

Research Activity Panel Meeting Summary
Chris Harrold, Monterey Bay Aquarium, RAP Chair

MAY 2003 RAP MEETING

Host: U.S. Geological Survey
Friday, May 9, 2003 9am to 12pm

In Attendance:

Members:

Mark Carr, UCSC (served as RAP Chair)

Andrew DeVogelaere, MBNMS, RAP Coordinator
Greg Cailliet, MLML
Michael Field, USGS
Steve Eittreim, USGS
Churchill Grimes, NOAA/NMFS
Steve Moore, CSUMB
Leslie Rosenfield, NPS
Francisco Chavez, MBARI
Geoff Wheat, NOAA/NURP
Caroline Pomeroy, UCSC

Guests:

Jennifer Parkin, MBNMS
Steve Lonhart, MBNMS
Jean de Marignac, MBNMS
Erica Burton, MBNMS
Sean Morton, MBNMS
Irina Kogan, MBARI, MBNMS
Steve Shimak, The Otter Project
Lydia Bergen, PISCO
Erica, UCSB
Dane Hardin, AMS
Michael Carr, USGS

PRESENTATIONS

Institutional Update: USGS (Mike Field and Mike Carr)

Mike Carr gave an overall description of USGS and mentioned it is strictly a science agency. There are four disciplines within USGS: biology, topographic program, water resources program, and a sediment laboratory. Also, they have stream monitoring programs around

Monterey Bay. The geology department is still out of Menlo Park, CA and has several subprograms under it: resource, hazard, and landscape (astrogeology to geologic mapping in coastal marine geology) programs. Mike mentioned that the March 2002 issue of Marine Geology is an issue entirely devoted to the Monterey Bay National Marine Sanctuary. He also passed out a report on environmental issues, biology, geology and oceanography of the Gulf of the Farallones. Mike also mentioned the upcoming plans to build the Pacific Science Center (USGS) for coastal marine geology at Long Marine Laboratory and they want to open by fall 2003. Mike Field is helping to facilitate this project.

Mike Field gave an update on the current projects that USGS and post Doctorates and graduate students are helping with. Mike wants to initiate a program with graduate students from Moss Landing Marine Laboratories to get involved in as well. Some of the ongoing projects include looking at sediment changes in Hawaiian mangrove swamps, biologically quantifying the impact of sedimentation on coral reefs in Hawaii, and sediment dynamics in the Grand Canyon and the inner continental shelf of Monterey Bay.

Presentation on CCAMP and CCLEAN (Dane Hardin)

Dane Hardin from Applied Marine Science in Santa Cruz gave a presentation on two programs for water quality monitoring in Monterey Bay. Central Coast Ambient Monitoring Project (CCAMP) is partially run by the Regional Water Quality Board and includes nearshore areas, coastal confluences, and watersheds. The Sanctuary Management Plan mandates for monitoring water quality around Monterey Bay. Central Coast Long term Environment Assessment Network (CCLEAN) is the larger of the two programs which focuses on obtaining high quality data for status and trends in nearshore waters, sediments, and associated beneficial uses.

Funding is provided by the Cities of Santa Cruz, Watsonville, Monterey Regional, and Carmel as well as other agency sources (e.g. Duke Energy). Dane reviewed the standard protocol used for sampling, which started in 2001. Samples are taken twice a year (during dry and wet season) at four rivers and four outflow areas. Also, monthly samples are taken at 16 streams to estimate annual loads of organochlorines, metals, and coliform. Preliminary findings have indicated that the wastewater outflow loads are dominated by oil based things and surprisingly, places like the “hook” off Capitola have high levels of DDT and PCBs. An annual report will be on the City of Watsonville web page in the near future.

DISCUSSIONS

Non-point source water pollution (Mark Carr)

A discussion occurred on making water monitoring data more available to resource managers and scientists. RAP members suggested the Sanctuary help to facilitate the dissemination of information. Two suggestions for the Sanctuary were to: use SIMoN to help disseminate this information and to make coastal water quality the theme of the next Currents Symposium. *A vote was taken that the theme for the next Currents Symposium should be Coastal Water Quality. Andrew DeVogelaere will bring this submission to the committee.*

Channel Islands Marine Reserve Monitoring workshop (Caroline Pomeroy and Charlie Wahle)

A review of a workshop, which was held to get people together to look at all dimensions of what could and should be monitored in marine reserves. The general sentiment about this workshop was that it was a commendable effort but would have been more effective if it had been held a year earlier, that it built on the vast amount of work already done on the subject, to use the workshop to design a monitoring program specific to local needs rather than global needs, and to cover socio-economic issues better.

Update on JMPR working groups (Lydia Bergen and Sean Morton)

All working groups have finished meeting and now MBNMS staff are developing draft action plans to be out by early June for public and the SAC to review. Everything will be presented to the SAC at the meeting on June 26 and 27 in Monterey, including research and monitoring needs in the Sanctuary. On July 30th SAC will have public meetings and give the Sanctuary its recommendations. RAP members should try to attend this public meeting to give their scientific input into the process and show how science is so important to the JMPR process.

Our next RAP meeting will focus on research issues to the management plan. July 30th is the big day for commentary. It would be beneficial if everyone tried to attend this meeting. It is likely that there will be some hot topics (e.g. MPA, harbors, and benthic issues) and the SAC would really appreciate hearing from research and scientific folks. Chris has written a draft letter to the Research Community asking them to please come and give comments.

INFORMATION ITEMS

Overview of the ATOC Cable Environmental Impact Surveys (Irina Kogan)

The permit to do an environmental impact study of the ATOC cable extending 95 km from Pillar Point Air Force Station to Pioneer Seamount expires at the end of 2003. The majority of the cable is exposed on the seabed in a rather turbulent area. Part of the cable goes through the "Mavericks" area, where large swells are known to commonly occur and a lot of the substrate is very rocky. With the use of side scan sonar, ROV surveys, and a cable tracking tool, researchers have been able to locate and visually see the condition of the cable. The last survey was done in February and another one will be done in July. This cable was installed in 1995. However, through these surveys, researchers have found that the rocky substrate has either incised the cable or the cable has incised the rocks. In other places the cable has started to unravel, even though it is double armored. Metridium (sea anemones) have attached themselves in lines along the cable in other spots. Problems with this cable include: trawlers are probably hitting the cable in spots which kink it or tears it, and the cable has altered the seabed or become buried in some locations. Video annotation has been completed from the February survey and quantitative analysis has begun. For more information please contact Irina Kogan at irina.kogan@noaa.gov.

Next step following regional summit of IOOS (Francisco Chavez)

Status of the Integrated Ocean Observing System (IOOS) and development of a regional node in Central California. The U.S. Intragency Office for Ocean Observing has a vision to have a federation of observing systems around the country. Some benefits of this system would be to improve predictions of climate change and reduce health risks. There is a huge imbalance on the west coast. All of Alaska is one system and California, Oregon and Washington are another. People are working to change this to having 10 systems on the west coast. NOAA's Coastal Services Center has published a special funding announcement for projects that benefit the development of regular coastal ocean observing systems. IOOS has put out a call for proposals with funding up to \$50 million ; and funding for regional pilot projects at levels of \$1-10 million /year. http://www.scs.noaa.gov/funding/special_fundingcos.final.

Talk to Leslie Rosenfeld about the upcoming meeting in Tiburon.

Retirement of RAP member Steve Eittreim (Andrew DeVogelaere)

Steve has been a long time RAP member (1994-2003) and some of his work was even referenced at this meeting (the mapping and characterization of the Monterey Bay Sanctuary in the Marine Geology journal). Steve was presented with an engraved travel mug to thank him for his long service on the RAP. Steve's comments included that he felt the RAP has been hugely successful, has been a benefit to getting projects done, and has given many people links to the research community.

NOAA's Undersea Research Program (NURP) (Geoff Wheat)

NURP is a program to promote, facilitate and support undersea research along the west coast of the U.S. and in polar regions. There has been a lot of work done in California in the last five years of this program, some examples include: invertebrate and fish production in submarine canyons, quantifying the reproductive behavior of the squid *Loligo opalescens* on spawning grounds in Monterey Bay, and distribution and abundance of deep water macroalgae in central California. For more information contact : Dr. C. Geoffrey Wheat, Regional Coordinator, P.O. Box 475, Moss Landing, CA 95039, phone (831-633-7033), fax (831-633-6872).