MBNMS Research Activity Panel  
Meeting Summary  
May 13, 2016

**Host:**  
Tim Pennington – Monterey Bay Aquarium Research Institute

**Location:**  
Monterey Bay Aquarium Research Institute  
Pacific Forum  
7700 Sandholdt Road  
Moss Landing, CA

**Date:**  
Friday, May 13th, 2016; 9:00 am to 12:00 pm

**Members:**

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Primary/Alternate</th>
<th>Name</th>
<th>Institution</th>
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<tbody>
<tr>
<td>Research Coordinator</td>
<td></td>
<td>DeVogelaere, Andrew</td>
<td>Monterey Bay National Marine Sanctuary</td>
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<tr>
<td>Biological Oceanography</td>
<td>primary</td>
<td>Kudela, Raphael</td>
<td>University of California, Santa Cruz</td>
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<td>Chavez, Francisco</td>
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<td>Cailliet, Greg</td>
<td>Moss Landing Marine Laboratories (retired)</td>
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<td>Haddock, Steve†</td>
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<td>Lindley, Steve</td>
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<td>Elkhorn Slough NERR and Foundation</td>
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<td>Storlazzi, Curt</td>
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<td>Goldbogen, Jeremy</td>
<td>Hopkins Marine Station</td>
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<td>Michelis, Fiorenza</td>
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<td>Carr, Mark</td>
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<td>Lindholm, James</td>
<td>California State University Monterey Bay</td>
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<td>Social Sciences</td>
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<td>Pomeroy, Caroline</td>
<td>California Sea Grant Extension Program</td>
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<td>Scorse, Jason</td>
<td>Middlebury Institute of International Studies</td>
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<td>Water Quality</td>
<td>primary</td>
<td>Hunt, John*</td>
<td>University of California, Davis</td>
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<td>alternate</td>
<td>Hoover, Bridget</td>
<td>Monterey Bay National Marine Sanctuary</td>
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*Sanctuary Advisory Council Member: Research (Primary)  
†Sanctuary Advisory Council Member: Research (Alternate)

**RAP Coordinator:**

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<thead>
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<th>Primary</th>
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<tr>
<td></td>
<td>Burton, Erica</td>
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GUESTS:
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<tr>
<td>Kirkwood, Bill</td>
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<td>Pennington, Tim</td>
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<td>Webb, Margaret (P.J.)</td>
<td>Sanctuary Advisory Council</td>
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CONSENT ITEMS
Introductions/Modifications to the Agenda (John Hunt)
- New member: Bridget Hoover (Water Quality, alternate)

HOST PRESENTATION AND DISCUSSION
MBARI Research update (Francisco Chavez)
- Francisco provided overview of recent events and selected projects at MBARI
- Research themes
  - Exploration & discovery
  - Ocean visualization
  - Ecosystem processes
  - Biogeochemical cycles
- Engineering initiatives (several)
- Development plans on properties thru 2020
- Western Flyer replacement >2020/2021
- Succession Planning
  - New positions filled
  - CFO: Basilio Martinez
  - DMO director: Mike Kelly
  - Research engineer: Mathieu Kemp
  - Bioacoustician: Kelly Benoit-Bird
  - Carbon cycle science: Andrea Fassbender and Yui Takeshita
- 2016 Selected Projects
  - Biogeochemical Cycles
    - Longest coastal pCO₂ time series in world in MBNMS
    - Blob and El Nino slowed rate of CO₂ increase
    - Wave glider is running transect to measure CO₂ more frequently than ship-based survey
  - MBON Demonstration project with MBNMS (many partners)
    - Integrate, synthesize and augment biodiversity data
    - Develop advanced methods for biodiversity assessments
      - eDNA and sample collection
    - Relate biodiversity with environmental info
    - Provide info rapidly to stakeholders
    - Build an operational system
  - Autonomous platforms for water column imaging
  - Station M instruments ready for year-long deployments
  - Integrating MBARI time series
  - Development of coastal profiling float is nearing fruition
  - Wave power harvesting for instruments
  - Sur Ridge Studies (MBARI/MBNMS): corals; mapping; feeding; POC
MEETING UPDATES
OCEANS 16 Monterey (Bill Kirkwood/MBARI)
- Kirkwood provided overview of upcoming OCEANS 16 meeting in Monterey, 19-23 September 2016
- Kirkwood is the co-chair, along with Jill Zande
- Meeting will be held at Portola/Marriott and Golden State Theater
- Meeting will include Technical Program, Tutorials on Technology and Science (6-7 courses), Student Poster Competition, K-12 Educator Workshop, In-Water Demos, and Exhibitors
- Ice Breaker will be at Custom House Plaza (9/19)
- Plenary Speakers will include:
  - Marcia McNutt: National Academy of Sciences
  - Jenifer Austin: Google’s Ocean and Earth Outreach
  - Jon White: Consortium for Ocean Leadership
  - Jim Bellingham: Center for Marine Robotics
- Exhibitors (free to public)
- Technical and Science Sessions (9/22, 9/23)
  - Speakers and poster sessions (student competition)
- Expecting ~2000 attendees
- Great place for Masters and PhD students to give early talks
- Papers will be reviewed and get DOI number
- Panel Discussions: led by Richard Spinrad (NOAA)
- Gala Dinner at Aquarium (9/21)
- For more information see: http://www.oceans16mtsieemonterey.org/

Ed Ricketts Award and Lecture (Erica Burton)
- Burton provided update on plans for Ricketts Award and Lecture
- Lecture will occur in the fall of 2016
- Location to be determined; possible venues include Sanctuary Exploration Center, Museum of Monterey, or other
- To date, two nominations have been received: Fiorenza Micheli and Steve Haddock; both RAP members

RAP UPDATES
RAP Chair appreciation (Andrew DeVogelaere)
- Outgoing RAP chair: James Lindholm
- Andrew presented statistics and summary of Lindholm’s contributions, and presented appreciation award and MBNMS logo-wear to Lindholm
- PJ Webb presented Lindholm with SAC appreciation award

New RAP Chair and Vice-Chair (Andrew DeVogelaere)
- Chair: John Hunt
• Vice-Chair: Steve Haddock
• Both will be sworn-in at June 17th SAC meeting

SANCTUARY ADVISORY COUNCIL UPDATE
Summary of April 21st SAC Meeting at Santa Cruz (John Hunt)
• Superintendent’s report
  o Desalination applicants have filed permit applications
  o Maria Brown (GFNMS): High numbers of beachcast Cassin’s auklet, and fur seals (Guadalupe and Northern)
• SAC word-smithed letter to ONMS HQ regarding Cemex plant (requesting clarification on MBNMS authority over sand mining in Marina)
• Management Plan review: SAC addressed topics identified in public scoping comments, four categories to address:
  o Establish Working Groups
  o SAC workshops (during SAC meeting)
  o Outside workshops (organized by staff)
  o Staff lead process to address topic
• Outside Workshop on impacts of noise; DeVogelaere will be topic lead in office; will need a SAC lead (preferably with science background who could report back to SAC)

RAP RESEARCH PRIORITIES
RAP Action Plan for long-term monitoring (John Hunt)
• John set-up the discussion from the last RAP meeting
• Perhaps RAP needs to rally for Research and Monitoring Action Plan (in Management Plan); Should there be an action plan?
• As a first step, MBNMS needs to state what we need to know (per Hunt)
• Hunt, DeVogelaere, Burton (maybe Haddock) will pull together draft language, and post on Google Docs for RAP input/review

QUICK UPDATES ON NEW HIRES AT INSTITUTIONS, AND FACILITY UPDATES
• Haddock (MBARI): MBARI’s Deep Sea Guide online; http://dsg.mbari.org/dsg/home
• Lindholm (CSUMB): CSUMB hosting ocean candidates forum Oct 20th: Panetta, Monning, Stone; John Laird will MC; free event; streaming; will be advertised
• Lindley (NMFS):
  o Western Regional Action Plan (WRAP; climate change) open for public comment; https://www.st.nmfs.noaa.gov/ecosystems/climate/rap/western-regional-action-plan
  o NMFS will hire the following: deputy director; 2 ecologists, facilities
• Scorse (MIIS): Valerie Termini (MIIS graduate) now Executive Director of Fish and Game Commission
• Cailliet (MLML): new librarian Katie Lage starts this summer
• DeVogelaere (MBNMS): Two positions recently opened/closed: MBNMS Education and Outreach Coordinator; ONMS Director
SUGGESTED FUTURE AGENDA ITEMS

- Scorse: recent boom in whale watching; more info needed on fish/whale correlation; prey/fishing/whale interactions; science; Peggy Stapp recommendation? Scott Benson?
- Scorse: Southall mentioned hundreds of seal bombs going off in CA; who could speak on that? Ask Scott Kathey;

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Future Agenda Items (running list):

- Water Quality:
  - Follow-up to Hunt’s WQ presentation (9/12/14), where does all the data go? Successful uses, shared capability, proper use of data (per Scorse); Roy Mendelson would be good speaker (per Lindley)
- RAP Membership:
  - Revisit RAP member policies including representation: discipline vs institution; available at: http://montereybay.noaa.gov/sac/rap/history/rap_policies.html
- SAC Charter revision
- Speaker series on science (Oceans Live; Your Sanctuary TV)
- Coastal Rivermouth Lagoon inventory for state and central coast (Central Coast Wetlands Group/Ross Clark)
- RAP feedback for SAC (per Hunt)
- Discussion of regional use of the Sanctuary Boat, Fulmar

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2016 RAP Meeting Schedule and Locations

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<th>Date</th>
<th>Host</th>
<th>Location</th>
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<tr>
<td>January 8</td>
<td>Lindholm</td>
<td>CSU Monterey Bay</td>
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<tr>
<td>March 11</td>
<td>DeVogelaere</td>
<td>Sanctuary Exploration Center</td>
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<tr>
<td>May 13</td>
<td>Pennington</td>
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