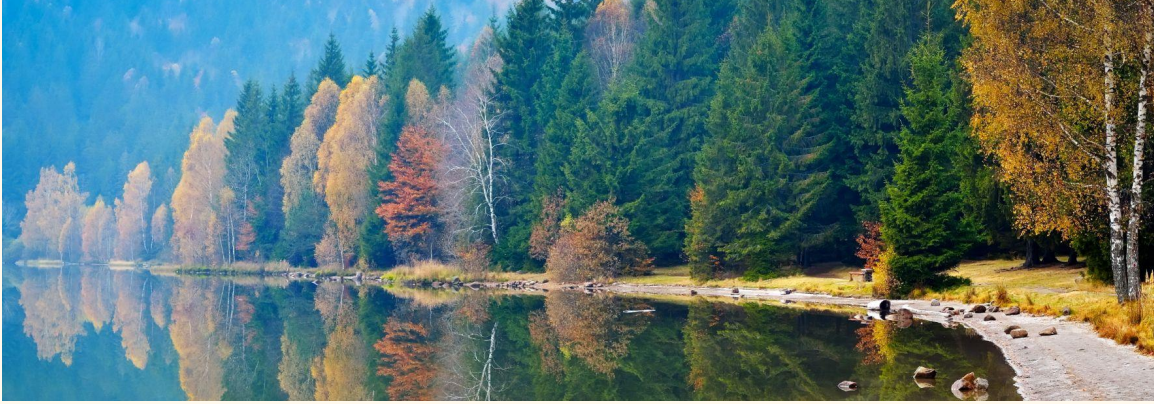




FALL 2021 | ISS.8

AS THE LEAVES TURN

OFFICIAL NEWSLETTER OF RIDGE 2 REEF



Fall Quarter in Review

In Fall 2021 we saw a rejuvenating return of our trainees, faculty, and staff to the UCI campus. While we are still navigating this new set of challenges with in-person and hybrid learning, we continue to press on and remain flexible to keep our students and staff safe.



This quarter, we also welcomed seven new trainees to the 2021 Cohort: Kristin Barbour, Kierra Lentsch, Shu Li, Kyle Manley, Margarita Rivera, Kameko Washburn, & Allison Welch.
Congratulations, trainees!

Quarter Highlights

Environmental Research Poster Symposium

This year, our Environmental Research Poster Symposium was jointly sponsored by Ridge 2 Reef & UCI Solutions that Scale. The symposium was held in person on campus at UCI's new Interdisciplinary Science & Engineering Building.



Depth matters: Bacterial response to drought and wildfire depends on depth in the surface soil ‡

Kristin Barbour, Claudia Weihe, Jennifer Martiny

Pathways to Meeting the US DOE Clean Hydrogen Energy Earthshot and Curbing Global Warming + •

ZeJie Chen, Tim Kim, Xiaoqing Pan, Shane Ardo

Gaming Geriatrics Close the Gap: An Analysis of Age and Training Effects on Brain Games *

Priyam Das and Mark Steyvers

Techno-economic analysis of seaweed-based climate solutions + •

Julianne DeAngelo, Isabella Arzeno, Benjamin Saenz, Christina Frieder, Matthew Long, Kristen A. Davis, Steven J. Davis

Forecasting Wildfire Spread with Convolutional Neural Networks + •

Casey A. Graff, Shane R. Colfield, Yang Chen, Efi Foufoula-Georgiou, James T. Randerson, Padraic Smyth

No water no problem: How fungi evolve to drought* ‡

Melanie Hacopian and Kathleen Treseder

Association of Short-Term Heat Exposure with Premature Rupture of membranes in Southern California: A study from a Large Pregnancy Cohort + •

Anqi Jiao, Chantal Avila, Vicki Chiu, David A. Sacks, John Molitor, Jiu-Chuan Chen, Tarik Benmarhnia, Darios Getahun, Jun Wu

Surface area and detachment stress effect on the clinging performance of plethodontid salamanders ‡•

Kierra Lentsch, Dr. Mary Kate O'Donnell, Dr. Stephen Deban

Spatial and temporal distribution characteristics of escaped prescribed fires in California + •

Shu Li, Janine A. Bajjnath-Rodino, Tirtha Banerjee

Analyzing the role of ocean circulation in carbon cycle under climate warming ‡ •

Yi Liu, J. Keith Moore, Francois Primeau

Modeling Climate Change Impacts to Nature Recreation Using Social Media and Machine Learning ••

Kyle Manley and Benis Ego

A Heat Budget of a Tidally Flushed Atoll Lagoon

Sarah Ruth Merrigan, Greg Sinnett, Geno Pawlak, Kristen Davis

Atomically Tailored Catalysts for Sustainable C-N Bond Formation +•

Eamonn Murphy, Dmitri Cordova, Yuanchoo Liu, Max Arguilla, Plamen Atanassov

Soil Microbial Ecology in Urban Environments ‡

Andie Nugent and Steven Allison

Caves and Climate: Rainfall in Mexico 128,000 Years Ago ••

Bryant Pahl, Kathleen Johnson

The relationship between hippocampal subfield volumes and human navigation ability Δ

Alina S. Tu, Caitlin McIntyre, Elizabeth R. Chrastil

Online process-based and offline empirical approaches for simulating the MEGAN isoprene emission response to drought and heatwaves •

Hui Wang, Alex B. Guenther, Roger Seco, Thomas Karl

Infrastructure provisioning in California: A descriptive analysis of CEQA projects, 2010-2020 +•

Jie Wang, Nicola Ullbarri, Steven J. Davis, Tyler A. Scott

Towards net-zero N₂O emissions + •

X. Sarah Wang, Steven J. Davis, Jenny Y. Yang

Arctic Greening: Implications of expanding shrubs on soil properties in Arctic alpine tundra ••

Allison Welch, Shawn Pedron, Robert Jespersen, Yezzen Khazindar, Nikki Fiore, Michael Goulden, Brittany Martinez, Xiaomei Xu, Claudia Czimczik

Affiliations: • Ridge to Reef Program; + UCI Solutions that Scale; • EEB 203A; Communication Skills; • Chemical and Biomolecular Engineering;

• Chemistry; • Civil and Environmental Engineering; • Cognitive Sciences; • Computer Science; • Earth System Science; ‡ Ecology and Evolutionary Biology; Δ Neurobiology and Behavior; • Environmental and Occupational Health; • Urban Planning and Public Policy; • Undergraduate Research Opportunities Program

Ridge 2 Reef



Follow us to get notified about events like this!



Quarter Highlights

Congratulations Robert Fofrich and Ariane Jong!

This year, among the awardees of the Rose Hills Foundation Science and Engineering Scholarship Graduate School Program are R2R trainees Robert Fofrich & Ariane Jong. This award recognizes talented students whose academic excellence and leadership qualities align with the mission of the Rose Hills Foundation: to support non-profit organizations that will serve the Southern California community.

Congratulations Ariane and Robert!



Education

Advancing educational opportunities and success for students at all levels



At-Risk Youth & Families

Supporting effective interventions and services for at-risk youth and families



Social Services

Helping meet basic needs for food, housing, health care, employment and supportive services



Arts & Culture

Supporting regional institutions and expanding access to programming