

ABOUT THE SANCTUARY

Olympic Coast National Marine Sanctuary spans 3,189 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 rich marine mammal and seabird faunas, 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 Makah, Quileute, and Hoh Indian Tribes, and Quinault Nation.

OFFICE REPORT

OLYMPIC COAST NATIONAL MARINE SANCTUARY NEWS AND PROGRAM UPDATES

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

TREATY TRUST RESPONSIBILITIES

Quinault Indian Nation to host Intergovernmental Policy Council meeting

An Olympic Coast Intergovernmental Policy Council meeting will be hosted by the Quinault Indian Nation on March 20, 2013. Agenda topics include a briefing on the OCNMS Superintendent's Report and FY13 Priorities, and update on sanctuary science and monitoring, update and discussion of the Ocean Acidification Working Group, and updates on EFH proposals.

ACHIEVE EFFECTIVE AND COORDINATED MANAGEMENT

Quillayute River Coast Guard Station receive National Marine Sanctuary Training

The Pacific Regional Fisheries Training Center (PRFTC) recently provided enforcement training to the crew at the USCG Quillayute Station. The training curriculum has recently been updated to include information on the National Marine Sanctuary Program. Deputy Superintendent George Galasso attended to observe the updated presentation on the Olympic Coast National Marine Sanctuary, and to provide additional information on the sanctuary. Recommendations were provided to improve the curriculum.

The USCG is an important partner for sanctuary resource protection efforts. Station Quillayute River is one of two USCG Stations adjacent to Olympic Coast National Marine Sanctuary. OCNMS works with the PRFTC and 13th Coast Guard District staff to brief Coast Guard personnel on the significance of the sanctuary.

13th Coast Guard District Commander signs MOA with Office of National Marine Sanctuaries

Thirteenth Coast Guard District Commander Rear Admiral Keith Taylor signed an updated Memorandum of Agreement with the Office of National Marine Sanctuaries. The purpose of the MOA is to coordinate the efforts of the OCNMS and the USCG to meet their common commitment to protecting and managing the Nation's coastal waters and marine resources within the OCNMS. Prior to the signing Superintendent Carol Bernthal briefed Admiral Taylor on ongoing priority issues in the sanctuary. OCNMS and the 13th CGD have a close working relationship at many different levels. The most recent MOA is the fourth revision to the original agreement that dates back to 1995.

Meetings discussing proposed unmanned aircraft systems (UAS) surveys in Olympic Coast National Marine Sanctuary

Staff from Olympic Coast National Marine Sanctuary, Office of National Marine Sanctuaries' UAS team, U.S. Fish and Wildlife's Washington Maritime National Wildlife Refuge Complex and NOAA's Marine Debris Program conducted a series of meetings with personnel from Olympic National Park, Makah Tribe, and Quinault Indian Nation during the week of February 11. Presentations highlighted how NOAA is conducting UAS surveys for various applications, but discussions primarily focused on a proposed June 2013 seabird colony survey using a Puma UAS, along with secondary missions for monitoring for other marine wildlife and for marine debris. Although the majority of the offshore island surveys will be conducted from the sanctuary's research boat R/V *Tatoosh*, several land-based sites were proposed and are being considered.

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

West Coast Region Develops Ocean Acidification Research and Monitoring Inventory

Staff from the west coast region developed an inventory of ocean acidification (OA) research and monitoring activities occurring in or near sanctuaries. This activity was recommended in the National Marine Sanctuaries of the West Coast Ocean Acidification Action Plan (http://sanctuaries.noaa.gov/about/pdfs/wc_onms_plan.pdf). The inventory captures project names, description, investigators, location, availability of data, intended products, and other relevant information. A total of 32 projects were identified ranging from coast wide monitoring projects to graduate student research projects. A summary of the inventory was modeled after a similar MBNMS product and will be shared with staff and research partners. The next step is to perform an analysis of the current projects to assess information needs or areas where sanctuaries can make a contribution to OA science.

Ocean acidification is recognized as a threat to ocean health. National Marine Sanctuaries are place-based management areas administered by NOAA and as such are ideal locations for research and monitoring on how ocean acidification may affect ecosystem health. Understanding the importance of sanctuaries in this role and how sanctuaries can optimize a contribution to this field is a key step in furthering our knowledge of this threat.

IMPROVE OCEAN LITERACY

Olympic Coast Installs Whale Trail signs at Olympic Coast Discovery Center and Snow Creek



Two Whale Trail signs sponsored by National Marine Sanctuaries were installed at Olympic Coast Discovery Center and Snow Creek scenic overview. There are a total of four signs that will be displayed at locations significant to Olympic Coast National Marine Sanctuary, including Olympic Coast Discovery Center, Snow Creek, and two at Olympic National Park visitor areas. The Whale Trail is a series of sites around the Northwest where the public may view marine mammals from shore. The Whale Trail mission is to inspire appreciation and stewardship of whales and our marine environment by establishing a network of viewing sites along the whale's trails through the coastal waters of the Pacific Northwest. The Whale Trail signs will attract visitors and give exposure to the sanctuary, and convey conservation messages about important marine resources. For more information regarding Whale Trail locations visit <http://thewhaletrail.org/>

Ocean Science Partners Celebrate Coastal America Partnership Award

NOAA Director of Education Louisa Koch and Northwest Fisheries Science Center staffer and Pacific Northwest Coastal America Partnership Chairman Rick Brown presented Olympic Coast National Marine Sanctuary and The Seattle Aquarium, along with their partners, Coastal America Partnership Awards for their contributions to the Ocean Science Program during a ceremony at The Seattle Aquarium. Ocean Science is an ongoing six-year project partnership between Seattle Aquarium and NOAA Olympic Coast National Marine Sanctuary to catalyze change in K-12 science education, integrating Ocean Literacy principles with inquiry-based classroom curriculum and experiential learning experiences at local beaches. The project focuses on marine ecosystems, ocean conservation, and near shore field investigations, as well as pedagogical models for teaching inquiry sciences. The program supports efforts to help students and their families better understand local ongoing marine research issues, as well as enabling them to make cultural connections with local indigenous communities. Ocean Science Program Partnership Award recipients also include North Pacific Coast Marine Resource Committee, Grays Harbor Marine Resource Committee, Feiro Marine Life Center, Neah Bay Elementary School, Clallam Bay Elementary School, Ocean Shores Elementary School, Pacific Beach Elementary School, Taholah Elementary School, Ocosta Elementary School, Simpson Elementary School, Forks Elementary School, Lake Quinalt Elementary School, Quileute Tribal School, Quinalt Indian Nation, Quinalt Division of Natural Resources, Makah Tribal Fisheries Department, and Makah Cultural and Research Center.

National Marine Sanctuaries of the West Coast Pilots Ocean Acidification Workshop at Olympic Coast

Olympic Coast National Marine Sanctuary, in partnership with The Seattle Aquarium, hosted Monitoring Ocean Change in the Classroom Professional Development Workshop. Fifteen K-12 teachers and five informal educators attended the workshop. The objective of the workshop was to provide teachers with content knowledge and deepen their understanding about ocean acidification using classroom and field investigations related to scientific concepts. Presenters included NOAA Northwest Fisheries Science Center Ecologist and Head of the Ocean Acidification Lab Paul McElhany, Suquamish Tribal Fisheries Biologist Paul Williams, University of Washington Applied Physics Lab Northwest Association of Networked Ocean Observing Systems (NANOOS) Education Specialist Amy Sprenger, Stanford University Hopkins Marine Station Marine Biologist Jason Hodin, Seattle Aquarium Marine Science Education Coordinator Karen Matsumoto and Olympic Coast National Marine Sanctuary Education Specialist Jacqueline Laverdure. The workshop, held at Olympic Natural Resources Center in Forks, was a pilot project for National Marine Sanctuaries of the West Coast Education team.

Fun at the Beachcomber’s Fun Fair

The 25th annual event in Ocean Shores, Washington, features exhibits, seminars, informational booths, and vendors; as well as children's activities Saturday morning and beach walks on Sunday morning. It was estimated that 3,000 people attended. Olympic Coast National Marine Sanctuary educated participants about citizen science with information and activities on the Coastal Observation And Seabird Survey Team (COASST) and the national effort on marine debris monitoring. Olympic Coast National Marine Sanctuary also gave a one hour presentation about both citizen science programs. Participating in local festivals builds relationship with the community as well as offers an opportunity to educate local and visiting participants about the Olympic Coast National Marine Sanctuary.

CONSERVE NATURAL RESOURCES IN THE SANCTUARY

The Coastal Observation and Seabird Survey Team (COASST) trains 34 new volunteers

Jane Dolliver of University of Washington COASST program partnered with Olympic Coast National Marine Sanctuary to train 34 new volunteers to survey beaches once a month. Surveys include information about seabird mortality, visitor use and condition of the beaches. Adding these new volunteers to our pool will give us 124 volunteers who are the eyes and ears for monitoring seabird population dynamics. Volunteers are also asked to report stranded marine mammals and collect marine debris data.

Citizen science helps to maintain public involvement and interest in our natural areas. In the COASST program it is often these volunteers who are the first to notice oil on a beach or bird, a stranded marine mammal, or a hazardous or large piece of marine debris.



Japanese Dock to Be Removed from Olympic Coast Marine Sanctuary, Olympic National Park

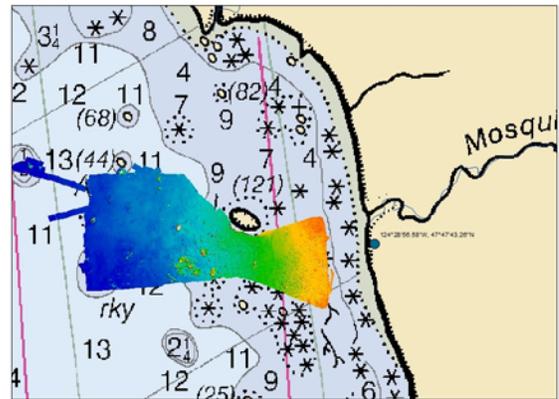
Work will begin this week to remove a dock that beached on a remote shore within the boundaries of both Olympic National Park and NOAA’s Olympic Coast National Marine Sanctuary in December 2012. Measuring 65 feet by 20 feet, the 185-ton dock was confirmed earlier this year as debris from the March 2011 tsunami in Japan. NOAA has contracted The Undersea Company of Port Townsend, Wash., to lead the removal, which is estimated to be completed by the end of March, depending on weather and tidal conditions. The Undersea Company will work with the sanctuary and national park, as well as local partners in Washington, to remove the dock by helicopter after dismantling it onsite. This was determined to be the safest and most efficient method for removal in light of concern that the dock is no longer seaworthy.

The removal will be paid for in part by NOAA’s Office of National Marine Sanctuaries and Olympic National Park, with the remaining cost covered by funds provided to NOAA by the government of Japan to help with cleanup of marine debris from the tsunami. The stranded dock represents a potentially hazardous disturbance to this sensitive area within the national marine sanctuary and national park.

The WA Department of Ecology website has background information, and regularly posts detailed updates showing the progression of events surrounding this marine debris incident. <http://marinedebris.wa.gov/incidents/ForksDock.html>

Olympic Coast National Marine Sanctuary Conducts Emergency Survey

In response to the December grounding of a dock from the 2011 Japanese Tsunami, sanctuary personnel mobilized to conduct an emergency survey of the area immediately offshore of the dock. Representatives from NOAA Marine Debris Program, Olympic Coast National Marine Sanctuary, Olympic National Park, United States Fish and Wildlife Service, and Washington state resource agencies have been coordinating on the response. The dock is beached at a remote location within designated wilderness of Olympic National Park and within Olympic Coast National Marine Sanctuary. The most recent survey of the area was conducted in 1930. Given the complex nature of rocks and reefs off this coastline, it was determined that better bathymetry would be needed to support salvage planning. The sanctuary research vessel *Tatoosh* is equipped with a multibeam system to support its habitat mapping program. Taking advantage of an unusual January weather window sanctuary staff mobilized within one day and conducted a multibeam survey. The Office of Coast Survey Pacific Hydrographic Branch collaborated by taking the data and creating products that were of assistance in evaluating salvage options.



Marine debris associated with the 2011 Japanese tsunami poses unique threats to sanctuary resources, including the potential for introducing non-native species into healthy habitats. This dock is located within a wilderness area, which is of concern to our Department of Interior colleagues. NOAA is working closely with state and federal agencies to address these threats. Included in these efforts are three separate NOS organizations, the Office of National Marine Sanctuaries, Office of Response and Restoration and the Office of Coast Survey.

UNDERSTANDING THE SANCTUARY'S CULTURAL, HISTORICAL AND SOCIOECONOMIC SIGNIFICANCE

Marine Science student examines how Western science and Traditional Ecological Knowledge can be combined as complementary knowledge systems

Phillipe Holmstrom, a Marine Studies student in the Environmental Studies Program at Prescott College in Arizona, travelled to Olympic Peninsula to conduct his Senior Project – the capstone of his undergraduate education. The objective of his Senior Project was to examine how Western science and Traditional Ecological Knowledge (TEK) can be combined as complementary knowledge systems with the intended consequence of a more holistic understanding of the marine environment and more effective resource management. He used the interactions of Olympic Coast National Marine Sanctuary (OCNMS) and the four Coastal Treaty Tribes as a platform to examine the interface between TEK and Western science. In order to achieve this objective, a number of activities were undertaken including: participation in forage fish surveys with the Quinault Indian Nation Fisheries division; interviews with Quinault, Hoh, and Quileute Tribal members about their knowledge concerning forage fish; interviews with OCNMS managers about tribal and sanctuary interactions; interviews with tribal biologists, Clallam County biologists, and other marine biologists; attendance of Marine Resource Committee meetings and a Sanctuary Advisory Council meeting, as well as a review of pertinent literature.

The OCNMS Management Plan calls for the sanctuary to work with the Coastal Treaty Tribes, non-tribal communities and other partners to explore ways to gather, share and apply (when appropriate) TEK, local and customary knowledge, and information obtained from cultural resource analyses.

SANCTUARY PERMITTING

Issued Permits and Approvals

OCNMS-2013-004 – Mr. John Nasset – The Undersea Company

Project Title: Removal and Disposal of Tsunami Dock Near Mosquito Creek

Permitted Activity: Low altitude overflight below altitude of 2,000' above ground level within the OCNMS overflight zone, excavation and redistribution of intertidal sediments in the area immediately adjacent to the dock location

Project Location: Aerial operations will be permitted within ¼ mile of the dock's location – including offshore areas

Permit Duration: Effective March 12, 2013 through April 12, 2013.

Pending Permit Requests

OCNMS-2013-002 – Ms. Catherine McLean – Consortium for Ocean Leadership , OSU

Project Title: Ocean Observatories Initiative (OOI)

Permitted Activity: Install and service a surface buoy and co-located vertical profiling mooring containing scientific instrumentation within the sanctuary. The mooring site will be continually occupied by this OOI infrastructure for 25-30 years, - we plan to apply for future OSNMS permits prior to the expiration of existing permits. Data from the buoy/mooring will be made available in near real-time to OCNMS personnel and any other interested parties through an OOI web site.

Project Location: nominally 47.133° N, 124.286° W, located 500 meters inside the OCNMS boundary

Permit Duration: A five-year period commencing in 2014 (at which time additional permits will be requested)

OCNMS-2013-003 – Ms. Laura Jurgens – UC Davvis Bodega Marine Lab

Project Title: Understanding how regional climate and foundation species interact to affect temperature extremes within biological habitats

Permitted Activity: gather temperature time series measurements in mussel beds, algal turfs and on adjacent bare rock surfaces over a five month period at each site using small temperature loggers affixed to substrate with non-toxic marine epoxy. To account for variation within treatments, four replicate loggers will be deployed in each microhabitat for a total of 20 loggers per site.

Project Location: TAYLOR POINT

47°51'58.0"

124°34'07.8"

POINT OF ARCHES

48°14'51.1"

124°42'05.6"

Permit Duration: June to October, 2013

LEARN ABOUT YOUR SANCTUARY / NATURAL HISTORY

New information about resources in the sanctuary is always emerging. This section of the office report is reserved for sharing brief descriptions of recent studies, observations, findings, reports, forecasts related to the sanctuary.

Marine Debris Pulse

Shores on the southern outer coast of Washington south of Ocean Shores received a pulse of marine debris on the upper beaches. Beachcombers reported a significantly higher than normal deposition of small pieces of foamed plastic, as well as light bulbs, fishing floats and beverage bottles. The bulk of these materials arrived in the first days of February, and by February 5 new debris deposits were light. North of Ocean Shores, most beaches had a normal level of debris loading, although high volumes of foamed plastic were reported for the Norwegian Memorial area. While observed pulses of marine debris deposits have been attributed to the 2011 Japanese earthquake and tsunami, and materials of Japanese origin are typically found among the debris, it is difficult to demonstrate this debris resulted from the tsunami.

Weird News: Gelatinous sea creatures wash up in Washington

The same gelatinous sea creatures that clogged the intake at California's Diablo Canyon nuclear power plant last spring have shown up this winter on the Washington coast, marine life experts say. The harmless jellyfish-like animals are called salps. They've been found by clam diggers and turned up in the pots of crab fishermen. Their appearance now is unusual, but not alarming. It is suspected that they came from the deep ocean, but "why" they've been washing remains a mystery. Salps are common in the blue water off Oregon and Washington, said Rick Brodeur, an oceanographer known as the "jellyfish person" at the NOAA's Northwest Science Center in Newport, Ore. Their appearance on the Washington coast could mean their numbers are increasing for some reason or a current has brought them onshore..."It doesn't mean it's a long-term change."

A salp is a pelagic tunicate. That means it lives in the open ocean and has a tube-like body that pumps water for locomotion and to filter the plankton on which it feeds. Despite its translucent appearance it's not closely related to jellyfish. Salps can swim singly or in rope-like colonies. They have the ability to reproduce rapidly and can bloom when the plankton supply is rich.

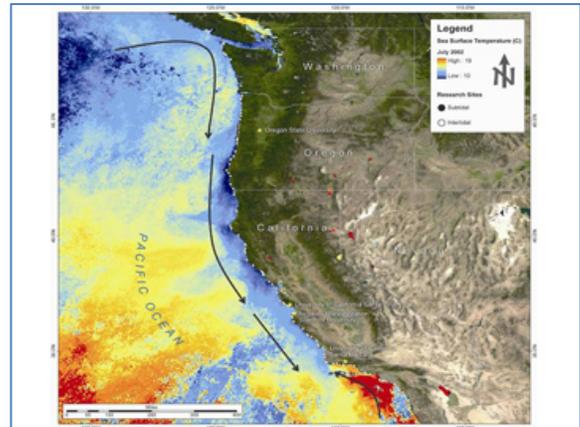


Summary of 2012 Climatic and Ecological Conditions in the California Current LME (CCLME)

The Summary of 2012 Climatic and Ecological Conditions in the California Current LME was released by PaCOOS (Pacific Coast Ocean Observing System, <http://pacoos.org>) on March 1, 2013. The California Current moves southward from British Columbia to Baja California, bringing cold water and highly-productive sediment to support whales, seabirds, and important fisheries. The 2012 report summarized the CCLME conditions by climate, ecosystem and fisheries management, with additional comments on auklets as shearwaters as indicators of ecosystem change off southern California. Below are a few summaries from the document:

Climate Conditions:

- El Nino Southern Oscillation (ENSO)
 - ENSO- neutral / weak El Nino conditions through second half of 2012
- The Oceanic Nino Index (ONI)
 - Negative to neutral throughout 2012
- Pacific Decadal Oscillation (PDO)
 - Variable to strongly negative by end of 2012
- Upwelling Index (UI)
 - No anomalies within Sanctuary 46°N to 49°N
- Water temperature and Salinity at Newport Hydrographic Line, Oregon



Ecosystem Conditions:

- Oregon Copepods
 - Highest biomass of northern copepod species in 17 years
- Central-Northern California Juvenile Rockfish
 - Favorable for species/assemblages that do better with cool, high transport conditions
- Coastwide Coastal Pelagics – Off West Coast of Vancouver Island
 - Pacific Sardine showed declining trend for 2012
 - Spring Chinook salmon were second highest in 15 years
 - Coho salmon catch ranked 10th in 15 years

Pacific Coast Fisheries Management

- Highly Migratory Species (tunas, sharks, billfishes)
 - PFMC recommends continued bilateral negotiations with Canada
- Coastal Pelagics – Pacific Sardine
 - PFMC adopted a coastwide harvest guideline for the 2012 fishery with a tribal set-aside. (See report)

COASST Volunteer Finds Bear Tracks on the Beach

On January 20th COASST Volunteer Dave Easton spotted some interesting tracks on the beach near Duk Point.



Dead Sea Otter Found on Ediz Hook

On March 5, 2013, OCNMS staff responded to a report of a dead sea otter found on Ediz Hook in Port Angeles Harbor, Washington. The animal was an adult male sea otter that had recently died, with no overt signs of trauma or obvious cause of mortality. The animal weighed over 100 pounds and was shipped to the USGS National Wildlife Health Center in Madison, WI, where a necropsy will be conducted. Observation of a sea otter as far east as Port Angeles Harbor is relatively rare, as the main sea otter population is found off the outer Washington coast in the Olympic Coast National Marine Sanctuary. Delivery of freshly dead specimens for necropsy is particularly valuable to provide population metrics, determine the cause of death, and search for pathogen exposures and infections that have impacted sea otters in other areas on the West Coast.

REGIONAL / NATIONAL ONMS NEWS

Alliance for Community Media Announces Partnership with *Your Sanctuary TV*

The Alliance for Community Media (ACM) announced *Your Sanctuary*, a public access television show that connects people with their national marine sanctuaries, as the official Title Sponsor of the 2013 ACM Annual Conference. “The Alliance for Community Media is pleased to welcome *Your Sanctuary*, a partner who shares ACM’s vision of promoting civic engagement and community change through local media,” said Sylvia Strobel, Esq., ACM Executive Director. “*Your Sanctuary* will offer attendees exciting opportunities to explore the local area and learn about their programming by hosting several off-site events, including an evening event and a number of daytime trips to Marine Sanctuary related facilities.”

<http://news.yahoo.com/alliance-community-media-announces-partnership-sanctuary-tv-190030854.html:ylt=A2KJ3CfAnwVR6WIAv3QtDMD>

Federal (Canadian) Government Promise to Protect Marine Areas is Way Behind Target

Federal promises to create a network of marine protected areas are progressing at a snail’s pace, and there are fears that federal cutbacks will slow the process even further, says a report by the Canadian Parks and Wilderness Society. Canada made a commitment in 2010 to protect at least 10 per cent of coastal and marine areas by 2020, but, with only one per cent protected so far, there is a long way to go, said Sabine Jessen, the conservation group’s national oceans manager.

<http://www.timescolonist.com/news/local/federal-government-promise-to-protect-marine-areas-is-way-behind-target-1.55189>

Proposed expansion of two California National Marine Sanctuaries

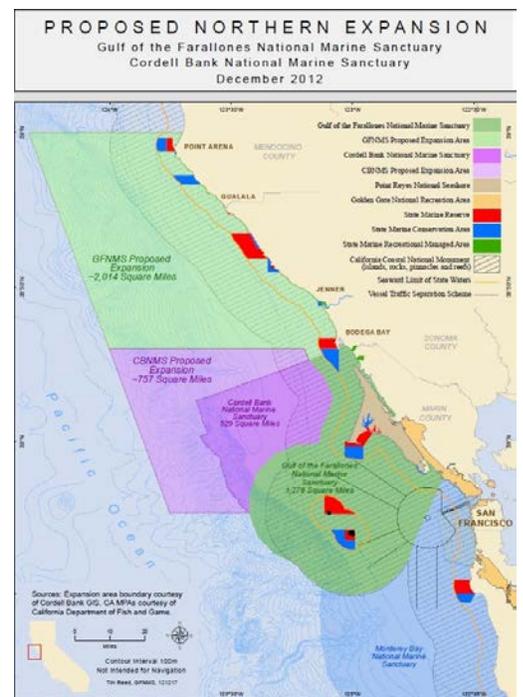
The National Oceanic and Atmospheric Administration began a process to evaluate additional protection for 2,093 square nautical miles of ocean habitat off the coast of Sonoma and Mendocino counties, representing the largest potential expansion of California marine sanctuaries in 20 years. The proposed expansion starts with an 18-month process to increase the Gulf of the Farallones and Cordell Bank National Marine Sanctuaries from 1,350 nautical square miles to a total of 3,200 square nautical miles, from the Golden Gate Bridge to Point Arena. The proposal would more than double the size of these national marine sanctuaries and would permanently protect the entire Sonoma County coast and part of the Mendocino County coastline from offshore oil and gas drilling, seabed mining and ocean dumping. Recent new articles on this topic include:

New Marine Sanctuary Success Depends on You

http://www.huffingtonpost.com/don-mcenhill/new-marine-sanctuary-succ_b_2823532.html

GUEST OPINION: Speaking out in defense of our coast

<http://www.pressdemocrat.com/article/20130212/OPINION/130219880/1036/business?Title=GUEST-OPINION-Speaking-out-in-defense-of-our-coast>



NEWS COVERAGE

Tsunami debris meeting set for ONRC

The Olympic Natural Resources Center is inviting the community to an evening of discussion and information about the debris washing up on our coastal beaches resulting from the March 2011 tsunami in Japan. The meeting is set for Tuesday, March 19, at 6:30 p.m. at the ONRC.

http://www.forksforum.com/news/article.exm/2013-03-01_tsunami_debris_meeting_set_for_onrc

U.S. Beached Tsunami Dock to be Salvaged

Swept away during the Japan tsunami of March 11, 2011, the steel, concrete, & foam dock beached at Olympic National Park, Wash. is to be removed at last. <http://www.marinelink.com/news/salvaged-beached-tsunami352455.aspx>

Tsunami Dock on Washington Coast to be Removed

Officials will begin work to remove a dock that beached on a remote shore within the boundaries of both Olympic National Park and NOAA's Olympic Coast National Marine Sanctuary in December of 2012. NOAA has contracted The Undersea Company of Port Townsend, Wash., to lead the removal. <http://kbkw.com/modules/news/article.php?storyid=5198>

U.S. to Use Japan Funds to Scrap Tsunami Dock

The U.S. National Oceanic and Atmospheric Administration has said it will use funds from the Japanese government to remove a dock that came to the Washington coast from Japan after being swept out to sea by the March 2011 tsunami. Japanese funds will cover \$478,000 dollars, or nearly 80 percent of the cost of removal, which is expected to be at least \$628,000 dollars, the administration said. <http://www.yomiuri.co.jp/dy/national/T130303003455.htm>

Rafting Across the Pacific: Invasive Species Coming to North America with Debris from the Japan Tsunami

The earthquake and tsunami that devastated Japan in March of 2011 loosened many millions of tons of material from the land and cast them into the sea. While most quickly sank, the rest are riding the Kuroshio Current across the Pacific Ocean and, potentially, invasive species have come along for the ride.

<http://www.decodedscience.com/invasive-species-japan-tsunami-debris/24737>

Cantwell Announces NOAA Classified Tsunami Debris as 'Severe' Event, Requires Federal Cleanup Plan

U.S. Senator Maria Cantwell (D-WA) announced that the National Oceanic and Atmospheric Administration (NOAA) has designated the debris from the Japanese tsunami a "severe marine debris event," which requires the agency to develop a federal tsunami debris cleanup plan. <http://politicalnews.me/?id=21377&keys=TSUNAMI-DEBRIS-SEVERE-CLEANUP>

More possible tsunami debris reaches Washington coast

A large cylinder that washed ashore on the Washington coast near the mouth of the Columbia River may be debris from the 2011 Japan tsunami, but an official determination is unlikely because there are no markings.

<http://www.nwc.com/news/washington/189076271.html>

Tall Ships to Escort During Paddle to Quinault 2013

The Grays Harbor Historical Seaport Authority, working in cooperation with the Olympic Coast National Marine Sanctuary and the Quinault Indian Nation, announced the participation of the tall ships Lady Washington and Hawaiian Chieftain in the "Paddle to Quinault 2013" event scheduled on July 27 to August 1, 2013.

<http://kbkw.com/modules/news/article.php?storyid=5193>

Tall Ships Will Take part in Tribal Canoe Journey

The tall ships Lady Washington and Hawaiian Chieftain will take part in the "Paddle to Quinault 2013" event scheduled for July 27 to Aug. 1, said the Grays Harbor Historical Seaport Authority. The vessels were invited by the Quinault Nation to escort up to 100 ocean-going canoes from First Nations communities in Washington and British Columbia as they travel along the open coast of the Olympic Coast National Marine Sanctuary from Neah Bay to Taholah.

<http://thedailyworld.com/sections/news/local/tall-ships-will-take-part-tribal-canoe-journey.html>

Watch for Whales From Atop Bluff at Cape Disappointment State Park

Gray whales migrate past Washington's coastline every winter, making this an ideal time for land-based whale-watching opportunities. <http://www.thenewstribune.com/2013/03/10/2507346/watch-for-whales-from-atop-bluff.html>

WEB SITE (<http://olympiccoast.noaa.gov/>)

Follow the OCNMS on Facebook!

<http://www.facebook.com/#!/usolympiccoastgov>

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.

FUN, OCEAN-RELATED WEB SITES

National Oceanic & Atmospheric Administration

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

National Ocean Service

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

Office of National Marine Sanctuaries

<http://www.sanctuaries.nos.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/>

OLYMPIC COAST NATIONAL MARINE SANCTUARY

Learn More About Your Sanctuary

The Sanctuary Office Report is produced bi-monthly by the Olympic Coast National Marine Sanctuary in conjunction with Sanctuary Advisory Council meetings. To learn more about the Sanctuary please visit our web site at: <http://www.olympiccoast.noaa.gov>.

To learn more about the Sanctuary Advisory Council please visit:
http://olympiccoast.noaa.gov/involved/sac/sac_welcome.html

The Office of National Marine Sanctuaries

The Olympic Coast National Marine Sanctuary is one of 14 marine protected areas in the National Marine Sanctuary System encompassing more than 150,000 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 the Papahānaumokuākea Marine National Monument. Visit the ONMS web site at: <http://www.sanctuaries.nos.noaa.gov/>

Get involved!

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

OCNMS Staff

Carol Bernthal – Superintendent

George Galasso – Deputy Superintendent for Policy & Programs

Kevin Grant - Deputy Superintendent for Operations & Admin.

Liam Antrim – Resource Protection Specialist

Ed Bowlby – Research Coordinator

Jennifer Bright – Research Technician

Eric Evans – IT Consultant

Rick Fletcher– *R/V Tatoosh* Captain, Research Program Support

Carey Floyd – Graphic and Web Designer

Norma Klein – Office Administrator

Jacqueline Laverdure– Education Specialist

Heidi Pedersen – Citizen Science Coordinator

Robert Rountree – Visitor Services Specialist

Robert Steelquist – Education and Outreach Coordinator

Nancy Wright – Geographer

Contact Information

Olympic Coast National Marine Sanctuary

115 East Railroad Ave., Suite 301
Port Angeles, WA 98362
Phone (360) 457-6622
Fax (360) 457-8496

