

Owen M. Bachhuber

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EDUCATION

Ph.D. in Geography, Arizona State University (Expected 2029)
Advisor: Dr. Kelli Larson, GPA: 4.00/4.00

M.S. in Biological Sciences, California Polytechnic State University, San Luis Obispo (2025)
Thesis: Investigating rattlesnake social networks and improving their public image through unobtrusive technologies and community science. <https://digitalcommons.calpoly.edu/theses/3149/>
Advisor: Dr. Emily Taylor, GPA: 3.93/4.00

B.S. in Fisheries, Wildlife, and Conservation Biology, University of Minnesota, Twin Cities (2022)
Minors: Wildlife Care and Handling; Environmental Sciences, Policy, and Management
Thesis: Connecting to the cold-blooded: impacts of educational messaging on audience attitudes towards rattlesnakes. <https://conservancy.umn.edu/handle/11299/241827>
Advisor: Dr. David C. Fulton, GPA: 3.93/4.00, *summa cum laude*

REFEREED PUBLICATIONS: PUBLISHED

Kong, BR, Schwager, E, Avrit, AA, **Bachhuber, OM**, Griffin, LV, Taylor, EN (2026). Extreme starvation impacts organ size and water content but not bone integrity in rattlesnakes. *Herpetologica* 82(1): 1-10. [doi:10.1655/Herpetologica-D-25-00018](https://doi.org/10.1655/Herpetologica-D-25-00018)

Bachhuber, OM, Roberts, MC, Singer, RM*, Brewster, DR, Brewster, RA, Dunham, KK, Boback, SM, Taylor, EN (2025). Using livestreaming technology to connect the public with secretive and maligned animals. *Front. Amphib. Reptile Sci.* 3:1599382. [doi:10.3389/famrs.2025.1599382](https://doi.org/10.3389/famrs.2025.1599382).

REFEREED PUBLICATIONS: IN PREPARATION

*Undergraduate mentees, **High school mentees

Bachhuber, OM, Roberts, MC, Ibrahim, RS**, Dunton, RE**, Boback, SM, Taylor, EN (*Submitted*). Temperature and Body Size Affect Respiratory Rate in Wild Prairie Rattlesnakes (*Crotalus viridis*).

Chung, J, Painho, M, Pernat, N, **Bachhuber, OM**, Taylor, EN (*Submitted*). Who watches rattlesnakes online? Proximity, familiarity, and media coverage shape livestream viewership.

Bigelow-Gee, AS*, Turkstra, JM*, **Bachhuber, OM**, Roberts, MC, Coleman, RM*, Delmas, AL*, Alonso Martinez, L*, Schenk, MG*, Nation, JM, Taylor EN. (*In prep*). RattlEd in Action: Exploring Teacher Perspectives of Wildlife Livestreams in Elementary Education. *Target Journal: Am. Biol. Teach.*, submitted by June 2026.

Bachhuber, OM, Roberts, MC, Perez, C, Boisvert-Gauthier, J, Ramirez, K, Stellakis, A*, Chally, MC*, Boback, SM, Taylor, EN (*In prep*). Community science reveals complex association patterns among rattlesnakes. *Target Journal: Am. Nat.*, submitted by June 2026.

Bachhuber, OM, Sow, JS**, Carr, FG*, Roberts, MC, Nation, JM, Taylor, EN (*In prep*). Measuring the impact of wildlife livestream curriculum on youth perceptions of rattlesnakes. Target Journal: People Nat., submitted by October 2026.

ONGOING RESEARCH COLLABORATIONS

2025-present **Human-Wildlife Interactions Across Urban Landscapes**

Dr. Kelli Larson, Central Arizona-Phoenix Long-Term Ecological Research

Dr. Maureen Murray, Urban Wildlife Information Network, Lincoln Park Zoo

Investigating human relationships with “nuisance” animals in urban areas (snakes and arachnids) • Studying social drivers of human conflict and coexistence with coyotes and raccoons across the US using survey and public report data funded by a National Science Foundation Dynamics of Integrated Socio-Environmental Systems grant.

2023-present **Surveying Perceptions of Snakes and Educational Interventions on a Global Scale**

Dr. Christina Zdenek, University of Queensland

Studying what factors impact human perceptions of snakes across and across >2,500 respondents in 20 countries. • Evaluating what educational strategies are most effective at improving attitudes and increasing knowledge of snakes by comparing pre-post surveys. • Recruiting, meeting with, and coordinating 30 coauthors as Project Manager.

2023-present **Project RattleCam Outreach and Curriculum Development**

Dr. Emily Taylor, California Polytechnic State University, www.RattleCam.org

Developing science curriculum for K-12 classes using rattlesnake livestreams • Assessing livestream engagement using YouTube comments and viewer analytics • Coordinated design and implementation of livestream displays in 7 AZA-accredited zoos.

ACADEMIC PRESENTATIONS

*Undergraduate mentees, **High school mentees

INVITED PRESENTATIONS

Bachhuber, OM (2025, April) *Project RattleCam: Connecting people with snakes using livestreaming technology*. Presentation for the Association of Zoos and Aquariums Snake TAG.

Bachhuber, OM (2025, April). *A snakey community: Intersections of reptile sociality research and outreach*. Presentation for the Central Coast Biological Society’s quarterly meeting.

Bachhuber, OM (2024, September). *Connecting people with rattlesnakes through next-generation technologies*. Presentation for the Minnesota Herpetological Society’s general meeting.

Bachhuber, OM (2020, February). *Reptile husbandry at Omaha’s Henry Doorly Zoo*. Presentation for the Minnesota Herpetological Society’s general meeting.

CONTRIBUTED PRESENTATIONS

Bachhuber, OM, Roberts, MC, Boback, SM, and Taylor, EN (2026, March). *A snake’s eye view: Using drawings to measure a wildlife livestream’s impact on children’s perceptions*. Oral Presentation at the Association of American Geographers annual meeting.

- Bachhuber, OM**, Roberts, MC, Boback, SM, and Taylor, EN (2026, February). *Project RattleCam: Engaging diverse audiences in science through wildlife livestreams*. Poster presented for the American Association for the Advancement of Science.
- Bachhuber, OM**, Roberts, MC, Carr, FG*, Nation, JM, Taylor, EN (2026, January, February) *RattlEd: Improving perceptions of rattlesnakes in elementary classrooms*. Poster presented at the CAP LTER All Scientists Meeting and the Joint Annual Meeting of AZNMAFS & AZ/NM TWS.
- Bachhuber, OM (2026, January)**. *Educating for coexistence with snakes*. Oral presentation at the inaugural Biology of the Rattlesnakes of California conference at Loma Linda University.
- Bachhuber, OM**, Roberts, MC, Boback, SM, Taylor, EN (2025, July) *Decoding rattlesnake social behavior through next-generation camera technology and community science*. Oral presentation at the Joint Meeting of Ichthyologists and Herpetologists and Biology of Pitvipers 5.
- Bachhuber, OM**, Roberts, MC, Turkstra, JM*, Nation, JM, Taylor, EN (2025, July) *RattlEd: Improving perceptions of rattlesnakes in elementary classrooms*. Poster presented at the Joint Meeting of Ichthyologists and Herpetologists and Biology of Pitvipers 5.
- Roberts, MC, **Bachhuber, OM**, Ibrahim, RS**, Duntion, RE**, Boback, SM, Taylor, EN (2025, July) *Resting ventilation patterns in wild Prairie Rattlesnakes (Crotalus viridis)*. Poster presented at the Joint Meeting of Ichthyologists and Herpetologists and Biology of Pitvipers 5.
- Bachhuber, OM**, Roberts, MC, Boback, SM, and Taylor, EN (2025, February, April) *Strategically engaging community scientists to investigate rattlesnake social behavior*. Oral presentation at HerpFest hosted by California State University Northridge. Competed at the CSU Student Research Competition.
- Bachhuber, OM**, Roberts, MC, Taylor, EN, Smith, GJD, Larson, KL, Zdenek, CN (2024, June, August) *Under the snakefluence: A global study of snake perceptions and education*. Poster presented at Snake Ecology VII, Society for the Study of Amphibians and Reptiles meeting, and World Congress of Herpetology.
- Roberts, MC, **Bachhuber, OM**, Boback, SM, Taylor, EN (2024, June, August) *Project RattleCam: Utilizing live-streaming technology to study rattlesnake behavior and improve public perceptions*. Poster presented at Snake Ecology VII, Society for the Study of Amphibians and Reptiles meeting, and World Congress of Herpetology.

STUDENT PRESENTATIONS

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- Carr, FG*, Sow, JS**, **Bachhuber, OM** (2026, May) *Changing children's perceptions of rattlesnake habitat and prey*. Poster presented at the ASU SURE symposium.
- Jacobson, AL*, **Bachhuber, OM**, Larson, KL (2026, May) *Our complicated relationship with snakes: A systematic literature review*. Poster presented at the ASU SURE symposium.
- Turkstra, JM*, Bigelow-Gee, AS*, **Bachhuber, OM**, Roberts, MC, Nation, JM, Taylor, EN (2025, May) *RattlEd about snakes: Measuring the impact of elementary science curriculum through qualitative data analysis*. Poster at the Cal Poly Bailey College Student Research Conference.
- Fraser, KG*, Weissman, AM*, Rattner, AD*, **Bachhuber, OM**, Kolluru, GR (2025, May) *Behavioral monitoring of a Malayan Tiger at the Charles Paddock Zoo*. Poster at the Cal Poly Bailey College Student Research Conference.
- Turkstra, JM*, Bigelow-Gee, AS*, Delmas, AL*, Schenk, MG*, Coleman, R*, Martinez, LA*, **Bachhuber, OM**, Roberts, MC, Nation, JM, Taylor, EN (2024, November) *RattlEd: Improving elementary student perceptions of rattlesnakes*. Poster for the Central Coast Chapter of the Wildlife Society's annual meeting.

Bigelow-Gee, AS*, Turkstra, JM*, **Bachhuber, OM**, Roberts, MC, Taylor, EN (2024, August)
Improving student perceptions about rattlesnakes through curriculum development and evaluation. Presentation for the Cal Poly Biology Frost Undergraduate Research Symposium.

PUBLIC OUTREACH PRESENTATIONS

- Bachhuber, OM** (2025, June). *Project RattleCam: What can we learn from spying on snakes?* Virtual presentation for the University of Minnesota 4-H Extension program.
- Bachhuber, OM** (2024, November). *Project RattleCam: Spying on snakes.* Virtual presentation for the University of Minnesota 4-H Extension program.
- Bachhuber, OM** (2024, August) *Spying on rattlesnakes!* Seminar for the San Luis Obispo Botanical Garden Nature Sunday series.
- Bachhuber, OM** (2024, May) *Conservation engagement in zoos.* Presentation and demonstration for the Cal Poly Zoo and Exotic Animal Careers Club.
- Bachhuber, OM** (2023, November) *Behind the glass: Zoo herpetoculture.* Presentation for the San Luis Obispo Chapter of the California Turtle and Tortoise Club.
- Bachhuber, OM** (2023, October). *You belong in a zoo.* Presentation for a joint meeting of the Cal Poly Zoo and Exotic Animal Careers Club and Cal Poly Wildlife Club.
- Bachhuber, OM** (2021, October). *Spooky animal myths and tales.* Halloween presentation for the University of Minnesota Fisheries, Wildlife, and Conservation Biology Club.
- Bachhuber, OM** (2020, February). *Unloved animals.* Valentine's Day presentation for the University of Minnesota Ecology Club.

GRANTS & SCHOLARSHIPS

- 2026 **Summer Graduate Grant** Central AZ-Phoenix Long-Term Ecological Research (\$5,000)
- 2026 **Student Travel Award**, American Assoc. for the Advancement of Science, Section E (\$500)
- 2025 **Graduate College Travel Award**, Arizona State University (\$300)
- 2025 **SGSUP Graduate Scholar Gold Award**, Arizona State University (\$10,000)
- 2025 **John F. Lounsbury Student Travel Fellowship**, Arizona State University (\$1,000)
- 2025 **Graduate Conference Award**, California Polytechnic State University (\$500)
- 2025 **Carl Gans Travelling Fellowship**, Society for the Study of Amphibians and Reptiles (\$800)
- 2024 **Graduate Conference Award**, California Polytechnic State University (\$500)
- 2024 **Roger Conant Grant in Herpetology**, Society for the Study of Amphibians and Reptiles (\$500)
- 2024 **Barney Tomberlin Memorial Grant for Herpetology**, Chiricahua Desert Museum (\$250)
- 2023 **Baker and Koob Research Grant**, California Polytechnic State University (\$5,000)
- 2023 **Graduate Assistant Fellowship**, California Polytechnic State University (\$7,500)
- 2023 **Aryan I. Roest Memorial Scholarship**, California Polytechnic State University (\$1,250)
- 2023 **State University Grant**, California Polytechnic State University \$7,100)
- 2019 **Unpaid Internship Grant**, University of Minnesota (\$400)
- 2018 **Joseph N. Alexander Scholarship**, University of Minnesota (\$16,000)

AWARDS

- 2026 **Supervisor of the Year**, ASU Sustainability Undergraduate Research Experience Program
- 2026 **Graduate Impact Award**, Cal Poly, San Luis Obispo, Biological Sciences Department
- 2026 **First Place**, Am. Assoc. for the Advancement of Science Poster Competition, Science in Society
- 2025 **Outstanding Graduate Student**, Cal Poly, San Luis Obispo, Biological Sciences Department
- 2024 **Outstanding Teaching Associate**, Cal Poly, San Luis Obispo, Biological Sciences Department
- 2024 **Graduate Research Fellowship Program, Honorable Mention**, National Science Foundation
- 2017 **Student Environmental Stewardship Award**, MN Association for Environmental Education

CERTIFICATIONS

- 2026 **Social and Behavioral Research Training**, Collaborative Institutional Training Initiative
- 2023 **Advancing Inclusive Mentoring Program**, California State University, Long Beach
- 2020 **Certified Interpretive Guide**, National Association for Interpretation

PROFESSIONAL EXPERIENCE

- 2024-2025 **Relocation Technician**, Central Coast Snake Services
 - Safe relocation of rattlesnakes and other reptiles from areas of human conflict

- 2023-2025 **Vivarium Husbandry Technician**, California Polytechnic State University
 - Husbandry of reptiles, amphibians, and arthropods
 - Mentored a team of four undergraduate animal keepers
 - Coordinated donation of \$3,000 in supplies to improve animal habitats

- 2022-2023 **Zookeeper**, Fresno Chaffee Zoo
 - Primary keeper of venomous snakes, Gila Monsters, and Komodo Dragons
 - Husbandry for breeding colony of Blunt-nosed Leopard Lizards (*Gambelia sila*)
 - Developed husbandry protocols for 24 reptile and amphibian species

- 2020-2021 **Turtle and Mussel Conservation Research Intern**, Minnesota Zoo
 - GPS and VHF telemetry of North American Wood Turtles (*Glyptemys insculpta*)
 - Road mortality surveys
 - Husbandry of turtle and freshwater mussel rearing facility

- 2021 **Summer Keeper – Dome Reptiles**, Omaha’s Henry Doorly Zoo and Aquarium
- 2019 **Intern – Dome Reptiles**
 - Husbandry for large reptile, amphibian, and fish collection
 - Mentored volunteers and interns
 - Public interpretation of exhibits and live animal demonstrations for zoo camps

TEACHING EXPERIENCE

- 2025-2026 **Teaching Associate**, School of Geographic Sciences and Urban Planning, Arizona State University
- GPH 112 – Introduction to Physical Geography
 - GCU 121 – World Geography
- 2023-2025 **Teaching Associate**, Biological Sciences, California Polytechnic State University
- BIO 324 – Herpetology
 - BIO 162 – Introduction to Organismal Form and Function
 - BIO 150 – Diversity and History of Life
 - BIO 111 – General Biology
- 2020-2022 **Head Lab Instructor**, Biological Sciences, University of Minnesota
- BIOL 2005 – Animal Diversity
 - BIOL 2012 – Zoology
- 2021, 2022 **Guest Lecturer**, Fisheries, Wildlife, and Conservation Biology, University of Minnesota
- FW 3108 – Field Methods in Research and Conservation of Vertebrate Populations
- 2021 **Lab Instructor**, Fisheries, Wildlife, and Conservation Biology, University of Minnesota
- FW 4101 – Herpetology
- 2019-2020 **Lab Instructor**, Biological Sciences, University of Minnesota
- BIOL 2005 – Animal Diversity
 - BIOL 2012 – Zoology

PROFESSIONAL SOCIETIES

- 2025-present Association of American Geographers
- 2025-present American Association for the Advancement of Science
- 2024-present Herpetologists' League
- 2024-present Society for the Study of Amphibians and Reptiles
- 2024-present American Society of Ichthyologists and Herpetologists
- 2023-present Association of Zoos and Aquariums
- 2020-present National Association for Interpretation
- 2010-present Minnesota Herpetological Society

SERVICE

- 2026 **Grad Student Representative**, ASU School of Geographical Sci. and Urban Planning
- 2023 **Past President**, Minnesota Herpetological Society
- 2022 **President**, Minnesota Herpetological Society
- 2021 **Board Member at Large**, Minnesota Herpetological Society
- 2018-2019 **Outreach Committee Chair**, SeaWorld and Busch Gardens Youth Advisory Council