Education

Joint PhD student in Environment & Resources and Ecology & Evolutionary Biology (in progress)
University of Wisconsin–Madison (UW) Nelson Institute of Env. Studies, College of Agricultural and Life Sciences - September 2024 to present
BSc in Biology, GPA: 3.91
University of Hawai‘i at Mānoa (UH) - August 2018 to May 2022

Research Experience

Human-Carnivore Coexistence – Advisor: Dr. Adrian Treves
UW Nelson Institute for Environmental Studies - September 2024 to present
Exploring ecological and social dimensions of conflict and coexistence between large carnivores and humans, focusing on the use of non-invasive genetic methods.
Frog Molecular Phylogenetics and Taxonomy – Advisors: Dr. Marguerite Butler, Dr. Allen Allison
UH Department of Biology, Bernice Pauahi Bishop Museum - December 2021 to present
Molecular phylogenetics, morphological, and acoustic investigations to clarify a new genus of frogs from Papua New Guinea. With implications for theoretical reconsideration of taxonomic conventions.
COVID-19 Variant Tracking – Advisor: Dr. Marguerite Butler
UH Department of Biology - November 2021 to May 2022
Whole genome sequencing of SARS-CoV-2 RNA and processing for the State of Hawai‘i Department of Health, evaluating disease transmission and mitigation efficacy.
Enzyme Cloning – Advisor: Dr. Joseph Jarrett
UH Department of Chemistry - April to July 2022
Bacterial recombination to express the enzyme (Tryptamine 4-Hydroxylase) required to synthesize a potential alternative to traditional antidepressants.

Academic Positions

Research Assistant - Carnivore Coexistence – Advisors: Dr. Adrian Treves, Dr. Antoine Nsabimana
UW Nelson Institute for Environmental Studies, University of Rwanda - June 2025 to present
Genetic monitoring surveys on human-carnivore conflict around Akagera National Park, Rwanda.
Lab Technician - Sea Urchin Population Genetics – Advisor: Dr. Peter Marko
UH Department of Biology - February to May 2024
Sequencing and designing next-generation techniques to track sea urchin migration to Hawai‘i.
Museum Technical Assistant – Advisor: Dr. Allen Allison
Bernice Pauahi Bishop Museum - April to July 2023
Digitizing and cataloging cassette recordings of frog calls to increase accessibility for research.
Genomics Assistant – Advisor: Dr. Marguerite Butler
UH Department of Biology - July to August 2022
Accomplishing goals related to frog phylogenetics and COVID-19 projects.

Teaching Experience

Teaching Assistant - Marine Ecology and Evolution
UH School of Life Sciences - January to May 2023 and January 2024 to May 2024
Preparing and leading laboratory sessions for an upper-division marine ecology and evolution course.
Teaching Assistant - Animal Physiology
UH School of Life Sciences - August to December 2022 and August 2023 to December 2023
Preparing and leading laboratory sessions for an upper-division animal physiology course.

Fellowships and Funding

$159,000 - **Graduate Research Fellowship** (US National Science Foundation) - 2025-2030

$500 - **Environment and Resources Research Award** (UW Madison) - 2025
$54,892 - **Fall Competition** (UW Madison Graduate School) – 2025-2026 (PI Adrian Treves)
$53,000 - **University Fellowship** (UW Madison) - 2024-2029
$20,000 - **Foreign Language and Area Studies Fellowship** (US Department of Education) - 2024-2025
Foreign Language and Area Studies Fellowship (US Department of Education) - 2025-2026 (awarded)

Publications

Hill E.C., Jarman M.J., Fraser C. J., Gao D.F., Henry E.R., **Fisher A. R**., Iova B., Allison A., & Butler M.A. (2023). Molecular and phylogenetic datasets for the Asterophryinae frogs of New Guinea with additional data on lifestyle, geography, and elevation. *Data in brief*, 47, 108987. https://doi.org/10.1016/j.dib.2023.108987

Fisher A.R., Cao, K., Iova B., Allison A., and Butler M.A. (under review) Modern taxonomy of *Oreophryne*: when molecular and morphological evidence disagree and morphology is positively misleading. *Submitted to Journal of Herpetology.*

Butler M.A., **Fisher A.R.**, Cao, K., Iova B., and Allison A. (in prep) When evolutionary history is irreconcilable with rank-based taxonomic codes: An evidence-based approach to phylogenetic classification within a cryptic taxonomy. *In prep for Systematic Biology.*

Honors and Awards

$500 - **Outstanding Teaching Assistant Award -** Animal Physiology (UH Mānoa) – 2024
Summa Cum Laude Distinction (UH Mānoa) - 2022
Phi Beta Kappa Honor Society - May 2022 to present
Phi Kappa Phi Honor Society - August 2025 to present
Mānoa Excellence Scholarship (UH Mānoa) - August 2018 to May 2022
Mānoa Dean's List (UH Mānoa) - August 2018 to May 2022

Public Presentations

People and Wolves Coexistence Event - April 2025
Hosted a film screening and scientific discussion about wolf conservation for students and the public.
Society of Integrative and Comparative Biology Conference - January 2023
15-minute talk on taxonomic resolution of the polyphyletic clade *Oreophryne*.
Tester Symposium - UH Mānoa - April 2023
15-minute talk on taxonomic resolution of the polyphyletic clade *Oreophryne*.

Academic Service

Program Committee Co-Chair - North American Congress for Conservation & Restoration - 2025-26
Publication Co-Reviewer - *Applied Animal Behaviour Science* - 2025
Publication Co-Reviewer - *Zoological Journal of the Linnean Society* - 2023

Leadership and Outreach

Wildlife Committee - Sierra Club WI - January 2025 to present
Student Organization Leader - UW Dane 4 Dogs - August 2024 to present
Graduate Student Representative - UW Nelson Institute - Aug 2025 to present
Volunteer Coordinator - Gulf Coast Canine Project - November 2025 to present
Executive Board of Directors - The Mānoa Outdoor Circle - April 2021 to August 2024
Co-Founder and Vice President - UH Wellness Warriors - August 2020 to May 2022

Relevant Experience and Skills

- Biosafety, IRB, Conflict of Interest, and IACUC certifications
- Sterile technique in BioSafety Level 1 and 2 laboratories
- DNA extraction, viral cDNA reverse transcription

- PCR: primer design and optimization, gel electrophoresis
- DNA sequencing: Sanger, Oxford Nanopore Technologies, Illumina
- Environmental DNA: sample collection, filtration, bioinformatics
- Data science: competency in R, Bash, Markdown, high-performance computing
- Sequence processing and analysis (Mesquite, Geneious, BLAST)
- Phylogenetics: Bayesian Inference and Maximum Likelihood modeling (BEAST, IQ-TREE)
- Bioacoustic sound digitization and visualization (Raven Pro)
- Morphometric biomechanics measurement and analysis - frogs, small mammals, and birds
- Lesson design and teaching: laboratory experiments for animal physiology students
- Languages: French (elementary), Spanish (elementary), Kinyarwanda (beginner)