

# 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

*JANUARY 2018 – JULY 2019*

**CONSERVATION AND RESEARCH TECHNICIAN** | MEMPHIS ZOO

*MAY – AUGUST 2017*

**NSF REU RESEARCH COORDINATOR** | EASTERN KENTUCKY UNIVERSITY

*MAY 2015 – AUGUST 2017*

**GRADUATE ASSISTANT** | EASTERN KENTUCKY UNIVERSITY

*JANUARY 2014 – MARCH 2015*

**RESEARCH ASSISTANT** | UNIVERSITY OF ARKANSAS

*AUGUST 2012 – JANUARY 2014*

**RESEARCH TECHNICIAN** | UNIVERSITY OF ARKANSAS

## FUNDING

| AMOUNT              | ORGANIZATION                | AWARD NAME                               | YEAR            |
|---------------------|-----------------------------|--|-----------------|
| <b>\$4,000</b>      | University of Florida       | Robin Nadeau Graduate Research Award     | <b>2019</b>     |
| <b>\$195k</b>       | University of Florida       | Graduate School Preeminence Award        | <b>2019</b>     |
| <b>\$500</b>        | Soc. Study Ampib. and Rep.  | Grant-in-Aid of Herpetological Research  | <b>2016</b>     |
| <b>\$500</b>        | Eastern Kentucky University | Dept. Biological Sciences Travel Stipend | <b>2016</b>     |
| <b>\$500</b>        | Eastern Kentucky University | Div. Natural Areas Research Grant        | <b>2016</b>     |
| <b>\$1,100</b>      | Eastern Kentucky University | Marcia Athey Research Grant              | <b>2016</b>     |
| <b>\$700 (x2)</b>   | Soc. Freshwater Science     | Instars Fellowship                       | <b>2013-'14</b> |
| <b>\$5,000 (x2)</b> | University of Arkansas      | NSF REU Fellowship                       | <b>2012-'13</b> |

## PEER REVIEW

*JOURNAL (REVIEWED/REQUESTED):*

**BIOLOGICAL CONSERVATION** (1/1); **CONSERVATION SCIENCE AND PRACTICE** (1/2); **ECOGRAPHY** (1/1);  
**ECOLOGY AND EVOLUTION** (4/5); **HERPETOLOGICAL CONSERVATION BIOLOGY** (3/5);  
**HERPETOLOGICAL REVIEW** (4/5); **HYDROBIOLOGIA** (1/1); **NATURAL AREAS JOURNAL** (2/2);  
**OECOLOGIA** (1/2); **SCIENTIFIC REPORTS** (1/1); **WILDLIFE SOCIETY BULLETIN** (2/2)

## PUBLICATIONS

### FORTHCOMING:

- 8) **Baecher, JA**, D Klimes, L Evans, BR Scheffers. *In prep.* Informing species range shifts with global connectivity layers. Expected: **One Earth**
- 7) Evans, L, **JA Baecher**, J Cullen, C Romagosa, BR Scheffers. *In prep.* An expert elicitation tool for mapping the spatial prevalence and habitat suitability of invasive species. Expected: **Biological Invasions**
- 6) **Baecher, JA**. *In review.* The environmental filtering paradigm and non-filtering community assembly processes. **Journal of Biogeography**
- 5) **Baecher, JA**, D Klimes, L Evans, C Romagosa, R Fletcher, BR Scheffers. *In review.* Simulating what limits the spread of a high-profile invasive predator. **Ecography** | [GITHUB](#)
- 4) DH Klimes, **JA Baecher**, ... BR Scheffers. *In review.* Proximal microclimate: moving beyond spatiotemporal scale to improve predicted biological responses. **Global Ecology and Biogeography**
- 3) Evans, L, **JA Baecher**, BR Scheffers. *In revision.* Invasion risk posed by the pet trade. **Frontiers in Ecology and the Environment**
- 2) Comte, L, ... **JA Baecher**, ... J Lenoir. *In press.* Bringing traits back in the equation: A roadmap to understand species redistribution. **Global Change Biology** | [PREPRINT](#)
- 1) Lawlor, JA, ... **JA Baecher**, ... J Sunday. *In press.* Mechanisms, detections, and impacts of species redistributions under climate change. **Nature Reviews Earth and Environment** | [PREPRINT](#)

### PUBLISHED:

- 9) **Baecher, JA**, SA Johnson, EA Roznik, BR Scheffers. **2023.** Experimental evaluation of how invasions and climate change interact to alter the vertical assembly of an amphibian community. **Journal of Animal Ecology** | [HTML](#) | [GITHUB](#) | [Nature Climate Change](#) | [Coverage: Florida Today, USGS](#)
- 8) Basham, EW, **JA Baecher**, DH Klimes, BR Scheffers. **2022.** Vertical stratification patterns of tropical forest vertebrates: A meta-analysis. **Biological Reviews** | [HTML](#) | [GITHUB](#)
- 7) Basham, EW, M Gonzalez-Pinzon, A Romero-Marcucci, N Carl, **JA Baecher**, BR Scheffers. **2022.** Large, old trees define the vertical, horizontal, and seasonal distributions of a poison frog. **Oecologia** | [HTML](#) | [GITHUB](#)
- 6) 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** | [HTML](#)
- 5) **Baecher, JA**, E Jones, SC Richter. **2020.** Tail bifurcation in two species of *Desmognathus* salamander Caudata: Plethodontidae in southeastern Kentucky, USA. **Herpetological Bulletin** | [HTML](#)
- 4) Hinkson, KM, **JA Baecher**, S Poo. **2019.** Cryopreservation and hormonal induction of spermic urine in the smooth-sided toad *Rhaebo guttatus*. **Cryobiology** | [HTML](#) | [Coverage: The Commercial Appeal, USA TODAY](#)
- 3) **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](#) | [GITHUB](#)
- 2) **Baecher, JA**, PH Vogrin, JC Guzy, CS Kross, JD Willson. **2018.** Herpetofaunal Communities in Restored and Unrestored Remnant Tallgrass Prairie and Associated Wetlands in Northwest Arkansas, USA. **Wetlands** | [HTML](#)
- 1) **Baecher, JA**, PH Vogrin, JC Guzy, JC Neal, JD Willson. **2014.** *Lithobates areolatus*, Predation. **Herpetological Reviews** | [PDF](#)

## PRESENTATIONS

### SELECTED ONLY EXTERNAL SYMPOSIA: <sup>†</sup>TALK <sup>‡</sup>POSTER

- 30) <sup>†</sup>JA Baecher, D Klinges, L Evans, BR Scheffers. **2023. Species On The Move. Ft. Myers, FL** [SLIDES](#)
- 29) <sup>†</sup>BR Scheffers, JA Baecher, E Basham. **2023. Species On The Move. Ft. Myers, FL**
- 28) <sup>†</sup>L Evans, JA Baecher, BR Scheffers. **2023. Species On The Move. Ft. Myers, FL**
- 27) <sup>†</sup>D Klinges, [...], JA Baecher, [...], BR Scheffers. **2023. Species On The Move. Ft. Myers, FL**
- 26) <sup>‡</sup>L Evans, BR Scheffers, JA Baecher. **2022. Invasive Species Mgmt Association. Ft. Myers, FL**
- 25) <sup>†</sup>D Klinges, JA Baecher, [...], BR Scheffers. **2022. Microclimate Ecol. Biogeog. Antwerp, Belgium**
- 24) <sup>†</sup>JA Baecher, BR Scheffers. **2022. BIOSHIFTS. Montpellier, France** [SLIDES](#)
- 23) <sup>†</sup>JA Baecher, L Evans, [...], BR Scheffers. **2022. Southeastern RISCC network.**  
*Virtual* | [SLIDES](#) | [VIDEO](#)
- 22) <sup>†</sup>E Khazan, [...], JA Baecher. **2022. Assoc. for Tropical Biol. and Conserv. Cartagena, Columbia**
- 21) <sup>†</sup>JA Baecher, [...], BR Scheffers. **2022. Internat. Assoc. Landscape Ecology. Virtual** | [SLIDES](#) | [VIDEO](#)
- 20) <sup>†</sup>L Evans, BR Scheffers, JA Baecher. **2022. Collab. Combat the Illegal Trade in Turtles. Virtual**
- 19) <sup>†</sup>Basham, EW, JA Baecher, [...], BR Scheffers. **2021. Internat. Canopy Science Conference. Virtual**
- 18) <sup>†</sup>Basham, EW, JA Baecher, [...], BR Scheffers. **2021. Ecological Society of America. Virtual**
- 17) <sup>†</sup>Basham, EW, JA Baecher, [...], BR Scheffers. **2021. European Meet. Students Evol. Biol. Virtual**
- 16) <sup>†</sup>Jones, E, JA Baecher, [...], SC Richter. **2019. Assoc. of Southeastern Biologists. Memphis, TN**
- 15) <sup>†</sup>Hinkson, KM, JA Baecher, S Poo. **2019. Association of Southeastern Biologists. Memphis, TN**
- 14) <sup>†</sup>Baecher, JA, SB Reichling. **2018. USFWS Working Group Meeting. Shreveport, LA**
- 13) <sup>‡</sup>Jones, E, JA Baecher, [...], SC Richter. **2018. Kentucky Academy of Science. Bowling Green, KY**
- 12) <sup>†</sup>Gross, BA, Z Patton, JA Baecher, [...]. **2018. 25<sup>th</sup> Crocodile Specialist Group. Sante Fe, Argentina**
- 11) <sup>†</sup>Baecher, JA, SC Richter. **2018. Joint Meeting of Ichth's and Herp's. Rochester, NY**
- 10) <sup>†</sup>Grap, P, S Harrel, [...], JA Baecher. **2018. Assoc. of Southeastern Biologists. Myrtle Beach, SC**
- 9) <sup>†</sup>Peters, J, J Koslow, JA Baecher. **2018. Assoc. of Southeastern Biologists. Myrtle Beach, SC**
- 8) <sup>†</sup>Baecher, JA, SC Richter. **2017. Center for Ecology, Evolution and Behavior. Lexington, KY**
- 7) <sup>†</sup>Grap, P, S Harrel, [...], JA Baecher. **2017. Southeastern Fisheries Council. Chattanooga, TN**
- 6) <sup>‡</sup>Baecher, JA, SC Richter. **2017. SE Partners in Amphibian & Reptile Conserv. Little Rock, AR**
- 5) <sup>‡</sup>Swartwout, M, P Vogrinc, JA Baecher, [...]. **2016. Ichth's and Herp's. New Orleans, LA**
- 4) <sup>†</sup>Baecher, JA, P Vongrinc, JD Willson. **2016. Ichth's and Herp's. New Orleans, LA USA**
- 3) <sup>‡</sup>Baecher, JA, DR Leasure, [...], DD Magoulick. **2014. Jt. Meeting Aquatic Sciences. Portland, OR**
- 2) <sup>‡</sup>Baecher, JA, DR Leasure, [...], DD Magoulick. **2013. American Fisheries Society. Little Rock, AR**
- 1) <sup>‡</sup>Baecher, JA, J Ortega, SJ Beaupré. **2013. Society for Freshwater Science. Jacksonville, FL**

### HOSTED WORKSHOPS:

- 3) Fletcher, R, [...], JA Baecher. **2023. Application of connectivity modeling to identify and predict movement and range redistribution. Species On The Move. Bonita Springs, FL USA**
- 2) Baecher, JA, L Evans, BR Scheffers. **2022. Expert elicitation of key invasive species habitat requirements, prevalence, and life history attributes. Austin Carey Forest. Gainesville, FL USA**
- 1) 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** | [VIDEO](#)

### GUEST LECTURES AT UNIVERSITY OF FLORIDA:

- 4) JA Baecher. **2021. Achieving connectivity under rapid change. Course: Ecology of Climate Change**
- 3) JA Baecher. **2020. Restoration ecology of grassland herps. Course: Amphibians of the Southeast**
- 2) JA Baecher. **2020. Amphibian diversity and natural history. Course: Amphibians of the Southeast**
- 1) JA Baecher. **2020. Threats to salamander diversity. Course: Amphibians of the Southeast**

## FUNDING

| AMOUNT  | ORGANIZATION                   | AWARD NAME                               | YEAR     |
|---------|--------------------------------|--|----------|
| \$4,000 | University of Florida          | Robin Nadeau Graduate Research Award     | 2019     |
| \$195k  | University of Florida          | Graduate School Preeminence Award        | 2019     |
| \$500   | Soc. Study Ampib. and Rep.     | Grant-in-Aid of Herpetological Research  | 2016     |
| \$500   | Eastern Kentucky University    | Dept. Biological Sciences Travel Stipend | 2016     |
| \$500   | Eastern Kentucky University    | Div. Natural Areas Research Grant        | 2016     |
| \$1,100 | Eastern Kentucky University    | Marcia Athey Research Grant              | 2016     |
| \$700   | Society for Freshwater Science | Instars Fellowship                       | 2013-'14 |
| \$5,000 | University of Arkansas         | NSF REU Fellowship                       | 2012-'13 |

## MENTORSHIP

### EASTERN KENTUCKY UNIVERSITY:

NATHAN MCGREGOR  
ASHLEY ALBINO

EMILY JONES  
ALEX GIBSON

MYESHA JAMES  
KELLEY HOEFER

### RHODES COLLEGE:

BILL HAUGE

MADELINE ESTES

### UNIVERSITY OF FLORIDA:

SIERRA SCAUZILLO

NOAH BOWEN

## PROFESSIONAL REFERENCES

### BRETT R SCHEFFERS, PHD | UNIVERSITY OF FLORIDA

**ASSOCIATE PROFESSOR:** *Wildlife Ecology and Conservation*

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### ROBERT GURALNICK, PHD | UNIVERSITY OF FLORIDA

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### ROBERT J FLETCHER, PHD | UNIVERSITY OF FLORIDA

**PROFESSOR:** *Wildlife Ecology and Conservation*

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### STEPHEN C RICHTER, PHD | EASTERN KENTUCKY UNIVERSITY

**EXECUTIVE DIRECTOR:** *Institute of Agriculture, Natural Resources, and the Environment*

**DIRECTOR:** *Division of Natural Areas;* **PROFESSOR:** *Department of Biological Sciences*

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### JOHN D ("JD") WILLSON, PHD | UNIVERSITY OF ARKANSAS

**ASSOCIATE PROFESSOR:** *Department of Biological Sciences*

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