

Linking indigenous and western knowledge systems to support socio-ecological resilience in Pacific outer islands: partnerships for sustainability

NICOLE CRANE¹ AND JOHN RUMAL²

¹Cabrillo College

²TBC

Presenting Author: nicrane@cabrillo.edu

In our efforts to protect sensitive marine ecosystems and mitigate the impacts of climate change, an often overlooked but critical element of ecological conservation is the human dimension, including the role that indigenous peoples and their cultures play in sustainable management and stewardship. Ecological and socio-cultural change are linked, especially in small subsistence communities that depend on the ocean for their livelihoods. We will explore our work in the West Pacific outer islands to combine modern science and traditional practice to address resource and ecosystem decline. We will present how we are collectively combining modern science tools, storytelling, and traditional knowledge into capacity building for resource protection, highlighting the critical role of traditional practice and indigenous knowledge in sustainable management.

Nicole Crane is a Senior Conservation Scientist and Co-Leader for the One People One Reef organization – working with Pacific outer island communities to support sustainable reef management planning. Crane has more than 25 years of experience working with communities and conducting ecological assessments and she is dedicated to linking rigorous science with cultural knowledge and community leadership in conservation. Nicole has established several science education programs with a focus on serving underrepresented students. She was the founder and Director of the National Science Foundation Center for Excellence in Marine Advanced Technology Education, and Executive Director for Camp SEA Lab. She includes citizen scientists and students in her work and is committed to enhancing citizen science across cultures and disciplines. She is an associate at the California Academy of Sciences, a National Geographic Explorer, and is a Fellow National at the Explorers Club.

