

Spring 2026 ERFSA Luncheon Presentations

Feb 12, 2026 (sequential speakers):

12:00 – 12:30 PM

Oscar M. Vargas, 2021 Grant Recipient, Biological Sciences.

“The evolutionary origin and conservation genetics of rare plants in California.”

Portions of the tree of life, the evolutionary origin of rare plants and genetic diversity can be inferred from the use of next generation DNA sequencing. My research team examines this data for conservation purposes.

12:30 – 1:00 PM

Catalina Cuellar-Gempeler: 2020 Grant Recipient, Biological Sciences.

“Revealing biodiversity–ecosystem function relationships through microbial nitrogen metabolism.”

Studying the relationship between Biodiversity–ecosystem function helps us understand how the variety of life in a system affects how well that system works. However, we still have major gaps in knowledge, especially about how the movement of organisms between habitats affect ecosystem health. Our findings highlight how complex and dynamic microbial roles can be in shaping the natural world and proposes novel frameworks to manage and predict microbial function in natural and constructed systems.

March 12, 2026: Kyle Weis, Acting Captain of the research vessel, R/V North Wind, Woodley Island Marina.

A tour from 12:00 to 1:00pm at Cal Poly Humboldt's new research vessel, R/V North Wind, meeting at Dock A at the Woodley Island Marina in Eureka. We will remain at the dock, and Kyle Weis will be available to answer questions during your informal tour. There are many opportunities for lunch in Eureka, including the on-site Café Marina. Dock A is located at the south end of the marina.

April 9, 2026: Brandon L. Browne, Professor, Department of Geology.

“Probing the subvolcanic magma plumbing systems of continental and oceanic basaltic volcanoes, examples from Medicine Lake volcano and the Axial Seamount.”

Results of new geological research on the magma systems that underly two very different basaltic volcanoes located in the Pacific Northwest, including Medicine Lake Volcano in the California Cascades and the Axial Seamount submarine volcano on the Juan de Fuca Ridge. New evidence from geochemical and geophysical observations is advancing our ability to monitor and forecast volcanic eruptions, driving volcanologists to reimagine classical models of subvolcanic magma systems from simple, long-lived, and melt-dominated systems to complex, ephemeral, and crystal-rich systems.

May 14, 2026: Jose Marin Jarrin, 2020 Grant Recipient, Fisheries Biology.

“Using genetic barcoding and otolith analysis to train a diverse workforce in Fisheries Ecology.”

Genetic barcoding and otolith analysis allow ecologists to identify fisheries species, and estimate fish growth and survival rates. In our lab, we have been training students and local partners to use these techniques basic parameters for fisheries management and stewardship to study octopus in the Galapagos Islands, and smelt and surfperch in Northern California. Our work will allow students and local partners to use the techniques critical to small-scale fisheries in small underserved communities.