Science translation and boundary spanning in ecology

Graduate seminar offered by Hugh Safford, DESP, winter quarter 2023

Contacts: Saba Saberi, 3125 Wickson Hall, sjsaberi@ucdavis.edu. Hugh Safford, 3128 Wickson Hall, hdsafford@ucdavis.edu

Communication between science and society has never been more vital than today. Modern environmental problems (e.g., climate change, pollution, environmental justice, non-native invasive species, extinction) are characterized by complexity, uncertainty, large temporal and spatial scales, and irreversibility—traits which necessitate innovative, participatory, and multiparty approaches to problem solving. Schlesinger (2010) wrote that

*“Today’s environmental scientists have a powerful array of tools and techniques to measure and monitor the environment and to interpret vast and diverse data. Yet despite producing an enormous amount of new information, ecologists are often unable to convey knowledge effectively to the public and to policy-makers. Unless the discoveries of ecological science are rapidly translated into meaningful actions, they will remain quietly archived with the biosphere degrades.”*

“Translational ecology” can be defined as the theory and practice of developing and delivering applied ecological research in a manner that is relevant to and practical for solving environmental problems. Translational ecology is thus focused on applied problem solving, and built on partnerships and multi-way communication between scientists, resource managers, policy makers, and the public. Some of the most effective ecological translation is carried out by “boundary spanners”. These are institutions, groups, or individuals that straddle the divide between information producers and users (e.g., scientists and nonscientists) and produce products, tools, or processes that provide integrative and collaborative solutions for environmental problems.

This seminar will explore the role of boundary spanners in developing and delivering translational ecology. The 10 seminar meetings will be evenly split between guest speakers from important boundary-spanning organizations located in central California (e.g., Point Blue Conservation Science, USDA Climate Hub, UC Cooperative Extension, California Fire Science Consortium, US Forest Service Region 5 Ecology Program) and presentations by seminar participants.