

**MBNMS Research Activity Panel  
Meeting Summary  
March 13, 2009**

**Host:** Chris Harrold – Marine Conservation Biology (Monterey Bay Aquarium)

**Location:** Ocean View Conference Room  
Monterey Bay Aquarium  
Monterey, CA

**Date:** Friday, March 13<sup>th</sup>, 2009; 9:00 am to 12:00 pm

**Members:**

	<b>Discipline</b>	<b>Primary/ Alternate</b>	<b>Name</b>	<b>Institution</b>
X	Research Coordinator		DeVogelaere, Andrew	Monterey Bay National Marine Sanctuary
	Biological Oceanography	primary	Chavez, Francisco	Monterey Bay Aquarium Research Institute
	Biological Oceanography	alternate	Kudela, Raphael	University of California, Santa Cruz
X	Deep-Sea Ecology	primary	Cailliet, Greg	Moss Landing Marine Laboratories
	Deep-Sea Ecology	alternate		
X	Estuarine Ecology	primary	Wasson, Kerstin	Elkhorn Slough NERR and Foundation
	Estuarine Ecology	alternate	Van Dyke, Eric	Elkhorn Slough NERR and Foundation
	Fisheries	primary	Grimes, Churchill	NOAA Fisheries Service
X	Fisheries	alternate	Vasques, Jason	California Department of Fish & Game
X	Marine & Coastal Geology	primary	Storlazzi, Curt	United States Geological Survey
	Marine & Coastal Geology	alternate	Paull, Charles	Monterey Bay Aquarium Research Institute
X	Marine Conservation Biology	primary	<b>Harrold, Chris*</b>	Monterey Bay Aquarium
	Marine Conservation Biology	alternate	Micheli, Fiorenza	Hopkins Marine Station
	Marine Policy	primary	Kildow, Judith	Monterey Bay Aquarium Research Institute
X	Marine Policy	alternate	Sharp, Gary	Center for Climate/Ocean Resources Study
	Nearshore Ecology	primary	Lindholm, James	California State University Monterey Bay
	Nearshore Ecology	alternate	Carr, Mark	University of California, Santa Cruz
X	Physical Oceanography	primary	McPhee-Shaw, Erika	Moss Landing Marine Laboratories
	Physical Oceanography	alternate	Ramp, Steve	CeNCOOS/MBARI
	Shelf & Slope Ecology	primary	Yoklavich, Mary	NOAA Fisheries Service
X	Shelf & Slope Ecology	alternate	Starr, Rick	California Sea Grant Extension Program
	Social Sciences	primary	Pomeroy, Caroline	California Sea Grant Extension Program
	Social Sciences	alternate	Kildow, Judith	Monterey Bay Aquarium Research Institute
	Water Quality	primary	Epel, David	Hopkins Marine Station
	Water Quality	alternate	<b>Hunt, John†</b>	University of California, Davis

\*Sanctuary Advisory Council Member: Research (Primary)

†Sanctuary Advisory Council Member: Research (Alternate)

**GUESTS:**

	<b>Name</b>	<b>Institution</b>
X	Choy, Steve	Monterey Bay National Marine Sanctuary
X	Eng, Mike	Monterey Bay National Marine Sanctuary
X	Essert, Chris	
X	Lonhart, Steve	Monterey Bay National Marine Sanctuary
X	Murray, Mike	Monterey Bay Aquarium
X	Parrish, Richard	
X	Phillips, Roger	Monterey Bay Aquarium
X	Scheiblaue, Steve	City of Monterey
X	Selbie, Hugo	PISCO; University of California, Santa Cruz
X	Skinder, Carolyn	Monterey Bay National Marine Sanctuary
X	Van Sommeran, Sean	Pelagic Shark Research Foundation

**CONSENT ITEMS****Introductions/Modifications to the Agenda (Chris Harrold)****PRESENTATIONS****Meeting the Challenge of New Water Discharge Regulations (Roger Phillips/Monterey Bay Aquarium)**

- Water pulled in from bay, circulates exhibits, then discharged
- 25 years ago, the priority for building the aquarium was strength, to withstand rigors of ocean coast, not green issues or water run off considerations
- Central Coast Regional Water Quality Control Board- MBA has a permit for desal. plant and ocean outfall
- MBA is partly in the ASBS, but the discharges are just outside
- They have retrofitted exhibit galleries and protocols to have less salt discharge, and discharge going to ocean outfall, not sewer.
- Installed 1<sup>st</sup> exotic species treatment systems to prevent release of non-natives, overflows from these exhibits now have a treatment system then to ocean discharge; treatment includes Ozone, and filtration followed by UV sterilization; they then monitor for bacteria

**Sea Otters: Looking Outside of the Box, the State, and Even the Country (Mike Murray/Monterey Bay Aquarium)**

- Use sea otter as bioindicator of health of Sanctuary
- Need to assess otters in West Pacific to understand overall health of sea otters
- Benefits of their program include understanding disease, surgical procedures
- Why care?: apex predators, economically used as mascot, great sentinel of environmental pollution (relatively small home range; high metabolic weight; diet of benthic invertebrates so eating things within their home range; entire life span nearshore, where you can see them); the public cares about otters

- Sea otters have liver problems in Prince William Sound, but the levels of contaminants are decreasing; there is still lots of oil from Exxon Valdez in pits that sea otters are digging
- Western Aleutian - population has drop by 73% over 10 years; their escape behavior was to get out of water onto land; contaminants were not a problem, but probably die off from Orcas
- Berring Island in AK, the normal sea otter population; at carrying capacity; genetically similar to Aleutian otters
- Lower Cook Inlet, near Homer; population has a bacteria problem that is impacting heart valves; perhaps of terrestrial origin hoof stock
- Future otter studies for MBA- Big Sur, back to Russia

## **MBNMS FEDERAL MPAs INITIATIVE**

### **Straw man: RAP's role in MBNMS Federal MPAs Initiative (Chris Harrold/Mike Eng)**

- Discussed the process straw man and where the RAP fits in
- There are ways to regulate fisheries in NOAA, and we must plan early and often together among people working with different Acts
  - National Marine Sanctuaries Act (NMSA)
  - Magnuson-Stevens Fisheries Conservation and Management Act (MSA)
- Mike gave an excellent summary of links between the two Acts and NEPA process overview
- Next Steps in MPA Planning Process
  - Meet with NMFS/NWFSC to discuss proposed approach and design of MPA planning process
  - Seek advice and recommendations from the Sanctuary Advisory Council on proposed approach and design of MPA planning process
  - Meet with CDFG to discuss proposed approach and design of MPA planning process
  - Meet with PFMC to discuss proposed approach and design of MPA planning process (April)
  - Reach internal ONMS alignment on approach and design of MPA planning process
  - Reach internal NOAA alignment on approach and design of MPA planning process
  - Seek interagency partner alignment on approach and design of MPA planning process
  - Identify required resources to conduct MPA planning process
  - Compile and synthesize ecological and socioeconomic information for initial characterization of the current situation and trends
  - Solicit applications for MPA Working Group and Science Advisory Panel

- Anticipated Requests for Assistance from the RAP
  - 1) Review and comment on Annotated List of research articles, reports and data sets that will be used to inform planning process
  - 2) Apply as individuals to serve on any Science Advisory Panels based on areas of expertise and selection criteria
  - 3) Review applications for Science Advisory Panel and recommend members to Superintendent (OPC's Science Advisory Team will also review and recommend)
  - 4) Participate in helping to bring the MPA Working Group (stakeholders) and the Science Advisory Team up to speed on the various aspects to be considered during the MPA planning process
  - 5) Participate individually and as a group in the Scoping Process and provide responses to specific scoping questions
  - 6) Participate individually in scientific symposia/workshops on targeted relevant topics during scoping process
  - 7) Review and comment as a group on the draft criteria, indicators and metrics developed by Science Advisory Panel for the Sanctuary's science-based management objectives that will be used to compare and evaluate alternatives
  - 8) Review and comment on analysis by Sanctuary staff and Science Advisory Panel of alternatives developed by MPA Working Group
  - 9) Review and comment on analysis by Sanctuary staff and Science Advisory Panel of "preferred alternative" developed by MPA Working Group
  - 10) Review and comment on "Monitoring and Adaptive Management Plan" developed by the Science Advisory Panel for the preferred alternative
  - 11) Provide advice and recommendations to Superintendent during frequent briefings at RAP meetings throughout the MPA planning process

## **DISCUSSION ITEM**

### **Info Item: Invasive Species and MBNMS Management Plan (Chris Harrold)**

- Staff and the SAC are reviewing a letter from Governor Arnold Schwarzenegger regarding new Sanctuary regulations on invasive species

## **SUGGESTED FUTURE AGENDA ITEMS**

- SIMoN research plans and MPA Science Synthesis (Mark Carr)
- SIMoN – What are our plans and goals for next year or two
- Change schedule with UCSC and NMFS

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### Future Agenda Items (running list):

- Water Quality
  - Critical coastal areas presentation (ASBS, areas water quality impaired, areas in good state; Ross Clark)
- SIMoN
  - SIMoN: future monitoring (JMPR or beyond)
  - SIMoN Special Status Species Project (Jennifer Brown)
  - Linking SIMoN to management (Amber Szoboszlai)
  - SIMoN accomplishments or future plans, partnerships (per Curt Storlazzi)
- MPAs
  - MPA science synthesis – MLPA (Mark Carr)
  - MPA monitoring projects (Jason Vasques)
- Communication Partnership for Science and the Sea (COMPASS)
- Wave Model Development and Implementation (Paul Wittmann/Fleet Numerical)
- Data integration across monitoring programs (e.g., water quality, PISCO, MARINE, IOOS), and availability to the public
- Santa Cruz Visitors Center update by Lisa Uttal (schedule when NMFS is RAP host)
- MARS cable (per Kildow, speaker = Marcia or other, schedule when MBARI hosts)
- Recent event: Supreme Court allows Navy Sonar (per John Hunt)
- NOAA Twin Otter plane comes to Monterey
- Zeppelin capabilities for research
- Causes of the decline of Chinook salmon in the Carmel Valley (per Churchill Grimes, July meeting?)
- *RAP identified priority of Future Agenda topics (9/12/08):*
  1. *SIMoN*
  2. *MPA Science Synthesis – MLPA (Mark Carr)*

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### 2009 RAP Meeting Schedule and Locations (Revised 3/27/09)

Date	Host	Location
January 9	Lindholm	CSU Monterey Bay
March 13	Harrold	Monterey Bay Aquarium
May 8	Grimes/Yoklavich	NOAA Fisheries, Santa Cruz
July 10	Carr	Long Marine Lab, UC Santa Cruz
September 11	Micheli/Epel	Hopkins Marine Station
November 13	Chavez	MBARI

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