The Bren School of Environmental Science and Management MESM Group Project Proposal

Integrating Tribal Marine and Coastal Resource Use and Cultural Heritage into the Marine Life Protection Act North Coast Planning Process

Proposers:
Jeannine Manna, MESM class of 2011, j9manna@gmail.com
Miho Umezawa, MESM class of 2011, mumezawa@bren.ucsb.edu

Faculty Sponsor:
Bruce Kendall, Associate Professor, Donald Bren School of Environmental Science and Management, kendall@bren.ucsb.edu

Client:
Satie Airame Ph.D., Marine Policy Coordinator, PISCO (Partnership for Interdisciplinary Studies of Coastal Oceans), Marine Science Institute, University of California, Santa Barbara, California 93106-6150
Astrid Scholz, Ph.D., Vice President- Knowledge Systems, Ecotrust, 721 NW Ninth Ave, Suite 200, Portland, Oregon, 97209

Problem Statement:
California’s Marine Life Protection Act (MLPA) was passed by the State Legislature in 1999 and requires the State to implement a network of Marine Protected Areas (MPAs) with the goal of protecting California’s marine life, habitats, and natural heritage. In 2004, the MLPA Initiative was formed to implement the Act and is currently working to establish a network of MPAs in the north coast study region from the California/Oregon border to Mendocino County. Native American tribes represent an important yet heretofore underrepresented stakeholder in the MLPA process. Tribes in the north coast study region have lived among and depended on marine ecosystems for thousands of years. However, current tribal uses of marine resources in northern California have not been systematically documented or mapped. This information gap represents a significant source of uncertainty that may reduce the effectiveness of future MPAs in the region. There is also great concern among tribal communities that the MLPA process fails to address how the tribes’ cultural legacy, subsistence practices, and territorial rights will be impacted by the designated MPAs. This project will assemble and analyze critical information on tribal uses of marine resources for the MLPA Initiative. This information will assist MLPA decision makers in evaluating the potential ecological effects of the tribes on MPAs, as well as the potential socioeconomic and cultural impacts of proposed MPAs on tribal activities.

Project Objectives:
The objective of this project is to integrate tribal coastal resource use into the MLPA north coast planning process. To accomplish this project, we will:

- Compile tribal use data of marine resources into a format consistent with the MPLA planning guidelines
- Utilize GIS and Marine Map software to accurately map areas where tribes engage in the harvest of marine natural resources and document the spatial characteristics of tribal demographics
- Evaluate the potential socioeconomic impacts of MPAs on tribal uses of marine resources using methods developed by the MLPA Master Plan Science Advisory Team (SAT)

The tribal use data, maps and socioeconomic impact analysis discussed above will be passed on to the Regional Stakeholder Group (RSG), SAT, Blue Ribbon Task Force (BRTF), the California Department of Fish and Game (DFG), and the California Fish and Game Commission (FGC). These deliverables will provide insights that will increase the collective knowledge and awareness of the cultural, subsistence and commercial activities of north coast tribes and, ultimately, inform the design of MPAs in the north coast study region.
Project Significance:

The dearth of quantitative information on tribal use of coastal resources creates uncertainty that may hinder the effectiveness of the MPA network, while also limiting the extent to which tribal interests can be incorporated into the decision-making process. There is currently no effort being made to compile this information into a comprehensive manner formatted for the MLPA process. Our work will facilitate communication between the tribes and the MLPA planners, which will streamline the process for compiling, analyzing, and reporting tribal marine resource use data. Ensuring that relevant tribal activities are well-documented and accounted for in MPA planning will help preserve Native American cultures and marine ecosystems.

Background information:

California adopted the Marine Life Protection Act (MLPA) and subsequently formed the MLPA Initiative in order to establish the nation’s first comprehensive, science-based network of MPAs statewide by 2012. The goal of the Initiative is to set up a network of MPAs that will help conserve biological diversity, assist in the recovery of depleted fisheries, protect unique habitats, and promote recreation, education, and tourism. To date, the MLPA Initiative has adopted and implemented a network of MPAs in two study regions, the central and north central coast, and is in the final stages of the regulatory process in the south coast study region. The north coast process began in late 2009, and it is anticipated that a network of MPAs will be adopted for the region by mid-2011. In each region, appointed RSG members, representing a variety of different stakeholder groups, create MPA proposals that are reviewed and evaluated by the SAT. The MPA proposals are then refined and presented to the BRTF, who makes a final recommendation to the California Fish and Game Commission (FGC).

Due to the north coast’s high biodiversity, diverse habitat types, and valued ecosystem services, the implementation of MPAs is crucial for ensuring sustainable use of its coastal resources and the preservation of its natural and cultural heritage. The following are defining ecological and socioeconomic characteristics of the region:

- Contains some of the least developed coastline in the state
- Has varied habitats that include rocky coasts and sandy beaches, soft and hard-bottom habitats, kelp forests, seagrass beds, and submarine canyons
- Within one of four temperate upwelling regions in the world and as a result is a highly productive marine ecosystem
- Harbors estuaries that provide nursery grounds for diverse species of fish and invertebrates, serve as resting and foraging locations for shore and seabirds, and support a variety of human uses, including commercial, recreational, subsistence and cultural activities
- Possesses commercial fisheries that are a major component of the north coast economy, including Dungeness crab, rockfish, salmon, and halibut
- Includes twenty federally-recognized tribes that depend on coastal resources for cultural, subsistence and commercial purposes

Native Americans in this region may be impacted significantly by the establishment of MPAs, particularly no-take marine reserves, as the tribes extensively utilize the coastal environment for both consumptive and non-consumptive uses. Tribes likely to be affected include those with ancestral territory lying adjacent to the coast, such as the Tolowa, Yurok, Wiyot, and Mattole, as well as those without direct land access but that possess coastal interests, such as the Karuk and Hoopa. In late 2009, the National Congress of American Indians issued a resolution demanding greater involvement in the MLPA decision-making process and a commitment to the protection of their traditional resource uses. Therefore, it is crucial that the MLPA Initiative process address the uses and needs of Native Americans. This project will not only help to record knowledge about tribal heritage and culture, but also contribute to greater understanding of how species take will affect the marine communities.
in the study region. The SAT has expressed great interest in this project because acquiring this information will allow them to integrate tribal uses into their evaluations and issue more enlightened recommendations.

**Stakeholders:**

- California Resources Agency
- California Fish and Game Commission
- California Department of Fish and Game
- North coast Native American Tribes
- MLPA Blue Ribbon Task Force
- MLPA Master Plan Science Advisory Team
- Science Advisory Team Tribal Workgroup
- North Coast Regional Stakeholder Group
- Public users of ocean and coastal resources

**Possible approaches and available data:**

Data on tribal coastal resource use will be compiled from the following available sources:

- Public comments and presentations from north coast MLPA meetings currently archived on the internet
- MLPA document and meeting archives
- Reports on interests and activities compiled by north coast tribes
- Communication with north coast tribal representatives
- North Coast Study Region Regional Profile created by MLPA Initiative staff
- Data layers on tribal demographics and uses included in Marine Map

Evaluations will be based on:

- Socio-economic and ecological evaluation methods developed by the SAT and Ecotrust
- Levels of protection decision tree developed by the SAT

Literature survey will be based on:

- Scientific literature on co-management case studies

The most essential data required for the MLPA process includes the type of species taken, the method used for take, and where the take is occurring. Once assembled and mapped in GIS and Marine Map, information on tribal uses may be shared with stakeholders for MPA planning and evaluation. To protect confidentiality, the extent of data sharing will be determined by those who contribute their knowledge about tribal uses. After the RSG has developed a set of proposals for MPA networks, we will conduct a socioeconomic analysis on how the proposed MPAs may affect the tribal groups. This analysis will be used to inform the Fish and Game Commission’s evaluation of alternative proposals.

**Deliverables:**

- Maps of natural resource use by north coast tribes linked to a database of tribal demographic data and descriptions of tribal uses, including species harvested, the method of take, and if known, the magnitude and frequency of take
- An evaluation of the potential socioeconomic impacts of proposed MPAs on north coast tribes
- A final report to the California FGC containing an analysis of current tribal uses, a description of the relationship and interaction between tribes and marine resources, and an assessment of how tribes may be affected by proposed MPAs
- A comprehensive analysis of potential effects of the MPA planning on north coast tribes, how legal decisions on tribal sovereignty may influence the implementation, monitoring and assessment of proposed MPAs and lessons learned from co-management of marine resources already implemented by tribal and government authorities in other locations.
References:


Verbal communication with Satie Airamé and Bruce Kendall