

West Coast MPA Demonstration Project

Fact Sheet

Primary Cooperating Agencies:

National MPA Center
NMFS
PFMC

Project Purpose:

The overarching purpose of this project is to demonstrate collaborative consideration of MPA development on the West Coast by the primary cooperating agencies, in a manner fully integrated with contemporary fisheries management under the Magnuson-Stevens Fishery and Conservation Act .

Project Abstract:

In recent years, there has been increasing policy and scientific momentum for consideration of fisheries-related MPAs on the West Coast, by federal, regional and state jurisdictions¹. However, there has not been resources allocated to support a coordinated integration of MPA considerations into contemporary fisheries management under the Magnuson-Stevens Fishery and Conservation Act (MSA), including the public processes of the Pacific Council. Lack of support resources for comprehensive MPA considerations have placed the Pacific Council in a reactive mode to MPA initiatives and unable to participate in important activities associated with MPA planning and evaluation. The Council has adopted certain closed areas to fishing without full consultation with MPA Center resources, which may have otherwise yielded different characteristics or designations. There has been public perception that the principle federal agencies have not been acting in full synchrony, and that fishery management authority is being relocated outside the MSA. This project will demonstrate how the three primary cooperating agencies can work efficiently together in the comprehensive and proper consideration of MPAs on the West Coast. Potential project products during the project time line range from planning and analysis for generalized use, to the public processes leading to and including a Pacific Council vote on specific geographic MPA boundaries and purposes.

¹ Such policy momentum is evidenced on the national level by Executive Order 13158, the creation of the National MPA Center within NOS, and increased Congressional line item funding for MPA matters ; on the regional level by the adoption of the Groundfish Fishery Strategic Plan by the Pacific Fishery Management Council, the announced programmatic consideration of MPAs in four (five?) West Coast National Marine Sanctuaries, and the consideration of a West Coast Groundfish EFH EIS as a settlement to the *A.O.C. vs. Daley* litigation; and on the State level by the California Marine Life Protection Act, the Oregon Ocean Policy Advisory Council recommendations to Governor Kitzhaber, and various marine protected area considerations in Washington State.

Project Objectives:

- Full coordination of MPA considerations in the 2005 -2006 Annual Groundfish Fishery Management Specifications
 - The continental shelf closures
 - The Cowcod Conservation Area
 - Additional measures
- Full coordination of MPA considerations in the West Coast Groundfish EFH EIS
- Integration of emerging MPA science into all PFMC fishery management considerations
- Full Coordination in the CINMS Marine Reserves process for federal waters
- Full coordination in the mid-California Sanctuaries JMPR process

Potential Project Products:

- “Integrated MPA Science” workshops and workshop proceedings
- “Integrated MPA Science” workgroup papers
- Pacific Council SSC white paper on
 - the implications of marine reserves for contemporary fishery management
 - criteria and standards for marine reserve proposals submitted for Pacific Council consideration
- Alternatives for specific MPA areas for Council adoption consideration
 - in the 2005 -2006 Annual Groundfish Fishery Management Specifications
 - in the West Coast Groundfish EFH EIS
- California National Marine Sanctuary federal waters MPA analyses

Timeline:

November 1, 2003 through December 31, 2004

Affected/Participating Agencies:

California Department of Fish and Game
Oregon Department of Fish and Wildlife
Washington Department of Fish and Wildlife
Channel Islands National Marine Sanctuary
Monterey Bay National Marine Sanctuary
Gulf of the Farallones National Marine Sanctuary
Cordell Bank National Marine Sanctuary
Olympic Coast National Marine Sanctuary

PROJECT TITLE:**Integration of Marine Protected Areas and Fishery Science and Management****PROJECT LEADERS:**

National Marine Fisheries Service, Santa Cruz Laboratory and the National Marine Protected Areas, Science Institute

BACKGROUND AND RATIONALE:

In the United States and in other parts of the world Marine Protected Areas (MPAs), i.e., areas designated for special protection to improve the management of marine resources, have proven to be an effective tool for marine resource protection and enhancement. No-take MPAs, a type of MPA that prohibits all forms of extractive activity, have provided evidence of biodiversity enhancement, population growth, expanded size/age composition and habitat recovery inside reserve boundaries, and population spillover outside reserve boundaries. The benefits and role of MPAs in the larger context of fishery management, however, are controversial and have not been conclusively demonstrated. Specifically, the function and impact of MPAs within the context of traditional fishery stock dynamics and management remains poorly understood. For example, how do MPAs nested within existing management methods and strategies affect catch rates, yields, habitats and fishing effort outside reserve boundaries, how will overall stock dynamics (e.g., potential yield, spawning stock-recruitment relations, spawning biomass targets and rebuilding trajectories) be affected by the eventual decline of density-dependent compensation inside reserve boundaries and how will the time-delayed impact of MPAs affect ecological and stock dynamics both inside and outside the reserve? The potential of MPAs to improve fisheries would greatly benefit from a systematic integration with traditional fishery stock dynamics concepts and management measures. Conversely, a more systematic and integrative approach to how fisheries affect MPAs, or ecosystem function, would also greatly improve the dialogue between agencies focused on ecosystem integrity and agencies responsible for managing sustainable fisheries.

The west coast of the U.S. provides timely examples for the urgency of addressing the integration of MPAs with fishery science and management. First, the Pacific Fishery Management Council (Pacific Council) recently adopted coast-wide closures, based on depth gradients, to drastically reduce by-catch of severely impacted groundfish species. Simultaneously, the Channel Islands National Marine Sanctuary has implemented no-take MPAs within their state waters, and is seeking to commence a process to extend the MPA boundaries into federal waters. Thirdly, the three central California coast Sanctuaries are in the process of their joint management review and are considering the role of MPAs as a means to increase ecosystem protection within their sanctuary waters. These California examples illustrate the need to consider how MPA and fishery actions and plans can best be advanced using a matrix management approach for better integrating the science, legislative mandates, and management of program offices within the National Oceanic and Atmospheric Administration (NOAA). Although these examples highlight the situation off the California coast, similar situations have unfolded or are in development in other regional waters. We suggest using the California coast as a model to develop a framework for more effective regional integration of MPAs and fishery science and management. Herein we propose a means to accomplish this integration.

GOALS AND OBJECTIVES:

The overall aim of this proposal is to develop the scientific information necessary to integrate MPAs with the broader context of fishery science and management. Specific objectives are to: 1) Convene a NOAA planning group to determine the scope of the investigation and the main questions and goals of the working group, 2) Assemble a working group with appropriate expertise in fishery and ecosystem science, and management to participate in a series of workshops and discuss the important concepts and issues, and synthesize a rational approach for integration of MPAs with traditional fishery management; 3) Produce a workshop proceedings to serve as a blueprint for all opportunities to integrate MPAs with existing fishery science and ecosystem management programs; and 4) Establish a graduate research fellowship and post doctoral appointment to conduct research relevant to improving the understanding of the role of MPAs with fishery science and management.

APPROACH:

Because of their institutional responsibilities for marine fishery management and MPA science, the convening authorities of the workshops shall be NOAA's National Marine Fisheries Service (NMFS) and National MPA Center, Science Institute (NMPAC-SI). The Pacific Council, because of the central roles of the Fishery Management Councils in marine fishery management under the Sustainable Fisheries Act, and the National Center for Ecological Analysis and Synthesis of the University of California at Santa Barbara (NCEAS), because it best represents the United States academic community from which most of the scientific pressure to adopt MPAs for fishery management has come, will be sought as full partners.

The convening authorities will first form a NOAA planning committee to consist of members representing NOAA Fisheries: Office of Protected Resources, Office of Sustainable Fisheries, Office of Science and Technology, and Office of Habitat and Conservation; NMPAC-SI; the National Marine Sanctuary Program; the Pacific Council; and the MPA Federal Advisory Committee. The NOAA planning committee will determine the scope of the working group's investigations and the specific questions and goals to be addressed by the working group. The working group will consist of invited scientists and managers to include expertise from fishery population dynamics and stock assessment, ecology, economics, and fishery management. The composition of the working group with respect to expertise and individual representation will be subject to discussion and approval of the NOAA planning committee. The NOAA planning committee shall select a chair of the working group.

The working group will conduct a series of at least two workshops of 3-4 days duration at a venue to be decided by the planning committee, with the understanding that substantial and additional effort will be expended between workshops to complete projected tasks. The first workshop will consist of at least a full day of presentations by appropriate members of the working group on topics agreed upon by the planning committee to set forth the principal concepts and issues to be discussed. The remaining time will be used for discussion and debate to define a structure, process and time line for reaching a synthesis on a rational approach for integrating MPAs with traditional fishery management. The second workshop would take place after an appropriate time for additional metadata collection, analysis, and synthesis required to support the second workshop, as agreed upon by the working group. By the end of the second workshop the working group should have substantially completed a draft proceedings, and established a plan to develop peer reviewed papers from the workshop proceedings.

Administrative support for the workshops will be provided by the NOAA Fisheries, Southwest Fishery Science Center, Santa Cruz Laboratory.

The graduate research fellowship and post doctoral appointment will be co-established and co-funded by the NMFS and the NMPAC-SI to conduct research broadly relevant to improving the understanding of the role of MPAs in fishery science and management, and especially on those knowledge deficiencies identified in the workshops. The positions will be advertised nationally, and as part of the application process candidates will propose the research they would undertake. A selection committee comprised of representatives of NMFS and the NMPAC-SI would choose the best qualified applicants. The post doctoral position will be located at the NMPAC-SI in the NMFS Santa Cruz Laboratory. The graduate research fellowship will be established at the successful applicant's university of choice, or at the institution where they are currently enrolled. The field component of research can be conducted regionally, but must address a general problem, and except while engaged in field work or completing course work, the fellow will reside at NMPAC-SI in the Santa Cruz Laboratory.