

JARRETT REED JOHNSON

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BACKGROUND

EDUCATION

Ph.D., 2005 – Department of Biological Sciences, University of Missouri, Columbia, Missouri, USA.

B.S., 1999 – with Honors and Distinction, Department of Ecology, Ethology, and Evolution, University of Illinois, Champaign, Illinois, USA.

PROFESSIONAL EXPERIENCE

Professor (2022 – present) – Department of Biology, Western Kentucky University, Bowling Green, Kentucky, USA

Associate Professor (2016 – 2022) – Department of Biology, Western Kentucky University, Bowling Green, Kentucky, USA

Assistant Professor (2010 – 2016) – Department of Biology, Western Kentucky University, Bowling Green, Kentucky, USA

Postdoctoral Researcher (2006 – 2010) – Center for Population Biology & Section of Evolution and Ecology, University of California, Davis, California, USA

Graduate Research Fellow (1999 – 2005) – Department of Biological Sciences, University of Missouri, Columbia, Missouri, USA

Research Assistant (1997 – 1999) – Illinois Natural History Survey & Department of Ecology, Ethology and Evolution, University of Illinois, Champaign, Illinois, USA

SCHOLARLY ACTIVITIES

PUBLICATIONS 1417 Total Citations; H index = 19

*undergraduate student co-authors, †graduate student co-authors, §WKU student co-authors

In review:

Ficarraz†§, G., K. Bilyk, M. C. do Amaral, and **J. R. Johnson**. The effect of freeze-thaw events on DNA integrity in the gray treefrog, *Hyla versicolor*. Comparative Biochemistry and Physiology Part A.

In print or in press:

(34) Earl, J. E., S. Blomquist, E. Harper, D. J. Hocking, M. Hunter, **J. R. Johnson**, M. S. Osbourn, D. Patrick, V. Popescu, T. A. G. Rittenhouse and B. B. Rothermel. 2022.

- Amphibian Biomass Export from Geographically Isolated Wetlands: Temporal Variability, Species Composition, and Potential Implications for Terrestrial Ecosystems. *Diversity* 14: 163-180.
- (33) Metzger†§ M. L., S. A. Grubbs, and **J. R. Johnson**. 2022. An integrative phylogenetic analysis of eastern Nearctic Leuctra Stephens, 1836 (Plecoptera: Leuctridae), with an emphasis on the fauna of a southern Appalachian Highlands landscape. *Canadian Entomologist* 154.
 - (32) Anderson, T. L., J. E. Earl, D. J. Hocking, M. S. Osbourn, T. A. G. Rittenhouse, and **J. R. Johnson**. 2021. Demographic effects of phenological variation in natural populations of two pond-breeding salamanders. *Oecologia* 196:1073–1083
 - (31) Boyd†§, O. F., T. K. Philips, **J. R. Johnson**, J. J. Nixon†§. 2020. Geographically structured genetic diversity in the cave beetle *Darlingtonia kentuckensis* Valentine 1952 (Coleoptera, Carabidae, Trechina). *Subterranean Biology* 34: 1-23.
 - (30) Anderson†§, K. and **J. R. Johnson**. 2018. The effects of substrate pH on growth and survival of recently metamorphosed Marbled Salamanders (*Ambystoma opacum*). *Herpetological Conservation and Biology* 13: 70-79.
 - (29) Levis†§, N. A., M. Schooler*§, **J. R. Johnson**, and M. L. Collyer. 2016. Non-adaptive phenotypic plasticity: the effects of terrestrial and aquatic herbicides on larval salamander morphology and swim speed. *Biological Journal of the Linnean Society* 118: 569–581.
 - (28) Drake, D. L., B. H. Ousterhout†, **J. R. Johnson**, T. L. Anderson†, W. E. Peterman†, C. D. Shulset†, D. J. Hocking, K. L. Lohraff†, E. H. Harper, T. A. G. Rittenhouse, B. B. Rothermel, L. S. Eggert, and R. D. Semlitsch. 2015. Pond-Breeding Amphibian Community Composition in Missouri. *American Midland Naturalist* 174: 180-187.
 - (27) Levis†§, N. A. and **J. R. Johnson**. 2015. Level of UV-B radiation influences the effects of glyphosate-based herbicide on fitness of the spotted salamander (*Ambystoma maculatum*). *Ecotoxicology* 24: 1074-1086.
 - (26) Fitzpatrick, B. M., M. E. Ryan, **J. R. Johnson**, J. Corush, and E. Carter†. 2015. Hybridization and the species problem in conservation. *Current Zoology* 61: 204–214.
 - (25) Wilcox, J. T., G. E. Padgett-Flohr, J. A. Alvarez, and **J. R. Johnson**. 2015. Possible influence of superinvasive alleles in larval California Tiger Salamanders (*Ambystoma californiense*). *American Midland Naturalist* 173:168-175.
 - (24) **Johnson, J. R.**, M. E. Ryan†, S. J. Micheletti*, and H. B. Shaffer. 2013. Short pond hydroperiod decreases fitness of non-indigenous hybrid salamanders. *Animal Conservation* 16: 556–565.
 - (23) Ryan†, M. E., **J. R. Johnson**, B. M. Fitzpatrick, L. J. Lowenstein, A. M. Picco†, and H. B. Shaffer. 2013. Agricultural landscapes in California favor introduced hybrid tiger salamanders. *Conservation Biology* 27: 95–102.
 - (22) **Johnson, J. R.**, R. C. Thomson†, S. J. Micheletti*, and H. B. Shaffer. 2011. The origin of tiger salamander (*Ambystoma tigrinum*) populations in California, Oregon, and Nevada: introductions or relicts? *Conservation Genetics* 12:355-370.
 - (21) Tonione†, M., **J. R. Johnson**, and E. J. Routman. 2011. Microsatellite analysis supports mitochondrial phylogeography of the hellbender (*Cryptobranchus alleganiensis*). *Genetica* 139: 209-219.
 - (20) Wang†, I. J., **J. R. Johnson**, B. B. Johnson*, and H. B. Shaffer. 2011. Effective population size is strongly correlated with pond size in the endangered California tiger salamander, *Ambystoma californiense*. *Conservation Genetics* 12:911-920.

- (19) **Johnson, J. R.**, B. B. Johnson*, and H. B. Shaffer. 2010. Genotype and temperature affect locomotor performance in a tiger salamander hybrid swarm. *Functional Ecology*. 24:1073-1080.
- (18) **Johnson, J. R.**, B. M. Fitzpatrick, and H. B. Shaffer. 2010. Admixture dynamics of tiger salamanders: Fitness of early-generation hybrids and the retention of low-fitness genotypes in contemporary populations. *BMC Evolutionary Biology* 10:147.
- (17) Fitzpatrick, B. M., **J. R. Johnson**, D. K. Kump, J. J. Smith†, S. R. Voss, and H. B. Shaffer. 2010. Rapid spread of invasive genes into a threatened native species. *Proceedings of the National Academy of Sciences* 107:3606-3610.
- (16) Thomson†, R. C., I. J. Wang†, and **J. R. Johnson**. 2010. Invited Review: Genome-enabled molecular marker development for ecology, evolution, and conservation. *Molecular Ecology* 19:2184–2195.
- (15) **Johnson, J. R.**, K. M. Faries*, J. J. Rabenold*, J. Briggler, J. Koppelman, and L. S. Eggert. 2009. Polymorphic microsatellite loci for studies of the hellbender (*Cryptobranchus alleganiensis bishopi*). *Conservation Genetics* 10:1795–1797.
- (14) Fitzpatrick, B. M., **J. R. Johnson**, D. K. Kump, H. B. Shaffer, J. J. Smith†, and S. R. Voss. 2009. Rapid fixation of non-native alleles revealed by genome-wide SNP analysis of hybrid tiger salamanders. *BMC Evolutionary Biology* 9:176.
- (13) Ryan†, M. E., **J. R. Johnson**, and B. M. Fitzpatrick. 2009. Ecological consequences of introduced genes: Invasive tiger salamander genotypes impact native amphibians. *Proceedings of the National Academy of Sciences* 106:11166-11171.
- (12) **Johnson, J. R.**, R. D. Mahan*, and R. D. Semlitsch. 2008. Terrestrial microhabitat use by gray treefrogs (*Hyla versicolor*) in oak-hickory forests. *Herpetologica* 64:259-269.
- (11) Hocking†, D. J., T. A. G. Rittenhouse†, B. B. Rothermel, **J. R. Johnson**, C. A. Conner†, E. B. Harper†, and R. D. Semlitsch. 2008. Breeding and recruitment phenology of amphibians in Missouri oak-hickory forests. *American Midland Naturalist* 160:41–60.
- (10) **Johnson, J. R.**, J. H. Knouft, and R. D. Semlitsch. 2007. Sex and seasonal differences in terrestrial distributions and core habitat estimates for populations of the gray treefrog (*Hyla versicolor*). *Biological Conservation* 140:250-258.
- (9) Mahan*, R. D. and **J. R. Johnson**. 2007. Diet of the gray treefrog, *Hyla versicolor* in relation to foraging site location. *Journal of Herpetology* 41:16-23.
- (8) **Johnson, J. R.** 2006. Success of intracoelomic radiotransmitter implants in the arboreal anuran, *Hyla versicolor*. *Lab Animal* 35:29-33.
- (7) **Johnson, J. R.** 2005. A novel arboreal pipe-trap designed to capture the gray treefrog (*Hyla versicolor*). *Herpetological Review* 36:274-277.
- (6) **Johnson, J. R.** 2005. Gray treefrog (*Hyla versicolor*) record size. *Herpetological Review* 36:302.
- (5) Daniel, R. E. and **J. R. Johnson**. 2004. New size records for three species of Missouri amphibians. *Annual Newsletter of Missouri Herpetological Association* 17:14.
- (4) **Johnson, J. R.** 2004. Fall breeding of the southern leopard frog (*Rana sphenoccephala*) in central Missouri. *Annual Newsletter of Missouri Herpetological Association* 17:14.
- (3) **Johnson, J. R.** and R. D. Semlitsch. 2003. Defining core habitat of local populations of the gray treefrog (*Hyla versicolor*) based on choice of oviposition site. *Oecologia* 137:205-210.

- (2) Phillips, C. A., **J. R. Johnson**, M. J. Dreslik†, and J. E. Petzing. 2002. Effects of hydroperiod on recruitment of mole salamanders (Genus *Ambystoma*) at a temporary pond in Vermilion County, Illinois. Transactions of the Illinois State Academy of Science 95:131-139.
- (1) Phillips, C. A., M. J., Dreslik†, **J. R. Johnson**, and J. E. Petzing. 2001. Application of population estimation to pond breeding salamanders. Transactions of the Illinois State Academy of Science 94:111-118.

GRANTS AND FUNDING *Career Total*=\$879,284

Extramural (Not Funded)

- \$50,000. Patterns of Genetic Diversity in a Karst-associated Salamander. Kentucky Science and Engineering Foundation. Submitted November 2016.
- \$554,525. Landscape Genetics of the Central DPS of California Tiger Salamander. US Bureau of Reclamation. \$30,071 to WKU. (Co-PI with HB Shaffer) Submitted September 2015.
- \$25,000. Quantitative genetics of a hybrid swarm. Submitted to Kentucky NSF EPSCoR Research Enhancement Grant (REG) Program. Submitted July 2015.
- Preliminary Proposal: SG: RUI: Linking genotypes to phenotypes in a hybrid swarm: what are the consequences of introgression? NSF, DEB, Evolutionary Genetics. PI. Submitted January 2015
- Preliminary Proposal: RUI: Understanding the evolutionary and ecological consequences of introgression. NSF, DEB, Evolutionary Ecology. PI. Submitted January 2014
- \$529,646. Collaborative Research: Genomic characterization and ecological consequences of a hybrid invasion. NSF, DEB. (Co-PI with HB Shaffer, BM Fitzpatrick, and SR Voss) \$41,173 to WKU. Submitted January 2011.

Extramural (Funded)

- \$7,100. Assessment of salamander distribution in the Great Smoky Mountains National Park through the use of eDNA metabarcoding with an emphasis on a reexamination of the distribution of the rare salamander, *E. junaluska*. Carlos C. Campbell Memorial Fellowship. Great Smoky Mountains Conservation Association. (Co-PI with BF Brummel and EK Strasko†§)
- \$500. Assessing the effect of man-made reservoirs on gene flow of stream-breeding salamanders. Kentucky Academy of Sciences (KAS) Marcia Athey Fund. (co-PI Anna Favalon†§)
- \$500. Species distribution and genetic diversity of the Trilling Chorus Frogs (*Pseudacris*) in the state Kentucky. Society for the Study of Amphibians and Reptiles (SSAR) Grant-in-Herpetology. (co-PI Tucker Cambridge†§)
- \$500. Landscape Genetics of California Tiger Salamanders: Inferences from multiple methods. Kentucky Academy of Sciences (KAS) Marcia Athey Fund. (co-PI Samantha Thomas†§)
- \$600. Adaptive variation in tiger salamander populations in response to environmental change. Kentucky Academy of Sciences (KAS) Marcia Athey Fund. (co-PI Meghan Parsley†§)
- \$631,284. Tracking genes in real time as they traverse a hybrid invasion landscape. National Science Foundation, Division of Environmental Biology. 2013-2016. (Co-PI with HB Shaffer) \$60,647 to WKU.

- \$675. Consequences of two environmental stressors (UV-B radiation and glyphosate-based herbicide) on mortality, immune function, and phenotypic plasticity in two populations of wood frogs (*Rana sylvatica*). Kentucky Academy of Sciences (KAS) Marcia Athey Fund. (co-PI Nicholas Levis†§)
- \$5,000. Comparative landscape genetics of amphibians. KAS Special Research Program. 2012-2013. PI.
- \$500. Comparative landscape genetics of the marbled salamander, *Ambystoma opacum*. KAS Marcia Athey Fund. 2012-2013 (co-PI Kevin Tewell†§).

Prior to WKU

- \$95,000. United States Department of Defense. “Conservation of California tiger salamanders in altered landscapes: Perspectives for future mitigation strategies” 2009-2010. (Co-PI with HB Shaffer)
- \$20,000. California Department of Fish and Game. “Phylogenetic reconstruction of the introduction history of California’s extralimital populations of *Ambystoma tigrinum*.” 2009 (Co-PI with HB Shaffer and RC Thomson)
- \$12,000. NSF, Research Experience for Undergraduates (REU) Supplement. “Effect of hydroperiod on larval fitness of hybrid and pure tiger salamander types.” 2008 (Co-PI with HB Shaffer).
- \$18,000. Trans World Airlines. “Multi-scale investigations of gray treefrog (*Hyla versicolor*) movements: From migration to dispersal and gene flow.” 2001-2005.
- \$1,000. Theodore Roosevelt Memorial Fund “Amphibian movements in an experimental metapopulation.” 2003.
- \$800. Sigma Xi Scientific Research Society “Scaling genetic differentiation between subpopulations of the gray treefrog, *Hyla versicolor*.” 2000.

Intramural (WKU only)

- \$3,500 Determining patterns of gene flow and genetic structure in spider beetles. Faculty-Undergraduate Student Engagement (FUSE) Program. Western Kentucky University. 2018-2019. (With WKU undergraduate Naiya Sims*§)
- \$3,500 Growth and survival of amphibians exposed to road salt and glyphosate-based Herbicide. Faculty-Undergraduate Student Engagement (FUSE) Program. Western Kentucky University. 2018-2019. (With WKU undergraduate Jerica Eaton*§)
- \$3,500 Conservation Genetics of Pacific Treefrogs. Faculty-Undergraduate Student Engagement (FUSE) Program. Western Kentucky University. 2018-2019. (With WKU undergraduate Ellery Denny*§)
- \$3,500 Analyzing Genetic Diversity in California Amphibian Populations. Faculty-Undergraduate Student Engagement (FUSE) Program. Western Kentucky University. 2018-2019. (With WKU undergraduate Jackson Resser*§)
- \$3,500 Faculty-Undergraduate Student Engagement (FUSE) Program. Western Kentucky University. 2017-2018. (With Gatton Academy student Ivy Irihamye*§)
- \$16,000. Comparative Landscape Genomics of Mexican Amphibians. Research and Creative Activities Program (RCAP) Category I, Western Kentucky University. 2016-2017.
- \$4,500. Site selection by the marbled salamander based on substrate pH. Faculty-Undergraduate Student Engagement (FUSE) Program. Western Kentucky University. 2016-2017. (With WKU undergraduate Tosha Shokes*§)

- \$4,500. Genetic Analysis of a California Newt (*Taricha torosa*) metapopulation. Faculty-Undergraduate Student Engagement (FUSE) Program. Western Kentucky University. 2015-2016. (With WKU undergraduate Jessica Vincent*§)
- \$4,500. The Effects of Alternative Herbicide Formulations on Salamander Larvae. Faculty-Undergraduate Student Engagement (FUSE) Program. Western Kentucky University. 2015-2016. (With WKU undergraduate Jessica Johnson*§)
- \$8,000. Patterns of Range-wide Genetic Variation in the Cave Salamander. Research and Creative Activities Program (RCAP) Category I, Western Kentucky University. 2014-2015.
- \$4,200. The prevalence of Chytrid fungus in Bullfrog populations of South Central Kentucky. Research Internship Grant. Gatton Academy for Mathematics and Science. Biology Summer Undergraduate Research Experience (BSURE), Western Kentucky University. 2013. (With Gatton Academy student Kevin Ziegler*§)
- \$4,600. Genetic structure of a pacific chorus frog (*Pseudacris regilla*) metapopulation. Faculty-Undergraduate Student Engagement (FUSE) Program. Western Kentucky University. 2013-2014. (With WKU undergraduate Ryan Vincent*§)
- \$4,600. Comparisons of genetic diversity among disjunct populations of *Magnolia tripetala*. FUSE Program. Western Kentucky University. 2012-2013. (With WKU undergraduate Torey Gilkison*§ and co-advisor Dr. Albert Meier)
- \$4,600. Patterns of gene flow in a western toad (*Bufo boreas*) metapopulation. FUSE Program. Western Kentucky University. 2012-2013. (With WKU undergraduate Morgan Murrell)
- \$15,000. Epigenetic inheritance in salamanders. RCAP Category I, Western Kentucky University. 2012-2013.
- \$4,000. Landscape Genetics of five species of sympatric amphibians in California. RCAP Category II. Western Kentucky University. 2011-2012.
- \$2,000. Preliminary investigations of cave salamander terrestrial ecology. BSURE, Western Kentucky University. 2011. (With WKU undergraduate Evan Sutton*§)

PRESENTATIONS 41 oral, 28 posters, 1 virtual

*undergraduate student coauthor, †graduate student coauthor, §WKU student coauthor

Invited Presentations

- (12) **Johnson, J. R.** Department of Biology, Western Kentucky University, Bowling Green, KY. 16 November 2018.
 - (11) **Johnson, J. R.** The Science, Management, and Policy of Amphibian Conservation Symposium. Joint Meeting of Ichthyologists and Herpetologists (JMIH), Austin TX. 15 July 2017.
 - (10) **Johnson, J. R.** Department of Biology, Murray State University, Murray, KY. 13 November 2015.
 - (9) **Johnson, J. R.** Department of Biology, Centre College, Danville, KY. 8 November 2012.
 - (8) **Johnson, J. R.** Department of Zoology, Miami University, Oxford, OH. 14 February 2012.
 - (7) **Johnson, J. R.** Department of Biology, Eastern Kentucky University, Richmond, KY. 11 February 2011.
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Prior to WKU

- (6) Shaffer, H. B., **Johnson, J. R.**, and B. M. Fitzpatrick. Conservation Genetics Symposium. America Genetics Association Annual Meeting. Hilo, HI. 27 July 2010.
- (5) **Johnson, J. R.** Invasive species seminar series. Department of Evolution and Ecology, University of California, Davis, CA. 10 May 2010.
- (4) **Johnson, J. R.** Department of Biology, Western Kentucky University, Bowling Green, KY. 26 February 2010.
- (3) **Johnson, J. R.** Davis Chapter of the Society for Conservation Biology, University of California, Davis, CA. 18 March 2008.
- (2) **Johnson, J. R.** Herpetology group, Washington University, St. Louis, MO. 09 November 2005.
- (1) **Johnson, J. R.** and R. D. Semlitsch. Amphibian and reptile conservation symposium, Midwest Fish and Wildlife Meeting, Indianapolis, IN. 13 December 2004.

Contributed Presentations (National/International Meetings)

- (27) Eaton*§, J. and **J. R. Johnson.** (poster) Association of Southeastern Biologists (ASB). Winston-Salem NC. 18 March 2023.
 - (26) **Johnson, J. R.**, A. J. Barley, and R. C. Thomson. Association of Southeastern Biologists (ASB). Memphis TN. 5 April 2019.
 - (25) Irihamye*§, I. and **J. R. Johnson.** (poster) Association of Southeastern Biologists (ASB). Memphis TN. 5 April 2019.
 - (24) Drake, D, B. Ousterhout, **J. R. Johnson**, T Anderson, C. Shulse, K. Lohraff, W. Peterman, T. Rittenhouse, and B. Roethermel. (poster) Joint Meeting of Ichthyologists and Herpetologists (JMIH), Austin TX. 15 July 2017.
 - (23) Parsley†§, M. and **J. R. Johnson.** Joint Meeting of Ichthyologists and Herpetologists (JMIH), Austin TX. 14 July 2017.
 - (22) Thomas†§, S. and **J. R. Johnson.** Joint Meeting of Ichthyologists and Herpetologists (JMIH), Austin TX. 14 July 2017.
 - (21) Anderson†§, K. and **J. R. Johnson.** (poster) Joint Meeting of Ichthyologists and Herpetologists (JMIH), New Orleans, LA. 9 July 2016.
 - (20) Johnson*§, J. J. and **J. R. Johnson.** (poster) Joint Meeting of ASIH, AES, HL, and SSAR. New Orleans, LA. 9 July 2016.
 - (19) Gilkison*§, V. A., A. J. Meier, and **J. R. Johnson.** (poster) Comparisons of Genetic Diversity among Disjunct Populations of *Magnolia tripetala*. Ecological Society of America Annual Meeting, Sacramento, CA. 15 August 2014.
 - (18) Levis†§, N. A. and **J. R. Johnson.** Joint Meeting of Ichthyologists and Herpetologists (JMIH), Chattanooga, TN. 31 July 2014.
 - (17) Tewell†§, K. J. and **J. R. Johnson.** Joint Meeting of Ichthyologists and Herpetologists (JMIH), Albuquerque, NM. 8 July 2013.
 - (16) **Johnson, J. R.**, M. E. Ryan, S. J. Micheletti*, B. B. Johnson*, and H. B. Shaffer. Joint Meeting of Ichthyologists and Herpetologists (JMIH), Albuquerque, NM. 5 July 2013.
 - (15) **Johnson, J. R.**, and H. B. Shaffer. Joint Meeting of Ichthyologists and Herpetologists (JMIH), Minneapolis, MN. 10 July 2011.
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Prior to WKU

- (14) Ryan†, M. E., **J. R. Johnson**, B. M. Fitzpatrick, L. J. Lowenstine, A. M. Picco†, H. B. Shaffer, and P. Chesson. Ecological Society of America (ESA) Annual Meeting. Pittsburgh, PA. 2 August 2010.
- (13) **Johnson, J. R.**, M.E. Ryan†, S. J. Micheletti*, and H. B. Shaffer. Joint Meeting of Ichthyologists and Herpetologists (JMIH), Portland, OR. 27 July 2009.
- (12) **Johnson, J. R.**, B. B. Johnson*, and H. B. Shaffer. (poster) Joint Meeting of Ichthyologists and Herpetologists (JMIH), Portland, OR. 20 July 2009.
- (11) **Johnson, J. R.**, B. M. Fitzpatrick, and H. B. Shaffer. Joint annual meeting of the Society for the Study of Evolution (SSE), the Society of Systematic Biologists (SSB), and the American Society of Naturalists (ASN). Minneapolis, MN. 21 June 2008.
- (10) Ryan†, M. E., and **J. R. Johnson**. ESA Annual Meeting. Milwaukee, WI. 5 August 2008
- (9) **Johnson, J. R.** and H. B. Shaffer. Joint Meeting of Ichthyologists and Herpetologists (JMIH), St. Louis, MO. 16 July 2007.
- (8) Hocking†, D. J., T. A. G. Rittenhouse†, B. B. Rothermel, **J. R. Johnson**, C. A. Conner†, E. B. Harper† and R. D. Semlitsch. (poster) Joint Meeting of Ichthyologists and Herpetologists (JMIH), St. Louis, MO. 13 July 2007.
- (7) **Johnson, J. R.** (poster) Joint Meeting of Ichthyologists and Herpetologists (JMIH), New Orleans, LA. 15 July 2006.
- (6) **Johnson, J. R.** and R. D. Semlitsch. Society for Conservation Biology. San Jose, CA. 28 June 2006.
- (5) **Johnson, J. R.** Joint Meeting of Ichthyologists and Herpetologists (JMIH), Tampa, FL. 08 July 2005.
- (4) **Johnson, J. R.** (poster) Joint Meeting of Ichthyologists and Herpetologists (JMIH), Tampa, FL. 08 July 2005.
- (3) **Johnson, J. R.** and R. D. Semlitsch. Joint Meeting of Ichthyologists and Herpetologists (JMIH), Norman, OK. 30 May 2004.
- (2) **Johnson, J. R.** and R. D. Semlitsch. (poster) Joint Meeting of Ichthyologists and Herpetologists (JMIH), Kansas City, MO. 6 July, 2002.
- (1) **Johnson*, J. R.** and C. A. Phillips. Joint Meeting of Ichthyologists and Herpetologists (JMIH), State College, PA. 29 June, 1999.

Contributed Presentations (Local/Regional Meetings)

- (33) Eaton*§, J. and **J. R. Johnson** (poster) Kentucky Academy of Sciences (KAS) Annual Meeting, Morehead State University, Morehead, KY. November 2022.
- (32) Resser*§, J. J. and **J. R. Johnson** (online video presentation) Student Research Conference, Western Kentucky University. 2 May 2020.
- (31) Irihamye*§, I. and **J. R. Johnson** (poster) Student Research Conference, Western Kentucky University. 23 March 2019.
- (30) Austin*§, H. and **J. R. Johnson** (poster) Student Research Conference, Western Kentucky University. 24 March 2018.
- (29) Thomas†§, S. and **J. R. Johnson**. Kentucky Academy of Sciences (KAS) Annual Meeting, Murray State University, Murray, KY. 4 November 2017.
- (28) Shokes*§, T. and **J. R. Johnson**. (poster) Kentucky Academy of Sciences (KAS) Annual Meeting, Murray State University, Murray, KY. 3 November 2017.
- (27) Johnson*§, J. and **J. R. Johnson**. (poster) Posters at the Capitol, Frankfort, KY. 2 March 2017.

- (26) Anderson†§, K. and **J. R. Johnson**. Kentucky Academy of Sciences (KAS) Annual Meeting, Louisville, KY. 5 November 2016.
 - (25) Vincent*§, J. and **J. R. Johnson**. (poster) Kentucky Academy of Sciences (KAS) Annual Meeting, Louisville, KY. 4 November 2016.
 - (24) Anderson†§, K. and **J. R. Johnson**. (poster) Student Research Conference, Western Kentucky University. 2 April 2016.
 - (23) Johnson*§, J. and **J. R. Johnson** (poster) Student Research Conference, Western Kentucky University. 2 April 2016.
 - (22) King*§, E., A. K. Fehrenbach†§, **J. R. Johnson**, M. E. Smith. (poster) Functional recovery of axolotl hearing following sound exposure. Student Research Conference, Western Kentucky University. 28 March 2015.
 - (21) Vincent*§, R. A. and **J. R. Johnson**. Student Research Conference, Western Kentucky University. 22 March 2014.
 - (20) Levis†§, N. A. and **J. R. Johnson**. Southeast Partners in Amphibian and Reptile Conservation (SEPARC) Annual Meeting, Cumberland Lake State Park, KY. 15 February 2014.
 - (19) Levis†§, N. A. and **J. R. Johnson**. Kentucky Academy of Sciences (KAS) Annual Meeting, Morehead, KY. 09 November 2013.
 - (18) Murrell*§, M. M. and **J. R. Johnson**. (poster) KAS Annual Meeting, Morehead, KY. 09 November 2013.
 - (17) Vincent*§, R. A. and **J. R. Johnson**. (poster) KAS Annual Meeting, Morehead, KY. 09 November 2013.
 - (16) Ziegler*§, K. J. and **J. R. Johnson**. (poster) KAS Annual Meeting, Morehead, KY. 09 November 2013.
 - (15) Tewell†§, K. J. and **J. R. Johnson**. Mammoth Cave Research Symposium. Mammoth Cave National Park, KY. 14 February 2013.
 - (14) Gilkison*§, V. A., **J. R. Johnson**, and A. Meier. (poster) Student Research Conference, Western Kentucky University. 23 March 2013.
 - (13) Leigh*, D. B., K. J. Tewell†§, and **J. R. Johnson**. (poster) NSF REU poster session, Western Kentucky University. Bowling Green, KY. 2 August 2012.
 - (12) Leigh*, D. B., K. J. Tewell†§, and **J. R. Johnson**. (poster) KAS Annual Meeting, Richmond, KY. 20 October 2012.
 - (11) Tewell†§, K. J. and **J. R. Johnson**. KAS Annual Meeting, Richmond, KY. 20 October 2012.
 - (10) Sutton*§, J. E. and **J. R. Johnson**. Department of Biology BSURE Symposium. Western Kentucky University. Bowling Green, KY. 9 September 2011.
 - (9) Woronik*, A. R., B. S. McCullaugh*§, and **J. R. Johnson**. (poster) NSF REU poster session, Western Kentucky University. Bowling Green, KY. 10 August 2011.
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Prior to WKU

- (8) Fitzpatrick, B. M., S. P. D. Riley, S. R. Voss, **J. R. Johnson**, and H. B. Shaffer. (poster) Southeastern Population Ecology and Evolutionary Genetics Conference. Knoxville, TN. 22 Sept 2007.
- (7) **Johnson, J. R.** Dissertation Defense. University of Missouri, Columbia, MO. 29 June 2005.

- (6) **Johnson, J. R.** and R. D. Semlitsch. Missouri Herpetological Association. Squaw Creek National Wildlife Refuge, Mound City, MO. 25 September 2004.
- (5) **Johnson, J. R.** Ecolunch. University of Missouri, Columbia, MO. 21 April 2004.
- (4) **Johnson, J. R.** and R. D. Semlitsch. (poster) Life Sciences Week. University of Missouri, Columbia, MO. 19 February 2003.
- (3) **Johnson, J. R.** and R. D. Semlitsch. (poster) Divisional of Biological Sciences Retreat. Woodson K. Woods Memorial Wildlife Area, St. James, MO. 23 August 2002.
- (2) **Johnson, J. R.** Ecolunch. University of Missouri, Columbia, MO. 24 April 2002.
- (1) **Johnson*, J. R.** and C. A. Phillips. Illinois Chapter of the Wildlife Society. Allerton Park, Allerton, IL. 4 March 1999.

AWARDS AND FELLOWSHIPS

2022 Western Kentucky University Office of Research and Creative Activities, *Prolific Proposer Award*
 2022 Western Kentucky University Department of Biology, *Faculty Mentoring Award*
 2016 Western Kentucky University Ogden College, *Research and Creative Activity Award*
 2013 Western Kentucky University Office of Research and Creative Activities, *Junior Investigator Award*
 2012 Western Kentucky University Office of Research and Creative Activities, *Junior Investigator Award*
 2012 Western Kentucky University Office of Research and Creative Activities, *First Time Awardee Award*

Prior to WKU

2005—University of Missouri Department of Biological Sciences, *Outstanding Graduate Achievement Award* (finalist)
 2001—United States Department of Education *Graduate Assistantship* (2001 – 2004)
 2000—National Science Foundation *Pre-doctoral Fellowship* (honorable mention)
 1999—University of Missouri Department of Biological Sciences, *William Gregory Fellowship*
 1999—University of Illinois Department of Ecology, Ethology, & Evolution, *Outstanding Undergraduate Award*

STUDENT AWARDS

2023

Eaton, J. Western Kentucky University Department of Biology, *Larry N. Gleason Award for Excellence in Undergraduate Research*.

Strasko, E. Western Kentucky University Department of Biology, *Outstanding Graduate Student*

2022

Eaton, J. Kentucky Academy of Sciences, *Top-scoring student, Undergraduate Poster in Ecology and Environmental Science*.

Sims, N. Western Kentucky University Department of Biology, *Outstanding Biodiversity Student*.

2021

Lawrence, S. Western Kentucky University Department of Biology, *Larry N. Gleason Award for Excellence in Undergraduate Research.*

2019

Irihamye, I. Western Kentucky University Student Research Conference, 1st place
undergraduate student poster.

2018

Austin, H. Western Kentucky University Department of Biology, *Larry N. Gleason Award for Excellence in Undergraduate Research.*

Austin, H. Western Kentucky University Student Research Conference, 1st place
undergraduate student poster.

2017

Johnson, J. Western Kentucky University Department of Biology, *Outstanding Biodiversity Student.*

Parsley, M. Society for the Study of Amphibians and Reptiles, 2nd place *Henry Seibert Award Best Student Paper in Conservation*

Parsley, M. Western Kentucky University Department of Biology, *Outstanding Graduate Student*

2016

Anderson, K. Western Kentucky University Student Research Conference, 1st place
graduate student poster

Johnson, J. Western Kentucky University Department of Biology, *Larry N. Gleason Award for Excellence in Undergraduate Research.*

Johnson, J. Western Kentucky University Student Research Conference, 1st place
undergraduate graduate student poster

Parsley, M. Western Kentucky University Department of Biology, *Outstanding First Year Graduate Student*

2014

Levis, N. A. Western Kentucky University Graduate School, *Minton Award.*

Levis, N. A. Western Kentucky University Department of Biology, *Outstanding Graduate Student Award.*

Vincent, R. A. Western Kentucky University Department of Biology, *Outstanding Biotechnology Student Award.*

2013

Gilkison, V. Western Kentucky University Department of Biology, *Larry N. Gleason Award for Excellence in Undergraduate Research.*

Levis, N. A. Kentucky Academy of Sciences, 2nd Place, *Graduate Student Presentation in Ecology and Environmental Science.*

Levis, N. A. Western Kentucky University Department of Biology, *Outstanding First Year Graduate Student.*

Murrell, M. M. Kentucky Academy of Sciences, 1st Place, *Undergraduate Poster in Zoology.*

Vincent, R. Kentucky Academy of Sciences, 1st Place, *Undergraduate Poster in Ecology and Environmental Science.*

Ziegler, K. Gatton Academy, *Summer Research Internship Grant.*

Ziegler, K. Western Kentucky University Department of Biology, *Biology Summer Undergraduate Research Experience (BSURE).*

2012

Gilkison, V. A. Western Kentucky University Office of Sponsored Programs, *Faculty-Undergraduate Student Engagement (FUSE) Award*.

Levis, N. A. Kentucky Academy of Sciences, *Marcia Athey Award*.

Tewell, K. J. Kentucky Academy of Sciences, *2nd Place, Graduate Student Presentation in Ecology and Environmental Science*.

Tewell, K. J. Kentucky Academy of Sciences, *Marcia Athey Award*.

Tewell, K. J. Sigma Xi Scientific Research Society, *Grants-in-aid-of-research*.

Tewell, K. J. Western Kentucky University Department of Biology, *Outstanding First Year Graduate Student*.

Murrell, M. M. Western Kentucky University Office of Sponsored Programs, *Faculty-Undergraduate Student Engagement (FUSE) Award*.

Vincent, R. Western Kentucky University Office of Sponsored Programs, *Faculty-Undergraduate Student Engagement (FUSE) Award*.

2011

Sutton, J. E. Western Kentucky University Department of Biology, *BSURE*.

TEACHING

TEACHING EXPERIENCE

†online, §hybrid

Full Professor, Western Kentucky University (2022-present)

BIOL 337 (Genetics Laboratory) Fall 2022

BIOL 582 (Biometry) Fall 2022, Spring 2023†

BIOL 516 (Investigations/Biology Capstone) Spring 2023†

BIOL 675 (Landscape Genetics), Spring 2023

Associate Professor, Western Kentucky University (2016-present)

BIOL 327 (Genetics) Summer 2017†, Fall 2017, Winter 2018†, Summer 2018†, Fall 2018, Winter 2019†, Summer 2019†, Fall 2019, Summer 2021†, Fall 2021

BIOL 337 (Genetics Laboratory) Spring 2017, Fall 2019, Fall 2020†, Summer 2021†, Fall 2021

BIOL 397 (Scientific Process) Spring 2019

BIOL 457 (Herpetology) Spring 2020, Spring 2022

BIOL 457G (Herpetology) Spring 2020, Spring 2022

BIOL 457H (Herpetology) Spring 2020, Spring 2022

BIOL 503 (Contemporary Topics) Fall 2021

BIOL 524 (Evolutionary and Ecological Genetics) Spring 2017, Spring 2019, Spring 2020†, Spring 2021, Spring 2022§

BIOL 582 (Biometry) Fall 2016, Fall 2017, Fall 2018, Fall 2020†, Spring 2021†

BIOL 598 (Graduate Seminar) Fall 2021†, Spring 2022§

BIOL 675 (Landscape Genetics) Fall 2017

Assistant Professor, Western Kentucky University (2010-2016)

BIOL 122 (Biological Concepts II) Spring 2011, Fall 2015

BIOL 327 (Genetics) Fall semesters 2010-2014, Spring 2011

BIOL 327H (Honors Genetics) Spring 2013, Fall 2015

BIOL 337 (Genetics Laboratory) Fall 2014

BIOL 457 (Herpetology) Spring 2012, Spring 2014, Spring 2016

BIOL 457G (Herpetology) Spring 2012, Spring 2014, Spring 2016
BIOL 457H (Herpetology) Spring 2014, Spring 2016
BIOL 524 (Evolutionary and Ecological Genetics) Spring 2013
BIOL 598 (Graduate Seminar) Fall 2015
BIOL 675 (Population Genetics) Spring 2012, Fall 2015
BIOL 675 (Statistical Analysis in R) Fall 2011

Prior to WKU

Graduate Teaching Assistant, University of Missouri (2000-2005)

BIO 2200 (Genetics) 2004.
BIO 4600 (Evolution) 2002.
BIO 3360 (Herpetology) 2001, 2005.
BIO 3650 (General Ecology) 2000, 2003.
BIO 1500 (Introductory Biology) 2000, 2003, 2004.

UNDERGRADUATE STUDENT MENTORING

**co-authored publication(s), †co-authored presentation(s)*

Western Kentucky University

Honors Thesis Chair

Naiya Sims—2022-present
FUSE Grant Recipient
Jerica Eaton—2022-present
FUSE Grant Recipient
Jackson Resser†—2019-2020 (defended Spring 2020—Passed with honors)
FUSE Grant Recipient
Haley Austin†—2017-2018 (defended Spring 2018—Passed with honors)
Jessica Vincent†—2015-2017
FUSE Grant Recipient (defended Spring 2017—Passed with honors)
Jessica Johnson†—2015-2017
FUSE Grant Recipient (defended Spring 2017—Passed with honors)
Ryan Vincent†—2012-13
FUSE Grant Recipient (defended Summer 2014—Passed with honors)
Morgan Murrell†—2012-13
FUSE Grant Recipient (defended Fall 2013—Passed with honors)
Torey Gilkison*†—2012-13
FUSE Grant Recipient (defended Summer 2013—Passed with distinction)

Honors Thesis Committee Member

Jonathan Smith—2018-2019 (Michael Smith, chair)
Audrey Brown—2015-2016 (Noah Ashley, chair)
Mitchell Schooler—2014-2015 (Michael Collyer, chair)
Spencer Wright—2013-2014 (Nancy Rice, chair)

Independent Research Students (BIOL 399)

Andrew Jackson—2023-present
Ethan Baird—2022
Stephanie Lawrence—2020-2021

Summer Wei—2020
Olivia McCallister—2020
Ellery Denny—2019, FUSE Grant Recipient
Ivy Irihamye†—2018-2019, Gatton Academy High School Student, FUSE Grant Recipient
Brooke Walden—2018-2019
Kaitlyn Menser—2018
Tosha Shokes†—2017-2018, FUSE Grant Recipient
Kaley Burden—2016-2017
Katlyn Clark—2016-2017
Jasen Davis—2016-2017
Storm Dutton—2016
Courtney Waterbury—2014-2016
Evan Cowles—2015
Jordan Jones—2014
Allison Evans—2013
Kevin Ziegler†—2013, Gatton Academy Research Grant and BSURE Recipient
Jacob Floyd—2013
Andi Esterle—2012-13
Gabrielle Hamilton—2012-13, Gatton Academy High School Student
Evan Sutton†—2011-12, BSURE Recipient
Sarah Lowe—2011-12
Stephen Mattingly—2011-12, Gatton Academy High School Student
Jason Young—2011
Bonnie McCullaugh†—2010-11

NSF Site REU Students

Dana Leigh†—2012, Eastern Kentucky University
Alyssa Woronik†—2011, Sacred Heart University

Prior to WKU

University of California

Angela Akens—Independent Research Practicum 2008-10
Nora Norvell—Davis High School Occupation Program 2009
Hilary Teaford—Davis High School Occupation Program 2009
Benjamin Johnson*†—Independent Research Practicum 2007-9
Steven Micheletti*†—NSF REU 2007-8

University of Missouri

Tiffanie Hamilton – Federal Work/Study Program 2005
Rachel Mahan*† – Life Sciences Research Fellow 2004-5
Jeffery Haynes – Senior Capstone Project 2003-4

GRADUATE STUDENT MENTORING

Western Kentucky University

Thesis Committee Chair

Jerica Eaton—*incoming*

Anna Favalon—*in progress*
Elizabeth Strasko—*in progress*
Georgia Ficarra—M.S. Spring 2021
Tucker Cambridge—M.S. Spring 2018
Samantha Thomas—M.S. Spring 2017
Meghan Parsley—M.S. Fall 2017
Kenneth Anderson—M.S. Fall 2016
Nick Levis—M.S. Spring 2014
Kevin James Martin Tewell—M.S. Fall 2013

Non-thesis/Online Committee Chair (BIOL 516 Mentor)

Hailey Conn—*upcoming*
Melinda Galette—*upcoming*
James Young—*in progress*
Lauren Gottschalk—*in progress*
Christy Woodring—*in stasis*
Eric Good—*in stasis*
Amy Cherrywell—M.S. Spring 2021
Michael Barrow—M.S. Fall 2015
Jennifer Welch—M.S. Summer 2012

Thesis Committee Member

Jacob Bowen (Keith Philips, chair)—*in progress*
Madison Layer (Scott Grubbs, chair)—*in progress*
Robert Chambliss (Keith Philips, chair)—M.S. Spring 2022
Caleb Miller (Albert Meier, chair)—M.S. Spring 2022
Phillip Hogan (Scott Grubbs, chair)—M.S. Spring 2021
Taylor Verrett (Carl Dick, chair)—M.S. Spring 2021
Lauren Kappel (Steve Huskey, chair)—M.S. Spring 2020
Taylor McRoberts (Scott Grubbs, chair)—M.S. Spring 2020
Madeline Metzger (Scott Grubbs, chair)—M.S. Spring 2020
Jedediah Nixon (Keith Philips, chair)—M.S. Spring 2020
Katie Laslie (Michael Smith, chair)—M.S. Summer 2018
Samuel Tegge (Steve Huskey, chair)—M.S. Spring 2018
Mitchell Schooler (Carl Dick, chair)—M.S. Spring 2017
Qianna Xu (Mike Collyer, chair)—M.S. Spring 2017
Chase LaDue (Bruce Schulte, chair)—M.S. Spring 2016
Olivia Boyd (Keith Philips, chair)—M.S. Spring 2015

SERVICE

UNIVERSITY SERVICE

Biology Representative, Faculty Senate (2019-2021)
Member, Biotechnology Center Executive Committee (2013-present)
Ogden College Representative, Research and Creative Activity Program (RCAP) Review Committee (2015-2016, 2019-2020)
Ogden College Representative (at-large), Faculty Senate (2016-2018)

Chair, Biotechnology Center Bylaws Committee (2012-2015)

COLLEGE SERVICE

Biology Representative, Ogden College Sabbatical Committee (2020)
Biology Representative, Ogden College Curriculum Committee (2019-2020)
Member, Ogden College Dean's Recruitment Committee (2017-2018)

DEPARTMENTAL SERVICE

Co-chair, Biology Awards and Scholarships Committee (2023-present)
Director, Online Biology Graduate Program (2020-present)
Member, Biology Graduate Program Committee (2015-present)
Faculty Mentor, Wildlife and Conservation Club (2014-present)
Member, Cell/Molecular Biology Search Committee (2022)
Member, Biology Graduate Curriculum Committee (2015-2020)
Chair, Biology Awards Committee (2013-2020)
Member, Anatomy and Physiology Search Committee (2017)
Co-Chair, Biology Departmental Seminar Committee (2013-2015)
Member, Biology Undergraduate Curriculum Committee (2010-2015)
Member, Genome Discovery and Exploration Technician Search Committee (2014)
Member, Biostatistics Search Committee (2011)

PROFESSIONAL SERVICE

Associate Editor—American Midland Naturalist (2012-2016)

Grant Reviewer

External

U.S. Department of the Interior, Bureau of Reclamation, Central Valley Project Conservation Program, *ad hoc* review 2013
National Science Foundation (NSF) Organism-Environment Interactions Program, Division of Integrative Organismal Systems, *ad hoc* review 2012
NSF Office of International Science and Engineering, International Research Fellowship Program, *ad hoc* review 2011
NSF Evolutionary Processes Cluster, Division of Environmental Biology, *ad hoc* review 2011
NSF *ad hoc* reviewer, 2007; 2009; 2010

Internal

Western Kentucky University, RCAP Grants, 2015-2016, 2019-2020
Western Kentucky University, FUSE Grants, 2012-2022

Article Reviewer

2023—(1) Conservation Biology
2022—(2) Herpetological Conservation and Biology, Journal of the Kentucky Academy of Science
2021—(2) Amphibia-Reptilia, Journal of Integrated Zoology
2020—(2) Journal of Herpetology, Science of the Total Environment

2019—(4) Ecology and Evolution, Herpetological Conservation and Biology, Journal of Herpetology
2018—(2) Herpetological Conservation and Biology, PLOS One
2017—(2) Copeia, PeerJ
2016—(2) Journal of Herpetology, Biological Conservation
2015—(3) Conservation Genetics, Herpetological Review, Zoological Studies
2014—(2) Conservation Genetics, Herpetological Conservation and Biology
2013—(7) Conservation Genetics, Heredity, Herpetological Conservation and Biology, Journal for Nature Conservation, Ecology and Evolution, PLoS One, American Midland Naturalist
2012—(4) Biological Conservation, Molecular Ecology Resources, Landscape Ecology, Copeia
2011—(3) Molecular Ecology, Molecular Ecology Resources, Zoology
2010—(2) Endangered Species Research, Evolution

Prior to WKU—(22) American Midland Naturalist, Amphibia-Reptilia, Applied Ichthyology, Biological Conservation (2), Copeia, Ecological Applications, Herpetologica (2), Herpetological Review (4), Journal of Herpetology (5), Journal of Wildlife Management, Molecular Ecology, Oikos, and Southeastern Naturalist.

BROADER IMPACTS & ACTIVITIES

Professional Memberships

Association of Southeastern Biologists (2018-present)
 WKU Biodiversity Center (2010-present)
 WKU Biotechnology Center (2010-present)
 Kentucky Academy of Science (2010-present)
 Society for the Study of Amphibians and Reptiles (1998-present)
 Herpetologists' League (1997-2010, 2016-2018)
 American Association of Ichthyologists and Herpetologists (2000-2010)
 Society for the Study of Conservation Biology (2002-2005)

Science Olympiad

Events Coordinator—Biology Events (2013-2017)

Event Supervisor

Bio Processes (2015, 2016)
 Designer Genes (2013, 2014)
 Heredity (2013, 2014)
 Invasive Species (2016, 2017)
 Entomology (2014)
 Forestry (2013)
 Microbe Mission (2011-2012)
 Amphibians and Reptiles/Herpetology (2009)

Judge

Association of Southeastern Biologists
 Student poster presentations (2019)
Joint Annual Meeting of Ichthyologists and Herpetologists

“Society for the Study of Amphibians and Reptiles Siebert Conservation” student oral presentations (2016)

Kentucky Academy of Science Annual Meeting

“Zoology” student poster presentations (2017-2018)

“Ecology and Environmental Science” student oral presentations (2013)

“Ecology and Environmental Science” student poster presentations (2013)

“Zoology” graduate student oral presentations (2010)

“Zoology” undergraduate student oral presentations (2010)

Classroom Demonstrations

Art Matters Camp, Bowling Green, KY—2021

Cumberland Trace Elementary, Bowling Green, KY—2011, 2015, 2016, 2018, 2019, 2021

Plum Tree Montessori School, Bowling Green, KY—2011, 2014, 2016, 2022

Potter Gray Elementary School, Bowling Green, KY—2012

Contributing Author—World Book Encyclopedia

“Newt” & “Tiger Salamander” entries (2012)

“Treefrog” & “Axolotl” entries (2009)