: Gainesville, Florida

EDUCATION

AUG 2024

DOCTOR OF PHILOSOPHY, INTERDISCIPLINARY ECOLOGY | UNIVERSITY OF FLORIDA

MASTER OF SCIENCE, BIOLOGY | EASTERN KENTUCKY UNIVERSITY MAY 2014

BACHELOR OF SCIENCE, BIOLOGY | UNIVERSITY OF ARKANSAS

EXPERIENCE

JULY 2025 - PRESENT

POSTDOCTORAL RESEARCH FELLOW | UTAH STATE UNIVERSITY

AUG 2024 - JULY 2025

POSTDOCTORAL RESEARCH ASSOCIATE | UNIVERSITY OF FLORIDA

AUG 2019 - 2024

DOCTORAL PREEMINENCE FELLOW | UNIVERSITY OF FLORIDA

JAN 2018 - JULY 2019

CONSERVATION AND RESEARCH TECHNICIAN | MEMPHIS ZOO

MAY – AUG 2017

NSF REU RESEARCH COORDINATOR | EASTERN KENTUCKY UNIVERSITY

MAY 2015 - AUG 2017

GRADUATE TEACHING ASSISTANT | EASTERN KENTUCKY UNIVERSITY

Aug 2012 - Mar 2015

UNDERGRADUATE RESEARCH ASSISTANT | UNIVERSITY OF ARKANSAS

FUNDING							
USD	ORGANIZATION	FUND NAME	YEAR				
\$130k	US GEOLOGICAL SURVEY	Climate Adaptation Postdoctoral Fellows	2025				
\$4,000	UNIVERSITY OF FLORIDA	Robin Nadeau Graduate Research Award	2019				
\$195k	UNIVERSITY OF FLORIDA	Doctoral Preeminence Fellowship Award	2019				
\$800	EASTERN KENTUCKY UNIVERSITY	Dept. Biology Travel Grant	2017				
\$500	SOC. STUDY AMPHIBIANS & REPTILES	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	SOC. FRESHWATER SCIENCE	Instars Fellowship	2014				
\$700	SOC. FRESHWATER SCIENCE	Instars Fellowship	2013				
\$500	University of Arkansas	Dept. Biology Travel Grant	2013				
\$5,000	NATIONAL SCIENCE FOUNDATION	Research Experience for Undergraduates	2013				
\$5,000	NATIONAL SCIENCE FOUNDATION	Research Experience for Undergraduates	2012				
\$344 300 (total)							

\$344,300 (total)

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PUBLICATIONS

§MENTEE CO-AUTHOR; †SENIOR AUTHOR

FORTHCOMING

- ...) Baecher, JA, D Klinges, LJ Evans, BR Scheffers. In prep. Informing species range-shifts with global climate and habitat connectivity. Prepared for **One Earth** (contact for info)
- ...) Klinges, DH, JA Baecher, L. Soifer, BR Scheffers. In prep. Land modification defines climate change as experienced by life on earth. Prepared for *Nature* (15 p.)
- ...) \$VA Akshay, Baecher, JA, RP Guralnick, AM Bauer, Y Tavares, Y Sánchez, LP Campbell. **Submitted**. Bird migration and overwintering dynamics strongly predicts viral activity of Equine Encephalitis. Manuscript provided upon request. Prepared for **Proceedings of the National Academy of Sciences** (39 p.)
- ...) Thompson, LM, et al., [+21 co-authors including JA Baecher]. In review, The RAD (Resist-Accept-Direct) management of species redistribution under climate change. Frontiers in Ecology and the Environment
- ...) Oliveira, BF, R Bertrand, ML Pinsky, N Casaius, BW Wolfe, BR Scheffers, F Villalobos, G Grenouillet, G Pecl, I-C Chen, JA Baecher, J Sunday, LT Lancaster, M Rubenstein, SE Diamond, SR Weiskopf, J Lenoir, L Comt, JA Lawlor, J Murienne, J Rolland, LM Thompson, NA Moore, RMWJ Bandara. In revision. Species range shifts often speed ahead of their climatic niches. Proceedings of the National Academy of Sciences
- ...) Baecher, JA, D Klinges, LJ Evans, CA Romagosa, R Fletcher, BR Scheffers. In revision. Isolating what limits the spread of an invasive predator. **Journal of Applied Ecology**

PUBLISHED

- 15) Baecher, JA, §VA Akshay, RP Guralnick, AM Bauer, Y Tavares, Y Sánchez, LP Campbell. In press. Toward ecological forecasting of West Nile virus in Florida: Insights from two decades of sentinel chicken monitoring. Science of the Total Environment
- 14) Evans, LJ, JA Baecher, BR Scheffers. 2024. Invasion risk posed by the pet trade. Frontiers in Ecology and the Environment HTML PDF DATA CODE
- 13) Baecher, JA. 2024. The environmental filtering paradigm and non-filtering community assembly processes. Journal of Biogeography 51(11):2109 – 2116 HTML PDF
- 12) Klinges, DH, JA Baecher, JJ Lembrechts, IMD Maclean, J Lenoir, C Greiser, M Ashcroft, LJ Evans, MR Kearney, J Aalto, LC Barrio, P De Frenne, J Guillemot, K Hylander, T Jucker, M Kopecky, M Luoto, M Macek, I Nijs, J Urban, L van den Brink, P Vangansbeke, J Von Oppen, J Wild, J Boike, R Canessa, M Nosetto, A Rubtsov, J Sallo-Bravo, 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, SE Diamond, LT Lancaster, ML Pinsky, BR Scheffers, JA

 Baecher, RMWJ Bandara, I-C Chen, JA Lawlor, NA Moore, BR Oliveira, J Murienne,
 J Rolland, MA Rubenstein, J Sunday, LM Thompson, F Villalobos, SR Weiskopf, 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, et al., L Comte, G Grenouillet, J Lenoir, JA Baecher, RMWJ Bandara, R Bertrand, I-C Chen, SE Diamond, LT Lancaster, NA Moore, J Murienne, BF Oliveria, GT Pecl, ML Pinsky, J Rolland, MA Rubenstein, BR Scheffers, LM Thompson, B can Amerom, F Villalobos, SR Weiskopf, 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
- 2) Baecher, JA, PH Vogrinc, JC Guzy, CS Kross, JD Willson. 2017. Herpetofaunal Communities in Restored and Unrestored Remnant Tallgrass Prairie and Associated Wetlands in Northwest Arkansas. Wetlands 38:157 168 HTML PDF
- 1) Baecher, JA, PH Vogrinc, JC Guzy, JC Neal, JD Willson. **2014**. Lithobates areolatus, *Predation*. **Herpetological Review** 45(4):681 682 PDF

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TEACHING AND INSTRUCTION

INSTRUCTOR OF RECORD:

UNIVERSITY OF FLORIDA | SCHOOL OF NATURAL RESOURCES AND ENVIRONMENT

Environmental Science Lab (EVS 3000L)

FALL 2022 & 2023

TEACHING ASSISTANT:

EASTERN KENTUCKY UNIVERSITY | DEPARTMENT OF BIOLOGY

Human Anatomy and Physiology Lab (BIO 307)

SPRING & FALL 2015 - 2017

GUEST INSTRUCTION:

University of Florida | Community Science for Ecologists

Spatiotemporal modeling with Bayesian statistics (WIS 4934/6934) SPRING 2025

UNIVERSITY OF FLORIDA | ENVIRONMENTAL SCIENCE (EVS 3000)

Wetland sampling methods SF

SPRING & FALL 2023 - 2024

UNIVERSITY OF FLORIDA | ECOLOGY OF CLIMATE CHANGE (WIS 3410)

Achieving landscape connectivity under rapid change SLIDES SPRING 2023

UNIVERSITY OF FLORIDA | WILDLIFE OF FLORIDA (WIS 3402)

North American salamander diversity and conservation SLIDES SPRING 2022

Amphibian diversity SLIDES

SPRING 2022

SPRING 2016

UNIVERSITY OF FLORIDA | WILDLIFE OF FLORIDA (WIS 3402)

Restoration ecology of grassland herpetofauna SLIDES SPRING 2020

RHODES COLLEGE | VERTEBRATE BIOLOGY (BIO 365)

Natural history and ecology of North American snakes SPRING 2018

EASTERN KENTUCKY UNIVERSITY | APPLIED LEARNING IN BIOLOGY (BIO 349)

Methods in aquatic amphibian sampling SPRING 2016

RADFORD UNIVERSITY | APPALACHIAN HERPETOLOGY (BIOL 481)

Appalachian salamander ecology and natural history SPRING 2016

EASTERN KENTUCKY UNIVERSITY | HERPETOLOGY (BIO 349)

Methods in terrestrial amphibian sampling

UNIVERSITY OF ARKANSAS | HERPETOLOGY (BIOL 57473)

Wetland amphibians and reptiles SPRING 2014

HOSTED WORKSHOPS:

Fletcher, RJ, JA Baecher, M Lezzi, A Marx. 2023. Application of connectivity modeling to identify and predict movement and range redistribution. Species On The Move. Bonita Springs, FL SLIDES

Baecher, JA, L Evans, BR Scheffers. 2022. Expert elicitation of key invasive species habitat requirements, prevalence, and life history attributes. Austin Cary Forest. Gainesville, FL SLIDES

Fletcher, RJ, JA Baecher, M Lezzi, A Marx. 2021. Expanding the scope of connectivity modeling with Markov chains: perspectives and applications in R. International Association of Landscape Ecologists Annual Meeting. Virtual VIDEO

: Gainesville, Florida

SELECT PRESENTATIONS

- [†]STUDENT MENTEE PRESENTER; TOTAL = 40
- 25) JA Baecher. 2025. Shifting Frontiers: Understanding species abundance range-shifts for informed conservation strategies. Pacific Flyway Partners. (hybrid) SLIDES
- 24) JA Baecher. 2024. Influence of Global Change on Species' Behavior, Movement, and Ranges. SNRE Seminar Series. Gainesville, FL FLYER
- 23) Baecher, JA, L Evans, ... BR Scheffers. 2024. Toward knowledge co-production in invasion modeling: Developing novel interactive expert-elicitation software. Invasive Species Research Institute Conference. Gainesville, FL SLIDES
- 22) Baecher, JA, D Klinges, L Evans, BR Scheffers. 2023. Informing Species Range-shifts with Global Connectivity. **Species On The Move**. Ft Myers, FL SLIDES
- 21) Scheffers, BR, JA Baecher, E Basham. 2023. Vertical Collapse in Assemblage Complexity Due to Shifts in Precipitation and Novel Biotic Interactions. Species On The Move. Ft. Myers, FL
- 20) Evans, L, JA Baecher, BR Scheffers. 2023. Invasion Risk Posed by the Pet Trade. Species On The Move. Ft. Myers, FL.
- 19) Klinges, DH, JA Baecher, J Lembrechts, IMD Maclean, BR Scheffers. 2022. Climate Variability and Change Across Scales Using a Novel Global Microclimate Database. Microclimate Ecology and Biogeography Conference. Antwerp, Belgium
- 18) Baecher, JA, L Evans, BR Scheffers. 2022. Predicting the spread of invasive Burmese pythons in Florida. **SERISCC Network Webinar**. (virtual) SLIDES VIDEO
- 17) Khazan, E ... JA Baecher. 2022. Deconstructing functional diversity to better conservation research and applications using a case study of Colombian butterflies. Annual Meeting of the Association for Tropical Biology and Conservation. Cartagena, Columbia
- 16) Baecher, JA, ... BR Scheffers. 2022. Modeling spread of invasive Burmese pythons: integrating thermoregulation, behavior, and mortality. Annual Meeting of the International Association of Landscape Ecologists. (Virtual) SLIDES VIDEO
- 15) Basham, EW, M González-Pinzón, A Romero-Marcucci, N Carl, JA Baecher, BR Scheffers. 2021. Large, old trees define the vertical, horizontal, and seasonal distributions of a poison frog. Annual Meeting of the Ecological Society of America. (Virtual)
- 14) [†]Jones, E, JA Baecher, M James, A Braccia, SC Richter. 2019. Influence of Salamanders on Leaf Litter Decomposition in Appalachian Headwater Streams. Annual Meeting of the Association of Southeastern Biologists. Memphis, TN
- 13) Hinkson, KM, JA Baecher, S Poo. 2019. Cryopreservation and hormonal induction of spermic urine in the smooth-sided toad (Rhaebo guttatus). Annual Meeting of the Association of Southeastern Biologists. Memphis, TN

- 12) Baecher, JA, SB Reichling. 2018. Current Status of the Louisiana Pinesnake Captive Breeding Program at the Memphis Zoo. USFWS Working Group Meeting. Shreveport, LA
- 11) [‡]Jones, E, **JA Baecher**, M James, A Braccia, SC Richter. **2018**. *Influence of Salamanders on Leaf Litter Decomposition in Appalachian Headwater Streams*. **Kentucky Academy of Science**. Bowling Green, KY
- 10) [†]Gross, BA, Z Patton, **JA Baecher**. **2018**. Evaluation of American Alligator Nuisance Management and Human-Alligator Conflict. **25**th **Annual Crocodile Specialist Group**. Sante Fe, Argentina
- 9) Baecher, JA, SC Richter. 2018. Natural Gradients Influence the Fine-scale Distribution and Abundance of Salamanders in an Old Growth Appalachian Forest. Joint Meeting of Ichthyology and Herpetology. Rochester, NY
- 8) [†]Grap, P, S Harrel, ... **JA Baecher**. **2018**. Habitat and community differences in the historic and current range of the Buck Darter (Etheostoma nebra). **Annual Meeting of the Association of Southeastern Biologists**. Myrtle Beach, SC
- 7) [†]Peters, J, J Koslow, **JA Baecher**. **2018**. Influences on the Presence of Invasive Plant Species within Old Growth Forest of Lilley Cornett Woods. **Annual Meeting of the Association of Southeastern Biologists**. Myrtle Beach, SC
- 6) [†]Grap, P, S Harrel, D Black, **JA Baecher**. **2017**. Habitat and community differences in the historic and current range of the Buck Darter (Etheostoma nebra). **Southeastern** *Fisheries Council Annual Meeting*. Chattanooga, TN
- 5) **Baecher**, **JA**, SC Richter. **2017**. *Modeling occupancy and abundance of terrestrial salamanders across natural environmental gradients in old growth forest.* **Southeastern PARC Annual Meeting**. Little Rock, AR
- 4) Swartwout, M, P Vogrinc, JA Baecher, CS Kross, JD Willson. 2016. Growth and Phenotypic Plasticity of Nerodia sipedon in Response to Feeding Frequency and Prey Size. Joint Meeting of Ichthyology and Herpetology. New Orleans, LA
- 3) Baecher, JA, P Vongrinc, JD Willson. 2016. Herpetofauna of degraded and restored remnant tallgrass prairie. Joint Meeting of Ichthyology and Herpetology. New Orleans, LA
- 2) Baecher, JA, DR Leasure, D Lynch, DD Magoulick. 2013. Impact of Anthropogenic Land
 Use and Hydrologic Disturbance on Crayfish Assemblages. Joint Meeting of
 Aquatic Sciences. Portland, OR
- Baecher, JA, J Ortega, SJ Beaupré. 2013. Use of Stable Isotope Analysis for Determining the Diet Breadth of the Western Cottonmouth (Agkistrodon piscivorous). Society for Freshwater Science Annual Meeting. Jacksonville, FL

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MENTORSHIP

 $^{\phi}$ PUBLICATION CO-AUTHOR; $^{\Psi}$ CONFERENCE PRESENTER; $^{\Omega}$ BS THESIS; MS SOUGHT MS OR PHD PHD **UNIVERSITY OF ARKANSAS** (2011–2015): MYCALA COLEMAN[®]

EASTERN KENTUCKY UNIVERSITY (2015 – 2017): ALEX GIBSON, EMILY JONES ΦΨΜS (MS), SARAH ASHBROOK PEYTON BLAIR, PETER GRAP, KELLEY HOEFER $^{\psi}$, MYESHA JAMES $^{\psi}$, JACOB PETERS $^{\psi MSPHD}$, JULIA PORTMANN $^{\psi MSPHD}$, JOCELYN STALKER^{ΦΨΜS}

RHODES COLLEGE (2018 – 2019): MADELINE ESTES $\psi_{\Omega MS}$

University of Florida (2019 - 2025): Brittany Arthur, Noah Bowen^{MS}, SIERRA SCAUZILLO $^{\psi\Omega}$, V ANAND AKSHAY $^{\phi\psi}$ (PhD), LYDIA SOIFER $^{\phi\psi}$ (PhD), AMY BAUER^{ΦΨ} (PhD), YASMIN TAVARES^{ΦΨΡΗD} (MS), YESENIA SANCHEZ^{ΦΨ}

SELECT VOLUNTEER AND OUTREACH

TOTAL EVENTS = 26, PEOPLE REACHED = ~1,430 (age 5 to 60+) SEE ALL					
ACTIVITY	EVENT	# REACHED	YEAR		
Guest teacher	Holt Middle School, AR	~30	2013		
Clean-up	Lake Fayetteville Watershed, AR	~30	2013		
Science Judge	NWA STEM Fair, AR	~50	2013		
Community science	Mount Kessler BioBlitz, AR	~15	2014		
Guest teacher	Model Elementary School, KY	~15	2015		
Tabling outreach	EKU Career Fair, KY	~150	2016		
Community science	Water Quality Assessment, KY	~30	2016		
Conservation education	Memphis Zoo, TN	~300	2018		

PEER REVIEW

TOTAL REQUESTED = 33, TOTAL REVIEWED = 22

BIOL CONSERV, CONSERV SCI PRACT, ECOGRAPHY, ECOL EVOL, FRONTIERS ECOL ENV, HERPET CONSERV BIO, HERP REVIEW, HYDROBIOL, NAT AREAS J, OECOLOGIA, SCI REP, WILDL SOC BULL

ADDITIONAL TRAINING

GRANT WRITING WORKSHOP (2016), MULTISPECIES OCCUPANCY MODELING (2020), SPECIES DISTRIBUTION MODELING WITH BAYESIAN ADAPTIVE REGRESSION TREES (2021), SPATIOTEMPORAL MODELING IN R (2021), ECOLOGICAL FORECASTING WORKSHOP (2021), WRITING AN EFFECTIVE TEACHING STATEMENT (2024), PREPARING FUTURE FACULTY (2025)

WORKING GROUPS

BIOSHIFTS (2022 - present; Member, Group Leader), ZOOMU NETWORK (2024 - present; Member, Group Leader), DIRTCLIM (2021 - present; Core team), INVASIVE SPECIES HORIZON SCAN (2019 - 2021; Contributor); USGS CASC NATIONAL SYNTHESIS EFFORT (2025 – 2027; Core team); RESEARCHFUNDR (2025 – present; Co-founder)

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PROFESSIONAL MEMBERSHIP

ECOLOGICAL SOCIETY OF AMERICA (2019 - PRESENT), INTERNATIONAL ASSOCIATION OF LANDSCAPE ECOLOGISTS (2020 - PRESENT), SOUTHEAST RISCC (2022 - PRESENT), SOUTHEASTERN CLIMATE ADAPTATION SCIENCE CENTER (2022 - PRESENT), AMERICAN SOCIETY OF ICHTHYOLOGISTS AND HERPETOLOGISTS (2014 - 2021), SOCIETY FOR THE STUDY OF AMPHIBIANS AND REPTILES (2014 - 2021), SOUTHEASTERN PARTNERS IN AMPHIBIAN AND REPTILE CONSERVATION (2014 - 2021), SOCIETY OF FRESHWATER ECOLOGY (2012 - 2014)

NON-FUNDED PROPOSALS

USD	GRANT DESCRIPTION	DECISION	YEAR
\$235k	NSF: Postdoctoral Research Fellowship – Biology	"Meritorious"	2024
\$235k	NSF: Postdoctoral Research Fellowship – Biology	"Highly meritorious"	2023
\$25k	The Wilderness Society: Gloria Barron Fellowship	Declined	2021
\$3,500	American Museum Nat. Hist.: Teddy Roosevelt Memorial Grant	Declined	2020
\$4,000	Foundation Conserv. Salamanders: Daniel M. Digiacomo Grant	Declined	2020
\$60k	The Walt Disney Company: Disney Conservation Fund	Inquiry declined	2019
\$10k	National Park Service: James T. Tanner Memorial Fellowship	Inquiry declined	2019

RECENT REFERENCES (5 YEARS)

ROBERT GURALNICK, PHD (2019 – present):

CURATOR OF BIODIVERSITY INFORMATICS | FLORIDA NATURAL HISTORY MUSEUM robgur@gmail.com (352) 273-1980 Webpage

LINDSAY CAMPBELL, PHD (2024 - present):

ASSISTANT PROFESSOR | FLORIDA MEDICAL ENTOMOLOGY LAB, UNIVERSITY OF FLORIDA lcampbell2@ufl.edu (772) 226-6666 Webpage

BRETT SCHEFFERS, PHD (2019 - present):

ASSOCIATE PROFESSOR | DEPT OF WILDLIFE ECOLOGY, UNIVERSITY OF FLORIDA DIRECTOR | FLORIDA CLIMATE INSTITUTE, UNIVERSITY OF FLORIDA brett.scheffers@ufl.edu Webpage (352) 846-0570

TJ CLARK-WOLF, PHD (2025 - present):

ASSISTANT PROFESSOR | DEPT OF WILDLAND RESOURCES, UTAH STATE UNIVERSITY t.j.clark-wolf@usu.edu Webpage

ERICA STUBER, PHD (2025 - present):

ASSOCIATE PROFESSOR | USGS COOP, UTAH STATE UNIVERSITY erica.stuber@usu.edu Webpage