Evolution, Ecology, and Organismal Biology @ University of California Riverside

Spring 2025

Photo by Marko Spasojevic

In this Edition....

Announcements!

Congratulations to our most recent graduates who defended their dissertations or theses in the Winter and Spring 2025:

- **April Arquila** (Saltzman Lab): "Parenthood-associated plasticity of sensory processing in the biparental California mouse (*Peromyscus californicus*)"
- **Tamsen Dunn** (JDEB): “New Computational Methods to Study Historical Allopolyploidization in Plants”
- **Matthew Major** (Franklin Lab): "Surveying Needlegrass Grasslands to Plan Management Actions and Model Habitat Suitability in Southern Orange County Parks, California"

Spasojevic Lab research was featured in Earth (“California’s native wildflowers can be restored by raking dead grass”) and LAist (“Here’s an easy way you can help California native wildflowers thrive”)!

Announcements

Ria Ghosh presented at the Santa Ana River Symposium and the Society for Freshwater Science Annual Meeting.

Ted Garland organized a symposium at the April 2025 American Physiological Society (APS) Summit in Baltimore titled "Integrative Biology of Voluntary Exercise: Motivation, Ability, Genetics, Environment."

I am Ria, a third-year PhD candidate from the Anderson lab. As the social media coordinator, I am excited to support and highlight the many incredible events, accomplishments, and initiatives happening across our department. The department provides us with so many valuable opportunities, and I believe it's important to showcase the great work being done by all of us—students, staff, and faculty alike. If you have any achievements, events, or milestones you'd like to share, please feel free to reach out to me without any delay. I encourage you to send a brief write-up along with any photos so we can feature your story on the department's social media platforms. It's a great way to celebrate our collective efforts and foster a stronger, more connected community. I am truly excited to serve in this role for the current term and look forward to hearing from you soon!

Awards!

Ted Garland was awarded the **2026 August Krogh Distinguished Lectureship of the Comparative & Evolutionary Section (CEPS) of the APS, sponsored by Novo Nordisk Foundation**. This is awarded to a distinguished scientist who has made major and meritorious contributions to the scientific areas represented by the section. It is the most prestigious award of the section. Ted will deliver an honorary award lecture at the 2026 APS meeting and be invited to contribute a review manuscript based on the lecture for publication in the American Journal of Physiology: Regulatory, Integrative and Comparative Physiology!

Teddy Reitman (Ostevik Lab) was awarded the **Anza-Borrego Desert Conservation Grant** and the **Southern California Botanists Conservation Grant!**

Gangothri (Ostevik Lab) was awarded the **California Institute for Biodiversity Supplemental Scholarship** and the **R.C. Lewontin Graduate Research Excellence Award from the Society for the Study of Evolution!**

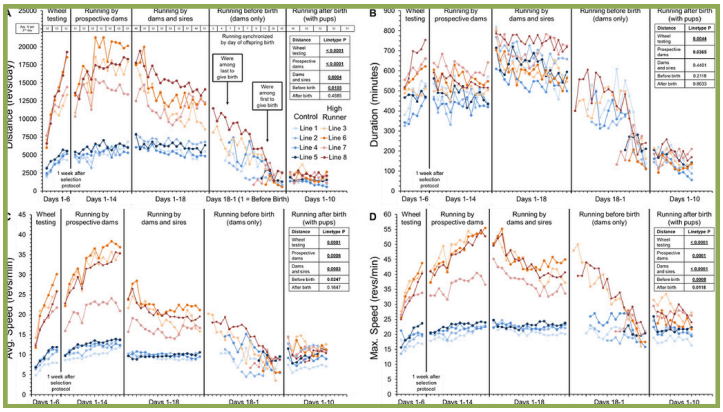
Omeid Majd (Ostevik Lab; undergrad researcher) was awarded the **Frank Cozza Scholarship in Plant Science!**

Ria Ghosh was selected as the **mentee panelist** for the online workshop Navigating Mentorship in Freshwater Sciences: Building Connections for Career Growth, hosted by the Early Career Committee of the Society for Freshwater Science!

Soumyadeep Chatterjee was awarded the **Chapman Research Grant** from the American Museum of Natural History!

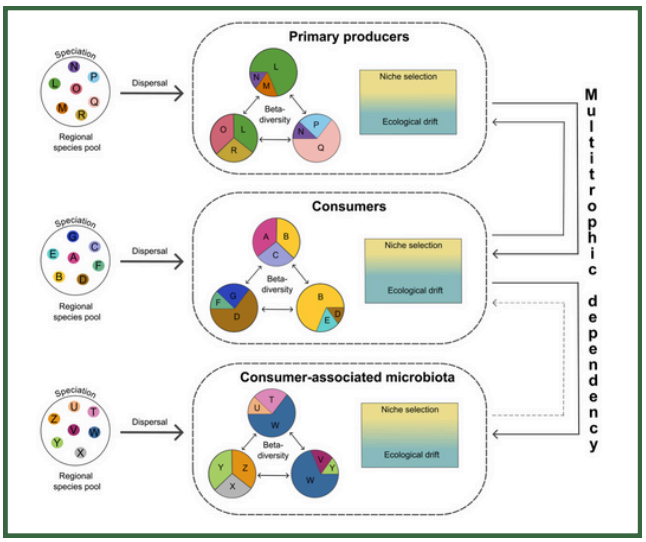
Recent Publications

Schwartz, N. E., M. P. Schmill, M. D. Cadney, A. A. Castro, D. A. Hillis, M. P. McNamara, J. O. Rashid, W. Lampman, D. F. DeLaCruz, B. D. Tran, N. L. Trutalli, and T. Garland, Jr. 2025. Maternal exercise opportunity before, during, and after pregnancy alters maternal care behavior, offspring development, and offspring survival, but has few effects on offspring adult physical activity or body composition. *Physiology & Behavior* 291:114752.



Schwartz et al. 2025 (Figure 2)

Hiramatsu, L., V. Careau, and T. Garland, Jr. 2025. Can a hybrid line break a selection limit on behavioral evolution in mice? *Behavior Genetics* 55:43-58.

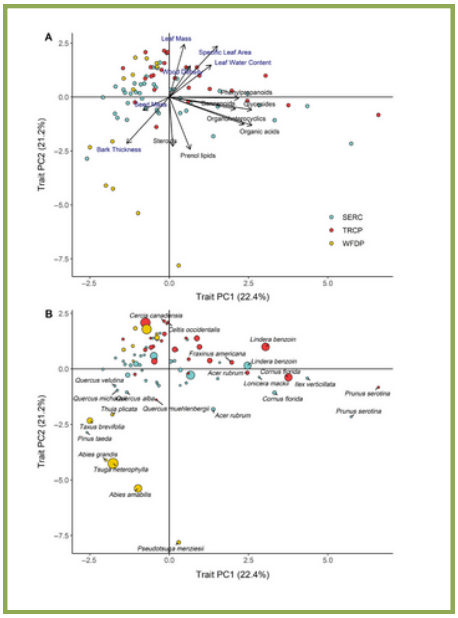


Argueta Guzman et al. 2024 (Figure 1)

Argueta Guzman, M., McFrederick, Q., Spasojevic, M.J., 2024 Multitrophic interactions influence β-diversity across a tripartite system of flowering plants, bees, and bee-gut microbiomes. *Ecography*. e07490

Argueta Guzman, M., Spasojevic, M.J., McFrederick, Q., 2025. Solitary bees acquire and deposit beneficial bacteria via flowers: Testing the environmental transmission hypothesis using Osmia lignaria, Phacelia tanacetifolia, and Apilactobacillus micheneri. *Ecology and Evolution*. 15(4): e71138

Henn, J., Sedio, B.E., Catano, C., Dewald-Wang, E.A., Vela Diaz, D., Lutz, J.A., McMahon, S.M., Parker, G., Myers, J.A., Spasojevic, M.J., 2024. Functional diversity of chemical defense and morphological traits and reveal biotic and abiotic drivers of tree community assembly. *Ecosphere*. 15(12): e70137

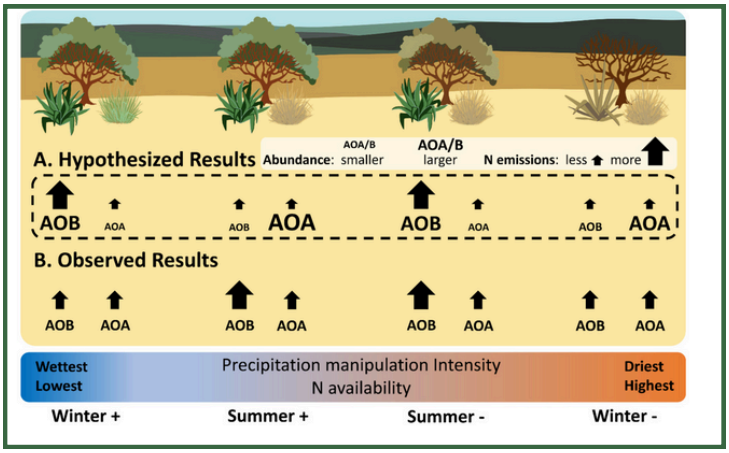


Henn et al. 2024 (Figure 1)

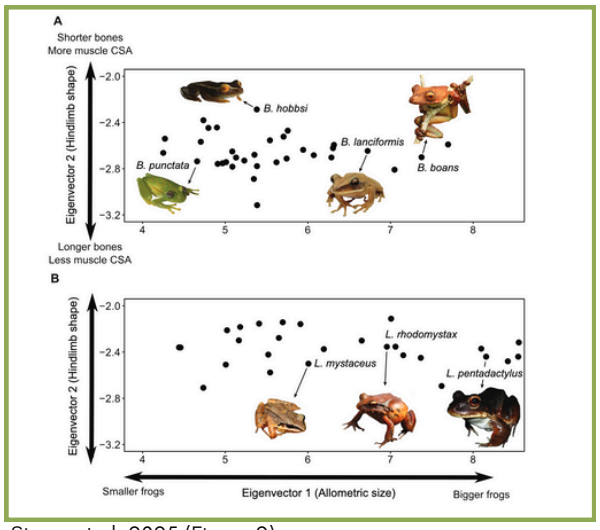
Recent Publications

Everest, J.J., Elmendorf, S.C., Van Cleemput, E., Beamish, A.L., Spasojevic, M.J., Humphries, H. 2025. Evaluating the utility of hyperspectral data to monitor local-scale β-diversity across space and time. *Remote Sensing of Environment*. 316: 114507

Zhao, S., Krichels, A., Stephens, E., Calma, A., Aronson, E.L., Jenerette, G., Spasojevic, M.J., Schimel, J.P., Hanan, E., Homyak, P. 2025 Nitrogen availability and changes in precipitation alter microbially-mediated NO and N2O emissions from a Pinyon-Juniper dryland. *Global Change Biology*. 13(3) e70159



Zhao et al. 2025 (Figure 1)



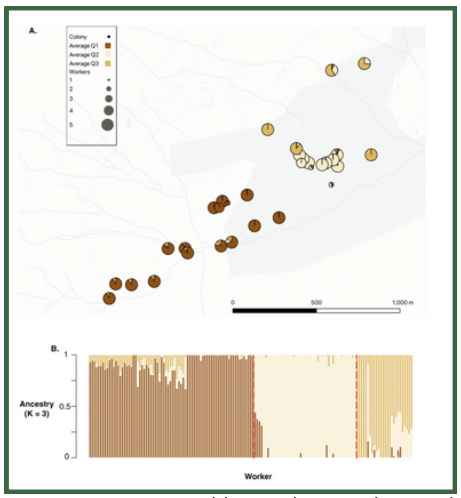
Simon et al. 2025 (Figure 2)

Ramachandran, A., Iwanaga, C.D., Fugate, M., Huxley, J., Rose-Person, A., Amatya, R., Bui, T., Spasojevic, M.J. 2025. Litter removal increases plant diversity by promoting both native and exotic forbs in heavily invaded California coastal sage scrub. *Restoration Ecology*. 33(3): e14340

Simon, MN, Courtois, EA, Herrel, A, and Moen, DS. 2025. Macroevolutionary divergence along allometric lines of least resistance in frog hindlimb traits and its effect on locomotor evolution. *American Naturalist*, 205, 637–655.

Simon, MN, Wildman, M, and Moen, DS. 2025. Form-function relationships within species are uncoupled from those across species in swimming and jumping performance in arboreal frogs. *Evolution*, qpaf058.

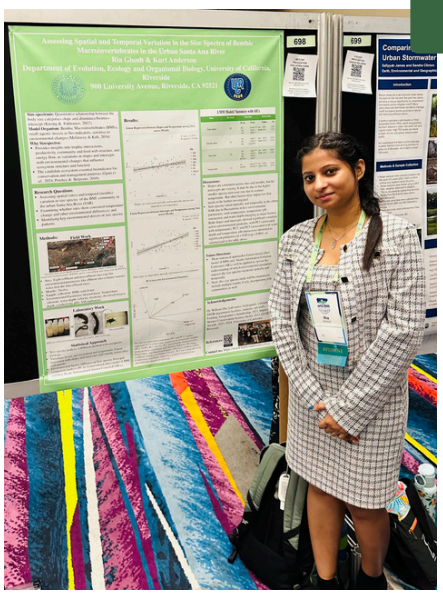
Lagunas-Robles G., Alam Z., Brelsford A. 2025. Unexpected absence of a multiple-queen supergene haplotype from supercolonial populations of *Formica* ants, *Journal of Evolutionary Biology*, 38, 543–553.



Lagunas-Robles et al. 2025 (Figure 1)

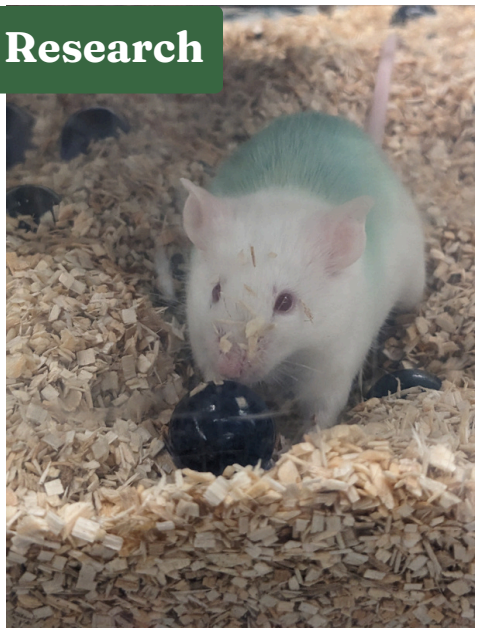
EEOB in Action!

Conferences



Ria Ghosh presented her research at the Society for Freshwater Science Annual Meeting in Puerto Rico!

Research



William Lampman (Garland Lab) continued his studies of behavioral and "personality" variation in the High Runner lines of mice, including use of the marble burying test as one way to gauge anxiety-like behavior, possibly related to OCD.

EEOB grad students at Evolution 2025 in Athens, GA: Rajesh Neupane, Zul Alam, Harrison Lin, Marissa Cartee, Gangothri, Teddy Reitman, Elisabeth Leung, and Brennan Silva! Not pictured: Swopnil Adhikari and Emma Knoles

EEOB in Action!

Outreach

The Ostevik Lab is developing an evolution simulation activity in collaboration with STEMivate, and tested it out at University Heights Middle School!

Marko Spasojevic participated in Taft Elementary School's career day!

Harrison Lin, Alex Sumarli, Ria Ghosh, and Brittany Nguyen at Brain Awareness Day!

Natalie Whitehead, Chenkun Jiang, and Marina Vollin at Moreno Valley Unified School District STEAM Unity Expo!

Future Submissions! Do you have news to share with the department? Whether it's upcoming events, resources, new publications, grants, awards, stories, or photos, it would be great to feature them in the next newsletter!
Send them to me (Elisabeth Leung): eleun001@ucr.edu

Happy Summer!