# MBNMS Research Activity Panel Meeting Summary July 9, 2010

**Host:** Erika McPhee-Shaw – Physical Oceanography (Moss Landing Marine Labs)

**Location:** Moss Landing Marine Labs

Seminar Room

8272 Moss Landing Road Moss Landing, CA 95039

**Date:** Friday, July 9<sup>th</sup>, 2010; 9:00 am to 12:00 pm

# **MEMBERS:**

|   | Discipline                  | Primary/<br>Alternate | Name                | Institution                                 |
|---|-----------------------------|-----------------------|---------------------|---|
|   | Research Coordinator        |                       | DeVogelaere, Andrew | Monterey Bay National Marine Sanctuary      |
|   | Biological Oceanography     | primary               | Kudela, Raphael     | University of California, Santa Cruz        |
|   | Biological Oceanography     | alternate             | Chavez, Francisco   | Monterey Bay Aquarium Research Institute    |
|   | Deep-Sea Ecology            | primary               | Cailliet, Greg      | Moss Landing Marine Laboratories            |
| X | Deep-Sea Ecology            | alternate             | Haddock, Steve      | Monterey Bay Aquarium Research Institute    |
| X | Estuarine Ecology           | primary               | Wasson, Kerstin     | Elkhorn Slough NERR and Foundation          |
|   | Estuarine Ecology           | alternate             | Watson, Beth        | Elkhorn Slough NERR and Foundation          |
|   | Fisheries                   | primary               | Grimes, Churchill   | NOAA Fisheries Service                      |
|   | 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               | Harrold, Chris*     | Monterey Bay Aquarium                       |
|   | Marine Conservation Biology | alternate             | Micheli, Fiorenza   | Hopkins Marine Station                      |
|   | Marine Policy               | primary               | Abeles, Adina       | Center for Ocean Solutions                  |
| X | Marine Policy               | alternate             | David, Aimee        | Center for the Future of the Oceans, MBA    |
|   | 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               |                     |   |
| X | Shelf & Slope Ecology       | alternate             | Starr, Rick         | California Sea Grant Extension Program      |
| X | Social Sciences             | primary               | Pomeroy, Caroline   | California Sea Grant Extension Program      |
| X | Social Sciences             | alternate             | Scorse, Jason       | Monterey Institute of International Studies |
| X | Water Quality               | primary               | Hunt, John†         | University of California, Davis             |
|   | Water Quality               | alternate             | Epel, David         | Hopkins Marine Station                      |

<sup>\*</sup>Sanctuary Advisory Council Member: Research (Primary) †Sanctuary Advisory Council Member: Research (Alternate)

#### **GUESTS:**

|   | Name            | Institution                            |  |
|---|-----------------|--|--|
| X | Booth, Ashley   | Moss Landing Marine Laboratories       |  |
| X | Burton, Erica   | Monterey Bay National Marine Sanctuary |  |
| X | Clark, Cara     | Central Coast Wetlands Group           |  |
| X | Coale, Kenneth  | Moss Landing Marine Laboratories       |  |
| X | Novak, Tanya    | Moss Landing Marine Laboratories       |  |
| X | O'Connor, Kevin | Central Coast Wetlands Group           |  |
| X | Ryan, Sierra    | Central Coast Wetlands Group           |  |
| X | Smith, Jason    | Moss Landing Marine Laboratories       |  |

#### **CONSENT ITEMS**

Introductions/Modifications to the Agenda (Harrold)

- New RAP member
  - o Marine Policy (alternate): Aimee David, Ocean Conservation Policy Manager, Center for the Future of the Oceans, Monterey Bay Aquarium
- Modifications to the Agenda
  - o "Enhanced Ecosystem-based Management Initiative" agenda item presented by Lisa Wooninck (NMS West Coast Region)
  - o "CeNCOOS Update" (Ramp) Cancelled

## HOST PRESENTATION AND DISCUSSION

New Research at Moss Landing Marine Labs (McPhee-Shaw)

- McPhee-Shaw presented physical oceanography research at MLML, including:
  - o Boundary mixing in the deep Monterey Canyon
  - o Research question: are canyons mixing hotspots
  - o Monterey Canyon: site of confirmed boundary-interior exchange consistent with bulk mass conservation arguments and with localized mixing of stratified fluids
- McPhee-Shaw presented student research, including:
  - Decade of oxygen in Monterey Bay (Ashley Booth; received best graduate student poster award at Sanctuary Currents 2010)
  - o Nitrate transport to coastal Monterey Bay (Tanya Novak)
  - Movement of sooty shearwaters in response to variability in winds in California current (student)
  - o Santa Cruz wharf observatory (student)

## ENHANCED ECOSYSTEM-BASED MANAGEMENT INITIATIVE

SAC Subcommittee Update and Research Workshops (Lisa Wooninck/NMS West Coast Region)

- Wooninck provided summary of Enhanced Ecosystem-based Management Initiative goals
  - o Protect unique and rare places within MBNMS in their natural state for future generations

- Protect areas within MBNMS where natural ecosystem components are maintained and/or restored
- o Establish research areas within MBNMS that can be used to differentiate between natural variation versus human impacts to ecological processes and components
- o Promote ecologically and economically sustainable uses, including fisheries, in the Sanctuary
- Basic steps of initiative to achieve broad ecosystem-based management goals
  - o Step 1: Information gathering and analyses
  - o Step 2: Propose and implement strategies/actions
  - o Step 3: Monitor, assess, and adapt strategies
- We are currently in Step 1 phase: information gathering and analysis
- Wooninck presented a draft schedule of Step 1 phase
  - o October 2010: A workshop to discuss 'Research Areas' will be held
  - o November 2010: A workshop to discuss 'Unique and Rare Places' may occur
- SAC subcommittee formed (includes John Hunt) to provide input on Initiative (as a whole), and to suggest research experts in various fields
- John Hunt posed the question: should the IEA and Enhanced EBM Initiative be the focus of the RAP and Research Program for the next 3 years?
  - o Chris Harrold suggested this could be the RAP's focus, RAP has latitude to change focus on any MBNMS issue
  - o Erica Burton stated that this issue will probably not refocus the MBNMS research program and probably not the RAP's focus; the issue will continue to be a standing item on the RAP agenda; there are many Action Plans in the MBNMS Management Plan that the research program will address, and may request input from the RAP; the Initiative is just an element of the Management Plan
- To view Wooninck's June 17<sup>th</sup> SAC presentation see, http://montereybay.noaa.gov/sac/2010/061710/agenda.html

# SANCTUARY RESEARCH UPDATE

None

#### SANCTUARY ADVISORY COUNCIL UPDATE

SAC Update (Harrold)

- Harrold reported on two items of interest to RAP:
  - Enhanced Ecosystem-based Management Initiative: Lisa Wooninck provided update to SAC (as presented above)
  - Artificial Reefs: Jay Straith (recreational diver, lawyer) gave presentation to SAC outlining the pros and cons of sinking a large vessel off San Carlos Beach for dive opportunities
  - o To view these June 17<sup>th</sup> SAC presentations see, http://montereybay.noaa.gov/sac/2010/061710/agenda.html

#### SANCTUARY CURRENTS SYMPOSIUM 2011

Theme and Ricketts Award Nominations (Erica Burton/MBNMS)

- Burton requested suggestions for the 2011 Symposium Theme and nominations for the Ricketts Award
- RAP would like to see list of past theme suggestions, and Ricketts nominees
- Burton will send email to solicit ideas of both
- RAP had several other ideas to improve the Symposium:
  - o How about getting MBCORC involved in planning/partner (Storlazzi)
  - o And others Center for Ocean Solutions, Stanford University (Harrold)
  - o Poster session has eroded over time; give it more time and space (Starr);
  - Exhibitors have dropped off, and we may want to continue to decrease or eliminate; high school involvement has grown and we should continue to encourage (Harrold)
  - o Perhaps the Symposium should be divided into two events: 1) Public event (high school and exhibitors); 2) Science event that is more science centric with regional scientists; maybe MBCORC hosts a science symposium (Storlazzi)
  - o MBARI open house successful, perhaps have a multi-institutional open house (Haddock)
  - Perhaps use a more public-centric venue e.g., maritime museum, hotel (McPhee-Shaw)

# NRDA COLLABORATORS and LONG-TERM MONITORING PROGRAMS

Updating the Regional Collaborators List (Erica Burton/MBNMS)

- Burton reminded the RAP that a list potential Natural Resources Damage Assessment (NRDA) collaborators with long-term monitoring programs was created in 2007, in response to the 2006 central coast Safe Seas Oil Spill Drill
- This list is out of date, and will be updated
- Burton will send out an email poll of those individuals/institutions interested in collaborating during an oil spill event and subsequent NRDA, using existing long-term monitoring data and programs

# SUGGESTED FUTURE AGENDA ITEMS

- Sanctuary Currents: follow-up to email poll on theme, awards (Burton)
- CeNCOOS update (Ramp)
- Ken Johnson work in Elkhorn Slough (per McPhee-Shaw)
- Any science presentation should have 5 minute discussion on policy or social science implication; or specifically any emerging science coming out of MBNMS that has policy implication or management (per Scorse); or any marine policy issue may need science input (MBNMS focused or other local issue; per Hunt)
- Aimee David volunteered to provide list of policy issues that are current (from D.C., Sacramento) that may need science input
- High-res climate models by UCSC; not necessarily Cayan or Dettinger (per Storlazzi)
- GFNMS Climate Change report (John Largier, CeNCOOS), what differences MBNMS might see (per Starr)

- Focus a meeting on climate change (per McPhee/ Storlazzi):
  - o Global view
  - o CA coast (Lisa Sloan, UCSC; sea level rise, Breaker)
  - o GFNMS/CBNMS (Largier)
  - o Local/MBNMS (who? Curt?)
- Perhaps MBCORC hosts a 1 or 2 day science meeting (per Storlazzi)

# **Future Agenda Items (running list):**

- Water Quality
  - o Critical coastal areas presentation (ASBS, areas water quality impaired, areas in good state; Ross Clark)
- SIMoN
  - o SIMoN Special Status Species Project (Jennifer Brown)
- Communication Partnership for Science and the Sea (COMPASS)
- Data integration across monitoring programs (e.g., water quality, PISCO, MARINe, IOOS), and availability to the public
- Recent event: Supreme Court allows Navy Sonar (per John Hunt)
- Predicting sea level rise for the state of California (Larry Breaker, JPL, OPC)
- CeNCOOS update (new website; activities)
- High-res models of CA (UCSC; or Cayan or Dettinger/USGS)
- National Weather Service Forecast Office (Tom Evans, Warning Coordination Meteorologist)
- Presentation on IEAs (e.g., Phil Levin, Frank Schwing, John Stein), including IEAs that have been implemented (per Yoklavich)
- MPAs
  - State MPA monitoring projects (Jason Vasques)
  - Marine Spatial Planning presentation (per Harrold); Fio Micheli recently heard Marine Spatial Planning talk from Massachusetts; or speaker from Center for Ocean Solutions (Meg Caldwell)

## **2010 RAP Meeting Schedule and Locations**

| Date         | Host        | Location                         |
|--------------|-------------|----------------------------------|
| January 8    | Lindholm    | CSU Monterey Bay                 |
| March 12     | Storlazzi   | USGS, Santa Cruz                 |
| May 14       | Wasson      | Elkhorn Slough NERR              |
| July 9       | McPhee-Shaw | Moss Landing Marine Laboratories |
| September 10 | Canceled    |                                  |
| November 12  | Harrold     | Monterey Bay Aquarium            |

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