**Dr. Alexander A. Mauro**  
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**RESEARCH POSITIONS**

* **Post-Doctoral Researcher, Norwegian University of Science and Technology, 2022-Current**

Supervisors: Cameron Ghalambor, Ph.D & Eric Riddell Ph.D.

* **Post-Doctoral Researcher, University of California Berkeley, 2021-2022**

Supervisor: Erica Bree Rosenblum, Ph.D.

**EDUCATION**

* **Ph.D., Ecology, Colorado State University, 2021**  
  Advisor: Cameron Ghalambor, Ph.D.
* **B.A., Biology, Claremont McKenna, 2015**  
  Advisor: Lars Schmitz, Ph.D.

**PUBLICATIONS**

**\***Editor’s Choice

\*\*Undergraduate mentee co-first author

* **Mauro, Alexander A., et al.** "An Integrative Perspective on the Mechanistic Basis of Context Dependent Species Interactions." *Integrative and Comparative Biology* (2022).
* **Mauro, Alexander A.,** et al."A genetically based ecological trade‐off contributes to setting a geographic range limit." *Ecology Letters* 24.12 (2021): 2739-2749.
* **\*Mauro, Alexander A.,** and Cameron K. Ghalambor. "Trade-offs, pleiotropy, and shared molecular pathways: A unified view of constraints on adaptation." *Integrative and Comparative Biology* 60.2 (2020): 332-347.
* Havird, J. C., Neuwald, J. L., Shah, A., **Mauro**, **A. A.,** Marshall, C. A., & Ghalambor, C. K. (2020). Distinguishing between active plasticity due to thermal acclimation and passive plasticity due to Q10 effects: Why methodology matters. *Functional Ecology*, 34(5), 1015-1028.
* **Mauro, A. A**., & Jayne, C. B. (2016). Perch compliance and experience affect destination choice of brown tree snakes (*Boiga irregularis*). Zoology, 119(2), 113-118.

In Review/Preparation

* **Mauro & Härer,** et al. “Gut microbiota parallelism and divergence in White Sands lizards” (2023). In review at *Proceedings B*.
* **\*\*Mauro** & Zeller,et al. “The effect of salinity acclimation on the outcome of a context dependent species interaction: implications for species turnover” in preparation for *Ecology*.
* **Mauro, Alexander A.,** et al. “Neutral and Adaptive Genetic Differentiation in a Euryhaline Fish Distributed Across Steep Salinity Gradients” in preparation for *Molecular Ecology*.
* **Mauro, Alexander A.** & Ghalambor, C. K. “An Investigation into Potential Physiological Mechanisms Underlying a Niche Constraining Ecological Trade-Off” in preparation for *PNAS*.

**PRESENTATIONS**

**Invited Talks**

* **Alexander Mauro,** Julian Torres-Dowdall, Craig Marshall, Cameron Ghalambor (2021). “How a Trade-off Constrains Evolvability at the Range Limit of the Trinidadian Guppy”. Presented at the Society for Integrative and Comparative Biology. **Winner of the Ray Huey Award for Best Student Presentation.**
* **Alexander Mauro** and Cameron Ghalambor (2020). “The Transcriptomic Basis of a Tradeoff Between Salinity Tolerance and Competitive Ability in Trinidadian Guppies.” **Invited symposium talk** presented at the Society for Integrative and Comparative Biology

**Conference Talks**

**\*\***Undergraduate mentee

* **Alexander Mauro**, Erica Bree Rosenblum (2023). “Color, Aggression, and Correlations in Colonizing Fence Lizards.” Presented at the Society for Integrative and Comparative Biology.
* **Alexander Mauro**, Erica Bree Rosenblum (2022). “Dune you think I can join you?Investigating how plasticity and behavior affect colonization success in White Sands lizards.” Presented at the Society for Integrative and Comparative Biology.
* \*\*Kyndall Zeller, **Alexander Mauro**, Cameron Ghalambor (2022). “The impact of salinity on an estuarian species interaction: How biotic and abiotic factors contribute to the range limit of the Trinidadian guppy.” Presented at the Society for Integrative and Comparative Biology.
* **Alexander Mauro**, \*\*Stazi Snelling, Cameron Ghalambor (2020). “Can Plasticity Help Guppies Rise to the Challenge of Sea Level Rise?” Presented at the Front Range Student Ecology Symposium at Colorado State University.
* **Alexander Mauro**, Justin Havird, Cameron Ghalambor (2018). “Plasticity’s Role in Adaptation to a Novel Environment.” Presented at the Society for Integrative and Comparative Biology.

**Conference Posters**

**\*\***Undergraduate mentee

* **Alexander Mauro**, Elias Oziolor, Andrew Whitehead, Cameron Ghalambor (2019-20). “Population Genomics of a Tropical Euryhaline Fish Distributed Across a Salinity Gradient.” Poster presented at Evolution (2020) & Colorado State’s Quantitative Cell and Molecular Biology Symposium (2019).
* Hailey Molina**\*\***, **Alexander Mauro**, Julian Torres-Dowdall, Cameron Ghalambor (2019). “The Effect of Salinity and Competition on the Range Limits of Two Sympatric Euryhaline Fish.” Poster presented at the Front Range Student Ecology Symposium. **Undergraduate Mentee won best poster presentation.**
* **Alexander Mauro,** Julian Torres-Dowdall, Cameron Ghalambor (2017). “Factors of Range Limits in two Sympatric Euryhaline Fish”. Presented at the Society for Integrative and Comparative Biology.
* **Mauro, Alex** and Jayne, Bruce (2015). “Exploring Trees: Arboreal Perch Choice in Brown Tree Snakes (*Boiga irregularis*).” Presented at the Society for Integrative and Comparative Biology.

**GRANTS AND FELLOWSHIPS**

* Colorado State University School of Global Environmental Sustainability Leadership Fellowship (2020-21).
* NSF Generating, Analyzing and Understanding Sensing and Sequencing Information (GAUSSI) Fellowship (2017-2018). ($32,000)
* NSF Undergraduate Research Fellowship (REU) in Sensory Ecology at the University of Cincinnati (2014). ($5,000)
* SICB Charlotte Mangum Student Support award (2021)
* American Society of Naturalists Student Travel Award (2019) ($500)

**Total:**  **($37,500)**

**TEACHING**

**Appointments**

* **Teaching Assistant, Colorado State University, 2016-2020**

Courses: Introductory Biology, Genetics, Evolution, Honors Evolution

* **Teaching Assistant, Claremont McKenna College, 2014**

Courses: Vertebrate Physiology

**Training**

* Is Anybody out There? Technologies and activities to engage your students during online synchronous classes, Colorado State University, 2021
* A dynamic first day of class impacts your whole semester, Colorado State University, 2021
* Returning Wolves to Colorado: Lessons from a carnivore on overcoming challenges, Colorado State University, 2021
* Online Teaching Workshop, Colorado State University, 2020
* Online Teaching Personality Workshop, Colorado State University, 2020
* Creating Community Standards Workshop, Colorado State University, 2020
* Teaching Philosophy Workshop, Colorado State University, 2020
* Peer Observation based Teaching Training, Colorado State University, Fall 2019
  + Semester long TA training program lead by educators at Colorado State’s Institute for Learning and Teaching. Trainings focused on peer-to-peer learning techniques, active learning techniques, and DEI teaching techniques.

**OUTREACH AND SERVICE**

* **Undergraduate Research Apprentice Program Mentor, UC Berkeley, 2021-current**

Primary supervisor for an undergraduate independent research project.

* **Teaching Evolution Labs at Local Schools, 2016-2021**

Taught 8 Evolution Labs at local middle schools and high schools in conjunction with Colorado State’s Natural Sciences Education & Outreach Center. Assisted with 5 outreach activities at the Outreach Center.

* **Undergraduate Mentorship, Colorado State University, 2016-2021**

Mentored 6 undergraduate research assistants, including 1 summer REU student.

* **Department of Biology Faculty Search Committee, 2020-2021**

Graduate student representative on the new faculty search committee

* **Middle School Cross Country Assistant Coach, 2017-2021**

Assistant coach for Kinard Middle School, made connections with staff which led to guest teaching opportunities at Kinard.

* **Science Communication Workshop, Colorado State University, 2019**

Recruited speakers, advertised, and organized a science communication workshop at the Front Range Student Ecology Symposium.

* **Conference Webmaster, Colorado State University, 2018-2019**

Maintained and improved the conference website for the Front Range Student Ecology Symposium.

* **Conference Fundraiser, Colorado State University, 2017**

Solicited donations from local business as part of the fundraising committee for the Front Range Student Ecology Symposium.

**PROFESSIONAL MEMBERSHIPS**

* Society for Integrative and Comparative Biology (since 2014)

**PROFESSIONAL REFERENCES**

* Dr. Cameron Ghalambor, PhD Advisor: [cameron.ghalambor@ntnu.no](mailto:cameron.ghalambor@ntnu.no)
* Dr. Erica Bree Rosenblum, Postdoctoral Advisor: [rosenblum@berkeley.edu](mailto:rosenblum@berkeley.edu)
* Dr. Eric Riddell, Postdoctoral Advisor: [eriddell@iastate.edu](mailto:eriddell@iastate.edu)
* Dr. Ruth Hufbauer, PhD Committee Member: [ruth.hufbauer@colostate.edu](mailto:ruth.hufbauer@colostate.edu)
* Dr. Jennifer Neuwald, Teaching Supervisor & Co-author: [jennifer.neuwald@colostate.edu](mailto:jennifer.neuwald@colostate.edu)