# 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

# **EXTERNAL REVIEWER**

JOURNAL | QTY REVIEWED

BIOLOGICAL CONSERVATION | 1

**ECOLOGY AND EVOLUTION | 2** 

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* 

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:**

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

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

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. 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
EASTERN KENTUCKY UNIVERSITY | QTY 5

**UNIVERSITY OF ARKANSAS | QTY 4** 

# **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

<b>BRETT R SCHEFFERS, PHD   ASSISTANT PROFESSOR</b>	R, WILDLIFE ECOLOGY AND CONSERVATION,		
UNIVERSITY OF FLORIDA			
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ROB J FLETCHER, PHD   FULL PROFESSOR, WILDLIFE ECOLOGY AND CONSERVATION, UNIVERSITY O			
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