J. ALEX

BAECHER



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EDUCATION

AUGUST 2024

INTERDISCIPLINARY ECOLOGY, PHD | UNIVERSITY OF FLORIDA

Thesis: Influence of Global Change on Species' Behavior, Movement, and Ranges PDF

DECEMBER 2017

BIOLOGICAL SCIENCES, MS | EASTERN KENTUCKY UNIVERSITY

Thesis: Environmental gradients in old-growth Appalachian forest predict fine-scale distribution, co-occurrence, and density of woodland salamanders PDF

MAY 2014

BIOLOGICAL SCIENCES, BS | UNIVERSITY OF ARKANSAS

Thesis: Impact of Anthropogenic Land Use Change and Hydrologic Disturbance on Crayfish Assemblages PDF

EXPERIENCE

AUGUST 2024 - ...

POSTDOCTORAL RESEARCH ASSOCIATE | UNIVERSITY OF FLORIDA

AUGUST 2019 - 2024

DOCTORAL PREEMINENCE RESEARCH FELLOW | 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 | 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 UF Robin Nadeau Graduate Research Award 2019 \$195k UF Doctoral Preeminence Fellowship Award 2019 \$500 SSAR Grant-in-Aid of Herpetological Research 2016 \$500 EKU Dep. Biological Sciences Travel Stipend 2016 \$500 Div. Natural Areas Research Grant EKU 2016 \$1.100 EKU 2016 Marcia Athey Research Grant 2013 - '14 \$700 (x2) SFS Instars Fellowship 2012 - '13 \$5,000 (x2) NSF Research Experience for Undergraduates

PUBLICATIONS

- ...) Evans, L, **JA Baecher**, J Cullen, C Romagosa, BR Scheffers. *In prep*. An expert elicitation tool for mapping the prevalence and habitat suitability of invasive species.
- ...) 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 PREPRINT
- ...) Evans, L, **JA Baecher**, BR Scheffers. *In revision (major)*. Invasion risk posed by the pet trade. *Frontiers in Ecology and the Environment*
- 13) Baecher, JA. 2024. The environmental filtering paradigm and non-filtering community assembly processes. *Journal of Biogeography* 51(7):31-8 HTML PDF
- 12) DH Klinges, JA Baecher, ... BR Scheffers. 2024. Proximal microclimate: moving beyond spatiotemporal scale to improve predicted biological responses. Global Ecology and Biogeography 33(7):e1-16 HTML PDF CODE
- 11) Comte, L, R Bertrand, S Diamond, LT Lancaster, ML Pinsky, BR Scheffers, JA Baecher, ... J Lenoir. **2024**. Bringing traits back in the equation: A roadmap to understand species redistribution. *Global Change Biology* 30:e17271 HTML PDF
- 10) Lawlor, JA, L Comte, G Grenouillet, J Lenoir, JA Baecher, ... J Sunday. 2024.
 Mechanisms, detections, and impacts of species redistributions under climate change. Nature Reviews Earth & Environment 5:351 368 HTML PDF
- 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 92(4):875 888 HTML PDF CODE | Press: Nature Climate Change | 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* 98(1):99 114
- 7) Basham, EW, M González-Pinzón, 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 199:257 269 HTML PDF 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* 76(1):53 60 HTML PDF
- 5) **Baecher**, **JA**, E Jones, SC Richter. **2020**. Tail bifurcation in two species of *Desmognathus* salamander Caudata: Plethodontidae in southeastern Kentucky, USA. *Herpetological Bulletin* 150:29 30 HTML PDF
- 4) 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 HTML PDF | 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 8(24):12940 12952 HTML PDF CODE
- 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 38:157 – 168 HTML PDF
- 1) Baecher, JA, PH Vogrinc, JC Guzy, JC Neal, JD Willson. **2014**. Lithobates areolatus, Predation. Herpetological Reviews 45(4):681 682 PDF

PRESENTATIONS

SELECTED ONLY EXTERNAL SYMPOSIA: †TALK ‡POSTER

- 32) *Baecher, JA, L Evans, ... BR Scheffers. 2024. UF ISRI. Gainesville, FL SLIDES
- 31) [†]Evans, L, JA Baecher, ... BR Scheffers. 2024. UF ISRI. Gainesville, FL
- 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
- 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. Connectivity under rapid change. Ecology of Climate Change SLIDES
- 3) Baecher, JA. 2020. Restoration ecology of grasslands. Amphibians of the Southeast SLIDES
- 2) Baecher, JA. 2020. Salamander conservation. Amphibians of the Southeast SLIDES
- 1) Baecher, JA. 2020. Amphibian diversity. Amphibians of the Southeast SLIDES

PEER REVIEW

JOURNAL (REVIEWED/REQUESTED):

BIOL. CONS. (1/1); CON. SCI. & PRAC. (1/2); ECOGRAPHY. (1/1); ECOL. & EVOL. (4/5); HERP. CON. BIO. (3/5); HERP. REVIEW (4/5); HYDROBIOL. (1/1); NAT. AREAS JOUR. (2/2); OECOLOGIA (1/2); SCI. REP. (1/1); WILDL. SOC. BULL. (2/2)

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

Non-funded Proposals

AMOUNT	GRANT DESCRIPTION	DECISION	YEAR
\$235k	NSF: Postdoctoral Research Fellowship – Biology	"Highly meritorious"	2023
\$25k	The Wilderness Society: Gloria Barron Fellowship	Declined	2021
\$3,500	AmMusNatHist: Teddy Roosevelt Memorial Grant	Declined	2020
\$4,000	FCSal: Daniel M. Digiacomo Grant	Declined	2020
\$60k	Walt Disney Company: Disney Conservation Fund	Inquiry declined	2019
\$10k	NPS: James T. Tanner Memorial Fellowship	Inquiry declined	2019

PROFESSIONAL REFERENCES

BRETT R SCHEFFERS, Ph.D. | UNIVERSITY OF FLORIDA

ASSOCIATE PROFESSOR: Wildlife Ecology and Conservation

ROBERT GURALNICK, Ph.D. | UNIVERSITY OF FLORIDA

CURATOR OF BIODIVERSITY INFORMATICS: Florida Museum of Natural History

②: 352-273-1980 ■: WEBSITE

□: rguralnick@flmnh.ufl.edu

ROBERT J FLETCHER, Ph.D. | UNIVERSITY OF FLORIDA

PROFESSOR: Wildlife Ecology and Conservation

☑: robert.fletcher@ufl.edu

STEPHEN C RICHTER, Ph.D. | EASTERN KENTUCKY UNIVERSITY

DIRECTOR: Division of Natural Areas; PROFESSOR: Department of Biological Sciences EXECUTIVE DIRECTOR: Institute of Agriculture, Natural Resources, and the Environment

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

ASSOCIATE PROFESSOR: Department of Biological Sciences

WEBSITE