



NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION Social Science Community Newsletter

Volume 2, Issue 1, September 2014 "Sharing knowledge for better practices".

NOAA's Science Days: Maximizing the value of NOAA's services and stewardship through Social Science research.

Please mark your calendars for the next installment of NOAA Science Days, on **September 23, 2014 from 1:00 – 4:40 p.m. ET in SSMC-3, Rm. 4527** and [webinar](#). Presentations from Chris Ellis, Rachel Hogan Carr, Kim Klockow, Burrell Montz, Allan Haynie, Jessica Whitehead and Maria Dillard.



Advancing Social Science across NOAA Pacific Islands Fisheries Science Center Socioeconomics and Planning Group

Based off the Pacific Islands Fisheries Science Center in Hawaii, the **Socioeconomics and Planning Group** addresses a suite of different projects comprising the study of human dimensions and economics of marine resource use and conservation. These efforts deal with very unique challenges such as the collection of information across the largest EEZ in the U.S., which is also one of the most diverse regions in terms of cultural practices and values.

Throughout the world, small-scale fisheries capture nearly the same amount of fish as industrial fleets. Within Pacific countries, about 30% of the Global Domestic Product (GDP) originates in subsistence or artisanal fisheries. However, despite their significance, **small-scale fisheries are understudied**. Lack of proper data constrains the understanding of their role in marine resource management.

Across the Pacific, small-scale fisheries are not only a source of revenue. Their value is tied to local identities, traditions, and cultural practices. In fact, large sectors of the population are directly engaged in coastal activities. Harvesting and fishing recall a long history of interactions between humans and the ocean. Interactions include the shaping of **dietary preferences** such as the consumption of skipjack (*aku*) and tuna in Hawai'i. Fishing has also contributed to the consolidation and persistence of societies. For example, handline (*aho*), the oldest kind of fishing, has provided jobs, food and "a means for enacting a locally valued way of life". Customary rules regulating resource use, distribution and sharing,

help buffer scarcity. They also help ensure cultural continuity. One good example can be found in the **study of social networks among O'ahu Fishermen**.

Over the past few years, increasing competition, non-sustainable practices, and overfishing, have posed many threats to small-scale fishermen. Through social and environmental change, "traditional" ways have provided and continue to provide alternatives to local populations. Far from being a residue from a distant past, small-scale fishing can be an **adaptive way** to make ends meet in times of uncertainty. Therefore, small-scale fisheries can offer valuable lessons into the future.

It is a priority within NOAA to understand the complex dynamics between the social and ecological components of marine ecosystems to protect our cultural and economic heritage. The formulation of responsible management policies that can balance all stakeholders' needs is a daunting challenge. The PIFSC SPG have faced this task through innovative research that targets fishing patterns across small-scale, recreational and commercial fisheries, socio-economic monitoring, institutional analysis, studies of use and circulation of seafood, and local knowledge. Some approaches also include co-participation for data collection in data poor fisheries and for co-management. Others combine multiple approaches like ethnography and life history interviews. For more information on these efforts, check the following links: [Pacific Science](#), [PIFSC](#).



Photo Credit: LCDR Eric Johnson, NOAA Corps.

Importance of pelagic fish in traditional diets

Subject to religious practices, festivities and communal obligations, skipjacks, mahi-mahi and other pelagic fishes have built the legal foundations of Pacific societies.



Fish petroglyphs at Rano Kau of a skipjack, Easter Island, Chile.

Photographer: Lieutenant Elizabeth Crapo, NOAA Corps

Skipjacks, are essential components of traditional diets. During early historical times, they provided more nutrients and proteins than wild boars.



Risk Behavior and Communication

Trombes or whirlwinds ... "scattering terror and desolation in their paths..." Camille Flammarion, 1873. Photo Credit: NOAA Library, NWS Collection.

Risk behavior and communication is a growing, cross-disciplinary field central to decision makers at all levels who work in the weather, water, climate and coastal arena. To prepare for a hurricane, a tsunami, or any extreme or chronic event, we must understand how stakeholders and the public perceive risk and uncertainty, how they will behave, and how to communicate effectively. A better understanding of the social aspects of hazards and environmental disasters is needed to improve public safety in severe storms and to increase community resilience to these events.

Despite an abundance of research, information products that effectively communicate risk, and catalyze appropriate behavior are limited. Much of the research in this field is highly technical and localized, aimed at particular events, and is not conducted in a systematic way.

Offices across NOAA are developing a synthesis of risk behavior and communication research in the context of severe storms, tsunamis, and hurricanes. The assessment focuses on the past 15 years of peer-reviewed research, and will also include recommendations for transitioning the research to application. Further work is also underway through the Sandy Supplemental/Sea Grant, NWS and CSC partnership activities, and Weather-Ready Nation (WRN) research awards. If you are interested in participating in the Risk Behavior and Communication Assessment effort, we strongly encourage you to send us your comments, suggestions, and perspectives to PPI.SocSci@noaa.gov.

Other News & Opportunities

ACES Conference. Linking Science, Practice and Decision Making. December 8-12, 2014. Washington, DC. More information [Here](#).

Restore America's Estuaries Conference. Inspiring Action, Creating Resilience. November 1-6, 2014. Washington, DC. More information [Here](#).

North American Marine Environment Protection Association Annual Conference and Awards Dinner. 29/10/2014. Register [Here](#).

NOAA's Social Science Committee

NOAA's Social Science Committee serves as an advisory board to guide strategic decisions related to the integration and application of social science across NOAA. Contact PPI_SocSci@noaa.gov for more information.



Jennifer Sprague—Co-Chair
Policy Analyst in the Strategic Planning and Policy Office of NWS. Background in Law and International Policy.



David Yoskowitz—Chair
NOAA's Chief Economist at PPI. Endowed Chair for Socio-Economics at the Harte Research Institute, Texas A&M. Background in environmental economics



Doug Lipton—Co-Chair
Senior Research Economist (NMFS). Associate Professor, Dept. of Agr. and Res. Econ., University of Maryland. Background in environmental economics.



Rita Curtis—NMFS
Chief of Econ. & Social Analysis Div., Science and Technology (NMFS). Background in environmental economics.

The Social Science Committee's mission is to strengthen, coordinate, and integrate the agency's social science research and analysis capabilities.

Lt. Cmdr. Kristie Twining—OMAO
Commissioned Officer for the Program Services and Outsourcing, OMAO. Background in biology, research pilot.



Tracy Rouleau—PPI
Sr. Social Science Advisor, Deputy Chief Economist. Background in environmental economics.

Toni Parham—NESDIS
Management and Program Analyst, Climate Serv. and Monitoring, NESDIS/NCDC/CSMD. Background in psychology.



Vankita Brown—NWS
Social Scientist Div. of Performance and Awareness, NWS. Background in media and communication.

Pete Wiley—NOS
Economist, Coastal Management Division, NOS/CSC/CMSD. Background in environmental economics and valuation.



Elizabeth Rohring—OAR
Acting Director of Communication, OAR. Background in conservation, socio-ecology, climate change communication.

Keelin Kuipers—NOS
Policy and Planning Services Program Manager, Management and Budget Div., NOS/CSC/CMSD. Background biology and



Nancy Beller-Simms—OAR
Program Manager, Sector Applications Research Program, Climate Program Office, OAR. Background in Geography, risks and hazards.

Recent publications in Social Science

Climate Adaptation and Mitigation -Weather Ready Nation

- *[Design and evaluation of a local analytic-deliberative process for climate adaptation planning](#)
Local Environment ~ T. Webler, S. Tuler, K. Dow, J. Whitehead, N. Kettle.
- *[Navigating financial and supply reliability tradeoffs in regional drought management portfolios](#)
Water Resources Research 50(6) ~ Zeff et al.
- *[Moving Climate Information off the Shelf: Boundary Chains and the Role of RISAs as Adaptive Organizations \(FULL TEXT\)](#)
Weather, Climate, and Society 6(2) ~ Lemos et al.
- *[Negotiating a Mainstreaming Spectrum: Climate Change Response and Communication in the Carolinas. \(FULL TEXT\)](#)
Journal of Environmental Policy & Planning 16 (1) ~ Haywood et al.

Healthy Oceans— Resilient Coastal Communities and Economies

- *[The impacts of paralytic shellfish poisoning on the Alaska shellfish industry and the implementation of an early warning system](#)
Forthcoming. Journal of Shellfish Research ~Trainer, V.L. et al.
- *[Performance of salmon fishery portfolios across western North America](#)
In press. Journal of Applied Ecology ~ Roley et al.
- *[The legacy of a crowded ocean: indicators, status, and trends of anthropogenic pressures in the California Current ecosystem](#)
In press. Environmental Conservation. ~ Andrews et al.
- *[Cultural Dimensions of Socioecological Systems: Key Connections and Guiding Principles for Conservation in Coastal Environments](#)
Conservation Letters 7(3) ~ Poe, M., Norman, K. and Levin, P.S.
- *[From global change science to action with social sciences](#)
Nature Climate Change 4 ~ Weaver et al.