

# 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 ASSISTANT** | UNIVERSITY OF FLORIDA

- *Teaching*: Instructor of record for Environmental Science Laboratory (EVS 3000L)
- *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 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 REVIEWED / QTY DECLINES

BIOLOGICAL CONSERVATION | 1

HERPETOLOGICAL REVIEW | 4 / 1

HYDROBIOLOGIA | 1

ECOLOGY AND EVOLUTION | 4 / 1

JOURNAL OF NATURAL AREAS | 2

ECOGRAPHY | TBA

HERP. CON. BIO. | 3 / 2

WILDLIFE SOCIETY BULLETIN | 2

## AWARDS

### AMOUNT | ORGANIZATION

**\$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 x2** | Society for Freshwater Science, Instars Fellowship (2013 & 2014)

**\$5,000 x2** | University of Arkansas, NSF REU Fellowship (2012 & 2013)

## PUBLICATIONS

### PEER REVIEWED ONLY

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

Evans, L, **JA Baecher**, BR Scheffers. *In review.* Invasion risk posed by the pet trade. *PNAS* (IF 12.8)

**JA Baecher**, SA Johnson, EA Roznik, BR Scheffers. *In press.* Experimental evaluation of how invasions and climate change interact to alter the vertical assembly of an amphibian community. *Journal of Animal Ecology* (IF 5.6)

Basham, EW, **JA Baecher**, D Klimes, BR Scheffers. **2022.** Vertical stratification patterns of tropical forest vertebrates: A meta-analysis. *Biological Reviews* [HTML](#) (IF 14.4)

Basham, EW, [...], **JA Baecher**, BR Scheffers. **2022.** Large, old trees define the vertical, horizontal, and seasonal distributions of a poison frog. *Oecologia* [HTML](#) (IF 5.6)

Swartwout, M, PN Vogrinc, **JA Baecher**, [...], JD Willson. **2020.** Prey Size and Growth Rate do not Influence Trophic Morphology of Juvenile Water Snakes (*Nerodia sipedon*). *Herpetologica* [HTML](#) (IF 2.7)

**Baecher, JA**, E Jones, SC Richter. **2020.** Tail bifurcation in two species of *Desmognathus* salamander (Caudata: Plethodontidae) in southeastern Kentucky, USA. *Herpetological Bulletin* [HTML](#) (IF 0.4)

Hinkson, KM, **JA Baecher**, S Poo. **2019.** Cryopreservation and hormonal induction of spermic urine in the smooth-sided toad (*Rhaebo guttatus*). *Cryobiology* [HTML](#) (IF 2.7)

**Baecher, JA**, SC Richter. **2018.** Environmental gradients in an old-growth Appalachian Forest predict fine-scale distribution, co-occurrence, and abundance of woodland salamanders. *Ecology and Evolution* [HTML](#) (IF 2.9)

**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* [HTML](#) (IF 2.1)

**Baecher, JA**, PN Vogrinc, JC Guzy, JC Neal, JD Willson. **2014.** *Herpetological Reviews* [HTML](#) (IF 0.2)

## PRESENTATIONS

### SELECTED CONTRIBUTIONS (external symposia)

L Evans, BR Scheffers, [JA Baecher](#). **2022**. *North American Invasive Species Management Association*. Ft. Myers, FL

[JA Baecher](#), BR Scheffers. **2022**. *Centre for the Synthesis and Analysis of Biodiversity*. Montpellier, France

[JA Baecher](#), L Evans, [...], BR Scheffers. **2022**. *Southeastern RISSC network Webinar*. Virtual

E Khazan, [...], [JA Baecher](#). **2022**. *Association for Tropical Biology and Conservation*. Cartagena, Columbia

[JA Baecher](#), L Evans, [...], BR Scheffers. **2022**. *International Association of Landscape Ecology*. Virtual

L Evans, BR Scheffers, [JA Baecher](#). **2022**. *Collaborative to Combat the Illegal Trade in Turtles*. Virtual

Basham, EW, [JA Baecher](#), [...], BR Scheffers. **2021**. *International Canopy Science Conference*. Virtual

Basham, EW, [JA Baecher](#), [...], BR Scheffers. **2021**. *Ecological Society of America*. Virtual

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**. *USFWS WORKING GROUP 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**. *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, P Vogrinc, [JA Baecher](#), [...]. **2016**. *Joint Meeting of Ichthyologists and Herpetologists*. New Orleans, LA

[Baecher, JA](#), P 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*. Virtual

[Baecher, JA](#), L Evans, BR Scheffers. **2022**. Expert elicitation of key invasive species habitat requirements, prevalence, and life history attributes using an Interactive Shiny App. *Austin Carey Experimental Forest*. Gainesville, FL

### GUEST LECTURES:

[JA Baecher](#). **2021**. Achieving connectivity under rapid change. *Ecology of Climate Change*. Gainesville, FL

[JA Baecher](#). **2020**. Restoration ecology of grassland herpetofauna. *Amphibians of the Southeast*. Gainesville, FL

[JA Baecher](#). **2020**. Amphibian diversity and natural history. *Amphibians of the Southeast*. Gainesville, FL

[JA Baecher](#). **2020**. Threats to salamander diversity. *Amphibians of the Southeast*. Gainesville, FL

## MENTORSHIP

### EASTERN KENTUCKY UNIVERSITY:

[NATHAN MCGREGOR](#)  
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[EMILY JONES](#)

[ALEX GIBSON](#)  
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[KELLEY HOEFER](#)

### RHODES COLLEGE:

[BILL HAUGE](#)

[MADELINE ESTES](#)

### CHRISTIAN BROTHERS HIGH SCHOOL:

[MORGAN MATTINGLY](#)

### UNIVERSITY OF FLORIDA:

[SIERRA SCAUZILLO](#)

## PROFESSIONAL REFERENCES

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

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