

JASON TODD HOVERMAN

Department of Forestry and Natural Resources, Purdue University, West Lafayette, IN 47907

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EDUCATION

Ph.D.	University of Pittsburgh, Pittsburgh, PA	Ecology and Evolution 2007
B.S.	University of Pittsburgh, Pittsburgh, PA	Ecology and Evolution 2000

APPOINTMENTS

- 2012-present Assistant Professor of Wildlife Ecology, Department of Forestry and Natural Resources, Purdue University
- 2010-present Adjunct Assistant Professor of Wildlife Ecology, Department of Forestry, Wildlife, and Fisheries, University of Tennessee

PROFESSIONAL EXPERIENCE

- 2010-2012 Post-doctoral Research Associate, Department of Ecology and Evolutionary Biology, University of Colorado, *Advisor*: Dr. Pieter Johnson
- 2007-2010 Post-doctoral Research Associate, Center for Wildlife Health, Department of Forestry, Wildlife, and Fisheries, University of Tennessee, *Advisors*: Drs. Matthew Gray & Debra Miller
- 2007 Post-doctoral Research Associate, Department of Biology/Center for Infectious Disease Dynamics, Pennsylvania State University, *Advisors*: Drs. Peter Hudson & Jason Rohr
- 2001-2007 Research/Teaching Assistant, Department of Biological Sciences, University of Pittsburgh, *Advisor*: Dr. Rick Relyea

PEER-REVIEWED PUBLICATIONS

- Hoverman, JT** and CL Searle. 2016. Behavioural influences on disease risk: Implications for conservation and management. *Animal Behaviour*. 120:263-271
- Hua, J, N Buss, J Kim, SA Orlofsky, and **JT Hoverman**. 2016. Population-specific toxicity of six insecticides to the trematode *Echinoparyphium*. *Parasitology* 143:542-550.
- Hoverman, JT**, and RA Relyea. 2016. Prey responses to fine-scale variation in predation risk from combined predators. *Oikos* 125:254-261.
- Kimble, SJA, RN Williams, and **JT Hoverman**. 2015. Ranavirus detected in *Lithobates clamitans* and *L. catesbeianus* in Indiana. *Herpetological Review* 46:532-534.
- Hua, J, DK Jones, BM Mattes, RD Cothran, RA Relyea, and **JT Hoverman**. 2015. The contribution of phenotypic plasticity to the evolution of insecticide tolerance in amphibian populations. *Evolutionary Applications* 8:586-596.
- Hua, J, DK Jones, BM Mattes, RD Cothran, RA Relyea, and **JT Hoverman**. 2015. Evolved pesticide tolerance in amphibians: Predicting mechanisms based on mode of action and pesticide novelty. *Environmental Pollution* 206:56-63.
- Bourdeau, P, RK Butlin, C Brönmark, T Edgell, **JT Hoverman**, and J Hollander. 2015. Phenotypic plasticity in aquatic gastropods: A systematic review and meta-analysis. *Heredity* 115:312-321.

- Sutton, WB, MJ Gray, **JT Hoverman**, RG Secrist, P Super, RH Hardman, JL Tucker, and DL Miller. 2015. Trends in ranavirus prevalence among plethodontid salamanders in the Great Smoky Mountains National Park. *EcoHealth* 12:320-329.
- Kimble, SJA, AK Karna, AJ Johnson, **JT Hoverman**, and RN Williams. 2015. Mosquitoes as a potential vector of ranavirus transmission in terrestrial turtles. *EcoHealth* 12:334-338.
- Hoverman, JT**, RD Cothran, and RA Relyea. 2014. Generalist versus specialist strategies of plasticity: Snail responses to predators with different foraging modes. *Freshwater Biology* 59:1101-1112.
- Orlofske, SA, RC Jadin, **JT Hoverman**, and PTJ Johnson. 2014. Predation and disease: understanding the effects of predators at multiple trophic levels on pathogen transmission. *Freshwater Biology* 59:1064-1075.
- Johnson, PTJ and **JT Hoverman**. 2014. Infection heterogeneity: how variation in host size, behaviour, and immunity affect parasite aggregation in an experimental system. *Journal of Animal Ecology* 83:1103-1112.
- Preston, DL, CE Boland, **JT Hoverman**, and PTJ Johnson. 2014. Parasitism and host behavior: comparing the effects of predation risk, infection risk and disease. *Journal of Animal Ecology* 28:1472-1481.
- Boone, MD, CA Bishop, LA Boswell, RD Brodman, J Burger, C Davidson, M Gochfeld, **JT Hoverman**, L Neuman-Lee, CR Propper, RA Relyea, JR Rohr, CL Rowe, C Salice, RD Semlitsch, D Sparling, S Weir. 2014. Pesticide regulation amid the influence of industry. *BioScience* 64:917-922.
- Hoverman, JT**, BJ Hoyer, and PTJ Johnson. 2013. Does timing matter? How priority effects influence the outcome of parasite interactions within hosts. *Oecologia* 173:1471-1480.
- Johnson, PTJ, DL Preston, **JT Hoverman** and BE LaFonte. 2013. Host and parasite diversity jointly control disease risk in complex communities. *Proceedings of the National Academy of Sciences of the United States of America* 110:16916–16921.
- Johnson, PTJ, DL Preston, **JT Hoverman**, and KLD Richgels. 2013. Biodiversity decreases disease through predictable changes in host community competency. *Nature* 494:230-233.
- Richgels, KLD, **JT Hoverman** and PTJ Johnson. 2013. Evaluating community structure and the role of regional and local processes in larval trematode metacommunities of *Helisoma trivolvis*. *Ecography* 36:854-863.
- Johnson PTJ, **JT Hoverman**, VJ McKenzie, AR Blaustein, and KLD Richgels. 2013. Urbanization and wetland communities: applying metacommunity theory to understand the local and landscape effects. *Journal of Applied Ecology* 50:34-42.
- Hoverman, JT** and RA Relyea. 2012. The long-term impacts of predators on prey: Inducible defenses, population dynamics, and indirect effects. *Oikos* 121:1219-1230.
- Hoverman, JT**, JR Mihaljevic, KLD Richgels, JL Kerby, and PTJ Johnson. 2012. Widespread co-occurrence of virulent pathogens within California amphibian communities. *EcoHealth* 9:36-48.
- Johnson, PTJ and **JT Hoverman**. 2012. Parasite diversity and coinfection determine pathogen infection success and host fitness. *Proceedings of the National Academy of Sciences of the United States of America* 109:9006-9011.
- Haislip, NA, **JT Hoverman**‡, MJ Gray, and DL Miller. 2012. Natural stressors and disease risk: Does the threat of predation increase amphibian susceptibility to ranavirus? *Canadian Journal of Zoology* 90:893-902. (‡Hoverman listed as corresponding author)
- Hoverman, JT**, MJ Gray, DL Miller, and NA Haislip. 2012. Widespread occurrence of ranavirus in pond-breeding amphibian populations. *EcoHealth* 9:36-48.

- Blaustein, AR, SS Gervasi, PTJ Johnson, **JT Hoverman**, LK Belden, PW Bradley, and GY Xie. 2012. Ecophysiology meets conservation: understanding the role of disease in amphibian population declines. *Philosophical Transactions of the Royal Society B: Biological Sciences* 367:1688-1707.
- Gray, MJ, DL Miller, and **JT Hoverman**. 2012. Effectiveness of non-lethal surveillance methods at detecting systemic ranavirus infections. *Diseases of Aquatic Organisms* 99:1-6.
- Johnson PTJ, JR Rohr, **JT Hoverman**, E Kellermanns, J Bowerman, and KB Lunde. 2012. Living fast and dying of infection: host life history explains interspecific variation in disease risk. *Ecology Letters* 15:235-242.
- Johnson, PTJ, DL Preston, **JT Hoverman**, JS Henderson, SH Paull, M Redmond, and KL Dosch. 2012. Species diversity reduces parasite transmission through cross-generational effects on host abundance. *Ecology* 93:56-64.
- Hoverman, JT**, MJ Gray, NA Haislip, and DL Miller. 2011. Phylogeny, life history, and ecology contribute to differences in amphibian susceptibility to ranaviruses. *EcoHealth* 8:301-319.
- Redmond, M, RB Hartson, **JT Hoverman**, CN De Jesús-Villanueva and PTJ Johnson. 2011. Experimental exposure of *Helisoma trivolvis* and *Biomphalaria glabrata* (Gastropoda) to *Ribeiroia ondatrae* (Trematoda). *Journal of Parasitology* 97:1055-1061.
- Hoverman, JT**, CJ Davis, EE Werner, DK Skelly, RA Relyea, and KL Yurewicz. 2011. Environmental gradients and the structure of freshwater snail communities. *Ecography* 34:1049-1058.
- Haislip, NA, MJ Gray, **JT Hoverman**‡, and DL Miller. 2011. Development and disease: how susceptibility to an emerging pathogen changes through anuran development. *PLoS ONE* 6(7): e22307. doi:10.1371/journal.pone.0022307.(‡Hoverman listed as corresponding author)
- Hoverman, JT**, MJ Gray, and DL Miller. 2010. Anuran susceptibilities to ranaviruses: the role of species identity, exposure route, and a novel virus isolate. *Diseases of Aquatic Organisms* 89:97-107.
- Raffel, TR, **JT Hoverman**, NT Halstead, PJ Michel, JR Rohr. 2010. Parasitism in a community context: Trait-mediated interactions with competition and predation. *Ecology* 91:1900-1907.
- Hoverman, JT** and RA Relyea. 2009. Survival trade-offs associated with inducible defences in snails: the roles of multiple predators and developmental plasticity. *Functional Ecology* 23:1179-1188.
- Gray, MJ, DL Miller, and **JT Hoverman**. 2009. Ecology and pathology of amphibian ranaviruses. *Diseases of Aquatic Organisms* 87:243-266.
- Gray, MJ, DL Miller, and **JT Hoverman**. 2009. First report of *Ranavirus* infecting lungless salamanders. *Herpetological Review* 40:316-319.
- Hoverman, JT** and RA Relyea. 2008. Temporal variation in predation risk: a mechanism underlying priority effects. *Oikos* 117:23-32.
- Rohr, JR, AM Schoetthofer, TR Raffel, HJ Carrick, N Halstead, **JT Hoverman**, CM Johnson, LB Johnson, C Lieske, MD Piwoni, PK Schoff, and VR Beasley. 2008. Agrochemicals increase trematode infections in a declining amphibian species. *Nature* 455:1235-1239.
- Relyea, RA and **JT Hoverman**. 2008. Interactive effects of predators and a pesticide on aquatic communities. *Oikos* 117:1647-1658.
- Wiens, JJ and **JT Hoverman**. 2008. Digit reduction, body size, and paedomorphosis in salamanders. *Evolution and Development* 10:449-463.
- Hoverman, JT** and RA Relyea. 2007. The rules of engagement: how to defend against combinations of predators. *Oecologia* 154:551-560.
- Hoverman, JT** and RA Relyea. 2007. How flexible is phenotypic plasticity? Developmental windows

for trait induction and reversal. *Ecology* 88:693-705.

Relyea, RA and **JT Hoverman**. 2006. Assessing the ecology in ecotoxicology: a review and synthesis in freshwater systems. *Ecology Letters* 9:1157-1171.

Hoverman, JT, JR Auld, and RA Relyea. 2005. Putting prey back together again: integrating predator-induced behavior, morphology, and life history. *Oecologia* 144:481-491.

Relyea, RA, NM Schoepner, and **JT Hoverman**. 2005. Pesticides and amphibians: the importance of community context. *Ecological Applications* 15:1125-1134.

Relyea, RA and **JT Hoverman**. 2003. The impact of larval predators and competitors on the morphology and fitness of juvenile treefrogs. *Oecologia* 134:596-604.

BOOK CHAPTERS

Brunner, J, A Storfer, MJ Gray, and JT Hoverman. 2015. Ranavirus ecology and evolution: From epidemiology to extinction. Pages 71-104 in M. Gray and G. Chinchar, editors. *Ranaviruses: Lethal pathogens of ectothermic vertebrates*. Springer, New York, USA.

Hoverman, JT, SH Paull, and PTJ Johnson. 2013. Does climate change increase the risk of disease? Analyzing published literature to detect climate-disease interactions. Pages 61-70 in T. Seastedt and K. Suding, editors. *Climate Vulnerability: Understanding and addressing threats to essential resources*. Elsevier, Oxford, UK.

OUTREACH PUBLICATIONS

Williams, RN, BJ MacGowan, Z Walker, **JT Hoverman**, and N Burgmeier. 2016. *Frogs and Toads of Indiana*. Purdue University Cooperative Extension Service, West Lafayette, IN.

Hoverman, JT, Z Olson, S LaGrange, J Grant, and RN Williams. 2015. *A guide to larval amphibian identification in the field and laboratory*. Purdue University Cooperative Extension Service, West Lafayette, IN. FNR-496-W.

Winzeler, M, S LaGrange, and **JT Hoverman**. 2014. *Ranaviruses: Emerging threat to amphibians*. Purdue University Cooperative Extension Service, West Lafayette, IN. FNR-485-W.

Wuerthner, V, and **JT Hoverman**. 2014. Salamanders in a world of pathogens. *Partners in Amphibian and Reptile Conservation*. Year of the Salamander June Newsletter. (<http://parcplace.org/images/stories/YOSal/SalamanderNewsJune.pdf>).

Hoverman, JT and PTJ Johnson. 2012. Lakes and ponds: A journey through the life aquatic. *Nature Education Knowledge*. 3(6):17.

Hoverman, JT. October 2010. Predator-induced plasticity. In: *Encyclopedia of Life Sciences (ELS)*. John Wiley & Sons, Ltd: Chichester. (DOI: 10.1002/9780470015902.a0003305.pub2).

Hoverman, JT. 2009. The bacterium *Aeromonas hydrophila* in amphibian populations. *Southeastern Partners in Amphibian and Reptile Conservation, Disease, Pathogens and Parasites Task Team, Information Sheet #3*. (<http://www.separc.org/>).

Gray, MJ, DL Miller, and **JT Hoverman**. 2009. Ranaviruses of amphibians in the southeastern United States. *Southeastern Partners in Amphibian and Reptile Conservation, Disease, Pathogens and Parasites Task Team, Information Sheet #1*. (<http://www.separc.org/>).

Gray, MJ and **JT Hoverman**. 2008. *Ranavirus: An amphibian pathogen of global concern*. *Tennessee Herpetological Society Newsletter*. Fall 2008, Volume 4.

GRANTS

- 2016 – 2021. Department of Defense, Strategic Environmental Research and Development Program. *Development of amphibian poly- and perfluoroalkyl substances toxicity reference values for use in ecological risk assessment at aqueous film forming foam sites*. PI: Maria Sepulveda, Co-PIs: **Jason Hoverman**, Linda Lee. Amount: \$2,465,781.
- 2013 – 2017. National Science Foundation, Ecology and Evolution of Infectious Diseases Program. *Disease in complex communities: how multi-host, multi- pathogen interactions drive infection dynamics*. PI: Cherie Briggs, Co-PIs: Andrew Blaustein, **Jason Hoverman**, Pieter Johnson, Jason Rohr. Amount: \$1,240,992.
- 2013 – 2015. Indiana Department of Natural Resources. Ranavirus surveillance in box turtles and aquatic amphibians. PI: Rod Williams, Co-PIs: **Jason Hoverman**, April Johnson. Amount: \$122,215.
- 2014 – 2015. Purdue University, Department of Forestry and Natural Resources. *Landscape genetics of wood frogs (Lithobates sylvaticus) in a complex world: pesticides, viruses and parasites*. PI: **Jason Hoverman**, Co-PIs: Jessica Hua, Obed Hernandez-Gomez, Steve Kimble, Rod Williams. Amount: \$14,885.
- 2015 – 2016. Purdue University, College of Agriculture, AgSEED. *Evaluating neonicotinoid exposure risk in wetland communities*. PI: **Jason Hoverman**, Co-PIs: Christian Krupke, Maria Sepulveda. Amount: \$49,832.
- 2015. Purdue University, College of Agriculture, Mary S. Rice Farm Estate. *Wetland and wildlife project expansion*. PI: Jon Leuck, Co-PIs: Don Carlson, Robert Chapman, **Jason Hoverman**, Rick Ward, Rod Williams, Harvey Nix. Amount: \$5,000.
- 2013. Purdue University, College of Agriculture, Provost's Teir 1 Instructional Instrumentation Grant. *Experiential learning in habitat management of Purdue forestlands*. PI: Michael Saunders, Co-PI. Rod Williams, Elizabeth Flaherty, **Jason Hoverman**, Michael Jenkins, Patrick Zollner, Songlin Fei Amount: \$20,077.
- 2013. Purdue University, Office of the Vice President of Research. *Induced pesticide resistance: The role of phenotypic plasticity in adaptation to novel environments*. PI: **Jason Hoverman**. Amount: \$8,000.
- 2005 – 2006. National Science Foundation, Doctoral Dissertation Improvement Grant. *The relative, long-term importance of trait- and density-mediated indirect interactions in a freshwater snail community*. PI: **Jason Hoverman**. Amount: \$12,000.

AWARDS, MINOR GRANTS, AND FELLOWSHIPS RECEIVED

- | | |
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| 2014 | Bravo Award for Innovation/Creativity, Purdue University. |
| 2013 | George Mercer Award, Ecological Society of America. |
| 2005 | National Science Foundation, Doctoral Dissertation Improvement Grant. The relative, long-term importance of trait- and density-mediated indirect interactions in a freshwater snail community. |
| 2005 | Andrew Mellon Predoctoral Fellowship |
| 2005 | Malacological Society of London, Centenary Research Grant. The evolution of phenotypic plasticity in snails. |
| 2004 | Sigma Xi, Grants-in-Aid of Research. The evolution of phenotypic plasticity in snails: The role of phenotypic trade-offs. |
| 2004 | Conchologists of America, Grants to Malacology Award. The evolution of phenotypic plasticity in freshwater snails. |

- 2003 Pennsylvania Academy of Science, Graduate Research Award. Malathion and the conservation of aquatic biodiversity.
- 2002 Pennsylvania Academy of Science, Graduate Research Award. The impacts of calcium and parasites on predator-induced phenotypic plasticity.
- 2002 Sigma Xi, Grants-in-Aid of Research. The impacts of calcium on predator-induced plasticity.
- 2002-2004 Pymatuning Laboratory of Ecology, University of Pittsburgh, McKinley Award (3 awards)
- 1999 Pymatuning Laboratory of Ecology, University of Pittsburgh, Richard T. Hartman Scholarship
- 1999 Howard Hughes Medical Institute Fellowship
- 1998 University of Pittsburgh, College of the Arts and Sciences Academic Scholarship

INTERNATIONAL SEMINARS

- 2012 Lund University, Sweden. Symposium: Phenotypic Plasticity – Variation, Alteration and Speciation. *“Generalist versus specialist anti-predator strategies among closely related gastropod prey”*

NATIONAL SEMINARS

- 2016 Washington State University, School of Biological Sciences. *“Coinfection: Exploring the influence of parasite diversity on disease dynamics”*
- 2016 University of Georgia, Odum School of Ecology. *“Integrating ecology, evolution, and toxicology to understand amphibian responses to pesticides”*
- 2015 Ball State University, Department of Biology. *“Ecological and evolutionary insights into phenotypic plasticity using freshwater snails”*
- 2015 Southern Illinois University, Department of Zoology. *“Integrating ecology, evolution, and toxicology to understand amphibian responses to pesticides”*
- 2014 Purdue University, Center for the Environment and Purdue Water Community Interactive Seminar. *“The importance of connectivity and diversity in complex wetland landscapes”*
- 2014 Purdue University-Calumet. *“Ranaviruses: Exploring drivers of disease risk within amphibian communities”*
- 2014 Hoosier Herpetological Society. *“Ranaviruses: Exploring drivers of disease risk within amphibian communities”*
- 2014 Purdue University, Department of Biology, EcoLunch Seminar Series. *“Ranaviruses: Exploring drivers of disease risk within amphibian communities”*
- 2014 University of Pittsburgh, Pymatuning Laboratory of Ecology Lecture Series. *“Ranaviruses: Exploring drivers of disease risk within amphibian communities”*
- 2012 Purdue University. Department of Forestry and Natural Resources. *“Living in a stressful world: The threat of disease to amphibians”*
- 2012 Purdue University. Department of Forestry and Natural Resources. *“Wildlife as a tool for engaging students across multiple scales”*
- 2010 University of Connecticut. Center for Environmental Sciences and Engineering. *“Predators, pathogens, and pesticides: The perils of life in a pond”*

- 2010 University of Tennessee. Department of Forestry, Wildlife, and Fisheries. *“Ecological insights into the emerging amphibian pathogen Ranavirus”*
- 2010 Georgia Southern University. Department of Biology seminar series. *“Predators, pathogens, and pesticides: The perils of life in a pond”*
- 2009 East Carolina University. Ecology seminar series. *“A life and death shell game: inducible defenses in freshwater snails”*
- 2007 University of Pittsburgh, Ecology and Evolution Seminar Series. *“An elaborate shell game: Insights into phenotypic plasticity using inducible defenses”*
- 2005 University of Pittsburgh, Ecology and Evolution Seminar Series. *“The rules of engagement: Inducible defenses in freshwater snails”*
- 2004 University of Pittsburgh, Ecology and Evolution Seminar Series. *“Exploring phenotypic plasticity: Gastropods as a model system”*
- 2002 University of Pittsburgh, Pymatuning Laboratory of Ecology Lecture Series. *“Gastropod plasticity: A model system”*

INVITED CONFERENCE PRESENTATIONS

- 2012 World Congress of Herpetology. *“Beyond single pathogens: significance of co-infections and pathogen communities for amphibian conservation”*
- 2011 Joint Meeting of Ichthyology and Herpetology. First international symposium on ranaviruses. *“Amphibian susceptibilities to the emerging amphibian pathogen ranavirus”*
- 2011 Northwest Partners in Amphibian and Reptile Conservation. Amphibian Disease Workshop. *“Ranaviruses: An emerging risk to amphibians”*
- 2011 Northwest Partners in Amphibian and Reptile Conservation. Amphibian Disease Workshop. *“Amphibian malformations and trematode parasite infection”*

LEAD AUTHOR CONFERENCE PRESENTATIONS

- 2015 Ecological Society of America. *“Prey responses to fine-scale variation in predation risk from combined predators”*
- 2014 Joint Meeting of Ichthyology and Herpetology. *“Disease risk within complex communities: The influence of coinfection by virulent pathogens on an amphibian assemblage”*
- 2013 Joint Meeting of Ichthyology and Herpetology. *“On the making of a superspreader: Experimental assessment of the factors driving parasite aggregation and infection heterogeneity”*
- 2011 Joint Meeting of Ichthyology and Herpetology. *“On the making of a superspreader: Experimental assessment of the factors driving parasite aggregation and infection heterogeneity”*
- 2011 Ecological Society of America. *“Co-infecting parasites: How parasite assemblages and timing of exposure affect host pathology and parasite loads”*
- 2010 Ecological Society of America. *“Anuran susceptibilities to the emerging amphibian pathogen Ranavirus”*
- 2009 University of Tennessee. Comparative and Experimental Medicine Research Symposium. *“Anuran susceptibilities to the emerging amphibian pathogen”*

- Ranavirus*". Received Award of Excellence for the presentation.
- 2009 Joint Meeting of Ichthyology and Herpetology. "Anuran susceptibilities to the emerging amphibian pathogen *Ranavirus*"
- 2009 Tennessee Herpetological Society, 15th Annual conference. "Anuran susceptibilities for two *Ranavirus* isolates"
- 2008 Tennessee Herpetological Society, 14th Annual conference. "An investigation of anuran sensitivities to the emerging amphibian pathogen *Ranavirus*"
- 2005 Ecological Society of America. "Inducible defenses in snails lead to indirect interactions within a freshwater community"
- 2004 Ecological Society of America. "Exploring phenotypic plasticity: Gastropods as a model system"
- 2004 Joint Meeting of Ichthyology and Herpetology. "Pesticides and amphibians: The importance of community context"
- 2003 Ecological Society of America. "Integrating predator-induced behavior, morphology, and life history: Why choose a single trait?"
- 2001 Ecological Society of America. "The impacts of larval predators and competitors on the morphology and fitness of juvenile tree frogs"

TEACHING EXPERIENCE

Purdue University

- 2012-present Wildlife in America (FNR 240)
- 2013-present Summer Practicum (FNR 373)
- 2016-present Disease Ecology (FNR 598)
- 2014 Advanced Herpetology (FNR 598)
- 2013-2015 Ecosystem Management Practice (FNR 408)

University of Colorado

- 2012 Biology of Amphibians and Reptiles (EBIO 4740, Guest lecturer)
- 2011 Food and Sustainability (Guest lecturer)
- 2010 Disease Ecology (EBIO 4800)

University of Tennessee

- 2009-2010 Graduate Seminar in Forestry, Wildlife, and Fisheries (WFS 512)
- 2008-2010 Amphibian Ecology and Conservation (WFS 433/533)
- 2007-2010 Current topics in Wildlife Health (WFS 101, Guest lecturer)

University of Pittsburgh – Graduate Teaching Assistant

- 2006 Animal Behavior (BIOSC 1440)
- 2005 Conservation Biology (BIOSC 1610)
- 2004 Vertebrate Morphology Laboratory (BIOSC 1210)
- 2004-2005 Animal Physiology Laboratories (BIOSC 1880)
- 2003 Microbiology Laboratory (BIOSC 1850)
- 2002 Introduction to Biology Laboratory (BIOSC 0050)

MENTORING AND OUTREACH

- 2015-present Faculty advisor for The Wildlife Society Student Chapter at Purdue.
- 2015 Mentor for Purdue TWS dove hunt sponsored by the Indiana Division of Fish and Wildlife.
- 2015 Ohio River Valley Woodland & Wildlife Workshop. "*Macroinvertebrates: A journey below the water's surface*". Public presentation to 20 people interested in learning about the diversity of aquatic macroinvertebrates on their properties.
- 2015 *Wildlife techniques and awareness day*. Extension event for 8th grade student (n = 24) in the accelerated science class at Tecumseh Middle School. The event was hosted at the Wright Center and Martell Forest. The students gained knowledge in: GPS use, radio telemetry use, wetland sampling, animal ID, and general conservation concerns.
- 2013 Provided a workshop on macroinvertebrates to the student chapter of the American Fisheries Society at Purdue University.
- 2012 Presentation on amphibian diseases to the student chapter of The Wildlife Society at Purdue University.
- 2010-2012 Mentor for underrepresented students involved in the Summer Multicultural Access to Research Training (SMART) program through the Colorado Diversity Initiative at the University of Colorado.
- 2008-2009 Volunteer educating 4-H students participating in the Junior High Academic Conference at the University of Tennessee on different types of amphibians and reptiles (native and exotic).
- 2008-2009 Academic Enrichment Upward Bound (AEUB) Volunteer, University of Tennessee - Educate high school students about the field of ecology, helping the students decipher their career interests and goals.
- 2001-2006 Pymatuning Laboratory of Ecology Volunteer - Showcased and educated the public on freshwater systems and native reptiles and amphibians for the Pennsylvania Boat and Fish Commission Exhibit Days, Linesville, PA.
- 2001-present Trained and supervised over 30 undergraduate and 10 graduate students from six universities and colleges across the United States.

POST-DOCTORAL RESEARCHERS ADVISED

Jessica Hua, Purdue Postdoctoral Scholar in Natural Resources, Purdue University, FNR (2014 – 2015) (currently Assistant Professor, Binghamton University)

Michael Chislock, Purdue Postdoctoral Scholar in Natural Resources, Purdue University, FNR (2016 – present)

GRADUATE STUDENTS ADVISED

Nathan Haislip, University of Tennessee, Department of Forestry, Wildlife, and Fisheries, MS (co-advised, 2008 – 2010) (currently Facilities Manager and Lead Keeper, Turtle Survival Center)

Jesse Miles, Purdue University, FNR, MS (2014 – 2015). Thesis: *The effects of the neonicotinoid clothianidin on wetland communities* (currently Biology Tutor in Tennessee)

Vanessa Wuerthner, Purdue University, FNR, MS (2014 – 2015). Thesis: *Exploring the consequences of coinfection on disease dynamics*. Awards: 2nd place in FNR Research Symposium 2015, M.S. research category (currently PhD student at Binghamton University)

Katherine Pochini, Purdue University, FNR, MS (2014 – 2016). Thesis: *Understanding the role of pesticides in host-pathogen interactions* (currently research technician in New York)

Samantha Gallagher, Purdue University, FNR, MS (2016 – present). Thesis: *Investigating the metabolic consequences of exposure to pathogens and pesticides in amphibians*

GRADUATE STUDENT COMMITTEES

Janna Willoughby, Purdue University, FNR, Ph.D. (2013 – 2015)

Mike Garvey, Purdue University, Entomology, Ph.D. (2013 – present)

Obed Hernandez-Gomez, Purdue University, FNR, Ph.D. (2014 – present)

Adam Alford, Purdue University, Entomology, Ph.D. (2014 – present)

Erin Kenison, Purdue University, FNR, Ph.D. (2014 – present)

Tim Malinich, Purdue University, FNR, Ph.D. (2015 – present)

Henry Legett, Purdue University, Biological Sciences, Ph.D. (2015 – present)

Devin Jones, Rensselaer Polytechnic Institute, Department of Biological Sciences, Ph.D. (2014-present)

Megan Winzler, University of Georgia, Warnell School of Forestry and Natural Resources, M.S. (2014-2016)

UNDERGRADUATE STUDENTS ADVISED

Michael Hiatt, Purdue University, Biology major (2012 – 2015)

- Summer Undergraduate Research Fellowship (SURF) 2014

Brandon Zinman, Purdue University, Wildlife major (2013 – 2014)

Vanessa Wuerthner, Purdue University, Wildlife major (2013 – 2014)

Nicholas Buss, Purdue University, Wildlife major (2014 – 2015)

Justin Kim, Purdue University, Wildlife major (2014 – 2015)

Kelton Verble, Purdue University, Wildlife major (2015 – 2016)

Lexington Eiler, Purdue University, Wildlife major (2015 – present)

Zachary Compton, Purdue University, Wildlife major (2015 – present)

HIGH SCHOOL STUDENTS ADVISED

Shelly Tan, Jefferson High School (2014 – 2015) Awards: Gold medal in the category of Environmental Science, American Meteorological Society Sponsor Award, Exceptional GENIUS Award from SUNY Oswego

SERVICE

- 2015-2016 Chair Ecology Section of Indiana Academy of Sciences
- 2014-2015 Vice-chair Ecology Section of Indiana Academy of Sciences
- 2011 Co-organizer of the first international symposium of ranaviruses, Joint Meeting of Ichthyology and Herpetology, Minneapolis 2011.
- 2010-present External grant reviewer for the National Science Foundation, National Geographic Society, Center for Global Change, Graduate Women in Science, and Department of Defense, Strategic Environmental Research and Development
- 2009-2011 Steering Committee member, Southeastern Partners in Amphibian and Reptile Conservation. The Steering Committee provides a broader perspective in guiding the present and future workings of SEPARC, works with and supports the SEPARC Co-chairs and officers, and provides improved communication throughout the region to advance amphibian and reptile conservation.
- 2008-2011 Disease task team member, Southeastern Partners in Amphibian and Reptile Conservation. The team develops informational brochures on common herpetofaunal pathogens, protocols for collecting and shipping diseased animals, and instructions on disinfecting field equipment. We also are developing an interactive website where herpetofaunal die-offs from diseases can be reported.
- 2005-2006 President of Graduate Student Organization, Biology Chapter, University of Pittsburgh.
- 2001-present Peer Reviewer for the following journals: *American Naturalist*, *Animal Conservation*, *Aquatic Laboratory Research*, *Behavioral Ecology*, *Biological Conservation*, *Biological Journal of the Linnean Society*, *Canadian Journal of Zoology*, *Conservation Physiology*, *EcoHealth*, *Ecology*, *Ecology Letters*, *Ecological Applications*, *Environmental Science & Technology*, *Environmental Toxicology & Chemistry*, *Freshwater Biology*, *Functional Ecology*, *Heredity*, *Herpetological Conservation and Biology*, *Herpetological Review*, *Hydrobiologia*, *Journal of Animal Ecology*, *Journal of Applied Ecology*, *Journal of Herpetology*, *Journal of Molluscan Studies*, *Journal of the North American Benthological Society*, *Journal of Wildlife Diseases*, *Journal of Wildlife Management*, *Molecular Ecology Resources*, *Northeastern Naturalist*, *Oecologia*, *Oikos*, *Wetlands*