

## **Curriculum Vitae: Jessica E. Rettig**

Department of Biology  
Denison University  
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<https://denison.edu/people/jessica-rettig>

### **Current Positions:**

2019- Professor of Biology, Denison University  
2007- Anderson Science Program Coordinator, Denison University

### **Academic Experience:**

2010-2013 Chair of Biology, Denison University  
2006-2019 Associate Professor of Biology, Denison University  
2000-2006 Assistant Professor of Biology, Denison University  
1999-2000 Assistant Professor of Biology, William Jewell College, Liberty, MO  
1997-1999 Instructor of Biology, William Jewell College, Liberty, MO  
1996-1997 Visiting Assistant Professor of Biology, Earlham College, Richmond, IN

### **Educational Background:**

1999 Ph.D. Michigan State University in Zoology and in  
Ecology, Evolutionary Biology, & Behavior (EEBB)  
1991 B.A. Earlham College in Biology (College and Departmental Honors)

### **Honors, Fellowships & Academic Distinctions:**

2010–2015 Henry Chisholm Endowed Chair in the Natural Sciences (Denison)  
2006 Commitment to Community Award, Denison Chapter of Mortar Board  
2002 Sigma Xi, Denison University (Denison)  
1996 Graduate School Incentive Fellowship, MSU  
1993–1995 NSF Research Training Grant (RTG) Fellowship, MSU  
1992 NSF Predoctoral Graduate Fellowship - Honorable Mention  
1991 College of Natural Science Doctoral Recruiting Fellowship, MSU  
1991 Phi Beta Kappa, Earlham College  
1991 College & Departmental Honors – Earlham College  
1991 Kathryn Weber Scholar-Athlete Award, Earlham College

### **Teaching:**

#### **Denison University**

Advising Circle 101; Advising Seminar 101; First Year Seminar 103: Engaging  
the Liberal Arts  
Writing Workshop 101: Science, Society, & Infectious Disease  
Vertebrate Zoology  
Population and Community Ecology  
Ecology & Evolution  
Introduction to the Science of Biology

Invertebrate Zoology  
General Zoology

**William Jewell College**

Invertebrate Zoology, Evolution and Ecology, Biological Diversity and Design,  
Developmental Anatomy, Ecology, EarthBeat (non-majors Environmental Science)

**Earlham College**

Entomology

**Publications (peer-reviewed):**

(\*undergraduate co-authors, <sup>€</sup>editor-reviewed; in reverse chronological order)

- Smith, W.O.\*, J.E. Rettig, L.E. Smith\*, and G.R. Smith. MS. Prevalence of leeches and algae on Painted Turtles (*Chrysemys picta*) in four created ponds in central Ohio: Effects of pond, sex, size, and month. *Chelonian Conservation and Biology*. *In press*
- Smith, G.R., J.B. Iverson, and J.E. Rettig. MS. Do observed sex ratios in a turtle community in northern Indiana vary from 1979-2014? *Amphibian & Reptile Conservation*. *In press*.
- Rettig, J.E., N.R. Teeters\*, and G.R. Smith. 2021. Effects of Bluegill and two species of tadpoles on experimental zooplankton communities. *American Midland Naturalist* 186:95-105.
- Smith, G.R., and J.E. Rettig. 2021. Influence of the presence of invasive mosquitofish and submerged vegetation on oviposition site selection by gray treefrogs (*Hyla versicolor*). *Herpetological Journal* 31:85-90.
- Rettig, J.E., and G.R. Smith. 2021. Relative strength of top-down effects of an invasive fish and bottom-up effects of nutrient addition in a simple aquatic food web. *Environmental Science and Pollution Research* 28: 5845-5853.
- Smith, G.R., J.E. Rettig, and J.B. Iverson. 2020. Frequency of and temporal trends in shell anomalies in a turtle community in a northern Indiana lake. *Chelonian Conservation and Biology* 19(2) 277-282. doi:10.2744/CCB-1408.1
- Iverson, J.B., G.R. Smith, and J.E. Rettig. 2019. Body size and growth in Northern Map Turtles (*Graptemys geographica*) in Indiana. *Journal of Herpetology* 53: 297-301
- Smith, G.R., J.E. Rettig, M. Smyk\*, M. Jones\*, G. Eng-Surowiec\*, D. Mirshavili\*, and J. Hollis\*. 2019. Consumption of the eggs, hatchlings, and tadpoles of Green Frogs (*Lithobates clamitans*) by native and non-native predators. *Amphibia-Reptilia* 40: 383-387.
- \*Clemmer, J.H. and J.E. Rettig. 2019. Native bluegill influence the foraging and aggressive behavior of invasive mosquitofish PeerJ:e6203 <http://doi.org/10.7717/peerj.6203>
- \*Bartson, S., J. Ogilvie\*, A.J. Petroff\*, G.R. Smith, and J.E. Rettig. 2018. Effect of pond dye on the response of Southern Leopard Frog tadpoles (*Lithobates sphenoccephalus*) to Western Mosquitofish (*Gambusia affinis*) cues. *Basic Appl. Herpetol.* 32:71-76.
- Lewis, E., G.R. Smith, J.B. Iverson, and J.E. Rettig. 2018. Body size and growth in the reared slider (*Trachemys scripta elegans*) at the northern edge of its range: Does Bergmann's Rule apply? *Herpetological Conservation and Biology* 13: 700-710.
- Smith, G.R., J.B. Iverson, and J.E. Rettig. 2018. Frequency of propeller damage in a turtle community in a northern Indiana lake: a long-term study. *Herpetological Conservation and Biology* 13:691-699.
- <sup>€</sup>Smith, G.R., and J.E. Rettig. 2018. *Nerodia sipedon* Diet. *Herpetological Review* 49: 135.

- Rettig, J.E., G.R. Smith, G. Eng-Suroweic\*, D. Mirzashvili\*, M. Smyk\*, M. Jones\*, and J. Hollis\*. 2018. Consumption of invasive Western Mosquitofish fry by adult conspecifics and native crayfish. *Northeastern Naturalist* 25:117-122.
- Smith, G.R., S.V. Krishnamurthy, A.C. Burger\*, and J.E. Rettig. 2018. Effects of malathion and nitrate exposure on the zooplankton community in experimental mesocosms. *Environmental Science and Pollution Research*. 25:9992-9997.  
<https://doi.org/10.1007/s11356-018-1311-0>
- \*Burger, A.C., B.W. Marlowe\*, E.P. Tristano\*, G.R. Smith, and J.E. Rettig. 2017. Effect of recreational trail traffic level on Eastern Red-backed Salamander (*Plethodon cinereus*) relative abundance. *Journal of North American Herpetology* 2017:1-4.
- \*Fixari, J.E., A.W. Mysiw\*, D.R. Sorenson\*, G.R. Smith, and J.E. Rettig. 2017. Crowding effects on growth rate of Southern Leopard Frog tadpoles (*Lithobates sphenocephalus*). *Salamandra* 53(3):466-468.
- Smith, G.R., J.E. Rettig, and J.B. Iverson. 2017. Is righting response lateralized in two species of freshwater turtles? *Behaviour* 154: 1069-1079.
- \*Geyer, R.L., G.R. Smith, and J.E. Rettig. 2016. Effects of Roundup formulations, nutrient addition, and Western Mosquitofish (*Gambusia affinis*) on aquatic communities. *Environmental Science and Pollution Research*. 23:11729-11739.
- Smith, G.R., J.E. Rettig, and J.B. Iverson. 2016. Melanism in the Pond Slider (*Trachemys scripta*) in northern Indiana, USA. *Herpetological Bulletin* 137: 32-33.
- \*Christenson, T.A., M.E. Horton\*, B.C. Jackson\*, G.R. Smith, and J.E. Rettig. 2014. Effects of Cutrine-Plus® algaecide and predators on wood frog (*Lithobates sylvaticus*) tadpole survival and growth. *Environmental Science and Pollution Research* 21: 12472-12478.
- Smith, G.R., A.A. Burgett\*, and J.E. Rettig. 2012. Effects of the anuran tadpole assemblage and nutrient enrichment on freshwater snail abundance (*Physella* sp.). *American Midland Naturalist* 168: 341-351.
- \*Buttermore, K.F., P.N. Litkenhaus\*, D.C. Torpey\*, G.R. Smith, and J.E. Rettig. 2011. Effects of mosquitofish (*Gambusia affinis*) cues on wood frog (*Lithobates sylvaticus*) tadpole activity. *Acta Herpetologica* 6: 81-85.
- €\*Clemmer, J.H., E.Z. Miller\*, L. Wolgamott\*, G.R. Smith, and J.E. Rettig. 2011. The effects of temperature and salinity on wood frog (*Lithobates sylvaticus*) tadpole growth and survival. *Bulletin of the Maryland Herpetological Society* 47: 38-41.
- \*Connolly, J.C., B.L. Kress\*, G.R. Smith, and J.E. Rettig. 2011. Possible behavioral avoidance of UV-B radiation and sunlight in Wood Frog (*Lithobates sylvaticus*) tadpoles. *Current Herpetology* 30: 1-5.
- €\*Fleming, M.M., L.B. Mills\*, J.K. Russell\*, G.R. Smith, and J.E. Rettig. 2011. Effects of trails on eastern redback salamander (*Plethodon cinereus* Green) abundance. *Herpetology Notes* 4: 229-232.
- €\*Gaglione, C.M., E.M. O'Meara\*, K.L. Pence\*, A.C. Petterson\*, G.R. Smith, and J.E. Rettig. 2011. Red-backed salamander, *Plethodon cinereus* Green, avoidance of urea. *Herpetology Notes* 4: 275-277.
- \*Gertzog, B.J., L.J. Kaplan\*, D. Nichols\*, G.R. Smith, and J.E. Rettig. 2011. Avoidance of three herbicide formulations by Eastern Red-backed Salamanders (*Plethodon cinereus*). *Herpetological Conservation and Biology* 6: 237-241.

- \*Oster, K.A., S. Kalinowski\*, I. Jurewicz\*, G.R. Smith, and J.E. Rettig. 2011. Effects of ammonium nitrate, urea, and sodium nitrate on mosquitofish (*Gambusia affinis*) survivorship. BIOS 82: 10-12.
- \*Renaldo, K.A., C.W. Murch\*, J.-N. Riley\*, B. Helleman\*, G.R. Smith, and J.E. Rettig. 2011. Substrate preference of eastern red-backed salamanders, *Plethodon cinereus*: A comparison of deciduous and coniferous substrates. Amphibia-Reptilia 32: 266-269
- €\*Ciul, K., L. Simpson\*, G.R. Smith, and J.E. Rettig. 2010. Evaluation of the rate of cover board use by the salamander, *Plethodon cinereus*, in the vicinity of natural cover objects. Bulletin of the Maryland Herpetological Society 46: 17-19.
- \*Castano, B., S. Miely\*, G.R. Smith, and J.E. Rettig. 2010. Interactive effects of food availability and temperature on wood frog (*Rana sylvatica*) tadpoles. Herpetology Journal 20: 209-211.
- Rettig, J.E., and G.R. Smith. 2009. Class research projects in ecology courses: Methods to un-“can” the experience. Journal of College Science Teaching 38(5): 38-42.  
<https://www.jstor.org/stable/42993981>
- \*Arrington, J.J., K.R.J. Thaman\*, J.E. Rettig, and G.R. Smith. 2009. Feeding harassment among male and female mosquitofish (*Gambusia affinis*). Journal of Freshwater Ecology 24: 327-329.
- €\*Brindle, A.A., S.B. Karr\*, G.R. Smith, and J.E. Rettig. 2009. Within-pond oviposition site selection in the Wood Frog (*Rana sylvatica*). Bulletin of the Maryland Herpetological Society 45: 57-60.
- \*Dibble, C.J., J.E. Kauffman\*, E.M. Zuzik\*, G.R. Smith, and J.E. Rettig. 2009. Effects of potential predator and competitor cues and sibship on wood frog (*Rana sylvatica*) embryos. Amphibia-Reptilia 30: 294-298.
- \*Langhans, M., B. Peterson\*, A. Walker\*, G.R. Smith, and J.E. Rettig. 2009. Effects of salinity on survivorship of Wood Frog (*Rana sylvatica*) tadpoles. Journal of Freshwater Ecology 24: 335-337.
- €Smith, G.R., J.B. Iverson, and J.E. Rettig. 2009. *Chrysemys picta*, *Graptemys geographica*, *Trachemys scripta*. Aural abscesses. Herpetological Review 40: 213-214.
- \*Russo, G., A. Chou\*, J.E. Rettig, and G.R. Smith. 2008. Foraging responses of mosquitofish (*Gambusia affinis*) to items of different sizes and colors. Journal of Freshwater Ecology 23: 677-678.

-----**Tenure**-----

- Rettig, J.E, L.S. Schuman\*, and J.K. McCloskey\*. 2006. Seasonal patterns of abundance: do zooplankton in small ponds do the same thing every spring-summer? Hydrobiologia 556: 193-207.
- Smith, G.R., J.B. Iverson, and J.E. Rettig. 2006. Changes in a turtle community from a northern Indiana lake: a long-term study. Journal of Herpetology 40: 180-185.
- €\*Michajliczenko, A.H., G.R. Smith, and J.E. Rettig. 2004. Effect of diet on bullfrog (*Rana catesbeiana*) tadpole growth and development. Bulletin of the Maryland Herpetological Society 40: 42-46.
- €\*Johnson, L.D., G.R. Smith, and J.E. Rettig. 2004. Summer activity of small snakes in four habitats in northwestern Missouri. Bulletin of the Maryland Herpetological Society 40: 47-52.

- Garvey, J.E., J.E. Rettig, R.A. Stein, D.M. Lodge, and S.P. Klosiewski. 2003. Scale-dependent associations among fish predation, littoral habitat, and distributions of crayfish species. *Ecology* 84: 3339-3348. DOI:10.1890/02-0444
- Smith, G.R., A. Todd\*, J.E. Rettig, & F. Nelson\*. 2003. Microhabitat selection by northern cricket frogs, *Acris crepitans*, along a west-central Missouri creek: Field and experimental observations. *Journal of Herpetology* 37: 383-385.
- Rettig, J.E. 2003. Zooplankton responses to predation by larval bluegill: an enclosure experiment. *Freshwater Biology* 48: 636-648.
- \*Taylor, M., J.E. Rettig, and G.R. Smith. 2003. Diet of re-introduced river otters, *Lontra canadensis*, in north-central Arizona. *Journal of Freshwater Ecology* 18: 337-338.
- Rettig, J.E. and G.G. Mittelbach. 2002. Interactions between adult and larval bluegill sunfish: positive and negative effects. *Oecologia* 130: 222-230.  
<https://link.springer.com/article/10.1007/s004420100790>
- \*Golden, D.R., G.R. Smith, and J.E. Rettig. 2001. Effects of age and group size on habitat selection and activity levels of *Rana pipiens* tadpoles. *Herpetological Journal* 11: 69-73.
- Smith, G.R., J.E. Rettig, A.M. Frahm, and P.W. Gabrielson. 2000. Prediction Generation and Testing: An Exercise Using Plant Distributions. *Bioscene: Journal of College Biology Teaching* 26(3): 19-21.
- Smith, G.R., M.A. Waters\*, and J.E. Rettig. 2000. Consequences of embryonic UV-B exposure on the growth and development of plains leopard frog tadpoles (*Rana blairi*). *Conservation Biology* 14: 1903-1907.
- Smith, G.R., J. E. Rettig, G.G. Mittelbach, J.L. Valiulis\*, and S.R. Schaack\*. 1999. The effects of fish on assemblages of amphibians in ponds: a field experiment. *Freshwater Biology* 41: 829-837.
- Smith, G.R., J.A. Dilts, P.W. Gabrielson, D.P. Heruth, J.E. Rettig, and A.F. Strautman. 1999. Using laptops in the biology classroom and laboratory. *Bioscene: Journal of College Biology Teaching* 25: 11-12.
- Rettig, J.E. 1998. Variation in species composition of larval assemblages: using electrophoresis to identify larval sunfish. *Transactions of the American Fisheries Society* 127: 661-668.
- Smith, G.R. and J.E. Rettig. 1998. Observations on egg masses of the American toad (*Bufo americanus*). *Herpetological Natural History* 6: 61-64.
- Rettig, J.E., R.C. Fuller, A.L. Corbett, and T. Getty. 1997. Fluctuating asymmetry indicates levels of competition in an even-aged poplar clone. *Oikos* 80: 123-127.
- Smith, G.R. and J.E. Rettig. 1996. Effectiveness of aquatic funnel traps for sampling amphibian larvae. *Herpetological Review* 27: 190-191.
- Mittelbach, G.G., A.M. Turner, D.J. Hall, J.E. Rettig, and C.W. Osenberg. 1995. Perturbation and resilience: a long-term, whole-lake study of predator extinction and reintroduction. *Ecology* 76: 2347-2360.

**Professional Conference Presentations:** (\* undergraduate co-authors)

- Rettig, J.E. 2021. A multi-year assessment of zooplankton community assembly in a newly constructed permanent pond. Annual Meeting of the Ecological Society of America. Conducted virtually August 2-6, 2021.
- Rettig, J.E., C.K. Hoy, and J.V. Scheff. 2020. Temporal patterns of macroinvertebrate abundance in a small constructed pond suggest an impact of predation by sunfish.

- Annual Meeting of the Society for Freshwater Sciences. Conducted virtually in June 2020.
- Rettig, J.E. 2018. Invasion by a native species: Consequences for population dynamics and diet of a non-native species. Annual Meeting of the Society for Freshwater Sciences. Detroit, MI.
- \*Tristano, E.P. and J.E. Rettig. 2016. Interactions between native and non-native fishes and their impact on zooplankton in small temperate ponds. Annual Meeting of the Ecological Society of America. Ft. Lauderdale, FL.  
<https://eco.confex.com/eco/2016/webprogram/Paper59269.html>
- Reding, J.A., G.R. Smith, J.E. Rettig, R.N. Homan, D.J. Spieles, T.D. Schultz, A.C. McCall, and B. Sodergren. 2016. The Granville Schools Land Lab: A K-12/college/government teaching a research collaboration. Annual Meeting of the Ecological Society of America. Ft. Lauderdale, FL. <https://eco.confex.com/eco/2016/webprogram/Paper60041.html>
- \*Burger, A.C., G.R. Smith, and J.E. Rettig. 2011. Competition between invasive mosquitofish and native bluegill sunfish. Annual Meeting of the Ecological Society of America. Austin, TX.
- \*Miller, E.Z. and J.E. Rettig. 2011. Behavior in groups: measuring aggression between bluegill (*Lepomis macrochirus*) and invasive mosquitofish (*Gambusia affinis*). Annual Meeting of the Ecological Society of America. Austin, TX.
- Rettig, J.E. and J.H. Clemmer\*. 2011. An experimental analysis of foraging and aggressive behavior between mosquitofish and bluegill. Annual Meeting of the Ecological Society of America. Austin, TX.
- Rettig, J.E., N.R. Gray\*, W.J. Kim\*, A. Ali\*, J.J. Arrington\*, & E. Ubagharaji\*. 2008a. The nesting environment for bluegill in small ponds: Is there variation in seasonal nesting activity, colony activity, or nest characteristics? Annual Meeting of the Ecological Society of America. Milwaukee, WI.
- Rettig, J.E., N.R. Gray\*, W.J. Kim\*, A. Ali\*, J.J. Arrington\*, & E. Ubagharaji\*. 2008b. The nesting environment for bluegill in small ponds: Is there variation in seasonal nesting activity, colony activity, or nest characteristics? Midwest Fish and Wildlife Conference. Columbus, OH.
- \*Dibble, C.J., J.E. Rettig, and G.R. Smith. 2008. Relative strength of top-down and bottom-up effects in a simple aquatic food web that includes an invasive fish. Annual Meeting of the Ecological Society of America. Milwaukee, WI.
- Rettig, J.E. and G.R. Smith. 2008. Double duty courses: Using an ecology course to fulfill a general education requirement for oral communication. Annual Meeting of the Ecological Society of America. Milwaukee, WI.
- Smith, G.R., C.J. Dibble\*, and J.E. Rettig. 2008. Small fish, big effects: The impacts of mosquitofish and ammonium nitrate on tadpoles, zooplankton, and phytoplankton. Annual Meeting of the Ecological Society of America. Milwaukee, WI.
- Rettig, J.E. and G.R. Smith. 2006. Class research projects in ecology courses: Methods to un-“can” the experience. Annual Meeting of the Ecological Society of America. Memphis, TN.
- Rettig, J.E., J.K. McCloskey\*, T.E. Waggoner\*, and M.M. Tribue\*. 2004. Summer dynamics of larval bluegill and zooplankton in two small Ohio ponds. Annual Meeting of the American Fisheries Society. Madison, WI.

- Rettig, J.E., L.S. Schuman\*, and J.K. McCloskey\*. 2004. Seasonal patterns of abundance: Do zooplankton in small ponds do the same thing every summer? Annual Meeting of the Ecological Society of America. Portland, OR.
- Rettig, J.E. 2002. Variation in adult bluegill diets from two ponds with differing macrophyte abundances. Annual Meeting of American Society of Ichthyologists and Herpetologists/Herpetologists' League/Society for the Study of Amphibians and Reptiles. Kansas City, MO.
- Rettig, J.E. 2000. Performance and success in larval bluegill: the role of resources, predation, and habitat. 24th Annual Larval Fish Conference, Gulf Shores, AL.
- Rettig, J.E. and G.G. Mittelbach. 1999. Stage-structured interactions between adult and larval bluegill (*Lepomis macrochirus*): a field experiment. Annual Meeting of the Ecological Society of America, Spokane, WA.
- Smith, G.R., M.A. Waters\*, and J.E. Rettig. 1999. Consequences of embryonic UV-B exposure on the growth and development of plains leopard frog tadpoles (*Rana blairi*). Annual Meeting of the American Society of Ichthyologists and Herpetologists, Herpetologist's League, and Society for the Study of Amphibians and Reptiles, State College, PA.
- Dilts, J., G. Smith, J. Rettig, A. Strautman, P. Gabrielson, and D. Heruth. 1998. Creating a student-driven learning environment. 42nd Annual Meeting of the Association of College and University Biology Educators. Rockhurst College, Kansas City, MO.
- Rettig, J.E. 1996. Growth and survivorship of larval bluegill foraging on large-bodied and small-bodied zooplankton communities. Bulletin of the Ecological Society of America 77: 372.
- Rettig, J.E. 1996. Variation in species composition of limnetic larval assemblages in four SW Michigan lakes. Annual Meeting of the American Society of Ichthyologists and Herpetologists, New Orleans, LA.
- Rettig, J.E. 1995. Growth of bluegill larvae among lakes: Influences of resource variation. Bulletin of the Ecological Society of America 76: 224.

### **External Grants:**

- 2021 Multilevel mentoring to improve belonging, metacognition, and science identity of bachelor degree-seeking science and mathematics students. S-STEM grant from the National Science Foundation. Funded for \$650,000 over 5 years with >60% of grant used for undergraduate scholarships. Principle Investigator (PI).
- 2002 Stressor effects on amphibian larval communities: Integrated Experiments on the effects of nitrate. Declining Amphibian Populations Task Force Seed Grant. Funded for \$1710. (co-PI with Geoffrey R. Smith).
- 1995 NSF Dissertation Improvement Grant. Interactions in a stage-structured species: Resource mediated stage dynamics. Funded for \$4651.00. (co-PI with Gary Mittelbach).
- 1995 Sigma Xi Grant in Aid of Research. Interactions in a stage-structured species: Resource mediated dynamics in Bluegill (*Lepomis macrochirus*). Funded for \$500. J.E. Rettig.

### **Internal Grants (Denison-related):**

- 2018 Survey of restored prairie/grassland and created wetlands at the Granville Schools Land Lab. Denison University Research Foundation. (co-authored with G. Smith)
- 2010 Exploring the interactions of an invasive fish (*Gambusia affinis*) and a native fish (*Lepomis macrochirus*) in small ponds. Denison University Research Foundation. (co-authored with G. Smith)

- 2008 Assessing biological and chemical variation among small ponds in a local landscape: Building a database for small ponds. Denison University Research Foundation.
- 2006 Investigations of pond macroinvertebrates, fish activity, and zooplankton. Denison University Research Foundation.
- 2005 Mapping and tracking the nesting activity of bluegill sunfish in Middleton Pond and correlating nesting activity to larval abundance. Denison University Research Foundation.
- 2002 Interactions between adult and larval bluegill and their prey: assessing the potential for competition between life stages. Denison University Research Foundation.
- 2001 Dietary overlap between adult and larval bluegill: assessing the potential for competition between life stages. Denison University Research Foundation.

**Professional Society Memberships:**

Ecological Society of America, American Society of Ichthyologists and Herpetologists, American Society of Limnology and Oceanography, American Fisheries Society, Association for Women in Science, Ohio Academy of Sciences, Phi Beta Kappa, Sigma Xi, Society for Freshwater Science

**Professional Service External to Denison:**

***Higher Education Service***

- Team Member for Year 4 Evaluation for Higher Learning Commission’s Open Pathway – 2020 Simpson College, Iowa.
- Team Member for Comprehensive Evaluation (with site visit) for Higher Learning Commission’s Open Pathway – 2020 Knox College, Illinois.
- Team Member for Comprehensive Evaluation (with site visit) for Higher Learning Commission’s Open Pathway – 2019 Hendrix College, Arkansas.
- External Reviewer – Butler University, Department of Biological Sciences – Departmental Review. 2018
- Team Member for Change Request (with site visit) for Higher Learning Commission’s Open Pathway – 2016 Diné College, Navajo Nation, Arizona.
- External Reviewer – Indiana University South Bend, Department of Biology – Program & Curriculum Review. 2016
- Team Member for Comprehensive Evaluation (with site visit) for Higher Learning Commission’s Open Pathway – 2015 Central College, Iowa.
- System Appraiser for the Higher Learning Commission’s Academic Quality Improvement Program (AQIP) – 2010, 2011, 2012, & 2013
- Site Reviewer for Institutional Quality Checkup - Higher Learning Commission’s Academic Quality Improvement Program (AQIP) – 2012 Southeast Missouri State University, Missouri. Site visit.
- Planning Committee for Undergraduate Research Symposium sponsored by the Ohio Foundation of Independent Colleges (OFIC) – 2011



### *Scholarly Service*

#### Manuscript Reviewer for

Animal Biology (2009)  
Archiv Für Hydrobiologie (2005)  
Aquatic Toxicology (2013 & 2016)  
Biological Invasions (2019; 2020)  
Canadian Journal of Fisheries and Aquatic Sciences (2003 & 2005)  
Diversity (2021)  
Ecological Indicators (2002)  
Ecology (1995)  
Ecological Research (2017 & 2018)  
Environmental Biology of Fishes (1994)  
Great Basin Naturalist (1995)  
Ichthyological Research (2006)  
Journal of Animal Ecology (2002)  
Journal of Fish & Wildlife Management (2020 & 2021)  
Limnology and Oceanography (1996, 1998, 1999, & 2002)  
Marine Ecology Progress Series (2011)  
Northeast Naturalist (2019)  
Oikos (1998 & 1999)  
Oecologia (1999, 2013)  
Transactions of the American Fisheries Society (1997, 1998, 2005, 2006, 2008, & 2011)  
Wetlands Ecology and Management (2009 & 2010)

Peer Reviewer – Ecological Society of America annual conference research presentation proposals. March 2021. Evaluated 30 conference submissions.

Judge – Student Scholars Symposium for Sigma Xi (Science Research Honoria) – May 2020

External Examiner for Biology Senior Comprehensive Exams, Earlham College – 2001, 2009, 2012, 2015, & 2019

Grant proposal reviewer for the M.J. Murdock Charitable Trust, Murdock College Research Program – 2015

Judge for the Buell-Braun graduate student awards for poster and oral presentations, Ecological Society of America Annual Meetings – 2006, 2008, 2011, & 2016

Reviewer for Predoctoral Fellowships for the AWIS Educational Foundation – 2004-2010  
AWIS is the Association for Women in Science. Reviewed 12-17 proposals each year in the fields of ecology and evolution.

Grant proposal reviewer for the National Science Foundation (NSF) – Division of Environmental Biology-Ecology – 2002, 2003, 2006 & 2010

Panel Member & discussion facilitator – “How to Get and Keep a Job at a Small College”.  
Ecological Society of America Annual Meeting 2008, Milwaukee, WI.

Judge for the graduate student awards for oral presentations, American Fisheries Society Annual Meeting 2006, Lake Placid, NY.

Grant proposal reviewer for American Association for the Advancement of Science – Women’s International Science Collaboration (WISC) Program – 2003

Grant pre-proposal reviewer for U-Mass/NOAA CMER program – 2003

Grant proposal reviewer for Austrian Science Fund (FWF - Fonds zur Forderung der wissenschaftlichen Forschung) - 1999

### *Science & the Community*

Panelist, “Careers in Biology at Small Liberal Arts Colleges” – School of Biological Sciences Graduate Program, University of Nebraska – Lincoln. Remote panel January 2021.

Hosted visits and lab activities by elementary-aged students enrolled in the *Rockn’ Cool Freedom School* program from Newark (14 students), Johnstown (8 students), and Alexandria (50 students), Ohio. July 2016

Science Fair Judge at Utica High School. December 2015

Member, Land Lab collaboration team: Denison University & Granville public schools. 2015 – present.

### **Professional Service Internal to Denison:**

Since receiving tenure I have held (or currently hold) three particularly significant service positions at Denison:

1. I chaired the college committee charged with conducting Denison’s **institutional self-study and reaccreditation process** (September 2007-November 2009). In this role I led a committee to gather self-study reflections from all academic and non-academic units of the college, gather and organize key institutional data, and determine the framework for Denison’s accreditation report to the Higher Learning Commission. Additionally, I co-wrote chapters in the accreditation report, edited the final version of the report, and guided the college in preparing for and conducting the campus visit by the Higher Learning Commission. <https://denison.edu/forms/self-study-for-accreditation>
2. I was **Chair of the Biology Department** for three years (June 2010-July 2013), a department with 14.5 FTE and two support staff. In this role I managed enrollments for a department graduating 55-60 seniors each year, facilitated departmental decision-making on each semester’s course offerings and schedules, conducted annual reviews of support staff and facilitated periodic reviews of tenure-track faculty, wrote annual assessment reports, determined budget allocations and monitored departmental teaching budget, organized the hiring process for tenure-track and visiting faculty, and lead the department through its decadal self-study and external review.
3. Since the fall of 2007 I have been the **Coordinator for the Anderson Science Program** at Denison. In this role I oversee the summer research program for science students including managing the application and selection process, assuring payroll and campus housing for 65-75 students, allocating and monitoring small research budgets for each student-mentor team, and organizing an annual summer scholars symposium held in early September. The Anderson Coordinator also manages a process for selecting 2-3 science student who receive full-tuition scholarships each year and coordinates with a science department each year to bring a big-name scientist to campus for a public lecture and smaller-scale interactions with students and faculty. Overall, I manage a budget of \$250,000.

### **Additional Service Internal to Denison**

#### ***Campus Governance***

President’s Senior Faculty Review Board – Sept 2019 – May 2020

Personnel Committee – Chair Sept 2018-Aug 2019; Vice-Chair Sept 2016 – Aug 2018

University Council – Sept 2016 – May 2018  
Academic Events Committee – 2008-2012  
University Council – Spring 2005  
Student Enrollment and Retention Committee – Chair Fall 2005-Spring 2006; member Fall 2004-Spring 2005  
Faculty Development Committee – Fall 2004-August 2006

### ***Admissions & Financial Aid***

Member, Satisfactory Academic Progress Appeals Committee for Financial Aid – 2006 – present  
Panel Member – “Life at Denison” student-faculty recruiting team for the Admissions Office – Cleveland (Fall 2008 – 2016), Detroit (Fall 2007)

### ***Institutional Grant Writing for Denison***

PI and member of grant writing committee for Denison’s S-STEM grant to the National Science Foundation – submitted April 2020 for \$650,000 and awarded (funded) beginning May 2021 (a five-year grant).  
Member, proposal team for Denison’s application for the Council on Undergraduate Research (CUR) Campus-wide Award for Undergraduate research Accomplishment (AURA) – Spring 2015, Spring 2016. Awarded to Denison in 2017.  
Member, pre-proposal team for Denison’s application to the Clare Booth Luce program of the Henry Luce Foundation – Fall 2016 – Spring 2017 (not funded).  
Grant co-author for Denison proposals to the Beckman Foundation – 2011, 2012, 2013 (not funded)  
Member, HHMI grant proposal working group – 2007 (not funded).

### ***Contributions to Student Life***

Mentor & Academic Advisor – Denison-Columbus Alliance cohort #3 – August 2019 – May 2021. Co-advised with G. Smith.  
Faculty participant: June Orientation & June Orientation phone registration – 2002–2021  
Faculty participant: August Orientation - 2002-2011  
Committee Member – Religious Life Advisory Board (R-LAB) – 2010-2011  
Faculty/staff - Denison Service Orientation - 2007 & 2008  
Faculty Judge – “Project Greenway” – Denison University Recycling Program –Spring 2006  
Faculty participant, Denison Outdoor Orientation - 2005 & 2006  
Faculty Advisor, College Against Cancer (CAC) student organization - 2003-2005

### ***Contributions to Faculty Development & Faculty Life***

Process Advocate for Denison’s Tenure Track searches – Fall 2015 – present. Positions in History, Cinema, & Data Analytics (Humanities).  
Panelist and Workshop Leader – Peer Review workshop sponsored by the Denison Writing Committee – January 2021.  
Discussion Facilitator for 2009 New Faculty Orientation – “Teaching in the Science Division” (w. Joe Reczek)  
Member, Planning Committee for the Race & Pedagogy Workshop at Denison University - January 2007 & January 2008  
Participant – GLCA Academic Leadership and Innovation (GALI) institute (2007)

Co-Facilitator, workshop session on “How Assumptions of Identity Influence Pedagogy”, Race & Pedagogy Workshop, Denison University, January 2007. (w. K. Specht)  
Coordinator, 2006 Fall Faculty Conference on Academic Challenges & Expectations (Jointly with members of the Faculty Development Committee)  
Coordinator, 2005 Fall Faculty Conference on Quantitative Reasoning (with S. Davis & K. Mead)  
Member, *Ad hoc* Advisory Committee on Diversity - 2005-2006

***Contributions to the Science Division***

Convener, Science Chairs – Fall 2010, Fall 2012, Spring 2013  
Coordinator of Ronneberg Endowed Fund – Sept 2007 – present. Coordinate funding and logistics for science lectures on campus, managing a budget of approximately \$25,000.  
Chair, Institutional Animal Care and Use Committee (IACUC) - 2004 – present  
Co-secretary, Denison Chapter of Sigma Xi - 2005-2006 (w. G. Smith)  
Coordinator, Denison Scientific Association 2004-2005 Seminar Series (jointly with G. Smith)  
Secretary, Denison University Chapter of Sigma Xi - 2002- 2003, 2019-2020  
Biology Department representative for Anderson Scholarship Committee - 2001-2004