

J. ALEX BAECHER



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EDUCATION

MAY 2024 (expected)

INTERDISCIPLINARY ECOLOGY, PHD | UNIVERSITY OF FLORIDA

DECEMBER 2017

BIOLOGICAL SCIENCES, MS | EASTERN KENTUCKY UNIVERSITY

MAY 2014

BIOLOGICAL SCIENCES, BS | UNIVERSITY OF ARKANSAS

EXPERIENCE

AUGUST 2019 – ...

GRADUATE RESEARCH ASSISTANT | UNIVERSITY OF FLORIDA

- *Research:* Predicting the effects of climate and land use change on invasive and priority native reptiles and amphibians in the southeastern USA

JANUARY 2018 – JULY 2019

CONSERVATION AND RESEARCH TECHNICIAN | MEMPHIS ZOOLOGICAL SOCIETY

- *Research:* Modeled the efficacy of various sperm collection and cryopreservation protocols to develop better amphibian reproductive technologies
- *Herpetoculture:* Managed animal care for repatriation project for endangered dusky gopher frogs and Louisiana pine snakes using in-vitro fertilization and captive rearing

MAY – AUGUST 2017

NSF REU RESEARCH COORDINATOR | EASTERN KENTUCKY UNIVERSITY

- *Teaching:* Coordinated study design, data collection, analysis, and manuscript development for seven students

MAY 2015 – AUGUST 2017

GRADUATE TEACHING ASSISTANT | EASTERN KENTUCKY UNIVERSITY

- *Teaching:* 2 – 3 sections per week Human Anatomy Lab
- *Research:* Investigated the population dynamics of woodland salamanders in old growth Appalachian Forest
- *Service:* Herpetocultural manager of live outreach animals, including venomous reptiles; led specimen preparation and accessioning; curated digitization of collections

JANUARY 2014 – MARCH 2015

RESEARCH ASSISTANT | UNIVERSITY OF ARKANSAS

- *Research:* Managed field data collection for project investigating the effects of ecological restoration of Tallgrass Prairie of grassland herpetofauna

AUGUST 2012 – JANUARY 2014

RESEARCH TECHNICIAN | UNIVERSITY OF ARKANSAS

- *Research:* Assisted in research projects, including field and laboratory data collection, database management and analysis, and community outreach

INVITED PEER REVIEWER

JOURNAL | QTY

BIOLOGICAL CONSERVATION | 1

ECOLOGY AND EVOLUTION | 2

HERPETOLOGICAL CON BIO | 3

HERPETOLOGICAL REVIEW | 4

JOURNAL OF NATURAL AREAS | 2

WILDLIFE SOCIETY BULLETIN | 2

HYDROBIOLOGIA | 1

AWARDS

RESEARCH GRANTS, FELLOWSHIPS, OR TRAVEL AWARDS

\$4,000 | University of Florida, Robin E Nadeau Graduate Research Award (2019)

\$195,000 | University of Florida, Graduate School Preeminence Award (2019)

\$500 | Society for the Study of Amphibians and Reptiles Research Grant (2016)

\$500 | Eastern Kentucky University, Department of Biological Sciences Travel Stipend (2016)

\$500 | Eastern Kentucky University, Division of Natural Areas Research Grant (2016)

\$1,100 | Kentucky Academy of Science, Marcia Athey Research Grant (2016)

\$700 | Society for Freshwater Science, Instars Fellowship (2013)

\$700 | Society for Freshwater Science, Instars Fellowship (2014)

\$5,000 | University of Arkansas, NSF REU Fellowship (2012)

\$5,000 | University of Arkansas, NSF REU Fellowship (2013)

PUBLICATIONS

FORTHCOMING:

JA Baecher, [...], BR Scheffers. *In review*. An experimental evaluation of the roles of biotic interactions and environmental variation of an invaded vertebrate community. Prepared for: **Functional Ecology**

Patton, Z, B Gross, **JA Baecher**, LD Densmore III. *In review*. Evaluation of Nuisance Alligator Management in the Southeastern United States and Examination of the Human-Alligator Conflict. **Wildlife Society Bulletin**

JA Baecher, [...], BR Scheffers. *In prep*. A framework for modeling connectivity of populations incorporating propagule pressure: a case study with invasive Burmese pythons. Prepared for: **Methods in Ecology and Evolution**

PUBLISHED:

Basham, EW, **JA Baecher**, D Klimes, BR Scheffers. *Accepted*. Vertical stratification patterns of tropical forest vertebrates: A meta-analysis. **Biological Reviews**

Basham, EW, [...], **JA Baecher**, BR Scheffers. *In press*. Not all trees are created equal: How some trees forest giants provide keystone structures for poison frogs. **Oecologia**

Swartwout, M, PN Vogrin, **JA Baecher**, CS Kross, JD Willson. 2020. Prey Size and Growth Rate do not Influence Trophic Morphology of Juvenile Water Snakes (*Nerodia sipedon*). **Herpetologica** 76:53 – 60

Baecher, JA, E Jones, SC Richter. 2020. Tail bifurcation in two species of *Desmognathus* salamander (Caudata: Plethodontidae) in southeastern Kentucky, U.S.A. **Herpetological Bulletin** 150:29 – 30

Hinkson, KM, **JA Baecher**, S Poo. 2019. Cryopreservation and hormonal induction of spermic urine in the smooth-sided toad (*Rhaebo guttatus*). **Cryobiology** 89:109 – 111

Baecher, JA, SC Richter. 2018. Environmental gradients in an old-growth Appalachian Forest predict fine-scale distribution, co-occurrence, and abundance of woodland salamanders. **Ecol. and Evol.** 8:12940 – 12952

Baecher, JA, JD Willson, PN Vongric, JC Guzy, CS Kross. 2018. Herpetofaunal Communities in Restored and Unrestored Remnant Tallgrass Prairie and Associated Wetlands in Northwest Arkansas, USA. **Wetlands** 38:157 – 169

Baecher, JA, PN Vongric, JC Guzy, JC Neal, JD Willson. 2014. *Lithobates areolatus* (Crawfish Frog). Predation. **Herpetological Review** 45:681 – 682

PRESENTATIONS

CONTRIBUTIONS TO EXTERNAL SYMPOSIA:

Basham, EW, [JA Baecher](#), [...], BR Scheffers. 2021. Ecological Society of America. *Long Beach, CA*
 Jones, E, [JA Baecher](#), [...], SC Richter. 2019. Association of Southeastern Biologists. *Memphis, TN*
 Hinkson, KM, [JA Baecher](#), S Poo. 2019. Association of Southeastern Biologists. *Memphis, TN*
[Baecher, JA](#), SB Reichling. 2018. Louisiana Pinesnake Stakeholder Meeting. *Shreveport, LA*
 Jones, E, [JA Baecher](#), [...], SC Richter. 2018. Kentucky Academy of Science. *Bowling Green, KY*
 Gross, BA, Z Patton, [JA Baecher](#), [...]. 2018. 25th Crocodile Specialist Group. *Sante Fe, Argentina*
[Baecher, JA](#), SC Richter. 2018. Joint Meeting of Ichthyologists and Herpetologists. *Rochester, NY*
 Grap, P, S Harrel, [...], [JA Baecher](#). 2018. Association of Southeastern Biologists. *Myrtle Beach, SC*
 Peters, J, J Koslow, [JA Baecher](#). 2018. Association of Southeastern Biologists. *Myrtle Beach, SC*
[Baecher, JA](#), SC Richter. 2017. University of Kentucky, Center for Ecology, Evolution and Behavior. *Lexington, KY*
 Grap, P, S Harrel, [...], [JA Baecher](#). 2017. Southeastern Fisheries Council Annual Meeting. *Chattanooga, TN*
[Baecher, JA](#), SC Richter. 2017. SE Partners in Amphibian & Reptile Conservation. *Little Rock, AR*
 Swartwout, M, PN Vogrinc, [JA Baecher](#), [...]. 2016. Joint Meeting of Ichthyologists and Herpetologists. *New Orleans, LA*
[Baecher, JA](#), PN Vongrinc, JD Willson. 2016. Joint Meeting of Ichthyologists and Herpetologists. *New Orleans, LA*
[Baecher, JA](#), DR Leasure, [...], DD Magoulick. 2014. Joint Meeting of Aquatic Sciences. *Portland, OR*
[Baecher, JA](#), DR Leasure, [...], DD Magoulick. 2013. American Fisheries Society. *Little Rock, AR*
[Baecher, JA](#), J Ortega, SJ Beaupré. 2013. Society for Freshwater Science. *Jacksonville, FL*

HOSTED WORKSHOPS:

Fletcher, R, [JA Baecher](#), [...], Thomas Smith. 2021. Expanding the scope of connectivity modeling with Markov chains: perspectives and applications in R. International Association of Landscape Ecology. *Reno, NV*

CONTRIBUTIONS TO INTERNAL SYMPOSIA:

[UNIVERSITY OF FLORIDA](#) | QTY 5

[UNIVERSITY OF ARKANSAS](#) | QTY 4

[EASTERN KENTUCKY UNIVERSITY](#) | QTY 5

CURRENT PROFESSIONAL SOCIETIES

JANUARY 2020 – ...

[INTERNATIONAL ASSOCIATION OF LANDSCAPE ECOLOGISTS \(NORTH AMERICAN CHAPTER\)](#)
[ECOLOGICAL SOCIETY OF AMERICA](#)
[BRITISH ECOLOGICAL SOCIETY](#)
[ECOLOGICAL FORECASTING INITIATIVE](#)

JANUARY 2015 – DECEMBER 2019

[AMERICAN SOCIETY OF ICHTHYOLOGISTS AND HERPETOLOGISTS](#)
[SOUTHEASTERN PARTNERS IN AMPHIBIAN AND REPTILE CONSERVATION](#)
[SOCIETY FOR THE STUDY OF AMPHIBIANS AND REPTILES](#)

JANUARY 2012 – DECEMBER 2014

[SOCIETY FOR FRESHWATER SCIENCE](#)

MENTORSHIP

NATURAL HISTORY & RESEARCH COLLECTION INTERNSHIPS:

[NATHAN MCGREGOR](#) & [ASHLEY ALBINO](#) (2015 – 2016) | [EASTERN KENTUCKY UNIVERSITY](#)
[BILL HAUGE](#) & [MORGAN MATTINGLY](#) (2018 – 2019) | [MEMPHIS ZOO](#)

INDEPENDENT RESEARCH STUDENTS:

[EMILY JONES](#) (2015 – 2017) & [ALEX GIBSON](#) (2015 – 2016) | [EASTERN KENTUCKY UNIVERSITY](#)
[MADELINE ESTES](#) (2018 – 2019) | [MEMPHIS ZOO](#)
[SIERRA SCAUZILLO](#) (2019 – ...) | [UNIVERSITY OF FLORIDA](#)
[MYESHA JAMES](#) & [KELLEY HOFER](#) (2017) | [EASTERN KENTUCKY UNIVERSITY](#)

PROFESSIONAL REFERENCES

BRETT R SCHEFFERS, PHD | ASSISTANT PROFESSOR, WILDLIFE ECOLOGY AND CONSERVATION, UNIVERSITY OF FLORIDA

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ROB J FLETCHER, PHD | FULL PROFESSOR, WILDLIFE ECOLOGY AND CONSERVATION, UNIVERSITY OF FLORIDA

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STEPHEN C RICHTER, PHD | PROFESSOR, BIOLOGICAL SCIENCES; DIRECTOR, DIVISION OF NATURAL AREAS, EASTERN KENTUCKY UNIVERSITY

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JOHN D (JD) WILLSON, PHD | ASSOCIATE PROFESSOR, BIOLOGICAL SCIENCES, UNIVERSITY OF ARKANSAS

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