

**MBNMS Research Activity Panel
Meeting Summary
March 10, 2023**

Host: Brandon Southall – Nearshore Environment (Southall Environmental Associates, Inc)

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

Date: Friday, March 10, 2023; 9:00 am to 12:00 pm

Members:

	Discipline	Primary/ Alternate	Name	Institution
X	Research Coordinator		DeVogelaere, Andrew	Monterey Bay National Marine Sanctuary
X	Biological Oceanography	primary	Ruhl, Henry	Central and Northern California Ocean Observing System
	Biological Oceanography	alternate	Kudela, Raphael	University of California, Santa Cruz
	Deep-Sea Environment	primary	Cailliet, Greg	Moss Landing Marine Laboratories (retired)
X	Deep-Sea Environment	alternate	Haddock, Steve †	Monterey Bay Aquarium Research Institute
	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
X	Fisheries	alternate	Owens, Brian	California Department of Fish and Wildlife
	Marine & Coastal Geology	primary		
X	Marine & Coastal Geology	alternate	Wagner, Amy	California State University, Sacramento
	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
	Shelf & Slope Environment	alternate		
X	Social Sciences	primary	Pomeroy, Carrie	University of California, Santa Cruz
X	Social Sciences	alternate	Scorse, Jason	Middlebury Institute of International Studies
X	Water Quality	primary	Hunt, John	University of California, Davis
	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:

Allen, Stephen	MBNMS Advisory Council member (At-Large, primary)
Behl, Robert	Monterey Marine Innovation Project
Bennett, Michelle	San Jose Unified School District
Brown, Jennifer	ECOS Consulting, LLC
Costa, Dan	UC Santa Cruz
Crandall, Greg	Member of the public
De Beukelaer, Sophie	Monterey Bay National Marine Sanctuary
Duncan, Lizzie	Channel Islands National Marine Sanctuary
Grimmer, Karen	Monterey Bay National Marine Sanctuary
Gustafson, Rebecca	Monterey Bay National Marine Sanctuary
Keen, Kelly	UC Santa Cruz
Kim, Ella	NOAA Nancy Foster Scholar, Scripps Institution of Oceanography
Kumaishi, Grace	Sea Grant Fellow, MBNMS
Lonhart, Steve	Monterey Bay National Marine Sanctuary
Michel, Paul	ONMS West Coast Region
Moore, Jacqueline	Pacific Merchant Shipping Association, Long Beach
Rootsaert, Keith	MBNMS Advisory Council member (Diving, alternate)
Weiler, Colleen	Monterey Bay Aquarium

CONSENT ITEMS

Introductions/Modifications to the Agenda (Brandon Southall)

- Advisory Council research members were installed for 3-year term at [February Advisory Council meeting](#)
 - Research Primary (and RAP Chair): Brandon Southall (new)
 - Research Alternate (and RAP Vice-chair): Steve Haddock (continuing)

HOST PRESENTATION AND DISCUSSION

Marine Mammal and Sea Turtle Vulnerability Risk Assessment for West Coast Offshore Sustainable Energy Development (Brandon Southall)

- Brandon provided overview of vulnerability risk assessment, funded by BOEM.
- Project objective: Adapt and apply elements of earlier risk assessment methods to evaluate potential vulnerability of all marine mammals and sea turtle species to offshore energy development in a spatially, temporally explicit manner.
- Publication available: Southall et al. 2023 in *Frontiers in Marine Science* ([doi:10.3389/fmars.2023.1090132](https://doi.org/10.3389/fmars.2023.1090132)).

SANCTUARY RESEARCH UPDATE

Fish chorusing in Monterey Bay, including relevance to condition reports, marine heat waves, and climate change (Ella Kim / Nancy Foster Scholar)

- Ella Kim is a 3rd year PhD candidate at Scripps Institution of Oceanography in the Acoustic Ecology Lab.
- Ella provided overview of fish chorusing research in Monterey Bay using [NMS SanctSound](#) stations (listening devices) in canyon (119 m; MB01) and kelp forest (68 m; MB02).
- Future work includes:
 - Spatiotemporal patterns of fish chorusing in MBNMS and CINMS
 - Habitat modeling for MBNMS and CINMS fish – impact of marine heat waves

- Publication available: Kim et al. 2023 in *Journal of the Acoustical Society of America* (<https://doi.org/10.1121/10.0017432>).

ED RICKETTS AWARD AND LECTURE

2023 Ricketts Award nominations discussion (Erica Burton)

- Prior to meeting, Erica provided RAP with list of 2023 Ricketts Award nominations.
- RAP briefly discussed nominations.
- **ACTION**: Erica will circulate ballot to RAP, and voting will occur by email.
- **ACTION**: For 2024 award, RAP will modify award criteria to broaden and diversify pool of potential recipients; and nomination discussion will occur with RAP members only (e.g., at end of RAP meeting).

ADVISORY COUNCIL UPDATE

Summary of February Advisory Council meeting (Brandon Southall)

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

SANCTUARIES UPDATE

Proposed designation of Chumash Heritage National Marine Sanctuary (Paul Michel / NOAA Sanctuaries West Coast Region)

- Paul Michel (Regional Policy Coordinator) provided an overview of the proposed Chumash Heritage National Marine Sanctuary, and the current designation process.
- Future research and monitoring may include the following:
 - Baseline data collection
 - Characterization and mapping
 - Offshore – deep-sea corals and sponges
 - Nearshore – kelp forest and rocky intertidal
 - Citizen science and water quality
 - Sound monitoring
 - Socioeconomics
 - Applied California Current Ecosystem Studies (ACCESSs)
 - Potential partners: CalPoly, PISCO, Stanford eDNA work, others
- Current phase: target to publish draft designation documents in Spring 2023; to be followed by 60 day public review and public hearings.
- Additional information available at: <https://sanctuaries.noaa.gov/chumash-heritage/>

ADVISORY COUNCIL UPDATE (continued)

Iconic kelp in MBNMS (Steve Haddock and Andrew DeVogelaere)

- Steve summarized delivery of [RAP recommendations \(memo\)](#) at February Advisory Council (AC) meeting, and AC voted to submit memo to MBNMS Superintendent.
- A working group will likely be formed to address the topic.
- It is likely that sanctuary will work with OPC and CDFW on priorities.

Advisory Council request: RAP engagement in MBNMS Climate Vulnerability Assessment (Brandon Southall and Steve Lonhart / MBNMS)

- At February Advisory Council (AC) meeting, AC formally requested RAP to participate in MBNMS Climate Vulnerability Assessment (CVA).

- MBNMS staff is building upon CVAs by Olympic Coast, Greater Farallones, and Cordell Bank national marine sanctuaries; Steve Lonhart is MBNMS office lead.
- **ACTION**: In the next few months, RAP will have opportunity to engage in process, and those with expertise will be contacted to provide input on what has already been generated, what is missing, and review new CVA development.

RAP BUSINESS

2023 RAP meeting schedule and beyond (Erica Burton)

- RAP will follow Advisory Council’s (AC) reduction in frequency of [meetings](#) to four per year
- Quarterly RAP meetings will lag approximately one month behind AC meetings, so that RAP can receive timely information requests from AC
- Remaining RAP meetings in 2023 include:
 - September 8 (potentially hybrid meeting in Moss Landing area)
 - December 8
- RAP business between meetings will occur by email or subcommittee(s), if needed
- Meetings in 2024 will occur on second Friday of March, June, September, December
- **ACTION**: Erica will share new meeting schedule with RAP by email, and update [RAP website](#).

QUICK UPDATES ON NEW HIRES AT INSTITUTIONS, AND FACILITY UPDATES

- No decisions or actions

SUGGESTED FUTURE AGENDA ITEMS

- Offshore wind updates: Could include recent “Winds of Change” and/or summary of upcoming briefings at CA Coastal Commission, including risk assessment and effects of wind deployments on upwelling (Brandon Southall, Grace Chang, Kaus Ragukhumar could be speakers)
- eDNA sampling in proposed Chumash Heritage National Marine Sanctuary (Steve Palumbi, Hopkins Marine Station)
- CDFW kelp management by Dr. Kristen Elsmore (Brian Owens willing to invite)

Future Agenda Items (running list):

- MBA’s Conservation and Science Program update
- MPAs as monitors/buffers of climate change (e.g., recent OPC presentation at SAC; Micheli’s recent newspaper article)
- Funded project on kelp as ecological-social systems in Monterey and Mendocino areas (C.Pomeroy and M.Carr)
- Update on nitrogen loading in local watersheds (by Holly Bowers/Ross Clark; initially presented March 2022 RAP meeting)
- More offshore wind energy and mapping fishing grounds (requested by C.Pomeroy)
- Future updates on offshore wind energy (requested by J.Scorese)
- Update on seal bomb issue (requested by J.Scorese)

- Trends in Benthic Community Composition in Monterey Bay: 2001 – 2020; 20-year time series of water and sediment quality monitoring by CCLEAN (requested by J.Hunt)
- White Shark public education (Jason Scorse)
- Assessment of past and prospective impacts and implications of HAB/DA management measures on CA Dungeness and rock crab fisheries (Carrie Pomeroy)
- Fishermen's fishing grounds mapping projects in connection with offshore wind energy development (OSW) adjacent to the MBNMS (the Morro Bay wind energy area (WEA) and elsewhere off CA (Humboldt WEA); (Carrie Pomeroy)
- Keith Rootsart (Diving representative on Advisory Council) would like to present on kelp restoration efforts
- Tammy Russell (Nancy Foster Scholar): National Marine Sanctuaries capture enhanced abundance and diversity of the California Current Ecosystem avifauna (FALL 2023)

2023 RAP Meeting Schedule and Locations

Date	Hosts	Location
January 13	Lindley	Virtual Meeting
March 10	Southall	Virtual Meeting
September 8		Hybrid Meeting; venue TBD (~Moss Landing)
December 8		Virtual Meeting