Giorgia G. Auteri

Department of Biology Missouri State University

910 S John Q Hammons Pkwy; Temple Hall, Springfield, MO 48109

giorgiaauteri@missouristate.edu

EDUCATION

2022 Ph.D., Ecology and Evolutionary Biology

University of Michigan (UM), Ann Arbor, MI

- Advisor: L. Lacey Knowles
- Thesis: Evolution and conservation in a changing world: empirical and conceptual lessons from bats, salamanders, and beyond

2010 Bachelor of Science in Public Affairs, Environmental Management

Indiana University (IU), Bloomington, IN

- Graduated with honors and high distinction
- Undergraduate Thesis Advisor: Vicky Meretsky
 - Undergraduate Thesis: Plasticity of migratory behavior of captive-bred vertebrates

POSITIONS

2022-

Assistant professor, Department of Biology

Missouri State University (MSU), Springfield, MO

GRANTS & FELLOWSHIPS

- 2022 Fish & Wildlife Service—White-Nose Grant (\$45,000)
- 2022 Conservation Nation—Established Conservationist Grant (\$10,000)
- 2021 UM Rackham—Post-candidacy Graduate Student Research Grant (\$3,000)
- 2021 Society for the Study of Evolution—Rosemary Grant (\$3,500)
- 2021 Society of Integrative and Compara tive Biology—Grant-in-Aid (\$1,000)
- 2020 American Society of Mammologists—Grant-in-Aid (\$1,500)
- 2020 UM EEB—Helen Olson Brower Memorial Fellowship in Environmental Studies (1-term salary and tuition)
- 2020 UM EEB—E.C. Hinsdale/Charles F. Walker Scholarship (\$4,000)
- 2020 UM—Undergrad Research Opportunities award to support an undergraduate researcher (\$1,000)
- 2018 UM Rackham Graduate School—Barr-Bigelow Grant (\$1,928)
- 2018 UM Rackham Graduate School—Pre-candidacy Graduate Student Research Grant (\$1,500)
- 2017 UM EEB—Block Grant (\$1,438)
- 2014 EMU Biology—Don Brown Meta Hellwig Research Award (\$4,000)
- 2013 EMU—Fellowship for an exceptional incoming graduate student (\$2,000)
- 2012 Center for Bat Research, Outreach, and Conservation—Bat Conservation Scholarship (\$1,000)
- 2009 Izaak Walton League of America, IU chapter—Conservation Scholarship (\$1,000)
- 2021 UM Museum of Zoology—Donald W. Tinkle Award (\$5,000)
- 2020 UM EEB—Best Graduate Student Paper Award (\$500)
- 2020 UM—Nominated for Best Undergraduate Research Mentor
- 2019 American Ornithological Society—Katma Award (shared with three coauthors; \$2,500)
- 2019 Midwest Bat Working Group—Best student oral presentation (\$500)
- 2018 North American Society for Bat Research—Luis F. Bacardi Bat Conservation Award (\$500)
- 2017 American Society of Mammologists—Student Science Policy Award
 - 2014 EMU Research Conference—Best Platform Paper (\$250)

MENTORSHIP

MS Advisees

2023 - Suman Shree Neupane

2022- Aleana Savage

MS Committees (Missouri State University)

2023 – Rita Afagwa (Advisor Avery Russell)

2023 – Moth Castagna (Advisor Avery Russell)

2023 – Madyson Neff (Advisor Quinton Phelps)

Undergraduate Advisees

2023 – Bradley Bateman (MSU)

2022 - Carly Trujillo (MSU)

2022–23 Claire Robertson (MSU)

2019–21 Olivia Ngo (UM)

Project: Use of novel CT scanning methods to detect endoparasites in bats

Award: Blue Ribbon for outstanding final project.

2019 Jack Barshaw (UM)

Project: Culturing white-nose fungus from bat specimens and additional environmental sources 2014 2014–15 Jason Mellos (EMU)

Project: Activity of bats over wet meadow, bayou, and marsh habitats in Central Michigan.

2014–2015 Zoe Belle (EMU)

Field technician, learned to solder radio-transmitters for bats and work with bioacoustics

RESEARCH EXPERIENCE

2016-22 Dissertation Research, UM, Ann Arbor, MI

- Conducted fieldwork with bats (including summer capture in mist-nets, fall swarming outside caves via harptraps, and winter hibernation-site surveys of underground sites)
- Used genetic methods (laboratory and bioinformatics) ranging from microsatellite to advanced genomic (reduced representation and full genome sequencing) techniques
- Contributed thousands of bat specimens to UM's museum collection (collection of bats found dead by white-nose syndrome and collaboration with the state Department of Natural Resources rabies testing facility).
- 2016-18 Staff Scientist, Organization for Bat Conservation, Pontiac, MI
 - Coordinated a state-wide citizen science monitoring program for bats in Michigan, via bioacoustics
 - Designed survey protocols and, in conjunction with participants, survey routes
 - Coordinated volunteer surveyors
 - Analyzed data and prepared annual report for MI Department of Natural Resources
- 2015–16 Staff Scientist, Civil and Environmental Consultants, Inc., Indianapolis, IN •

Surveyed for bats via mist-netting, acoustic monitoring, and radio-tracking

- Prepared reports and permits, review acoustic data, help maintain and monitor field equipment
- 2012-15 Graduate Student Instructor, EMU, Ypsilanti, MI
 - Examined trends in bat movements during migration in southwestern Lake Huron
 - Conducted mist-netting, radio-tracking, and acoustic monitoring of bats
- 2014-16 Hibernacula surveyor, EMU, Upper Peninsula, MI
 - Assist with winter population counts of hibernating bats in mines and caves
 - Swabbed bats and substrates for *Pseudogymnoascus destructans* (causative agent of white-nose syndrome)
- 2012 Biological Technician, Indiana State University, Terre Haute, IN
 - Studied a population of endangered Indiana Bats (*Myotis sodalis*) through mist-netting, foraging telemetry, radio-tracking to roosts, and emergence observations
- 2011 *Biological Technician*, Western Ecosystems Technologies, Antwerp, OH Evaluated deaths of bats and birds killed at a wind farm through carcass searches, bioacoustics surveys, and scavenger removal trials
- 2011 Intern. Wild South, Asheville, NC
 - Assisted the North Carolina Wildlife Conservation Commission with state surveys for bats and salamanders

- Helped review Habitat Conservation Plans
- 2010 Undergraduate Thesis, IU, Bloomington, IN
 - Examined annual migration as a phenomenon and compared annual migration behavior of captive bred, vertebrate species with their wild born counterparts (through literature review)
- 2009 Intern, Environmental Protection Agency, Washington, D.C.
 - Evaluated published scientific research to inform decisions on changes to the Clean Water Act Helped organize a conference for federal employees on use of bioindicators to evaluate water quality

PUBLICATIONS

Peer-review publications

- 2022 <u>Auteri, G.G.</u> A conceptual framework to integrate cold-survival strategies: torpor, resistance, and seasonal migration. *Biology Letters* 18(5): 20220050.
- 2022 <u>Auteri, G.G.</u>, M.R. Marchán-Rivadeneira, D.H. Olson, and L.L. Knowles. Landscape connectivity among coastal giant salamander (*Dicamptodon tenebrosus*) populations shows no association with land use, fire frequency, or river drainage but exhibits genetic signatures of potential conservation concern. *Plos One* 17(6): e02688823023.
- 2021 Tibbetts, E., C.C. Ortiz, <u>G.G. Auteri</u>, M. Simons, M. Fearon, L.L. Knowles. Individual recognition and individual identity signals in *Polistes* wasps vary geographically. *Animal Behavior*.
- 2020 <u>Auteri, G.G.</u>, and L.L. Knowles. Decimated Little Brown Bats Show Potential for Adaptive Change. *Scientific Reports* 10: 3023.
 - **Selected press coverage:** National Geographic, Mental Floss, Mongabay, WCMU Public Radio, Michigan Radio, The Wildlife Society
 - Awards: Outstanding Graduate Student Paper; UM EEB
- 2020. Kurta, A., R.A. Foster, B.A. Daly, A.K. Wilson, R.M. Slider, C.D. Rockey, J.M. Rockey, B.L. Long, <u>G.G. Auteri</u>, J.D. Collins, J.P. White, H.M. Kaarakka, J.A. Redell, D.M. Reeder. Exceptional longevity in little brown bats still occurs, despite presence of white-nose syndrome. *Journal of Fish and Wildlife Management* 11(2):583–587.
- 2019 Winger, B.M., <u>G.G. Auteri</u>, T.M. Pegan, and B.C. Weeks. A long winter for the Red Queen: rethinking the evolution of seasonal migration. *Biological Reviews* 94(3):737–752.
- Awards: Katma Award; American Ornithological Society for a paper that challenges dogma 2018 Kurta, A., G.G. Auteri, J.E. Hofmann, J.M. Mengelkoch, J.P. White, J.O. Whitaker, T. Cooley, and J. Melotti. Influence of a large lake on the winter range of a small mammal: Lake Michigan and the silver-haired bat (*Lasionycteris noctivagans*). Diversity 10(2), 24.
- 2016 <u>Auteri, G.</u>, and A. Kurta. A new northern record of the evening bat in Michigan. *Michigan Birds and Natural History* (23):147–149.
- 2015 <u>Auteri, G.</u>, and A. Kurta. New records of evening bats in Washtenaw County, Michigan. *Michigan Birds and Natural History* (22):225–227.

Technical Reports

- 2022. <u>Auteri, G.G.</u>. Michigan Bat Monitoring Program: 2021 acoustic report. A report submitted to the Michigan Department of Natural Resources.
- 2019. <u>Auteri, G</u>, P.J. Buzzard, and E. Parker. Michigan Bat Monitoring Program—2019 acoustic report. A report submitted to the Michigan Department of Natural Resources.
- 2017. <u>Auteri, G</u>, and R. Mies. Michigan Bat Monitoring Program—2017 acoustic report. A report submitted to the Michigan Department of Natural Resources.
- 2016. <u>Auteri, G.</u>, and R. Mies. Michigan Bat Monitoring Program—2016 acoustic report. A report submitted to the Michigan Department of Natural Resources.
- 2013. <u>Auteri, G.</u>, and A. Kurta. An exploratory netting and acoustic survey for bats at the Shiawassee National Wildlife Refuge, Saginaw County, Michigan. A report submitted to the U.S. Fish and Wildlife Service.

PRESENTATIONS AND LECTURES

Invited Research Seminars

2022

University of Illinois Chicago

University of Pittsburgh, Kansas 2023

University of Illinois Urbana-Champaign

Other Invited Lectures: Public Outreach

2022

Sierra Club, Huron Valley Chapter, Ann Arbor, MI 2020

Michigan State University, Lansing, MI 2019

Society Les Voyageurs, Ann Arbor, MI 2019 2019

Detroit Zoo, Detroit, MI 2019 2017

Washtenaw Soil Conservation District, Saline, MI. 2017

Indiana University-Purdue University Columbus, Biology Club, Columbus, IN 2016&15 Sierra Club, Winding Waters Chapter, Columbus, IN

Contributed Conference Talks & Posters: presenting author

- 2023 <u>Auteri, G.G.</u> Selection's shadow: Old and new lessons on white-nose syndrome from dead bats. North American Society for Bat Research. (Talk)
- 2020 <u>Auteri, G.G.</u> Evolutionary adaptation of little brown bats to white-nose syndrome. World Bat Twitter Conference. 1st annual. (Tweet presentation)
- 2019 <u>Auteri, G.G.</u> and L. Knowles. Good genes or good luck? Little brown bats show signs of evolutionary adaptation to white-nose syndrome. Midwest Bat Working Group, 11th Annual Meeting. Chicago, IL. (Talk) *Won award for best graduate student presentation
- 2018 <u>Auteri, G.G.</u> and L. Knowles. Good genes or good luck? Little brown bats show signs of evolutionary adaptation to white-nose syndrome. North American Society for Bat Research and Conservation, 48th Annual Research Symposium. Puerta Vallerta, Mexico. (Talk).
 - * Won the Luis Bacardi award for an outstanding student talk on bat conservation
- 2018 <u>Auteri, G.G.</u>, S.G.D. Bishop, R. Wadleigh, *et al.* Concordance concepts in phylogeography: differential detectability of demographic events across time. Annual meeting of the Society of Systematic Biologists. Columbus, OH. (Poster).
- 2017 <u>Auteri, G.G.</u>, and L. Knowles. Evolutionary rescue of bat populations devastated by white-nose syndrome? The Evolution Conference, Portland, OR. (Poster).
- 2016 <u>Auteri, G.</u> and A. Kurta. Roost Selection by the eastern red bat during migration. North American Society for Bat Research and Conservation, 46th Annual Research Symposium, San Antonio, Texas. (Poster).
- 2015 <u>Auteri, G.</u>, and A. Kurta. Abundance of eastern red bats over a six-year period in the Eastern United States. North American Society for Bat Research and Conservation, 45th Annual Research Symposium. Monterey, California. (Poster).
- 2014 <u>Auteri, G.</u>, and A. Kurta. Migration of bats in and around Saginaw Bay. Michigan. North American Society for Bat Research and Conservation, 44th Annual Research Symposium. Albany, New York. (Talk).
- 2013 <u>Auteri, G.</u>, and A. Kurta. Species composition and residency status of bats on a small island in Lake Huron. International bat research conference / North American Society for Bat Research. San Jose, Costa Rica. (Poster).

2012 Auteri, G., J. O'Keefe, and A. Kurta. Climate and reproduction of big brown bats over and 11-year period in

Indiana. San Juan, Puerto Rico. (Poster).

Contributed Conference Talks & Posters: senior-authored presentations by mentees

2023 Savage, A. & <u>G.G. Auteri</u>. Testing tolerance to light and sound in drives novel habitat colonization in gray bats.

North American Society for Bat Research. (Talk) *

*Won an award for an outstanding student talk (\$500)

2023 Piñeiro, V., G.G. Auteri. Investigating Body Condition of Myotis grisescens Entering Hibernation. North

American Society for Bat Research. (Poster)

2023 Trujillo, C., C. Robertson, A. Savage, V. Piñeiro, & <u>G.G. Auteri</u>. Impact of biopsy size and bat species on DNA

yields. North American Society for Bat Research. (Poster) *

*Won an award for an outstanding student presentation (\$500)

PROFESSIONAL SOCIETIES

• American Society of Mammologists • American Society of Naturalists • National Speleological Society • North American Society for Bat Research and Conservation • Society for Integrative and Comparative Biology • Society for the Study of Evolution • Midwest Bat Working Group • Society for the Study of Evolution •

SERVICE AND OUTREACH

Anonymous Peer Reviewer: Journal of Mammalogy (2022, 2023), PLOS ONE (2021, 2022), Molecular Ecology (2020), PeerJ (2020), Ecology and Evolution (2020, 2021), Northeastern Naturalist (2018)

President, Graduate Students in Ecology and Evolutionary Biology (GREEBs) at UM 2019–20

Science Communication Fellow, *University of Michigan* 2016–17 • Developed an interactive exhibit for museum-goers to learn about the selective force of diseases • Guide visitors through the activity during Scientist Spotlight and Membership events at the museum

Education outreach:

• D-Town Farms Bioblitz, volunteer: An annual youth-oriented bioblitz on an urban farm 2018 • Great Lakes Bat Festival, volunteer: "Be a bat biologist" activity for kids & face-painting 2016, 18 • Wyle Elementary School, organizer: mist-netting and radio-tracking for 4th graders 2013

Giorgia Auteri 6 • Ann Arbor Hands-on Museum, volunteer: taught elementary schoolers about heart rate 2013