

# 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 (100%):** 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 (25%):** Modeled the efficacy of various sperm collection and cryopreservation protocols to develop better amphibian reproductive technologies
- **Herpetoculture (75%):** 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 (100%):** Coordinated study design, data collection, analysis, and manuscript development for seven students

MAY 2015 – AUGUST 2017

**GRADUATE TEACHING ASSISTANT** | EASTERN KENTUCKY UNIVERSITY

- **Teaching (50 – 75%):** 2 – 3 sections per week Human Anatomy Lab
- **Research (15 – 40%):** Investigated the population dynamics of woodland salamanders in old growth Appalachian Forest
- **Service (10%):** 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 (100%):** 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 (100%):** Assisted in research projects, including field and laboratory data collection, database management and analysis, and community outreach

## EXTERNAL REVIEWER

### JOURNAL | QTY REVIEWED

BIOLOGICAL CONSERVATION | 1  
 ECOLOGY AND EVOLUTION | 1  
 HERPETOLOGICAL CON BIO | 2

HERPETOLOGICAL REVIEW | 3  
 JOURNAL OF NATURAL AREAS | 2  
 WILDLIFE SOCIETY BULLETIN | 2

## 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:

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**

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

Basham, EW, [JA Baecher](#), D Klenges, BR Scheffers. *In review*. Vertical stratification patterns of tropical forest vertebrates: A meta-analysis. **Ecology**

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

[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:

Swartwout, M, PN Vogrinc, [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 Vogrinc, 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. 25<sup>th</sup> 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 HOEFER](#) (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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