

**MBNMS Research Activity Panel
Meeting Summary
January 8, 2021**

Host: Greg Cailliet – Deep-Sea Environment (Moss Landing Marine Labs – retired)

Location: Virtual Meeting (information available upon request; erica.burton@noaa.gov)

Date: Friday, January 8, 2021; 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
X	Biological Oceanography	alternate	Ruhl, Henry	Central and Northern California Ocean Observing System
X	Deep-Sea Environment	primary	Cailliet, Greg	Moss Landing Marine Laboratories (retired)
X	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
	Marine & Coastal Geology	primary	Golden, Nadine	United States Geological Survey
	Marine & Coastal Geology	alternate		
	Marine Conservation Biology	primary	Goldbogen, Jeremy	Hopkins Marine Station
X	Marine Conservation Biology	alternate	Micheli, Fiorenza	Hopkins Marine Station
X	Nearshore Environment	primary	Southall, Brandon	Southall Environmental Associates, Inc.
X	Nearshore Environment	alternate	Carr, Mark	University of California, Santa Cruz
X	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, Carrie	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

Barkan, Joel	Ocean Discovery Institute
Behl, Robert	Monterey Marine Innovation Project
Carlin, Joseph	California State University Fullerton
De Beukelaer, Sophie	Monterey Bay National Marine Sanctuary
Fisler, Shara	Ocean Discovery Institute
Harvey, Jim	Moss Landing Marine Laboratories
MacMahan, Jamie	Naval Postgraduate School
Paull, Charles	Monterey Bay Aquarium Research Institute
Souza, Chelsey	University of California Davis
Uttal, Lisa	Monterey Bay National Marine Sanctuary
Wagner, Amy	California State University Sacramento

CONSENT ITEMS

Introductions/Modifications to the Agenda (John Hunt)

HOST PRESENTATION AND DISCUSSION

MLML Research and Institutional Update (Jim Harvey/MLML)

- Jim provided brief overview of MLML activities and future plans, including:
 - Academic Village plans (housing, conference center, teaching labs/offices)
 - New research vessel, wind power and diesel/electric (with Ocean Planet Explorers)
 - Center for Aquaculture (degree and buildings)
 - School of Marine Science at SJSU
 - Joint PhD program with UCSC
 - Increased diversity in marine science
 - Student support (endowment)
 - Search for a new director (Jim will retire end of May 2021)
 - New Biological Oceanography professor, Dr. Sarah Smith
 - Finalized agreement with SJSU/CSUMB (consortium)
 - 29 new graduate students in Fall 2020 (largest incoming class)
 - Due to COVID: All courses online in Spring, some in-person labs
 - Thesis projects for 45 grad students have received COVID approval from SJSU
 - No MLML Open House in Spring 2020 (typically largest fund raiser for students)
 - External Review of MLML – Dr. Raphe Kudula (UCSC)
- RAP members expressed much interest in increasing diversity in marine science and helping to develop high school curriculum. Jim will organize a group discussion and invite RAP members and other regional scientists. This topic dove-tailed with other agenda item by Joel Barkan (Ocean Discovery Institute).

SANCTUARY ADVISORY COUNCIL UPDATE

Summary of December 11th Advisory Council Meeting (John Hunt)

- John presented brief summary of Advisory Council Meeting.
- For meeting minutes, see: <https://montereybay.noaa.gov/sac/sacma.html>

PRESENTATION REQUESTED BY RAP

Coastal Land-Air-Sea Interaction (CLASI) experiment (Jamie MacMahan/Naval Postgraduate School)

- Jamie provided overview of the large-scale experiment, including partners, field experiments and observations, spatial extent around Monterey Bay, and seasonal equipment deployments.
- Contact and project information available at:
<https://www.oc.nps.edu/~macmahan/index.htm>

PRESENTATIONS REQUESTED BY RAP

Ocean Discovery Institute: High School Research Program in Monterey Bay (Joel Barkan/Ocean Discovery Institute)

- Joel provided an overview of Ocean Discovery and the high school research program, and requested RAP involvement.
- Students are enrolled in program in City Heights neighborhood of San Diego, where classes are held in 20,000 square foot teaching facility.
- Ocean Discovery and NOAA have MOU to collaborate on education initiatives.
- Student conduct research for 10 days in Monterey Bay, working with local PIs.
- Joel asked RAP for recommendations (and introductions where possible) for PIs with research projects in the Monterey Bay area who may be interested in working with students.
- Ocean Discovery expects to have 22 students and 10 staff working in the Monterey Bay area in July 2023
- Criteria for partners:
 - Enthusiastic about mentoring youth from underrepresented backgrounds.
 - Can commit time during 10-day program to work with students.
- Criteria for projects:
 - Field-based with a direct or indirect connection to the ocean.
 - Have clear experimental design so students understand hypotheses, variables, results, etc.
 - Preference for existing, longer-term projects that are sustainable for multiple years.
 - Preference for projects with conservation or human health applications.
- For additional information, contact Joel Barken (jbarken@oceandi.org) or visit <https://oceandiscoveryinstitute.org/>

RAP DISCUSSION ITEMS

Discussion of Monitoring Opportunities Post-closure of Marina Sand Mining Plant (John Hunt)

- John Hunt and Andrew DeVogelaere briefly introduced the issue, and subject-matter expert scientists were invited to RAP meeting of which several attended meeting.
- Andrew explained we have a unique opportunity to see how the shoreline will behave after the last sand mining plant on west coast shuts down. There is no money at MBNMS to monitor change, but maybe the RAP could initiate discussion for monitoring, including graduate student projects.
- Olivia Cheriton will check with USGS scientists.
- Charlie Paull mentioned several active proposals to monitor sand budgets.
- Amy Wagner mentioned Cal State Rapid Grants; may be able to collaborate with MLML, USGS, CSUF (Joe Carlin), others to establish baseline and long-term monitoring.

- **ACTION:** Andrew will follow-up with Amy, Charlie, and others who were absent.

Discussion of New West Coast Region/MBNMS Boat (Andrew DeVogelaere)

- Andrew provided update on pending delivery of new Radon boat; estimated arrival in April.
- R/V *Fulmar* and R4107 are other sanctuary vessels; R4107 leaving area soon.
- New vessel will be stored during winter at CSUMB Ragsdale facility (MOA), otherwise stored at Monterey Harbor.

ED RICKETTS AWARD AND LECTURE

Ricketts Lecture and Award: 2020 and 2021 (Erica Burton)

- Erica reminded RAP that 2020 RAP award will be presented to Dr. Terrie M. Williams on January 21st, and Dr. Williams will deliver lecture via webinar as part of National Sanctuary Office Educational Series
- RAP members nominated four candidates for the 2021 Award. Voting will occur soon.
- Additional information available at: <https://montereybay.noaa.gov/research/ricketts.html>

QUICK UPDATES ON NEW HIRES AT INSTITUTIONS, AND FACILITY UPDATES

- No decisions or actions

SUGGESTED FUTURE AGENDA ITEMS

- No agenda items were suggested.

Future Agenda Items (running list):

- Socioeconomic benefits of science (per Scorse)
- RAP Focus:
 - Long-term Monitoring
 - Coordinated water quality monitoring: lessons learned (Hunt/Hoover)
 - Consider interns to follow-up on RAP monitoring plan tasks (Hunt)
- RAP Membership:
 - Reinvigorate non-attending members
 - Constituent outreach (Hunt)
- Happy Whale App (Jeremy Goldbogen)
- California Collaborative Fisheries Research Program (CCFRP), and MPA monitoring and synthesis of historic data sets in MBNMS (Mark Carr and Rick Starr)
- Microplastics: How an under-funded marine science community deals with a significant new problem
 - Microplastics and seabirds (chemical cues; Matt Savoca/Hopkins Marine Station)
 - Choy et al (MBARI)
 - NOAA's Marine Debris Program (Sherry Lippiatt)
 - Monterey Bay Aquarium (Kyle Van Houtan)
 - Watersheds (Bridget Hoover has preliminary data)
 - Davidson Seamount (MBNMS office)
- Invite research representative of GFNMS Advisory Council (John Largier)

- MBA’s Conservation and Science Program update (Kyle Van Houtan)
- Pelican/fishery interactions (SAC discussed; per Hunt)
- MPAs as monitors/buffers of climate change (e.g., recent OPC presentation at SAC; Micheli’s recent newspaper article)
- Seal bomb/Soundscape Update (per Scorse)

2021 RAP Meeting Schedule and Locations

Date	Hosts	Location
January 8	Cailliet	Virtual Meeting (until further notice)
March 12	Orescanin	Virtual Meeting (until further notice)
May 14	Southall	Virtual Meeting (until further notice)
September 10	Ruhl	Virtual Meeting (until further notice)
November 12		Virtual Meeting (until further notice)