

Curriculum Vitae of

John D. Willson

Jan 2023

Department of Biological Sciences

University of Arkansas

Fayetteville, AR 72701

Phone: (479) 575-2647

e-mail: jwillson@uark.edu

Web: www.willsonlab.com

EDUCATION

PhD – University of Georgia, Odum School of Ecology **2009**

- Ph.D. Ecology - *Graduate Advisor*: J. Whitfield Gibbons.

BS – Davidson College **2002**

- B.S. Biology – Honors - *Thesis Advisor*: Michael E. Dorcas.

ACADEMIC APPOINTMENTS

Associate Professor **2018 – present**

Department of Biological Sciences, University of Arkansas

Assistant Professor **2012 – 2018**

Department of Biological Sciences, University of Arkansas

Postdoctoral Research Associate **2010 - 2012**

Department of Fish and Wildlife Conservation, Virginia Tech

Postdoctoral Research Associate **2009 - 2010**

University of Georgia, Savannah River Ecology Laboratory

CURRENT RESEARCH INTERESTS

Population and Community Ecology, Conservation Biology, Herpetology, Invasive Species Ecology, Ecological Modeling

PEER-REVIEWED PUBLICATIONS

(*) undergraduate co-authors, (†) graduate student co-authors

Yerdon*, G.L., E.J. Royalt†, C.S. Kross†, and **J.D. Willson**. *In press*. Effects of prairie degradation and restoration on box turtle thermal ecology. *Journal of Herpetology*.

Royalt†, E., C.T. Winne, and **J.D. Willson**. 2023. Trap escape as a driver of detection probability in semi-aquatic snakes. *Herpetologica* 79:57-62.

Guzy, J., B. Falk, B. Smith, **J.D. Willson**, et al. (4th of 38 authors). 2023. Burmese pythons in Florida: A synthesis of biology, impacts, and 5 management tools. *Neobiota* 80:1-119.

- Deshwal†, A., S. Stephenson, P. Panwar†, B. DeGregorio, R. Kannan, and **J.D. Willson**. 2022. Foraging habitat selection of shrubland bird community in tropical dry forest. *Ecology and Evolution* 12:e9192.
- Royal†, E., D. U. Greene, D. A. Miller, and **J.D. Willson**. 2022. Influence of landscape and vegetation characteristics on herpetofaunal assemblages in Gulf Coastal Plain pine forests. *Journal of Wildlife Management* 86:e22199.
- Royal†, E., C. Kross, and J.D. Willson. 2022. Legacy Land Use Predicts Occupancy Patterns of Prairie-associated Herpetofauna in Western Arkansas. *Landscape Ecology*.
<https://doi.org/10.1007/s10980-022-01564-z>
- Kross†, C. and **J.D. Willson**. 2022. Land-use alters density-dependence to increase extinction risk in a grassland amphibian. *Animal Conservation* 25:771-781.
- Swartwout†, M., and **J.D. Willson**. 2022. Southeastern U.S. snake species are vulnerable to egg predation by red imported fire ants (*Solenopsis invicta*). *Herpetologica* 78:139-144.
- Kross†, C. and **J.D. Willson**. 2022. Population Decline and Landscape-Scale Occupancy of the Crawfish Frog (*Lithobates areolatus*) in Northwest Arkansas. *Ichthyology and Herpetology* 110:50-58.
- Guzy, J.C., B. Halstead, K.H. Halloran, J. Homyack, and **J.D. Willson**. 2021. Increased growth rates of stream salamanders following forest harvesting. *Ecology and Evolution* 11:17723–17733.
- Halloran†, K., J.C. Guzy†, J. Homyack, and **J.D. Willson**. 2021. Effects of Timber Harvest on Survival and Movement of the Ouachita Dusky Salamander (*Desmognathus brimleyorum*) in a Managed Forest Landscape. *Ecosphere* 12:e03489.
- Kross†, C., A.K. Dodd, P. Mariage*, and **J.D. Willson**. 2020. Timing of oviposition influences the effects of a non-native grass on amphibian development. *Oecologia* 194:113-122.
- Swartwout†, M.C., P.N. Vogrin†, J.A. Baecher*, C. Kross†, and **J.D. Willson**. 2020. Prey Size and Growth Rate do not Influence Trophic Morphology of Juvenile Water Snakes (*Nerodia sipedon*). *Herpetologica* 76:53-60.
- DuRant, S, J.D. Willson, and R.B. Carroll. 2019. Parental effects and climate change: Will avian incubation behavior shield embryos from increasing environmental temperatures? *Integrative and Comparative Biology* 59(4):1068-1080.
- Guzy †, J.C., K.H. Halloran †, J. Homyack, J. Thornton-Frost, and **J.D. Willson**. 2019. Differential responses of amphibian and reptile assemblages to size of riparian buffers within managed forests. *Ecological Applications* 29(8)e01995.
- Guzy †, J.C., K.H. Halloran †, J. Homyack, and **J.D. Willson**. 2019. Influence of riparian buffers and habitat characteristics on salamander assemblages in headwater streams within managed forests. *Forest Ecology and Management* 432:868-883.
- Willson, J.D.**, S. Pittman, J. Beane, and T. Tuberville. 2018. A Novel Approach for Estimating Densities of Secretive Snakes Based on Road Survey and Spatial Movement Data. *Wildlife Research* 45:446-456. (Cover Article)
- Vogrin†, P., A. Durso, C. Winne, and **J.D. Willson**. 2018. Landscape-scale effects of supra-seasonal drought on semi-aquatic snake assemblages. *Wetlands* 38:667-676.

- Brewster, C., S. Beaupre, and **J.D. Willson**. 2018. Habitat loss and local extinction: Linking population declines of the Eastern Collared Lizard (*Crotaphytus collaris*) to habitat degradation in Ozark glades. *Journal of Herpetology* 52:352-360.
- Baecher*, J., P. Vogrinct, J. Guzyt, C. Krosst, and **J.D. Willson**. 2018. Herpetofaunal Communities in Restored and Unrestored Remnant Tallgrass Prairie and Associated Wetlands in Northwest Arkansas, USA. *Wetlands* 38:157-168.
- Schuler, G.A., A.K. Tice, R.A. Pearce, E. Foreman, J. Stone, S. Gammill, **J.D. Willson**, C. Reading, J.D. Silberman, and M.W. Brown. 2018. Phylogeny and classification of novel diversity in Sainouroidea (Cercozoa, Rhizaria) sheds light on a highly diverse and divergent clade. *Protist* 169:853-874.
- DeGregorio, B.A., G. Blouin-Demers, G.L.F. Carfagno, J.W. Gibbons, S. Mullin, **J.D. Willson**, K. Wray, and P.J. Weatherhead. 2018. Geographic variation in body size and sexual size dimorphism of North American ratsnakes (*Pantherophis spp. sensu lato*). *Canadian Journal of Zoology* 96:1196-1202.
- Bush*, C., J. Guzyt, K. Halloran†, M. Swartwout†, C. Krosst, and **J.D. Willson**. 2017. Distribution and Abundance of Introduced Seal Salamanders (*Desmognathus monticola*) in Northwest Arkansas, USA. *Copeia* 105:680-690.
- Willson, J.D.** 2017. Indirect effects of invasive Burmese pythons on ecosystems in southern Florida. *Journal of Applied Ecology*. 54:1251-1258
- Willson, J.D.** and C.T. Winne. 2016. The predatory role of aquatic snakes in isolated wetlands: A case study in evaluating functional roles of secretive species. *Journal of Zoology, London* 298:266-273.
- DeGregorio, B., S.J. Chiavacci, P.J. Weatherhead, **J.D. Willson**, T.J. Benson, and J.H. Sperry. 2014. Snake predation on North American bird nests: culprits, patterns, and future directions. *Journal of Avian Biology* 45:001-009.
- DeGregorio, B., **J.D. Willson**, M.E. Dorcas and J.W. Gibbons. 2014. Commercial value of amphibians produced from an isolated wetland. *American Midland Naturalist* 172:200-204.
- Willson, J. D.**, and W.A. Hopkins. 2013. Evaluating the Effects of Anthropogenic Stressors on Source-sink Dynamics in Pond-breeding Amphibians. *Conservation Biology* 27:595-604.
- Durso, A.M., **J.D. Willson**, and C.T. Winne. 2013. Habitat influences diet overlap in aquatic snake assemblages. *Journal of Zoology, London* 291:185-193.
- Hopkins, B.C., S.Y. Chin*, **J.D. Willson**, and W.A. Hopkins. 2013. Like mother like offspring: maternal and offspring wound healing correlate and snakes. *Journal of Experimental Biology* 216:2545-2547.
- Hopkins, B.C., W.A. Hopkins, D.K. Jones, and **J.D. Willson**. 2013. Mercury exposure is associated with negative effects on turtle reproduction. *Environmental Science and Technology* 47:2416-2422.
- Chin*, S.Y., **Willson, J. D.**, D. A. Cristol, D.V.V. Drewett*, and W.A. Hopkins. 2013. Altered behavior of neonatal northern watersnakes (*Nerodia sipedon*) exposed to maternally transferred mercury. *Environmental Pollution* 176:144-150.
- Chin*, S.Y., **Willson, J. D.**, D. A. Cristol, D.V.V. Drewett*, and W.A. Hopkins. 2013. High levels of maternally transferred mercury do not affect reproductive output or embryonic survival of northern watersnakes (*Nerodia sipedon*). *Environmental Toxicology & Chemistry* 32:619-626.

- Drewett*, D.V.V., **Willson, J. D.**, D. A. Cristol, S.Y. Chin*, and W.A. Hopkins. 2013. Inter- and intra-specific variation in mercury bioaccumulation by snakes inhabiting a contaminated river floodplain. *Environmental Toxicology & Chemistry* 32:1178-1186.
- Steen, D. A., D. J. Stevenson, J. C. Beane, **J.D. Willson**, M. J. Aresco, J. C. Godwin, S. P. Graham, L. L. Smith, J. M. Howze, D. C. Rudolph, J. B. Pierce, J. R. Lee, B. B. Gregory, J. Jensen, S. H. Stiles, J. A. Stiles, N. H. Nazdrowicz, and C. Guyer. 2013. Terrestrial movements of the red-bellied mudsnake (*Farancia abacura*) and rainbow snake (*F. erythrogramma*). *Herpetological Review* 44:208-213.
- Willson, J. D.**, W. A. Hopkins, C. M. Bergeron, and B. D. Todd. 2012. Making leaps in amphibian ecotoxicology: Translating individual-level effects of environmental contaminants to population viability. *Ecological Applications* 22:1791-1802.
- Reed, R.N., **J.D. Willson**, M.E. Dorcas, and G. H. Rodda. 2012. Ecological correlates of invasion impact for Burmese pythons in Florida. *Integrative Zoology* 7:254-270.
- Dorcas, M.E., **J.D. Willson**, R.N. Reed, R.W. Snow, M.R. Rochford, M.A. Miller, W.E. Meshaka, Jr., P.T. Andreadis, F.J. Mazzotti, C.M. Romagosa, and K.M. Hart. 2012. Severe mammal declines coincide with python proliferation in Everglades National Park. *Proceedings of the National Academy of Sciences – USA* 109:2418-2422 (**Cover Article**)
- Todd, B. D., **J.D. Willson**, C. M. Bergeron, and W. A. Hopkins. 2012. Do effects of mercury in larval amphibians persist after metamorphosis? *Ecotoxicology* 21:87-95.
- Willson, J.D.** and W. A. Hopkins. 2011. Prey morphology constrains the feeding ecology of an aquatic generalist predator. *Ecology* 92:744-754.
- Willson, J. D.**, C. T. Winne, and B. T. Todd. 2011. Ecological and methodological factors affecting detectability and population estimation in elusive species. *Journal of Wildlife Management* 75:36-45.
- Durso*, A. M., **J. D. Willson**, C. T. Winne, and J. W. Gibbons. 2011. Needles haystacks: estimating detection probability and occupancy of rare and cryptic snakes. *Biological Conservation*. 144:1508-1515.
- Willson, J.**, M. Dorcas, and R Snow. 2011. Identifying plausible scenarios for the establishment of Burmese pythons (*Python molurus*) in southern Florida. *Biological Invasions* 13:1493-1504.
- Dorcas, M. E., **J. D. Willson**, and J. W. Gibbons. 2011. Can invasive Burmese pythons inhabit temperate regions of the southeastern United States. *Biological Invasions* 13:793-802.
- Duncan, M. B., S. E. DuRant, B. J. Ostby†, J. H. Roberts, and **J.D. Willson**. 2011. A multi-taxa biological survey of Passage Creek, Virginia. *Northeastern Naturalist* 83:357-369
- Winne, C. T., **J. D. Willson**, and J. W. Gibbons. 2010. Drought survival and reproduction impose contrasting selection pressures on maximum body size and sexual size dimorphism in a snake, *Seminatrix pygaea*. *Oecologia* 162:913-922.
- Willson, J. D.**, C. T. Winne, M. A. Pilgrim, C. S. Romanek, and J. W. Gibbons. 2010. Seasonal variation in terrestrial resource subsidies influences trophic niche width and overlap in two aquatic snake species: a stable isotope approach. *Oikos* 119:1161-1171.

- Eskew*, E. A., **J. D. Willson**, and C. T. Winne. 2009. Ambush site selection and ontogenetic shifts in foraging strategy in a semi-aquatic pitviper, the Eastern Cottonmouth. *Journal of Zoology*, London 277:179-186.
- Willson, J. D.**, C. T. Winne, and M. B. Keck. 2008. Empirical tests of biased body size distributions in aquatic snake captures. *Copeia* 2008:401-408.
- Todd, B. D., **J. D. Willson**, C. T. Winne, R. D. Semlitsch, and J. W. Gibbons. 2008. Ecology of the Southeastern Crowned Snake, *Tantilla coronata*, in the Upper Coastal Plain. *Copeia* 2008:388-394.
- Todd, B. D., **J. D. Willson**, C. T. Winne, and J. W. Gibbons. 2008. Aspects of the ecology of the earth snakes (*Virginia valeriae* and *V. striatula*) in the Upper Coastal Plain of South Carolina. *Southeastern Naturalist* 7:349-358.
- Dorcas, M. E., **J. D. Willson**, and J. W. Gibbons. 2007. Population decline and demographic changes of a diamondback terrapin population over three decades. *Biological Conservation* 137:334-340.
- Todd, B. D., C. T. Winne, **J. D. Willson**, and J. W. Gibbons. 2007. Getting the drift: examining the effects of timing, trap type, and taxon on herpetofaunal drift fence surveys. *American Midland Naturalist* 158:292-305.
- Winne, C. T., **J. D. Willson**, B. D. Todd, K. M. Andrews, and J. W. Gibbons. 2007. Enigmatic decline of a protected population of eastern kingsnakes, *Lampropeltis getula*. *Copeia* 2007:507-519.
- Glaudas, X. A., K. M. Andrews, **J. D. Willson**, and J. W. Gibbons. 2007. Migration patterns in a population of cottonmouths (*Agkistrodon piscivorus*) inhabiting an isolated wetland. *Journal of Zoology*, London 271:119-124. **(Cover Article)**
- Willson, J. D.**, C. T. Winne, M. E. Dorcas, and J. W. Gibbons. 2006. Post-drought responses of semi-aquatic snakes inhabiting an isolated wetland: Insights on different strategies for persistence in a dynamic habitat. *Wetlands* 26:1071-1078.
- Winne, C. T., **J. D. Willson**, and J. W. Gibbons. 2006. Income breeding allows an aquatic snake (*Seminatrix pygaea*) to reproduce normally following prolonged drought-induced aestivation. *Journal of Animal Ecology* 75:1352-1360.
- Price, S. J., M. E. Dorcas, A. L. Gallant, R. W. Klaver, and **J. D. Willson**. 2006. Three Decades of Urbanization: Estimating the Impact of Land Cover Change on Stream Salamander Populations. *Biological Conservation* 133:436-441.
- Gibbons, J. W., C. T. Winne, D. E. Scott, **J. D. Willson**, et al. (4th of 28 authors). 2006. Remarkable amphibian biomass and abundance in an isolated wetland, with implications for wetland conservation. *Conservation Biology* 20:1457-1465.
- Winne, C. T., **J. D. Willson**, K. M. Andrews, and R. N. Reed. 2006. Efficacy of marking snakes with disposable ophthalmic cautery units. *Herpetological Review* 37:52-54.
- Willson, J. D.**, C. T. Winne, and L. A. Fedewa. 2005. Unveiling escape and capture rates of aquatic snakes and salamanders (*Siren spp.* and *Amphiuma means*) in commercially available funnel traps. *Journal of Freshwater Ecology* 20:397-403.
- Tuberville, T. D., **J. D. Willson**, M. E. Dorcas, and J. W. Gibbons. 2005. Herpetofaunal diversity of southeastern National Parks. *Southeastern Naturalist* 4:537-569. **(Cover Article)**

- Willson, J. D.**, and M. E. Dorcas. 2004. Comparison of aquatic drift fences with traditional funnel trapping as a quantitative technique for sampling amphibians. *Herpetol Rev* 35:148-150.
- Willson, J. D.**, and M. E. Dorcas. 2004. Aspects of the ecology of small fossorial snakes in the western Piedmont of North Carolina. *Southeastern Naturalist* 3:1-12.
- Willson, J. D.**, and M. E. Dorcas. 2003. The effects of habitat disturbance on stream dwelling salamander populations: implications for buffer zones and watershed management. *Conservation Biology* 17:763-771.
- Willson, J. D.**, and M. E. Dorcas. 2003. Quantitative sampling of stream salamanders: a comparison of dipnetting and funnel trapping techniques. *Herpetological Review* 34:128-130.

BOOKS

- Dorcas, M. E. and **J.D. Willson**. 2011. *Invasive Pythons in the United States: Ecology of an Introduced Predator*. University of Georgia Press.

EDITED BOOK CHAPTERS

- Willson, J.D.**, J.C. Guzy, and A.M. Durso. *In press*. Overcoming Low Detectability in Snake Population Research: Case Studies from the Southeast USA. *In*: S. Walls and K. O'Donnell (eds.). *Strategies for Conservation Success in Herpetology*. SSAR Press.
- Dorcas, M.E., S.E. Pittman, and **J.D. Willson**. 2017. Burmese Pythons. *In*: W. Pitt, J.C. Beasley, and G.W. Witmer (eds.). *Ecology and Management of Terrestrial Vertebrate Invasive Species in the United States*. CRC Press.
- Willson, J.D.** 2016. Surface-dwelling Reptiles: Coverboards, Drift Fences and Arrays. *In*: C. K. Dodd, Jr. (ed.), pp. 125-138. *Reptile Ecology and Conservation: A Handbook of Techniques*, Oxford University Press, Oxford, UK.
- Willson, J.D.** and M.E. Dorcas. 2014. Effects of invasive Burmese pythons in Everglades National Park. *McGraw Hill Science and Technology Yearbook*. McGraw-Hill, New York.
- Dorcas, M.E. and **J.D. Willson**. 2013. Hidden giants: problems associated with studying secretive invasive pythons. Pp. 367-385. *In*: W. Lutterschmidt (ed.), *Reptiles in Research: Investigations of Ecology, Physiology, and Behavior from Desert to Sea*. Nova Science Publishers, Inc., Hauppauge, NY.
- Willson, J. D.** 2013. Automated recording devices. Pp. 107-109. *In* Graeter, GJ, KA Buhlmann, LR Wilkinson, and JW Gibbons (Eds.), *Inventory and Monitoring: Recommended Techniques for Reptiles and Amphibians*. Partners in Amphibian and Reptile Conservation Technical Publication IM-1, Birmingham, AL.
- Willson, J. D.** 2013. Aquatic and terrestrial funnel trapping. Pp. 109-114. *In* Graeter, GJ, KA Buhlmann, LR Wilkinson, and JW Gibbons (Eds.), *Inventory and Monitoring: Recommended Techniques for Reptiles and Amphibians*. Partners in Amphibian and Reptile Conservation Technical Publication IM-1, Birmingham, AL.
- Akre, T. S. B., **J. D. Willson**, and T. P. Wilson. 2012. Alternative methods for sampling aquatic turtles and squamates. *In*: McDiarmid et al. (eds). *Reptile Biodiversity: Standard Methods for Inventory and Monitoring*, pp. 187-192. Univ. California Press. (cover photo)

- Todd, B. T., **J. D. Willson**, and J. W. Gibbons. 2010. The global status of reptiles and causes of their decline. *In: Ecotoxicology of Reptiles and Amphibians*, 2 edition, D. W. Sparling, G. Linder, and C. A. Bishop (Eds.), pp. 47-67. SETAC Press, Pensacola, FL.
- Dorcas, M. E., and **J. D. Willson**. 2009. Innovative methods for studies of snake ecology and conservation. *In: Snakes: Ecology and Conservation*, S. J. Mullin and R. A. Seigel (Eds.), pp. 5-37. Ithaca, NY: Cornell University Press. (cover photo)
- Willson, J. D.**, and J. W. Gibbons. 2009. Drift fences, coverboards, and other traps. *In: Amphibian Ecology and Conservation: A Handbook of Techniques*, C. K. Dodd, Jr., (Ed.), pp. 229-245. Oxford University Press, Oxford, UK.
- Willson, J. D.** 2008. Eastern Fence Lizard, *Sceloporus undulatus*. *In* J. Jensen, C. D. Camp, J. W. Gibbons, and M. Elliott, (eds.). *The Amphibians and Reptiles of Georgia*. UGA Press, Athens, GA.
- Willson, J. D.** and K. Andrews. 2008. Copperhead, *Agkistrodon contortrix*. *In* J. Jensen, C. D. Camp, J. W. Gibbons, and M. Elliott, (eds.). *The Amphibians and Reptiles of Georgia*. UGA Press, Athens, GA.
- Willson, J.D.** and J.W. Gibbons. 2008. Plain-bellied watersnake, *Nerodia erythrogaster*. *In* Jensen, Camp, Gibbons, and Elliott, (eds.). *The Amphibians and Reptiles of Georgia*. UGA Press, Athens, GA.
- Dorcas, M. E. and **J. D. Willson**. 2008. Queen Snake, *Regina septemvittata*. *In* J. Jensen, C. D. Camp, J. W. Gibbons, and M. Elliott, (eds.). *The Amphibians and Reptiles of Georgia*. UGA Press, Athens, GA.

NATURAL HISTORY NOTES

- Mortensen, J., A. Saenger, R. King, B. DeGregorio, and **J.D. Willson**. 2019. "*Pituophis melanoleucus* (Pinesnake). Diet." *Herpetological Review* 50:811.
- Deshwal†, A., **J.D Willson**, and R. Kannan. 2019. "*Loxocemus bicolor* (Mexican Burrowing Python). Attempted Predation." *Herpetological Review* 50:803-804.
- Krosst, C., Carnes-Mason, M, Singleton*, B, Hickle, J. and **J.D. Willson**. 2018. "*Lampropeltis calligaster* (Prairie Kingsnake). Maximum Size." *Herpetological Review* 49:754-755.
- Pelaez*, J, and **J.D. Willson**. 2017. "*Nerodia sipedon*. Diet." *Herpetological Review* 48:216.
- Garst, D. and **J.D. Willson**. 2016. *Farancia erytrogramma* (Rainbow Snake). Seasonal Activity. *Herpetological Review* 47:682-683.
- Heartle, N., P. Hampton, P.N. Vogrin†, and **J.D. Willson**. 2015. *Farancia abacura*. Feeding Behavior. *Herpetological Review* 46:449-450.
- Baecher*, J.A., P.N. Vogrin†, J.C. Guzy†, J.C. Neal, and **J.D. Willson**. 2014. *Lithobates areolatus*. Predation. *Herpetological Review* 45:681-82.
- Willson, J.D.**, R.W. Snow, R.E. Reed, and ME Dorcas. 2014. *Python molurus bivittatus*. Minimum size at maturity. *Herpetological Review* 45:343-344.
- Vogrin†, P., **J.D. Willson**, A.M. Durso, L.A. Bryan, Z. Ross, J. Holbrook, and D. Filipiak. 2013. *Nerodia floridana* (Florida Green Watersnake). Diet. *Herpetological Review* 44:695.

Luhring, T M., **J. D. Willson**, and C. T. Winne. 2011. *Nerodia fasciata fasciata* (Banded Watersnake). Inter-wetland Movement. Herpetological Review 42:100-101.

AWARDS AND FELLOWSHIPS

Conservation Hero Award	2017
Southeast Partners in Amphibian and Reptile Conservation	
Robert C. and Sandra Connor Endowed Faculty Fellowship	2015
University of Arkansas	
NSF FIRST IV Postdoctoral Teaching Fellow	2011-2012
Siebert Ecology Award – Best Student Paper	2009
Society for the Study of Amphibians and Reptiles	
NSF – Graduate Research Fellowship	2003 - 2007
Student Research Award	2007
Association of Southeastern Biologists	
Best Student Presentation in Aquatic Biology	2007
Association of Southeastern Biologists	
Best Student Presentation in Herpetology	2006
American Society of Ichthyologists and Herpetologists, Southeastern Division	
Platform Presentation 2nd place	2006
Savannah River Ecology Laboratory Graduate Research Symposium	
Tom Daggy Biology Award for Academic Achievement, Service, and Love of Nature	2002
Davidson College	
Best Student Presentation in Aquatic Biology	2002
Association of Southeastern Biologists	

TEACHING EXPERIENCE

Lead Instructor

Population Ecology (BISC 4513/5513+Lab), University of Arkansas	2015, 2017, 2019, 2021, 2023
Herpetology (BISC 5743+Lab), University of Arkansas	2014, 2016, 2018, 2020, 2022
General Ecology (BISC 3863), University of Arkansas	2013-S, 2013-F, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022
Applied Herpetology (FiW 4984), Virginia Tech	2012
Ecology and Evolution in East Africa (Tanzania)	2018
Coastal Caribbean Biology (Belize)	2019

Invited Guest Lectures

- **2012** Virginia Tech – Ecology
- **2011** University of Delaware – Wildlife Habitat Management
- **2011** Eastern Illinois University – Herpetology

- **2010** Davidson College – Animal Physiology
- **2010** Davidson College – Herpetological Conservation
- **2009** University of Georgia – Herpetology
- **2008** Davidson College – Animal Physiology
- **2006** Davidson College – Herpetological Conservation
- **2004** Davidson College – Herpetological Conservation

GRADUATE STUDENTS AND POST-DOCS MENTORED

Ethan Hollander. PhD – in progress. University of Arkansas. “Population ecology of Chicken Turtles (*Dierochelys reticularia*) in Oklahoma”

Mitchell Pruitt. PhD – in progress. University of Arkansas. “Migration, irruption, and dispersal in owls”

Elliot Lassiter. MS – in progress. University of Arkansas. “Terrestrial habitat use of Crawfish Frogs in Northwest Arkansas”

Ethan Royal. PhD – 2022. University of Arkansas. Assessing the ability of managed forests to support longleaf pine-associated herpetofauna”

Meredith Swartwout. PhD – 2021. University of Arkansas. “Disentangling mechanisms for tropical lizard declines”

Pooja Panwar. MS – 2021. University of Arkansas. “Acoustic monitoring of prairie birds in Northwest Arkansas”

Chelsea Kross. PhD – 2020. University of Arkansas. “Conservation of Crawfish Frogs (*Lithobates areolatus*) in former prairies of Northwest Arkansas”

Jennifer Mortensen. Post-doc. 2016-2019. University of Arkansas.

Jacquelyn Guzy. PhD – 2019. University of Arkansas. “Amphibian and Reptile Community Responses to Forest and Riparian Disturbance.”

Mitchell Pruitt. MS – 2018. University of Arkansas. “Fall migration and winter habitat use of Northern Saw-whet Owls in the Ozark Highlands”

Kelly Halloran. MS – 2017. University of Arkansas. “Population dynamics of *Desmognathus brimleyorum* in managed forests”

Philip Vogrinc. MS – 2016. University of Arkansas. “Response of semi-aquatic snakes to drought”

Kate Walker. MS – 2014. University of Arkansas. “Effects of petroleum distillates on amphibian development”

Graduate Committees: (University of Arkansas Dept. Biological Sciences, unless otherwise noted)

Alya Smartt (MS-2014), Craig Lind (PhD-2014), Brad Austin (PhD-2014), Cari Sebright (MS-2015), John Herbert (MS-2015), Eric Hearth (MS-2015), Derek Hennen (UArk Entomology, MS-2015), Jeremy Chamberlain (UArk Little Rock; PhD-2016), Lindsey Bruckerhoff (MS-2016), Auriel Fournier (PhD-2017), Christopher Middaugh (PhD-2017), Phil Stephenson (MS-2017), Nicole Graham (MS-2017), Jake McClain (MS-2017), Allyson Yarra (MS-2017), Aditi Lele (PhD-2018), Elizabeth Arredondo (MS-2018), Logan Estes (MS-2018), Eathan Gentry (MS-2019), Max Carnes-Mason (MS-2019), Casey Brewster (PhD-2019), Robert Fournier (PhD-2020), Anant Deshwal (PhD-2020), Paul Pleiman (MS-2020), Brooke Howard-Parker (PhD-in progress), Brian Becker (PhD-in progress), Jason Ortega (PhD-in progress), Karen Willard (PhD-in progress), Larry Kamees (PhD-in progress), Samuel Dias (PhD-in progress), Brianna Hillebrand

(PhD-in progress), Simon Tye (PhD-in progress), Adrienne Ingram (PhD-in progress), Kearstin Findley (PhD-in progress), Percy Marshall (MS-in progress), Leah McTeague (MS-in progress)

UNDERGRADUATE STUDENTS MENTORED IN INDEPENDENT RESEARCH

- Elizabeth Hays (2022).** University of Arkansas - Honors. "Evaluating Translocation Strategies for Box Turtles in Urbanizing Landscapes."
- Hannah Warner (2021).** University of Arkansas – Honors. "Sublethal Effects of Red Imported Fire Ant Envenomation on Hatchlings of North American Oviparous Snakes."
- Mark Kate Shaver (2021).** University of Arkansas – NSF REU participant. "Assessing the Effects of Land Use Change on the Thermal Ecologies and Predation Risks of Prairie-associated Herpetofauna within Solar Farms."
- Jenna Robinson (2019).** University of Arkansas – Honors. "Diet of non-native Seal Salamanders (*Desmognathus monticola*) in Arkansas."
- Gebriel Yerdon (2019).** University of Arkansas – NSF REU participant. "The Effects of Prairie Degradation and Restoration on Box Turtle Thermal Ecology."
- Austin Holtz (2019).** University of Arkansas – Honors. "Comparing bird density in remnant and restored prairies of Northwest Arkansas."
- Bailey Singleton (2019).** University of Arkansas – Honors. "Evaporative water loss in semi-aquatic snakes inhabiting prairie wetlands in Arkansas."
- Phillip Mariage (2017).** University of Arkansas – NSF REU participant. "Effects of exotic vegetation on hatching success of Leopard Frogs (*Lithobates sphenoccephalus*)."
Published in *Oecologia*.
- Logan Estes (2016).** University of Arkansas. "Effects of non-native Fescue litter on water chemistry of ephemeral wetlands."
- Alex Baecher (2015).** University of Arkansas. "Responses of reptiles and amphibians to prairie restoration in Arkansas."
Published in *Wetlands*.
- Clint Bush (2016).** University of Arkansas. "Distribution and Abundance of Introduced Seal Salamanders (*Desmognathus monticola*) in Northwest Arkansas."
Published in *Copeia*.
- Micalea Klaus (2016).** NSF REU participant. "Effects of Litter Type and Amphibian Consumers on Mosquito Abundance."
- Jessika Dorcas (2015).** NSF REU participant. "High activity and rapid growth of Graham's Crayfish Snakes (*Regina grahamii*) in a highly seasonal environment."
- John Block (2015).** University of Arkansas. "Phenotypic plasticity in trophic morphology of *N. sipedon*."
- Max Jagers (2014).** University of Arkansas. "Behavioral responses of endemic stream salamanders to an invasive salamander in the Ozark and Ouachita mountains."
- Stephanie Chin (2012).** Virginia Tech. "Maternal transfer of mercury in *Nerodia sipedon*."
Published in *Environmental Toxicology and Chemistry and Ecotoxicology*.

David Drewitt (2012). Virginia Tech. “Inter- and intra-specific variation in mercury bioaccumulation by snakes inhabiting a contaminated floodplain.” Published in *Environmental Toxicology and Chemistry*.

Evan Eskew (2006). Governor's School of Science and Mathematics, South Carolina. “Ambush site microhabitat selection by Cottonmouths, *Agkistrodon piscivorus*.” Published in *Journal of Zoology*.

Andrew Durso (2006). SREL NSF REU participant. “Needle in a haystack: estimating detection probability of aquatic snakes in the Southeastern United States.” Published in *Biological Conservation*.

Undergraduate Honors Committees, University of Arkansas

Christopher Petersen (2014), Amy Fletcher (2014), Pilar Bare (2015), Caitlin Hirsh (2016), Jill Guillette (2016), Sebastian Carnazzo (2016), Hailey Brown (2016), Jennifer Courtway (2016), Melanie Curry (2017), Matthew Ford (2018), Alleigh Stahman (2019), Gracie Engelkes (2019), Caylie Funk (2019), Lane Justus (2019), Kelsey Johnson (2019), Mersady Redding (2019), Dylan Elkington-Strauss (2021), Sarah Lowe (2021), Grace Roberts (2021), Samuel Raney (2021), Jacob Purifoy (2021), Chase Siner (in progress), Rylee Cook (in progress)

UNIVERSITY SERVICE

BISC Unit Peer Review Committee – Chair	2020 – 2021
BISC Unit Peer Review Committee – Member	2020 – 2021
BISC Graduate Studies Committee – Member	2019 – present
University of Arkansas Institutional Animal Care and Use Committee (IACUC)	2012 – present
University of Arkansas Sustainability Council – Departmental Representative	2012 – 2020
Promotion and Tenure Committee – U Arkansas Department of Biological Sciences	2018 – 2019
Personnel Committee – University of Arkansas Department of Biological Sciences	2016 – 2018
Seminar Committee – University of Arkansas Department of Biological Sciences	2012 – 2018
Organization for Tropical Studies (OTS), University of Arkansas Representative	2014 – 2019
University of Arkansas Student Chapter of The Wildlife Society, Advisor	2017 – present
University of Arkansas Undergraduate Biology Club, Co-Advisor	2014 – present
Faculty Search Committee Chair: Disease Ecologist	2017-2018
Faculty Search Committee Member: Landscape Ecologist (2013); Aquatic Ecologist (2014); Comparative Invert. Zoologist (2015)	

PROFESSIONAL SERVICE

Section Editor Herpetological Review - Snake Natural History Notes	2009 - present
--	-----------------------

Affiliated Researcher USGS Burmese Python Synthesis Working Group	2017-present
Invited Panel Member (Reptiles) U.S. Invasive Species Horizon Scan for Organisms in Trade (USGS/USFWS)	2020-present
Board of Governors American Society of Ichthyologists and Herpetologists	2014-2021
Invited Reviewer USFWS – Endangered Species Act – Status Assessment for the Florida Pinesnake	2022
Invited Reviewer DoD SERDP Grant Panel	2021, 2022
Invited Reviewer USFWS – Endangered Species Act – Status Assessment for the Southern Hognose Snake	2019
Web Manager Partners in Amphibian and Reptile Conservation (PARC; http://www.parcplace.org)	2008 - 2015
Science Advisor Center for Snake Conservation (http://www.snakeconservation.org/)	2011-2014
Affiliated Researcher South River Science Team (www.southernriverstecolab.org) - an interdisciplinary team of scientists, regulators and stakeholders devoted to resolving Hg contamination problems on the South River, VA	2010-2015
Invited Panel Member Dept. of the Interior (NPS/USGS) Interagency Invasive Constrictor Working Group	2013
Award Judge – Joint Meeting of Ichthyologists and Herpetologists	
ASIH Stoye Award in Ecology and Ethology.	2012, 2015
ASIH Stoye Award in Conservation.	2015
ASIH Storer Herpetology Award. (Chair)	2015
SSAR Siebert Ecology Award	2016
Herpetologist’s League Photo Contest	2013
Panel Member – Joint Meeting of Ichthyologists and Herpetologists	
ASIH Graduate Student Workshop on Professional Preparation	2013
ASIH Graduate Student Speed Networking Workshop	2013, 2016
Project Coordinator USGS NBII’s North American Reporting Center for Amphibian Malformations	2008 – 2010
Reviewer USFWS – Endangered Species Act - Proposed delisting of the Lake Erie Watersnake	2010
Invited Guest Editor <i>Southeastern Naturalist</i> – Invasive Species Issue	2016

Journal and Grant Refereeing

African Journal of Ecology, Animal Biodiversity and Conservation, Banisteria, Behavioral Ecology and Sociobiology, Biodiversity and Conservation, Biological Invasions, Bioinvasion Records, Biological Journal of the Linnean Society, Canadian Journal of Zoology, Copeia, Environmental Management, Ecology, Ecological Applications, Ecological Modeling, Ecosphere, Florida Scientist, Freshwater Science, Forest Ecology and Management, Functional Ecology, Herpetologica, Herpetological Conservation and Biology, Herpetological Review, Hydrobiologia, Journal of Animal Ecology, Journal of Arid Environments, Journal of the Arkansas Academy of Sciences, Journal of Fish and Wildlife Management, Marine Biology, Journal of Herpetology, Journal of Wildlife Management, Journal of Zoology, London, Northeastern Naturalist, National Science Foundation, National Parks Service, Oecologia, Oxford University Press, The Natural Areas Journal, Restoration Ecology, Southeastern Naturalist, SSAR Press, PLOS ONE, the Strategic Environmental Research and Development Program (SERDP), Wetlands, Wildlife Research, Wildlife Society Bulletin, Zoological Studies.

INVITED SEMINARS

- 2021** Society for Wetland Scientists – Webinar Series
- 2021** DoD SERDP & ESTCP Webinar Series
- 2020** Northeastern State University
- 2020** Fayetteville Natural Heritage Association
- 2019** Department of Defense Natural Resources Webinar Series
- 2019** Society of Wetland Scientists, Southcentral Chapter
- 2019** Pryor Center for Arkansas Oral and Visual History
- 2019** University of Arkansas Museum
- 2016** Department of Biology, Arkansas State University
- 2016** Department of Biology, Missouri State University
- 2016** Department of Integrative Biology, Oklahoma State University
- 2013** Clinton School of Public Service, William J. Clinton Distinguished Lecturer Series
- 2012** Savannah River Ecology Laboratory
- 2012** Department of Biological Sciences, Utah State University
- 2012** Sigma Xi Scientific Society, University of Arkansas
- 2012** School of Forestry and Wildlife Sciences, Auburn University
- 2012** Virginia Tech Chapter of The Wildlife Society
- 2012** Department of Zoology, Southern Illinois University
- 2012** Department of Biological Sciences, University of Arkansas
- 2011** Interdepartmental Ecology, Evolution, and Behavior Seminar Series, Virginia Tech
- 2011** Department of Entomology and Wildlife Ecology, University of Delaware
- 2011** Department of Biology, Eastern Illinois University
- 2010** Department of Biology, Davidson College
- 2010** North Carolina Partners in Amphibian and Reptile Conservation Annual Meeting
- 2008** Department of Biology, University of South Carolina, Upstate

SELECTED ORAL PRESENTATIONS

(*) undergraduate co-authors, (†) graduate student co-authors

2022. Willson, J.D. “Ecology and Conservation of Crawfish Frogs in Remnant Prairies of Northwest Arkansas. Association of Southeastern Biologists Annual Meeting, Little Rock, AR. Invited Symposium.

2021. Swartwout†, M., and **J.D. Willson.** “Invasive fire ant predation on eggs of southeastern U.S. snakes. Southeast PARC Annual Meeting. Virtual.

2021. Royalt†, E., Kross†, C., and **J.D. Willson.** “Distribution, occupancy, and habitat associations of prairie-associated reptile and amphibian species of greatest conservation need in Northwest Arkansas.” Joint Meeting of Ichthyologists and Herpetologists. Virtual

2021. Royalt†, E., D. Green, D. Miller, and **J.D. Willson.** “Effects of forest management on habitat structure and upland pine-associated herpetofaunal communities.” The Wildlife Society Annual Meeting. Virtual.

2020. Royalt†, E., Kross†, C., and **J.D. Willson.** “Distribution, occupancy, and habitat associations of prairie-associated reptile and amphibian species of greatest conservation need in Northwest Arkansas.” Arkansas Wildlife Action Plan Biennial Meeting. Virtual.

2020. Kross†, C., and **J.D. Willson.** “Context-dependent effects of non-native vegetation on amphibian development.” World Congress of Herpetology. Dunedin, New Zealand.

2020. Royalt†, E., Kross†, C., and **J.D. Willson.** “Distribution, occupancy, and habitat associations of prairie-associated reptile and amphibian species of greatest conservation need in Northwest Arkansas.” World Congress of Herpetology. Dunedin, New Zealand.

2019. Royalt†, E., and **J.D. Willson.** “Effects of forest management on habitat structure and upland pine-associated herpetofaunal communities.” Southeast PARC Annual Meeting. Black Mountain, NC.

2019. Kross†, C., and **J.D. Willson.** “Effects of vegetation type on larval density-dependence with implications for Crawfish Frog population dynamics” Southeast PARC Annual Meeting. Black Mountain, NC.

2019. Kross†, C., and **J.D. Willson.** “Effects of vegetation type on larval density-dependence with implications for Crawfish Frog population dynamics” Joint Meeting of Ichthyologists and Herpetologists. Snowbird, UT.

2019. Royalt†, E., J. Homyack, and **J.D. Willson.** “Effects of forest management on habitat structure and upland pine-associated herpetofaunal communities.” Joint Meeting of Ichthyologists and Herpetologists. Snowbird, UT.

2018. Willson, J.D. “Rapid growth and flexible reproduction in semi-aquatic snakes inhabiting seasonal prairie wetlands.” Joint Meeting of Ichthyologists and Herpetologists. Rochester, NY.

2017. Willson, J.D. and S. Pittman. “A novel approach to estimating density of invasive Burmese pythons in South Florida.” Joint Meeting of Ichthyologists and Herpetologists. Austin, TX.

- 2017.** Krosst†, C., and **J.D. Willson.** “Effects of non-native vegetation on larval development of Crawfish Frogs (*Lithobates areolatus*).” Joint Meeting of Ichthyologists and Herpetologists. Austin, TX.
- 2017.** Guzy†, J.C., K. Halloran†, J. Homyack, and **J.D. Willson.** “Responses of riparian and terrestrial salamander communities to size of streamside management zones within managed forests.” Joint Meeting of Ichthyologists and Herpetologists. Austin, TX.
- 2017.** Krosst†, C., and **J.D. Willson.** “Effects of non-native vegetation on larval development of Crawfish Frogs (*Lithobates areolatus*).” Southeast PARC Annual Meeting. Little Rock, AR.
- 2017.** Halloran†, K.M., J.C. Guzy†, Homyack, J.A., and **Willson, J.D.** “Effect of Timber Harvest on Survival and Movement of the Ouachita Dusky Salamander (*Desmognathus brimleyorum*).” Southeast PARC Annual Meeting. Little Rock, AR.
- 2016. Willson, J.D.,** J.C. Guzy†, Halloran†, K.M., and J. Homyack. Contributions of Streamside Management Zones to amphibians and reptiles in intensively managed forests in the Ouachita Mountain Ecoregion. Annual Meeting of The Wildlife Society. Raleigh, NC. Sept2 2016. ***Invited**
- 2016. Willson, J.D.,** S. Pittman, T. Tuberville, J. Beane, and M. Dorcas. A Novel Technique for Estimating Density of Secretive Upland Snakes. Joint Meeting of Ichthyologists and Herpetologists. Joint Meeting of Ichthyologists and Herpetologists. New Orleans, LA. July 2016
- 2016.** Guzy†, J., C. Bush*, K. Halloran†, M. Swartwout†, C. Krosst†, and **Willson, J.D.** Distribution and abundance of introduced seal salamanders (*Desmognathus monticola*) in Northwest Arkansas. Joint Meeting of Ichthyologists and Herpetologists. New Orleans, LA. July 2016
- 2016.** Krosst†, C., and **Willson, J.D.** Occupancy and Habitat Relationships of Crawfish frogs (*Lithobates areolatus*) in Northwest Arkansas. Joint Meeting of Ichthyologists and Herpetologists. New Orleans, LA. July 2016
- 2016.** Halloran†, K.M., J.C. Guzy†, Homyack, J.A., and **Willson, J.D.** Effect of Timber Harvest on Survival and Movement of the Ouachita Dusky Salamander (*Desmognathus brimleyorum*). Joint Meeting of Ichthyologists and Herpetologists. New Orleans, LA. July 2016
- 2016. Willson, J.D.,** J.C. Guzy, Halloran, K.M., and J. Homyack, J.A. Stream-associated Amphibian and Reptile Communities in Managed Forests in Arkansas. NSACI Annual Meeting, Cattanooga, TN. June 2016
- 2015.** J.C. Guzy†, Halloran†, K.M., Homyack, J.A., and **Willson, J.D.** Contributions of Streamside Management Zones to amphibians and reptiles in intensively managed forests in the Ouachita Mountain Ecoregion. Joint Meeting of Ichthyologists and Herpetologists. Reno, NV. July 2015.
- 2015. J.D. Willson,** J.C. Guzy†, and W.A. Hopkins. “Influence of Landcover, Spatial Configuration, and Species Life History on Amphibian Abundance and Productivity in Fragmented Landscapes. Joint Meeting of Ichthyologists and Herpetologists, Reno, NV.
- 2015.** P. Vogrinct†, **J.D. Willson,** J. Baecher*. Positive responses of reptile and amphibian communities to wet prairie ecosystem restoration. Natural Areas Conference, Little Rock, AR. Nov 2015.

- 2014. J.D. Willson.** “Effects of python-associated mammal declines on nesting success of turtles in South Florida” Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, TN.
- 2014.** Vogrinct, P., and **J.D. Willson.** “Landscape-scale responses of semi-aquatic snakes to drought” Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, TN.
- 2014.** Walker†, K. and **J.D. Willson.** "Effects of Hydraulic Fracturing Chemicals on Amphibian Development." Midwest Fish and Wildlife Conference, Kansas City, MO.
- 2013. J.D. Willson** “Density and Detection of Invasive Constrictors: Challenges and Opportunities.” DOI Interagency Invasive Constrictor Technical Meeting. Everglades National Park, FL. (Invited Oral)
- 2013.** Dorcas, M.E. and **J.D. Willson.** “Population and Ecosystem Impacts of Invasive Pythons.” DOI Interagency Invasive Constrictor Technical Meeting. Everglades National Park, FL. (Invited Oral)
- 2013. J.D. Willson.** “More than nuisance parameters: Detection parameters as indicators of behavior and abundance in aquatic snakes” Joint Meeting of Ichthyologists and Herpetologists, Symposium on detection in herpetology, Albuquerque, NM.
- 2013.** P. Vogrinct, **J.D. Willson**, and CT Winne. “Variation in effectiveness among commonly-used sampling techniques influences accurate assessment of community composition and abundance in aquatic snakes” Joint Meeting of Ichthyologists and Herpetologists, Albuquerque, NM.
- 2013. J.D. Willson.** “Drivers of aquatic snake population and community dynamics in isolated wetlands” Southeast PARC Annual Meeting, Year of the Snake Symposium. ***Invited**
- 2012. Willson, J. D.,** and W. A. Hopkins. “Beyond the wetland: Effects of environmental mercury contamination on source-sink dynamics in a pond-breeding amphibian.” World Congress of Herpetology 7, Vancouver, BC.
- 2011. J.D. Willson** and W.A. Hopkins. “From individual-level responses to population-level change: the missing link in amphibian ecotoxicology.” Joint Meeting of Ichthyologists and Herpetologists, Minneapolis, MN
- 2010. J.D. Willson** and M.E. Dorcas. “Identifying plausible scenarios for the establishment of invasive Burmese Pythons (*Python molurus*) in Southern Florida.”
- Southeast PARC Annual Meeting, Ocala, Florida
 - Joint Meeting of Ichthyologists and Herpetologists, Providence, Rhode Island
- 2010. J.D. Willson** and M.E. Dorcas. “Ecology of Invasive Burmese Pythons (*Python molurus*) in Southern Florida.” North Carolina PARC Annual Meeting, North Carolina
- 2009. J. D. Willson,** P. Rohani, and J.W. Gibbons: “The role of ectothermy in vertebrate predator-prey dynamics: does increasing metabolic efficiency alter the stability of predator-prey interactions?” 5th meeting of the Snake Ecology Group, Donnelley, Idaho.
- 2009. J. D. Willson,** C. T. Winne, and B. D. Todd: “Trap-happiness, temporary emigration, and other factors affecting detectability in two aquatic snake species.” Joint Meeting of Ichthyologists and Herpetologists, Portland, Oregon. ***Siebert Ecology Award.**

2008. J. D. Willson, W. A. Hopkins, & J. W. Gibbons: “Effects of prey type on prey handling, digestive metabolism, and post-prandial locomotor performance in the banded watersnake, *Nerodia fasciata*.” Joint Meeting of Ichthyologists and Herpetologists, Montreal, Quebec.

2007. Eskew, E.A*, **J.D. Willson**, and C.T. Winne. Ambush site selection and ontogenetic shifts in foraging strategy in a semi-aquatic pit viper, the eastern cottonmouth, *Agkistrodon piscivorus*. South Carolina Junior Academy of Science annual meeting. Columbia, SC. ***Zoology Award**

2007. J. D. Willson, C. T. Winne, M. A. Pilgrim, C. S. Romanek, & J. W. Gibbons: “Effects of terrestrial resource pulses on trophic niche overlap between two sympatric aquatic snake species: a stable isotope approach.”

- Association of Southeastern Biologists, Columbia, SC.
- Joint Meeting of Ichthyologists and Herpetologists, New Orleans, LA.
- Ecological Society of America, San Jose, CA.

2006. J. D. Willson & C. T. Winne: “Evaluation of trap response in two aquatic snake species using mark recapture and an experimental release study.” Joint Meeting of Ichthyologists and Herpetologists, New Orleans, LA.

2005. J. D. Willson, C. T. Winne, M. E. Dorcas, & J. W. Gibbons: “Post-drought responses of semi-aquatic snakes inhabiting an isolated wetland” Joint Meeting of Ichthyologists and Herpetologists, Tampa, FL.

2005. J.D. Willson, M. E. Dorcas, & J. W. Gibbons: “Population Decline and Demographic changes of a diamondback terrapin population over three decades: causes and potential solutions.” Southeastern Ecology and Evolution Conference, Athens, GA.10

2004. J. D. Willson, T. D. Tuberville, M. E. Dorcas & J. W. Gibbons. “How much is enough: Evaluating herpetological Inventories in the Southeast using island biogeography.” 1st Annual SREL Graduate Student Symposium, Aiken, SC.

2003. J. D. Willson & M. E. Dorcas: “Aspects of the ecology of small fossorial snakes in the western Piedmont of North Carolina.” Association of Southeastern Biologists, Washington D.C.

2002. J. D. Willson & M. E. Dorcas: “The effects of habitat disturbance on stream salamanders: implications for buffer zones and watershed management.” Association of Southeastern Biologists, Boone, NC. ***Aquatic Biology Award**

SELECTED POSTER PRESENTATIONS

(*) undergraduate co-authors, (†) graduate student co-authors

2020. Swartwout†, M., and **J.D. Willson**. “Factors influencing predation risk for tropical lizard eggs. World Congress of Herpetology. Dunedin, New Zealand.

2018. Krosst, C. and **J.D. Willson**. “The Effects of Prescribed Fire on the Development of Larval Crawfish Frogs (*Lithobates areolatus*).” Joint Meeting of Ichthyologists and Herpetologists. Rochester, NY. ***Best Poster in Conservation/Management Award**

2018. Royalt†, E., J. Homyack, and **J.D. Willson**. “Effects of forest management on habitat structure and upland pine-associated herpetofaunal communities.” Joint Meeting of Ichthyologists and Herpetologists. Rochester, NY.

2018. Guzy†, J., K. Halloran†, J. Homyack, and **J.D. Willson**. “Population biology of Ouachita Dusky Salamanders (*Desmognathus brimleyorum*) in a managed forest landscape.” Joint Meeting of Ichthyologists and Herpetologists. Rochester, NY.
2018. Swartwout†, M. and **J.D. Willson**. “Effects of leaf litter depth on *Anolis humilis* egg survival.” Joint Meeting of Ichthyologists and Herpetologists. Rochester, NY.
2018. DeGergorio, B., J.D. Willson, S. Pittman, and J. Sperry. “How do you estimate density of a species when recaptures are rare? DoD ESTCP/SERDP Annual Meeting. Washington DC.
2017. Swartwout†, M., and **J.D. Willson**. “Disentangling mechanisms of decline for anoles at La Selva Biological Station, Costa Rica.” Joint Meeting of Ichthyologists and Herpetologists. Austin, TX.
2016. Krosst†, C. and **J.D. Willson**. Post-breeding movements and habitat-use of Crawfish Frogs in a fragmented landscape. Kansas Herpetological Society. ***Best Student Poster Award**
2015. Halloran†, K.M., J.C. Guzy†, Homyack, J.A., and **Willson, J.D.** Effect of Timber Harvest on Survival and Movement of the Ouachita Dusky Salamander (*Desmognathus brimleyorum*). Joint Meeting of Ichthyologists and Herpetologists. Reno, NV. July 2015.
2015. Krosst†, C. and **J.D. Willson**. Post-breeding movements and habitat-use of Crawfish Frogs in a fragmented landscape. Joint Meeting of Ichthyologists and Herpetologists. Reno, NV. July 2015.
2015. Krosst†, C.S. and **J.D. Willson**. Post-breeding movements and habitat-use of Crawfish Frogs (*Lithobates areolatus*) in a fragmented landscape. Kansas Herpetological Society Kansas Herpetological Society. Nov. 2015. (best student poster award)
2014. Gillespy, K., B. Bowerman, **J.D. Willson**, and M.E. Dorcas. Confirmation of Python-Associated Declines in Mammal Populations in South Florida Using Automated Game Cameras. Association of Southeastern Biologists Annual Meeting.
2012. Chin*, S. Y., **J.D. Willson**, D.A. Cristol, and W.A. Hopkins. Maternal transfer of mercury in the northern watersnake (*Nerodia sipedon*): effects on offspring performance and learning.
- Virginia Tech Graduate Research Symposium, Blacksburg, VA ***Undergraduate Poster Award**
 - Ecological Society of America – Mid-Atlantic Chapter meeting, Blacksburg, VA.
2012. Drewett*, D.V., **J.D. Willson**, D.A. Cristol, and W.A. Hopkins. Factors influencing inter- and intraspecific variation in mercury bioaccumulation by snakes inhabiting a contaminated river floodplain.
- Virginia Tech Graduate Research Symposium, Blacksburg, VA.
 - Ecological Society of America – Mid-Atlantic Chapter meeting, Blacksburg, VA. ***Undergraduate Poster Honorable Mention**
2008. Eskew*, E.A., **J.D. Willson**, and C.T. Winne. Ambush site selection and ontogenetic shifts in foraging strategy in a semi-aquatic pit viper, the eastern cottonmouth, *Agkistrodon piscivorus*.
- Association of Southeastern Biologists meeting. Spartanburg, SC ***Student poster award.**
 - Southeastern Partners in Amphibian and Reptile Conservation annual meeting, Athens, GA
- 2007-2009. Durso*, A.M., **J.D. Willson**, and C.T. Winne. Modeling Detectability for Aquatic Snakes.
- Academy of the Environment Symposium, Athens, GA. ***Undergraduate poster award.**

- Joint Meeting of Ichthyologists & Herpetologists. Portland, OR.
- Odum School of Ecology, Graduate Research Symposium. ***Undergraduate poster award.**
- 5th meeting of the Snake Ecology Group, Donnelley, Idaho.

PROFESSIONAL AFFILIATIONS

American Society of Ichthyologists and Herpetologists, The Wildlife Society, Ecological Society of America, Herpetologists' League, Partners in Amphibian and Reptile Conservation, Society for the Study of Amphibians and Reptiles.