A REPORT FOR SANCTUARY ADVISORY COUNCIL MEMBERS

REPORTING PERIOD: NOV 16, 2012 - JAN 18, 2013

## **OFFICE REPORT**

#### 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.

## 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

#### Intergovernmental Policy Council MOA Renewed

A Memorandum of Agreement (MOA) was finalized among NOAA's Office of National Marine Sanctuaries, through the Olympic Coast National Marine Sanctuary, and the Hoh Tribe, the Makah Tribe, the Quileute Tribe, the Quinault Indian Nation, and the State of Washington. The purpose of this MOA is to provide for the support of the Olympic Coast Intergovernmental Policy Council, which provides an effective and efficient forum for communication and exchange of information and policy recommendations regarding the management of the marine resources and activities within the boundaries of the OCNMS. This Agreement renews the previous five year agreement, and will expire on September 30, 2017.

#### **NOAA Developing Tribal Consultation Handbook**

Superintendent Carol Bernthal participated in a conference call to discuss the development of a NOAA-wide tribal consultation policy. The group discussed challenges and opportunities and provided input on the proposed policy for consideration. Tribal consultation is required for all major NOAA policy actions that may affect the treaty protected rights of federally recognized Native American Tribes. NOAA is required to develop agency specific protocols and annually report on consultations to OMB.

## ACHIEVE EFFECTIVE AND COORDINATED MANAGEMENT

#### MPA process in British Columbia, Canada

Olympic Coast National Marine Sanctuary Research Coordinator Ed Bowlby was an invited participant on an expert panel reviewing a report on the 'Vancouver Island Shelf - Preliminary Representative Marine Areas: Analysis of Conservation Values and Naturalness Preliminary Results' in Victoria, Canada. The panel reviewed and critiqued products from Marxan analyses based on the assembled expert knowledge. Some of the hotspot areas for biodiversity and naturalness are in the transboundary area bordering Olympic Coast National Marine Sanctuary, sometimes referred to as the 'Big Eddy' (http://cpawsbc.org/campaigns/big-eddy).

OCNMS has been a co-sponsor with Canadian Parks and Wilderness Society, Parks Canada and Fisheries and Oceans Canada on two conferences highlighting the transboundary area of the western Juan de Fuca Ecosystem, sometimes referred to as the 'Big Eddy'. OCNMS has also contributed scientific information in this area while conducting NOAA ship surveys for marine mammals, seabirds and oceanographic monitoring with permission from the Canadian government.

## Olympic Coast National Marine Sanctuary and US Navy Northwest Region Hold Annual Meeting

Olympic Coast National Marine Sanctuary staff met with representatives from US Navy Northwest Region on December 13, 2012 to discuss Navy and sanctuary activities that took place off the coast of Washington and to identify areas of potential collaboration for 2013. Sanctuary staff provided a briefing on 2012 research activities of interest to US Navy, and US Navy representatives discussed annual activities associated with the Quinault Test Range and Northwest Training Range. US Navy also gave an update on the schedule for the Northwest Training and Testing (NWTT) Environmental Impact Statement (EIS). The NWTT EIS covers activities within the sanctuary and adjacent areas.

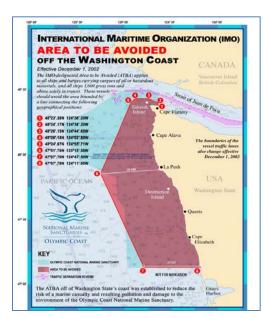
#### Sanctuary Information Included in USCG Training Materials

In addition to NOAA Office of Law Enforcement, the United States Coast Guard has the responsibility to enforce regulations promulgated under the authority of the National Marine Sanctuaries Act. The 13th Coast Guard District has a Memorandum of Agreement with OCNMS and participates in the OCNMS Enforcement Technical Advisory Committee. The USCG Pacific Regional Fisheries Center is incorporating information on West Coast Region National Marine Sanctuaries in their Living Marine Resources Boarding Officers Course. Deputy Superintendent George Galasso reviewed and provided comments on sections of the lesson plan that address Olympic Coast National Marine Sanctuary regulations.

#### **Changes to Voluntary Vessel Routing Measure take Effect**

On December 1, 2012 changes to the International Maritime Organization (IMO) Area to be Avoided (ATBA) went into effect. The ATBA off Washington was originally adopted in 1994 to reduce the risk of a marine casualty and resulting pollution to Olympic Coast National Marine Sanctuary. The revised ATBA furthers this goal by expanding coverage to include all vessels that are required to prepare oil spill response plans, such as vessels of 400 gross tons or more. Commercial vessels carry large amounts of fuel, which, if spilled, could be extremely harmful to the sanctuary's sensitive marine resources. For additional information on the ATBA, <a href="http://olympiccoast.noaa.gov/protect/incidentresponse/atba.html">http://olympiccoast.noaa.gov/protect/incidentresponse/atba.html</a>.

Section 704 of the Coast Guard Authorization Act of 2010 (Pub. L. 111-281, October 15, 2010) directed the U.S. Coast Guard and the National Oceanic and Atmospheric Administration (NOAA) to revise the ATBA off the coast of Washington so that its provisions would apply to all vessels required to prepare a response plan pursuant to section 311(j) of the Federal Water Pollution Control Act (33 U.S.C. 1321(j)) other than fishing or research vessels while engaged in fishing or research within the ATBA. The ATBA is a very successful management tool that helps mitigate the potential of a large



oil spill due to drift groundings in the sanctuary. OCNMS works with both the U.S. and Canadian Coast Guards on an ATBA monitoring and outreach program that has resulted in an estimated voluntary compliance rate of 99%.

#### Port Angeles Marine Campus Facility Planning Wraps Up

Representatives from the City of Port Angeles, Feiro Marine Life Center, and Olympic Coast National Marine Sanctuary met for the final facility planning workshop with consultants Miller Hull. A final report outlining recommendations is under production and each organization will be briefing their leadership to determine next steps over the coming months.

#### Volunteers Provide 17,614 Hours of Service to Olympic Coast National Marine Sanctuary

Volunteers completed 17,614 hours of service for Olympic Coast National Marine Sanctuary (OCNMS) Education amd Outreach, Resource Protection and Research programs during 2012. Volunteers regularly monitor beaches, participate in beach cleanups, provide information to the public at Olympic Coast Discovery Center and community outreach events, assist with research operations in the field, and provide administrative support. The estimated dollar value of 2012 OCNMS volunteer activity is \$380,815. Thank you sanctuary volunteers!

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

#### **Washington State Unveils Ocean Acidification Recommendations**

On November 27<sup>th</sup>, the Washington State Blue Ribbon Panel on Ocean Acidification presented their recommendations for Washington State. The first of its kind in the nation, the formation of the Blue Ribbon Panel and the resulting executive order from the Governor provide leadership and a guide for Washington State to protect our marine resources and the jobs of people who work in related industries. Governor Christine Gregoire announced she will allocate \$3.3 million towards the panel's implementations, including the establishment of an Ocean Acidification Center at the University of Washington. The report offers many areas of potential collaboration with Olympic Coast National Marine Sanctuary on ocean acidification research, monitoring and education. Ocean acidification has been identified as priority topic by Olympic Coast National Marine Sanctuary and the West Coast Region.

## IMPROVE OCEAN LITERACY

## Neah Bay High School Students Learn about Techniques in Seafloor Mapping

Marine Geographer Nancy Wright presented a class on Geographic Information System (GIS) Applications in Olympic Coast National Marine Sanctuary (OCNMS) to a high school class in Neah Bay. Students in the class were studying geography and map making. The OCNMS presentation included an explanation of basic marine mapping techniques and specific steps for mapping the seafloor. The class discussion focused on the importance of understanding marine habitats in order to predict the presence and abundance of fish and harvestable populations. OCNMS hopes to encourage student participation in science, technology, engineering and math through collaborative projects.

#### 500+ Students Participate in North Olympic Watershed Fall Programming

The North Olympic Watershed Program, a joint partnership between Feiro Marine Life Center, Olympic National Park, and Olympic Coast National Marine Sanctuary, finished another successful fall season serving more than 500 fourth grade students from six school districts. Students observe, touch and learn about live, local, marine life as well as collect and observe plankton with staff from Feiro Marine Life Center. The fourth grade students learned how to pack a waste-free lunch from marine sanctuary staff. In the spring, fifth grade students participated in a watershed walk and learned about what makes a healthy watershed from Olympic National Park and Feiro Marine Life Center staff and then learned more from marine sanctuary staff about watersheds, ocean currents, and marine debris by dissecting albatross boluses. All the students discussed how we can decrease marine debris and toured the Sanctuary's Olympic Coast Discovery Center where the beauty of natural history, maritime heritage and technology combine to educate and inspire students and visitors about a variety of ocean topics.

Educating our youth about the beauty and importance of marine life, marine sanctuaries, healthy watersheds, and the devastating effects of marine debris is essential to the understanding that our actions can foster or hinder the marine environment. Partnerships with local organizations increases the number of stakeholders served.

## CONSERVE NATURAL RESOURCES IN THE SANCTUARY

#### Japan Tsunami Debris Drill in Washington State

During the week of November 26, 2012, Liam Antrim, Resource Protection Specialist, joined about 30 state and federal agency and tribal representatives at Operation Rocky Shore Tabletop Exercise hosted by Washington Emergency Management Division, appointed by Governor Gregoire to lead Japan tsunami debris response activities in Washington State. The drill was an exercise of the state's newly published Marine Debris Response Plan developed to coordinate a "whole of government" approach to tsunami debris in coastal waters and on shores. Participants focused on the northern outer coast of Washington and discussed three scenarios including response to a large floating object offshore and a large item grounded onshore, each with potential to host hazardous materials or invasive species, and large volumes of small debris on remote shorelines of the outer Washington coast. Discussions from the exercise helped clarify agency and property owner jurisdictions and response priorities, and will be used to refine the state's response plan. This drill was an important effort to train for the anticipated need for a rapid and coordinated response to minimize potential impacts of hazardous materials, biofouled debris objects, or a heavy pulse of tsunami debris deposited on these remote shorelines. With the potential for increased volumes of marine debris resulting from the Japan tsunami, advance planning and coordination is essential for an effective, collaborative, and a rapid response to debris on the shore.

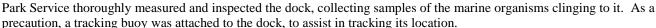
#### Federal Annex to Washington State Marine Debris Response Plan

Liam Antrim and Carol Bernthal worked with the NOAA Marine Debris Program and management at Olympic National Park and Washington Islands National Wildlife Refuges to finalize a federal annex to the Washington State Marine Debris Response Plan. This federal annex outlines procedures for consultation, response strategy development, approvals and oversight for response actions on waters and lands with federal jurisdiction. The federal annex was submitted and incorporated into the state's response plan. Washington Emergency Management Division has the state lead for Japan tsunami debris response, but federal jurisdictions and ownership, and rich wildlife resources and wilderness designation create a unique landscape for response to potentially hazardous or biofouled marine debris. This document supports clear communication and coordination of response efforts between state and federal authorities.

#### **Dock Washes Ashore Near Forks**

On Friday, December 14, 2012, fishermen reported the sighting of a detached dock drifting off the Washington coast, approximately 16 nautical miles northwest of the Grey's Harbor entrance. The large ocean-drifting dock was found Dec. 18, after an extensive helicopter search by the U.S. Coast Guard. It had washed ashore in an extremely rugged and remote section of wilderness-designated coast in the Olympic National Park and Olympic Coast National Marine Sanctuary. After consultation with the Japanese government, the dock was confirmed as having been washed to sea from the Aomori Prefecture during the March 11, 2011 tsunami.

Working quickly during December's last daytime low tides, a team from Washington State Department of Fish and Wildlife and National







A number of subsequent expeditions have been made to the dock. Preliminary test results on plant and animal specimens taken from surfaces on the dock show no radioactive contamination from Fukushima. Initial lab results have identified 30-50 plant and animal species on the dock that are not found in the United States but are native to Japan. These include types of marine species such as algae, seaweed, mussels and barnacles. The team removed any potentially invasive species on the dock by scraping more than 400 pounds of encrusted organic material from the structure and removing all the remaining plastic bumpers on the dock. The team also washed the bumpers and the entire outer dock structure with a diluted bleach solution to further decontaminate it. This method, approved by the National Park Service and Olympic Coast National Marine Sanctuary, is considered to be environmentally safe. The organic marine material was placed in an upland area outside the surf zone and the cleaned bumpers were safely secured in a hold inside the dock.

Although the dock has stayed in the same general location since its arrival on the beach, there is still a potential it could be remobilized. As changing tides and waves continue to shift and move the dock, the dock will continue to batter the coastline, creating a hazard for visitors and wildlife and damaging both the coastal environment

and the dock. The dock weighs about 185 tons and is 65 feet long, 20 feet wide and 7.5 feet tall. Most of the dock's volume is foam-type material, which is encased in steel reinforced concrete. The concrete has already been damaged, exposing rebar and releasing foam into the ocean and onto the beach where it can potentially be ingested by fish, birds and marine mammals. Leaving the dock in place could result in the release of over 200 cubic yards of foam into federally protected waters and wilderness coast. For these reasons, the Olympic Coast National Marine Sanctuary, Olympic National Park, Washington Islands National Wildlife Refuge Complex and state agencies agreed that the removal of the dock from this remote part of Washington's pristine coastline is important to the resource protection goals as the intertidal area of the Olympic Coast is home to the most diverse ecosystem of marine invertebrates and seaweeds on the west coast of North America.

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

#### Olympic Coast National Marine Sanctuary Conducts Offshore Surveys to Support Dock Salvage

Olympic Coast National Marine Sanctuary staff researched the most recent bathymetric data available for the area immediately offshore of the dock currently beached within designated wilderness of Olympic National Park and Olympic Coast National Marine Sanctuary. The most recent survey of the area was conducted in 1930. In many areas of Washington's outer coast existing charts are inadequate for nearshore navigation and make operations very challenging. Given the complex nature of rocks and reefs off this coastline, it has been determined better bathymetry would be needed to support a tug and tow salvage operation. Sanctuary staff are currently conducting surveys of the area, capitalizing on rare calm conditions off the coast.

#### Washington CoastSavers Plan for Expanded Efforts to Reduce Marine Debris

Olympic Coast National Marine Sanctuary Resource Protection and Education staff organized and hosted the annual meeting of Washington CoastSavers, an alliance of partners coordinating shoreline debris cleanups. Past CoastSavers April cleanups

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have engaged over a thousand volunteers each year on the outer Washington coast. This annual meeting focused on strategic planning to refine organizational structure, increase the capacity of CoastSavers to coordinate more frequent volunteer-powered cleanups, and to expand into the Strait of Juan de Fuca where smaller cleanup efforts can be better coordinated and integrated into CoastSavers efforts. OCNMS has a significant role in CoastSavers Program with beach cleanup planning and implementation, as well as education and outreach on impacts of marine debris. Regional interest and concern has been heightened by anticipated arrival of increased levels of debris originating from the March 2011 tsunami in Japan.

#### US Coast Guard rescues Fishing Vessel Jayden Ray

The Coast Guard towed a 40-foot fishing vessel and its crew to safety after it ran aground approximately three miles north of the Quillayute River mouth near La Push, Washington and inside the Olympic Coast National Marine Sanctuary. The Coast Guard received a mayday call from the four-member crew of the F/V *Jayden Ray* at 2:20 a.m., after their fishing vessel washed up on rocks and was unable to deploy its anchor. An MH-65 Dolphin helicopter crew from Air Station Port Angeles, Washington, and a 47-foot motor lifeboat crew from Station Quillayute River, located in La Push, deployed to the scene. The motor lifeboat crew was able to navigate through the rocks and throw over a towline at approximately 3:30 a.m., after receiving aid from a spotlight shined from the helicopter. The motor lifeboat crew took the fishing vessel and its crewmembers in tow and transferred them back to La Push where a post search-and-rescue boarding was conducted. The cause of the accident is under investigation.

The waters of Olympic Coast National Marine Sanctuary are hazardous and unfortunately cases like this are fairly common. In 2012, six small vessels were reported sunk in or immediately adjacent to OCNMS, this included loss of one fisherman. OCNMS depends on the efforts of the USCG to mitigate the maritime and environmental damages that can occur from such incidents.

#### SANCTUARY PERMITTING

**Pending Permit Requests** 

Renewal of expired NMFS Permit (MULTI-2007-001)

- Ms. Harriet Huber, NOAA-NMFS
- Pat Gearin, NOAA-NMFS National Marine Mammal Laboratory
- Steve Jeffries, WA Department of Wildlife

Project Title: Distribution and Abundance of Pinnipeds and Sea Otters in Washington State.

**Project Location:** Throughout OCNMS

**Project Duration:** 1, January 2013 – 31 December 2018

#### LEARN ABOUT YOUR SANCTUARY

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.

#### Coastal Observation And Seabird Survey Team (COASST)

Reports from COASST citizen science volunteers indicate normal findings for seabird mortality this time of year. However, a few terrestrial bird finds are noteworthy. Three dead snowy owls were reported in November surveys on outer coast beaches. This data is congruent with other findings and sightings of snowy owls which are being observed in our region this winter. Every three to four years snowy owls migrate further south of their normal range presumably due to changes in the vole prey population.

At the end of December, a COASST volunteer reported observing an oiled seabird on Shi Shi beach in the northern part of the Olympic National Park coast strip. Oiled seabirds and tarballs can be early indications of unreported oil spills. The incidence of "orphan spills", or spills not officially reported or documented, has reduced significantly since the sanctuary was first designated in 1994. No other indications of oiling were observed this winter. Agency partners have been notified and asked to report additional sightings.

COASST continues to attract new volunteers, with 30 new volunteers trained this winter.

## **Sperm Whale Reported**

A dead sperm whale was observed on the beach four miles south of Lake Ozette Trail on December 8, 2012. Adrianne Akmajian from Makah Tribe confirmed the stranding and completed a 'Marine Mammal Stranding Level A' data report.

## REGIONAL / NATIONAL ONMS NEWS

#### 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.

During NOAA's evaluation process, beach-goers, boaters, fishermen, whale-watchers, local businesses, chambers of commerce and state and local government officials will express their opinions about the best ways for the expansion to succeed. Three scoping meetings are planned in California for the public to learn more about the proposal and submit comments.

http://www.latimes.com/news/local/la-me-marine-sanctuaries-20121221,0,6280087.story

http://www.msnbc.msn.com/id/50269329/ns/business/#.UO73PoM8B8E

http://newswatch.nationalgeographic.com/2012/12/21/two-good-ocean-days-for-california/

## **Effective Practices for Communicating Ocean Acidification Workshop**

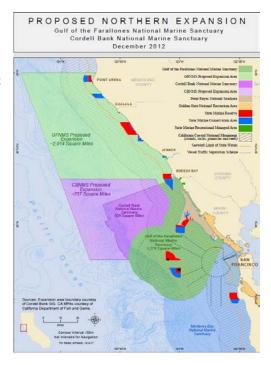
Ocean Acidification is an emerging issue that could have far reaching impacts on the health of our national marine sanctuaries and long-term sustainability of ecosystems that support human populations. It is critical that educators have access to the latest science information on this topic, and can effectively communicate to diverse audiences the science of ocean acidification, potential impacts, and positive actions in our communities.

On December 17th, 2012, a summary report for the *Effective Practices for Communicating Ocean Acidification* (OA) was completed. The 56-page report was developed by the West Coast National Marine Sanctuary education team with input from a workshop steering committee including representatives from science centers, aquariums, NGOs and NOAA (Ocean Acidification Program, Coral Reef Conservation Program, and Education Program). The report includes an executive summary, which identifies key case studies, messages, literature, target audiences, communication strategies and next steps that were discussed at the workshop. Additionally, it includes notes from panel sessions and breakout sessions, a description of the education share-a-thon, and summary information from a pre- and post participant needs assessment survey and evaluation. It also includes a participant list and the agenda for the two-day workshop that was held in Monterey, California immediately following the International Ocean in a High CO2 World Symposium at the end of September 2012.

The report provides a list of self-selected working groups who will continue to refine messages and case studies targeting specific audiences. The workshop and report can serve as a model for other regions, and will inform the development of a NOAA-wide ocean acidification education action plan. The report will soon be posted in the Education and Outreach section of the NOAAOcean Acidification Program web site at <a href="http://www.oceanacidification.noaa.gov/">http://www.oceanacidification.noaa.gov/</a>.

#### Regulatory Review of National Marine Sanctuaries Regulations

A proposed rule will soon be released for public comment. This proposed rule will streamline the National Marine Sanctuary regulations, eliminating inconsistencies and redundancies and making the regulations more understandable to the public. This rulemaking contributes to NOAA's compliance with Executive Order 13563, "Improving Regulation and Regulatory Review" (issued on January 18, 2011), which directed all agencies to, among other things, conduct retrospective analysis of existing significant regulations and modify, repeal, or streamline (as deemed appropriate) any regulations that may be outmoded, ineffective, insufficient or excessively burdensome. The proposed regulatory changes do not alter individual sanctuary regulations in a way that would either substantively change existing uses of the sanctuary or prohibit currently allowed activities within the sanctuary.



## **NEWS COVERAGE**

#### Volunteers not enough for tsunami debris onslaught

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#### Washington is first state to tackle ocean acidification

http://articles.latimes.com/2012/nov/27/news/la-gs--washington-state-tackles-ocean-acidification-20121127

#### Our Ocean Backyard: National marine sanctuary system marks 40 years

http://www.santacruzsentinel.com/localnews/ci\_22147710/dan-haifley-our-ocean-backyard-national-marine-sanctuary

#### Reporting Tsunami Debris by Smartphone as it Drifts Toward California

http://blogs.kqed.org/newsfix/2012/12/10/reporting-tsunami-debris-by-smartphone-as-it-drifts-toward-california/

#### Federal scientists map man-made ocean noise

http://www.staradvertiser.com/news/20121211 Federal scientists map manmade ocean noise.html

Tanker Concerns Prompt Review: Canadian oil export plans for B.C. to be scrutinized by U.S. Coast Guard <a href="http://thechronicleherald.ca/canada/387180-tanker-concerns-prompt-review">http://thechronicleherald.ca/canada/387180-tanker-concerns-prompt-review</a>

http://www.canada.com/business/tanker+concerns+prompt+Coast+Guard+review+export+plans/7781998/story.html

http://www.thestar.com/news/canada/article/1311258--u-s-coast-guard-ordered-to-review-b-c-oil-routes

#### Coast Guard tows grounded fishing boat near La Push, Wash.

http://www.uscgnews.com/go/doc/4007/1672427/

#### **Derelict Dock**

WA DOE Website has background information, as well as detailed updates showing the progression of events surrounding this marine debris incident.

http://marinedebris.wa.gov/incidents/ForksDock.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/

## **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/

# **OCNMS Staff**

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**Robert Rountree** – Visitor Services Specialist (contractor)

Robert Steelquist – Education and Outreach Coordinator

Nancy Wright - Geographer

## Get involved!

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

# Contact Information Olympic Coast National Marine Sanctuary

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