



OLYMPIC COAST NATIONAL MARINE SANCTUARY

A Report for Sanctuary Advisory Council Members Reporting Period: JANUARY 24, 2018 – MARCH 8, 2018

ABOUT THE SANCTUARY

Olympic Coast National Marine Sanctuary spans 3,188 square miles of marine waters off the rugged Olympic Peninsula coastline. The sanctuary extends 25 to 50 miles seaward, covering much of the continental shelf and several major submarine canyons.

The sanctuary protects a productive upwelling zone home to numerous marine mammal and seabird species, diverse populations of kelp and intertidal algae, and thriving invertebrate communities. The sanctuary is also rich in cultural resources, with over 150 documented historical shipwrecks and the vibrant contemporary cultures of the Makah, Quileute, and Hoh Indian Tribes and the Quinault Nation.

OFFICE REPORT

OLYMPIC COAST NATIONAL MARINE SANCTUARY

NEWS AND PROGRAM UPDATES

Organized by Olympic Coast National Marine Sanctuary (OCNMS) management plan priority areas.

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TREATY TRUST RESPONSIBILITIES

Planning for the 2018 IPC Annual Meeting has begun

The Olympic Coast Intergovernmental Policy Council (IPC) is scheduled to meet on March 16 in La Push, Washington. Office of National Marine Sanctuary (ONMS) Director John Armor and Olympic Coast National Marine Sanctuary (OCNMS) staff will attend. The IPC membership is composed of the Hoh, Makah, and Quileute tribes, the Quinault Indian Nation, and the state of Washington. The IPC was created in 2007 as a regional forum for resource managers to exchange information, coordinate policies, and develop recommendations for resource management within the sanctuary.

IMPROVE OCEAN LITERACY

Olympic Coast students study ocean chemistry with pHyters fueled by plankton power

AmeriCorps service member, Kathleen McKeegan, provided hands-on activities, introduced in the new national marine sanctuaries of the West Coast ocean acidification pHyter and plankton monitoring curriculum, to three outer coast high schools. Students learned about acid/base chemistry, the pH scale, and the chemistry of ocean acidification, in order to set them up for the pH data collection they will be conducting in class. Kathleen led the students through the protocol for using a new pH-monitoring device called the pHyter, which each school is now equipped with. The pHyter is a cost-effective, field-friendly, easy-to-use pH device that is still in development. Students were then given the opportunity to

practice using the pHyter multiple times, either testing a sample of seawater collected together with the class, or testing a sample Kathleen collected earlier. The pH data collected by the students will be uploaded into an online database created in collaboration with the National Marine Sanctuaries of the West Coast Phytoplankton Monitoring Program. The three schools currently piloting this project are Quileute Tribal School, Forks High School, and Neah Bay High School. Taholah High School is also scheduled to participate.

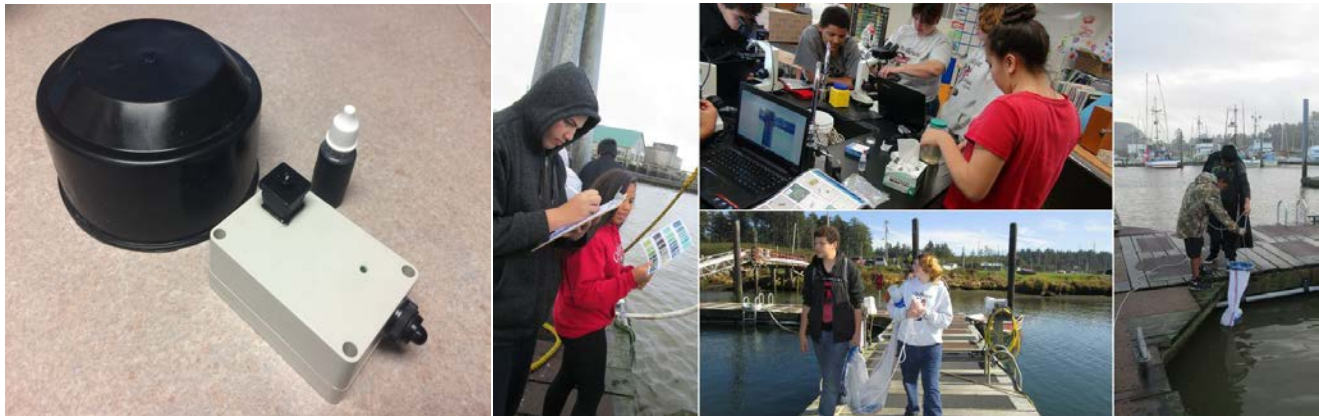


Photo of pHyter: a hand-held chemical indicator-based spectrophotometric pH-measuring device, and students piloting the new ocean acidification pHyter and plankton monitoring program.

Rural Evaluation Capacity Building workshop brings together environmental education partners around the north Olympic Peninsula

The Institute of Museum and Library Services (IMLS), in partnership with Peer Associates, supported a three-day training in Port Angeles, Washington, thereby laying the foundation of evaluation basics for Rural Evaluation Capacity Building among the participating organizations. Education staff from Olympic Coast National Marine Sanctuary, Feiro Marine Life Center, NatureBridge Olympic, Olympic National Park, and Olympic View Community Foundation spent three days together, looking at evaluation process, and the triggers and methods for retrieving the best data from a program. Through the training, participants built a Professional Learning Community to reflect on practices, set benchmarks toward improvement, and critically examine what works and what doesn't, all while enjoying collaborative learning. The training kicked off a six month project where each organization will implement an evaluation on a program using newly developed skills, while leaning on partner organizations for critical feedback and support. Monthly check-ins will allow the group to go deeper into certain topics, as well as ensure the use and understanding of a shared language of evaluation techniques and purposes.

Big Mama makes a splash at Neah Bay Elementary

OCNMS AmeriCorps education team provided students at Neah Bay Elementary School with the new Sanctuary Splash education program. The program provides an introduction and exploration of humpback whales (along with other cetaceans) and their presence in the sanctuary. The lesson was focused for the two fifth grade classes, but students from kindergarten to seventh grade were also able to experience the tour of the life-sized, inflatable, walk-inside humpback whale replica. "Big Mama," the exhibit, is modeled after the living and swimming whale that visits Olympic Coast each summer. In addition to the tour, fifth graders explored the topic of vocalization and communication among whales and were able to participate in hands-on activities to learn how whales "talk" to each other.



Science panel showcases Olympic Peninsula environmental resources for Forks teachers

OCNMS education staff participated in a science panel session for Forks' K-12 school teachers hosted by Pacific Education Institute (PEI). In an effort to inspire teachers to engage their students in real science, while providing teachers with the connections and resources available in their community, PEI offered the science panel session as the culmination of a year-long Professional Learning Community group. The 10 participating teachers discussed ways that they can engage their students in real science that is relevant to their community, while meeting Next Generation Science Standards in the classroom. The science panel included representatives from OCNMS, Clallam County Streamkeepers, North Olympic Land Trust, Olympic Natural Resource Center, United States Geological Survey, Washington Department of Natural Resources, and Quileute Tribe Natural Resources.

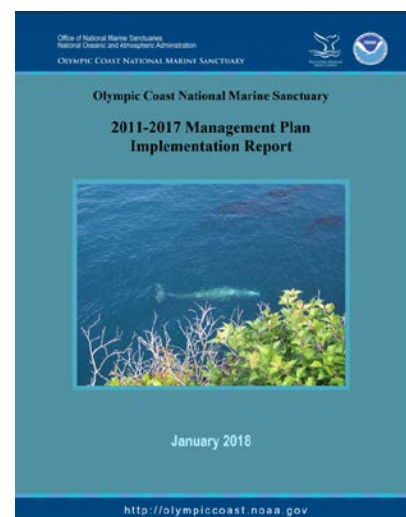
CONDUCT COLLABORATIVE RESEARCH, ASSESSMENTS, AND MONITORING TO INFORM ECOSYSTEM-BASED MANAGEMENT

Olympic Coast completes evaluation of 2011 management plan

OCNMS staff completed an internal evaluation of the progress made toward implementing the OCNMS Final Management Plan finalized in 2011. Based on this review, Office of National Marine Sanctuaries has determined that no immediate or urgent revisions to the management plan or the regulations are needed at this time. This evaluation demonstrates the sustained relevance of the goals, objectives, and priorities of the existing management plan. As part of this evaluation, OCNMS published a FY11-17 Implementation Report that highlights major accomplishments and reports on the actual level of effort for each management plan strategy since 2011.

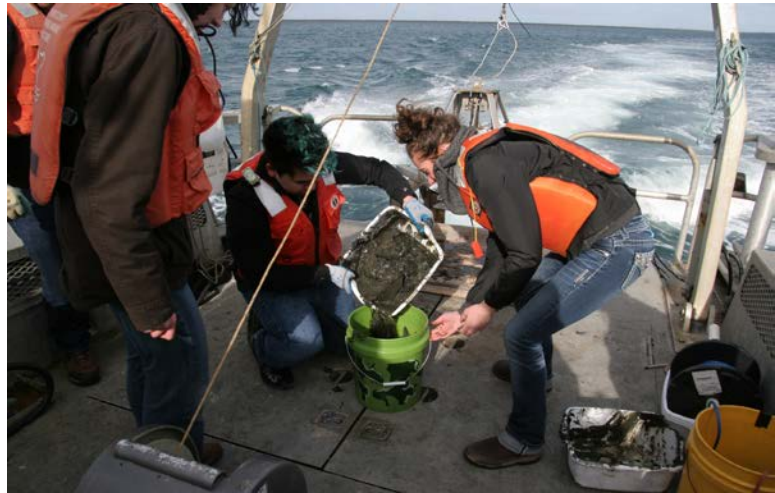
View the report at

<https://nmsolympiccoast.blob.core.windows.net/olympiccoast-prod/media/docs/management-plan-implementation-report-2011-2017.pdf>



Olympic Coast National Marine Sanctuary provides hands-on opportunity for local community college oceanography class

On Tuesday, February 27, OCNMS staff took 24 Peninsula College Oceanography students on a field trip aboard OCNMS Research Vessel *Tatoosh*. Students were looking at ocean health through water chemistry data and plankton monitoring. Student collected data included: water samples at depth using a Niskin bottle, secchi disks to evaluate water clarity, and plankton tows for sample analysis back in the classroom. They also deployed a conductivity, temperature, and depth profiling system composed of four different instruments, and collected a sediment sample using a bottom grab sampler to determine bottom type and invertebrate composition. Weather conditions were windy and cold, giving students a taste of a day in the life of an oceanographer. Due to the conditions, students had to be innovative, modifying instrument design and collection techniques in order to obtain the desired samples.



Peninsula College Speaker Series features a talk on the 2017 E/V *Nautilus* Expedition to explore Olympic Coast



On Thursday, March 1, OCNMS Research Coordinator, Jenny Waddell, gave a public presentation at Peninsula College in Port Angeles to summarize the research, mapping, and outreach efforts conducted during a 16-day expedition on the Ocean Exploration Trust's E/V *Nautilus* last August and September. Audience turnout for this day-time presentation was surprisingly good and included students from Peninsula College as well as dozens of interested community members, many of whom posed interesting questions during the event or stayed after the presentation to chat with OCNMS staff about the expedition and the sanctuary after the presentation.

CONSERVE NATURAL RESOURCES IN THE SANCTUARY

Fishing vessel lost in the sanctuary

On January 31, 2018, the U. S. Coast Guard (USCG) Sector Puget Sound notified Olympic Coast National Marine Sanctuary that the 60 year old wooden F/V *Sunnfjord* was in the process of sinking inside the sanctuary. The USCG pulled the five crew off the vessel and the flooded vessel continued to drift north at 1.8 knots. The vessel's automated information system (AIS) continued to transmit its position for approximately six hours, possibly until the vessel finally sank. The *Sunnfjord* was carrying

700-800 gallons of diesel and was involved in the hagfish (slime eel) fishery. The following day the USCG flew to the last known position of the *Sunnfjord* and did a search of the area. They located the vessel's emergency position indicating radio beacon (EPIRB), but did not see the vessel, debris, or a sheen. The assumption is that the vessel sank at the location where the AIS stopped transmitting. The USCG is investigating the cause of the accident.



Maritime practice causes concern



Deck barge with a load of scrap metal off Port Angeles on February 9, 2018

OCNMS has recently become aware of the continued transport of unsecured scrap metal on open deck barges through the waters of the sanctuary. A tug towing a cargo of crushed cars and other scrap metal was observed by sanctuary staff west bound in the Strait of Juan de Fuca. Further research confirmed that the vessel's transit was from a salvage yard in British Columbia to Portland, Oregon, through the sanctuary. In 2010, a tug lost an entire load of cars, when its barge capsized off the Columbia River.

The sanctuary is also aware of three separate cases of Makah fishermen hauling up crushed cars in their trawl nets in their treaty protected fishing grounds. The sanctuary was aware that this activity has taken place in the past, but until last week did not know it was still occurring. The sanctuary is concerned that future ocean dumping could occur and will be consulting with Coast Guard and Maritime Industry advisors on the situation.



Car pulled up in the net of a Makah Tribal fisherman in April 2017

UNDERSTANDING THE SANCTUARY'S CULTURAL, HISTORICAL, AND SOCIOECONOMIC SIGNIFICANCE

Olympic Coast National Marine Sanctuary showcase opportunities at University of Washington Career Fair



AmeriCorps members represented Olympic Coast National Marine Sanctuary (OCNMS) and NOAA as one of several regional organizations invited to attend University of Washington's Environmental Career Fair. Organized by the University of Washington's College of the Environment, students ranging from all levels of higher education came through the Mary Gates Hall interested in making connections that could lead to volunteer experiences, internships, and career-level positions. The OCNMS AmeriCorps interacted with more than 300 students looking for information about sanctuary careers, possible

internships, and skills that benefit a career in ocean conservation.

SANCTUARY PERMITTING

Issued Permits and Authorizations

No new permits were issued in the reporting period.

LEARN ABOUT YOUR SANCTUARY / NATURAL HISTORY

Why do we call national marine sanctuaries "sentinel sites"?

<https://sanctuaries.noaa.gov/science/sentinel-site-program/>

National marine sanctuaries are where monitoring and research take place to enhance our understanding of natural and historical resources and how they are changing. They also provide an early warning capability to detect changes to ecosystem processes and conditions. We believe that identifying sanctuaries as sentinel sites, and developing a "Sentinel Site Program" not only recognizes the

purposeful vigilance of our efforts, but also helps NOAA attract collaborators, improve information flow, interpret science to the public and advance conservation science through our collective assets and efforts.

REGIONAL / NATIONAL MARINE SANCTUARY SYSTEM NEWS

African American History Month in national marine sanctuaries

<https://sanctuaries.noaa.gov/news/feb18/african-american-history-month-in-nms.html>

There is no doubt that the long and honorable African American maritime tradition is an important part of our nation's history. In February, we remember and honor the African American men and women who faced the horrors of slavery and generations of systemic racism to help build our sanctuary communities and our maritime nation.

Arctic Council's Protection of the Marine Environment (PAME) Working Group plans MPA activities

The MPA Center was part of the U.S. delegation to the Arctic Council's Protection of the Arctic Marine Environment's (PAME) Working Group, which met Feb 10-14 in Quebec, Canada. PAME's MPA Expert Group developed a proposal for a glossy outreach paper on climate change, MPAs, and indigenous people that will synthesize key findings from various Arctic Council working groups for a broader policy audience. The Expert Group also discussed plans to collaborate with working groups on Conservation of Arctic Flora and Fauna (CAFF) and Arctic Monitoring and Assessment Program (AMAP) to advance science and management tools related to ecological and community resilience and identifying gaps in protection at the Pan-Arctic scale. Canada will host a workshop in November 2018 on how indigenous people can take a leading role in managing or co-managing MPAs.

National marine sanctuaries and national parks collaborate at Channel Islands

The Channel Islands Biosphere Reserve, situated west of Los Angeles, represents one of the last examples of natural Mediterranean ecosystems in North America, and some of the few remaining natural southern California coastal ecosystems. Channel Islands National Marine Sanctuary (CINMS) in collaboration with Channel Islands National Park (CINP) monitors programs across their closely connected land and ocean ecosystems. Together, they conducted monitoring of seabird populations, the intertidal areas, and kelp forests at Anacapa Island. As a result of their teamwork, they assessed breeding efforts and locations for Scripp's murrelets (seabird) and discovered a new breeding location for Ashy Storm petrels (seabird). Distribution surveys, genetic fingerprinting, and documentation of the newly invasive algal species, *Undaria pinnatifida*, were also conducted. The collaboration across federal agencies of staff, vessels, and divers between national park and national marine sanctuary generated a critical data needed to understand and manage this internationally significant area

New ONMS website reaches out to Spanish-speaking community

<https://sanctuaries.noaa.gov/espanol/>

Spanish is a predominant language in many communities and businesses neighboring and enjoying national marine sanctuaries. The Office of National Marine Sanctuaries launched a Spanish-language web portal called ¡Bienvenidos a los Santuarios Marinos Nacionales!! ("Welcome to the National Marine Sanctuary System!"). This portal contains translated information about NOAA's National Marine Sanctuary System, programs, partners, marine conservation, and education activities, as well as information about the National Marine Protected Areas Center. NOAA works with coastal communities nationwide and with marine protected area managers and agencies in several Latin American countries to manage shared underwater resources.

Finding sanctuary for right whales: A Q&A with Dr. David Wiley

<https://sanctuaries.noaa.gov/news/feb18/finding-sanctuary-for-right-whales-qa-david-wiley.html>

For years, North Atlantic right whales were hunted for their oil and baleen, which devastated the population. For decades now, these whales have been protected under the Endangered Species Act. There is some good news, though: NOAA scientists, resource managers, and partners are working to bring this conservation challenge into focus and to galvanize efforts to save the North Atlantic right whale. Stellwagen Bank National Marine Sanctuary research coordinator Dr. David Wiley is one such scientist.

Educators help students get into their sanctuaries

<https://sanctuaries.noaa.gov/news/jan18/educators-help-students-get-into-sanctuaries.html>

Every day, our educators share the treasures of the National Marine Sanctuary System with the public. We work to engage, inspire, and connect people with these special places and spark wonder in visitors young and old. In 2017, we worked with more than 120,000 students and 4,000 educators. Read more for a few of the highlights from the past year.

Presentation to Wisconsin fishing club

Russ Green presented on the Wisconsin-Lake Michigan NMS proposal and held a Q and A at a meeting of the Wisconsin Federation of Great Lakes Sport Fishing Club. Approximately 30 people were in attendance. Russ spoke about the proposed sanctuary's narrowly focused regulations, which are aimed at solely at managing cultural resources, as well as lakebed mapping work being conducted in Lake Michigan by the National Centers for Coastal Ocean Science.

REGIONAL / NATIONAL MARINE SANCTUARY FOUNDATION NEWS

Recapping the watershed grants partnership

<https://marinesanctuary.org/news/21-cclc-recap/>

NOAA Office of Education partnered with the U.S. Department of Education and the National Marine Sanctuary Foundation (the Foundation) in a new program to bring environmental STEM experiences to students and educators all across the country. The NOAA-21st CCLC Watershed STEM Education Partnership grants program was issued by the Foundation to enable NOAA partners to deliver STEM experiences to students at 21st Century Community Learning Center (21st CCLC) program sites in the spring and summer of 2017.

Cool off and conserve: Seven marine sanctuary destinations for your next vacation

<https://marinesanctuary.org/blog/cool-off-conserve-7-marine-sanctuary-destinations-next-vacation/>

Planning your next vacation is always a delight, especially when you can add in an ecological twist. This year, get ready to help the environment and enjoy the water when you visit one of the National Marine Sanctuary System's sanctuaries or monuments. Olympic Coast: Everyone loves a good Pacific Northwest adventure in the summer, when you can avoid all that rain. Okay, not all of it, but at least some! Enjoy camping, hiking, and birding along this traditional Native American waterway, or go clamming for your own dinner in the marshy Pacific sands. You can help support the protection efforts by buying seafood from the Native American fisherman who work in tandem with conservationists to safeguard this marine sanctuary.

OCNMS Online

Visit our website at: <http://olympiccoast.noaa.gov/>.

Follow us on Facebook and Twitter!

<https://www.facebook.com/usolympiccoastgov>

<https://twitter.com/olympiccoast>

Please take a few moments to peruse the site. Your feedback is greatly appreciated.

*Comments and suggestions can be sent to:
jacqueline.laverdure@noaa.gov.*

Ocean-Related Websites

National Oceanic and Atmospheric Administration

<http://www.noaa.gov/>

National Ocean Service

<http://oceanservice.noaa.gov/>

Office of National Marine Sanctuaries

<http://sanctuaries.noaa.gov/>

NOAA Marine Debris Program

<http://marinedebris.noaa.gov/>

NOAA Online Media Library

<http://sanctuaries.noaa.gov/photos>

Encyclopedia of National Marine Sanctuaries

<http://www8.nos.noaa.gov/onms/park/>

NOAA Ocean Explorer

<http://oceanexplorer.noaa.gov/>

National Data Buoy Center

<http://www.ndbc.noaa.gov/rmd.shtml>

Washington's Ocean Resources

<http://www.ecy.wa.gov/programs/sea/ocean/index.html>

CoastWatch – West Coast Regional Node

<http://coastwatch.pfel.noaa.gov/>

Northwest Association of Networked Ocean Observing Systems

<http://www.nanoos.org/>

NOAA Pacific Marine Environmental Laboratory

<http://www.pmel.noaa.gov/>

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Learn More about Your Sanctuary

The Sanctuary Office Report is produced bi-monthly by Olympic Coast National Marine Sanctuary in conjunction with sanctuary advisory council meetings. To learn more about the sanctuary, please visit our website at:

<http://olympiccoast.noaa.gov/>.

To learn more about the sanctuary advisory council, please visit:

http://olympiccoast.noaa.gov/involved/sac/sac_welcome.html.

Office of National Marine Sanctuaries (ONMS)

Olympic Coast National Marine Sanctuary is one of the marine protected areas in the National Marine Sanctuary System encompassing more than 600,000 square miles of marine and Great Lakes waters from Washington State to the Florida Keys and from Lake Huron to American Samoa. The system includes 13 national marine sanctuaries and Papahānaumokuākea and Rose Atoll marine national monuments. Visit the ONMS website at: <http://sanctuaries.noaa.gov/>.

Get Involved!

To learn how to get involved in the sanctuary visit: <http://olympiccoast.noaa.gov/involved/welcome.html>.

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