

**MBNMS Research Activity Panel
Meeting Summary
November 2, 2018**

Hosts: John Hunt – Water Quality (UC Davis)
Ross Clark – Estuarine Environment (Central Coast Wetlands Group)

Location: Moss Landing Marine Laboratories
Think Tank (first room on right, upon entering building)
8272 Moss Landing Road
Moss Landing, CA

Date: Friday, November 2nd, 2018; 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
X	Estuarine Environment	primary	Clark, Ross	Central Coast Wetlands Group
	Estuarine Environment	alternate	Wasson, Kerstin	Elkhorn Slough NERR and Foundation
	Fisheries	primary	Lindley, Steve	NOAA Fisheries Service
	Fisheries	alternate	Owens, Brian	California Department of Fish and Wildlife
X	Marine & Coastal Geology	primary	Golden, Nadine	United States Geological Survey
	Marine & Coastal Geology	alternate	Paull, Charles	Monterey Bay Aquarium Research Institute
X	Marine Conservation Biology	primary	Goldbogen, Jeremy	Hopkins Marine Station
	Marine Conservation Biology	alternate	Micheli, Fiorenza	Hopkins Marine Station
X	Nearshore Environment	primary	Southall, Brandon	Southall Environmental Associates, Inc.
	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 (retired)
X	Social Sciences	primary	Pomeroy, Caroline	California Sea Grant Extension Program
	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
---	---------------	--

GUESTS

Behl, Robert	Behl Ventures, LP
Cade, Dave	Hopkins Marine Station
Cline, Danelle	Monterey Bay Aquarium Research Institute
Gardner, Luke	Moss Landing Marine Laboratories
Joseph, John	Naval Postgraduate School
Leitzell, Katherine	California Sea Grant
Margolina, Tetyana	Naval Postgraduate School
Oestreich, Will	Hopkins Marine Station
Ruhl, Henry	CeNCOOS
Ryan, John	Monterey Bay Aquarium Research Institute
Stimpert, Alison	Moss Landing Marine Laboratories
Urmy, Sam	Monterey Bay Aquarium Research Institute

CONSENT ITEMS

Introductions/Modifications to the Agenda (John Hunt)

HOST PRESENTATION AND DISCUSSION

Aquaculture Program at MLML (Luke Gardner/MLML & CA Sea Grant)

- Luke Gardner is the new Sea Grant Extension Specialist and MLML Research Faculty, with aquaculture specialty
- Luke provided background information on the aquaculture facility, the mission, industry partners, and recent projects.
- For more information see: <https://www.mlml.calstate.edu/aquaculture/>

PRESENTATION REQUESTED BY RAP

Discussion of Sound Related Research in MBNMS (Andrew DeVogelaere, Brandon Southall, Jeremy Goldbogen, John Joseph, Tetyana Margolina, John Ryan, Will Oestreich, Dave Cade, Alison Stimpert, Sam Urmy, Danelle Cline)

- Andrew DeVogelaere (MBNMS) provided overview of MBNMS and Advisory Council interests on sound, including MBNMS management plan review on Wildlife Disturbance – Ocean Noise Working Group final recommendations
- Brandan Southall (Southall Environmental Associates, Inc.) provided brief background on sound issue and regional efforts
- John Ryan (MBARI) provided update on Sanctuary Soundscape at MARS, and noises heard including: seal bombs; baleen whale vocalizations with season and sighting data; public outreach - sound exhibit at SEC
- John Joseph (NPS) provided overview of noise intensity in Monterey Bay area; directional acoustic monitoring at MARS; long-endurance maritime observation system (conceptual system design with wave glider);
- Will Oestreich and Dave Cade (HMS) provided information on tagging blue whales and others with suction cup accelerometer tags, some with hydrophones; active acoustic prey monitoring;
- Sam Urmy (MBARI) provided brief overview of Odontocete clicks; machine learning; active acoustics – DEIMOS echosounder at MARS, repeated surveys with Wave Glider, and simultaneous predator/prey monitoring;

- Danelle Cline (MBARI) provided overview of MARS hydrophone data products, machine learning, and future efforts to advance detection and classification methods, and data management;
- Alison Stimpert (MLML) provided brief summary of humpback whale non-song sound production research

PRESENTATION REQUESTED BY RAP

Central and Northern California Ocean Observing System (CeNCOOS) Director Update (Henry Ruhl)

- Henry Ruhl provided CeNCOOS update, including: team members – Alex Harper, Patrick Daniel, Fred Bahr; vision statement; strategic themes; CeNCOOS Data Portal v2.7 (<http://data.cencoos.org>); modeling; monitoring for shellfish aquaculture; serving up biological and ecological data: ROV data discovery; MBON; Beach COMBERS; animal telemetry; imaging flow cytobot for phytoplankton classification
- CeNCOOS recently became NOAA-certified Regional Information Coordination Entity
- For more information, see www.cencoos.org

MEETING UPDATES

Summary of October 19th Advisory Council Meeting at Salinas (John Hunt)

- For meeting minutes, see: <https://montereybay.noaa.gov/sac/sacma.html>

ED RICKETTS AWARD AND LECTURE

Ed Ricketts Memorial Award and Lecture 2019 (Erica Burton)

- Erica Burton provided brief overview of Ed Ricketts Memorial Award and Lecture, and requested nominations for 2019 award
- For information on Ricketts Award, see <https://montereybay.noaa.gov/research/ricketts.html>
- **ACTION**: Burton will send RAP members call for nominations; please respond

QUICK UPDATES ON NEW HIRES AT INSTITUTIONS, AND FACILITY UPDATES

- No decisions or actions

SUGGESTED FUTURE AGENDA ITEMS

- None

Future Agenda Items (running list):

- MBNMS budget and staffing, and trends (short topic; per Storlazzi)
- Monterey Bay Sanctuary Foundation: presentation from new local chapter (per Hunt)
- Socioeconomic benefits of science (per Scorse)
- West Coast Sanctuaries Species Inventory (West Coast Regional Office)
- Executive Order 13795: Implementing an America-First Offshore First Offshore Energy Strategy [Sec. 4(b): National Marine Sanctuaries and Marine National Monuments] (West Coast Regional Office)
- Regional Marine Policy courses and engaging students towards MBNMS issues
- RAP Focus:
 - Long-term Monitoring
 - Coordinated water quality monitoring: lessons learned (Hunt/Hoover)
 - Consider interns to follow-up on RAP monitoring plan tasks (Hunt)
 - MBNMS Action Plans (Management Plan Review)
- RAP Membership: need to reinvigorate non-attending members (Haddock)
- Desalination project(s) and monitoring
- Kelp and urchins discussion – central California link with Northern California group (Lonhart or Carr?; per DeVogelaere)
- Sail drone company partnering with SWFSC/NMFS on west coast marine mammal/rockfish survey, interested in monitoring ideas from region (per Wooninck)
- Discuss drone usage (pros/cons; per Orescanin)
- Chumash Sanctuary Proposal and offshore energy proposals
- Coastal Storm Modeling System (CoSMoS) update from USGS (contact: Nadine Golden)

2019 RAP Meeting Schedule and Locations

Date	Host	Location
January 11		tbd
March 8		tbd
May 10		tbd
September 13		tbd
November 1		tbd
