

**MBNMS Research Activity Panel
Meeting Summary
March 2007**

Host: Mary Yoklavich – Shelf & Slope Ecology (NOAA Fisheries Service)
Location: NOAA Fisheries Service
 Southwest Fisheries Science Center
 110 Shaffer Road
 Santa Cruz, CA 95060
Date: Friday, March 9th, 2007; 9:00 am to 12:30 pm

Members PRESENT:

	Name	Discipline	Institution	Primary/ Alternate
X	Cailliet, Greg	Deep Sea Ecology	Moss Landing Marine Laboratories	primary
X	Coulston, Pat	Fisheries	California Department of Fish & Game	alternate
X	Faurot-Daniels, Ellen	Marine Policy	California Coastal Commission	primary
X	Grimes, Churchill	Fisheries	NOAA Fisheries Service	primary
X	Harrold, Chris*	Marine Conservation Biology	Monterey Bay Aquarium	primary
X	Hunt, John	Water Quality	University of California, Davis	alternate
X	Pomeroy, Caroline	Social Sciences	California Sea Grant Extension Program	primary
X	Sharp, Gary	Marine Policy	Center for Climate/Ocean Resources Study	alternate
X	Starr, Rick	Shelf & Slope Ecology	California Sea Grant Extension Program	alternate
X	Storlazzi, Curt	Marine & Coastal Geology	United States Geological Survey	primary
X	Wasson, Kerstin	Estuarine Ecology	Elkhorn Slough NERR	primary
X	Yoklavich, Mary	Shelf & Slope Ecology	NOAA Fisheries Service	primary

*Sanctuary Advisory Council Member: Research (Primary)

GUESTS

	Name	Institution
X	Anglin, Lorraine	Monterey Bay National Marine Sanctuary
X	Broughton, Kathy (via phone)	National Marine Sanctuaries
X	Brown, Jennifer	Monterey Bay National Marine Sanctuary
X	Burton, Erica	Monterey Bay National Marine Sanctuary
X	Conley, Gary	Monterey Bay National Marine Sanctuary
X	deMarignac, Jean	Monterey Bay National Marine Sanctuary
X	Field, John	NOAA Fisheries, Santa Cruz
X	Gittings, Steve (via phone)	National Marine Sanctuaries
X	Gotshall, Daniel	
X	Johnson, Shannon	Monterey Bay Aquarium Research Institute
X	Karpov, Konstantin	California Department of Fish and Game
X	Lauermann, Andy	California Department of Fish and Game
X	Lonhart, Steve	Monterey Bay National Marine Sanctuary
X	Pearse, John	University of California, Santa Cruz (Emeritus)
X	Rosen, Dirk	Marine Applied Research & Exploration
X	Szoboszlai, Amber	Monterey Bay National Marine Sanctuary
X	Ugoretz, John (via phone)	California Department of Fish and Game
X	Uttal, Lisa	Monterey Bay National Marine Sanctuary
X	Wells, Brian	NOAA Fisheries, Santa Cruz

Members ABSENT:

	Name	Discipline	Institution	Primary/ Alternate
	Bograd, Steven	Physical Oceanography	Pacific Fisheries Environmental Laboratory	alternate
	Carr, Mark	Nearshore Ecology	University of California, Santa Cruz	alternate
	Chavez, Francisco	Biological Oceanography	Monterey Bay Aquarium Research Institute	primary
	DeVogelaere, Andrew	Research Coordinator	Monterey Bay National Marine Sanctuary	
	Epel, David	Water Quality	Hopkins Marine Station	primary
	Kudela, Raphael	Biological Oceanography	University of California, Santa Cruz	alternate
	McPhee-Shaw, Erika	Physical Oceanography	Moss Landing Marine Laboratories	primary
	Micheli, Fiorenza	Marine Conservation Biology	Hopkins Marine Station	alternate
	Paul, Charles	Marine & Coastal Geology	Monterey Bay Aquarium Research Institute	alternate
	Van Dyke, Eric	Estuarine Ecology	Elkhorn Slough NERR	alternate
		Deep-sea Ecology		alternate
		Nearshore Ecology		primary
		Social Sciences		alternate

†Sanctuary Advisory Council Member: Research (Alternate) – Currently open

CONSENT ITEMS

Introductions/modifications to the agenda (Chris Harrold)

Hand-outs (Erica Burton)

- Agenda
- 2007 tide books
- Ecosystem Observations 2006
- Sanctuary Currents Program 2007
- California Marine Protected Areas Past & Present (McArdle, 2002)

PRESENTATIONS

Trophic interactions of the jumbo squid, *Dosidicus gigas*, in the California Current: A role for ecosystem modeling? (John Field/NOAA Fisheries)

- Increased catches in Monterey Bay area since 2003
- Range expansion in North America since 2002 (Gilly); spread from Baja to Queen Charlotte Islands (climate change?)
- Seem to have association with OMZ (~300m) perhaps refuge from predators (Gilly)
- Longevity 1-2 yr
- Ecosystems models being used for trophic interactions, squid could have substantial effects on other fisheries

ROV Assessment of MPAs Surveys (Dirk Rosen/Marine Applied Research & Exploration and Konstantin Karpov/CDFG)

- Work primarily at Channel Islands aboard R/V *Shearwater*;
- Addressing question: Do stock abundances of fishes species increase in MPAs relative to fished areas?
- Methods paper available estimating transect width using lasers vs sonar (Karpov et al. 2006, Marine Technology Society Journal 40(3):79-85)

- 18 sites, 2003-05; coverage 6km/day – 12km/day; comparison on Delta submersible vs ROV (sig diff); will be interesting to track sites over time
- Other uses: Debris location; fish sizing exp (determine sampling error); sea urchin size
- Advantages
 - digital archive can be shared
 - visual surveys best for some species (vs traps)
 - detect change in abundance over time
 - each year adds statistical power to estimates of stock abundance
 - complements diver surveys with virtually unlimited bottom time
 - time and cost effective way to get deep-water data
 - accurately locates biota and bottom features (including debris)
 - critical to maintain continuity of yearly MPA monitoring
- Limitations:
 - Umbilical limited to depth of 300 m
 - Don't focus on fish <11cm
- 3 cameras: Fish cam forward, rear cam, vertical cam
- Processing time? – For 1 hour of video approximately 1-10 hours processing (depends on how much info you want to use)
- Delta sub seems to see more fish? Yes. Human eye better, but ROV cameras have improved; both techniques track similar indices of abundance

DISCUSSION ITEMS

Scientific Collecting Permits in State MPAs (John Ugoretz/CDFG, via phone)

- As before, collecting in new MPAs under the MLPA require a scientific collecting permit from the state. This has not changed.
- Renewal of scientific collecting permits may contain info on MPAs. In state marine reserves, collecting is restricted to organisms associated to research related to the specific marine reserve or to organisms that cannot be collected anyplace else.
- Regarding deployment of long-term instrumentation suites in MPAs, no permit is required from CDFG. Permits are required from the MBNMS and perhaps the State Lands Commission.
- Regarding permit issues in MPAs under the MLPA and Areas of Special Biological Significance (ASBS), the latter are regulated under the State Water Quality Control Board.
- Regarding collecting unknown and/or new species, scientific collecting permits are typically for specific species or groups (e.g. inverts, fishes). This won't change as a result of the MLPA but CDFG desires to revamp the permit process to distinguish between research permits and commercial collecting permits. Ugoretz hopes RAP and others would get involved (w/Channel Island MPAs)
- Collecting in ESNERR occurs under the auspices of the state and then ESNERR manager level. This will not change.
- RAP members suggested that application, tracking, and report submissions related to scientific collecting permits be done on the internet. CDFG is committed to converting from paper to electronic, but this will take time.

- Coulston: a new dedicated permitting position in the works (Liz Quavis, in Monterey; currently Angela Louis in Los Alamitos) to coordinate scientific collecting permits. (Erica Burton will forward contact info to the RAP when available).

Sanctuary Condition Reports: Supporting System-Wide Monitoring (SWiM; Steve Gittings & Kathy Broughton/HQ, via phone)

- Powerpoint presentation
- Hand-out: Stellwagen NMS draft Condition Report
- RAP: need to express health indices of MBNMS by habitat (Sanctuary too big, too many habitats to generalize)
- RAP: aggregate rating doesn't have meaning for managers
- Gittings: MBNMS will have two geographies (nearshore and offshore)
- RAP: need to answer – who is audience and what decisions will be made based on it
- Gittings: required to report at agency/national level, educate general public
- Final draft-end of summer (July); final end FY07 (Oct)
- RAP members will be asked to participate in workshops

UPDATES

Statistical Design Workshop for Central CA MPA Monitoring (Rick Starr)

- Meeting Jan 30, 2007 Statistical Design Considerations
- RFP issued 3/3/07: Central Coast MPA Baseline Data Collection Project
 - Priorities for biophysical data collection
 - Deep rock habitat
 - Shallow rock habitat
 - Deep soft bottom
 - Rocky intertidal
 - Priorities for socioeconomic monitoring
 - Use patterns on the water
 - Resource economics
 - Communities and cultural resources
- See Sea Grant website for link to RFP
 - <http://www-csgc.ucsd.edu/>

Monterey Bay Crescent Ocean Research Consortium (MBCORC): The future (Chris Harrold)

- Chris summarized the MB-CORC retreat that was held on Feb. 27-28 2007.
- MB-CORC members agreed to meet twice per year, to identify priorities and common goals to achieve if working together
- 5 items emerged to pursue:
 1. Replacement of R/V *Pt Sur* (ought to be at Moss Landing)
 2. Ocean policy - should be effort in region to take science and apply to marine conservation policy (passport system to freely take classes at other institutions)
 3. Development of regional mapping center (Kvitek)
 4. Ecosystem indicator – report card type
 5. Workshop to explore integration of existing ecosystem modeling

Sanctuary Currents Symposium (Chris Harrold)

- The Ocean Revealed: Observing Systems for Healthy Oceans
- Well-attended, ~300 people
- Awards
 - AMBAG Sanctuary Reflection Awards - Science/Research: Richard Starr, California Sea Grant
 - Ed Ricketts Memorial Award and Lecture: Gary Griggs, UC Santa Cruz
 - Student Poster: Amber Szoboszlai, Moss Landing Marine Laboratories

SUGGESTED FUTURE AGENDA ITEMS

- No additional suggested

Future Agenda Items:

- **MAY:** Ocean Protection Council and other related groups (Amber Mace)
- **WQ:** Bacterial contamination (per John Hunt: Carol Shennan-UCSC)
- Implications of the MLPA decision on MBNMS activities
- **SIMoN:** future monitoring (JMPR or beyond)
- Findings tracking pathogens in sea otters and connection to FW flows (CDFG, UC Davis?)
- Number of invertebrate species in MBNMS (Lisa Uttal/MBNMS)
- **SIMoN's** Special Status Species Project (Jennifer Brown)
- Invite Ross Clark (per Ellen Faurot-Daniels): Critical coastal area presentation (ASBS, area water quality impaired, area in good state)
