

AUGUST 2016

**JARRETT REED JOHNSON**

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## **BACKGROUND**

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### **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**

*Associate Professor* (2016 – present) – 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**

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**PUBLICATIONS** (10 since joining WKU) 648 Total Citations; H index = 14

\*undergraduate student co-author (10), †graduate student co-author (18), §WKU  
student co-author (2)

In review:

Martin†§, K. J., and **J. R. Johnson**. Landscape genetics of the marbled salamander  
(*Ambystoma opacum*) at mammoth cave national park. *Genetica*.

Ziegler\*§, K., and **J. R. Johnson**. Prevalence of Chytrid Fungus in South Central  
Kentucky. *Herpetological Review*.

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In print or in press:

- (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. Shulse†, 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.

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*Prior to WKU*

- (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 sphenocephala*) 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 (692,884 since joining WKU) Career Total=\$839,684**

Extramural (Not Funded)

- \$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)

- \$600. Adaptive variation in tiger salamander populations in response to environmental change. Kentucky Academy of Sciences (KAS) Marcia Athey Fund. (co-PI Meghan Parsley) Submitted November 2015
- \$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).

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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)

- \$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** (27 since joining WKU; 21 by students) 34 oral, 21 posters  
\*undergraduate student coauthor, †graduate student coauthor, §WKU student  
coauthor

Invited Presentations

- (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. American 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)

- (20) Anderson†§, K. and **J. R. Johnson.** (poster) Joint Meeting of the American Society of Ichthyologists and Herpetologists (ASIH), American Elasmobranch Society (AES), Herpetologists' League (HL), and Society for the Study of Amphibians and Reptiles (SSAR). New Orleans, LA. 9 July 2016.
- (20) Johnson\*§, 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 ASIH, AES, HL, and SSAR. Chattanooga, TN. 31 July 2014.
- (17) Tewell†§, K. J. and **J. R. Johnson.** Joint Meeting of ASIH, AES, HL, and SSAR. 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 ASIH, AES, HL, and SSAR. Albuquerque, NM. 5 July 2013.

- (15) **Johnson, J. R.**, and H. B. Shaffer. Joint Meeting of ASIH, AES, HL, and SSAR. 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 ASIH, AES, HL, and SSAR. Portland, OR. 27 July 2009.
- (12) **Johnson, J. R.**, B. B. Johnson\*, and H. B. Shaffer. (poster) Joint Meeting of ASIH, AES, HL, and SSAR. 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 ASIH, AES, HL, and SSAR. 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 ASIH, AES, HL, and SSAR. St. Louis, MO. 13 July 2007.
- (7) **Johnson, J. R.** (poster) Joint Meeting of ASIH, AES, HL, and SSAAR. Tulane University, 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 ASIH, AES, HL, and SSAR. University of South Florida, Tampa, FL. 08 July 2005.
- (4) **Johnson, J. R.** (poster) Joint Meeting of ASIH, AES, HL, and SSAAR. University of South Florida, Tampa, FL. 08 July 2005.
- (3) **Johnson, J. R.** and R. D. Semlitsch. Joint Meeting of ASIH, AES, HL, and SSAAR. University of Oklahoma, Norman, OK. 30 May 2004.
- (2) **Johnson, J. R.** and R. D. Semlitsch. (poster) Joint Meeting of ASIH, AES, HL, and SSAR. University of Missouri, Kansas City, MO. 6 July, 2002.
- (1) **Johnson\*, J. R.** and C. A. Phillips. Joint Meeting of ASIH, AES, HL, and SSAAR. Pennsylvania State University, State College, PA. 29 June, 1999.

Contributed Presentations (Local/Regional Meetings)

- (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**

2016 Western Kentucky University Ogden College, *Research and Creative Activity Award*

2013 Western Kentucky University Office of Sponsored Programs, *Junior Investigator Award*

2012 Western Kentucky University Office of Sponsored Programs, *Junior Investigator Award*

2012 Western Kentucky University Office of Sponsored Programs, *First Time Awardee Award*

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*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**

*2016*

Anderson, K. Western Kentucky University Student Research Conference, *1<sup>st</sup> 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, *1<sup>st</sup> 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** (*8 different courses taught since joining WKU, 5 graduate level, 2 honors*)

*Associate Professor*, Western Kentucky University (2016-present)

BIOL 582 (Biometry) Fall 2016

*Assistant Professor*, Western Kentucky University (2010-2016)

BIOL 675 (Population Genetics) Spring 2012, Fall 2015

BIOL 675 (Statistical Analysis in R) Fall 2011

BIOL 598 (Graduate Seminar) Fall 2015

BIOL 524 (Evolutionary and Ecological Genetics) Spring 2013

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

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

BIOL 337 (Genetics Laboratory) Fall 2014

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

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*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** (*17 mentees since joining WKU, 3 honors theses chaired, 2 NSF REU students, 3 Gatton Academy students mentored*)

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

*Western Kentucky University*

NSF Site REU Students

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

Honors Thesis Chair

Jessica Vincent—2015-present  
FUSE Grant Recipient  
Jessica Johnson—2015-present  
FUSE Grant Recipient  
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

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)

Katlyn Clark—2016-present  
Jasen Davis—2016-present  
Storm Dutton—2016-present  
Kaley Burden—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

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*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** (*8 students chaired since joining WKU, 2 non-thesis*)

*Western Kentucky University*

Thesis Committee Chair

Tucker Cambridge—expected M.S. Spring 2018  
Samantha Thomas—expected M.S. Fall 2017  
Meghan Parsley—expected M.S. Spring 2017  
Kenneth Anderson—expected M.S. Fall 2016  
Nick Levis—M.S. Spring 2014  
Kevin Martin—M.S. Fall 2013

Non-thesis/Online Committee Chair

Michael Barrow—M.S. Fall 2015  
Jennifer Welch—M.S. Summer 2012

Thesis Committee Member

Jesse Nugent (Nancy Rice, chair)  
Mitchell Schooler (Carl Dick, chair)  
Emily McIntire (Bruce Schulte, chair)  
Olivia Boyd (Keith Philips, chair) M.S. Spring 2015  
Chase LaDue (Bruce Schulte, chair)  
Qianna Xu (Mike Collyer, chair)

Non-thesis/Online Committee Member

Jodie Klan (Mike Collyer, chair)

**SERVICE**

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**UNIVERSITY SERVICE**

Member, Biotechnology Center Executive Committee (2013-present)  
Chair, Biotechnology Center Bylaws Committee (2012-2015)

## **COLLEGE SERVICE**

Ogden College Representative (at-large), Faculty Senate (2016-present)  
Ogden College Representative, Research and Creative Activity Program (RCAP)  
Review Committee (2015-2016)

## **DEPARTMENTAL SERVICE**

Member, Biology Graduate Program Committee (2015-present)  
Member, Biology Graduate Curriculum Committee (2015-present)  
Chair, Biology Awards Committee (2013-present)  
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-present)  
*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  
Western Kentucky University, FUSE Grants, 2012-2016

*Article Reviewer (21 since joining WKU)*

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

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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*

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)  
American Association of Ichthyologists and Herpetologists (2000-2010)  
Herpetologists' League (1997-2010, 2016-present)  
Society for the Study of Conservation Biology (2002-2005)

### *Science Olympiad*

Events Coordinator—Biology Events (2013—2016)

#### Event Supervisor

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

### *Judge*

#### 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

“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*

Cumberland Trace Elementary, Bowling Green, KY—2011, 2015, 2016  
Plum Tree Montessori School, Bowling Green, KY—2011, 2014, 2016  
Potter Gray Elementary School, Bowling Green, KY—2012

### *Contributing Author*—World Book Encyclopedia

“Newt” & “Tiger Salamander” entries (2012)  
“Treefrog” & “Axolotl” entries (2009)