

JOHN A. CRAWFORD
NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER
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EDUCATION

University of Missouri (Columbia)	Ph.D., Biological Sciences, August 2007 Advisor: Raymond D. Semlitsch
Illinois State University (Bloomington-Normal)	M.S., Biological Sciences, December 2000 Advisor: Lauren E. Brown
University of Illinois (Urbana-Champaign)	B.S., Biological Sciences, May 1998 Advisor: Christopher A. Phillips

RESEARCH INTERESTS

Wetland and Riparian Ecosystems	Population Dynamics	Landscape Ecology
Species Distributions and Range Shifts	Plethodontid Ecology	Landscape Genetics

PROFESSIONAL EXPERIENCE

2014–present	Terrestrial Wildlife Ecologist, National Great Rivers Research and Education Center.
2011–present	Affiliate Research Scientist, University of Illinois, Illinois Natural History Survey.
2009–2014	Assistant Professor of Biology, Lindenwood University, Department of Biology.
2007–2009	Postdoctoral Research Associate, Indiana University, School of Medicine – Terre Haute. Dual appointment with position below.
2007–2009	Postdoctoral Research Fellow, Lakehead University, Faculty of Forestry and the Forest Environment. Dual appointment with position above.
2008	Visiting Instructor, University of Iowa, Lakeside Laboratory and Field Station.
2001–2007	Graduate Teaching Assistant, University of Missouri, Division of Biological Sciences.
2005–2006	Graduate Teaching Assistant, University of Missouri, Department of Fisheries and Wildlife.
1998–2000	Graduate Teaching Assistant, Illinois State University, Department of Biological Sciences.

TEACHING EXPERIENCE

University of Illinois (Urbana-Champaign)
NRES 285 – Large River Floodplain Ecology

Lindenwood University

BSC 10000 – Concepts in Biology	BSC 36600 – Field Biology
BSC 11400 – Principles of Environmental Biology (Online)	BSC 40000 – Field Research
BSC 22700 – Human Anatomy & Physiology I	BSC 46500 – General Ecology
BSC 22800 – Human Anatomy & Physiology II	BSC 48500 – Biology Senior Seminar
BSC 26300 – Environmental Policy	BSC 48600 – Biology Senior Synthesis

UNDERGRADUATE RESEARCH MENTORING

NGRREC

Laura Cappelli (Summer 2015) – Trophic structure and energetics of vertebrates in an upper Mississippi watershed: effects of a riparian gradient.

Jaelen Myers (Summer 2015) – Habitat restoration effects on amphibian diversity on Illinois private lands.

David Tilson (Summer 2015) – Trophic structure and energetics of vertebrates in an upper Mississippi watershed: effects of an agricultural gradient.

Lindenwood University

Katie Brosamer-Senger (Spring 2014–Summer 2014) – Effects of invasive plants on amphibian growth and survival.

Erica Bax (Summer 2013–Spring 2014) – Influence of macroinvertebrate communities on pond occupancy of spotted salamanders (*Ambystoma maculatum*).

Kevin Mason (Summer 2013–Spring 2014) – Terrestrial fragmentation effects on pond-breeding amphibian assemblage structure.

Kelli Rouse (Summer 2013–Spring 2014) – Tissue regeneration efficiency in the fire belly newt (*Cynops orientalis*) using thymosin beta 4 hormone supplements.

Brandon Stuebing (Summer 2013–Spring 2014) – Amphibian metamorphic recruitment success in created wetlands.

Scott Bailey (Fall 2012–Spring 2013) – Breeding pond use and reproductive success of wood frogs (*Lithobates sylvaticus*).

Nadara Bunch (Fall 2012–Spring 2013) – Demographic and physiological traits of pygmy salamanders (*Desmognathus wrighti*) in peripheral populations.

Rebecca Hass (Fall 2012–Spring 2013) – Effects of atrazine on hibernation success and survival of cricket frogs (*Acris blanchardi*).

Elizabeth Key (Fall 2012–Spring 2013) – Microbial diversity effects on nutrient cycling.

Amanda Roberts (Fall 2012–Summer 2013) – Assessing wetland restoration success in an urban landscape.

Jon Gurule (Summer 2012–Spring 2013) – Box turtle immune system function in an urbanized landscape.

Brandon Lewis (Spring 2012–Spring 2013) – Population ecology of fall-breeding salamanders in created wetlands.

Mark Schroeder (Spring 2012–Spring 2013) – Amphibian stress levels in created wetlands.

Robert Wahlbrink (Summer 2011–Spring 2012) – Amphibian colonization and reproduction in created wetlands.

Eric Wright (Spring 2010–Spring 2012) – Pond use of spring-breeding amphibians in east-central Missouri; and Recruitment success of pond-breeding amphibians in created wetlands in east-central Illinois.

Joshua Tunnage (Spring 2010–Spring 2011) – Breeding pond occupancy of ringed salamanders (*Ambystoma annulatum*) in an urbanized landscape.

Megan Daniel (Spring 2011) – Colonization success of amphibians in created wetlands.

Lauren Wehmeier (Summer 2010) – Turtle species richness and pond use at the LU field station.

Raychel Terschluse (Summer 2010) – Plethodontid salamander abundance at the LU field station.

POSTDOCTORAL RESEARCH MENTORING

NGRREC

David R. Daversa, Ph.D. University of Cambridge, UK (October 2015–Present) – Ecological drivers of dispersal in amphibians.

PUBLICATIONS (*Undergraduate co-authors are underlined.*)

Published/In Press

Crawford, J.A., W.E. Peterman, A.R. Kuhns, and L.S. Eggert. Accepted. Altered functional connectivity and genetic diversity of a threatened salamander in an agroecosystem. Submitted to **Landscape Ecology**.

Crawford, J.A. In Press. Trade-off between desiccation and predation risk in the Blue-Ridge two-lined salamander (*Eurycea wilderae*). **Copeia**.

Peterman, W.E., J.A. Crawford, and D.J. Hocking. In Press. Effects of elevation on plethodontid salamander body size. **Copeia**.

Crawford, J.A., A.R. Kuhns, and M.J. Meyer. 2015. Population ecology of the northern slimy salamander (*Plethodon glutinosus*) in east-central Illinois. **Journal of North American Herpetology** 2015:17–21.

- Connette, G.M., J.A. Crawford, and W.E. Peterman. 2015. Climate change and shrinking salamanders: alternative mechanisms for changes in plethodontid salamander size. **Global Change Biology** 21:2834–2843.
- Milanovich, J.R., D.J. Hocking, W.E. Peterman, and J.A. Crawford. 2015. Non-detrimental effects of trails when sampling terrestrial salamanders for density and detection: a case study in Great Smoky Mountains National Park. **Natural Areas Journal** 35:590–598.
- Kessler, E.J., A.R. Kuhns, C.M. Rhoden, C.A. Phillips, C.E. Cook, A.K. Keigher, and J.A. Crawford. 2015. New county records of reptiles and amphibians from state-managed properties in Illinois. **Herpetological Review** 46:603–604.
- Crawford, J.A., and W.E. Peterman. 2013. Biomass and habitat partitioning of *Desmognathus* on wet rock faces in the southern Appalachian mountains. **Journal of Herpetology** 47:580–584.
- Peterman, W.E., J.A. Crawford, and A.R. Kuhns. 2013. Two models are better than one: using species distribution modeling to guide survey efforts and assess species status. **Journal for Nature Conservation** 21:114–121.
- Kessler, E.J., A.R. Kuhns, J.A. Crawford, C.A. Phillips, E.M. Wright, W.J.B. Anthony, T.L. Esker, J. Gillespie, L.J. Jacques, and R.S. Saffer. 2013. New county records of reptiles and amphibians from state managed properties in east-central Illinois, USA. **Herpetological Review** 44:286–288.
- Crawford, J.A. 2012. Modern day canary in the coal mine. **The Confluence** 4:4–13.
- Peterman, W.E., J.A. Crawford, and R.D. Semlitsch. 2011. Effects of even-aged timber harvest on stream salamanders: support for the evacuation hypothesis. **Forest Ecology and Management** 262:2344–2353.
- McAllister, C.T., C.R. Bursey, J.A. Crawford, A.R. Kuhns, C. Shaffer, and S.E. Trauth. 2010. Metacercariae of *Clinostomum* (Trematoda: Digenea) from three species of *Ambystoma* (Caudata: Ambystomatidae) from Arkansas and Illinois, U.S.A. **Comparative Parasitology** 77:25–30.
- Crawford, J.A., D.B. Shepard, and C.A. Conner. 2009. Diet composition and overlap between recently metamorphosed *Rana areolata* and *Rana sphenoccephala*: implications for a frog of conservation concern. **Copeia** 2009:642–646.
- McAllister, C.T., J.A. Crawford, and A.R. Kuhns. 2009. *Myxidium serotinum* (Protista: Myxozoa) from a Jefferson Salamander (*Ambystoma jeffersonianum*) in Illinois. **Texas Journal of Science** 61:61–64.
- Crawford, J.A., and R.D. Semlitsch. 2008. Post-disturbance effects of even-aged timber harvest on stream salamanders in southern Appalachian forests. **Animal Conservation** 11:369–376.
- Crawford, J.A., and R.D. Semlitsch. 2008. Abiotic factors influencing abundance and microhabitat use of stream salamanders in southern Appalachian forests. **Forest Ecology and Management** 255:1841–1847.
- Peterman, W.E., J.A. Crawford, and R.D. Semlitsch. 2008. Productivity and significance of headwater streams: population structure and biomass of the black-bellied salamander (*Desmognathus quadramaculatus*). **Freshwater Biology** 53:347–357.
- Crawford, J.A., and R.D. Semlitsch. 2007. Estimation of core terrestrial habitat for stream-breeding salamanders and delineation of riparian buffers for protection of biodiversity. **Conservation Biology** 21:152–158.
- Kuhns, A.R., and J.A. Crawford. 2004. New county records for amphibians and reptiles from Pulaski County, Illinois. **Herpetological Review** 35:419–420.
- Crawford, J.A., and M.J. Meyer. 2002. New county records for amphibians and reptiles from west-central Illinois. **Herpetological Review** 33:326–327.

Petzing, J.E., J.M. Mui, M.J. Dreslik, C.A. Phillips, D.B. Shepard, J.A. Crawford, A.R. Kuhns, M.J. Meyer, T.G. Anton, E.O. Moll, J.G. Palis, and D. Mauger. 2002. Filling in the gaps I: new county records for amphibians and reptiles in Illinois. **Herpetological Review** 33:327–330.

Journal Notes

Kuhns, A.R., and J.A. Crawford. 2008. *Ambystoma tigrinum* (tiger salamander) distribution note. **Herpetological Review** 39:231.

Crawford, J.A. 2007. Predation of *Desmognathus quadramaculatus*. **Herpetological Review** 38:432–433.

Crawford, J.A., and M.J. Meyer. 2003. *Pseudacris crucifer* (spring peeper) distribution note. **Herpetological Review** 34:259.

Crawford, J.A., and M.J. Meyer. 2003. *Emydoidea blandingii* (Blanding's turtle) distribution note. **Herpetological Review** 34:260–261.

Meyer, M.J., J.A. Crawford, and S. Allison. 2002. *Hemidactylium scutatum* (four-toed salamander) status update in Illinois. **Herpetological Review** 33:217.

Book Sections

Crawford, J.A., L.E. Brown, and C.W. Painter. 2005. *Rana blairi* (plains leopard frog) species account. In *Amphibian Declines: The Conservation Status of United States Species*, M.J. Lannoo, ed. University of California Press, Berkeley, California.

In Review

Crawford, J.A., C.A. Phillips, W.E. Peterman, I.E. MacAllister, N.A. Wesslund, A.R. Kuhns, and M.J. Dreslik. In Review. Seasonal dynamics of chytrid infection in amphibians on military and public lands in the Midwestern United States. Submitted to **American Midland Naturalist**.

Crawford, J.A., J.A. Tunnage, and E.M. Wright. In Review. Breeding pond occupancy of the ringed salamander (*Ambystoma annulatum*) in east-central Missouri. Submitted to **American Midland Naturalist**.

Barrett, K., J.A. Crawford, Z. Reinstein, and J.R. Milanovich. In Review. Tadpole growth and survivorship in the presence of a widespread invasive wetland plant. Submitted to **Herpetologica**.

Milanovich, J.R., K. Barrett, and J.A. Crawford. In Review. Is bigger always better? Tadpoles grow larger and faster, but with lower survival when raised with an invasive plant. Submitted to **Wetlands Ecology and Management**.

GRANTS AND FELLOWSHIPS

Awarded

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| 2016–2018 | Illinois Department of Natural Resources (State Wildlife Grant via USFWS). Distribution, abundance, and recruitment of amphibian SGNC from the Vermilion River Conservation Opportunity Area. With A.R. Kuhns, C.A. Phillips, and W.E. Peterman. \$75,056 |
| 2016–2017 | Illinois Department of Natural Resources (State Wildlife Grant via USFWS). Monitoring the impacts of management activities on the Illinois Chorus Frog in Central Illinois. With C.A. Phillips and A.R. Kuhns. \$32,891 |
| 2016 | Forest Preserve District of Cook County (Direct Grant). Distribution and population ecology of the blue-spotted salamander (<i>Ambystoma laterale</i>) in Cook County forest preserves. With C.A. Phillips and A.R. Kuhns. \$25,000 |
| 2016 | National Great Rivers Research and Education Center (Internship Program). Behavioural correlates of amphibian dispersal. With D.R. Daversa. \$6,500 |

- 2015 National Great Rivers Research and Education Center (Internship Program). Habitat restoration effects on amphibian diversity on Illinois private lands. With T.J. Benson. **\$6,000**
- 2015 National Great Rivers Research and Education Center (Internship Program). Trophic structure and energetics of vertebrates in an upper Mississippi watershed: effects of a riparian gradient. With A.I. Dell. **\$6,000**
- 2015 National Great Rivers Research and Education Center (Internship Program). Trophic structure and energetics of vertebrates in an upper Mississippi watershed: effects of an agricultural gradient. With A.I. Dell. **\$6,000**
- 2012–2014 U.S. Environmental Protection Agency (Region 5 Wetlands Program Development Grant). Assessment of wetland quality on Illinois public lands. With C.A. Phillips and A.R. Kuhns. **\$461,733**
- 2011–2014 U.S. Environmental Protection Agency (Region 5 Wetlands Program Development Grant). Assessment of ecological function of created wetlands. With A.R. Kuhns and P. Mettler-Cherry. **\$317,205**
- 2012–2013 National Geographic Society (Waitt Grant). Climate change effects on elevational distributions of salamanders in Great Smoky Mountains National Park. With W.E. Peterman, J.R. Milanovich, and D.J. Hocking. **\$14,932**
- 2009–2011 U.S. Army Corps of Engineers (Construction Engineering Research Laboratory). Occupancy and detectability of chytrid fungus (*Batrachochytrium dendrobatidis*) in amphibian populations on U.S. military installations. With C.A. Phillips, W.E. Peterman, and M.J. Lannoo. **\$110,000**
- 2009–2010 Illinois Endangered Species Protection Board (Threatened and Endangered Species Grant). Conservation genetics of Jefferson salamanders in Illinois: implications for conservation and recovery. With A.R. Kuhns. **\$5,995**
- 2008–2009 Illinois Department of Natural Resources (Wildlife Preservation Fund). Distribution, abundance, and habitat use of Jefferson Salamanders, a threatened species with a restricted range in Illinois. With A.R. Kuhns. **\$7,354**
- 2007–2009 Natural Sciences and Engineering Research Council of Canada (NSERC) and Lakehead University (Postdoctoral Fellowship). Effects of timber harvest on boreal forest amphibians. **\$45,000**
- 2008 Indiana State University (CIRT Mini-Grant Program). Effectiveness of ecological niche modeling as a tool for the conservation of the state endangered crawfish frog (*Rana areolata*). With M.J. Lannoo. **\$7,988**
- 2007–2008 Illinois Department of Natural Resources (Wildlife Preservation Fund). Identifying the distribution and habitat of Jefferson Salamanders, *Ambystoma jeffersonianum*, in Illinois. With A.R. Kuhns. **\$1,982**
- 2007 Highlands Biological Station (Grant). Road effects on stream salamander assemblages in the southern Appalachian mountains. **\$2,400**
- 2004–2007 United States Forest Service (Southern Research Station Grant). Beyond the edge: effects of riparian zone width on stream salamanders in the southern Appalachian mountains. With R.D. Semlitsch. **\$52,000**
- 2004–2006 Highlands Biological Station (Fellowship). Beyond the edge: estimation of core habitats and buffer zones for stream salamanders. **\$11,400**

- 2002–2004 United States Department of Education and University of Missouri (GAANN Graduate Fellowship). **\$43,200**
- 2003 Illinois Department of Natural Resources (Wildlife Preservation Fund). Status of the state threatened Illinois chorus frog (*Pseudacris streckeri illinoensis*) in Cass and Mason Counties, Illinois. With A.R. Kuhns. **\$1,000**
- 2001 Illinois Department of Natural Resources (Wildlife Preservation Fund). Species inventory of the amphibians and reptiles of Stark County, Illinois. **\$988**
- 2000 Illinois State University (R.D. Weigel Phi Sigma Research Grant). Investigation of aggressive and satellite behavior in the cricket frog (*Acris crepitans*). **\$115**

PRESENTATIONS (*Undergraduate co-authors are underlined.*)

Invited

Crawford, J.A. Wetland creation for amphibian conservation: effective strategy or ecological dead-end? University of Illinois, Department of Natural Resources and Environmental Sciences, Urbana-Champaign, Illinois. January 2016.

Crawford, J.A. Setting the baseline: elevational distributions of salamanders in Great Smoky Mountains National Park. Lindenwood University, Department of Biological Sciences, St. Charles, Missouri. November 2015.

Crawford, J.A. Setting the baseline: elevational distributions of salamanders in Great Smoky Mountains National Park. Center for American Archeology, NSF REU Program, Kampsville, Illinois. July 2015.

Crawford, J.A. Setting the baseline: elevational distributions of salamanders in Great Smoky Mountains National Park. Lindenwood University-Belleville, Department of Biology, Belleville, Illinois. November 2014.

Crawford, J.A. Wetland creation to conserve amphibians: effective strategy or ecological dead-end? National Great Rivers Research and Education Center, East Alton, Illinois. May 2014.

Crawford, J.A. Setting the baseline: elevational distributions of salamanders in Great Smoky Mountains National Park. Loyola University-Chicago, Department of Biology, Chicago, Illinois. April 2014.

Crawford, J.A. Wetland creation and amphibian conservation: effective strategy or ecological dead-end? Washington University, Tyson Research Center, St. Louis, Missouri. June 2013.

Crawford, J.A. Effects of agriculture on the status and distribution of Appalachian salamanders. Smithsonian Institution (Conservation and Research Center), Front Royal, Virginia. May 2008.

Crawford, J.A. Beyond the edge: riparian habitat use and forest management effects on stream salamanders in the southern Appalachian mountains. Indiana State University, Terre Haute, Indiana. April 2007.

Crawford, J.A. Beyond the edge: determination of riparian buffers and effects of forest management on stream salamanders. Lakehead University, Thunder Bay, Ontario, Canada. November 2006.

Crawford, J.A. Beyond the edge: determination of riparian buffers and effects of riparian zone width on stream salamanders. United States Forest Service Riparian Buffers Meeting, Coweeta Hydrologic Laboratory, Otto, North Carolina. May 2004.

Crawford, J.A. Aggressive and satellite behavior in the cricket frog (*Acris crepitans*). Declining Cricket Frog Task Force Meeting, Indiana Dunes, Indiana. September 2003.

Scientific Conferences

Daversa, D., J. Crawford, C. Cloyd, T. Biresaw, and A. Dell. Linking individual behavior to predator-prey interactions through high-throughput automated tracking. Gordon Research Conference on Predator-Prey Interactions, Ventura, California. January 2016.

Barrett, K., J.R. Milanovich, and J.A. Crawford. Is bigger always better? Tadpoles grow larger and faster, but with lower survival when raised with an invasive plant. Southeastern Partners in Amphibian and Reptile Conservation (SE PARC) Annual Meeting, Covington, Louisiana. February 2015.

Peterman, W.E. J.A. Crawford, C.A Phillips, and A.R. Kuhns. Landscape effects on amphibian species richness and wetland conservation coefficients. Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, Tennessee. July 2014.

Crawford, J.A., D.J. Hocking, W.E. Peterman, and J.R. Milanovich. Setting the baseline: elevational distributions of salamanders in Great Smoky Mountains National Park. Great Smoky Mountains National Park Annual Science Colloquium, Gatlinburg, Tennessee. March 2014.

Peterman, W.E., G.M. Connette, D.J. Hocking, and J.A. Crawford. Caveats and limitations of historical data: assessing change in plethodontid salamanders. Southeastern Partners in Amphibian and Reptile Conservation (SE PARC) Annual Meeting, Cumberland, Kentucky. February 2014.

Crawford, J.A., and W.E. Peterman. Biomass and habitat partitioning of salamanders on wet rock faces in the southern Appalachian Mountains. 98th Ecological Society of America Annual Meeting. Minneapolis, Minnesota. August 2013.

Kuhns, A.R., J.A. Crawford, C.A. Phillips, E.J. Kessler, and E.M. Wright. Efficacy of created wetlands for amphibian conservation in Illinois. 98th Ecological Society of America Annual Meeting. Minneapolis, Minnesota. August 2013.

Phillips, C.A., J.A. Crawford, A.R. Kuhns, E.J. Kessler, and E.M. Wright. Assessment of rapid sampling methodologies for pond-breeding amphibian assemblages. 98th Ecological Society of America Annual Meeting. Minneapolis, Minnesota. August 2013.

Wright, E.M., E.J. Kessler, C.A. Phillips, A.R. Kuhns, and J.A. Crawford. Occupancy of aquatic macroinvertebrates in seasonal wetlands. 98th Ecological Society of America Annual Meeting. Minneapolis, Minnesota. August 2013.

Bailey, S.M., and J.A. Crawford. Conservation of complex habitats required by wood frogs. 49th Annual Missouri Academy of Science Meeting. Branson, Missouri. April 2013.

Bunch, N.A., and J.A. Crawford. Demographic and physiological traits of pygmy salamanders in peripheral populations. 49th Annual Missouri Academy of Science Meeting. Branson, Missouri. April 2013.

Hass, R.R., and J.A. Crawford. Effects of atrazine on hibernation success and survival of cricket frogs. 49th Annual Missouri Academy of Science Meeting. Branson, Missouri. April 2013.

Lewis, B.D., and J.A. Crawford. Population ecology of fall-breeding salamanders in created wetlands. 49th Annual Missouri Academy of Science Meeting. Branson, Missouri. April 2013.

Roberts, A.L., and J.A. Crawford. Influence of weather conditions on trapping success for Illinois pond turtles. 49th Annual Missouri Academy of Science Meeting. Branson, Missouri. April 2013.

Schroeder, M.J., and J.A. Crawford. Assessing and improving the accuracy of white blood cell differentiation counts in ringed salamanders. 49th Annual Missouri Academy of Science Meeting. Branson, Missouri. April 2013.

Bailey, S.M., and J.A. Crawford. Conservation of complex habitats required by wood frogs. 2nd Annual St. Louis Intercollegiate Undergraduate Science Research Conference. April 2013.

Bunch, N.A., and J.A. Crawford. Demographic and physiological traits of pygmy salamanders in peripheral populations. 2nd Annual St. Louis Intercollegiate Undergraduate Science Research Conference. April 2013.

Hass, R.R., and J.A. Crawford. Effects of atrazine on hibernation success and survival of cricket frogs. 2nd Annual St. Louis Intercollegiate Undergraduate Science Research Conference. April 2013.

Lewis, B.D., and J.A. Crawford. Population ecology of fall-breeding salamanders in created wetlands. 2nd Annual St. Louis Intercollegiate Undergraduate Science Research Conference. April 2013.

Roberts, A.L., and J.A. Crawford. Influence of weather conditions on trapping success for Illinois pond turtles. 2nd Annual St. Louis Intercollegiate Undergraduate Science Research Conference. April 2013.

Schroeder, M.J., and J.A. Crawford. Assessing and improving the accuracy of white blood cell differentiation counts in ringed salamanders. 2nd Annual St. Louis Intercollegiate Undergraduate Science Research Conference. April 2013.

Crawford, J.A., and E.M. Wright. Land management effects in Missouri conservation areas on pond-breeding amphibians. 97th Ecological Society of America Annual Meeting. Portland, Oregon. August 2012.

Kuhns, A.R., and J.A. Crawford. Ecological function of created seasonal wetlands. 97th Ecological Society of America Annual Meeting. Portland, Oregon. August 2012.

Wright, E.M., J.A. Crawford, and A.R. Kuhns. Evaluating the quality of created wetlands through metamorphic amphibian sampling. 97th Ecological Society of America Annual Meeting. Portland, Oregon. August 2012.

Wahlbrink, R., E.M. Wright, and J.A. Crawford. Amphibian colonization of recently created wetlands. 48th Annual Missouri Academy of Science Meeting. Columbia, Missouri. April 2012.

Wright, E.M., and J.A. Crawford. Breeding pond use of wood frogs in an urban environment. 1st Annual St. Louis Intercollegiate Undergraduate Science Research Conference. April 2012.

Tunnage, J.A., E.M. Wright, and J.A. Crawford. Breeding pond use of ringed salamanders in an urbanized landscape. 1st Annual St. Louis Intercollegiate Undergraduate Science Research Conference. April 2012.

Crawford, J.A., W.E. Peterman, and A.R. Kuhns. Population structure of state threatened Jefferson salamanders in an agricultural landscape. 96th Ecological Society of America Annual Meeting, Austin, Texas. August 2011.

Kuhns, A.R., J.A. Crawford, and W.E. Peterman. Occupancy estimates of spring breeding amphibians in a landscape fragmented by agriculture. 96th Ecological Society of America Annual Meeting, Austin, Texas. August 2011.

Wright, E.M., and J.A. Crawford. Breeding pond use of wood frogs (*Rana sylvatica*) in an urban environment. 47th Annual Missouri Academy of Science Meeting, Jefferson City, Missouri. April 2011.

Tunnage, J.A., E.M. Wright, and J.A. Crawford. Breeding pond occupancy of the ringed salamander (*Ambystoma annulatum*) in an urbanized landscape. 47th Annual Missouri Academy of Science Meeting, Jefferson City, Missouri. April 2011.

Crawford, J.A., W.E. Peterman, and A.R. Kuhns. Population structure of state threatened Jefferson salamanders in an agricultural landscape. 71st Midwest Fish & Wildlife Conference, Minneapolis, Minnesota. December 2010.

Kuhns, A.R., J.A. Crawford, and W.E. Peterman. Spring breeding amphibians in a fragmented agricultural landscape: effects of environmental variables on pond occupancy estimates. 71st Midwest Fish & Wildlife Conference, Minneapolis, Minnesota. December 2010.

Crawford, J.A., W.E. Peterman, and A.R. Kuhns. Assessing the distribution of a secretive species using ecological niche and occupancy models. Southeastern Partners in Amphibian and Reptile Conservation (SE PARC) Annual Meeting, Camp Ocala, Florida. February 2010.

Crawford, J.A., A.R. Kuhns, and W.E. Peterman. Using ecological niche modeling to prioritize sampling areas for Jefferson Salamanders in Illinois. Annual Joint Meeting of Ichthyologists and Herpetologists, Portland, Oregon. July 2009.

Crawford, J.A., A.R. Kuhns, and W.E. Peterman. Using ecological niche modeling to prioritize sampling areas for Jefferson Salamanders in Illinois. 69th Midwest Fish & Wildlife Conference, Columbus, Ohio. December 2008.

Peterman, W.E., R.D. Semlitsch, and J.A. Crawford. Effects of riparian buffer width on stream salamander populations. Southeastern Partners in Amphibian and Reptile Conservation (SE PARC) Annual Meeting, Athens, Georgia. February 2008.

Crawford, J.A., and R.D. Semlitsch. Beyond the edge: riparian habitat use of stream salamanders in the southern Appalachian mountains. 5th Conference on the Biology of Plethodontid Salamanders, San Cristobal de las Casas, Chiapas, Mexico. August 2007.

Peterman, W.E., J.A. Crawford, and R.D. Semlitsch. Productivity and significance of headwater streams: population structure and biomass of the black-bellied salamander (*Desmognathus quadramaculatus*). 5th Conference on the Biology of Plethodontid Salamanders, San Cristobal de las Casas, Chiapas, Mexico. August 2007.

Crawford, J.A. Investigation of aggressive and satellite behavior in the cricket frog (*Acris crepitans*). Joint Meeting of Ichthyologists and Herpetologists, Indianapolis, Indiana. July 2001.

Crawford, J.A. Investigation of aggressive and satellite behavior in the cricket frog (*Acris crepitans*). Illinois State Academy of Sciences Meeting, Macomb, Illinois. April 2001.

PROFESSIONAL SERVICE

2012–Present	Associate Editor for <i>American Midland Naturalist</i> .
2008–Present	<i>The Open Journal of Conservation Biology</i> Editorial Board.
2007–Present	<i>Copeia</i> (Journal of American Society of Ichthyologists and Herpetologists) Editorial Board.
2013–2014	Faculty and Student Research Committee (Chair), Lindenwood University.
2012–2014	Student Research Symposium and Exposition (SRSE) Task Force, Lindenwood University.
2009–2011	Faculty Scholarship Task Force, Lindenwood University.
2010	Student presentation judge at the 71 st Midwest Fish & Wildlife Conference (Minneapolis, MN).
2008	Session chair and judge at the 12 th annual undergraduate-graduate research showcase (Biology), Indiana State University.
Journal Referee:	(Last 5 years) – <i>American Midland Naturalist</i> , <i>Animal Conservation</i> , <i>Biological Conservation</i> , <i>Biological Journal of the Linnean Society</i> , <i>Biotropica</i> , <i>BMC Genetics</i> , <i>Copeia</i> , <i>Ecography</i> , <i>Ecological Research</i> , <i>Forest Ecology and Management</i> , <i>Herpetological Conservation and Biology</i> , <i>Herpetological Review</i> , <i>Journal of Applied Ecology</i> , <i>Journal of Herpetology</i> , <i>Journal of Wildlife Management</i> , <i>Wetlands</i> .

External Grant Referee: Natural Sciences and Engineering Research Council of Canada (NSERC).
National Geographic Society (NGS).

OUTREACH

2012–2014 Herpetology field leader for Bioblitz at Lindenwood University.

2012 Plethodontid salamander lecture for field ecology group of middle and high school students at Great Smoky Mountains Institute at Tremont.

2011 Provided consulting advice and review for *Amphibians on my land: habitat stewardship in agricultural landscapes* brochure developed by the Alberta (Canada) Conservation Association.

2009 Provided consulting advice to the Pennsylvania Department of Fish and Game on a mitigation project involving mud salamanders (*Pseudotriton montanus*).

2005–2006 Herpetology field leader for Bioblitz at the University of Missouri (Columbia).

2004–2006 Field leader for the Salamander Meander at Highlands Biological Station (North Carolina).

PROFESSIONAL WORKING GROUPS

2013 Illinois amphibian and reptile species in greatest need of conservation workshop. Illinois Department of Natural Resources, Illinois Natural History Survey, Champaign, Illinois.

2008 Appalachian salamander conservation workshop. Smithsonian Institution, National Zoological Park, Front Royal, Virginia.

2003 Declining cricket frog task force workshop. Indiana Dunes, Indiana.

HONORS AND AWARDS

2011–2012 Lindenwood University Scholar of the Year

PROFESSIONAL MEMBERSHIPS

Ecological Society of America	Society for the Study of Amphibians and Reptiles
American Society of Ichthyologists and Herpetologists	Partners in Amphibian and Reptile Conservation