

OLYMPIC COAST
NATIONAL MARINE SANCTUARY
Meeting Notes

OCNMS Advisory Council Meeting
November 16, 2018

Kitsap Conference Center at Bremerton Harborside
Bremerton, WA 98337

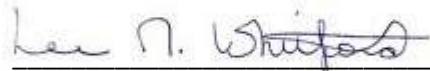
Olympic Coast National Marine Sanctuary
NOAA, Office of National Marine Sanctuaries
115 E. Railroad Avenue, Suite 301 Port
Angeles, WA 98362-2925

Reviewed by OCNMS Superintendent:



Carol Bernthal, Superintendent

Approved by AC Chair:



Lee Whitford, Chair

Advisory Council (AC) Members/Alternates in Attendance: Casey Dennehy, Dann May, Capt. Patrick McElligatt, Steve Shively, Dan Ayres, Dan Nutt, Joel Kawahara, Mike Barton, John Stadler, Josh Peters, John Veentjer, Scott Hecht, Jan Newton, Katie Krueger, Katrina Lassiter, Tami Pokorny, and Jennifer Hagen.

Presenters and Others in Attendance: Dawn Grebner, Anthony O'Dell, Alexander Islas, and Phyllis Bernard-May

NOAA/OCNMS Staff in Attendance: Lindsay Peavey-Reeves, Carol Bernthal, Julie Ann Koehlinger, Alisha Friel, Jacqueline Laverdure, George Galasso, Jenny Weddell, and Nicole Harris.

The meeting was opened by Casey and attendees were welcomed by Dawn Grebner of the U.S. Navy to the home of Naval Base Kitsap. Dawn oriented members to facilities in the area, which includes the nearby Puget Sound Naval Shipyard and Intermediate Maintenance Facility, Naval Submarine Base Bangor located on Hood Canal, and a smaller depot for ranging and repairing torpedoes at Keyport near Poulsbo. The draft agenda was adopted by consensus. The approval of the September meeting notes was motioned by John Veentjer and seconded by Dan Ayres.

Internal Affairs

Julie Ann Koehlinger, Washington SeaGrant fellow, provided an Ocean Acidification Sentinel Site (OASes) working group update as Kevin Grant is offsite on detail until mid-February 2019. During the most recent meeting of the working group, they determined that it was important to establish big picture goals and objectives before populating the steering committee. This will be accomplished through a review of the 2016 meeting notes. The working group is planning a one-day conference in February 2019 and hope to piggyback on a workshop with for the Condition Report. This one-day conference will be facilitated in order to hone OASes goals. The working group membership may need to be updated. Recommendations for additions to the team include Tommy Moore with Northwest Indian Fisheries Commission and Rich Childers OA Policy lead with Washington Department of Fish and Wildlife. Both individuals have expressed interest and agreed to participate. Jan Newton concurred with the additions.

Council members reviewed the proposed 2019 meeting dates handout and made recommendations to select March 15th, correct the date for July to the 19th, and change September's date to the 27th and requested Bremerton for the traditional science-focused session. It was noted that the July meeting is dependent upon budget allocations, but also scheduled for the weekend of OCNMS' 25th anniversary. The executive committee is still working with Tommy Moore and Ed Johnstone to confirm if the joint IPC and SAC meeting will be held on January 18th in Forks, WA.

Information, Discussion, and Action Items

OCNMS 2019 Management Plan Priorities <OCNMS_2019_MP_Priorities.pdf>

George Galasso, Jenny Waddell, and Jacqueline Laverdure provided an overview of fiscal year 2019 OCMNS priorities. Internal review and SAC prioritization process showed 14 topics overlapped which were categorized into seven high point, umbrella focus areas. Jenny spoke of the revisions to research priorities. For example, in 2011 OCNMS not begun dealing with ocean acidification as a management priority. Seven years later there is an increase in this threat, thus elevating it to a higher priority. Research priorities cover the mission of OASes and the offshore mooring program among other topics. OCNMS is interested in providing letters of support and finding partners to analyze and make 18 years of data publicly available.

Under operations and infrastructure and at the national level, the number one priority is replacement of the research vessel *Tatoosh*. Human resources prioritize replacement of the resource protection coordinator position and creating new partnerships. Nurturing partners remains a high priority with multiple ties to programs and primacies such as SAC support, vessel monitoring, west coast deep-sea coral initiative, implementing maritime risk reductions, and the Northwest testing and training program for the U.S. Navy NEPA process which is presently in a consulting phase.

Community presence discussion was facilitated by handouts outlining education programs offered by OCNMS. OCNMS staff and AmeriCorp service members run a variety of programs as noted in the handouts. The overarching category for community presence is ocean literacy through educational programs and community engagement. Competitive grant programs, administered by OCNMS, emphasize resource conservation curriculum and partnerships. Mentorships opportunities through AmeriCorps service member and Hollings scholarship programs allow collaboration in developing robust education and outreach programs. New outreach technology is being used in the Olympic Coast discovery Center's new exhibits: ocean acidification and the food web plus Science on Sphere Explorer virtual reality underwater dives (to view the virtual-reality library send a text to 24587 and then the message "OCNMS", view the ocean acidification toolkit online at <https://sanctuaries.noaa.gov/education/crab-toolkit.html>). The Marine Discovery Center partnership between the Olympic Coast National Marine Sanctuary Foundation, Feiro Marine Life Center, and OCNMS establishes the co-tenancy in the Oak Street waterfront property acquired by the Port Angeles Performing Arts center, along with the Elwha tribe. The capital campaign feasibility study has been completed and the design phase will begin next year. This project is seen as a game changer for Port Angeles and North Olympic Peninsula by local tourism professionals. OCNMS will celebrate the 25th anniversary of the designation in 2019. Plans include a gala, Concert on the Pier in Port Angeles, tide pool walks, and many more activities with partners such as the Advisory Council, MRCs, and CoastSavers. Media spotlights will include local newspapers and newsletters, Earth is Blue magazine, and online social media.

Collaboration in characterizing seafloor habitat and mapping is critical, such as the 2017 mapping of 2,500 km² in the sanctuary via *R/V Rainier* and *E/V Nautilus* ship-times. During the search for the meteorite off the Olympic Coast another 9 km² was captured. Additional opportunities could arise from the US Geological Survey (USGS) initiative to map coastal hazards such as faults and subductions along the entire West Coast. OCNMS mapping priorities include the continental shelf and canyons within the exclusive economic zone (EEZ) and so is Washington state. The deep-sea coral initiative led by the National Marine Fisheries Service will also require ship time so requests for September 2019 and 2020 ship time on *E/V Nautilus* been submitted or are in process.

Protection of resources include identifying lost vessels, addressing scrap barges and their lost cargoes, working with subject matter experts to consider appropriate actions related to cetacean entanglements and ship strike upticks, and continued monitoring of the area to be avoided. Permitting is one method for managing research requests within the sanctuary. In terms of emergency management, dispersants are a newer and complicated topic due to the closely intertwined benefits and hazards. Signage for marine safety enhancement, as recommended by the Vessel Incident Working Group, is also on the horizon for 2019. Acoustic habitats are a new focus for OCNMS. Information needed includes variability of the habitats, including whether they are noisy or quiet naturally and the implications for species using habitat. NOAA intends to create a noise strategy which integrates the results of acoustic work at eight selected sanctuaries.

Efforts related to Condition Report (CR) which identifies habitat and key resources within the sanctuary will build on Channel Islands and Monterey Bay National Marine Sanctuaries work by engaging their staff, NOAA's Integrated Ecosystem Assessment program (IEA) team, and NOAA's National Centers for Coastal Ocean Science (NCCOS) who have been involved in assessments of the California Current system for the Pacific Fisheries Management Council. Funding for time and travel of state agency and tribal representatives in support of CR development has been approved. A one-day workshop to establish ecological indicators will be scheduled for late January or early February to whittle the hundreds of possibilities down to those that have existing data streams. The resulting indicators will be collated with existing data prior to the three-day subject matter expert workshop slated for September. Traditional ecological knowledge and research results will be used to address 17 prescribed questions in the CR, including a new section on ecosystem services.

Carol Bernthal completed the presentation by advising that much of the intent behind the discussion is to aid in fleshing out the areas where action and/or support is needed by the council and documenting in the 2019 AC Workplan.

Vessel accomplishments 2017 and 2018

Alicia Friel provided an update on 2017 and 2018 research vessel activities in the sanctuary onboard the R/V Tatoosh. In 2017, the vessel spent 29 days at sea and 28 days in 2018. She described the 18 years of sampling conducted at OCNMS' ten oceanographic moorings sites annually between May and September on an every five-week schedule. Vessel volunteers are very important for this process and enabling data retrieval. For the past four years the NW Fisheries Science Center has used the Tatoosh to conduct five days of sub-tidal dives at the same five sites as historical surveys conducted during the 1980 & 1990s. Divers use an underwater camera for documentation of algae, invertebrates, and fish presence. For the past three years, Cathy Pfister, University of Chicago, has been studying kelp bed viability as OA refuge for calcifying species along with Brooke Weigel who studies microbial use of kelp beds. Dr. Brad Hansen of the NW Fisheries Science Center uses acoustic recorders to listen for southern resident killer whales in search of where they are in the winter. The Tatoosh is used to recover the devices. In addition, the Tatoosh has been used to conduct annual Audubon Christmas bird counts over a 15-mile radius covering the area within the arc of old Rayonier Mill site to the mouth Elwha River. Recently the crew helped to deploy and then recover PMEL's carbon wave glider (real time harmful algal bloom detection device) to autonomously cover large sections of OCNMS over 60 days while using wave and solar energy. Other projects include taking the Peninsula College oceanography students conducting benthic and water sampling in Port Angeles Harbor and assisting in maintenance of the Chá bã buoy. In August 2018, the Tatoosh was used during *Get Into Your Sanctuary* day to offer wildlife cruises for veterans and their families. There are increasingly more requests to utilize the boat than can be accommodated. Future needs include developing partnership and funding models that allow for the design of a new vessel that meets OCNMS and cohort needs. After next summer there will be a new captain for the vessel.

Underwater Sound Monitoring Project

Lindsay Peavey of Channel Islands National Marine Sanctuary gave a co-presented introducing the West Coast's underwater sound project with Jenny Waddell. The project arose from the 2016 settlement involving the U.S. Navy and NOAA and plaintiffs related to underwater noise pollution. Overlapping interests led to collaborations between the Navy and NOAA (see <https://sanctuaries.noaa.gov/science/monitoring/sound/>). Of the four areas agreed upon for focus for the project, the first "developing capacity to protect acoustic habitats, including in national marine

sanctuaries managed under the NMSA” is most relevant for sanctuaries. The project utilizes the NOAA Ocean Noise Strategy Roadmap using customized acoustic recorders (see <https://cetsound.noaa.gov/road-map>). The intention is to establish a broad-spectrum data set and build system wide capacity via eight National Marine Sanctuaries participating in this project. Capacity will be built using three instruments: sound traps or hydrophones, Slocum gliders, and telemetry networks. Project management structure on the West Coast integrates NOAA research coordinators’ efforts with the Naval Postgraduate School in Monterey, CA. Other resources and expertise come from support groups. Thirty-five experts participated in a May 2018 workshop where metrics, approaches, and best management practices were discussed. Outcomes from the meeting aided designing field work, analysis and presentation management goals, and establishing baseline and historical data availability. A final report will be available on the Channel Islands NMS website. Science standards for sound level metrics and site-specific needs included seasonal and year-to-year data, aligned to allow comparisons within sites and across the sanctuaries. Detection comparisons in fish species, seal bomb events, whale foraging, vocalization use, noise levels in shipping lanes, and other criteria are desirable. Co-presenter, Jenny Waddell provided insights to OCNMS specific plans and goals. Data to be collected include southern resident killer whale movements, coastal traffic, hypoxia, and ocean acidification data as well as determining whether these last two phenomena be acoustically detected. Some sound trap deployments coincide with mooring program locations. Others are based upon research and co-managers’ interests. Lindsay played a video and described the mooring designs, which have a low profile and are deployed subsurface. The sounds traps record at 96 kHz continuously for six months. The massive amount of data will be managed by analysis teams already framing metrics to create adjustable data sets. The timeline for public access will require coordination for clearance through NOAA and Navy communications. In addition to data analytics this is provides a tremendous opportunity for education and outreach. This topic generated a lot of interest and the SAC members expressed an interest in future updates.

Olympic Region Harmful Algal Bloom (ORHAB) Partnership: 2018 Program Overview and Updates from Monitoring Trends

Anthony O’Dell, phytoplankton expert with Olympic Region Harmful Algal Bloom (ORHAB), provided a primer on diatoms, dinoflagellates, and other primary production organisms. Most members of these phytoplankton communities are harmless and provide a great deal of breathable oxygen. In fact, the Pacific Northwest Harmful Algal Blooms (HAB) Forecasting Bulletin indicates localized nutrient loads increase bacteria, but not HABs which are frequently associated with warm water and acidification. HABs impact human health and marine species; some algal species causing death through physical means. Coastal tribes and Washington Dept. of Fish and Wildlife respond to HAB events and carry out lab analysis of water samples. Anthony synthesizes these data and sends out updates twice per month to ORHAB partners. He also offers training on new information and sampling techniques. Sampling is challenging because of the bias towards dockside sampling. For instance: dinoflagellates move in at high tide so often are not collected in sampling. To overcome this limitation submarine drone experiments are being piloted as they allow for integrated water samples. When asked whether forecasting is designed for prevention, Anthony responded no: they help in mitigation because the only way to truly manage HABs is through managing climate change.

Olympic Peninsula Tourism Summit 2018: “We’re Gonna Need a Bigger Boat”

Steve Shively provided an overview of the 2018 Olympic Peninsula Tourism Summit. The theme of the conference was how to avoid over tourism on the Olympic Peninsula (OP) considering SeaTac airport is the ninth largest airport in the US, the cruise line market continues to grow, and single day visitation to

the OP is on the rise. Metrics show visitors center traffic is up by 4.5% as well as continued increases in lodging tax revenues in all OP counties indicating a payoff in marketing strategies. However, too much unmanaged tourism can produce a decline in the integrity of the destination. Ideas shared included collaboratively creating and implementing sustainable operations aka “transformational opportunities” by looking at visitation and revenue metrics to aid in designing personalized, unique, and authentic experiences which tends to have positive impacts for destination locations. Destinations International was hired to assess OP through DestinationNEXT (<https://destinationsinternational.org/destination-assessments-and-planning-dnext>) - a survey designed for local tourism professionals. Based upon scores, the region was identified as existing in the “Explorer” quadrant indicating OP is a developing destination with room for growth in positive community engagement - a position is not far off from most US destinations. Areas identified as OP concerns included communication and internet infrastructure, accommodation capacity, mobility, as well as community support and engagement. Groups of participants engaged in “Learning labs” to brainstorm ideas on how to encourage sustainable tourism so to ensure visitor experiences during peak times are positive, such as Geotourism, Voluntourism, and implementing a localized version of the ONMS Blue Star program. Several participants expressed interest in developing a working group to explore these ideas further.

Superintendent’s Report

Carol Bernthal highlighted activities in and around the sanctuary system such as the OCNMS staff story on Jacqueline Laverdure, in Earth Is Blue magazine. She shared the hope of having OCNMS 25th anniversary events and more staff stories in the magazine and producing a video. She advised the Council that projects for next year are currently on hold. The temporary funding measure (continuing resolution) for federal government operations will expire on December 9 and there is uncertainty as to when the current fiscal year budget will be approved and allocated. She shared highlights from the latest Office Report such as her attendance at the International Council for Environmental Cooperation workshop on climate change. Attendees looked at a series of a studies to aid in developing best management practices or adaptations especially in marine areas. EcoAdapt has developed an adaptation toolkit that provides practical guidance on increasing coastal resiliency in the face of climate change and made it publicly available through the Climate Adaptation Knowledge Exchange website (www.CAKEx.org). She congratulated the survey team successful 18th year of the mooring program, the education team on its numerous public outreach events, and expressed hope that the Olympic Coast National Marine Sanctuary Foundation would infuse new energy into CoastSavers and other marine debris reduction efforts.

SAC Member Updates

Casey Dennehy reported on the 2018 Coastal Marine Resources Committee Summit which included a presentation on economics, OCNMS research and several speakers discussing coastal erosion. At the Surfrider Cascadia chapter conference, members learned about the significance of OCNMS from Carol Bernthal. Casey also announced that he had brought the Surfrider Foundation’s surfboard and invited business owner to add their signature to contest offshore oil and gas development prior to delivering it to the Bureau of Ocean Energy Management (BOEM). He described the early November national AC chairs’ webinar as interesting and useful as it provides an opportunity to hear updates from around the sanctuary system in a round-robin sharing session. At that session he discussed the BOEM letter and OASes work that OCNMS AC has been involved in during 2018.

Dann May briefly described that North Olympic Land Trust is conducting an evaluation of the Twin Rivers site in western Clallam County for protection.

Capt. McElligatt provided some updates on the scrap metal barge operation, including efforts to collect more information. He offered to provide additional detail in the January meeting. He also clarified that an operation designed to afford some protection to southern resident killer whales (SRKW) was completed on 31 October. The lateral displacement towards the southern portion of the lane for outbound traffic project had an estimated 60 to 70% participation rate. Slowdowns in and around Haro Island continue through December 11th when at the Harbor Safety Committee meeting, the Washington SRKW task force will provide 36 recommendations to aid SRKW and will look at coordination with USCG efforts.

Steve Shively shared that the Olympic Culinary Loop celebrating its 10th year. The group is organizing recipe contests to curate and promote a quintessentially Olympic Peninsula chowder.

Jennifer Hagan advised that the winter Chá bã mooring data set is not in real time because of the change in transmission provider technology from 3G network to 4G network. 4G networks are not compatible real-time transmission over the distance of the shore to mooring, i.e. 13 miles offshore. The Quileute received funding to for oxygen, current and hypoxia monitoring equipment, however they will need to resolve transmission design issues. They will also purchase a boat hoist to help with derelict vessel recoveries among other uses. Ruby and Second beaches are closed to shellfish harvest because HABs.

Dan Ayres spoke of the current 2018 - 2019 razor clam season. During the three openers (12 days) at least 31,000 diggers participated. Several beaches are closed until March. 31 because of reduced sizes in razor clam meat. Marine toxin levels look good, so WDFW is considering a Thanksgiving Day dig. This year's crab season opener is being delayed two weeks until December 16th. It's one of the highest economically valued fisheries in the state, but in three harvest areas tested, only one meets minimum percentage of meat required. Since 50% of the catch will be brought in during the first two weeks, meat content at the beginning of the season is critical. Whale entanglements from crab fishing gear are the subject of multi-nation whale working group sponsored by Pacific States Marine Fishery Commission. A best practices document for fishermen will be provided during inspection, plus a decal for on boats with instructions regarding best practices, such as staying in the area but not touch entangled whale. At a two-day workshop in Long Beach, California fishers, disentanglement experts and resource managers met to discuss the entanglement issue and brain-storm ideas for reducing the uptick. Several of the ideas will be implemented along the west coast in the upcoming season. California has recently added new regulations to reduce the number of lines and surface buoys in their waters.

Tami Pokorny shared that the North Pacific Coast MRC is creating a Forks located film school for high school aged student to increase local participation in the River & Ocean Film Festival. If members have ideas for obtaining equipment, etc., please reach out to her.

Dan Nott discussed the upcoming Northwest Alaska panel on changes in broadcast methods for coastal warnings. Some concerns he expressed are that they have moved away from simple, easy to understand methods/language. This could be a concern for OCNMS in its northern section, which is a transition zone from oceanic water to possible river bar style waters. While tugs and barges have developed protocols, smaller vessel can face challenges when signals are not clearly understandable. The British Columbia cetacean observation network includes industry participants and Orca watch groups in recording marine mammal sightings – is this something valuable for tugs and barges to record on the US site?

Joel Kawahara announced that he had retired from the Pacific Fisheries Management Council Habitats Committee in November. Salmon fish returns negotiation between US and Canada have been

negotiated, but not ratified. Significant changes to Chinook fishing related to SRKW could lead to a decrease of 12% of recreational and commercial fishing in OCNMS.

John Stadler announced the 10/5/2018 publication of the draft EIS for Amendment 28 to the Essential Fish Habitat Plan and the end of the comment period on 11/19/2018. Other related developments include the updates to the habitat use database, the model output, and improved query capacity to produce downloadable EFH maps with finer resolution from the Northwest Fisheries Science Center data frame. In addition, the west coast deep-sea coral initiative will look at EFH open and closed trawling areas to aid in determining cost benefits of these actions and management of these areas. Scott Hecht will become the primary representative for the National Marine Fisheries Service beginning in 2019. It hasn't been determined whether John will serve as the alternate seat or someone else will be selected.

Josh Peters announced development of WA DNR climate resilience plan relevant to aquatic shorelines. On November 6 he attended a Coastal Planners workshop. The plan is available online via Washington SeaGrant. Sea-level rise reports and an interactive map for hazard projections based on various carbon dioxide scenarios. The temporal scales include geologic factors such as subsidence.

John Veentjer discussed the joint meeting between Puget Sound Harbor Safety Committee and Pacific Coast Marine Advisory Review Panel of British Columbia will meet in Marysville on December 11th. Transport Canada hosting a workshop will discuss vessel traffic safety and lead efforts related to SRKW in the Strait of Juan de Fuca. There is now guidance from Ottawa and includes input from first nation tribes. There is a need for more conversation across the border between harbor safety committees and other organizations regarding steps to take that will help protect SRKW such as traffic lane adjustments and whether seasonal movements make sense. Slowdowns do result in lower noise levels however the data on effects of lateral displacement is not currently available.

Scott Hecht discussed his involvement with Section 7 of the Endangered Species Act in the areas from Neah Bay to the Columbia River and interior toward Bonneville dam. Consulting with USCG and EPA on oil spill response and biological assessments. Opinions are expected in January or February including a discussion of dispersants. He offered an update in January.

Jan Newton announced the new NANOOS newsletter and upcoming "West watch" webinar on November 27 which discusses atmospheric El Niño temperatures, droughts, and regional conditions. She described that West Coast Animal Telemetry Network (ATN), Marine Biodiversity Observation Network (MBON), and Ocean Telemetry Network (OTN) West Coast Biological Observation Workshop November 7th - 9th in Santa Cruz inspired her to expand NANOOS' focuses from chlorophyll and harmful algal blooms to work to include other biological information and identify where additional work could be done. She extended an invitation to participate in sharing data on the portal. Jan has been invited by a new facility member to talk with UW students about the social aspects approach being used in the NOAA funded OA regional vulnerability assessment she's working on with Melissa Poe.

Katie Kruger highlighted presentations at the recent MRC Summit by Tami Pokorny and Jenny Waddell on educational projects in the region and cleanup of fishing related marine debris. In October 2019 the North Pacific Marine resource committee will host the regionals MRC meeting. She also called two people's attention the marine and coastal life photos in the transit center at Forks are beautiful representations of the Washington coast.