

J. ALEX BAECHER



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EDUCATION

MAY 2024 (expected)

INTERDISCIPLINARY ECOLOGY, PhD | UNIVERSITY OF FLORIDA

DECEMBER 2017

BIOLOGICAL SCIENCES, MSc | EASTERN KENTUCKY UNIVERSITY

MAY 2014

BIOLOGICAL SCIENCES, BSc | UNIVERSITY OF ARKANSAS

EXPERIENCE

AUGUST 2019 – ...

GRADUATE RESEARCH ASSISTANT (PhD) | 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 TEACHING ASSISTANT (MSc) | EASTERN KENTUCKY UNIVERSITY

JANUARY 2014 – MARCH 2015

UNDERGRADUATE RESEARCH ASSISTANT | UNIVERSITY OF ARKANSAS

AUGUST 2012 – JANUARY 2014

UNDERGRADUATE RESEARCH TECHNICIAN | UNIVERSITY OF ARKANSAS

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 | SSAR | Grant-in-Aid of Herpetological Research | 2016 |
| \$500 | EASTERN KENTUCKY UNIVERSITY | Dep. 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 (x2) | SOC. FRESHWATER SCIENCE | Instars Fellowship | 2013-'14 |
| \$5,000 (x2) | UNIVERSITY OF ARKANSAS | NSF REU Fellowship | 2012-'13 |

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:

- 6) **Baecher, JA**, D Klinges, L Evans, BR Scheffers. *In prep.* Informing species range shifts with global connectivity layers.
- 5) 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.
- 4) DH Klinges, **JA Baecher**, ... BR Scheffers. *In review.* Proximal microclimate: moving beyond spatiotemporal scale to improve predicted biological responses. **Global Ecology and Biogeography**
- 3) **Baecher, JA**, D Klinges, L Evans, C Romagosa, R Fletcher, BR Scheffers. *In review.* Isolating what limits the spread of an invasive predator. **Journal of Applied Ecology** | [CODE](#) | [DRAFT](#)
- 2) Evans, L, **JA Baecher**, BR Scheffers. *In revision.* Invasion risk posed by the pet trade. **Frontiers in Ecology and the Environment**
- 1) **Baecher, JA**. *In revision (minor)*. The environmental filtering paradigm and non-filtering community assembly processes. **Journal of Biogeography** | [DRAFT](#)

PUBLISHED:

- 11) Comte, L, ... **JA Baecher**, ... J Lenoir. **2024**. Bringing traits back in the equation: A roadmap to understand species redistribution. **Global Change Biology** | [HTML](#)
- 10) Lawlor, JA, ... **JA Baecher**, ... J Sunday. **2024**. Mechanisms, detections, and impacts of species redistributions under climate change. **Nature Reviews Earth & Environment** | [PREPRINT](#)
- 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](#) | [CODE](#) | [Nature Climate Change](#) | [PRESS: Florida Today](#), [USGS](#)
- 8) Basham, EW, **JA Baecher**, DH Klinges, BR Scheffers. **2022**. Vertical stratification patterns of tropical forest vertebrates: A meta-analysis. **Biological Reviews** | [HTML](#) | [CODE](#)
- 7) Basham, EW, ... **JA Baecher**, BR Scheffers. **2022**. Large, old trees define the vertical, horizontal, and seasonal distributions of a poison frog. **Oecologia** | [HTML](#) | [CODE](#)
- 6) 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** | [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](#) | [PRESS: 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](#) | [CODE](#)
- 2) **Baecher, JA**, PH Vogrinc, 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 Vogrinc, JC Guzy, JC Neal, JD Willson. **2014**. *Lithobates areolatus*, Predation. **Herpetological Reviews** | [PDF](#)

PRESENTATIONS

SELECTED ONLY EXTERNAL SYMPOSIA: [†]TALK [‡]POSTER

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

HOSTED WORKSHOPS:

- 3) Fletcher, RJ, ... [JA Baecher](#). **2023**. Application of connectivity modeling to identify and predict movement and range redistribution. Species On The Move. *Bonita Springs, FL* | [SLIDES](#)
- 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* | [SLIDES](#)
- 1) Fletcher, RJ, [JA Baecher](#), ... Thomas Smith. **2021**. Expanding the scope of connectivity modeling with Markov chains: perspectives and applications in R. Int. Assoc. Landscape Ecol. *Virtual* | [VIDEO](#)

GUEST LECTURES AT UNIVERSITY OF FLORIDA:

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

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

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ROBERT GURALNICK, PhD | UNIVERSITY OF FLORIDA

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STEPHEN C RICHTER, PhD | EASTERN KENTUCKY UNIVERSITY

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

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

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

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