

# Briana Betke, PhD

briana.a.betke-1@ou.edu, <http://babetke.github.io/>

<b>EDUCATION</b>	Department of Integrative Biology, University of Texas at Austin, Austin, TX PhD in Ecology, Evolution, and Behavior. <i>“Anthropogenic Impacts on Pathogen Outcomes of Our Wild Neighbors and Closest Companions”</i> Advised by Lauren Ancel Meyers & Nicole Gottdenker	2024
	University of Arizona, Tucson, AZ BS in Wildlife Conservation and Management. Minor in Veterinary Science. Advised by David Christianson	2017
<b>POSITIONS</b>	National Science Foundation Postdoctoral Research Fellow School of Biological Sciences, University of Oklahoma, Norman, OK	2024–present
	Community Manager and Graduate Student Mentor The Academic Society, SC	2024–present
<b>PEER-REVIEWED PAPERS</b>	<b>Betke BA</b> , Gottdenker NL, Meyers LA, Becker DJ. 2024. Ecological and evolutionary characteristics of synanthropic roosting ability in bats of the world. <i>iScience</i> 27(7); 110369.	
<b>trainees:</b>	Fox SJ, Javan E, Pasco R, Gibson GC, <b>Betke BA</b> , Herrera-Diestra JL, Woody S, Pierce K, Johnson KE, Johnson-León M, Lachmann M. 2023. Disproportionate impacts of COVID-19 in a large US city. <i>PLoS Computational Biology</i> 19(6), 1011149.	
<b>graduate</b>	Amin O, Rostad CA, Gonzalez M, Rostad BS, Caltharp S, Quincer E, <b>Betke BA</b> , Gottdenker NL, Wilson JJ, Shane AL, Elmontser M, Camacho-Gonzalez A, Senior T, Smith O, Anderson EJ, Yildirim I. 2022. Cat-Scratch Disease: 9 Years of Experience at a Pediatric Center. <i>Open Forum Infectious Diseases</i> .	
<b>PAPERS IN REVIEW OR REVISION</b>	<b>Betke BA</b> , Juman MM, O'Shea M, Fagre A, Frank H, Becker DJ, Poisot T. Why don't bats get sick from viruses? In revision at <i>Frontiers in Young Minds</i> .	
<b>PAPERS IN ADVANCED STAGES</b>	<b>Betke BA</b> , Gottdenker NL, Meyers LA, Becker DJ. Bat anthropogenic roosting ecology influences taxonomic and geographic predictions of zoonotic risk. In preparation for <i>Journal of Applied Ecology</i>	
	<b>Betke BA</b> , Gottdenker NL. Ecological associations of vector-borne pathogen exposure in companion animals in Georgia, 2017-2021. In preparation for <i>Vector-Borne and Zoonotic Diseases</i>	
	Becker DJ, Olbrys BL, Vicente-Santos A, Simonis MC, Ciarrachi S, Ledezma-Campos P, Dyer KE, Rodríguez-Pastor R, Santibáñez P, Roistacher A, DeAnglis IK, <b>Betke BA</b> , Jackson RT, Lunn TJ, Webala PW, Forbes KM, Corrales-Aguilar E, Gillespie TR, Simon R, Wiantoro S, Tsang SM, Sears KE, Page RA, Simmons NB, Foster JT, Millán J, Volokhov DV, Herrera C. Model-guided characterization of bat hosts of hemoplasmas with zoonotic potential.	
	Cummings C, <b>Betke BA</b> , Becker DJ, Integrating immune variables into trait-based machine learning models to compare model performance and predictive capacity of mammalian virus hosts.	

<b>AWARDS AND HONORS</b>	Postdoctoral Fellowship in Biology, National Science Foundation (\$240,000) Fellow-in-Residence Awards, Verena Institute (\$5,000) SEEDS Graduate Student Mentor Travel Award, ESA Montreal (\$1,000) 2020 Short Course Scholarship, SISMID EcoLabs Research Grant, Texas Ecolabs (\$5,231.65) Blair Scholarship in Zoology, IB Joint Graduate Program (\$1,434) Graduate School Summer Fellowship, University of Texas at Austin (\$8,692) Graduate Research Fellowship Program, NSF (Honorable Mention) SEEDS Graduate Student Mentor Travel Award, ESA Kentucky (\$1,000) Graduate School Mentoring Fellowship, University of Texas at Austin Doris Duke Conservation Scholars Program Collaborative, University of Arizona Undergraduate Biology Research Program, University of Arizona Bear Down Scholarship, University of Arizona	2023 2023 2022 2020 2019 2019 2019 2019 2019 2017 2015 2014 2014
<b>INVITED TALKS &amp; SEMINARS</b>	CEID Seminar, University of Georgia <i>Evaluating Anthropogenic Roosting as a Predictor of Viral Outcomes in Bats</i>	2025
	SACNAS Panel, Phoenix, AZ <i>NSF Postdoctoral Research Fellowships in Biology (PRFB): How to plan and develop an effective fellowship proposal</i>	2024
	Ecomunch Seminar, University of Oklahoma <i>Anthropogenic impacts on pathogen outcomes of our wild neighbors and closest companions</i>	2024
	Q + A Panel for McNair Scholars hosted by the Academic Society, virtual <i>Answering undergraduates questions about graduate school.</i>	2024
	Verena Lighthouse Lightning Talks, virtual <i>Anthropogenic Roosting Ability and Viral Associations in Bats</i>	2024
	Q + A Panel for McNair Scholars hosted by the Academic Society, virtual <i>Answering undergraduates questions about graduate school.</i>	2023
	Minorities in Biological Research Workshop, University of Texas at Austin <i>What to Expect When Applying and Attending Graduate School</i>	2022
	Science Under the Stars Seminar, University of Texas at Austin <i>Urban Mammals</i>	2021
	Graduate Student Q&A Panel, Minorities in Biological Research, UT at Austin <i>Answering undergraduates questions about research.</i>	2021
	Southwest Wings Festival, Cochise College <i>Gray Hawk Project presented on behalf of Ariana La Porte.</i>	2015
<b>CONFERENCE TALKS &amp; POSTERS</b>	International Symposium on the Infectious Disease of Bats, Chicago, IL Poster: <i>Defining anthropogenic roosting ability and its role in predicting viral outcomes in bats</i>	2025
	International Urban Wildlife Conference, Atlanta, GA Poster: <i>Defining anthropogenic roosting ability and its role in predicting viral outcomes in bats</i>	2025

Ecological Society of America Annual Meeting, Long Beach, CA 2024  
Talk: *Evaluating Anthropogenic Roosting as a Predictor of Viral Outcomes in Bats*

Biological Integration Institutes Awardees Meeting, NSF Headquarters, VA 2024  
Poster: *Defining anthropogenic roosting ability and its role in shaping viral outcomes in bats*

Integrative Biology Graduate Symposium, Austin, TX 2023  
Talk: *Ecological and Evolutionary Characteristics of Synanthropic Roosting Ability in Bats of the World*

Ecological Society of America Annual Meeting, Montreal, Canada 2022  
Poster: *Anthropogenic Roosting and Richness in Bats*

UT COVID Conference 2020  
Poster: *Spatial Distribution of COVID-19 Hospitalization Risk Across Austin, TX*

Ecological Society of America Annual Meeting, Louisville, KY 2019  
Poster: *Investigating the spatial pattern and the influence of environmental factors on Murine Typhus incidence in Texas, USA*

Ecological Society of America Annual Meeting, Fort Lauderdale, FL 2016  
Poster: *Fecal Cortisol and Chlorophyll Analysis: Is there a correlation between stress levels and forage quality in Sonoran Pronghorn?*

## TEACHING EXPERIENCE

### ***Courses Designed***

**Betke BA**, Becker DJ. Machine Learning in Ecology. 2025  
University of Oklahoma, Norman, OK

### ***Guest Lectures and Teaching Assistantships***

Ecology and Evolution of Infectious Diseases Course, University of Oklahoma 2024  
Guest Lecture: *Predicting Zoonotic Risk*

Graduate Teaching Assistant, University of Texas at Austin 2018 - 2021  
• Pandemic Science: Spring 2024  
• Elements of Statistics: Fall 2021  
• Introduction to Biostatistics: Fall 2018, Spring 2019, Fall 2019, Spring 2020

Diseases of Wildlife Course, University of Arizona 2018  
Guest Lecture: *Career Paths in Wildlife Research*

Field Botany, Undergraduate Teaching Assistant, University of Arizona Fall 2013

### ***Workshops***

Conference Attendance Planning Session for Graduate Students 2025  
The Academic Society, Virtual

FOCUS Monthly Goal Planning for Grad Students March, June, August 2025  
The Academic Society, Virtual

Git and GitHub Workshop 2025  
University of Oklahoma, Norman, OK

<b>RESEARCH EXPERIENCE</b>	Spring Writing Retreat The Academic Society, Virtual	2025
	Winter Writing Retreat The Academic Society, Virtual	2024
	FOCUS Monthly Goal Planning for Grad Students The Academic Society, Virtual	December 2024
	Applying for Postdocs Workshop SBS Department Retreat, University of Oklahoma	2024
	Graduate Research Assistant, Meyers Lab University of Texas at Austin, Department of Integrative Biology, Austin, TX	Spring 2022–Spring 2024
	Graduate Research Assistant, Meyers Lab University of Texas at Austin, Department of Integrative Biology, Austin, TX	Fall 2020–Summer 2021
	Lead Technician, Wildlife Endocrinology Laboratory University of Arizona, School of Natural Resources and the Environment, Tucson, AZ	August 2015–December 2016
	Intern, Wildlife Investigations Lab California Department of Fish and Wildlife, Rancho Cordova, CA	Summer 2016
<b>MENTORSHIP &amp; LEADERSHIP</b>	Summer Field Assistant, Mannan and Christianson Labs University of Arizona, School of Natural Resources and the Environment, Tucson, AZ	May 2015–July 2015
	Intern, Wildlife Endocrinology Laboratory University of Arizona, School of Natural Resources and the Environment, Tucson, AZ	May 2014–May 2015
	Database Entry Intern, Christianson Lab University of Arizona, School of Natural Resources and the Environment, Tucson, AZ	Fall 2013
	<b><i>Graduate Student Mentorship</i></b>	
	• Graduate Student Mentor, FOCUS Learning Community (community of 100)	
	• Caroline Cummings, University of Oklahoma	
	• Samantha Sambado, University of California Santa Barbara	
	• Hannah Eiseman, University of Louisiana	
<b>MENTORSHIP &amp; LEADERSHIP</b>	<b><i>Undergraduate Student Mentorship</i></b>	
	Judge, SACNAS Conference	2024
	Texas Master Naturalist Mentor (two students)	2022–2023
	Judge, Capital of Texas Undergraduate Research Conference	2022, 2023
	Graduate Student Mentor, ESA SEEDS (10-15 students per year)	2019, 2022
	Alumni Mentor, DDCSP (one undergraduate student)	2019–2020
	<b><i>Leadership</i></b>	
	Special Session Organizer, ESA	2025
	Steering Committee Member, DDCSP Alumni Network	2025–Present
	Organizing Member, Minorities in Biological Research	2022–2024
	Class Representative, Texas Master Naturalist	2022
	Student Liaison, Disease Ecology Section, ESA	2018–2021

<b>REVIEWER</b>	<b>Peer Reviewer</b> Heliyon (Co-Reviewer) PLOS One	
	<b>Application and Abstract Review</b>	
	CV and Resume Reviewer, Ecological Society of America	2025
	Abstract Reviewer, Ecological Society of America	2021
	Application Reviewer, ESA SEEDS Travel Awards	2019
	Application Reviewer, ESA SEEDS Field Trip	2022, 2025
<b>COMMUNITY OUTREACH AND SERVICE</b>	Volunteer, All Things Wild Rehabilitation Center Georgetown, TX	2020, 2022
	Volunteer, Wildlife Trail Camera Monitoring, Coyote and Fox Project Balcones Canyonland Preserve, Travis County, TX	2022
	Volunteer, Annual Roots and Wings Festival, Austin Botanical Gardens Austin, TX	2019
	Judge, Flowing Wells High School Science Fair Tucson, AZ	2013
	Volunteer, ACOMA Animal Clinic Tucson, AZ	2012
<b>SOCIETY AFFILIATIONS</b>	The Wildlife Society (Urban Wildlife Working Group, Wildlife Disease Working Group) Ecological Society of America Society for the Advancement of Chicanos/Hispanics and Native Americans in Science	
<b>ADDITIONAL TRAINING</b>	Building Quantitative Confidence Learning Community OU Center for Faculty Excellence, Norman, OK	Fall 2025
	Developing Skills for Advanced Careers in Biology, NSF postdoctoral workshop SACNAS Conference, Phoenix, AZ	2024
	Texas Master Naturalist Initial Training Balcones Canyonlands Chapter, Travis County, Tx	2021
	Certificate in Science Communication Moody College of Communication, University of Texas at Austin	2021
	Summer Institute in Statistics and Modeling in Infectious Diseases (SISMID) Modules include: <ul style="list-style-type: none"> <li>• Introduction to Infectious disease modeling</li> <li>• Contact Networking</li> <li>• Spatial Ecology for Public Health</li> </ul>	2020
	Environmental Leadership Program DDCSP Alumni Leadership training White Oak Conservation Center, Yulee, FL	2017
	Chronic Wasting Disease Workshop Arizona Game and Fish Department, Phoenix, AZ	2015

Environmental Training Institute 2015  
National Hispanic Environmental Council, Glorieta Camps, Glorieta, NM

DDCSP Conservation Leadership Training 2015  
National Conservation Training Center, Shepherdstown, WV

**REFERENCES**

Daniel Becker, Assistant Professor of Biology  
School of Biological Sciences, University of Oklahoma  
email: [danbeck@ou.edu](mailto:danbeck@ou.edu), phone: 405-325-4821

Lauren Ancel Meyers, Cooley Centennial Professor  
Department of Integrative Biology, University of Texas at Austin  
email: [utpandemics@austin.utexas.edu](mailto:utpandemics@austin.utexas.edu)

Nicole Gottdenker, Associate Professor of Anatomic Pathology  
College of Veterinary Medicine, University of Georgia  
email: [gottdenk@uga.edu](mailto:gottdenk@uga.edu), phone: 706-542-8942

Daniel Bolnick, Professor of Ecology and Evolution  
Department of Ecology and Evolutionary Biology, University of Connecticut  
email: [daniel.bolnick@uconn.edu](mailto:daniel.bolnick@uconn.edu), phone: 860-486-3156

Toyin Alli, Senior Lecturer and Creator of the Academic Society  
Department of Mathematics, University of Georgia  
email: [toyin@theacademicsociety.com](mailto:toyin@theacademicsociety.com)