

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

In this newsletter, you'll find department announcements, recent publications, and interviews with the department's newest hires.

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Photo: Elijah Hall

Boyd Deep Canyon Desert Research Center – home to research of many EEOB members, including the Rafferty Lab.

Announcements and Awards

SoCAB (Southern California Animal Behavior conference)

- Saturday, April 2nd at UCR
- 1-day conference with talks and posters
- [Website](#)

2022 Data Management Fellowship Program

- EEOB Assistant Professor **Marko Spasojevic** has received funding to provide summer fellowship support for one undergraduate or graduate student interested in learning Data Science skills and working with climate data from campus NRS sites
- [Website](#)

Katherine S. McCarter Graduate Student Policy Award from the Ecological Society of America

- EEOB graduate student **Elijah Hall** was honored with this award and will be lobbying for increased NSF funding with our federal representatives this quarter
- [Press Release](#)

EEOB in the news

Blog post discussing the research performed on flowering synchrony by **Fisogni et al.** from the **Rafferty lab**

- [Link](#)

Various news sources discussing EEOB graduate student **Phil Sternes**'s paper on the extinct megatooth shark

- [Link 1, 2, 3](#)

Op-ed in The Highlander written by EEOB graduate student **William Ota** discussing the expectations with UCR's status as an Asian American and Pacific Islander (AANAPISI) and Hispanic Serving Institution (HSI)

- [Link](#)

Recent Publications

Anderson K.E., Fahimipour A.K. Body size dependent dispersal influences stability in heterogeneous metacommunities. [Scientific Reports](#)

Cadney M.D., Schwartz N.E., McNamara M.P., Schmill M.P., Castro A.A., Hillis D.M., Garland Jr. T. Cross-fostering selectively bred High Runner mice affects adult body mass but not voluntary exercise. [Physiology & Behavior](#)

Castro A.A., Karakostis F.A., Copes L.E., McClednon H.E., Trivedi A.P., Schwartz N.E., Garland Jr. T. Effects of selective breeding for voluntary exercise, chronic exercise, and their interaction on muscle attachment site morphology in house mice. [Journal of Anatomy](#)

Fedick S.L., Santiago L.S. Large variation in availability of Maya food plant sources during ancient droughts. [Proceedings of the National Academy of Sciences](#)

Fisogni A., de Manincor N., Bertelsen C.D., Rafferty N.E. Long-term changes in flowering synchrony reflect climatic changes across an elevational gradient. [Ecography](#)

Galvan I., Schwartz T.S., Garland Jr. T. Evolutionary physiology at 30+ has the promise been fulfilled? [BioEssays](#)

Garland Jr. T., Downs C.J., Ives A.R. Trade-offs (and constraints) in organismal biology. [Physiological and Biochemical Zoology](#)

Green M.D., Tronstad L.M., Giersch J.J., Shah A.A., Fallon C.E., Blevins E., Kai T.R., Muhlfeld C.C., Finn D.S., Hotaling S. Stoneflies in the genus *Lednia* (Plecoptera: Nemouridae): sentinels of climate change impacts on mountain stream biodiversity. [Biodiversity and Conservation](#)

McNamara M.P., Singleton J.M., Cadney M.D., Ruegger P.M., Borneman J., Garland Jr. T. Early-life effects of juvenile Western diet and exercise on adult gut microbiome composition in mice. [Journal of Experimental Biology](#)

Patrick C.J., Anderson K.E., Brown B.L., Hawkins C.P., Metcalfe A., Saffarinia P., Siqueira T., Swan C.M., Tonkin J.D., Yuan L.L. The application of metacommunity theory to the management of riverine ecosystems. [Wiley Interdisciplinary Reviews: Water](#)

Saffarinia P., Anderson K.E., Herbst D.B. Effects of experimental multi-season drought on abundance, richness, and beta diversity patterns in perennially flowing stream insect communities. [Hydrobiologia](#)

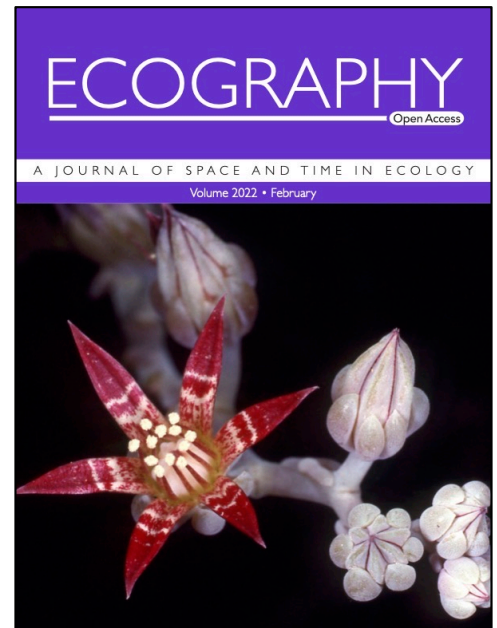
Santiago L.S. Stem functional traits, not just morphology, explain differentiation along the liana–tree continuum. [Tree Physiology](#)

Schmill M.P., Thompson Z., Argueta D.A., DiPatrizio N.V., Garland Jr. T. Effects of selective breeding, voluntary exercise, and sex on endocannabinoid levels in the mouse small-intestinal epithelium. [Physiology & Behavior](#)

Spasojevic M.J., Homyak P., Jenerette D., Goulden M.L., McFaul S., Madsen-McQueen T., Schauer L., Solis M. Altered seasonal precipitation has larger positive impacts in warmer than cooler seasons. *Elementa*.

Spasojevic M.J., Weber S. Disentangling the role of shared ancestry and the environment on leaf stable isotopes. [Arctic, Antarctic, and Alpine Research](#)

Sternes P.C., Wood J.J., Shimada K. Body forms of extant lamniform sharks (Elasmobranchii: Lamniformes), and comments on the morphology of the extinct megatooth shark, *Otodus megalodon*, and the evolution of lamniform thermophysiology. [Historical Biology](#)

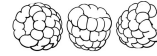


Cover of the February Issue of Ecography: a flowering *Graptopetalum rusbyi* (Greene) Rose (Family: Crassulaceae), found in Finger Rock Canyon (Santa Catalina Mountains, Arizona), and featured in **Fisogni et al.**

EEOB Recent Hires: Interview

Lucy Delaney - Assistant Professor of Teaching

- Grew up in a neighborhood in Chicago called Wicker Park
- Attended two City University of New York (CUNY) colleges and University of Illinois at Chicago
- Broadly interested in *“improving the teaching and learning of biological sciences with an emphasis on evolutionary theory and promoting equity in education”*
- What other jobs has Lucy held? *“In no particular order: a hostess, a waitress, a dog walker, a receptionist, an administrative assistant, a substitute teacher, a barista, a forensic scientist, a tutor, a cashier, tech support, a dishwasher, a bowling alley mechanic, a door-to-door canvasser”*
- Typical day for Lucy? Lots of typing, reading, and thinking (which she swears is not just staring into space), while eating raspberries.
- Advice for current EEOB graduate students? *“Personally, I had to reframe what I believed about ‘failure’ and its function in my PhD. Avoiding failure meant avoiding things like taking risks in my work or seeking honest feedback, which made it impossible for me to grow. Oprah says, ‘The only people who never tumble are those who never mount the highwire.’ And of course, if you don't mount the highwire, you can't learn to tightrope.”*
- Fun fact: *“I once sat next to Leonardo DiCaprio on the 6 train.”* 🍷
- Website: ledelaney.org



After getting lost around UCR a few times, Lucy approaches each day as an adventure, and she has enjoyed getting to know her students and colleagues and, of course, the weather.

Kate Ostevik - Assistant Professor

- Grew up mostly in North Vancouver, Canada, *“although my family lived in Zambia and Nepal for a couple of years each when I was a kid”*
- Attended University of Toronto and University of British Columbia and had a post-doc position at Duke University
- Interested in *“speciation, evolutionary genetics, evolutionary ecology, genome evolution, pollination biology, mating system evolution... too many things!!”*
- What other jobs has Kate held? *“Administrative assistant, customer service at an office supply store, tree planter (in northern Ontario - big mistake!), au pair, research assistant, lab technician”*
- Current projects? *“We just started working on a new collaboration looking at transposable element activity, chromosomal rearrangements, and reproductive isolation in rice. So, we have our first seedlings growing in the lab.”*
- Advice for current EEOB graduate students? *“Take breaks when you need them! Trying to work when you are burned out is almost always counterproductive.”*
- Website: osteviklab.com



Above: Ostevik and Samuk joint lab lunch!



Left: Kate's super-senior (and super cute) cat brothers

Right: Kate collecting Penstemon in the Sierras

One of the things Kate loves most about her job is that she rarely has a ‘typical day’!



EEOB Recent Hires: Interview (cont.)

Kieran Samuk - Assistant Professor

- **Grew up in** Orangeville, Ontario, Canada
- **Attended** University of Toronto and University of British Columbia and had a post-doc position at Duke University
- *"I'm interested in the **genetic basis of the process of evolution**. I'm particularly fascinated by the role that recombination (the remixing of genomes during meiosis) plays in evolution."*
- **What other jobs has Kieran held?** *"During high school and undergrad, I had an odd array of jobs: I taught guitar to 5-12 year-olds; worked at a McDonalds inside a Walmart; stocked shelves at Staples; and worked as an assistant to a statistician embedded in a hospital. I was also a tech in a sunflower genetics lab for a short period between my MSc and PhD."*
- **Current projects?** Many projects! Including *"the population genomics of an incipient species of stickleback, experimental evolution of chromosomal inversions, and a simulation project studying sources of bias in estimates of recombination."*
- **Advice for current EEOB graduate students?** *"To borrow a phrase Dr. Anne Galloway on Twitter, 'We're all smart. Distinguish yourself by being kind.' - Take your mental and physical health seriously! - Learn to code, it gives you access to whole new dimension of scientific and professional possibilities. - Experiment with time management systems to find one that works for you. Being efficient and purposeful with your time can make a huge difference."*
- **Fun fact:** *"I am a big fan of professional sumo wrestling (as a fan/spectator!)."*



Kieran would really like to know why UCR hasn't changed its mascot to a burro... Great question!

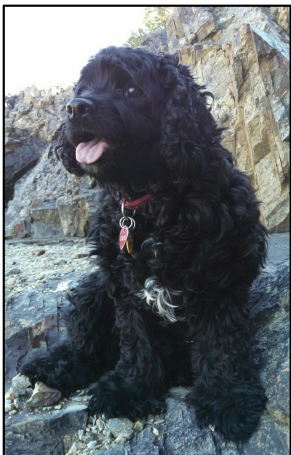


Above: Kieran asking a stickleback which species it is.

Website: samuklab.com



Below: Shana's adorable pup – a cocker spaniel named Chloe!



Shana Wells - Academic Coordinator



- **Grew up in** Thousand Oaks, California
- **Attended** UC Davis, UC Riverside (Botany and Plant Sciences PhD Program with a focus on invasive species & evolutionary ecology); and had post-doc positions at University of Arizona and Chapman University
- **Interested in** *"Retention of first-gen and underrepresented minority students in STEM. Teaching effective teamwork in STEM. Effectively teaching critical thinking in STEM."*
- **What other jobs has Shana held?** *"Program Coordinator - Center for Land Based Learning. Between my bachelors and graduate work, I spent 2 years developing and instructing field-based ecology and sustainable agriculture experiences that integrated into high school biology classes in California's central valley."*
- **Current projects?** *"I'm currently analyzing a data set of 5 years of biology majors taking the 5 series courses to understand where we are at right now."*
- **Advice for current EEOB graduate students?** *"Make this time your own. You have access to an amazing group of faculty and your fellow students. Learn the skills you think are important and follow questions that inspire you. Go to seminars, meet with visiting faculty, and get involved with department activities. You are busy, but this extra stuff broadens your perspective and helps you make good connections for the future. Ask for help when you need it. You have a big community of people that want you to be successful."*
- Shana has really **enjoyed working with the graduate student TAs and undergraduate students** at UCR, and she is eager to continue *"developing courses that build our students into scientists and critical thinkers. Specifically, I am excited to integrate new research on evidence-based pedagogy into our courses."*
- *"My door is always open to anyone who wants to talk about teaching!"*



Outreach Highlight



EEOB graduate students, **William Ota** and **Ryan Conway**, and EEOB Associate Professor, **Kurt Anderson**, lead a field trip for the **UCR Chapter of SEEDS** (Strategies for Ecology Education, Diversity and Sustainability) to the Santa Ana River. Anderson Lab members showed students stream habitat and benthic macroinvertebrate survey techniques, as well as talked about conservation issues facing the river.



Photos: UCR SEEDS

Call for submissions – Spring newsletter

Have announcements you would like to share with the department?
Upcoming events, new publications, grants, awards, stories, photos, etc.?

Please send them to me to be included in the next newsletter!

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