

Center for Conservation Biology



Newsletter - Fall 2025

Welcome to the Fall 2025 Center for Conservation Biology Newsletter

Our Mission: The Center for Conservation Biology (CCB) at UC Riverside advances ecological and conservation science through interdisciplinary research, stakeholder engagement, and hands-on training. We proactively identify new research priorities in conservation biology and inaugurate new collaborative research programs. We develop research programs in response to existing needs in conservation biology. We assist in the conservation and restoration of species and ecosystems by facilitating the collection, evaluation and dissemination of scientific information while training the next generation of conservation scientists.

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From the Director...

Welcome to the Fall 2025 Center for Conservation Biology newsletter. We are an interdisciplinary center that broadly addresses fundamental and solutions oriented conservation biology from organismal to landscape scales. We emphasize issues directed affecting the sustainability of southern California as well as having and international and global perspective. While we focus on threatened and endangered native ecosystems and species in terrestrial and aquatic habitats, we also study processes occurring in urban and agricultural centers. The wildland urban interface concept has emerged as a valuable framework too integrate our research across multiple dimensions of conservation. In conducting our research, we look to build an interdisciplinary understanding of how we can conserve and sustain key biological systems in the face of multiple threats.

In addition to cutting-edge research, we also value contributions to educational and service activities. As an inter-departmental unit we make invaluable contributions to graduate and undergraduate training that lies outside individual programs or disciplines. We have a lively graduate student and undergraduate student groups. We also provide valuable service through public engagement, hosting workshops, contributing to policy.

Our activities have a strong history at the University of California Riverside that we build on to continue advancing conservation needs. We were founded and ratified by the UCR Faculty Senate in 1997 with Professor Norm Ellstrand as Founding Director. He was followed by Professor Mike Allen, who led the center from 1999 to 2017. I am now the third Director and am continuously learning from these nearly three decades of ongoing success. Over this time, we have contributed to many improvements in conservation, from greatly reduced air pollution to enactment of multiple species habitat conservation plans. However, the threats to conservation have also accelerated, including rapid climate changes, ongoing development, and increasing numbers of invasive species. More than ever a center directed to conservation science and action is needed to help ensure the continued sustainability of southern California and the world.

We invite you to peruse our website for more information and reach out if you are interested in collaborating. We welcome engagement with diverse community members, land managers, and other academics.

Fiat Lux!

Dr. Darrel Jenerette

Director



CCB Website Update!!!

We have completed a full update of the CCB website (www.ccb.ucr.edu). Sahar Foruzan along with Debbie Brown and many individual contributors have been essential to this update. Check it out! We will continue updating regularly and encourage you to send any information you think relevant to us for inclusion. We are particular interested in highlighting new research - get in contact if you want to write a press release for new discoveries or activities that we can host.



Recent News

Los Angeles Megafire Workshop

By Sahar Foruzan

In April 2025, 35 participants consisting of academic researchers and practitioners in environmental and fire management in California, gathered for a day long workshop to discuss the causes, consequences, and visions for adapting to a new fire regime in southern California. The workshop was hosted by the Center for Conservation Biology, through their partnership with the UC-wide Wildland Urban Interface Climate Action Network (WUICAN) and in collaboration with partners at the United States Forest Service (USFS). Through a series of panels and breakout discussions, experts mapped out the context and complexities of LA's firestorms and pointed to some practical steps for moving forward.

The significance of this event lies in its interdisciplinary composition. Bringing researchers and practitioners together is a crucial step in understanding and improving our fire management strategies, responses, and recovery protocols. Each individual and party in attendance represented one key perspective whose knowledge and experiences can help Southern Californians recover and move in future directions in the aftermath of the LA fires.

During the opening of the first panel on consequences, one of the panelists recounted how many of the phone calls he received the day of the fire were from reporters asking if the fires were caused by climate change. As this workshop showed, there is more to the story. Experts noted the disaster reflected a combination of biophysical, societal, environmental and technological factors.

A key focus of the panel on causes was the combination of "whiplash" weather dynamics--which describes the two years of increased rains and vegetation in the region followed by a dry winter thereby creating ample fuel--alongside the fact that most fires in the region are human caused, whether through arson, negligence, or accidental ignition. This combined with fragmented regulatory

frameworks and outdated management practices laid the groundwork for the disaster.

Attendees noted that the consequences of the LA urban fires will occur at multiple time scales. Some are immediate in the form of loss of life, displacement of communities, and loss individual property, but others will take time to emerge such as the toll of pollution to our waterways and the economic, structural, and equity challenges that come with rebuilding communities. Looking ahead, experts made it clear the path to resilience and prevention involves critical questions about the kinds of urban landscapes we want to create. This path involves engaging multiple stakeholders on these critical questions as well as in planning and implementation efforts.

This workshop brought together practitioners and academic researchers and by doing so it showed several important insights. First, there is agreement among experts of the major unknowns are for future research. Second, the tools we use to manage fire in Southern California need to be evaluated to reflect lessons learned from this recent urban fire. Third, sustained and democratically driven community engagement will make a key difference in creating safer, more resilient urban environments. The 2025 Los Angeles firestorms were unprecedented. Yet if we can understand them, we can potentially change how we build new landscapes, support communities, and manage changing fire regimes.



Workshop attendees in Pasadena, CA (Photo by Emina Daraky)

EcoSlam Grows Spring 2025

By Sahar Foruzan

From a small gathering of graduate students to this past spring's crowd of nearly 40 attendees, the CCB Grad's Spring EcoSlam event continues to thrive! Miranda Buckley, a Ph.D. candidate in Evolution, Ecology, and Organismal Biology, has been leading EcoSlam for the past four years after inheriting the event from the previous cohort of graduate students who began EcoSlam as a way to practice sharing their research. A playful twist on the UC-Wide annual Grad Slam, EcoSlam now offers both graduate and undergraduate students a chance to practice public speaking, receive constructive feedback on their research, and network within the UCR ecological community. Now in its eighth year, EcoSlam is financially supported by the Center for Conservation Biology with catering and cash prizes. This past year's EcoSlam took place at the UCR Botanical Gardens and was comprised of two undergraduate presentations, eight graduate presentations, and thirty-eight attendees. This year's graduate student winners were Gabrielle Moneymaker in first place and Titto Abbo in second place. Undergraduate winners were Shivali Vishwakarma and Neha Valluri in first place and Adam Huynh in second place. The keynote address was given by Dr. Allison Ormsby, an Associate Director of Design and Forest Specialist at Adventure Scientists. Attendees were invited to the Barn to have lunch with Dr. Ormsby prior to the main event. EcoSlam 2025 also included a hands-on field workshop co-organized by Gabrielle Moneymaker, a Ph.D. student in the Department of Botany and Plant Sciences, Miranda Buckley and Dr. Ormsby. Attendees learned about eDNA (environmental DNA), and how to collect samples for conservation purposes. They also learned the importance of conservation in the state of California and how to pursue conservation biology as a career. Materials for the workshop were provided by Adventure Scientists and the Center for Conservation Biology provided refreshments after the workshop. EcoSlam 2026 will return in the Spring Quarter. Check out the CCB events page and Facebook/Instagram accounts for updates!



Students met with Dr. Ormsby at the Barn.

Gear Closet Gets a new home

By Ally Richards

The CCB-SEEDS Student Research Gear Closet (SRGC) at UC Riverside makes field science more accessible for everyone. Created by the Center for Conservation Biology (CCB) graduate student group in collaboration with SEEDS, the SRGC provides students with the clothing and gear they need at no cost to feel safe, comfortable, and prepared during outdoor research or field courses. With field essentials like clothing, tents, boots, backpacks, gaiters, and more, the SRGC is all about removing barriers so more students can take part in career-building fieldwork experiences.



We'd love your support! If you have lightly used or new gear you'd like to donate, we're currently accepting items like cold-weather coats, boots (women's size 6-9 and men's 9-13), field clothes (women's and men's sizes 4-8 and S-L), sunscreen, and even a foldable utility cart. Monetary donations also go a long way, we stretch every dollar to fill the biggest gaps in our inventory. To learn more about renting gear or supporting the closet, check out the official [SRGC website](#) or reach out to Ally (arich065@ucr.edu) or Miranda (mbuck070@ucr.edu), we'd be happy to hear from you!

Congratulations to Our 2025 Shipley Skinner Awardees

By Sahar Foruzan

The Center for Conservation Biology is thrilled to announce the recipients of the 2025 Shipley Skinner Endowment Fund! These five students stood out for their enhancement of fundamental science and the strong potential of their work to advance conservation efforts. More that \$80,000 was given to fund graduate student led research with grants up to \$28,000 each We look forward to seeing the impact of their work!

Congratulations to,

Miranda Buckley "Tapping into Coexistence: How Holoparasites Alter Host Physiology and Influence Biodiversity"

Blanca Peto "Genetic Patterns and Distribution of *Bombus vosnesenskii* in Riverside County and Greater Southern California Region"

Molly Barber "Herbivore-Plant-Pollinator Interactions on Coastal Sage Scrub Bushmallow"

BryAnna Wertz "Limitations of Seed Addition Studies in Riversidean and Coastal Sage Ecosystem in Southern California"

Melissa Arellano "Species Distribution Models and Environmental DNA - A Novel Combination for Bumble Bee Conservation"

We also want to extend a big thank you to all those who applied. We received many strong and thoughtful applications which made the selection process highly competitive. Collectively the ideas

and efforts of all those who applied reflect how awesome our graduate community really is!

For anyone interested in applying next year, the call for proposals for the 2026 Shipley Skinner Reserve-Riverside County Endowment Fund will be announced soon. We plan to hold a informational workshop before applications are due. Please check back on our webpage for updates.



Credit: Joel Sachs



Credit: Erin Wilson-Rankin

The Desert Climate Resilience Initiative for the Coachella Valley – Dr. Lynn Sweet

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We focused our scientific aims at the impact of climate change on native plant communities and carbon sequestration potential/stored carbon in the desert. We created a summary of plant species richness under current and future climate scenarios using indicator species finding declines in species richness in the future (*Zumbado-Ulate et al. In Review*). We undertook a field study to understand

We are summarizing these investigations, including information noted as important to the community including identifying refugia for carrying biodiversity into the future, particular species and habitats important to indigenous communities that are sensitive to climate changes and the distribution of carbon stocks within the valley. This interactive web tool will help our conservation partners in understanding future conditions related to the carbon and biodiversity value of regional lands. We will also apply this knowledge to understand how outdoor recreation in underserved communities may be impacted by climate change. In the long term, this project aims to build capacity for research and collaboration in the Coachella Valley concerning carbon and vegetation conservation and protecting the integrity of ecosystems with a special focus on participating in pathways into scientific careers for underserved communities.

Dedicated to fostering an inclusive and supportive research community, the Center for Conservation Biology's Graduate Student Group supports fellow students by hosting events and workshops,

overseeing the CCB-SEEDs mentorship program, and managing the Student Research Gear Closet to promote professional development, peer connection, and access to field research resources.

Led by: Miranda Buckley, Gabrielle Moneymaker, Allyssa Richards, Audrey Burr, and Brittney Nguyễn.

Looking forward

The past year brought many challenges for all academic centers and our many colleagues. Unfortunately the challenges are still front and center in our thoughts for the near future. Nevertheless, in the coming year we also look for opportunities where we can make a difference in both advancing research and enhancing progress towards more sustainable pathways. We will continue with our ongoing research and engagement thrusts to better improving resilience of species and people in the Coachella Valley region. We are also working toward creating a report on the state of ecological and environmental sustainability in the Inland Empire region. These activities highlight the close coupling between conservation, ecosystems, and societal changes. With the Los Angeles firestorms from January 2025 still fresh in our memories our work will continue to evaluate conservation opportunities associated with increases in fire risks. Our research thrust into the wildland urban interface (WUI) will continue providing an overarching framework for addressing key sustainability issues in southern California and beyond. With these ongoing activities we are also planning to host a workshop as well as continue with annual EcoSlam and Shipley Skinner fellowships and renew our perennial seminar series. Always optimistic, we are looking to make a difference now and prepare for the next opportunities.



Credit: Gabrielle Moneymaker



Community Science at Hurkey Creek. (Cameron Barrows)