burkhart, and J.M. Davenport. 2021. Density-dependent priority effects alter interactions between larval salamanders. *Freshwater Biology* 66: 1356-1365
35. **Anderson, T.L.**, B.H. Ousterhout, F.E. Rowland, J.J. Burkhart, D.L. Drake, and W.E. Peterman. 2021. Direct effects influence larval salamander size and density more than indirect effects. *Oecologia* 195: 173-186
34. Walter, J.A., L.M. Hallett, L.W. Sheppard, **T.L. Anderson**, L. Zhao, R. J. Hobbs, K.N. Suding, and D.C. Reuman. 2021. Micro-scale geography of synchrony in a serpentine plant community. *Journal of Ecology*. 109: 750-762
34. **Anderson, T.L.**, L.W. Sheppard, J.A. Walter, R. Rolley, and D.C. Reuman. 2021. Synchronous effects produce major cycles in deer populations and deer-vehicle collisions. *Ecology Letters* 24: 337-347
33. Stemp, K.M.*, **T.L. Anderson** and J.M. Davenport. 2021. Macro-geographic scale variation of a keystone predator in a common garden environment. *Population Ecology* 63: 5-13
31. **Anderson, T.L.** *Ambystoma annulatum*- Development. 2020. *Herpetological Review* 51: 525-526
30. **Anderson, T.L.** K.M. Stemp*, and J.M. Davenport. 2020. Functional responses of larval marbled salamanders (*Ambystoma opacum*) and adult lesser siren (*Siren intermedia*) on Anuran Tadpole Prey. *Copeia* 108:341-346
29. **Anderson, T.L.**, K.M. Stemp*, B.H. Ousterhout, D.L. Burton*, and J. M. Davenport. 2020. Impacts of phenological variability in a predatory larval salamander on pond food webs. *Journal of Zoology* 310: 95-105
28. Stretz, P.***, **T.L. Anderson** and J.J. Burkart. 2019. Macroinvertebrate foraging on larval *Ambystoma maculatum* across ontogeny. *Copeia* 107: 244-249
27. **Anderson, T.L.**, L.W. Sheppard, J. A. Walter, T.D. Levine, S.P. Hendricks, D.S. White, and D.C. Reuman. 2019. The dependence of synchrony on timescale and geographic structure in freshwater plankton. *Limnology and Oceanography* 64: 483-502
26. Peterman, W.E., **T. L. Anderson**, B. H. Ousterhout, J.J. Burkhart, D. L. Drake, F. E. Rowland, R. D. Semlitsch. 2018. Using spatial demographic network models to optimize habitat creation, restoration, and preservation. *Journal of Wildlife Management* 82:649-659
25. **Anderson, T.L.**, J.A. Walter, T.D. Levine, S.P. Hendricks, K. Johnston, D.S. White, and D.C. Reuman. 2018. The use of geography to infer patterns of spatial synchrony of freshwater plankton. *Oikos* 127:403-414
24. **Anderson, T. L.**, F. E. Rowland, and R. D. Semlitsch. 2017. Variation in phenology and density differentially affect predator-prey interactions between salamanders. *Oecologia* 185: 475-486

23. Burkhart, J.J., W. E. Peterman, E. R. Brocato, K. Romine, M. M. Willis, B. H. Ousterhout, **T. L. Anderson**, D. L. Drake, F. E. Rowland, R. D. Semlitsch, L. S. Eggert. 2017. The influence of breeding phenology on the genetic structure of four pond-breeding salamanders. *Ecology and Evolution* 7: 4670-4681
--Covered by Science Daily, EurekAlert!, Science Newline, Futurity, The Wildlife Society, Phys.org, Scienmag
22. Walter, J.A., L.W. Sheppard, **T.L. Anderson**, J.H. Kastens, O. Bjørnstad, A.M. Liebhold and D.C. Reuman. 2017. The geography of spatial synchrony in ecology. *Ecology Letters* 20: 801-814
21. **Anderson, T. L.**, C. L. Mott, B. A. Hartman**, and H. H. Whiteman. 2017. Biotic and abiotic predictors of larval salamander size and abundance. *Copeia* 105: 237-248
20. **Anderson, T. L.** 2016. Predation risk between aeshnid dragonflies influences their functional response on a larval salamander prey. *Journal of Zoology* 300: 221-227
19. **Anderson, T. L.**, B. H. Ousterhout, D. L. Drake, J. J. Burkhart, F. E. Rowland, W. E. Peterman, and R. D. Semlitsch. 2016. Differences in larval allometry among three ambystomatid salamanders. *Journal of Herpetology* 50: 464-470
18. Semlitsch, R. D. and **T. L. Anderson**†. 2016. Structure and dynamics of Spotted Salamander (*Ambystoma maculatum*) populations in Missouri. *Herpetologica* 72: 81-89
†Corresponding author
17. **Anderson, T. L.** and R. D. Semlitsch. 2016. Top predators and habitat complexity alter an intraguild predation module in pond communities. *Journal of Animal Ecology* 85: 54-68
16. Peterman, W. E., B. H. Ousterhout, **T. L. Anderson**, D. L. Drake, R. D. Semlitsch, & L. S. Eggert. 2016. Using modularity in genetic networks to manage spatially structured metapopulations. *Ecosphere* 7: e01231
15. **Anderson, T. L.**, C. Linares**, K. Godson**, and R. D. Semlitsch. 2016. Variability in functional response curves among larval salamander predators: comparisons of species and size. *Canadian Journal of Zoology* 94: 23-30
14. **Anderson, T.L.**, J. L. Heemeyer, W. E. Peterman, M. J. Everson*, B. H. Ousterhout, D. L. Drake, and R. D. Semlitsch. 2015. Automated analysis of temperature dataloggers to determine inundation state of wetlands. *Wetlands Ecology and Management* 23: 1039-1047
13. **Anderson, T. L.**, B. H. Ousterhout, W. E. Peterman, D. L. Drake and R. D. Semlitsch. 2015. Life history differences influence the impacts of drought on two pond-breeding salamanders. *Ecological Applications* 25: 1896-1910
12. Drake, D. L., B. H. Ousterhout, J. R. Johnson, **T. L. Anderson**, W. E. Peterman, C. Schulse, D. J. Hocking, K. L. Lohraff, E. B. Harper, T. A. G. Rittenhouse, B. B. Rothermel, L. S. Eggert, & R. D. Semlitsch. 2015. Pond breeding amphibian community composition in Missouri. *American Midland Naturalist* 174: 180-187
11. Ousterhout, B. H., **T. L. Anderson**, W. E. Peterman, D. L. Drake and R. D. Semlitsch. 2015. Abundance and fitness of pond-breeding amphibian larvae predicted by different processes. *Journal of Animal Ecology* 84: 914-924
10. **Anderson, T. L.** and H. H. Whiteman. 2015. Asymmetric effects of intra- and interspecific competition on a pond-breeding salamander. *Ecology* 96: 1681-1690
9. **Anderson, T. L.** and H. H. Whiteman. 2015. Non-additive effects of intra- and interspecific competition between two larval salamanders. *Journal of Animal Ecology* 84: 765-772

8. Semlitsch, R. D., W. E. Peterman, **T. L. Anderson**, D. L. Drake, and B. H. Ousterhout. 2015. Intermediate pond sizes contain the highest density, richness, and diversity of pond-breeding amphibians. *PlosOne* 10: e0123055
7. **Anderson, T. L.**, D.J. Hocking, C.A. Connor, J.E. Earl, E.B. Harper, M.S. Osbourn, W.E. Peterman, T. A. G. Rittenhouse, R. D. Semlitsch. 2015. Abundance and phenology patterns of two pond-breeding salamanders determine species interactions in natural populations. *Oecologia*. 177: 761-773 *Cover photograph by W.E. Peterman
6. Peterman, W.E., **T.L. Anderson**, B.H. Ousterhout, D.L. Drake, R.D. Semlitsch, & L.S. Eggert. 2015. Differential dispersal shapes population structure and patterns of genetic differentiation in two sympatric pond breeding salamanders. *Conservation Genetics* 16: 59-69
5. Drake, D. L., **T. L. Anderson**, L. M. Smith**, K. L. Lohraff, and R. D. Semlitsch. 2014. Predation of eggs and hatchlings of the Ringed Salamander (*Ambystoma annulatum*) by native and non-native predators. *Herpetologica* 70: 378-387
4. Peterman, W. E., **T. L. Anderson**, D. L. Drake, B. H. Ousterhout and R. D. Semlitsch. 2014. Maximizing pond biodiversity across the landscape: a case study of larval ambystomatid salamanders. *Animal Conservation* 17: 275-285
3. **Anderson, T. L.** and R. D. Semlitsch. 2014. High intraguild predator density induces thinning effects on and increases temporal overlap with prey populations. *Population Ecology* 56: 265-273 *Editors Choice*
2. Semlitsch, R. D, **T. L. Anderson**, M. S. Osbourn, and B. H. Ousterhout. 2014 Structure and dynamics of ringed salamander (*Ambystoma annulatum*) populations in Missouri. *Herpetologica* 70: 14-22
1. **Anderson, T. L.**, C. L. Mott, T. D. Levine and H. H. Whiteman. 2013. Life cycle complexity influences intraguild predation and cannibalism in pond communities. *Copeia* 2013: 288-295

Non-Peer Reviewed Articles and Technical Reports

- Eggert, L.S., R.D. Semlitsch, T.L. Anderson, J.J. Burkhart, A. Messerman, B. Ousterhout, W.E. Peterman, F.E. Rowland. 2015. Multi-Scale Approach to Understanding Source-Sink Dynamics of Amphibians. SERDP RC-2155.
- Semlitsch, R. D., **T. L. Anderson**, D. L. Drake, B. H. Ousterhout, W. E. Peterman, and C. D. Shulse. 2013. Small, Clustered Wetlands Promote Amphibian Persistence. National Wetlands Newsletter. Environmental Law Institute. September-October, pages 20-25

Manuscripts in Review or Revision

- Anderson, T.L.** and J.M. Davenport. Predicting prey diversity with multiple predator effects.

Pre-prints

- Siqueira, T., Hawkins, C., Olden, J., Tonkin, J., Comte, L., Saito, V. S., **Anderson, T.L.**.... Ruhi, A. (2022, May 31). Ecological stability propagates across spatial scales and trophic levels in freshwater ecosystems. <https://doi.org/10.32942/osf.io/mpf5x>

Software

Reuman, D.C., **T.L. Anderson**, J.A. Walter, L. Zhao, L.W. Sheppard. 2019. wsyn: wavelet approaches to studies of synchrony in ecology and other fields. Available for R at <https://cran.r-project.org/web/packages/wsyn/index.html>

TEACHING EXPERIENCE

Southern Illinois University Edwardsville: Contemporary Biology (non-majors, lecture), Aquatic Ecosystems (majors, lecture/lab), General Ecology (majors, lecture/lab), Design and Analysis of Biological Experiments (graduate seminar), Spring Phenology and Climate Change (majors, lecture/lab), Biology Colloquium (undergraduate seminar)

University of Missouri: Design and Analysis of Ecological Experiments (graduate seminar); Ecology (majors, lecture/lab)

GRANTS

2022 National Science Foundation, DEB Population and Community Ecology Cluster; Building Research Capacity for New Faculty at PUIs. The importance of trophic level and food web complexity on phenological shifts in pond communities. *Role*: PI. *Status*: Under Review. \$476,920

US Geological Survey. Temperature-dependent outcomes of priority effects in pond-breeding salamanders. *Role*: PI. *Status*: Funded, \$50,000

2021 National Science Foundation, DEB Population and Community Ecology Cluster. Understanding effects of seasonality and variable warming on phenological shifts across multiple life stages. *Role*: PI. Co-PI: Jon Davenport. *Status*: *Declined*.
National Science Foundation S-STEM Program. “At the Confluence: Supporting Critical Transitions for Graduate Students in Sustainable Watersheds Research.” PIs: A. Martinez, S. Locke, C. Calannino, A. Black, R. Benjankar. *Role*: Senior Personnel. \$1,500,000

Research Equipment and Technology Program, SIUE Graduate School. *Role*: PI. Co-PIs: A. Black, R. Benjankar, S. Celik. *Status*: Funded \$19,198.88

2017–2021 The Herpetologists League. Raymond D. Semlitsch Research Award. Temperature-dependent outcomes of priority effects in pond-breeding salamanders. *Role*: PI. *Status*: Declined \$5000
Strategic Environmental Resource Defense Program (SERDP). PI: K. O’Donnell. Co-PIs: **T. L. Anderson**, T. Gorman, C. Haas, B. H. Ousterhout, J. Davenport and S. C. Walls. “Predicting the Persistence of Salamanders: Consequences of Phenological Shifts for Species of Management Concern on DoD Lands” (\$2,190,232; my portion ~ \$95,767)

2015 Watershed Studies Institute Research Grant (\$500)

2014 Watershed Studies Institute Research Grant (\$1200)

2013	Graduate Education Council Travel Grant (\$190) Watershed Studies Institute Research Grant (\$500) AMNH Theodore Roosevelt Memorial Grant (\$1411)
2009	Watershed Studies Institute Tuition Grant (\$2000) Watershed Studies Institute Research Grant (\$1000)

FELLOWSHIPS AND SCHOLARSHIPS

2013–2016	Graduate Assistance in Areas of National Need (GAANN) Fellowship (\$90,000)
2015	Graduate Professional Council Travel Grant (\$200) BGSA Travel Award (\$189)
2010	Hancock Biological Station Foundation Scholarship (\$500)
2009	Dr. Morgan Emery Sisk Alumni Scholarship (\$4500)

MENTORING

Graduate students

Claudette Conigliaro (2022-present)

John Moore (2022-present)

Jessica Sandoval (2021-present)

Mariah Mack (2021-present)

Thesis Committee Member

Monica Berviller (2022-present)

Carolyn Kinnunen (2022-present)

Garima Ranabhat (2022-present)

Efe Oniovokukor (2022-present)

Amy Docter (2021-present)

Logan Phillips (2021-2022)

Andrew Pyszka (2021-2022)

Before SIUE

David Burton, Appalachian State (2018-2019)

Kenzi Stemp, Southeast Missouri State University (2016–2017)

Undergraduate students

2021-present

Kyle Willenborg- URCA assistant, BIOL 493

Victoria Green- URCA assistant, BIOL 493/492M, paid research student

Simon Harper- URCA assistant, BIOL 493

Kasey Nowell- URCA assistant, BIOL 493

Lacie Ridgway- BIOL 493, paid research student

Trevor Rallo- BIOL 493, paid research student

2021 Christian Dunaway- BIOL 492M, BIOL 493. Indirect effects of mosquitofish on tadpole growth

Zach Bach- BIOL 492M, BIOL 493. Effects of alternative prey on mosquitofish survival with Aeshnidae predators
Ethan Erwin- BIOL 492M, BIOL 493. Non-consumptive effects of Aeshnidae dragonflies on mosquitofish foraging rates
Angelique Ikeda- URCA assistant, BIOL 492M. Effects of water temperature on size at hatching in anurans

University of Missouri

- 2012–2016 Cristina Linares. Functional response curves of larval salamanders. Research led to a peer-reviewed manuscript.
- 2014–2015 Michael Everson. The use of iButtons to capture hydroperiod fluctuations. Research contributed to a peer-reviewed manuscript. Optometrist.
- 2013–2015 Katelyn Dodson. Functional response curves of larval salamanders. Research led to a peer-reviewed manuscript.
- 2012–2013 Joshua Robinson. Tree frog site selection in response to varying predation risk. Lauren Smith. The influence of habitat complexity on predation of ringed salamander larvae by three aquatic predators. Research led to a peer-reviewed publication. Completed an MS in Wildlife Biology at Humboldt State University

Murray State University

- 2014-2015 Brad Hartmann. Size structure of mole salamander populations. Research led to a peer-reviewed manuscript. Biologist with KDFWR
- 2009 David Farrell. Fitness costs and breeding migration timing in two *Ambystoma spp.* salamanders. Undergraduate Capstone Project. Currently a Catholic priest

INVITED ORAL PRESENTATIONS

- Anderson, T.L.** 2022. Timing isn't everything: The (lack of) importance of phenology in amphibian populations; Univ. of Toledo
- Anderson, T.L.** 2022. Climate change and amphibian phenology. Illinois RiverWatch Winter Seminar Series
- Anderson, T.L.** 2021. Timing isn't everything: The (lack of) importance of variability in phenology in amphibian populations; Missouri S&T/SIU Edwardsville
- Anderson, T.L.** 2021. Mechanisms of demographic variability in aquatic ecosystems; Living Earth Collaborative/Washington University (MO)
- Anderson, T.L.** 2020. Timing isn't everything: The (lack of) importance of variability in phenology in amphibian populations; Louisiana Tech University
- Anderson, T.L.** 2020. Mechanisms of demographic variability in aquatic ecosystems. Southern Illinois University Edwardsville; Southeast Missouri State University
- Anderson, T.L.** 2019. Mechanisms of demographic variability across scales and contexts. Southern Illinois University-Carbondale; Appalachian State University
- Anderson, T.L.** 2019. Mechanisms of demographic variability in aquatic ecosystems. Murray State University
- Anderson, T.L.** 2018. Structural patterns of spatial synchrony. University of Missouri

- Anderson, T.L.** 2018. Scaling up context-dependent outcomes in predator-prey interactions. Illinois State University
- Anderson, T.L.** 2018. Scaling up context-dependent outcomes in predator-prey interactions. National Great Rivers Research and Education Center
- Anderson, T.L.** 2016. Variability in the outcomes of species interactions along biotic and abiotic gradients: a case study using larval salamanders. University of Kansas

CONTRIBUTED ORAL PRESENTATIONS (since 2015; Underline = undergrad co-author, * = graduate student co-author)

-
- Anderson, T.L.,** M. Mack* & J. Sandoval*. 2022. Life history traits of ringed and marbled salamanders in response to hydroperiod variation. Midwest Partners in Amphibian Reptile Conservation, Grand Rapids, MI
- Anderson, T.L.** 2022. Long-term occupancy dynamics of ringed (*Ambystoma annulatum*) and marbled (*A. opacum*) salamanders in Missouri. Joint Meeting of Ichthyologists and Herpetologists, Spokane, WA
- Anderson, T.L.** 2021. Temporal variation in occupancy dynamics of ringed (*Ambystoma annulatum*) and marbled (*A. opacum*) salamanders in Missouri. Midwest Partners in Amphibian Reptile Conservation, Virtual
- Anderson, T.L.** and J.M. Davenport. 2021. Multiple predator effects in larval salamanders. Ecological Society of America Annual Meeting, Virtual
- Anderson, T.L.** and J.M. Davenport. 2021. Multiple predator effects in larval salamanders. Society for Freshwater Science Annual Meeting, Virtual
- Anderson, T.L.,** C.M. Gienger, and H.H. Whiteman. 2020. Spatiotemporal variability in paedomorphosis in *Ambystoma talpoideum* across two metapopulations. World Congress of Herpetology, Dunedin, New Zealand
- Anderson, T.L.,** B.H. Ousterhout, K.M. Stemp, D.M. Burton, J.J. Burkhart, and J.M. Davenport. 2020. Impacts of phenological variability on salamander demography and pond food webs. World Congress of Herpetology, Dunedin, New Zealand
- Anderson, T.L.,** B.H. Ousterhout, K.M. Stemp, D.M. Burton, J.J. Burkhart, and J.M. Davenport. 2019. Impacts of phenological variability on salamander demography and pond food webs. Ecological Society of America Annual Meeting, Louisville, KY
- Anderson, T.L.,** B.H. Ousterhout, F.E. Rowland, D.L. Drake, J.J. Burkhart, and W.E. Peterman. 2018. Direct effects influence larval salamander size more than indirect effects. Joint Meeting of Ichthyologists and Herpetologists, Rochester, NY
- Anderson, T.L.** et al. 2017. The dependence of synchrony on timescale and geographic structure in freshwater plankton. Ecological Society of America Annual Meeting, Portland, OR
- Anderson, T.L.** et al 2017. Structure and dynamics of co-occurring ambystomatid salamanders. Joint Meeting of Ichthyologists and Herpetologists, Austin, TX
- Anderson, T.L.** 2016. Using distance matrices to examine ecological patterns. Quantitative Lunch, University of Kansas
- Anderson, T. L.,** C. Linares, K. Dodson and R. D. Semlitsch. 2015. Variability in functional response curves among larval salamander predators: comparisons of species and size. Missouri Herpetological Association, Rice Biological Station, MO

Anderson, T.L., F. E. Rowland, and R. D. Semlitsch. 2015. Phenology and density influence intraguild predation between larval salamanders. Ecological Society of America Annual Meeting, Baltimore, MD

Anderson, T.L., F. E. Rowland, and R. D. Semlitsch. 2015. Phenology and density influence intraguild predation between larval salamanders. Society for the Study of Reptiles and Amphibians. Lawrence, KS

CONTRIBUTED POSTER PRESENTATIONS (since 2015; Underline = undergrad co-author)

Anderson, T.L., B.H. Ousterhout, D.L. Drake, W.E. Peterman, J.J. Burkart, F.E. Rowland, and J.M. Davenport. 2018. The impact of climate variability on body size variation of larval salamanders. Joint Meeting of Ichthyologists and Herpetologists, Rochester, NY

Anderson, T.L., K.M. Stemp and J.M. Davenport. 2018. Functional redundancy between predatory larval salamanders in pond food webs. Gordon Conference on Predator-Prey Interactions. Ventura, CA

Anderson, T.L., et al. 2016. Mechanisms of spatial synchrony in freshwater plankton: testing the relative contributions of Moran effects, dispersal, and biogeography. Ecological Society of America, Ft. Lauderdale, FL

Linares, C. and **T.L. Anderson.** 2016. The effects predator presence and abundance on wood frogs (*Rana sylvatica*). University of Missouri Life Sciences Week Undergraduate Research Symposium, Columbia, MO

Anderson, T.L., F.E. Rowland, and R. D. Semlitsch. 2016. Density and phenology differentially affect larval salamander interactions and overall aquatic community structure. Gordon Conference on Predator-Prey Interactions. Ventura, CA

OUTREACH AND SERVICE

- | | |
|-----------|--|
| 2022 | NSF Ad hoc reviewer |
| 2021 | ISAS Student Grant reviewer; SIUE Advocates and Allies program |
| 2018 | Life Sciences Week Poster Session Judge, University of Missouri; Judge for Missouri Academy of Sciences-Junior Division Regional Paper Competition, Lincoln University |
| 2017 | Invited presenter: sampling of Wetland Biota, Kansas Association of Biology Teachers. Baker Wetlands, Lawrence, KS; SSAR judge for student oral presentations, JMIH, Austin, TX |
| 2016–2017 | Ad hoc reviewer for NSF-Division of Environmental Biology |
| 2014–2016 | President, Biology Graduate Student Association |
| 2013–2014 | Graduate Student Association Representative, Biology Graduate Student Association
Conservation Biology Seminar Series Coordinator
Invited Presenter: Exploring Missouri Waters: Salamanders”. Missouri State Capitol, Jefferson City, MO |
| 2010 | Invited Presenter: “Reptiles and Amphibians” Caldwell County Grade School, Murray, KY
Invited Presenter: “Creep Crawly Critter Day” Land Between the Lakes National Recreation Area, Golden Pond, KY |

- Invited Presenter: “Junior Explorer Day- Salamanders” Land Between the
Lakes National Recreation Area, Golden Pond, KY
2008 Invited Presenter: “Water Sampling” Lyon County 4-H Camp, Kuttawa, KY

JOURNALS REVIEWED

- 2022 *Journal of Herpetology, Functional Ecology, Ichthyology and Herpetology, Freshwater Science*
- 2021 *Ecosphere, Oecologia, Ecology and Evolution, Animal Conservation, Herpetological Conservation and Biology*
- 2020 *Global Change Biology, Landscape Ecology, Proceedings of the Royal Society B, Limnology, Wetlands, Herpetologica, Oikos, Journal of Zoology, Integrative Zoology, Journal of Applied Ecology, Limnology and Oceanography*
- 2019 *Herpetological Conservation and Biology, Journal of Animal Ecology, Proceedings of the Royal Society B, Journal of Herpetology (2), Global Ecology and Conservation, Wetlands, Ecosphere, Oecologia*
- 2018 *Ecology and Evolution, Freshwater Biology (3), Canadian Journal of Zoology, Journal of Herpetology, American Midland Naturalist, Ecology*
- 2017 *Journal of Herpetology, Herpetologica (2), Freshwater Biology (2), PeerJ, Biological Journal of the Linnean Society, Oikos, Northeastern Naturalist, Animal Behaviour, Herpetological Conservation and Biology*
- 2016 *Journal of Animal Ecology, Amphibia-Reptilia, Ecology, Wetlands, Freshwater Biology, Oecologia, Herpetologica*
- 2015 *Journal of Herpetology (2), Wetlands, Hydrobiologia, Journal of Animal Ecology, Oikos*
- 2014 *American Midland Naturalist, Journal of Herpetology*
- 2013 *Freshwater Science*
- 2012 *Biological Conservation, Copeia, Southwestern Naturalist, Journal of the Arkansas Academy of Sciences*
- 2009 *Copeia*

OTHER RESEARCH EXPERIENCE

- 2011 Research Technician, High Lonesome Ranch (DeBeque, CO)
Project focus: Stream food web and ecosystem dynamics
- 2008–2011 Field Assistant, Hancock Biological Station (Murray, KY)
Project focus: Aquatic food web dynamics and ecosystem function
- 2005–2009 Field Technician, Rocky Mountain Biological Laboratory (Gothic, CO)
Project foci: Salamander, ground-squirrel and sapsucker demography
- 2007–2008 Field Technician, Blodgett Forest Research Station (Georgetown, CA)
Project focus: Spotted owl demography
- 2007–2008 Field Technician, University of Delaware (Oceanville, NJ)
Project focus: Black duck demography and radiotelemetry
- 2004 Field Technician, Iowa State University (Winter, WI)
Project focus: Plant community composition

PROFESSIONAL DEVELOPMENT

- 2022 SIUE Advocates and Allies Training Workshop; SIUE Ally Safe Zone Training
- 2020 *New Faculty Onboarding Teaching Challenges Case Study Discussion* – Center for Faculty Development and Innovation, SIUE, December 4, 2020
New Faculty Onboarding Session: Preparing a Tenure and Promotion Dossier, Center for Faculty Development and Innovation, SIUE, November 6, 2020
Library Information Services Pre-Tenure Workshop, Center for Faculty Development and Innovation, SIUE, October 9, 2020
New Faculty Onboarding Session “Welcome to the Program New Faculty Panel”, Center for Faculty Development and Innovation, SIUE, September 11, 2020
Pandemic Teaching Challenges “Using Communication to Build an Inclusive Classroom Culture Online”, SIUE, Thursday, July 23, 2020
- 2019 *Supporting Underrepresented Students in the Academy* panel discussion. Attendee, Univ. of Missouri
- 2015-2016 *Preparing Future Faculty Seminar Series*. Univ. of Missouri
- 2013 *Occupancy modeling in BUGS/JAGS and unmarked: Hierarchical models for species occurrence and communities*. USGS Patuxent Wildlife Research Center. Instructors: Marc Kéry and Andrew Royle
Modeling Patterns of Species Occurrence Workshop. Univ. of New Mexico. Instructor: Daryl MacKenzie

PROFESSIONAL ORGANIZATIONS

- 2013–present American Society of Ichthyologists and Herpetologists
- 2010–present The Ecological Society of America
- 2012–2016 Society for the Study of Amphibians and Reptiles
- 2014–2016, 2021 The Herpetologist’s League