

*Curriculum vitae of*

## Joseph Ross Milanovich

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Assistant Professor  
Department of Biology  
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### ACADEMIC HISTORY

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- 2010-2013     Postdoc. National Research Council, National Risk Management Research Laboratory, United States Environmental Protection Agency, Cincinnati, OH  
Adviser: Dr. Matt Hopton
- 2006-2010     Ph.D. Wildlife Ecology and Management Program, Daniel B. Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA  
Adviser: Dr. John C. Maerz
- 2010             Interdisciplinary Certificate in University Teaching, University of Georgia
- 2004-2006     M.S. Biology. Department of Biological Sciences, Arkansas State University, State University, AR.  
Adviser: Dr. Stanley E. Trauth
- 1998-2002     B.A. Biology and Environmental Science, Adrian College, Adrian, MI

### RESEARCH INTEREST

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Herpetofauna health and physiology  
Influence of land use and climate change on communities  
Importance of species to aquatic and terrestrial ecosystem processes  
Consumer-resource stoichiometry and stable isotope ecology  
General zoology; natural and life history of biota

### PUBLICATIONS

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*Peer-reviewed Journals (\* indicates student author)*

**Milanovich, J.R.**, D.J. Hocking, W.E. Peterman, and J.A. Crawford. Accepted. Effective use of trails for assessing terrestrial salamander abundance and detection: a case study at Great Smoky Mountains National Park. *Natural Areas Journal*.

**Milanovich, J.R.**, and M.E. Hopton. 2014. Stoichiometry of a semi-aquatic plethodontid salamander – intraspecific variation due to location, size, and diet. *Integrative Zoology* 9:613-622

- Milanovich, J.R.**, A. Berland., and M.E. Hopton. 2014. Influence of catchment land cover on stoichiometry and stable isotope compositions of basal resources and macroinvertebrate consumers in headwater streams. *Journal of Freshwater Ecology* DOI: 10.1080/02705060.2014.933450.
- Milanovich, J.R.**, and J.C. Maerz. 2013. Realistic fasting does not affect stable isotope levels of a metabolically efficient salamander. *Journal of Herpetology* 47: 544-548.
- Milanovich, J.R.**, \*W.E. Peterman, K. Barrett, and M.E. Hopton. 2012. Do species distribution models predict species richness in urban and natural green space? A case study using amphibians. *Landscape and Urban Planning* 107:409-418.
- Milanovich, J.R.**, and J.C. Maerz. 2012. Assessing the use of non-lethal tail clips for measuring stable isotopes of plethodontid salamanders. *Herpetological Conservation and Biology* 7:67-74.
- Milanovich, J.R.**, S.E. Trauth, and D. Saugey. 2011. Reproduction and age composition of a population of woodland salamanders (*Plethodon albagula*) after a prescribed burn in southwestern Arkansas. *Southwestern Naturalist* 56:172-179.
- \*Burke, J., J.C. Maerz, **J.R. Milanovich**, M.C. Fisk, and K.J.K. Gandhi. 2011. Invasion by exotic earthworms alters litter- and soil-dwelling microarthropod (Acari: Oribatida) communities in a northern hardwood forest. *Diversity* 3:155-175.
- Milanovich, J.R.**, \*W.E. Peterman, N. Nibbelink, J.C. Maerz. 2010. Projected loss of a salamander diversity hotspot as a consequence to global climate change. *PLoS ONE* 5: e12189. doi:10.1371/journal.pone.0012189
- Davis, A.K., and **J.R. Milanovich**. 2010. Lead-phase and red-stripe color morphs of red-backed salamanders (*Plethodon cinereus*) differ in hematological stress indices: A consequence of differential predation pressure? *Current Zoology* 56:238-243.
- Davis, A.K., J.L. DeVore, **J.R. Milanovich**, K. Cecala, J.C. Maerz, and M.J. Yabsley. 2009. New findings from an old pathogen: intraerythrocytic bacteria (Family Anaplasmatacea) in red-backed salamanders *Plethodon cinereus*. *Ecohealth* 6:219-228.
- Camp, C.D., \*W.E. Peterman, **J.R. Milanovich**, T. Lamb, J.C. Maerz and D.B. Wake. 2009. A new genus and species of lungless salamander (family Plethodontidae) from the Appalachian highlands of the southeastern United States. *Journal of Zoology* 279:86-94.
- Davis, A.K., **J.R. Milanovich**, \*J. DeVore, J.C. Maerz. 2009. An investigation of factors influencing erythrocyte morphology of red-backed salamanders (*Plethodon cinereus*). *Animal Biology* 59: 201-209.
- Milanovich, J.R.**, S.E. Trauth., and T. McKay. 2008. Diet of the western slimy salamander (*Plethodon albagula*) from two mountain ranges in Arkansas. *Southeastern Naturalist* 7:323-330.

**Milanovich, J.R.**, S.E. Trauth., D.A. Saugey, and \*R.A. Jordan. 2006. Fecundity, reproductive ecology, and influence of precipitation on clutch size in the western slimy salamander (*Plethodon albagula*). *Herpetologica* 62: 292-301.

*Shorter contributions*

Camp, C.D., T. Lamb, and **J.R. Milanovich**. 2012. *Urspeleperpes brucei*. Catalogue of American Amphibians and Reptiles 885.1 - 885.3.

**Milanovich, J.R.**, S.E. Trauth, and D.A. Saugey. 2007. *Plethodon albagula* (Western Slimy Salamander). Brooding defense behavior and oophagy. *Herpetological Review* 38: 67.

**Milanovich, J.R.**, S.E. Trauth., and \*M.N. Mary. 2005. *Diadophis punctatus sticktogenys* (Mississippi Ringneck Snake). Diet. *Herpetological Review* 36: 323-324

**Milanovich, J.R.** and S.E. Trauth. 2005. *Plethodon albagula* (Western Slimy Salamander). Vocalization. *Herpetological Review* 36:295-296.

**Milanovich, J.R.**, et al. (15 authors). 2005. *Sonora semiannulata* (Ground Snake). Geographic distribution and range extension. *Herpetological Review* 36: 340

*In review*

**Milanovich, J.R.** and W.E. Peterman. In review. Nutrient standing stock and biomass of a terrestrial salamander in the Midwestern United States. *Copeia*.

**Milanovich, J.R.**, J.C. Maerz, and A.D. Rosemond. In review. Stoichiometry and estimate of nutrient standing stock of larval salamanders within Appalachian headwater streams. *Freshwater Ecology*

**Milanovich, J.R.**, and M.E. Hopton. In review. Stoichiometry of excreta and excretion rates of a stream-dwelling plethodontid salamander. *Copeia*

**AUTHORED PEER-REVIEWED GRANTS & AWARDS RECEIVED**

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| 2014 | <i>Demography, stress, and diet of the Ornate Box Turtle (Terrapene ornata) in the Sand Hills of Will County, Illinois</i> – Illinois Department of Natural Resources Wildlife Preservation Fund | \$9,992  |
| 2014 | <i>Survey of the Ornate Box Turtle (Terrapene ornata) in the Sand Hills of Will County, Illinois</i> – Illinois Department of Natural Resources  | \$6,000  |
| 2012 | <i>Climate Change Effects on Elevational Distributions of Plethodontid Salamanders in the Great Smoky Mountains National Park</i> – National Geographic WAITT Grant (coPI)                       | \$14,932 |
| 2008 | <i>Importance of Larval Plethodontid Salamanders to Stream Ecosystems</i> Theodore Roosevelt Memorial Grant – American Museum of Natural History   | \$1,500  |

2008    *Experimentally Testing the Consequence of a Decline in Plethodontid Salamanders in Southern Appalachian Streams* – N.C. Herpetological Society    \$900

## **INSTRUCTIONAL ACTIVITY**

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### Undergraduate courses taught

Ecology; BIOL 265. Loyola University Chicago. Fall 2013 – Present.

Introduction to Research; BIOL 296,396. Loyola University Chicago. Spring 2014 – Present.

Northern Kentucky University: Understanding the Living World; BIOL 120. Fall 2012.

University of Cincinnati Blue Ash College: Environmental Science I, II, and III, and Environmental Studies I. BIOL 141-143; ENVS 150. Spring 2010 to Fall 2012.

## **PROFESSIONAL PRESENTATIONS**

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### Paper (First-authored only)

- 2014. 2014 Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, TN
- 2014. 6<sup>th</sup> Conference on the Biology of Plethodontid Salamanders, Tulsa, OK
- 2013. Annual Meeting of the Society for Freshwater Science, Jacksonville, FL
- 2012. Annual Meeting of the Society for Freshwater Science, Louisville, KY
- 2011. 96<sup>th</sup> Ecological Society of American Annual Meeting, Austin, TX
- 2010. Southeastern Partners in Amphibian and Reptile Conservation, Camp Ocala, FL
- 2010. D.B. Warnell School of Forestry and Natural Resources Graduate Student Symposium, Athens, GA. \*Award winner
- 2009. 94<sup>th</sup> Ecological Society of America Annual Meeting, Albuquerque, NM
- 2009. 7<sup>th</sup> Southern Forestry and Natural Resource Management GIS Conference. Athens, GA. \*Award winner
- 2009. Coweeta Hydrological Laboratory LTER Annual Meeting, Otto, NC
- 2009. D.B. Warnell School of Forestry and Natural Resources Graduate Student Symposium, Athens, GA.
- 2008. 22<sup>nd</sup> Global Meeting of the Society for Conservation Biology, Chattanooga, TN.
- 2008. D.B. Warnell School of Forestry and Natural Resources Graduate Student Symposium, Athens, GA. \*Award winner
- 2006. 90<sup>th</sup> Annual Meeting of the Arkansas Academy of Science, Batesville, AR. \*Award winner
- 2005. 32<sup>nd</sup> Meeting of Kansas Herpetological Society, Pittsburg, KS.
- 2005. Joint Meeting of Ichthyologist and Herpetologist, Tampa, FL.

### Poster

2014 2014 Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, TN (Student-led)

2014. 2014 Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, TN (Student-led)
2012. 60<sup>th</sup> Annual Meeting of Entomological Society of America, Knoxville, TN (Student-led)
2009. Fall Orientation for Teaching and Graduate Assistants, University of Georgia, Athens, GA
2009. Long-term Ecological Research Site All Scientist Meeting, Estes Park, CO.
2009. Southeastern Partners in Amphibian and Reptile Conservation Meeting, Athens, GA.
2007. Southeastern Partners in Amphibian and Reptile Conservation Annual Meeting, Chattanooga, TN.
2005. Annual Meeting of the Arkansas Academy of Science, Conway, AR.

*Invited seminars to learned forums*

- Milanovich, J.R.** 2014. University of Wisconsin, Madison, Madison, WI
- Milanovich, J.R.** 2013. The Field Museum of Natural History, Chicago, IL.
- Milanovich, J.R.** 2013. Benedictine University, Lisle, IL
- Milanovich, J.R.** 2013. Loyola University Chicago, Chicago, IL
- Milanovich, J.R.** 2013. University of Michigan – Dearborn, Dearborn, MI
- Milanovich, J.R.** 2012. U.S. Environmental Protection Agency, National Exposure Research Laboratory, Ecological Exposure Research Division, Cincinnati, OH.
- Milanovich, J.R.** 2012. Department of Biology, Marshall University, Huntington, WV.
- Milanovich, J.R.** 2011. Department of Biology, Thomas More College, Crestview, KY.
- Milanovich, J.R.** 2011. Department of Biology, Wright State University, Dayton, OH.
- Milanovich, J.R.** 2011. U.S. Environmental Protection Agency, National Risk Management Research Laboratory, Sustainable Environments Branch, Cincinnati, OH.
- Milanovich, J.R.**, 2010. Department of Biological Sciences, Eastern Kentucky University, Richmond, KY.

*Invited public seminars*

- Milanovich, J.R.** 2014. “Amphibians and global change: what do we stand to lose.” Invited seminar for Chicago Herpetological Society, Chicago, IL.
- Milanovich, J.R.** 2009. “Introducing the Patch-nosed Salamander.” Invited seminar for Sandy Creek Nature Center, Athens, GA.
- Milanovich, J.R.** 2009. “Introducing the Patch-nosed Salamander.” Invited seminar for University of Georgia Herpetological Society, Athens, GA.
- Milanovich, J.R.** 2009. “Amphibian Conservation: What is all the croak about?” Invited seminar for University of Georgia Herpetological Society, Athens, GA.

**PROFESSIONAL EXPERIENCE**

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- 2013 – Present     **Assistant Professor**, Department of Biology, Loyola University Chicago, Chicago, IL
- 2012                 **Adjunct Assistant Professor**, Department of Biology, Northern Kentucky University, Highland Heights, KY

- 2011 – 2013     **Adjunct Assistant Professor**, Department of Biology, University of Cincinnati Blue Ash College, Blue Ash, OH
- 2010 – 2013     **Postdoctoral Research Associate**, National Research Council/National Academy of Sciences, U.S. EPA, ORD, NRML, STD, SEB, Cincinnati, OH.
- 2006 – 2010     **Graduate Research Assistant**, University of Georgia, Athens, GA.
- 2004 – 2006     **Graduate Research Assistant**, Arkansas State University, State University, AR
- 2003 – 2004     **Wildlife Biologist**, Wildlife Plus Consulting, Alto, NM
- 2002 – 2003     **Environmental Education Instructor**, Camp McDowell Environmental Center, Nauvoo, AL
- 2002 – 2002     **Wildlife Biologist**, Turnstone Environmental Consultants, Portland, OR
- 2001 – 2001     **Student Conservation Association Biological Technician**, Mount Rainier National Park, Ashford, WA
- 2000 – 2000     **Student Conservation Association Biological Technician**, Cape Cod National Seashore, Wellfleet, MA

#### **ADDITIONAL SCHOLARY AND SERVICE ACTIVITIES**

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**Peer-reviewer:** Conservation Biology, Global Change Biology, Animal Conservation, PLoS ONE, Global Ecology and Biogeography, Landscape and Urban Planning, American Midland Naturalist, Collaboration for Environmental Evidence, Journal of Applied Meteorology and Climatology, Copeia, Journal of Herpetology, Hydrobiologia, Southeastern Naturalist, Northeastern Naturalist, and Herpetological Conservation and Biology

**Assistant Editor:** Herpetological Conservation and Biology

**Session Moderator:** Land use and non-point source effects on streams session, 2012 Annual Meeting of the Society for Freshwater Science, Louisville, KY.

#### **PROFESSIONAL SOCIETY MEMBERSHIPS**

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Ecological Society of America  
 Society for the Study of Amphibians and Reptiles  
 American Society for Ichthyologists and Herpetologists  
 The Herpetologists' League  
 Association for Zoos and Aquariums

## **AWARDS**

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2011. Water Quality Partnership Award. Hamilton County Soil and Water Conservation District. Cincinnati, OH.

2010. 2<sup>nd</sup> place student presentation – Ph.D. Candidate section. D. B. Warnell School of Forestry and Natural Resources Graduate Student Symposium. Athens, GA.

2009. Best student presentation. 7<sup>th</sup> Southern Forestry and Natural Resource Management GIS Conference, Athens, GA; Inducted member of Gamma Sigma Delta Honors Society

2008. Inducted member of Xi Sigma Pi Honors Society; 2<sup>nd</sup> place student presentation –D. B. Warnell School of Forestry and Natural Resources Student Symposium.

## **RESEARCH FEATURED IN**

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2009. Research on discovery of new salamander genus and species profiled in *National Geographic* (online), *BBC News* (online), *Smithsonian Magazine*, *Atlanta Journal Constitution*, *Athens Banner Herald*, *Georgia Backroads* and *UGA Magazine*

2008. Research on salamander breeding ecology profiled in “*Life in Cold Blood*,” British Broadcasting Channel TV series.