



CORDELL BANK NATIONAL MARINE SANCTUARY SANCTUARY ADVISORY COUNCIL

MEETING MINUTES

November 22, 2019

9:30 AM

Point Blue Conservation Science, Palomarin Room, Petaluma, CA

Note: The following meeting notes are an account of discussions at the meeting of the Sanctuary Advisory Council for Cordell Bank National Marine Sanctuary (CBNMS). The council is an advisory body to the sanctuary superintendent. The opinions and findings of this publication do not necessarily reflect the position of CBNMS and the National Oceanic and Atmospheric Administration (NOAA).

Call to Order/Roll Call (Bec Detrich)

Bec Detrich, Advisory Council Chair, called the meeting to order at 9:40 AM and welcomed everyone. Lilli Ferguson, advisory council coordinator, then called roll. She noted there was not a quorum.

Nongovernmental Members Present:

George Clyde (Community-at-Large - Marin County)
Mike Cummings (Community-at-Large - Marin County)
Steve Tubbs (Community-at-Large – Sonoma County)
Scott Artis (Conservation)
Bec Detrich (Chair; Education)
Tessa Hill (Research)

Agency Member Present:

LCDR Lee Crusius (United States Coast Guard [USCG])

Members of the CBNMS staff present:

Carol Bernthal (Sanctuary Superintendent, acting)
Lilli Ferguson (Resource Protection Specialist and advisory council coordinator)
Danielle Lipski (Research Coordinator)

Review and Approve Agenda (Bec)

The Cordell Bank National Marine Sanctuary Advisory Council (CBNMSAC) reviewed the agenda. Bec added a few minutes at the end of the Sanctuary Superintendent's report for George Clyde to give a Cordell Marine Sanctuary Foundation (CMSF) report. Later during the meeting, two speakers that had been listed on the agenda were noted as changed, from Morgan Patton to Bec, for the working group report, and from Michael Carver to Lilli, to give the CBNMS Resource Protection Program report.

Review and Approve August Meeting Minutes (Bec)

- The advisory council reviewed the August 22, 2019 meeting minutes. No changes were suggested. Due to lack of a quorum at this meeting, the next meeting agenda will need to include an item to approve the August minutes.

Sanctuary Superintendent's Report (Carol Bernthal)

- Carol Bernthal introduced herself as the acting CBNMS Superintendent. She is on detail through January 3rd, filling in for Dan Howard, who is on leave. She is normally the Olympic Coast National Marine Sanctuary Superintendent.
- As a result of the most recent application round, three members were reappointed to new terms and one new member was appointed to an initial term to serve on the CBNMSAC, by the Office

of National Marine Sanctuaries (ONMS) director. The appointees are: Bec Detrich, Education; Irma Cuevas, Education; Dick Ogg, Fishing; and Noah Wagner, Fishing.

- Carol thanked Leslie Adler-Ivanbrook in absentia for her service on CBNMSAC, serving three consecutive terms as the Education member, as well as serving as Vice-Chair. Her service has been much appreciated and the staff will arrange to give her a small token of appreciation within the next few weeks.

- Carol asked Irma to say a few words about herself. Irma noted she has been a Sonoma County resident most of her life, grew up in the redwoods near the ocean, and works for Sonoma Regional Parks. Some of her experience includes having worked with CBNMS Education and Outreach Coordinator, Jennifer Stock, and some work, on contract, for NOAA.

- On January 4th, Dani Lipski will step in as acting CBNMS Superintendent as well as continuing as CBNMS Research Coordinator until Dan returns, probably mid to late February.

- Jenny is still on detail with Point Reyes National Seashore (PRNS). It is a good experience for her; she is learning more about the National Park Service (NPS). She will be back in early January. Justin Holl had been filling in, along with Dani, part time, and now Lilli is filling in, covering a few of Jenny's duties.

- On the federal budget, a shutdown was averted. NOAA is operating under a second Continuing Resolution until December 20. It is hoped the President and Congress will work out a budget prior to then. CBNMS is operating under limited spending for essential things and is not letting any contracts during this time. At this time of year, each national marine sanctuary develops an annual operating plan, describing what work could be done under different budget scenarios. The President's request was \$51 million. The House and Senate proposed between \$55-56 million for operations and \$5-6 million for facilities, signage, vessels, etc. The CBNMS proposal was submitted for ONMS leadership consideration. The leadership looks at the system as a whole, makes decisions, and the decision is then conveyed to the individual sanctuaries.

- Carol provided CBNMS priorities for the coming year, which would depend on the appropriations level eventually provided: Applied California Current Ecosystem Studies (ACCESS), benthic habitat characterization, participating in marine mammal conservation (as related to reducing ship strikes of whales), hypoxia monitoring, and acoustic monitoring would continue. Some climate change initiatives would be developed. The CBNMSAC would continue to be supported. Work would start on updating the CBNMS Condition Report. Permitting and other core things would be done. There would be support for Get Into Your Sanctuary and the Ocean Film Festival events. There would be some work on maritime heritage. There would also be a cruise on the NOAA Ship *BELL M. SHIMADA*.

- There is a five-year ONMS strategic plan, a West Coast regional plan, and site priorities in the Management Plan. We look at all those plans and define priorities with the available budget.

- Once a year, the regional ONMS leadership team (the superintendents and Regional Director, Bill Douros) meet to discuss what to accomplish in the region in the coming year. In order to be defined as a regional priority, it needs to be important to two or more sanctuaries. For the coming year, the West Coast Regional priorities include: reduction of ship strikes of whales, enforcement, characterization of deep sea corals, characterization of soundscapes, Long-term Monitoring Program and Experiential Training for Students (LIMPETS), engaging recreational fishermen in national marine sanctuaries, engaging veterans, optimizing sharing staff support, kelp habitat recovery, addressing climate change and ocean acidification, and reducing marine debris.

- There was a question asking if it was the United States Coast Guard (USCG) that enforces the regulations? Yes it does, with NOAA's Office of Law Enforcement (OLE).

- LCDR Lee Crusius explained that various parts of the USCG 11th District were involved in enforcement of the national marine sanctuaries' regulations, and he was the one directing that right now. There is also some crossover to the Magnuson Stevens Act. Enforcement assets could be aviation units out of Sacramento and surface assets (patrol boats). He noted NOAA OLE also has a cooperative agreement with the State of California to work on enforcement issues.

- Carol reviewed that CBNMS had its 30th anniversary celebration, co-sponsored by CMSF. George said over 150 people came. It was a great outreach event about Cordell Bank. Bob Schneider, Dan, ONMS

Director, John Armor, and others were there. The event featured the West Coast premiere of the Changing Seas film about Cordell Bank. People will have a chance to see that later.

- At the recent CMSF board meeting, Carol presented on ways CBNMS and CMSF could work more closely together in the future.
- Carol said on November 18, John sent an email to the advisory council chairs, which he encouraged be shared, about NOAA's recent release of four draft Science and Technology Focus Area Strategies. These were: Unmanned Systems Strategy, Artificial Intelligence Strategy, 'Omics Strategy, and Cloud Strategy. NOAA is seeking public comment by December 16. John encouraged bringing this topic forward for discussion and possible formal comment; however, he noted that, given the tight timeline, it may be more efficient for advisory council members to comment as individuals. Brief discussion ensued, including mention of a new type of genetic analysis of everything floating in the water, which could change ocean monitoring. Lilli will circulate the announcement to the CBNMSAC.
- The holiday open house event, normally done with several groups and CBNMS at Bear Valley, was cancelled this year.
- The CBNMSAC retreat in October was fun and productive. Held at an Audubon Canyon Ranch property, it included a "get to know each other" activity, discussion of 2020 CBNMSAC meeting dates (subsequently sent out), priority topics for potentially scheduling at future CBNMSAC meetings, and showing and discussing two ocean videos. The discussion of topics generated a lot of ideas for the coming year. Carol noted it was also helpful to think about the priorities of the sanctuary staff, as well as key drivers for which advisory council input might be needed.
- Carol proposed creation of a roadmap/CBNMSAC work plan for the coming year, which could allow the time at CBNMSAC meetings to be used wisely and allow the superintendent the chance to get input from the advisory council. Topics where CBNMSAC input could be helpful include: the next CBNMS Condition Report, looking at the vessel ship routing measures in place and how well that is working, and evolving opportunities around education and outreach topics, such as climate change and ocean acidification. These could be looked at with how they fit in with the topics suggested at the retreat. We will work on that and bring it back to the entire advisory council for discussion at the February meeting. The CBNMSAC members present concurred with this suggestion.

CMSF Report (George)

- George reviewed that Tom Lambert had formed CMSF, a 501(c)(3) nonprofit organization, with scientists and friends. CMSF has no staff, no budget, and few expenses. CMSF does things CBNMS cannot do. Some sources of funding can come to a nonprofit organization but not to the government.
- He noted the Greater Farallones Association (GFA) is more robust, with staff members that are integrated with the GFNMS staff.
- Most of the board members have not had previous nonprofit experience; George has some. He has been trying to help CMSF become more active and successful in raising funds for activities.
- He reviewed some of the projects and costs CMSF had funded over the last several years.
- George stated he started an annual CMSF campaign, which has had some success. Last year CMSF sent out an email solicitation to their list. When Carol was at the CMSF board meeting, she suggested some projects for which CMSF might seek funding. CMSF may seek foundation funds for some projects, and may work with GFA on that.
- CMSF will make a year-end solicitation again this year. Anyone who knows candidate donors, that would be great. He provided a solicitation letter to his fellow advisory council members and asked if Lilli could email it to the advisory council.
- Lilli answered she could not send such a letter for George to the advisory council, and asked Carol to speak to the issue of conflict [of interest].
- Carol explained it is better to keep advisory council work separate from CMSF solicitation of donations and that the advisory council [and staff] cannot get into any conflicts of interest. Carol further clarified that there is no expectation that CBNMSAC members, as part of their role on the advisory council, are being asked in their official capacity to donate or seek donations. It is not appropriate for a CBNMS staff

member to distribute a document asking for donations. She added that George could send out emails separately, and that people should know he would be doing so as an individual.

Advisory Council Business (Lilli)

- Lilli noted that, since the last meeting, on 9/26/19, the CBNSMAC Charter was renewed.
- At the August meeting, there had been some questions related to holding meetings, including providing public notice. Lilli subsequently checked in with ONMS Deputy Director, Becky Holyoke, who affirmed the answers Bill and Lilli provided at that meeting. All advisory council meetings must be publicly noticed; 15 days' notice for regular meetings is advised in the ONMS advisory council handbook. Emergency meetings, on an important topic that warrants an emergency meeting may be held at the call of the chair and superintendent. As much advance public notice as possible must be provided for emergency meetings. The intent is for advisory council deliberations to be made in public, and in-person meetings are more transparent to the public than a phone call. Alternate technologies may be used at the superintendent's discretion and if that could be made to work with staffing, technology and a dial-in number for the public. The emphasis in the handbook, and the CBNMS Superintendent's preference, is having regular meetings of the advisory council.

Current Warm Temperature Anomaly in the North East Pacific and Its Implications for Cordell Bank National Marine Sanctuary (Marisol Garcia-Reyes)

- Tessa Hill introduced Marisol Garcia-Reyes, who is with the Farallon Institute.
- Marisol said her talk would focus on the past warm water temperature anomaly, also called a marine heatwave or "blob", in the North East Pacific, and the new blob. Scientists are still learning about these phenomena.
- She started with a May 2015 temperature anomaly in middle of the Pacific Ocean, which was about 6° F above normal. At that time, it was not that warm off California. She explained how "normal" is calculated and how anomalies are plotted.
- Working backward, she explained the development and progression of that warm water blob. There were a few cold years in the Northeast Pacific. The blob started out stationary in 2013, then later moved to the coast and stayed there. At first, it was in the surface waters; later it did go to deeper zones.
- The onset of the blob was related to the "ridiculously resilient ridge". Storms came from the west then went north of the high pressure system. Also, the winds changed from normal, and were not strong. Normally, the passing winds and winds from storms cool the water.
- On top of the blob coming in, there was an El Niño, which was partly responsible for rapid movement of the blob to the coast. There was also a particularly bad harmful algal bloom, which exacerbated adverse impacts to coastal resources.
- As a consequence of the marine heat wave, species that were tropical shifted northward.
- Marisol then explained that upwelling rules in this coastal area, mostly from Point Conception to Point Mendocino, and Point Blanco. In April and May 2015, during the time of the blob, there was normal upwelling and winds, and cold waters along the central and northern California coast. Upwelling created refugia at the coast, extending to CBNMS.
- Regarding the new marine heat wave, 2017 was a normal year in the Gulf of Alaska. Then it started warming up, especially in 2019. From August 2019, it was warm everywhere. The warm water kind of went away in October, but as of November 2019 it is back with a vengeance. However, it has not been very warm along the coast. She visually depicted this in a graph of Gulf of Alaska sea surface temperature anomalies from 2010-2019.
- E. Di Lorenzo *et al.* predicted at the North Pacific Marine Science Organization (PICES) meeting that the sea surface temperatures in Winter 2020 will be higher in the Gulf of Alaska than those of the previous blob.
- She noted there was no El Niño now/one is not predicted for this year, and there have been no harmful algal blooms so far. If there are normal winds, it is expected that in central and northern California waters, upwelling will continue to keep the marine heat wave at bay.

- In response to a question about heat retention in the Gulf of Alaska, Marisol thought the warm water may have remained below the surface and has now resurfaced.
- It is unknown if there was a blob before 2014 – 2016 – this is under study. There was a rise in temperature in 2005, which scientists are now looking at to see if they can model it.
- It is not possible yet to predict what is happening along the coast.

Public Comment

- There was none.

Working Group Update (Bec)

- Bec noted that Morgan, chair of the working group, was sick and unable to be at the meeting; however, she emailed a brief update to Bec.
- The group decided to call itself the Native American Engagement Plan Working Group.
- The group reviewed several materials provided by Lilli and Brian Johnson concerning regulations, guidelines, and past outreach to provide a baseline for the group.
- The group is interested in having some guest speakers present; one of these might be Carol, speaking on Olympic Coast National Marine Sanctuary tribal engagement.
- The next meeting is 12/18 at 10 AM; location to be determined.

Members' and Alternates' Reports (CBNMSAC)

Tessa – mentioned two Dr. Nancy Foster Scholars in our region, who have fellowships from NOAA to pursue doctorates, working in coordination with national marine sanctuaries. Carina Fish works on deep sea corals and Kate Hewett is working on understanding hypoxia off northern California. Their work involves both CBNMS and GFNMS. They recently gave presentations on their work, what they have learned, and how their projects are helping to inform sanctuary management.

Irma – described her background working with communities, including immigrants, Native Americans, youth of color, and people with disabilities. She loves having programs along the coast and having people touching creatures such as sea stars; this helps give people empathy. She wants to assess what people know about CBNMS and how to increase their knowledge.

Bec – mentioned the recent fires and how that affected local schools, many of which were evacuated. Kids are making up for lost time, with cancelled tests and field trips. Also, some local teachers are striking. Bec has been reaching out to local high schools to let them know they can come to these meetings. Credo High School is potentially interested in observing one of the meetings. Bec also mentioned the whale tail license plates. Money from the sales of the plates helps fund educational opportunities, such as for schools that do coastal education.

Steve Tubbs – noted he represents a lot of the fly fishing community in Sonoma County. His club is involved with the Steelhead in the Classroom programs, which are all getting started now. On a different topic, Sarah Hameed sent an email to him and Tom Anderson regarding youth involvement with the advisory council, saying it had been discussed a number of years ago. He does not know anything about it, but promised to ask at a meeting about it, realizing that involving youth raises logistical questions about age, making meetings, terms, etc. George said he remembered the discussion and, for those reasons, CBNMS determined not to add a youth member to this advisory council.

- Lilli gave background of the idea of youth involvement, which came up some years ago when Dan Basta was the ONMS Director. It was presented by ONMS as optional, to consider adding a youth seats to advisory councils or having advisory council youth working groups. There are many ways in which one can get input for a given community, and the staff does education and outreach programming for youth. Only a few sanctuaries decided to add a youth seat or have a youth working group. At Florida Keys National Marine Sanctuary, where Lilli formerly was the advisory council coordinator, it was discussed

by the advisory council and superintendent and it was determined it did not make sense to do there. Her understanding was that it was a similar discussion here at CBNMS. George affirmed that.

- Steve said a person crabbing from Baker Beach emailed him about having seen a garbage scow coming in, empty, wondering if dumping is still happening off our coast and noting there was a dumping area outside the Farallones.

- Lilli and others said there was an approved dredging disposal area for dredged sediment off the coast. No one was aware of any garbage dumping being allowed or taking place.

LCDR Crusius – said he represents the California Coastal Region, managing all kinds of law enforcement operations for the USCG. He is connected with the USCG permitting and waterways folks too. Two overflights per month in national marine sanctuaries have been allocated in three sections, Channel Islands, Monterey Bay – northern Greater Farallones, and Greater Farallones-Cordell Bank. He expects eight hours in February for CBNMS and GFNMS for enforcement patrols and assessing user activity of the surface. They could refine and further develop air operations in the future and do surface pulse operations. He mentioned the California Department of Fish and Wildlife is a major USCG partner. The [commercial] Dungeness Crab opening is anticipated to be around December 15. OLE has Joint Enforcement Agreements (JEAs) with the states of California, Oregon and Washington, providing funding to the states to enforce the Magnuson Stevens and National Marine Sanctuaries acts. The current President's budget request does not include JEA funding. It could, however, be requested by Congress.

- In response to a question, he explained how and where crab season openings were set. This year, for our area, there have been two delays in the crab season opening, based on marine mammal observations and whale entanglement concerns, crab meat quality, and domoic acid.

George – noted the closure north of Mendocino was because the crab were not mature; this is another reason there is often a delay in opening the fishery. He also talked about how crab quality and price are related. It can be hard on fishermen if the price is too low. The postponement of the commercial season was done at request of commercial fishermen, Dick Ogg among them. The recreational crab fishery has been excellent and was not delayed. Recreational crab fishing usually opens before commercial crab fishing and the catch stays good until commercial fishing opens up. George saw five humpback whales when he was out crabbing recently. On a separate topic, every year there is a warm amount of water that comes up coast and stays offshore, then hits Point Arena and going up to Fort Bragg. With that comes albacore and other tuna. There is a recreational fishery, with people coming from the north to fish for the tuna in the summer. George went out into CBNMS and caught some tuna.

CBNMS Resource Protection, Conservation Science, and Education and Outreach Program Reports (Lilli and Dani)

Resource Protection: Lilli said that since the last meeting, three permits were issued for research purposes in CBNMS. No permit applications for activities in CBNMS are currently under review.

- With the recent designation of Malloes Bay-Potomac River National Marine Sanctuary, the overarching regulations for the National Marine Sanctuary System were updated; those for CBNMS did not change.

- Sanctuary contractor, Jess Morten, participated in the West Coast Harbor Safety Committee Summit, and presented on our efforts to reduce lethal ship strikes of whales. She made a similar presentation to the Harbor Safety Committee of the San Francisco Bay Region.

- NOAA's voluntary vessel speed reduction request in 2019, aimed to reduce lethal ship strikes of endangered whales, began May 1 and concluded on November 15. Whales are still in the area, and all mariners are encouraged to keep a sharp lookout and proceed cautiously when whales are present.

- Michael, with Maria Brown of GFNMS, recently met with a Marine Mammal Commission staff member and commissioner in October to discuss accomplishments of the sanctuaries' efforts to reduce ship strikes of whales and project plans for 2020.

- Lilli briefly reviewed that the National Marine Fisheries Service (NMFS) Amendment 28 Final Rule to Pacific Coast Groundfish Fishery Management Plan had been released, and will be effective January 1,

2020. It resulted in changes in the closed areas that affect commercial fishing, using bottom contacting gear, in federal waters off of Washington, Oregon and California. Carol and Dani explained how the closures related to protection of Essential Fish Habitat (EFH) and what the closures in CBNMS would be, as of January 1.

- Lilli concluded by reviewing that NMFS proposed two rules this fall to protect critical habitat for endangered whales. CBNMS staff members are working with the ONMS West Coast Region to comment on the proposed areas. NMFS proposed to designate critical habitat for the endangered Western North Pacific distinct population segment (DPS), the endangered Central America DPS, and the threatened Mexico DPS of humpback whales. The proposed areas are located off the coasts of California, Oregon, Washington, and Alaska. The comment due date on that proposed rule is December 9, 2019. NMFS also proposed to revise the critical habitat designation for the Southern Resident killer whale DPS segment by designating six new areas along the U.S. West Coast. The comment due date for that proposed rule is December 18, 2019.

Conservation Science: Dani said the CBNMS science priorities for 2020 [pending budget allocation and decisions] were ecosystem monitoring – ACCESS, benthic science, hypoxia monitoring, and the acoustic soundscape. Another priority is starting on the next CBNMS Condition Report.

- Three ACCESS cruises, in May, July and September, are planned.

- Benthic science work will include data analysis and summary of recent cruises and working towards the next cruise in October 2020.

- The hypoxia mooring that is out now will be swapped out. Kate, mentioned earlier as a Dr. Nancy Foster Scholar, is working up the data.

- The Noise Reference Station buoy that is collecting acoustic soundscape data will be swapped out. Another Dr. Nancy Foster Scholar, Samara Haver, is working with that data. Samara would like to come down to do a presentation to this group at some point in 2020.

- She will also be working on coordination, collaboration, fundraising, data analyses, and working to integrate the science activities with resource protection and education needs.

- For the CBNMS Condition Report, she is still scoping out the timeline and all the tasks to go into that. The last one was done in 2009. She briefly reviewed the content and purpose of sanctuary condition reports. The process may kick off some time in February. We expect to engage the CBNMSAC some time over the next year.

- Accomplishments in CBNMS related to the Ocean Exploration Trust/E/V *Nautilus* cruise included: visiting two of three priority sites, collecting 26 hours of seafloor video; collecting 22 biological samples, seven water samples, and three sediment samples; and achieving telepresence objectives (for which NOAA had given a grant). In 2019, she and Jan Roletto of GFNMS got eight total days on the vessel. During the 2017 cruise, data was collected on six dives. She showed maps of where the dives were in 2017 and 2019.

- In 2019, they visited Box Canyon and Bodega Canyon; poor weather meant they could not visit one of the priority sites. The work continued to add to our understanding of deep sea habitat in CBNMS. The habitat is abundant and diverse for deep sea corals, sponges, other invertebrates, and fish. They made targeted collections to help clarify species identifications. They collected samples for partners, for work on taxonomy, ocean acidification, eDNA, coral aging, and sediment.

- They saw a tube worm that is not well known on the West Coast. It is normally found near sulfur seeps.

- The Bodega Canyon dive was more than 2 miles below the ocean surface and was the deepest dive in CBNMS.

- Dani concluded by showing some images and video taken during the cruise. Her shifts were 4 – 8 AM and 4 – 8 PM. Some of the invertebrates and fish observed included: an anemone climbing up a sea pen, a rough tailed skate, grenadier, bamboo coral, crinoids, crabs, sponges, octopuses, and mushroom coral. There were a number of areas where they did not see much, which surprised Dani.

Education and Outreach: Lilli echoed what Carol had reported earlier, that Jenny's detail to Point Reyes National Seashore, as Acting Chief of Interpretation and Resource Education, was extended through December 31, 2019. In that role, she is working on a variety of things – just recently, she did a news release about the reopening to visitors, on November 8, of the Point Reyes Lighthouse.

- Lilli added details about the recent CBNMS 30th Anniversary celebration event, held September 14 at the Hotel Petaluma. The CBNMS staff celebrated with CMSF, John, and the whole CBNMS community. There were reflections from two long-time sanctuary staff members, Jennifer and Dan, about the three decades of sanctuary accomplishments in conservation science and monitoring, education and outreach, resource management, and collaboration with sustainable commercial fisheries and partners. "The Cordell Bank: A National Treasure" segment had its West Coast premiere. Participants enjoyed mingling, food and drink, viewing part of the CBNMS photo exhibit, trying ocean-themed virtual reality experiences, viewing a specimen of *Chromoplexaura cordellbankensis* (a yellow octocoral discovered in CBNMS), and more.

- In October, there was a Nautilus Live Ship to Shore public event at PRNS on exploring CBNMS and GFNMS, hosted by Ben Becker of PRNS, with Jenny, Dani and Michael participating.

- In upcoming activities, once finished, a short ONMS video about CBNMS will be released. There will be updates to the exhibits and information on national marine sanctuaries at the PRNS Bear Valley Visitor Center. Finally, there will be updates and additions to the exhibits at the Ocean Exploration Center at the PRNMS lighthouse.

Bec adjourned the meeting at 2:10 PM.