



CORDELL BANK NATIONAL MARINE SANCTUARY SANCTUARY ADVISORY COUNCIL

MEETING MINUTES

November 9, 2017

9:45 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 (Leslie Adler-Ivanbrook)

Leslie Adler-Ivanbrook, Advisory Council Vice-Chair, called the meeting to order at 9:45 AM and welcomed everyone. Lilli Ferguson, advisory council coordinator, then called roll.

Nongovernmental Members Present:

George Clyde (Community-at-Large – Marin County)
Mike Cummings (Community-at-Large - Marin County)
Sarah Hameed (Community-at-Large – Sonoma County)
Bill Wolpert (Community-at-Large – Sonoma County)
Leslie Adler-Ivanbrook (Vice-Chair; Education)
Bec Detrich (Education)
Dick Ogg (Fishing)
Noah Wagner (Fishing)
Jaime Jahncke (Research)

Agency Members and Alternates Present:

Dayna Matthews (NOAA Fisheries)

Members of the CBNMS staff present:

Michael Carver (Deputy Superintendent/Resource Protection coordinator)
Lilli Ferguson (Resource Protection Specialist and advisory council coordinator)
Danielle Lipski (Research Coordinator)
Jennifer Stock (Education and Outreach Coordinator)

LT Kip Hutchinson was present on behalf of the United States Coast Guard (USCG), as neither the USCG member nor alternate was able to attend.

Review and Approve Agenda (Leslie)

The advisory council reviewed the agenda. Lilli noted that several items needed to be changed:

- Leslie, the Vice-Chair would be leading the meeting, as Chair Kevin Krick was unable to attend;
- Michael Carver would be giving the Sanctuary Superintendent's report instead of Dan Howard, who was also unable to attend;
- Michael would be giving the Resource Protection Program report, instead of Lilli;
- the agenda item, "Proposal for Regulation of USCG Discharges in Greater Farallones National Marine Sanctuary (GFNMS) and CBNMS" would be a five to ten minute status update by Lilli, with no potential advisory council action, as the draft documents on NOAA's proposed action have not yet published; and
- the agenda items for public comment and members' and alternates' reports would accordingly take place earlier (estimated to be at 1:25 PM and 1:40 PM, respectively).

With those changes, the advisory council unanimously approved the agenda.

Review and Approve August Meeting Minutes (Leslie)

The advisory council reviewed the August 24, 2017 meeting minutes. Lilli noted that, rather than George Clyde, Kevin Krick led the call to order and roll call agenda item. With that change, the advisory council unanimously approved the minutes.

Sanctuary Superintendent's Report (Michael Carver)

- Michael Carver, CBNMS Deputy Superintendent, noted Dan was sorry he could not make this meeting, but needed to attend a regional budget meeting. The Office of National Marine Sanctuaries (ONMS) is looking at a different way of internally allocating funds, on a regional basis. The agency is on a Continuing Resolution until December 9th. It is not known when we will get the budget for this fiscal year.
- CBNMS provided information to ONMS for the Department of Commerce (DOC) report required by Executive Order 13795, "Implementing an America-First Offshore Energy Strategy," regarding national marine sanctuaries and national marine monuments that were designated or expanded in the last 10 years. Bill Douros, ONMS regional director, was the lead ONMS for this action. The DOC submitted the report to the administration; it is not known if the administration will release the report to the public. The designation and expansion of sanctuaries follow a very public process, including the one that led to the expansion of CBNMS. People with questions about the report may contact the DOC Public Affairs office.
- The advisory council discussed the ONMS strategic plan during its retreat. He reviewed that the ONMS mission is, "We protect treasured places in the Ocean and Great Lakes." The broad vision for the National Marine Sanctuary System is, "A thriving sanctuary system that protects our Nation's underwater treasures and inspires momentum for a healthy ocean." The plan talks about the ONMS core values: community, conservation, collaboration, respect, accountability, creativity, and teamwork and lays out five main goals. It tries to strike a balance between being broad in vision as well as showing specific items underneath the goals the ONMS would like to do to achieve the goals. Dan focused on the overarching goals during the retreat, and continues to focus on those. The plan will be used, in part, to guide internal ONMS funding allocations, along with other planning documents and criteria (ex: CBNMS management plan). The staff will probably next meet to go over its strategic plan in three or four years, since it is meant to be a five-year plan.
- In ONMS leadership updates, Rebecca Holyoke will be the new ONMS Deputy Director. Reed Bohne, the current Director of the Southeast Region, is retiring in December. Matt Brookhart will be the Acting Director for the Northeast Region. When Reed retires, Matt will also serve this role for the Southeast Region. There is a possibility ONMS may merge those two regions into one.
- ONMS has trained its leadership on ONMS core policies and procedures. The deputy superintendents will receive training on this in a few weeks.
- A new chapter of the National Marine Sanctuary Foundation (NMSF) for Monterey Bay National Marine Sanctuary is being formed. A search is underway for an executive director and board members.
- The annual community holiday party at Bear Valley Visitor Center will be December 15 from 5-7 PM. It is hosted by Point Reyes National Seashore, CBNMS, the Point Reyes National Seashore Association (PRNSA) and other partners.
- Submissions for the 2018 San Francisco International Film Festival in San Francisco are now being accepted through the film festival website. Michael encouraged people who know middle school and high school students to let them know of the opportunity.
- ONMS is planning to hold a national sanctuary advisory council summit in San Francisco in January [the advisory council chairs have been invited].
- ONMS celebrated its 45th anniversary on October 23. Lots of incredible things have happened over that time, with more to come, and Michael thanked the advisory council for its work to this point.

Advisory Council Business (Lilli)

- Lilli noted that, same as at the last meeting, the notice about recruitment/submitting advisory council applications for the *Federal Register* has not been cleared by the DOC. The ONMS has instructed the sanctuaries' staffs that advisory council recruitment cannot take place at any sanctuary until that notice publishes. It is unknown when clearance will be given. Advisory council members whose terms would be ending were advised not to worry. Terms may be extended or altered as per the charter, and incumbents may continue to serve at this time.

Cordell Marine Sanctuary Foundation Update (Sarah Hameed)

- Sarah Hameed reported the next Cordell Marine Sanctuary Foundation (CMSF) meeting will be 1 PM 11/16 the Bodega Marine Laboratory conference room. All are welcome to attend.
- The CMSF submitted a final report for a \$25,000 grant from NMSF to update a CBNMS remotely operated vehicle (ROV) with new cameras and lights for the August cruise.
- A CMSF board member who is an attorney reviewed a contract for using the Bodega Marine Laboratory vessel for the hypoxia monitoring buoy recovery/redeployment. The contract will need annual renewal.
- CMSF is working on an annual newsletter, and will share it via email to the advisory council; advisory council members and alternates can then share it with their represented constituencies.
- Board members will be elected at the next meeting.

CBNMS Resource Protection, Education and Outreach, and Research Reports (Michael, Jennifer Stock and Danielle Lipski)

Resource Protection: Michael gave an overview of topics, then Lilli reported that one permit and two Letters of Authorization under the Superintendent's permit were issued since the last meeting.

- Michael let the group know that the voluntary Vessel Speed Reduction (VSR) for the San Francisco Traffic Separation Scheme (TSS) was ending for the year on November 15. He will send letters to all the companies that participated to let them know the results, from the 2017 data, of vessel operators' cooperation with the VSR and confirmed vessel strikes of whales. Eleven companies enrolled in an incentive program to slow down; about \$200,000 for 145 transits was distributed. Overall, there were about 8,000 transits over a six month period. At the February meeting, he will give an update on the VSR results as well as on strandings. He plans to make such updates to the advisory council once a year. The NMSF has hired a contractor to help CBNMS and GFNMS follow up with the shipping industry on the VSR efforts, with the goal of increasing the number of vessels that slow down. The project team is currently working with the NMSF to determine how to best recognize companies and organizations that reduced their vessel speeds.

- In response to a question about if vessels would now speed up, Michael said 2016 data showed vessels go faster when the VSR is not in effect; however, only about 28% are cooperating with the voluntary speed reduction. The speeds come from Automatic Identification System data, from the USCG.

- On resource protection program coordination with the GFNMS staff, there have been two meetings to talk about how to work together, on joint, high priority projects to ensure good project management and streamline communication. The four topics selected were: ship strikes of whales, hazardous spills/discharges, habitat damage from benthic fishing, and entanglement of humpback whales. There is a staff project lead for each topic, and for each, there is to be a project plan for the staff team.

- There was a brief discussion of use of cameras on ships to detect whales; one camera is being tested on one ship.

Education and Outreach: Jennifer Stock reported that she, Leslie and folks from Bodega Marine Laboratory talked to about 750-1000 people at North Bay Discovery Day, highlighting science topics.

- Jennifer attended and presented at a Monterey Bay Plastics summit. CBNMS has the Winged Ambassadors Program. The meeting brought teachers together who engage students about plastics, including reducing use of single use plastics.

- One of the highlights of the efforts of those working on the *Nautilus* cruises was the telepresence. It shared the work being conducted with many audiences, and the technology allowed scientists and others to get out remotely.
- She submitted an abstract for the American Geophysical Union Ocean Sciences conference, and her topic was accepted. Pending availability of travel funding, she will make a presentation about the power of telepresence technology for ocean education and research.
- On December 2, she will teach about ocean acidification at the Sonoma County Water Agency, and will talk about a model for connecting to the earth. So far, about 25 teachers are signed up.
- She worked with the Marin County Office of Education and did workshop with teachers about noise in the oceans. Seven of the teachers were able to go out on the water on the *Fulmar* to view the recent acoustic buoy work.
- She's working on a grant proposal for working with Marin County teachers for a year.
- The five national marine sanctuaries on the West Coast have been working on tools to determine the effect of ocean acidification on Dungeness crab. She has shared a bit with Dick Ogg already, and will keep the advisory council informed. There are plans to produce a fact sheet, video and more.

Research: Danielle Lipski announced, for anyone who was interested to apply, that there was an open research coordinator position at Florida Keys National Marine Sanctuary.

- There were three Applied California Current Ecosystem Studies (ACCESS) cruises in 2017. Fifty cruises have been done during the project since its inception. During the September cruise, they found colonial tunicates in the nets for the first time. Jaime proposed having an in-depth presentation of scientific results at some point, which could be used to inform sanctuary management.
- Benthic surveys were conducted during the August *Nautilus* cruise. Bodega Canyon was the priority area. A few years back, just part of the top of the canyon was surveyed using an Automated Underwater Vehicle. They saw lots of corals, sponges, and other invertebrates. They were able to cover the nearby box canyon pretty well, though they did not get to all the planned sites within it. They collected over 230 samples. *Nautilus* products included/will include: live streaming and live interactions, media products, presentations to be made at the upcoming Ocean Science meeting in February, quantitative image analysis in 2018, and ongoing sample analysis.
- Using the *Fulmar* and the CBNMS remotely operated vehicle (ROV), benthic surveys continued on in August. Graduate students and interns assisted with this cruise. This work is part of the implementation of the benthic long term monitoring plan, intended to detect changes over time, using a random stratified design and some fixed sites. Michael did a lot of work to purchase and install new equipment on the ROV. During the cruise, 14 transects were completed.
- Hypoxia monitoring is ongoing, in collaboration with Bodega Marine Laboratory, including with John Largier and his graduate student, Kate Hewitt. Kate is doing an internship with CBNMS, with support from CMSF. This is the fourth year of the hypoxia work. Rather than recovering the moorings and putting them out again in spring as has been done in the past, this year, after recovering the moorings, they "winterized" the deeper one and put it back out. This will allow for data gathering over the winter. A summary of the 2016 data is on the CBNMS website.
- The acoustic mooring, which had been out for two years, was recovered in October. The project is being conducted in partnership with the NOAA Noise Reference Station (NRS) network (Pacific Marine Environmental Laboratory [PMEL]) and Oregon State University (OSU). Several teachers were able to observe the work, as Jenny mentioned. PMEL wanted to continue the data collection effort and keep this site in the NRS network, so new instruments were placed on the buoy and it was redeployed. The data was downloaded at the PMEL laboratory. It is good quality data, and includes blue and humpback whale seasonal signals. A Nancy Foster Scholar who is an OSU student will do some of the data analysis. The results may be useful for addressing management issues.

Marine Debris, Animals' Ingestion of Plastic, and CBNMS (Matthew Savoca)

Matthew Savoca talked about plastics, marine debris, and studies conducted on plastics in the marine environment, including his own work. As recently as 100 years ago, there were few plastics. When first created, society did not have much use for plastics. They were used in place of other materials during World War II. After the 1950s, plastic production really took off, and production is projected to continue to increase.

- He reviewed threats from plastics to wildlife, including entanglement, ingestion, and unintentional transport of invasive species.
- He then reviewed some of the research into ingestion of plastics, particularly by seabirds, which may confuse plastics for food. His own research has focused on what mechanisms may cause behaviors by wildlife to ingest plastic, including foraging mistakes. Procellariiform ("tube-nosed") seabirds, including albatrosses, petrels, shearwaters, storm-petrels and diving-petrels are long distance foragers on patchy resources, and nearly half are threatened or endangered. They have a long-range sense of smell. A study of Wandering Albatross examined how they use dimethyl sulfide (DMS), a substance released by algae, to find krill. Species that use DMS to find food are eating plastics 5-6 times more than other species. His study of Northern Anchovy looked at how they were attracted to plastics that had been in the ocean a while; all the plastic tested had a DMS signature.
- Conclusions of the plastics experiments: DMS-responsive procellariiform species consume plastic more frequently than species that are not responsive to DMS. Plastic debris obtains a DMS odor signature after marine exposure that is elevated relative to the background in seawater and it is well above the detection threshold for olfactory foraging seabirds. Chemical cues from marine debris elicit foraging behaviors in the Northern Anchovy (known to consume plastics). Chemical cues likely play a role in plastic consumption by marine organisms.
- Benthic debris in CBNMS has been documented during research efforts. Dani noted CBNMS tracks this information.
- Matt gave a brief overview of some relevant regional topics, including: where marine debris was found from Central California to Washington, where it was found in Monterey Bay, plastics in the water column, whale entanglements with debris (including from crab pot lines and drift gillnets), blue whales' ingestion of microplastics, and golf balls in surf zone in the Carmel area.
- He wrapped up with information meant to give people a sense of hope in addressing the problem, about the increase of recycling plastics in Europe, a high school student's efforts that led to banning plastic straws in Carmel, and how people can help be leaders in reducing dependence on plastics.

Status of Proposal for Regulation of USCG Discharges in GFNMS and CBNMS (Lilli)

Lilli updated the advisory council that the draft documents describing NOAA's proposal for USCG discharges in GFNMS and CBNMS were still going through the agency clearance process. The staff had hoped they would have published before this meeting, so that the advisory council could discuss them here. However, the clearance process has many steps and the schedule for clearance is not in the control of the local level. The release of the documents, and the start of a public comment period, should happen soon. She said the advisory council would be notified when that happened, and CBNMS would try to arrange a short advisory council meeting on this topic, prior to the end of the year, to allow the group to discuss the proposal and to take action, if desired.

Public Comment

Jenny Womach works at Westminster Woods with Bec Detrich, said she is looking at a doctoral program for plastics, so if anyone had any tips or hints for being involved in plastics research, or about advisors, she would welcome that information.

Members' and Alternates' Reports (advisory council)

Jaime Jahncke – noted brown boobies are nesting on the Channel Islands; they normally nest on tropical islands. Point Blue has been working as a contractor for CBNMS to figure out whale mortality from ship

strikes in CBNMS and to estimate the impact the voluntary VSR has had on mortality over last three years, as well as what the target is for an 80% reduction in mortality. He should be able to present an update on that at the February meeting.

Dayna Matthews – reported on NOAA’s Office of Law Enforcement staffing efforts. They have been working to replace the Assistant Director for the West Coast Division, as that person retired, and they have a candidate they hope to bring on before the end of the year. They have made progress in developing their officer corps, and have hired officers in California. The cost of living in California makes hiring somewhat difficult. There is also changing policy in recruiting, with a preference on hiring veterans. Final selections are in place for a pool of up to 80 veterans they looked at nationwide. A complication in notifications during a recruitment for agents caused that effort to be scrapped, then started again. Dayna then summarized over efforts stemming back a decade in Tomales Bay, part of GFNMS, to deal with illegal moorings. A permit process was established. Some illegal moorings were removed, and some owners legalized their moorings by obtaining permits for them. Moorings on eelgrass were moved off of it. The project should be complete within six weeks.

George – noted there was no way to have a legal mooring in Tomales Bay previously; a number of people wanted to have legal moorings. Some moorings had been there for 100 years. After much discussion and meetings of various parties, the legal mooring program was created. His mooring got its first inspection the morning of this meeting (it passed). The mooring had sunk down into the mud, so had little corrosion. He felt the permit program could be tweaked to be a little less bureaucratic and expensive for mooring owners; however, there was no excuse now not to have a legal mooring.

Sarah – she and Jaime had a paper on decapod larvae in CBNMS and GFNMS accepted to *Marine Ecology Progress Series*. It should be out within a few months. She was in Chile for the Fourth International Marine Protected Areas Congress, to launch the Marine Conservation Institute’s Global Ocean Refuge System. This program evaluates marine protected areas, using science-based criteria, with awards made to good ones. Papahānaumokuākea Marine National Monument received an award. Bill Douros was also at the meeting, and made the case for World Heritage status for waters off the coast of central California. Regarding the Bodega Marine Laboratory seminar series, the next one is about fog and its connections with the ecosystem and implications of climate change. Some of the talks are recorded, then, after a while, are posted on the Laboratory’s web site. If people want to get on the email list for the seminar series, let her know and she can pass their information on to the people in charge of that list.

Noah Wagner – all of the Bodega Bay dredging has been completed. Crabbing started, with the sport guys doing well, finding good meaty crabs close to shore.

Bec – Westminster Woods serves a lot of local-area schools. Due to the recent fires, a number of school groups cancelled or rescheduled their program dates. Westminster Woods extended its program season by two weeks to try to accommodate those that wanted to reschedule. A few folks evacuated to their facilities. She, Jenny, and Leslie had hoped to do training for Winged Ambassadors at Westminster Woods, but it has been delayed. They are still working to try to fit it in. Westminster Woods now has a microscope laboratory, so can do studies of plankton from the creek, and maybe from the ocean, if kids do day trips to the ocean.

LT Hutchinson – said the USCG usually does some surge operations to enforce regulations, including for fisheries. The cutter *Monroe* will be patrolling a couple days in November and December in Channel Islands and Monterey Bay national marine sanctuaries.

Bill Wolpert – completed a six-week course sponsored by the Center for Climate Protection, in October. Another class will start in early 2018. Once finished with the course, they want to continue with a forum

series dealing with issues surrounding climate change. He served as the voice of the ocean within the group. He thought there was a good opportunity to have a forum speaker to talk about ocean impacts at one of the events, and planned to follow up with Michael on that.

Dick – related to the sanctuary, roughly 300 lost crab pots were recovered this year. He believes they got 80% of the crab pots from the Point Reyes to Salt Point area. They also removed lines. He is for the incentive to fishermen to get this stuff out of the water and believes the fishermen are making an honest effort to do that. No one wants to entangle a whale. Regarding the working group on whale entanglement he participates in, one effort is to try to get fishermen to identify their pots with unique buoys. There were many entanglements between 2014 – 2016. This year, there have been 22 total entanglements. Of those, only four were from crab gear. Of those four, one was from recreational fishing gear. The currents have been extreme this year, which drags the buoys down and makes the lines tight. Tight lines are harder for whales to catch on. Fishermen have also been going to neutral buoyancy line and shortened lines. The local crab fishery is supposed to start November 15, and when it does, those will be the only crabs available until a couple of weeks later, when other districts open. Some crabs farther north have domoic acid. The fishermen cannot harvest crab that have little meat per ratio of weight – it must be 23% to open a fishery. Crabs may not be ready to be harvested in other areas until January or February.

Leslie – stated she and Jenny completed the Hands on the Land grant with the Bolinas-Stinson School; they had money left over so got to add on a school. Kate Bimrose, who tracks marine debris on beaches, was involved for components of the field trips, to keep students active for a longer time at the Point Reyes beaches that do not have a ton of marine debris. Leslie hopes to be able to apply that methodology to a new beach, Limantour. The Department of the Interior is considering a big fee hike for national parks, and there is a comment period open on that until November 23. The fall season for PRNSA has been slow for serving students, as the number of groups coming was reduced due to a project to remodel the Education Center bathrooms. A lot of school groups will come for programs in the spring instead.

Lilli, for Brian Johnson – Brian was unable to attend this meeting as the GFNMS HVAC system was being upgraded, and he had to be at the GFNMS office for that. The HVAC upgrade will improve system efficiency and reduce GFNMS emissions. It was one of the five prioritized energy reduction actions in the GFNMS green operations plan.

Leslie adjourned the meeting at 2:09 PM.