KEYNOTE ADDRESS

Lost in Translation: Tales of a Trans-disciplinary Journey

Dr. Maria Fernandez-Gimenez
Professor, Colorado State University

Dr. Fernández-Giménez will share her personal and professional journey from the humanities to the natural and social sciences, as a participant and then leader of large interdisciplinary collaborative research projects, towards a reconnection with art (poetry) as a way to explore the complex confluence of place, identity, landscape and community. In a storytelling format the talk will narrate scientific and personal stories of trans-disciplinary, cross-cultural and participatory research projects and lessons learned, interwoven with reflections on practicing interdisciplinary science as a white Hispanic female researcher/educator in a historically white male dominated field/institution. Reflections will focus on both the intellectual process and the social and cultural contexts of interdisciplinary work, and the challenges and opportunities these present for scientific insight and personal growth.

Environmental Geographies Symposium

Friday, Feb 26
3:30 - 4:30

Scripps Cottage
SDSU Campus

Hosted by:
Supporting Women in Geography
Integrating climate change and sustainability across the curriculum

Dr. Jane Teranes
Associate Teaching Professor, Scripps Institution of Oceanography; Faculty Director, Environmental Systems Program, UC San Diego

Much of the growing scientific certainty of human impacts on the climate system, and the implications of these impacts on future generations, have been discovered and documented in research labs in colleges and university across the country. Often these colleges and universities also take decisive action towards carbon neutrality, by making significant reductions in greenhouse emissions and pledging to greater future reductions (i.e. the UC Carbon Neutrality Initiative), thus positioning themselves as leaders in sustainability and climate solutions. Yet, there are still far too many students that graduate from these campuses not understanding how to envision and enact climate neutrality in their future professions, within their communities, and within their lifetimes. It may be that where college and universities still have the largest influence on reaching carbon neutrality in the near future is in the way that we educate students.

Here I present a curriculum workshop model at UC San Diego, funded as UC-wide pilot program, that leverages faculty expertise to infuse climate change education across disciplines to enhance UC San Diego students’ climate literacy, particularly for those students whose major focus is not on climate change science or sustainability topics. In this model, 20 faculty from a breadth of disciplines, including social sciences, humanities, arts, education, and natural sciences will attend workshops in which they developed plans to infuse aspects of climate change (i.e. science, impacts, mitigation and adaptation) into existing undergraduate courses. The workshops provide support to non-specialist faculty in learning key climate science concepts that underpin our understanding of climate change. The workshops particularly encourage modules of climate change content in courses in the humanities, social sciences and arts that are best positioned to address the important human and social dimensions of climate change. In this way, climate science becomes embedded in current course offerings, including non-science courses, to increase climate literacy among a greater number and a broader cross-section of students.
Social and ecological dimensions of watershed conservation: Insights from Hawai‘i and the Andes

Dr. Leah Bremer
Postdoctoral Scholar, Stanford Woods Institute for the Environment; Ecologist, Natural Capital Project; Postdoctoral Scholar, University of Hawai‘i, Mānoa

Watershed conservation initiatives are growing around the world in an effort to protect water supplies, sequester carbon, protect biodiversity, and improve human well-being. Planning and evaluating the outcomes of these initiatives requires an inter-disciplinary approach that combines social and natural sciences or human and physical geography. Here, I present some of my work on payment for ecosystem services programs in South America and on sustainable watershed management in Hawai‘i, along with some of the challenges and opportunities in inter-disciplinary research.
Stewardship is both the action of managing some aspect of the ecosystem, and the underlying ethic of responsibility driving that action. I am working to understand and highlight the importance of stewardship in small-scale fisheries management and biodiversity conservation. One of my focus areas is marine mammal bycatch in these fisheries, including ongoing fieldwork in the Upper Gulf of California, where strict fishing restrictions have recently been enacted in a last-ditch effort to save the vaquita (the most endangered marine mammal in the world). Understanding the source and nature of stewardship in communities holds much potential for developing stronger community-based solutions to conservation problems related to fisheries.
Focusing on scale to support wildlife in a changing environment

Dr. Sarah Hennessy
Postdoctoral Scholar, Applied Animal Ecology, San Diego Zoo Institute for Conservation Research

Research questions needed to support declining species, in our case the western burrowing owl in southern California, can be answered by integrating research methodologies at different scales. During development of a spatially explicit habitat suitability model for burrowing owl, large-scale habitat suitability was defined with a multivariate distance measure to rank sites based on a large grid of environmental variables compiled from public spatial data sources. Fine-scale habitat suitability was evaluated with centimeter-scale imagery collected by an unmanned aerial vehicle (UAV) and soil sampling. This integrated approach supports ongoing management decision-making in the region.

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