Ecosystems Workshop #2: Speaker Profiles

Delta Independent Science Board Meeting
March 8, 2019

Ms. Gina Darin is a Senior Environmental Scientist (Supervisor) at the California Department of Water Resources (DWR). She has over 10 years of experience working on invasive plant management in California, all the while volunteering for the nonprofit California Invasive Plant Council, where she is currently serving as President of the Board. As part of her duties at DWR, she oversees technical staff dedicated to the Fish Restoration Program and California WaterFix. Gina serves as co-chair to the DWR internal Invasive Plant Working Group and represents DWR on the Delta Interagency Invasive Species Coordination Team, the Interagency Ecological Program's (IEP's) Aquatic Vegetation Project Work Team, and the California Interagency Noxious and Invasive Plant Committee. Prior to working for DWR, Gina worked at the California Department of Food and Agriculture in the Weed Management Area (WMA) Program. She has a B.S. in Marine Science from Eckerd College, St. Petersburg, FL and a M.S. specializing in Weed Science with Dr. Joe DiTomaso from the University of California, Davis (2008).

Dr. Shruti Khanna is a Senior Environmental Scientist at the California Department of Fish and Wildlife (CDFW) and part of the IEP synthesis team. She is leading the effort to develop a monitoring framework for aquatic invasive plant species in the Delta as part of the IEP Aquatic Vegetation Project Work Team. She uses remote sensing image analysis tools to study the impact of disturbance and invasive species on natural wetland ecosystems. Prior to CDFW, Dr. Khanna conducted her research on water hyacinth spread, control and impact on other aquatic vegetation communities in the Delta and on the impact of the BP oil spill in the salt marshes of Louisiana. She earned her Bachelor's degree in Computer Engineering at MSU, India and her masters and Ph.D. in Ecology at the University of California, Davis.

Dr. Jonathan Rose is a Biologist with the United State Geological Survey's Western Ecological Research Center. Dr. Rose conducts research on the population ecology of reptiles and amphibians, with the goal of informing conservation of these taxa. Jonathan analyzes capture-mark-recapture, occupancy, and movement data in a Bayesian framework, to estimate species' demographic vital rates, distributions, and space use. Jonathan is particularly interested in how species respond to changes in land cover and land use, and how species can persist in fragmented, human-dominated landscapes. Current projects include studying how the availability of aquatic habitat affects the demography and distribution of threatened Giant Gartersnakes (*Thamnophis gigas*) in the Sacramento Valley, California; population studies of endangered San Francisco Gartersnakes *(Thamnophis sirtalis tetrataenia*); estimating the occupancy of Western Pond Turtles (*Actinemys marmorata*) in rice-growing regions of the Sacramento Valley; and modeling the distribution and population dynamics of amphibians of conservation concern in northern California.

Dr. Albert Ruhi is an Assistant Professor at the University of California, Berkeley (Department of Environmental Science, Policy, and Management). He is a freshwater ecologist interested in how communities and food webs respond to global change stressors—focusing on the effects of hydrologic variability and drought. He received his Ph.D. from the University of Girona (Catalonia, Spain), studying biodiversity responses to wetland ecosystem restoration. He has conducted most of his research in water-scarce regions of the world, namely the Mediterranean basin and the American Southwest. As a recent Postdoctoral Fellow at the National Socio-Environmental Synthesis Center (SESYNC), he used large data sets and time-series methods to study the effects of flow regime alteration on native and non-native fish communities across the U.S. His research aims to address pressing freshwater conservation challenges in the context of global environmental change.

Dr. Ted Sommer received his Ph.D. from University of California, Davis, where he studied under noted fisheries biologist, Dr. Peter Moyle. His dissertation and a key topic of his research since then has been on the ecology of the Yolo Bypass floodplain. Dr. Sommer is the Lead Scientist for DWR, where he helps guide the department's aquatic science efforts, particularly for the Delta and its tributaries. He has been the principal investigator on diverse study topics that include native fishes, salmon biology, pelagic fishes, floodplain ecology, food webs, and hydrology. Since 2001, Dr. Sommer has published 48 research articles in peer-reviewed scientific publications.