

**MBNMS Research Activity Panel
Meeting Summary
May 12, 2017**

Host: Kerstin Wasson – Estuarine Environment (Elkhorn Slough NERR and Foundation)

Location: Elkhorn Slough National Estuarine Research Reserve
1700 Elkhorn Road
Watsonville, CA 95076

Date: Friday, May 12th, 2017; 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
X	Deep-Sea Environment	primary	Cailliet, Greg	Moss Landing Marine Laboratories (retired)
	Deep-Sea Environment	alternate	Haddock, Steve †	Monterey Bay Aquarium Research Institute
	Estuarine Environment	primary	Clark, Ross	Central Coast Wetlands Group
X	Estuarine Environment	alternate	Wasson, Kerstin	Elkhorn Slough NERR and Foundation
X	Fisheries	primary	Lindley, Steve	NOAA Fisheries Service
X	Fisheries	alternate	Owens, Brian	California Department of Fish and Wildlife
	Marine & Coastal Geology	primary	Storlazzi, Curt	United States Geological Survey
	Marine & Coastal Geology	alternate	Paull, Charles	Monterey Bay Aquarium Research Institute
	Marine Conservation Biology	primary	Goldbogen, Jeremy	Hopkins Marine Station
	Marine Conservation Biology	alternate	Micheli, Fiorenza	Hopkins Marine Station
	Nearshore Environment	primary	Nickols, Kerry	California State University Monterey Bay
	Nearshore Environment	alternate	Carr, Mark	University of California, Santa Cruz
	Physical Oceanography	primary	Cheriton, Olivia	United States Geological Survey
X	Physical Oceanography	alternate	Orescanin, Mara	Naval Postgraduate School
	Shelf & Slope Environment	primary	Lindholm, James	California State University Monterey Bay
X	Shelf & Slope Environment	alternate	Sogard, Susan	NOAA Fisheries Service
	Social Sciences	primary	Pomeroy, Caroline	California Sea Grant Extension Program
X	Social Sciences	alternate	Scorse, Jason	Middlebury Institute of International Studies
X	Water Quality	primary	Hunt, John *	University of California, Davis
X	Water Quality	alternate	Hoover, Bridget	Monterey Bay National Marine Sanctuary

*Sanctuary Advisory Council Member: Research (Primary)

†Sanctuary Advisory Council Member: Research (Alternate)

RAP Coordinator:

X	Burton, Erica	Monterey Bay National Marine Sanctuary
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GUESTS

Bretz, Carrie	California State University Monterey Bay
Dawson, Cyndi	Ocean Protection Council
Lonhart, Steve	Monterey Bay National Marine Sanctuary
Webb, Margaret (P.J.)	MBNMS Advisory Council

CONSENT ITEMS

Introductions/Modifications to the Agenda (John Hunt)

- New member: Mara Orescanin (Physical Oceanography, alternate)

HOST PRESENTATION AND DISCUSSION

From Oysters to Otters: Elkhorn Slough Ecology and How Estuarine Ecosystems Are Changing (Kerstin Wasson)

- Wasson provided presentation on ESNERR ecology and how it has changed over 25 years (related to Sanctuary designation in 1992; 25th anniversary in 2017)
- Provided overview of estuaries; ESNERR is only place in US where National Marine Sanctuaries and National Estuarine Research Reserve occur together
- ESNERR has several overlapping jurisdictions
- ESNERR is a NOAA/CDFW partnership
- Threats include the following:
 - Hydrological alterations: decreased freshwater and riverine sediments; increasing use of ground water; tidal restriction (including stagnation and lack of connectivity from reduced tidal exchange); channel and bank erosion
 - Invasive species: Australian worm; *Battilaria*; European Green Crab
 - Pollution: Agriculture run-off; see report card (<http://www.elkhornslough.org/waterquality-reportcard/>)
 - Climate change: sea level rise (predictive and emerging)
 - Measured die-back of lower edge of marsh during El Niño
- Biodiversity trends include the following:
 - Long-term marsh loss (to mudflat) due to eutrophication and groundwater overdraft
 - Eelgrass: dramatic decline 1931-1956; increase since 1980; current restoration effort
 - Native oysters: in trouble, estimated 25-year decline; sporadic recruitment; restoration effort
 - Shorebirds: no clear trend (variable); no problems
 - Sea otters: good condition (better than coast); increasing numbers in slough (until recently)

PRESENTATION REQUESTED BY RAP

California Marine Protected Areas Management Program: Science Priorities, Information Management and What Comes Next? (Cyndi Dawson/Ocean Protection Council)

- Dawson provided overview of MPA network; and overview of MPA statewide leadership team (includes regulatory partners)
- MPA monitoring program priorities include:
 - Information Management System (beta version released by end of 2017)

- The OPC IT system is designed to be an open data platform with interconnection capacity to other programs. They are talking with PISCO and conducting a CeNCOOS input pilot. There is an opportunity for the MBNMS and RAP to engage in the process to develop a system that accepts relevant data and produces information products of use to sanctuary and partner agency resource management.
 - Support co-mentored Postdocs
 - Support Action Plan Development
- Long-term monitoring (Phase 2) includes:
 - Required monitoring plans
 - Results and Recommendations
 - Additional expert review
- Long-term monitoring action plan under development, and RFPs/RFQs/EOIs for fall 2018
- For more information, see: www.opc.ca.gov

MEETING UPDATES

Summary of CDFW Public Meetings on Artificial Reefs (Brian Owens)

- Owens provided brief overview of recent public outreach meetings related to artificial reefs (occurred in Sacramento, Los Alamitos, Oxnard)
- CDFW not ready to render an opinion on artificial reefs
- CDFW does not permit reefs, but has program (historically)
 - 1985 Artificial Reef program
 - 1989 Guide to Reefs in Southern California
 - 1990 Plan for sport fish enhancement (not programmatic plan)
 - NOAA's National Artificial Reef Guidelines (not CDFW)
- Reefs history
 - ~40+ reefs
 - Publically placed reefs (status unknown)
 - CDFW has authority and responsibility, specific to southern California
 - Currently program is unfunded, unfinished; needs money, research, science-based plan
 - CDFW may develop new regulations
 - New reefs need CEQA review, MLMA review
 - Permitting agencies include: Army Corps; State Lands Commission; Coastal Commission. Each would ask CDFW for consultation.
 - Lessons learned: Wheeler-North reef – not meeting goals
 - Requests not always consistent with Fish and Game Code; need statewide plan
- Baseline Assessment needed to do the following:
 - Spatially describe reefs to ensure maps are accurate
 - Ground truth existence: Still there? Condition of materials?
 - Determine primary use
 - Survey and describe community structure, assemblages
- Next Steps include:
 - Consolidate feedback from meetings
 - Identify funding

- Develop listserv to keep public informed
- Develop timeline and work flow for baseline assessment

Summary of April 21st Advisory Council Meeting at Santa Cruz (John Hunt)

- Hunt provided overview of Advisory Council (AC) meeting
- See complete AC meeting minutes at <http://montereybay.noaa.gov/sac/sacma.html>

RAP RESEARCH PRIORITIES

RAP Action Plan for Long-term Monitoring: Update (John Hunt)

- Subcommittee (Carr, Haddock, Hunt, Lindholm, Micheli) met with Bill Douros (West Coast Regional Director, Office of National Marine Sanctuaries)
 - Douros recommended incorporation of long-term monitoring into Management Plan; and communicate with CINMS and headquarters staff
 - Subcommittee noted RAP can bring scientists to effort, but need core staff (NMS)
- Next step: several members to meet with MBNMS Superintendent (Paul Michel) and Andrew DeVogelaere

RAP MEMBERSHIP UPDATE

Status of RAP Memberships (Erica Burton)

- New member: Mara Orescanin (Physical Oceanography, alternate) from Naval Postgraduate School
- Kerry Nickols (Nearshore Environment, primary) from CSUMB is stepping down, and taking new job at CSU Northridge
- **Action Item:** If RAP has suggestions for Nearshore Environment primary, please send suggestion to Erica Burton, and then membership subcommittee will evaluate

QUICK UPDATES ON NEW HIRES AT INSTITUTIONS, AND FACILITY UPDATES

- Upcoming MBNMS 25th Anniversary speaker series events:
 - May 17th (6:00-7:30pm, at Sanctuary Exploration Center): Mark Carr, "Recent changes in coastal ecosystems of the sanctuary: understanding their causes and consequences,"
 - May 25th (6:00-7:30pm, at Pacific Grove Natural History Museum): Ed Thornton, "Alongshore sediment transport, rip currents and erosion in southern Monterey Bay"
 - For more information, see <http://montereybay.noaa.gov/new/2017/170315speakerseries.html>
- Scorse (MIIS): new hire, Elizabeth Chornesky, Environmental Policy position
- Orescanin (NPS): new staff, Derek Olson, Coastal Acoustics, August 2017
- Lindley (NMFS): Economics and Human Dimensions Science Program Review, at Santa Cruz July 24th, open to public (<http://www.st.nmfs.noaa.gov/science-program-review/>)
- Dawson (OPC):
 - New Deputy Director, Jenn Eckerle
 - Hiring several other positions: Proposition 1 Grant Program position; Sea Level Rise position; MPA position to spend once-through cooling funds
- DeVogelaere (MBNMS): no new hires; losing contract staff; flat budget
- Cailliet (MLML): visiting scientist from CSU East Bay leaving; French staff also leaving

- Bretz (CSUMB): this summer developing job description to fill outgoing Kerry Nickols position; this is last year accepting Master’s students (co-MLML)
- Lonhart (MBNMS): two interns; one helping Kat at ESNERR; other is a Hollings Scholar doing database work
- Webb (AC): Michele Roest (former MBNMS staff) hired at CalPoly to teach Marine Biology

SUGGESTED FUTURE AGENDA ITEMS

- Hunt: suggested Panetta could be invited to address the SAC to discuss Sanctuary budget and the future of the ONMS
- Hunt: regional NMS foundation currently forming, request presentation from Michael Murphy
- Scorse: socioeconomic benefits of science

Future Agenda Items (running list):

- Coastal Rivermouth Lagoon inventory for state and central coast (Central Coast Wetlands Group/Ross Clark)
- MBNMS Budget and staffing, and trends (short topic; per Storlazzi)
- Long-term Monitoring

2017 RAP Meeting Schedule and Locations

Date	Host	Location
January 13	Micheli	Hopkins Marine Station
March 10	Cheriton	US Geological Survey
May 12	Wasson	Elkhorn Slough NERR
July 14	Haddock	Monterey Bay Aquarium Research Institute
September 8	Owens	California Department of Fish and Wildlife
November 3	Pomeroy	UCSC or central location
