

**Channel Islands National Marine Sanctuary  
Sanctuary Advisory Council**

**Research Activities Panel**

**DRAFT Key Meeting Outcomes**

**April 2, 2013**

**Marine Science Research Building, UCSB**

**Attendance:**

Robert Warner  
Mark Steele  
Dave Siegel  
Dan Reed  
Jack Engle  
Steve Wertz

Steve Schroeter  
Jenn Caselle  
Kevin Lafferty  
Crow White  
Libe Washburn  
David Kushner

Steve Katz  
Danielle Lipski  
Sean Hastings  
Andrea Dransfield  
Michael Murray

Public Attendance: Kristi Birney, Jim Marshall, Paul Petrich, Dan Robinette

**CINMS Announcements**

- **Budget** - Congress passed a continuing resolution to fund the federal government for the rest of the fiscal year. For the Office of National Marine Sanctuaries this is approximately a flat budget but with a 5% sequestration cut, and other taxes that will take a few more percentage points off our budget. In addition, there is no PAC funding that has funded some construction and other large projects in the past. What this means for CINMS is that we will get our FY13 allocation soon, and the focus will be providing funding to cover absolute "must pay" items. In addition, there is a de facto hiring freeze across NOAA and travel is extremely limited.
- **Staffing update** –Natalie Senyk, CINMS Physical Scientist on our research staff, has left our office to pursue a new career.
- **Vessels** - We have currently planned for about 34 research days at sea on Shearwater and about 20 days on Sharkcat. When we get our budget sometime in April we should have a better idea of what that means for vessel operations for the rest of the year. This is a significant reduction from years past and therefore we were unable to support many of the over 200 days that were requested.
- **Ocean Science Education Building** - We are targeting a move-in date in May to occupy the administrative offices. The education wing will be a shell until about \$10 million can be raised to complete exhibits.

**Research Activity Updates:**

**Dave Siegel** reported that he is working on a project funded by NASA to look at climate variability. This project includes a detailed optical assessment of phytoplankton properties. Dave reported that the Plumes and Blooms project has one more year of funding in place and the

budget for this work at NASA is good. Since 1996 Dave has been partnering with CINMS to help look at water quality, sediment work, toxic diatoms and domoic acid.

**Sean Hastings** reported that along with David Kushner he is serving as a federal agency representative on the State Lobster Fishery Management Plan Advisory Committee. The group is in the early phases of developing a plan.

**Crow White** reported that he is working on an abalone project on San Miguel Island, and a Sea Grant funded project on offshore aquaculture in the southern CA bight.

**Libe Washburn** stated that he is working with Gretchen Hoffman's group. He is also looking at the effects of wind relaxation effects on circulation around islands. This is an NSF project to look at low frequency wave motions and to study the circulation patterns that develop when the winds weaken.

**Steve Schroeter** reported that his main project around the islands and mainland is a time series of settlement, particularly sea urchins. There are stations along the mainland and Anacapa Island. Steve thinks the time series data may be useful in studying the effects of ocean acidification. Funding for this project is provided by California Department of Fish and Wildlife's proceeds from the landing tax for commercial sea urchin industry.

**Milton Love** announced that since last fall he has been working on a BOEM funded project related to potential effects of offshore renewable energy, specifically effects of cables on fish, lobsters, and other organisms. They are surveying hot and cold cables using scuba surveys and manned submersible. Milton reported that in deep water there seemed to be no difference but sea pens seemed to be numerous around hot cables. Published literature on this topic is limited but there have been some lab experiments.

**Steve Wertz** reported that the California Department of Fish and Wildlife has completed quarterly surveys at Anacapa Island for sea cucumber density and size at maturity. Also, they continue to survey the BART modules for abalone settlement at park service kelp forest monitoring sites with David Kushner. Steve reported that pink and red abalone have been found in these recruitment modules, although there has been a decrease in recruitment abundance at the islands over the last few years. CDFW is working with the wet fish industry to conduct sardine biomass surveys. They are conducting aerial surveys and groundtruthing on the water at different times of year. Steve reported that they are in the second year of baseline monitoring for the south coast MLPA. Steve reported that MLPA monitoring information from the central coast can be viewed on the Oceanspaces web site operated by Ocean Science Trust Monitoring Enterprise. For the south coast there are intertidal, subtidal, and seabird surveys on multiple islands from 12 different monitoring groups. Steve said that there was a peak abundance of larvae of market squid off Santa Cruz and Santa Barbara Islands in 2012 according to a processor survey. 2013 is expected to be a normal year for market squid.

**Jack Engle** reported that Multi-Agency Rocky Intertidal Network (MARINE) just finishing a 3<sup>rd</sup> year of a 5 year funding cycle. There are over 200 sites on the west coast but there have been cut backs. This year they are looking at goals, revising protocols to adapt to the changing times. Jack

reported that funding for his subtidal work from the Tatman Foundation is winding down and has just one more year of final funding. Jack will do virtually no field work this year and instead will concentrate on culminating projects and bringing it all together. This means the end of a 32 year data set of subtidal monitoring at Anacapa Island focusing on a sea urchin-dominated habitat at Survey Rock. Another project monitoring soft-bottom sand and eelgrass habitat at Frenchy's Cove since 1992 will also end. Jack reported that they have been monitoring invasive *Sargassum horneri* at the islands. It has now been found on Catalina, San Clemente, Santa Barbara, Anacapa, and Santa Cruz Islands. On the north side of Santa Cruz Island, it has expanded westward from Cavern Point to Orizaba Cove.

**Dani Lipski** announced that she has an ocean acidification research and monitoring inventory summary that was recently completed in response to recommendations made in the West Coast Sanctuaries Ocean Acidification Action Plan. Dani requested anyone to contact her if they have anything to add to the inventory. The intention is to understand what activities are occurring in and near sanctuaries and how sanctuaries can contribute or collaborate. Dani reported that a project to analyze opportunistic ROV surveys from the NOAA ship Okeanos Explorer shakedown cruise in 2011 is nearing completion and products will be available soon. Dani reminded researchers that she is the contact person for permits in the sanctuary and to contact her if you have upcoming field work in the sanctuary to see if a permit is required.

**Dan Reed** announced that he is the Principal Investigator of the Long Term Ecological Research program in the SB Channel (LTER) which looks at ocean and land processes that structure local near shore systems. This program focuses on kelp, monitoring, experiments, modeling, and synthetic studies. By partnering with groups like Dave Seigel's lab, and others they have a data set of kelp biomass since 1984. All LTER data are publically available. Dan said that they also have a project funded by BOEM to look at both multiple data sets of kelp forest ecology and examine impacts and resilience. Dan reported that LTER just got re-funded for a third cycle of funding.

**David Kushner** reported that Channel Islands National Park continues kelp forest, intertidal, and beach monitoring. Because of sequestration cuts there continues to be a vacant sea bird biologist position. The NPS Ocean and Coastal Resources had some funding for fine scale seafloor mapping looking at habitat and biological data. The areas attempted to be mapped were fifty meters on either side of some permanent transects. David mentioned he is a representative on the Lobster Advisory Committee.

**Mark Steele** stated that he has grad students working on a fish ecology project around Catalina Island.

**Dan Robinette** from PRBO reported on a MLPA funded seabird monitoring project he has conducted at Santa Cruz Island and at some sites on the mainland. They are conducting a census of the seabird population and examining how seabirds are using habitat inside and outside reserves. They are also examining roost utilization, foraging rates, reproduction, and diet. The long term goal is to use seabirds as indicator species for ecosystem health. As he develops his time series, he will look at PISCO data and oceanographic data. Dan said that they are in their second year of two year funding. Dan reported that PRBO is working with sanctuaries on

another project called Whale Aware, a web based tool for managers to see when whales are in the area. Dan reported that in June PRBO will be called Point Blue.

**Kevin Lafferty** reported that he has been working on the black abalone rickettsial pathogen and they have not been able to keep the abalone in culture pathogen free. Kevin reported that hatcheries along the coast are discharging pathogens from their culture facilities and this is a large scale problem. They are looking for funding to explore this problem further, including how far the pathogen can be distributed. Kevin said that he is also monitoring sea otters and developing a habitat model for southern California. He is also looking at how wave energy affects kelp forest communities.

**Jenn Caselle** reported that the PISCO monitoring program, which she runs, has been monitoring subtidal habitat at the islands since 1999. There are three main projects: community kelp forest monitoring surveys, which have recently included the southern CA MLPA baseline study, recruitment settlement, and oceanographic monitoring using current meters and temperature loggers. For the subtidal surveys, the recent funding has been for a two year baseline data collection project that is over this year. Secondly, the recruitment settlement surveys and invertebrate settlement surveys have been successful and have benefited from help and boat time from CDFW and the sanctuary. These projects have provided a good dataset on fish and other variables. Third, in partnership with the sanctuary, PISCO has maintained oceanographic instrumentation arrays including current meters and temperature loggers. The future of that is also unclear. The final project, this past summer, was a data collection period funded through BOEM. This project used data collection and modeling to determine local fish stocks, focused mainly on rockfish. Jenn has also worked on a project to populate a dataset for ecosystem modeling that the public can access and add to. Jenn reported that the R/V *Cormorant* is winterized at the dock, they have laid off the captain, and they are probably going to lose the boat which will affect several research programs at UCSB.

**Steve Katz** reported that he has been working on a paper for submission and has just finished statistics of sampling design for a textbook. Steve said that the work that he did with Megan McKenna on ocean acoustics and whale tagging work has resulted in two papers: one on acoustics in the channel, and one using the AIS data to make an assessment of the success of voluntary actions by mariners. Steve said that his work on a CAMEO grant has resulted in a few papers on assessments of community structure using time series analysis. This work provides quantitative estimates of stability, resilience, and the importance of species interactions vs. direct environmental effects. Steve is working with a post-doc in Seattle who is doing an analysis of moments of change using a regression technique. Steve announced that the website Hydra that houses the data on tagged fish movements, including the data from receivers in CINMS, has launched a new version.

### **Marine Reserves Progress Report Discussion:**

Bob Warner stated that the 10 year anniversary of the state reserves at Channel Islands is in 2013 and although there is not a requirement from the Fish and Game Commission for a report as there was at the 5 year mark, there has been interest from some RAP and SAC members in reporting on progress to date. Bob opened the item up for discussion about whether marine

reserves research should be reported and in what venue or format. The group had a healthy discussion about the range of options, from a presentation to the public to a symposium, and what is expected from agencies and the community. Issues discussed included whether there is any expectation for information to be presented, the possibility of the Channel Islands to be included in the 5 year South Coast MLPA report, what resources and lead time would be needed for a robust review, the variety of audiences that would be interested, and the limited and dwindling number of research programs that address marine reserve effectiveness at the islands. The RAP evaluated two options: presentations by scientists at SAC meetings, and a larger comprehensive report or symposium. The RAP decided to present these questions and options to the SAC at the May 17<sup>th</sup> 2013 meeting. Bob Warner will draft the questions, circulate them for review by the RAP, and address the SAC. The goal is to seek input from agencies and constituents on their interest and possible resources for a larger review.

**Public Comment:**

Kristi Birney announced that she is the new Conservation Member on the Sanctuary Advisory Council taking over for Linda Krop who served for many years.

Paul Petrich stated that he would appreciate any new information about marine reserves. He gives many talks to the public and always incorporates messages about marine reserves. He said the public is very interested in this kind of information and if there is any new information, he would like to see it made available.

**National Condition Report:**

Steve Katz provided a presentation on the National Condition Report. Steve reminded the RAP that some members provided information for the Channel Islands condition report and the RAP also provided a review of the condition report several years ago. Steve explained that all 14 sites of the National Marine Sanctuary System have completed their condition report and the Office of National Marine Sanctuaries headquarters staff has compiled all the condition reports across the country into one executive-level report called the “National Condition Report”. Steve provided a summary of this national report, which is in draft form. Steve pointed out that some of the criticisms that the RAP provided for the Channel Islands report are not addressed in the national report, such as acknowledging the types of information used to determine ratings and the lack of a comprehensive monitoring program. Steve suggested that the RAP could provide comments to the report authors. The RAP discussed the national condition report, the purpose and audience of the report, and concerns about how it might be used. The RAP decided that Bob Warner would draft a letter to circulate to RAP members and then present to the SAC on May 17<sup>th</sup> 2013.