



GREATER FARALLONES NATIONAL MARINE SANCTUARY
ADVISORY COUNCIL MEETING

Wednesday, May 22, 2019

9:00AM – 3:30PM

Red Barn Classroom, Point Reyes National Seashore

MEETING HIGHLIGHTS



Note: The following notes are an account of discussions at the Sanctuary Advisory Council (SAC) meeting and do not necessarily reflect the opinion or position of the Greater Farallones National Marine Sanctuary (GFNMS) or the National Oceanic and Atmospheric Administration.

Copies to:

Bill Douros, Office of National Marine Sanctuaries, West Coast Regional Director

Sanctuary Advisory Council Members Present:

Non-government seats:

Joe Fitting, Community-At-Large San Francisco/San Mateo primary
Kris Lannin Liang, Community-At-Large San Francisco/San Mateo alternate
Dominique Richard, Community-At-Large Marin primary
George Clyde, Community-At-Large Marin alternate
Cea Higgins, Community-At-Large Mendocino/Sonoma primary
Nancy Trissel, Community-At-Large Mendocino/Sonoma alternate
Bruce Bowser, Conservation primary
Richard Charter, Conservation primary
Francesca Koe, Conservation alternate
Elizabeth Babcock, Education primary (arrived at 12:00pm)
Bibit Traut, Education alternate
Abby Mohan, Maritime Activities/Recreation primary
Sarah Bates, Commercial Fishing alternate
Jaime Jahncke, Research alternate (arrived at 9:30am)

Government seats:

Ben Becker, National Parks Service alternate
Michael Esgro, CA Natural Resources alternate
Dan Howard, Cordell Bank National Marine Sanctuary Superintendent

Quorum – 11 voting members present

Members of the public present: Jamie Sherman, Lyndsay Goldshmidt

Greater Farallones National Marine Sanctuary Staff present: Maria Brown, Max Delaney, Karen Reyna, Mary Jane Schramm, Brian Johnson, Kate Bimrose (Affiliate), Olivia Johnson (Affiliate), Alayne Chappell (Affiliate)

Call to Order 9:07 am

Agenda Review

Bibit is leaving early so she will give her update on the Tomales Bay Native Oyster Restoration Working Group during the member reports instead of during SAC business.

ACTION: Approve February Meeting Highlights

Motion: Approve with no changes.

First: Richard Charter

Second: Bruce Bowser

Vote: All in favor - unanimous; Opposed - zero; Abstained – one (Bibit Traut abstained because she was not in attendance for the February meeting)

February Meeting Highlights approved.

ACTION: New member swear-in – three new members read oath aloud and were sworn-in:

Joe Fitting, Community-At-Large San Francisco/San Mateo primary

Kris Lang, Community-At-Large San Francisco/San Mateo alternate

Sarah Bates, Commercial Fishing alternate

New members sworn in.

Greater Farallones National Marine Sanctuary (GFNMS) Superintendent's Report

Maria Brown, GFNMS Superintendent

[View the report.](#)

Sonoma Coast Marathon Letter

GFNMS sent a letter to Efren Carillo of Sonoma Coast Marathon, LLC. on March 18, detailing sanctuary regulations that may pertain to the event and requesting to see their environmental plan regarding waste and disposal (copied on the letter: California Department of Transportation, California Highway Patrol, Sonoma County Permit & Resources Management Department, and California State Parks). A link to the Big Sur Marathon's environmental plan was shared with Efren as well as an example.

Update: The Sonoma marathon is not moving forward this year as they need more time for planning. If they do move forward, they now have the necessary information for how best to reduce waste during the event.

Permits

Permit matrix was sent in advance of the meeting for all members to review.

George Clyde commented that sending out the permit matrix was very helpful for the members.

5th Ocean Climate Summit

GFNMS and Greater Farallones Association (GFA) hosted their 5th Ocean Climate Summit on April 18, 2019 at the Fort Mason General's Residence in San Francisco. This was the largest summit yet. The first climate summit took place in 2008 and then roughly every 2 years since.

Maria thanks those Advisory Council members who attended.

There were 155 attendees, it was sold out, and we had more programs than ever before. We had two concurrent sessions, so double the amount of programming we have had previously. We distributed a post-summit survey and so far, feedback is that it was very successful, that people learned a lot, and that it was a great networking opportunity. For GFNMS, it was a great opportunity for us to connect with other people working on ocean climate issues.

International Collaborations

Dominique had asked previously: how does SAC action contribute to international collaboration? To provide an update: Our renewal as a UNESCO biosphere reserve was accepted. Karen Reyna has been working on the UNESCO “Man and the Biosphere” Program (MAB) that seeks to safeguard natural and managed ecosystems and connect humans to their environment. There are 28 biospheres in the US – GFNMS is one. GFNMS is part of the Golden Gate Biosphere, the only urban biosphere in the US and one of only ten coastal biospheres in the world. This makes our designation unique and has opened up opportunities for us to be a leader in US collaborations as we expand our connections to other countries.

Karen attended the EuroMAB 2019 conference in Dublin, Ireland in April on behalf of the United States, its biosphere program, and the Golden Gate biosphere reserve. EuroMAB 2019 is the biennial meeting of 302 North American and European Biosphere Reserves from 36 countries. We were one of eight people from the US delegation and were approved to attend as a representative of the US government, NOAA, and the Office of National Marine Sanctuaries. Karen shared US best practices, learned new biosphere reserve management and conservation methods, improved communication among US biospheres and between potential international collaborators, and demonstrated the United States’ continued commitment to actively participating in the UNESCO “Man And the Biosphere” program even though the US has withdrawn from UNESCO as a member delegate.

Sanctuaries are benefiting from outcomes of EuroMAB 2019 by identifying how communications and networking between biosphere reserves can be enhanced, and how biosphere reserves can best collaborate with stakeholders and institutions to address global issues with local actions. The Golden Gate Biosphere may specifically benefit from connecting with a new sister biosphere reserve in Europe and we will provide an update about the connection.

***Abby Mohan:** Abby is interested in receiving information, write-ups, lessons learned on the best practices so she can share that information at future events, and to address barriers to data sharing to address data gaps. Karen will share the report with the SAC through Alayne. Maria suggested putting the best practices report from the delegates on the GFNMS website as well as sharing the link with the SAC. Members would like to receive the full report in an email and posted to the website with a link.*

George Clyde: *George is interested in an update on the nomination of the waters of GFNMS as a World Heritage site as that process is moving forward.*

ACCESS Cruises

Planned ACCESS cruises for this spring and summer include: 6 days in May, and 8 days in July and September. ACCESS has provided seabird abundance and distribution data to BOEM (Bureau of Ocean Energy Management) as part of the Call for Information and Nominations for Commercial Leasing for Wind Power Development on the Outer Continental Shelf (OCS). ACCESS will also be a part of a review of 50 years of data related to seabird abundance. Two Nancy Foster scholars will be working with access data on Ocean Acidification. ACCESS will invite SAC members to join one day of the cruise to experience how we collect data at sea; more information on this will be given during the August meeting.

Whale Ship Strike

Sanctuaries are reviewing data from Sonoma County through Monterey Bay County, including the bay and delta regions. From 2009 – 2018 there have been 113 whale strandings from 2009-18, 14 of which were found dead. Of the 14 large cetacean strandings in 2018, 8 were known to have died due to boat collision; 4 were gray whales, 2 fin whales, 1 humpback, and 1 blue whale. Of the 14 strandings in 2018, 1 gray whale died from a fishery interaction (entanglement). Information on whale deaths comes from necropsies that help determine if they are hit by small versus large (300 gross tons or larger) ships.

Annual strandings have gone down, but there is an increase in deaths by ship strike for baleen whales. This is likely due to the abundance and distribution of the whales in the sanctuary. Whales are now closer to shore, including in the SF Bay, in closer proximity to shipping lanes. More whales have come to the Gulf of the Farallones region to forage and more whales are foraging across the Continental Shelf, instead of concentrating along the shelf break. Their distribution across the shelf in the Gulf of the Farallones region increases the co-occurrence of whales and ships, making the whales more vulnerable to ship strikes.

Dan Howard: *The Vessel Speed Reduction program targets blues, humpbacks, and fin whales. The gray whales we are seeing are dying from starvation/malnutrition.*

Abby Mohan: *Do we know the percentage of ships that are actually slowing down? It would be great to give small boat operators information about these statistics and how to avoid ship strikes. Is there a way to give updated information to these folks?*

Maria Brown: *MJ Schramm (GFNMS media specialist) issues a superintendent's statement to boaters asking to keep a safe distance, and National Marine Fisheries Service (NMFS) (in charge of the whales in the bay outside GFNMS jurisdiction) distributes flyers as well. There are changing ocean conditions that alter the frequency, abundance, and location of whales. Since we cannot change the whales' behavior, we can try to change the behavior of the boats/ships passing. As far as compliance with the vessel speed reduction program, the project*

originated as a recommendation from a SAC report. We started the program as a zonal and seasonal voluntary program from May-November which is the peak whale season, focusing on Blue, Fin, and Humpback whales because they are threatened species in the sanctuary. Grays do benefit, although they are migrating throughout the year.

Whale Protection Vessel Speed Reduction (VSR) Efforts

Sanctuaries held a ceremony last week to acknowledge the shipping community's participation, of which 22 companies were recognized for reducing their shipping speeds to 10 knots or less. Our goal is 100% cooperation, currently we have 45% of the industry cooperating. This percentage has remained steady, although more of the ships from each of these cooperating companies are actually going slower. There is a larger amount of charter shipping industries who may not be as familiar with the program, so the sanctuary is focusing on getting information to this industry this year. Slowing ships can also help improve air quality by reducing emissions. As such, the VSR program also partners with the air district, which pays the shipping companies with the fastest ships to go slower in shipping lanes, to incentivize reduced vessel speeds.

Richard Charter: *Any thought to using this as an opportunity to respond to the community about changing ocean conditions?*

Maria Brown: *We can request that MJ send talking points to SAC around this issue. If we get approval, MJ will send out those talking points to the SAC. MJ may have a press briefing about this as early as tomorrow. NMFS is considering declaring an "unusual mortality event."*

Bibit Traut: *Is this an opportunity to discuss the Endangered Species Act and the listing of gray whales?*

Bruce Bowser: *Is there an announcement from traffic control to all boaters when they are on the water?*

Sarah Bates and Abby Mohan: *There is an announcement every 30 minutes that gives real time report outs on various radio channels. The large boats are required to listen; however, smaller boats may not always be listening.*

Jaime Jahncke: *We are passing out mortality information by vessel to the cargo ships, tankers, and cruise ships. Data is from Automated Identification System (AIS) analysis, combined with modeling that factors in the speed and type of vessel to anticipate where collisions are most likely to happen. There are plans for Jaime or someone from Point Blue Conservation to present the whale modeling and the actions being taken on by the vessel management program during the joint MBNMS-GFNMS Advisory Council meeting in August.*

Education

Justin Holl is doing a detail at Cordell Bank National Marine Sanctuary (CBNMS), GFA has hired Greg McCormack to serve as Visitor Center Manager through September in Justin's

absence. Justin is filling in for Jenny Stock at CBNMS, while Jenny is doing a detail with National Park Service (NPS). Over 30 marine science programs were given last week as part of the bioblitz. Annual education retreat will be June 11th. The education team also held a new sanctuary naturalist course for 24 adults from January through March. Participants earned a sanctuary naturalist course certificate and with that have agreed to provide a number of hours of service to the sanctuary.

GFNMS 2017 Emissions Summary

Using the NPS “clip tool,” GFNMS campus emissions inventory for 2017 shows total per capita emissions increased slightly because of the demand for natural gas (our heater was finally fixed after being broken so there is higher demand for natural gas). Results show: demand for electricity has leveled off since 2012; waste water and solid waste disposal have stayed steady; transportation is the highest with 71% of the sites total emissions (commuting and government rides account for 76% of this), with 50% of transportation emissions coming from gas-powered vehicles, 24% from hybrid vehicles, 24% from trucks and SUVs, and 2% from electric vehicles. GFNMS is looking to get electric charging stations at its office to incentivize reducing emissions.

***Dominique Richard:** Are there any opportunity for solar or wave?*

***Maria Brown:** We continue to engage with NPS about options for our campus.*

Monterey Bay National Marine Sanctuary (MBNMS) Superintendent’s Report

Paul Michel, MBNMS Superintendent

No update.

Cordell Bank National Marine Sanctuary (CBNMS) Superintendent’s Report

Dan Howard, CBNMS Superintendent

Many of our accomplishments have been in combination with GFNMS over the last several months, so they have already been reported. This year is our 30th anniversary and there is an article in *Dive Training Magazine* that highlights CBNMS. Dan has a hard copy for those interested. Bob Schmieder, who is credited with helping to get Cordell designated, just published a book: *Edward Cordell and the Discovery of Cordell Bank*.

***George Clyde:** There will be a 30th anniversary celebration (coinciding with the 150th anniversary of Edward Cordell mapping Cordell Bank) on September 14th at Hotel Petaluma. The ballroom is reserved for an anniversary celebration, GFNMS SAC will be invited. The *Changing Seas* series based in Florida has created a 30-min series about CBNMS, which will be shown on the Miami PBS station and then distributed through the nationwide PBS network. George is hoping we show it to the SAC at some point, possibly at the next joint meeting.*

BREAK until 10:15am

Beach Watch 25th Anniversary Film

The 2018 Beach Watch accomplishments one-pager was distributed to all SAC members and the 25th Anniversary short film was screened, which debuted at the 2019 International Ocean Film Festival and won the Citizen Science film award. The film was produced by GFNMS media specialist Mary Jane “MJ” Schramm.

Presentation: UAS (Drones) Best Practices, in Response to SAC Recommendations

Unmanned Aircraft Systems (UAS) and Seabird Interactions

Karen Reyna, GFNMS

[View the presentation.](#)

Karen presented a summary of NOAA overflight regulations (designated in areas of high concentrations of wildlife) and a literature review on the topic (the literature review is available on the GFNMS website). There is not much published on seabird interaction with UAS, but visual and acoustic effects have been observed in land birds. Karen discussed sanctuary permit conditions that GFNMS is standardizing (the Federal Aviation Administration currently requires drones to fly below 400 feet), as well as case studies and best practices (best practices focus on researchers who plan to apply for permits to collect data in low overflight zones). GFNMS Seabird Protection Network is actively working on the issue and working with Matt Pickett of Oceans Unmanned. Max Delaney is working with the Office of National Marine Sanctuaries permit coordinators to standardize permitting special conditions across the system.

Discussion

George Clyde: *Not all drones come from shore – more are coming from boaters looking for fish to catch or whale watching, so boaters are a good demographic for outreach. Signage may be needed in areas that do not have low overflight zones within the Sanctuary. It may be useful to have people observe drone activity in some of these areas.*

Abby Mohan: *Has been contracted to take photos for commercial purposes via drone from her boats, so she is encouraging her company to contact the Coast Guard when planning to fly a drone, see what their regulations are and also coordinate when and where those flights will happen.*

Francesca Koe: *It would be great if we could come up with the “DOs and DON'Ts” to develop suggestions for ways to be stewards rather than regulating or restricting. Whether there are low overflights in certain areas or not, there should be information available for hobbyists.*

Jaime Jahncke: *He will share the names of other researchers who use drones with Karen and Max. Ben Becker also has about four permits issued each year to perform drone flights as part of a research effort.*

Cea Higgins: Emphasizes the need for more research on the topic. Cea sees a lot of take-offs around Bodega head (including Doran beach) heading out to Bird Rock. Suggests that we provide information to national and state parks so they can be better informed when observing drone activity within their jurisdiction and have materials to provide to the public.

PUBLIC COMMENT

No comments given.

Member Reports

Richard Charter, Conservation – The U.S. Fish & Wildlife Service Environment Impact Statement (EIS) on the proposed helicopter drop of rodenticide on the Southeast Farallon Islands is available. Richard encourages members to read it and for SAC to discuss it at a future meeting. Richard reminded the SAC that they have taken a position on it before by resolution in 2013. Richard says it appears to him that the U.S. Fish & Wildlife Service from personnel changes has shifted gears and ignored some of the 600-odd comments they have received. They plan to drop the poison on the islands sometime during the fall; but we don't know if it will be this fall. Richard says there are new justifications for the project in the EIS that he did not see in the draft, including correcting the issue of burrowing owls who have migrated there from the Marin coast, increasing the population of ashy storm-petrels, and benefitting the Farallon Island salamander. Richard refers to an email from U.S. Fish & Wildlife wherein they say as many as 3,000 gulls would be killed, that wouldn't necessarily die at the Farallones but would die as result of the project elsewhere. Richard says there is legislation currently pending that would ban the application of the type of rodenticide proposed for the Farallon Island project anywhere in California. The reason for the legislation is that major predators are impacted by the rodenticide, and groups bringing the legislation don't want it in the environment. Richard suggests SAC passes around the SAC resolution that was adopted in 2013, so that new can see it. Richard is hoping at the next meeting, if it's not too late, SAC should take a comprehensive look at this wherein both sides can present with expertise, and then SAC can make a recommendation to the GFNMS Superintendent. Richard says it is his understanding that GFNMS sent a letter to U.S. Fish & Wildlife in regard to the EIS, and asks if it can be forwarded to the SAC. Richard is concerned that a U.S. Fish & Wildlife representative was recently taken to the Southeast Farallon Island, and that seemed to him to be lobbying. Due to the fact it could happen this fall, Richard thinks SAC needs to take action soon if they are going to make a recommendation to GFNMS.

Jaime Jahncke commented regarding information provided by Richard about the possibility of gulls dying and the available literature on hazing gulls: As part of the eradication plan, U.S. Fish & Wildlife Service does not expect the mortality of 3,000 of gulls like some reports suggest. They also do not think that any impact to gulls would significantly impact the health of the overall population.

On April 25th, the new Secretary of Interior David Bernhardt announced that his anticipated Five-Year Outer Continental Shelf (OCS) Offshore Drilling Plan, which is in its draft 2018 form and proposes new offshore drilling leases off of Southern California in 2020 and in Central and Northern California in 2021, would be temporarily on hold until after the 2020 presidential

elections. Bernhardt cited a federal court ruling that found that the Trump Administration's reopening of waters permanently protected by President Obama in the North Atlantic and in certain regions in Alaska was not legal, since the underlying law enables an administration to protect an area but does allow a subsequent administration to arbitrarily undo such protections. Bernhardt deferred the release of his final Five-Year drilling plan until sometime in the future. Interior Department staffers almost immediately contradicted Bernhardt's announcement of his decision in their statements to oil trade publications, saying the leasing program was not on hold, and the petroleum lobby stated that they hoped that Bernhardt was not signaling a "full stop". Meanwhile, the Interior Department rapidly followed up on Bernhardt's offshore oil and gas leasing delay by rolling back key elements of the blowout preventer and offshore rig worker safety regulations put in place after the BP Deepwater Horizon oil spill, see:

<https://www.governing.com/topics/transportation-infrastructure/Trump-Administration-Eases-Offshore-Drilling-Safety-Rules-.html>

Senator Dianne Feinstein and several US Senators, including four democratic candidates for the presidency, immediately introduced legislation to permanently protect the Pacific Coast from offshore drilling, see <https://www.feinstein.senate.gov/public/index.cfm/press-releases?ID=99562C5C-BEA3-44A4-9BA7-5A39CC976C83>, while several US Senators from

New England introduced similar legislation intended to protect the Atlantic coast, see: <https://www.wcax.com/content/news/Senators-renew-push-to-ban-offshore-drilling-off-New-England-509438051.html>

Companion bills for these and other regions have also been introduced in the US House of Representatives.

Francesca Koe, Conservation Alternate – Ocean Cove in Sonoma had an event scheduled to harvest urchins but was canceled due to weather. Some people still participated. Francesca encourages people to come out July 27th and 28th at ocean cove to help harvest the urchin. Families are welcome. You have to have a California State fishing license if you want to actually collect, but if you want to help with some of the other tasks you don't have to have a license. This weekend, some people will be in Sea Ranch to get in the water to do a very small event up there.

Francesca has been invited to speak at Scripps Institution of Oceanography at the University of California, San Diego in July in regards to GFA and GFNMS' bull kelp recovery work and the application of different outreach studies with regard to the effort. In June, Francesca will attend CHOW (Capitol Hill Oceans Week); she is presenting on two CHOW panels: one on protecting areas in a changing climate, and one for the Senate and House ocean caucuses and Caucus Foundation.

Nancy Trissel, CAL Sonoma/Mendocino Alternate – The third Dogwood Timber Harvest Plan is under review because the judge asked for more details on alternatives to the full-scale logging proposed. Nancy says property owners responded with a statement that, "a sale of the area as a non-timber use is highly speculative," and, "because this alternative is remote and speculative, the conservation easement and public land purchase alternatives were rejected for further consideration." When this property was put up for sale in 2015, a consortium of environmental

groups put together a bid to buy the land but the bid by the now current owners won due to a quicker close of escrow.

Since Nancy's last report, there is a new effort to collect signatures to champion the [Gualala River Park](#). There are funds for it (same conservation groups from 2015 are still committed and interested) and the park would be an extension of and managed by the Sonoma County regional park on the south side of the river mouth. The signature collection is to demonstrate the public interest in the park for the judge and is a distinct effort from that of [Friends of Gualala River \(FoGR\)](#), whose mission is to prevent logging of the area.

A separate but contiguous parcel of 112 acres, Mill Bend, is in the due-diligence phase of escrow at the mouth of the Gualala River. If successful, the private buyer will hold the property until local conservation groups can purchase it from them.

A *Press Democrat* article outlining history and current activity of Gualala River Park and timber harvesting can be read here: [Opponents of logging plan along Gualala River dream of expanding park](#)

Other helpful resources: Gualala River Park: <http://gualalariverpark.org/>; Friends of Gualala River: <http://gualalariver.org/>

Bibit Traut, Education Alternate – Bibit is a member of the LiMPETS Science Advisory Panel, and has particular interest in the sandy beach monitoring protocols. In June and July, there will be more meetings of the Panel. Bibit participated in Fitzgerald Marine Reserve event, doing some rocky intertidal work. She is trying to offer a California Naturalist course through City College Extension, hopefully available in the fall. She has been in talks with SAC member Elizabeth Babcock (with the California Academy of Sciences) and GFNMS to see if there are other avenues for holding this class outside of City College. Attendants will receive 4 credits.

Bibit is the SAC chair for the Tomales Bay Native Oyster Restoration working group, currently in progress. Bibit thanks SAC members Bruce Bowser, George Clyde, and John Largier, for their participation on the working group. From the two meetings that have been held, the working group has learned about the status of the population, needs, and availability of restoration (through the lens of enrichment and ecosystem services/benefits) as well as co-benefits to climate change and living shoreline protection measures. Recommendations are being made, including site selections for projects and possible methods. Those recommendations will be finalized a week from Friday and will be brought to the SAC at the August meeting.

Francesca Koe: *Every Memorial Day weekend the people who run Oyster Rockefeller's have an "Oysterpalooza", if there is information to share that would be a great opportunity. I was recently there and we were eating oyster from up north. Is there a reason why we couldn't eat the locally harvested ones?*

George Clyde and Ben Becker: *The state is very cautious about testing for E. coli and other contaminants. Even if nothing is detected, a large rainfall can trigger a shutdown of local oyster harvesting due to water quality issues that can arise from runoff.*

Bruce Bowser, Conservation – On March 15th, Bruce attended the Tomales Bay Oyster working group meeting and “learned all I have ever wanted to know about oysters.” He also attended the Ocean Climate Summit on April 18th and says it was a fascinating day with lots of great content. Bruce attended the May 2nd State of the Bolinas Lagoon conference in Stinson Beach, and says it’s a great opportunity for folks to hear about all the work going on in Bolinas Lagoon. Kent Island Restoration is back in full swing and he has flyers available if anyone wants to join the project. Bruce says you can also reach out to the program’s coordinator, Kate Bimrose. Bruce is doing three tide pool groups at Duxbury reef this spring, bringing school groups out and informing them about the reef and best practices. Also doing a trip for Greater Farallones Association in June.

Cea Higgins, Community-At-Large Sonoma/Mendocino – Cea reports that there are several coastal locations between Bodega and Jenner in Sonoma County that are eroding. Additionally, Gleason Beach has endured further erosion. Caltrans has done some emergency response work in some of these areas. There is a meeting on May 23rd from 5:30-6:30pm in Bodega to talk about this. Cea is concerned about their draft regional transportation plan and the lack of communication between Caltrans and other agencies.

George Clyde, Community-At-Large Marin Alternate – George showed a [video clip](#) of a very low overflight at Tomales Bay. He says believe it or not, this is perfectly legal.

George says a couple of months ago, one of the Sausalito seaplanes flew north along the east shore, about 300 feet off his deck at an elevation of 100 feet (a neighbor who is a 747 pilot and who witnessed it, estimated it was closer and lower). There was no water landing or takeoff involved. George called the owner/manager, who seemed very interested in hearing of the report, and it hasn’t happened again. The owner/manager took particular note when George mentioned the drones our neighbors and guests fly from our decks. Hopefully there is some progress on this project.

***Bruce Bowser:** George, do you feel this is more prevalent in recent years?*

***George Clyde:** I actually think it seems less prevalent but that certainly doesn’t mean it doesn’t still happen.*

Ben Becker, National Parks Service Alternate – Ben reports that it is molting season for elephant seals. Last week, Ben went out to Drakes Beach and saw 30 or 40 seals. He went back a few days later and there were over 200. Right now, NPS is trying to figure out a plan for Memorial Day weekend. Currently the road is closed, but they are hoping the beach will be opened enough to allow the public to visit. They are still working on restoration of Drakes Estero since closure of the oyster company. NPS is doing drone flights to map eelgrass populations over the area and also doing snorkeling observations to collect data. They are at 82% of their goal for eelgrass regrowth, areas that were the most disturbed are not recovering yet but we will continue the restoration effort into next year.

The Parks Service got three years of funding to do a black abalone recruitment study, working with University of California, Santa Cruz. They have a few sites where there is some recruitment, so these spots will have ongoing monitoring and surveying. Golden Gate National Recreation Area, Point Reyes National Seashore, and the Tomales Bay Watershed Council have a series of grants (\$2,500 -\$5,000) to give. Next year, they plan to work with GFNMS on these opportunities as some work could be conducted in Bolinas and Tomales Bays. The Point Reyes Lighthouse is being restored and might be accessible by mid-to-late summer. U.S. Fish & Wildlife Service is doing seabird observations at Point Reyes headlands and some at Drakes Bay.

Sarah Bates, Commercial Fishing Alternate – The United Nations released a report two weeks ago on the unprecedented decline of “ecosystems, species, wild populations, local varieties and breeds of domesticated plants and animals.” While disheartening, the report also noted the importance of the sea-land interface, specifically, “ecosystem- based approaches to fisheries management; spatial planning; effective quotas; marine protected areas; protecting and managing key marine biodiversity areas; reducing run-off pollution into oceans and working closely with producers and consumers.”

Sarah says the Center for Biological Diversity (CBD) continues to attack the fishing industry. The commercial Dungeness crab fishery was closed in April, nearly three months premature due to a pending lawsuit against the California Department of Fish and Wildlife (CDFW). Additionally, CBD has threatened to sue National Marine Fisheries Service to limit ocean harvest of salmon as a food source for killer whales. Sarah says this group seems to believe that protecting oceans means that no one should use the ocean, and commercial fisheries are seen as an easy target to litigate out of business.

Crab gear retrieval projects are continuing this year in most commercial fishing ports. Commercial crab fishermen are permitted through CDFW to retrieve untended crab gear in the water post-season. Cleaning up gear after the season reduces wildlife interactions, and gear conflict with other fisheries. We are trying to financially incentivize crab trap gear retrieval, through a sanctioned program (trying to pass through the CDFW). Right now, you can only have six traps on your boat that are not yours, but the new program would remove that to help encourage others to retrieve gear. Also if people do not want to buy back their gear, CDFW will not renew their permit for the next year.

Sarah reports that after a blissful two weeks of calm weather, the ocean conditions have returned to typical nasty spring weather. There has been an unusual amount of southerly wind, resulting in spring rainfalls.

Jaime Jahncke, Research Alternate – Several of you here are Beach Watch volunteers, we did a collaboration with GFNMS and GFA analyzing data to understand what a dead bird on a beach means for the status of the bird populations on the island. For at least two populations (Brandt’s Cormorants (BRCO) and Cassin Auklets (CAAK)) high numbers of dead BRCO on the beach will mean a lower population on the island the next year; high numbers of dead CAAK on the beach mean lower populations on the island two years later. Regarding multi harvest practices for northern anchovy: in 1995, harvesting limits were established, but at the

time, birds and marine mammals did not feed as much as they do now, and today they need more anchovies for food so there is stronger pressure on the population. Jaime recommends another stock assessment be conducted in order to determine the correct practices and regulations on harvesting. He is awaiting feedback from CDFW on this.

Dominique Richard, Community-At-Large Marin – After the federal government shutdown and the elephant seal “invasion”, Beach Watch surveys at Drakes beach has resumed. Last survey was highlighted with the finding of a dead Guadalupe fur seal, which turned out to be a region-wide problem, the California Academy of Sciences (namely, Sue Pemberton) is working with partners to understand this die off.

The Environmental Action Committee of West Marin (EAC)’s annual Birding and Nature Festival was held at the end of April. Dominique had the opportunity to work as a volunteer with Frank Biney on a Pierce Point walk focused on the flora and fauna of the region, primarily elks and badgers. Dominique took this opportunity to introduce the participants to the waters surrounding them with a brief talk about the role the sanctuary takes in its conservation. Dominique reports that EAC is considering establishing a program to sample the water from some of the creeks that run to the ocean (e.g., Drakes Beach or Limantour Beach); however, it is unclear at this point if this initiative will involve either Beach Watch or the Tomales Bay Watershed Council.

On May 21, Dominique attended the executive meeting of the Tomales Bay Watershed Council where issues with the water quality sampling program were raised. Specifically, because the California Water Board, which oversees this program, encountered delays in negotiating their laboratory contract, the sampling program may be halted for as many as 3 months. On the positive side, this gap could help the council to update its equipment, improve its inventory control and hopefully build a better cadre of volunteer to do the work. Dominique says that one idea is to take a citizen science approach rather than relying on professionals who too often take that job as a stop gap between more stable positions. Volunteers are welcome!

Dominique attended a Dominican University of California student-focused gathering on climate change with emphasis on the ocean. Jenny Stock from CBNMS was one of the speakers. It was refreshing to hear undergraduate students asking probing questions and showing intent to be more involved.

Michael Esgro, California Natural Resources Alternate – The Ocean Protection Council (OPC) is the Governor’s advisor on the ocean. Tomorrow the OPC has its second quarterly council meeting to discuss action items. OPC will be considering several items at the meeting, including: several projects and funding available for long term Marine Protected Area (MPA) monitoring, restoration projects with MPAs, and money for compliance and outreach related to MPAs. OPC is planning to put together two working groups regarding MPAs including determination of how the MPAs are achieving the goals of the Marine Protection Act. Also looking at how MPAs do, or can, contribute to climate change issues. The OPC will be considering Prop 68 grant guideline comments and will hopefully approve the 2019-2024 strategic plan. The plan can be found at opc.ca.gov - please take a look. OPC will also look to appoint five new members on the science committee.

Abby Mohan, Maritime Activities, Recreation – Abby attended the National Adaptation Forum and spoke with someone at the U.S. Army Corps of Engineers (USACE) that has money to fund different projects. She also talked about sediment management and an effort to do sediment matching at the forum. This could be an interesting pilot for the USACE to get behind. Abby will be following up with them.

Joe Fitting, Community-At-Large San Francisco/San Mateo – Joe partnered with the San Francisco International Ocean Film Festival and will be showing some of their films during the World Oceans weekend at the San Francisco Zoo. Joe says if SAC members would like to be his guest, they are welcome to join him and view the films.

Elizabeth Babcock, Education – Elizabeth reports that the Oakland Unified School District passed a proclamation that all 5th graders will get an outdoor education experience. The California Academy of Sciences is piloting a virtual reality experience called a “Drop in the Ocean” around exploring the ocean and also about ocean plastics. Elizabeth can get SAC members on a list to participate in the virtual reality experience.

LUNCH

Presentation: Greater Farallones Association’s Bull Kelp Recovery Plan (BKRP) for GFNMS & CDFW; and GFNMS Response to SAC Recommendations and the BKRP

Rietta Hohman, GFA; Karen Reyna, GFNMS

Sonoma-Mendocino Bull Kelp Recovery Plan

Rietta Hohman

[View the presentation.](#)

Presentation Highlights

- More than 90% of bull kelp has been lost along the North-central California coast, due to a combination of stressors including: Harmful algal bloom in 2011, Sea star wasting disease starting in 2013, Purple urchin population increase starting in 2014, and a marine heatwave in 2014
- 2017 Closure of Recreational Abalone Fishery (\$44 million non-market value) and 80% decline in commercial red sea urchin fishery for this region (\$3 million ex-vessel value)
- Council’s Kelp Recovery Working Group:
 - o Reviewed the state of the science regarding kelp loss in the region and identified data and knowledge gaps
 - o Learned what restoration and recovery methods are used in other regions along the West Coast
 - o Learned about various efforts used to survey kelp canopy including aerial mapping, remote sensing, and satellite imagery
 - o Evaluated criteria to be used in restoration site selection process

- GFNMS AC recommendations include: Site selection, active restoration, monitoring and research, education and outreach
- Next steps:
 - o GFNMS and CDFW adopt the recommendations and strategies in the Recovery Plan and facilitate implementation in partnership with each other
 - o Establish a consistent funding stream to facilitate the formation of the Kelp Recovery Project and Kelp Recovery Network and support active recovery efforts in partnership with GFA
 - o Determine specific restoration sites within the priority candidate regions and evaluate active recovery efforts to be taken for each site
 - o Investigate opportunities to collaborate on restoration and monitoring efforts within the recommended sites

Discussion

Ben Becker: *How is OPC involved in the program?*

Michael Esgro: *The Ocean Resiliency Act no longer has anything related to OPC in it, and it's likely that kelp was taken out of that as well. Promoting healthy kelp ecosystems is called out in the OPC strategic plan. Prop 68 also has areas where kelp recovery could be included and funding could go toward kelp recovery projects. OPC was also one of the members of the kelp working group.*

Elizabeth Babcock: *What specific actions can the public take, including if you are not a diver? Is there a sense of the volunteer help you want to elicit?*

Rietta Hohman: *Volunteer harvesting events offer support tasks that don't require diving. There could be some citizen science aspect to helping with drone surveys down the line. There are also options to donate to events and tasks related to implementing the plan/strategies. It's difficult to determine the amount of volunteer help we need at this stage, but 37 sites have been identified as potential restoration sites (7 are priorities, 9 are secondary sites). The comprehensive plan that will be developed will also outline the needed effort from volunteers and the public and ways in which to engage them.*

Sanctuary Actions and Kelp Recovery Recommendations

Karen Reyna, GFNMS

[View the presentation.](#)

- GFNMS plans to move forward with the following actions based on the Council's kelp recovery recommendations:
 - o Create and lead a Kelp Recovery Network and integrate the Sea Star Wasting Syndrome Task Force. This will require a new position at GFNMS (Kelp Recovery Program Manager) focused in the expansion area.

- In partnership with the ONMS Dive Program and MBNMS, conduct SCUBA bull kelp surveys from the R/V Fulmar at key monitoring sites annually. This will require NOAA divers and additional R/V Fulmar days.
- Investigate the use of Unmanned Aerial Systems (UAS or drones) for bull kelp surveys. Sanctuary staff will coordinate with CDFW.
- Integrate LiMPETS sea star citizen science monitoring sites with bull kelp monitoring sites. Funding has been secured to accomplish this task.
- Develop a program to educate the expansion communities and recreational divers about the Kelp Recovery Network activities to restore the ecosystem including producing an Earth Is Blue video; media presence; talking points; and web site. This would require support from ONMS videography team.
- Integrate ACCESS offshore ecosystem monitoring data with nearshore kelp monitoring data. This will require additional R/V Fulmar days to support ACCESS surveys in the expansion area.
- Track progress and provide in-kind support to research efforts studying the viability of seeding kelp forests to accelerate ecosystem recovery. This would require a Kelp Recovery Network Coordinator.
- Develop a community engagement program that addresses the desire to continue opportunities for recreation and tourism and community-based monitoring. This would require a Kelp Recovery Network Coordinator.

Discussion

Dan Howard: *Something to keep in mind is that it is logistically problematic to take the R/V Fulmar into the northern expansion area in order to survey kelp areas.*

Francesca Koe: *Will there be additional recommendations (in addition to the 8 listed in Karen's presentation) that you hope to implement pending funding and resources?*

Maria Brown: *These are the 8 actions we are focusing on, and we will exercise adaptive management of these strategies as we move forward.*

Presentation: LiMPETS Science Protocol

Rosemary Romero, Ph.D. GFA

[View the presentation.](#)

Presentation Highlights

- LiMPETS monitors Sandy Beach (Pacific mole crabs) and Rocky Intertidal (27 invertebrates & algae)
- The program works to educate, inspire, inform, empower, and collect data
- Host regular teacher workshops and student trainings to ensure correct protocols
- The data collected is used in conservation management

- The LiMPETS Science Advisory Panel: Refines network wide curriculum and training materials to meet science needs; works with ONMS staff, researchers, partners and various other state resource managers
- Recent contributions from the Panel: Updated Sandy Beach protocols; Updated Rocky Intertidal field guide; 360 photo protocol for Rocky Intertidal sites
- Rosemary detailed the data collection protocols for sandy beach and rocky intertidal
- Presented data collected by LiMPETS tracking sea star populations and the decline in 2014 due to sea star wasting disease
- There are LiMPETS surveying sites in the Northern expansion area of GFNMS where bull kelp recovery may take place
- LiMPETS data can contribute to the bull kelp recovery effort through:
 - o Tracking abundances of intertidal ochre sea stars, abalone, and purple urchins;
 - o Ochre star densities and recruitment can be tracked in intertidal by students;
 - o Documenting new Sea Star Wasting Syndrome infections
 - o Herbivores may move between subtidal and intertidal in search of food
 - o Rosemary thanked partners

Discussion

Elizabeth Babcock: One suggestion is that often the youth do not get to see the big picture, so it would be great to show the students and teachers how their research contributes to the bigger picture by showing them the graphs, tables, and other analysis of data collected.

Cea Higgins: I have ideas for partners to collaborate with in the northern expansion area as LiMPETS tries to put together new sites for sea star monitoring.

Sanctuary Advisory Council Business

ACTION: Letter in support of Managements Plan's accomplishments

The Council passed a resolution during its Feb. 27th meeting in response to Maria's presentation about the sanctuary's accomplishments from the Rapid Management Plan Review to draft a letter in support of the rapid management plan review. Richard Charter drafted a letter, Alayne read aloud the letter to the SAC and asked for edits/feedback. Francesca and Elizabeth provided edits.

Motion: To approve the letter as edited.

Vote: All in favor - unanimous; Opposed – zero; Abstained – zero

Motion passes to approve and send letter as edited during the May 22nd meeting.

Update on 2019 SAC Retreat

Date will be October 16th at the Estuary and Ocean Science (EOS) Center in Tiburon.

The morning will be set aside to discuss accomplishments and go over the next year's work plan, followed by a tour of the center, then a joint event with EOS where we will discuss the overlap between GFNMS and SF Bay as it relates to three topics: 1) oceanography 2) wildlife, and 3) recreation and commercial activities.

Action Tracking

Alayne has drafted a spreadsheet to organize how GFNMS is taking action on all recommendations that the SAC recommends to the sanctuary. All the information on the spreadsheet is on the GFNMS website but the spreadsheet itself is not. Once Alayne finishes the spreadsheet she will share it with all SAC members.

Update on New Seats

Welcome to the new members!

There are two seats still open: Maritime Commercial Activities Alternate and Conservation Alternate. Francesca and Dominique comprise the Application Review Panel. Alayne will convene a panel call to review applications.

Outreach for SAC open seats happens in a variety of ways: positions are posted on the sanctuary website, MJ sends announcements to media, and Alayne posts to GFAs social media.

Elizabeth Babcock: Elizabeth encourages that we advertise for open seats through the research symposium day and to the kelp networks. Current working groups could be reached out to, and other partner organizations and networks that the sanctuary works with.

Jaime Jahncke and Dan Howard: At the last CBNMS SAC meeting they discussed the inclusion of a tribal member seat. Dan will be in touch with Brian and Maria about their process for this and work on developing relationships. Is this something that GFNMS may want to discuss?

Dominique Richard: Dominique recommends looking to harbors and marinas and possibly other entities in the dredging world who could provide some potential applicants.

Alayne Chappell: Alayne will look into different avenues for recruiting new advisors and how that can help diversify the types of people we recruit.

Cea Higgins: Cea would like clarification on terming out completely from the council.

Clarification: Each member can serve three, three-year terms in the same seat, and then if you change seats you can serve another three, three-year term. Moreover, waivers can be granted at the discretion of the ONMS Director regarding term limits.

Member bios are uploaded on the website. Alayne is also hoping to hold a new member orientation (existing members can also attend) and will be in touch about that.

ADJOURN – 3:30pm