

**MBNMS Research Activity Panel  
Meeting Summary  
September 12, 2014**

**Host:** Andrew DeVogelaere – Monterey Bay National Marine Sanctuary

**Location:** Sanctuary Exploration Center  
35 Pacific Avenue  
Santa Cruz, CA 95060

**Date:** Friday, September 12<sup>th</sup>, 2014; 9:00 am to 12:00 pm

**Members:**

	<b>Discipline</b>	<b>Primary/ Alternate</b>	<b>Name</b>	<b>Institution</b>
X	Research Coordinator		DeVogelaere, Andrew	Monterey Bay National Marine Sanctuary
X	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 (retired)
	Deep-Sea Ecology	alternate	Haddock, Steve	Monterey Bay Aquarium Research Institute
X	Estuarine Ecology	primary	Lindley, Steve	NOAA Fisheries Service
	Estuarine Ecology	alternate	Wasson, Kerstin	Elkhorn Slough NERR and Foundation
X	Fisheries	primary	Sogard, Susan	NOAA Fisheries Service
X	Fisheries	alternate	Grimes, Churchill	NOAA Fisheries Service (retired)
	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		
	Marine Conservation Biology	alternate	Micheli, Fiorenza	Hopkins Marine Station
	Marine Policy	primary		
	Marine Policy	alternate	David, Aimee	Monterey Bay Aquarium
	Nearshore Ecology	primary		
	Nearshore Ecology	alternate	Carr, Mark	University of California, Santa Cruz
	Physical Oceanography	primary	Ramp, Steve	Soliton Ocean Services, Inc.
X	Physical Oceanography	alternate	Cheriton, Olivia	United States Geological Survey
X	Shelf & Slope Ecology	primary	<b>Lindholm, James</b> †	California State University Monterey Bay
	Shelf & Slope Ecology	alternate		
X	Social Sciences	primary	Pomeroy, Caroline	California Sea Grant Extension Program
X	Social Sciences	alternate	Scorse, Jason	Monterey Institute of International Studies
X	Water Quality	primary	<b>Hunt, John</b> †	University of California, Davis
	Water Quality	alternate	Epel, David	Hopkins Marine Station

\*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:**

Chiu, Jen	California State University Monterey Bay
Finstad, Sarah	California State University Monterey Bay
Gibble, Corrine	University of California, Santa Cruz
Hang, Michael	California State University Monterey Bay
McEnery, Winn	California State University Monterey Bay
Minovitz, David	California State University Monterey Bay
Mulcahy, Patrick	California State University Monterey Bay
Olejniczak, Kyle	California State University Monterey Bay
Pien, Catarina	California State University Monterey Bay
Quackenbush, Ashley	California State University Monterey Bay
Uttal, Lisa	Monterey Bay National Marine Sanctuary

**CONSENT ITEMS**

Introductions/Modifications to the Agenda (Lindholm)

**HOST PRESENTATION AND DISCUSSION**

Sanctuary Exploration Center Update (Lisa Uttal/MBNMS)

- Uttal provided overview of the Sanctuary Exploration Center (SEC), including:
  - Education and outreach through exhibits, volunteer program, guided tour enrichments, and special events
  - Facility and exhibits operations, including maintenance, and day-to-day open to the public
  - Generating revenue, including gift and bookstore, donations, and facility rentals
- Peak visitation: May-Sept
- 153,983 visitors (as of 8/31/2014) since opening summer 2012
- Volunteer Program: 90 docents trained; SEC requires ~60 docents per week
- Communicating science to the public at the SEC includes:
  - LiMPETS
  - Plankton lab (working with Kudela, Exploratorium)
  - MBARI/MBNMS – canyon tank, technology
  - NOAA NMFS – leatherback sea turtles
  - In development/discussion:
    - Acoustics exhibit
    - Research stories – near real time exhibits (video displays)
- Opportunities to provide outreach on Santa Cruz Wharf (Master Plan released)
- For more information, see: <http://montereybay.noaa.gov/vc/sec/welcome.html>

**PRESENTATION REQUESTED BY RAP**

Making the Grades: Turning Masses of Water Quality Data into Geo-Referenced Report Cards for Resource Managers (Hunt)

- Hunt provided overview of the challenges faced with creating Report Cards, and various monitoring programs and data used to create Report Cards
- Since the 1990s there has been an effort to enter water quality (WQ) data into a database
- The challenge is to make it quickly accessible, and useful for resource managers
- Challenges to create report cards include:
  - Obtaining comparable data

- Formatting from various sources
- Translating parameter data into unit-less scores
- Selecting thresholds for comparison
- Aggregating parameters into indices
- Assigning grades to scores, and colors to maps
- Interpreting for management needs
- State legislature passed bill (CA Senate Bill 1070) that created California WQ Monitoring Council ([http://www.mywaterquality.ca.gov/monitoring\\_council/](http://www.mywaterquality.ca.gov/monitoring_council/))
  - Comprehensive monitoring program strategy for California
  - Product includes system of ~6 web-based portals (e.g., “My Water Quality” graphical user interface (GUI) button on State of CA website)
  - In progress: A Central Coast WQ Report Card for Healthy Watersheds (Worcester, Paradise, Hunt)
- Goal is to translate data into Health (Status) and Change (Trends)
- For more information, see
  - <http://www.mywaterquality.ca.gov/>
  - <http://www.ccamp.us/ca/index.php>

### **SANCTUARY ADVISORY COUNCIL UPDATE**

Summary of August 22<sup>nd</sup> SAC meeting at Monterey (Lindholm)

- Lindholm summarized several topics of interest to the RAP
- Desalination: overview of local proposals
- Acoustics: ONMS working group forming; acoustics may be addressed in next management plan (late 2015, early 2016)
- RAP as standing working group of SAC: no final decision made; Lindholm shared RAP’s interest to continue
- For more information, see: <http://montereybay.noaa.gov/sac/sacma.html>

### **MEETING UPDATES**

2015 Currents Symposium Theme and Ricketts Award (Lindholm)

- Saturday April 25<sup>th</sup> at CSUMB
- Ricketts Award call for nominations to be sent out by Burton in October
- Working theme: Citizen Science
- Lindholm asked RAP for potential topics related to working theme
  - Types of things you might monitor w/citizen science; state won’t allow WQ (per Kudela)
  - What is the role of citizen science programs; what have programs led to; what are the gaps and needs; state of the science; why volunteers needed;
  - Smart surfboard (measures pH, etc)
  - Weather stations in yards
  - Apps (whale alert, jellywatch, etc)
  - Focused attention on exhibitry

### **SANCTUARY RESEARCH UPDATE**

Characterization and Corals at Sur Ridge (DeVogelaere)

- DeVogelaere provided overview of recent surveys at Sur Ridge

- Collaboration between MBNMS (DeVogelaere) and MBARI (James Barry)
- Sur Ridge is located within MBNMS Sanctuary Ecologically Significant Area (SESA); <http://montereybay.noaa.gov/resourcepro/ebmi/sesa.html>
- DeVogelaere provided overview of dive locations, organisms observed, request for coral samples (California Current chemistry)
- Observations and studies include, biological diversity, brooding octopus, vesicomid clams, corals (marked for growth study); coral transplant technique development (restoration); predators of coral;
- Proposed future work at Sur Ridge includes:
  - Detailed mapping
  - SESA quick-look report
  - EFH modifications
  - Sur Ridge Taxonomic Guide
  - Habitat/Species associations
  - Coral transplant techniques
  - Causes of coral mortality
  - Changes in California Current chemistry
- Cruise logs (15 Dec 2013, 7-8 Jun 2014), can be viewed at: <http://sanctuarysimon.org/news/2014/06/sur-ridge-and-lost-shipping-container-cruise-log-june-5-9-2014/>

#### **QUICK UPDATES ON NEW HIRES AT INSTITUTIONS; AND FACILITY UPDATES**

- Hunt: non-profit Central Coast Water Resources Center (John Hunt, Rusty Fairey, Ross Clark, John Oliver, Jim Oakden, Stacy Kim) working to coordinated WQ monitoring programs, with focus on storm water runoff diversion study; <http://www.centralcoastwaterresourcescenter.org/index.php>
- Kudela:
  - New hire, Phoebe Lam (marine particle geochemist) replaced Ken Bruland
  - New CeNCOOS director, Dave Anderson
- Jennifer O’Leary (marine ecologist) started at California Sea Grant (CalPoly) as Extension Specialist
- Lindley:
  - Melissa Monk (from UCSC) is new hire to replace Steve Ralston (retired), with groundfish analysis team;
  - New PLOS ONE paper on fisheries over last 100 years (Miller et al. 2014; <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0099758>)
  - Pacific Grove lab status; Data Services division now at Santa Cruz lab; Oceanography division moving to Heritage Harbor Monterey; Pacific Grove lab may be empty in October
- Lindholm: 425 undergrads, growth goal is 12k; marine faculty and grad students will move to Ryan Ranch at old Herald Newspaper building
- New Research Coordinator at CINMS, Chris Caldow (from NCCOS),

**SUGGESTED FUTURE AGENDA ITEMS**

- Scorse: on heels of Hunt’s WQ presentation, where does all the data go? Successful uses, shared capability; proper use of data; Roy Mendelssohn would be good speaker (per Lindley)
- Hunt: in upcoming months could provide ocean-based WQ presentation
- Perhaps 2<sup>nd</sup> update on Sea Star Wasting Syndrome

**SELF-GUIDED TOUR OF SANCTUARY EXPLORATION CENTER**

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**Future Agenda Items (running list):**

- MBNMS Updates:
  - Sanctuary Ecologically Significant Areas (SESAs)
  - Integrated Ecosystem Assessment (IEA)
- Leadership changes at Big NOAA, and how affects little NOAA (MBNMS)
- RAP Membership:
  - Revisit RAP member policies including representation: discipline vs institution; available at: [http://montereybay.noaa.gov/sac/rap/history/rap\\_policies.html](http://montereybay.noaa.gov/sac/rap/history/rap_policies.html)
- 2<sup>nd</sup> update on Sea Star Wasting Syndrome
- SAC Charter revision
- Acoustic and seismic surveys
  - Continuation of SAC resolution to ban seismic air gun surveys
  - Seismic testing off Connecticut (per Storlazzi)
  - Monterey Bay acoustics group headed by Jeremy Goldbogen (HMS), John Ryan (MBARI), John Joseph (NPS); grant proposal; team of scientists to address issue (per DeVogelaere)
  - Center of Excellence for acoustics in development at GFNMS, Leila Hatch (SBNMS) involved (per DeVogelaere)

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**2014 RAP Meeting Schedule and Locations**

<b>Date</b>	<b>Host</b>	<b>Location</b>
January 10	Lindholm	CSU Monterey Bay
March 14	Haddock	Monterey Bay Aquarium Research Institute
May 9	Scorse	Monterey Institute of International Studies
July 11	Wasson	Elkhorn Slough Estuarine Research Reserve
September 12	DeVogelaere	Sanctuary Exploration Center, Santa Cruz
November 14	Pomeroy	Center for Ocean Health, UCSC

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