

**MBNMS Research Activity Panel
Meeting Summary
July 8, 2011**

Hosts: Mark Carr – Nearshore Ecology (University of California, Santa Cruz)
Caroline Pomeroy – Social Sciences (California Sea Grant)

Location: Long Marine Lab
Center for Ocean Health Library, Rm 201
100 Shaffer Road
Santa Cruz, CA

Date: Friday, July 8th, 2011; 9:00 am to 12:00 pm

MEMBERS:

	Discipline	Primary/ Alternate	Name	Institution
X	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		
X	Fisheries	primary	Grimes, Churchill	NOAA Fisheries Service
X	Fisheries	alternate	Vasques, Jason	California Department of Fish & Game
	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
	Marine Policy	alternate	David, Aimee	Center for the Future of the Oceans, MBA
X	Nearshore Ecology	primary	Lindholm, James	California State University Monterey Bay
X	Nearshore Ecology	alternate	Carr, Mark	University of California, Santa Cruz
	Physical Oceanography	primary	McPhee-Shaw, Erika	Moss Landing Marine Laboratories
X	Physical Oceanography	alternate	Ramp, Steve	Soliton Ocean Services, Inc.
	Shelf & Slope Ecology	primary		
	Shelf & Slope Ecology	alternate	Starr, Rick	California Sea Grant Extension Program
X	Social Sciences	primary	Pomeroy, Caroline	California Sea Grant Extension Program
	Social Sciences	alternate	Scorse, Jason	Monterey Institute of International Studies
	Water Quality	primary		
	Water Quality	alternate	Epel, David	Hopkins Marine Station

*Sanctuary Advisory Council Member: Research (Primary)

†Sanctuary Advisory Council Member: Research (Alternate) - Vacant

RAP Coordinator:

X	Burton, Erica	Monterey Bay National Marine Sanctuary
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GUESTS:

	Name	Institution
X	Hunt, John	Monterey Bay National Marine Sanctuary
X	Parrish-Kuhn, Chelsea	California State University Monterey Bay
X	Townsend, Sara	Phil Williams and Associates

CONSENT ITEMS

Introductions/Modifications to the Agenda (Harrold)

HOST PRESENTATIONS AND DISCUSSION

California Sea Grant Program Update (Pomeroy)

- Pomeroy provided brief overview of the California Sea Grant Extension Program (CASGEP)
- CASGEP separated from UC Davis 1 year ago (UC Cooperative Extension)
- CASGEP now at UC San Diego
- Rick Starr is now permanent Extension Director
- Focus Areas for 2010-2013 include:
 - Healthy Coastal and Marine Ecosystems
 - Resilient Coastal Communities
 - New Technologies and Products
 - Safe and Sustainable Seafood Supply
 - Effective Response to Climate Change
- For more info see, <http://ca-sgep.ucsd.edu/>

Integrated Baseline and Monitoring Studies of California's Network of Marine Protected Areas (Carr)

- Carr provided overview of the five study regions along California coast
- Purpose of baseline:
 - Characterize ecosystems to generate indicators of ecosystem state, and socio-economic indicators
 - Inform longer term monitoring program
 - Provide initial reference conditions
- Carr provide snapshot of results for select species and habitats
- PISCO-developed food webs for the MLPA are being used to help develop the California Current IEA by NOAA
- 5-yr review is ramping up, expected in fall 2012
- <http://www.piscoweb.org/policy/marine-protected-area-policy/monitoring-marine-protected-areas-/mlpa-marine-protected-area-m-0>

STAFF REQUEST TO RAP**RAP RESEARCH PRIORITIES: Ecosystem-Based Management Initiative (EBMI)**

Research Areas Workshop Follow-up (John Hunt/MBNMS)

- John reviewed 4 objectives of EBMI (<http://montereybay.noaa.gov/ebmi/welcome.html>)
 - Maintain/restore marine ecosystem health, services, and function
 - Ensure protection of unique and rare features
 - Facilitate research to differentiate between natural variation and human impacts
 - Facilitate ecologically and economically sustainable uses, including fisheries

- Research Areas Workshop held in October 2010 at NMFS, Santa Cruz
- Goal of workshop was to review existing spatial management, determine how it affects marine science, and discuss what kinds of strategies, if any, could facilitate science that supports ecosystem-based management of MBNMS
- Workshop summary report submitted to ONMS Conservation Series for review (copy sent to RAP)
- John discussed the 6 key findings of report for RAP discussion
 - Better spatial management could facilitate science
 - Regulations and permits have both a real and perceived impact
 - Some questions difficult to pursue given current management structure
 - Areas needed for both applied and basic science questions, and in some cases to allow for manipulative experiments
 - Sentinel sites to protect equipment, add value by co-locating compatible studies, and share equipment and data
 - Scientists as stakeholders to facilitate research while maintaining objectivity
- ACTION: John asked RAP to comment on executive summary of report
- ACTION: John asked for input on next steps
 - Validate and expand workshop findings with research community (e.g., follow-up survey, presentations), perhaps facilitated by RAP
 - Create a task force to address concerns over research permitting
 - Create a task force to develop strategies to facilitate research in sanctuary (e.g., improved coordination, opportunities for collaboration, web portal activities related to ship time)
 - Integrate spatial data layers of research activities to identify research hotspots
 - Analyze spatial data to identify potential research areas and/or sentinel sites and evaluate potential conflicts with other sustainable uses
 - Develop management strategies to minimize conflicts
- ACTION: MBNMS staff will pull out the research needs from management plan, ask what RAP would like to add; ask other management agencies what they'd like to add; and will create summary

RAP RESEARCH PRIORITIES: Ocean Acidification

List of Ocean Acidification Research within MBNMS (Burton)

- Ocean Acidification is a Research Priority for the RAP and Sanctuary Staff
- Purpose of RAP involvement is to highlight Monterey Bay as a center of Ocean Acidification studies, for Sanctuary Program and NOAA
- January 2011 RAP Meeting:
 - Ocean Acidification is a Research Priority for RAP (Advisors, Marketing)
 - Comment on ONMS plans
 - Compile info on regional assets and capabilities
- March 2011 RAP Meeting:
 - DeVogelaere announced that RAP would be asked to survey their institutions
 - What Ocean Acidification research is being done at your institution?
- April 2011 (email survey)
 - Burton sent an email to the RAP requesting:

- Title of any ocean acidification project within the MBNMS, that you or your colleagues at institution are working on
 - Name of principal investigator and contact information
- June 2011: Burton sent out draft list to RAP and PIs for review
- July 2011 RAP Meeting (today):
 - Burton provided copies of vetted list to RAP (27 Projects; 13 institutions)
- **ACTIONS** (for Staff):
 - Provide list to MBNMS Deputy Superintendent to be used at upcoming Monterey Bay Climate Change Adaptation Workshop
 - 6 December 2011
 - Partners: MBNMS and Center of for Ocean Solutions (Adina Abeles)
 - Provide list to GFNMS Ocean Climate Center (Ocean Climate Initiative)
 - Send list to ONMS Research Coordinator: Steve Gittings
 - Incorporate list info into NOAA Ocean Acidification plan
 - SIMoN Staff (Steve Lonhart) will ask PIs with long-term monitoring projects to add project pages on SIMoN website

STAFF REQUEST TO RAP

2012 Sanctuary Currents Symposium Theme Ideas (Burton)

- Symposium Committee is requesting ideas from RAP for 2012 theme
- Lindholm: From mountains to deep-sea (watershed connections; habitat connections)
- DeVogelaere: how to engage public in 5yr review of MPAs
 - Vasques: 5 yr MPA review may happen in fall 2012; so 2013 may be better year to highlight at Symposium
- Grimes: salmon as a topic, including agriculture impacts; water removals; habitat modifications; management in holistic fashion (mountains to sea); crosses many agencies
- **ACTION**: Burton will send email of past and new ideas, and solicit others

SANCTUARY RESEARCH UPDATE

Sanctuary Research Update (DeVogelaere)

- Staff working on follow-up to Unique and Rare Workshop (24 May 2011)
- Aerial survey scheduled at Davidson Seamount 6 July 2011:
 - Area was fogged in, so surveyed nearshore area instead
 - Observed basking and white sharks
 - Information reported to MLML “Spot a Basking Shark Project”
 - Observations reported on SIMoN Website:
 - <http://sanctuarysimon.org/news/index.php/2011/07/white-and-basking-sharks-seen-off-big-sur-coast-after-marine-mammal-aerial-survey-over-davidson-seamount-aborted/>
- Recent Lost Container Survey:
 - We want to add this to the international discussion on shipping and impacts to deep-sea
 - Lots of interest from the public and industry
 - DeVogelaere shared one-pager created for ONMS and larger NOAA
- One priority for ONMS HQ and Superintendent is to have a fully-developed, unified dive program

- MBNMS staff working on NOAA dive manual
- Staff collaborate with PISCO divers and program
- Recent closing of highway one (landslide) brought PISCO PIs and MBNMS staff together to provide nearshore info, and future monitoring (PISCO is nearshore partner; monitoring in intertidal and kelp subtidal)
- CSUMB continues to be partner for continental shelf characterization

SANCTUARY ADVISORY COUNCIL UPDATE

None

SUGGESTED FUTURE AGENDA ITEMS

- Update on upcoming central coast MPA 5yr review (per Carr; by Vasques), only a handful of projects have been identified; perhaps there are additional data sources that could feed into 5yr review; Vasques will talk with colleagues to get info on data need
- Combine several sea level rise talks, including southern Monterey bay group, tidal wetland plan (Largay), and Breaker's talk (not urgent)
- RAP Membership Committee update

Future Agenda Items (running list):

- Data integration across monitoring programs (e.g., water quality, PISCO, MARINE, IOOS), and availability to the public
- Predicting sea level rise for the state of California (Larry Breaker, JPL, OPC)
- EBMI/IEA
 - IEAs, including those that have been implemented (e.g., Phil Levin, Frank Schwing, John Stein; per Yoklavich)
- MPAs
 - State MPA monitoring projects (e.g., Jason Vasques)
- Ken Johnson work in Elkhorn Slough (per McPhee-Shaw)
- Marine Policy issues (Sacramento; D.C.) that may need science input (per Ramp; Aimee David volunteered; or Adina Abeles)
- Climate Change
 - Rather than MBNMS tackle all climate change topics, perhaps let GFNMS/CBNMS continue as lead on climate change issues (per DeVogelaere), and request the following presentations:
 - GFNMS/CBNMS Ocean Climate Initiative (speaker: Higgason)
 - GFNMS/CBNMS Climate Change Impacts Report (speaker: Largier)
 - Perhaps tackle what GFNMS/CBNMS not working on (e.g., low oxygen; per Kudela)
 - Storlazzi is willing to help organize a general meeting on climate change science; State of the Science of climate change; adaptation plans; Perhaps MBCORC hosts a 1 or 2 day science meeting
 - CA coast (Lisa Sloan, UCSC; sea level rise, Breaker)
 - High-res climate models of CA (UCSC; or Dan Cayan or Dettinger/USGS)
 - What differences MBNMS might observe (per Starr)
 - NOAA Coastal Services Center putting together climate adaptation visualization tool (per Hunt)
- Beach COMBERS Program
 - How Beach COMBERS program linked to oil spill response (GFNMS) and how Beach COMBERS data fits into response (per Hunt)
- Desalination update (per Abeles); things have changed since Brad Damitz talked to the RAP; get speakers who lead projects (MBNMS staff to determine; ask Raimondi for advice....Cambria)
