

ABOUT THE SANCTUARY

Olympic Coast National Marine Sanctuary spans 3,310 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, Quinault, Hoh, and Quileute Nations.

OFFICE REPORT

OLYMPIC COAST NATIONAL MARINE SANCTUARY NEWS AND PROGRAM UPDATES

Organized by OCNMS management plan priority areas

TREATY TRUST RESPONSIBILITIES

Government to Government Management Plan Meeting

Olympic Coast National Marine Sanctuary Assistant Superintendent George Galasso, Resource Protection Specialist Liam Antrim and NOAA-GC Attorney Molly Holt participated in a government-to-government meeting with the Makah Tribal Council to discuss proposed revisions to the OCNMS management plan and regulations. The meeting was very positive and steps were identified to work towards a resolution acceptable to both the Tribe and NOAA. It was agreed that alternative regulatory language would be researched, additional analysis would be included in the final environmental assessment and that the Makah Tribe and OCNMS would begin work on a Memorandum of Agreement that addresses a number of issues related to their government-to-government relationship.

May 12th IPC Meeting

The Olympic Coast Intergovernmental Policy Council (IPC) met on the Hoh Reservation on Thursday, May 12. Assistant Superintendent George Galasso, Education and Outreach Coordinator Bob Steelquist and NOAA-GC Attorney Molly Holt represented NOAA. Bob Steelquist provided the IPC with a briefing on the process for applying for non-competitive cooperative agreements that are available through grants.gov to support the work of the IPC. This represents a change in how NOAA supports the coastal Treaty Tribes' participation on the IPC. The IPC discussed the formation of an IPC Science Panel that will provide the IPC with technical support and work with OCNMS in evaluating research priorities. Other topics included upcoming National Ocean Council listening session and the interest of IPC members to be involved and planning for next year's indigenous peoples climate change symposium. The IPC consists of the Hoh, Makah, Quileute Tribes, the Quinault Indian Nation and the State of Washington. The IPC is supported by OCNMS and is a forum to coordinate and discuss Olympic Coast management issues.

July 13th IPC Meeting

The Olympic Coast Intergovernmental Policy Council met in La Push at the Quileute Tribal Center for its annual meeting with Dan Basta, Director of Office of National Marine Sanctuaries. Carol Bernthal, Acting West Coast Region Director, attend with George Galasso (Acting Superintendent) and Dawn Hayes (Acting Assistant Superintendent) representing Olympic Coast National Marine Sanctuary. The IPC agenda included discussion of the climate change symposia under development, the OCNMS budget and 2011 field activities, a Sanctuary management plan review update, and a resolution on the IPC Science Panel. The IPC is a forum for discussing management issues within OCNMS and is made up of the Hoh, Makah, Quileute Tribes, the Quinault Indian Nation and the state of Washington. The Office of National Marine Sanctuary is a signatory of an MOA that supports the work of the IPC. The ONMS Director meets with the IPC annually.

IPC Science Panel

OCNMS staff met with Northwest Indian Fisheries Commission staff to discuss how the sanctuary will work with the newly formed Intergovernmental Policy Council Science Panel. The IPC Science Panel has been formed to provide the IPC with technical advice and has been asked to work with sanctuary staff on a 5 year monitoring plan. The 5 year monitoring plan will be a further refinement of the action plans recently proposed in a draft management plan. A major priority area of the OCNMS draft management plan is Collaborative Research, Assessment and Monitoring to inform Ecosystem Based Management. It is unlikely all identified activities in this priority area will be accomplished and the IPC has an interest in working with the sanctuary to identify those activities that are of the highest priority.

ACHIEVE EFFECTIVE AND COORDINATED MANAGEMENT

NOS Briefing

Acting Superintendent George Galasso participated in a West Coast National Ocean Service briefing to Deputy Assistant Administrator Holly Bamford in Seattle on May 3rd. Briefing highlights included the status of the Management Plan Review and proposed regulatory changes, sanctuary science activities, facility needs, tribal relations and challenges OCNMS is currently facing.

Security Inspection

The Federal Protective Service conducted a survey of the sanctuary's Port Angeles facilities. OCNMS' preliminary security level is one, or "low" risk.

New Staff Member

OCNMS welcomes Thomas Baker to our staff. Tom was hired to backfill a resource protection specialist position which has been vacant for over a year. Tom's duties include Advisory Council coordination, management plan review support, voluntary compliance, enforcement coordination, conservation action plan implementation, permitting and policy support. Tom is a Lieutenant in the Coast Guard Reserve and recently participated in Deepwater Horizon cleanup efforts on the Gulf Coast. He also has experience as a law enforcement officer with the Department of the Interior. His educational background includes a Bachelor's degree from the University of Maine and a JD/MBA. Tom has roots in the Pacific Northwest and is looking forward to learning more about our role in marine conservation in Washington State. We look forward to working with Tom to use his considerable experience in helping to finalize and then implement OCNMS's revised management plan.

Assessing Vulnerability of West Coast Fisheries to a Changing Climate

Acting Superintendent George Galasso attended the "Assessing Vulnerability of West Coast Fisheries to a Changing Climate" workshop. The workshop was sponsored by NOAA's Regional Collaboration Team, West Coast Sea Grant Programs, the UW Climate Impacts Group, and the Gordon and Betty Moore Foundation. The workshop focused on developing a protocol for evaluating the exposure and sensitivity of selected west coast fisheries to climate change. Further discussions were held on the adaptive capacity of the fisheries, including the human element. This information will be used to develop a preliminary assessment of the vulnerability of Canary Rockfish, Sablefish, Whiting and Dungeness Crab to climate change.

NOAA Corps Officer Applies for new licenses

NOAA Corps Officer LTJG Nathan Witherly submitted his application to the USCG to test for 3rd Mate Unlimited, Oceans and Master 1600 GRT, Oceans licenses.

Response to Comments on DMP/DEA

The Olympic Coast National Marine Sanctuary Management Plan Review Core Team is working on the response to comments received on the Draft Management Plan (DMP) and the Draft Environmental Assessment (DEA). The comments and adjustments to the DMP/DEA are required for the final stages of the review process and are on track for a June 24th submission. Comments requiring additional consultation include acoustic disturbance to marine mammals in the environment (Navy) and cruise ship discharges (Industry).

New Master's Degree Project

Olympic Coast National Marine Sanctuary has agreed to support a University of Michigan's School of Natural Resources and Environment masters project. This will be a team project by a group of master's students, advised by Dr. Julia Wondolleck. The goal of the project is to assess the sanctuary's institutional relationships. They will be conducting a literature review, collect information from stakeholders, partner agencies and governments, and evaluate potential metrics that will allow the sanctuary to evaluate our efforts at collaborative and coordinated management. University of Michigan students plan a site visit this summer.

State Ocean Caucus

Liam Antrim and Dawn Hayes represented Olympic Coast National Marine Sanctuary at a meeting of the State Ocean Caucus focused on development of a Coastal Coordination Entity. For coastal marine spatial planning, Washington State has identified 3 regions, Puget Sound, the Lower Columbia River, and the Outer Coast. The outer coast lacks an established entity to represent the region in these planning efforts. The state-sponsored marine resources committees for Washington's outer coast have been developing a concept and working with the State Ocean Caucus to establish a coastal coordinating

entity. This meeting represented an expansion of invited participants to include agencies and other entities that would likely be involved in regional marine spatial planning efforts.

July Advisory Council Meeting Scheduled for July 15

The OCNMS Advisory Council will meet at the Taholah Community Center on the Quinault Indian Reservation on July 15, 2011. The agenda features a presentation on razor clam population assessment and harvest management by a Quinault Natural Resources Department shellfish biologist, discussion of the draft revised Council Charter, and an update on development of the final management plan review and regulations documents.

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

Deep Sea Coral Collaboration

Research Coordinator Ed Bowlby facilitated another site visit by Dr. Brian Tissot, Washington State University, to continue collaboration on deep-sea coral research with the sanctuary and for proposal writing. This is part of Dr. Tissot's year-long sabbatical.

Monitoring Equipment Deployed

The sanctuary deployed its array of 13 seasonal oceanographic research moorings off the coast of Washington. These moorings collect temperature, salinity, oxygen, chlorophyll, turbidity and current speed data throughout Sanctuary waters over the continental shelf for monitoring oxygen depletion, algal blooms and general oceanographic conditions. Sanctuary contractors and volunteers spent three days aboard *RV Tatoosh* deploying equipment for the summer season, to be retrieved in October.

Autonomous Underwater Vehicle Deployed in Sanctuary

Olympic Coast National Marine Sanctuary assisted the Northwest Association of Networked Ocean Observing Systems (NANOOS), and the University of Washington's Applied Physics Laboratory, by deploying the autonomous underwater vehicle *Seaglider* in the sanctuary. *Seaglider* will collect temperature, salinity, oxygen, chlorophyll and turbidity data in a section from the continental shelf out to deep ocean, and up to 1,000 meters deep, for the summer season. It also has a fish tracking device to track migrating tagged fish in water depths previously unmonitored.

http://www.nanoos.org/nvs/nvs.php?section=NVS-Assets-Gliders-La_Push

2nd International Marine Conservation Congress

Research Coordinator Ed Bowlby was an invited panelist for a NOAA sponsored workshop titled 'State of Deep-Sea Coral Ecosystems of the United States: Five Years Later.' It was a pre-conference workshop in Victoria, British Columbia, prior to convening the 2nd International Marine Conservation Congress. <http://www.conbio.org/imcc2011/>. Ed then participated in the week-long Marine Conservation Congress, the theme of which was 'Making Science Matter', with numerous sessions on research, resource protection strategies, coastal and marine spatial planning, and science in policy making.

Seabird Studies Continue

The first monthly coastal seabird survey from the *R/V Tatoosh* were planned for June 13. These surveys were initiated by Olympic Coast National Marine Sanctuary in 2006 and are designed to document pelagic seabird distribution in the northern portion of the Sanctuary in the area of the deep sea canyons. Volunteer expert seabird observers have been recruited to assist Sanctuary staff with monthly surveys between June and September in 2011. Jesse Lopez, Nancy Foster Scholar working at Olympic Coast National Marine Sanctuary, led a volunteer team of expert seabird observers, Ryan Merrill, Charlie Wright, and Ken Wilson, to complete the first monthly OCNMS pelagic seabird survey for 2011. The team documented seabirds on a standard box transect established in 2006 for summer surveys. These surveys connect sanctuary staff with regional birding community with particular interest in pelagic, marine seabirds. Jessie completed her first 3-week collaboration with OCNMS concentrating on compiling the seabird sighting data from 1995-2008, which will eventually be graphically displayed on the OCNMS web site. Her next 3-week period in August will be focusing on the whale sighting data. She has been primarily working with Marine Geographer Nancy Wright, Data Manager Katie Brenkman, and Research Coordinator Ed Bowlby.

Olympic Corals Featured on Website

Research Coordinator Ed Bowlby responded to a request from NOAA's Coral Reef Conservation Program (CRCP) to supply a feature story for the launching of CRCP's new deep-sea coral web page. Ed, along with Resource Specialist Jennifer Bright, Data Manager Katie Brenkman, and Graphic Artist Carey Floyd, produced a narrative summary of deep-sea coral investigations in Olympic Coast National Marine Sanctuary from 2004 to the upcoming survey in 2011, along with representative photos.

Coral Data Processing

The Deep-Sea Coral Research Team at Olympic Coast National Marine Sanctuary (Research Specialist Jennifer Bright, Data Manager Katie Brenkman, Marine Geographer Nancy Wright, and Research Coordinator Ed Bowlby) have made major progress on processing hundreds of hours of video tape collected during remotely operated vehicle (ROV) surveys in 2006, 2008 and 2010. They are producing Site Characterization reports for each survey site, which graphically portrays distribution and abundance of deep-sea corals and sponges along the ROV tracklines, notes on fish and other invertebrates encountered, and documentation of seafloor habitat types. To date just over 14,000 coral observations have been recorded and just over 20,000 sponges. These site characterizations, once finalized, will be provided to the Pacific Fishery Management Council's Essential Fish Habitat Review Committee, to NOAA's Deep Sea Coral Research and Technology Program, to NOAA Fisheries, to the coastal treaty tribes, and to other resource managers.

Field Season Underway

R/V *Tatoosh* to depart Port Angeles for La Push on Tuesday, June 28 after reinstalling multi-beam transducer and calibrating equipment. Bottom mapping using multi-beam will continue through the week in support of OCNMS Habitat Mapping project. Staff struggled for the past 3 weeks with data collection equipment challenges, engine challenges and fickle weather. The week of July 4th, the R/V *Tatoosh* made its first successful data collection cruises, serviced moorings and hosted some truly committed teachers. The season still holds plenty of habitat and maritime heritage resource mapping, and groundtruthing previous data. The deepwater coral cruise, begins the week of July 11th in partnership with Oregon State University and data gathered will be used to inform the National Marine Fisheries Services' Essential Fish Habitat work this fall. On the drier side of things, sea otter observation studies begin next week.

Mooring Servicing

The Olympic Coast National Marine Sanctuary will continue its field season aboard the R/V *Tatoosh* the week of July 18, servicing its ocean observing moorings. 13 moorings have been deployed for routine annual oceanographic monitoring data critical to sanctuary management.

Conserve Natural Resources in the Sanctuary

May Advisory Council Meeting

The Olympic Coast National Marine Sanctuary Advisory Council's meeting in Neah Bay focused on fisheries research and marine conservation efforts of the Makah Tribe and ocean acidification topics. Chad Bowe chop, Makah Office of Marine Affairs, outlined improved integration of the Makah Tribe into state and federal oil spill prevention, planning, and response efforts. Council members toured the marina docks with a Makah Fisheries groundfish biologist and met with Makah fishermen to learn about various bycatch reduction methods being tested and implemented in longline and trawl fisheries. The sanctuary's Research Coordinator, Ed Bowlby, provided a summary of the West Coast Sanctuaries Region's Ocean Acidification Action Plan and related work by the sanctuary and partners. This was followed by research summaries by Dr. Tim Wootton, University of Chicago, on intertidal research on *Tatoosh* Island, which has increasing focus on ocean acidification impacts, and Dr. Yongwen Gao, a Makah Fisheries researcher evaluating use of long-lived geoduck clams as a historical record of environmental conditions through micronutrient analysis of shells. Significance: This meeting was an opportunity to highlight progressive work by tribal biologists and managers in the increasingly complex arena of natural resource management and policy development.

Pacific Northwest Marine Mammal Stranding Network Training

Olympic Coast National Marine Sanctuary's Research Coordinator, Ed Bowlby, will be an instructor for the Pacific Northwest Marine Mammal Stranding Network training to be held June 3 in Forks, Washington. The sanctuary is a partner in this regional network that tracks and responds to sightings of stranded and dead marine mammals. For live marine mammals, the network aims to protect human and wildlife health by posting warning signs and other efforts to minimize interaction between humans, their pets, and wildlife on the shoreline. For dead marine mammals, the network monitors the frequency and locations for mortalities, generates basic biological data and collects tissue samples or carcasses for analysis and necropsy, if appropriate.

Climate Change Site Scenario

OCNMS has been in discussions with the ONMS and the NOAA Climate Program Office on receiving support to begin implementation of its Climate Change Action Plan. Tentative agreement has been reached for OCNMS to begin work on a climate change site scenario in partnership with the Olympic Coast Intergovernmental Policy Council, their Advisory Council and Washington Sea Grant.

NANOOS Meeting

Research Coordinator Ed Bowlby participated in the annual Northwest Association of Networked Ocean Observing Systems (NANOOS) meeting in Vancouver, Washington. Ed represents the Olympic Coast National Marine Sanctuary on NANOOS' governing council. NANOOS is one of the eleven regional IOOS across the country. <http://www.nanoos.org/>

International Maritime Organization Approves Changes to Olympic Coast Area-To-Be-Avoided

The 57th Session of the International Maritime Organization (IMO) Sub-Committee on Safety of Navigation (NAV) approved amendments to the Area to be Avoided (ATBA) off the Washington Coast as proposed by the U.S. delegation to IMO. The proposal called for an expansion of the ship categories which would be subject to the existing ATBA, which was created to afford protection to the Olympic Coast National Marine Sanctuary. Currently, the ATBA applies to all ships and barges carrying cargoes of oil or hazardous materials, and all ships 1600 gross tons and above solely in transit. The proposal will expand the types of ships covered to include all ships 400 gross tons and above. Thus, the change will expand the coverage to ships from 1600 gross tons down to 400 gross tons. The proposal will now go to the IMO Maritime Safety Committee (MSC) in May 2012. If the MSC approves the proposal it will become effective November 2012. *Significance:* This action partially completes a strategy identified in the OCNMS draft management plan (DMP-January 2011), which called for NOAA to work with the US Coast Guard to modify the ATBA as called for in a provision of the USCG Authorization Act. The OCNMS ATBA language was inserted into the Act by Washington Senator Maria Cantwell. This modification will further enhance the ATBA's capacity to prevent potential oil spills in OCNMS. Public comments to the DMP are currently being reviewed and OCNMS plans to publish the final management plan in September 2011.

Tsunami Education Meeting in Oregon

Education and Outreach Specialist Jacqueline Laverdure attended the Stakeholders Meeting on Earthquake and Tsunami Education Program for Coastal Cascadia in Newport, OR. Emergency managers, scientists, and formal and informal educators joined to discuss opportunities for future collaboration regarding education and outreach.

Enforcement

Liam Antrim met with representatives from the PC Landing Corp, operators of the PC-1 telecommunications cables routed through the sanctuary, to discuss updated notifications on cable risk areas, future monitoring requirements identified in their permit, and transitions to different personnel in the organizations. PC Landing Corp also met with Makah tribe members.

Pacific Fishery Management Council EFH Review Committee Meets

Research Coordinator Ed Bowlby participated in a Pacific Fishery Management Council's groundfish Essential Fish Habitat (EFH) Review Committee meeting in Portland, Oregon, on July 7. Ed is the appointed representative for the west coast national marine sanctuaries. This is the mandated five year review process for Pacific groundfish EFH. The purpose of the meeting was to discuss data needs, informational products, and to discuss next steps and future meetings. http://www.pcouncil.org/2011/06/14816/gfefhrc_07_2011/

IMPROVE OCEAN LITERACY

Multibeam for Kids

Nancy Wright made a presentation on seafloor mapping at the Olympic Peninsula Institute to 75 enthusiastic 6th graders from Spokane, WA schools. The discussion topics included multibeam sonar design and application, species-habitat mapping, marine spatial planning and alternative energy sources.

Olympic Coast Discovery Center Visitation

The Olympic Coast Discovery Center had 418 guests the week of June 12th, with 12 volunteers contributing 33 hours to Olympic Coast National Marine Sanctuary. Guests from across the United States, Canada, and England learned about National Marine Sanctuaries, and received information about places to visit in Olympic Coast NMS as well as current research and issues facing our sanctuary.

North Pacific Coast Marine Resources Committee Outreach

Heidi Pedersen, Education Specialist, and Liam Antrim, Resource Protection Specialist, represented Olympic Coast National Marine Sanctuary on June 11 at the annual community meeting in Forks, Washington, of the North Pacific Coast Marine Resources Committee. Liam is the sanctuary representative to the committee, a citizen-based group established to harness the dedication, creativity, and wisdom of coastal residents to compliment ongoing efforts to restore, protect, and manage coastal marine resources. Sanctuary staff will host a display that focuses on marine debris and CoastSavers beach cleanup efforts.

NatureMapping Citizen Science Program

Olympic Coast National Marine Sanctuary completed its fifth year of Ocean Science along Washington's outer coast. Approximately 400 third, fourth and fifth grade students participated in classroom activities, field trips to Feiro Marine Life Center and Seattle Aquarium, and beach field investigations. Data collected by students during beach trips are submitted to Washington [NatureMapping](#) citizen science program. Twenty teachers and nearly 100 parents also participated in 2010-2011 Ocean Science trainings and activities. Schools include Ocosta, Simpson, Ocean Shores, Pacific Beach, Taholah, Lake Quinault, Forks, Quileute, Neah Bay, Clallam Bay, and Crescent. Ocean Science is a five-year program designed to integrate NOAA ocean literacy concepts and principles into western Washington formal and informal educational programs. Ocean Science is a collaborative effort between Seattle Aquarium and Olympic Coast National Marine Sanctuary, funded by a NOAA Ocean Literacy grant.

Olympic Coast Discovery Center Completes School Year

A total of 2,047 students visited the Olympic Coast Discovery Center and Feiro Marine Life Center during the 2010-2011 school year. Classroom instruction focused on the issues of marine debris and ocean acidification, their impact on marine wildlife, and steps that can be taken to address these problems.

Marine Debris Programs Conclude for 5th Graders

OCNMS' Spring efforts included a 5th grade marine debris program which served 657 students. The final 96 5th graders participated in the marine debris programs in cooperation with the North Olympic Watershed Program organized by the Feiro Marine Life Center. The 5th grade classes were from Port Angeles, Sequim, and a tribal school from the Queets. The marine debris program takes about one hour and highlights watershed connections to the ocean. Students are given maps of ocean surface currents and discuss how marine debris travels in the ocean currents and how trash from a local creek may end up in the sanctuary, Hawaii, Asia or other parts of the world. This is followed by a brief description of Black-footed Albatross' natural history and their link to the NW Hawaiian Islands, the North Pacific and OCNMS. Discussions are followed by bolus dissections to reinforce the concepts, which are always a favorite student activity.

Senior Culminating Project Presentations

On 6/14 Port Angeles High School students presented their Senior Culminating Projects to OCNMS staff, parents, and guests. In the first year of this partnership between OCNMS and PAHS three students completed projects on marine debris, ocean acidification, and the way in which kelp and ocean currents move rocks onto beaches. Staff from both organizations are already planning ways to improve the program next fall when enrollment is expected to double.

National Parks Service Training

Olympic Coast National Marine Sanctuary staff hosted 8 Olympic National Park seasonal interpretive rangers on 6/15 & 6/17. The two days were part of the ranger's annual training program and the sanctuary is an important part of the information they receive over a two-week period. One day was spent orienting then to the sanctuary and the Olympic Coast Discovery Center, the second day, rangers were hosted aboard the sanctuary Research Vessel *Tatoosh*, for on the water experiences. ONP is a major partner with the sanctuary, with several gateways to the sanctuary. This training enhances OCNMS' ability to reach not only the rangers but Park visitors as well.

Research Team Outreach

Research Specialist Jennifer Bright and Research Coordinator Ed Bowlby were invited speakers for a Klahhane Club meeting. They provide a PowerPoint and video presentation on deep-sea coral exploration in Olympic Coast National Marine Sanctuary. Approximately 25 people were in attendance and many animated questions were received.

New Marketing Partnership for OCNMS

Olympic Coast National Marine Sanctuary staff met with Kenmore Air representatives (a partner with Alaska Air) to determine how they could better partner with the OCNMS. While the information provided about services and ADTRAV was helpful for Kenmore, their ability to assist OCNMS through their marketing was of great interest. Kenmore will be looking at OCNMS imagery and promotional materials to determine how best to include them in their offices, printed materials and in-flight magazine as well as looking for items of interest to push up to Alaska Air.

Visitation Picking up at the Olympic Coast Discovery Center

The Olympic Coast Discovery Center has seen 2527 visitors since reopening in mid April and anticipates up to 400 visitors per week through September. In the Center, visitors from across the United States and around the world learn about the National Marine Sanctuary System and the unique and beautiful Olympic Coast National Marine Sanctuary. Volunteer docents are critical to operating the center and explain the diversity of habitats and the marine animals living there, and discuss potential threats such as oil spills, marine debris, and ocean acidification. Visitors learn what lies beneath the surface through underwater video, a display of deep-sea corals, and maps of the many shipwrecks in OCNMS. Displays inform

visitors about the growing problem of marine debris, and suggest steps that can be taken to alleviate this problem. For guests headed out to the coast maps, driving directions, and suggestions about things to see and do are readily available.

Discovery Center numbers rise with summer visitors

The Olympic Coast Discovery Center hosted 395 guests the week of July 3rd, with visitors from 23 states, Canada, Mexico, and New Zealand coming to learn about Olympic Coast National Marine Sanctuary, life beneath the sea, and their connection to the ocean. Eight volunteers contributed 50 hours of service to OCNMS in staffing the Discovery Center, while four volunteers contributed approximately 200 hours of outreach for OCNMS while in Thunder Bay NMS.

Volunteers

Staff and volunteers gathered to recognize Jacqueline (Jaci) B. Pumphrey Olympic Coast National Marine Sanctuary Volunteer of the Year. OCNMS Acting Superintendent George Galasso presented Jaci with an award plaque and appreciation gifts. The evening event also included a potluck dinner and games. Jaci Pumphrey has been volunteering for Olympic Coast National Marine Sanctuary since 2004, providing long-term clerical support for COASST (Coastal Observation and Seabird Survey Team – Citizen Science program). Jaci is also an active COASST volunteer, monitoring beaches on a monthly basis since 2005.

Olympic Coast NMS volunteers visit Thunder Bay NMS

Olympic Coast Discovery Center volunteers and staff returned from a successful trip to Thunder Bay National Marine Sanctuary, hosted by their local volunteers, staff and SAC members. This was the second half of a volunteer exchange program, as OCNMS hosted volunteers last year. In TBNMS, the group explored the geology, economy and maritime history of the Alpena area through visits to a limestone quarry, cement factory, natural history museum, and several lighthouses. Through snorkeling and a cruise on the new glass bottom boat they viewed shipwrecks in Thunder Bay; while kayaking and guided nature walks introduced them to the flora and fauna of the area. Local elementary school students demonstrated an ROV they built and operated in the regional competition; and education staff shared other curriculum units based on Ocean Literacy principles and Michigan state standards. The visit culminated with participation in Maritime Fest, an annual event drawing over 10,000 guests to Thunder Bay NMS.

UNDERSTAND THE SANCTUARY'S CULTURAL, HISTORICAL AND SOCIOECONOMIC SIGNIFICANCE

Elevation Surveys

Education and Outreach Coordinator Robert Steelquist coordinated a visit to the Makah Reservation by Mark Armstrong, Oregon Geodetic Advisor from NOAA's National Geodetic Survey. Mr. Armstrong established four elevation stations and associated data sheets to create survey control points for Makah Cultural and Research Center and Makah Forestry Division use. The elevation surveys were made in the Waatch Valley. They provide precise data for the Makah GIS system, as well as for archaeological surveys investigating paleoshorelines and prehistoric sea level chronology and geological surveys investigating tsunami history in the vicinity of Neah Bay.

Locating the Wreck of the Temple Bar

The location of a shipwreck within Olympic Coast National Marine Sanctuary was confirmed during a multibeam survey. The multibeam survey was conducted on the OCNMS *RV Tatoosh* using a recently acquired RESON 8101 survey system. The wreck is believed to be the Freighter Temple Bar. The location of the Temple Bar, near the Quillayute Needles, was previously identified during an archaeological remote sensing survey conducted in 2001. The current survey is being conducted to collect information on areas that are used by OCNMS for oceanographic moorings. The data will be used as part of the development of a Programmatic Agreement related to the sanctuary's responsibilities under the National Historic Preservation Act. Care will be taken to ensure that any moorings in the area are placed well away from the identified wreck site. The information will also be used in evaluating future permit applications. The Temple Bar was a steel freighter built in Glasgow, Scotland in 1928 and owned by the Temple Steamship Co. in London, England. Its dimensions were 390' by 52' beam and 24.6' depth of hold and had a gross tonnage of 4291 tons. While outward bound from Tacoma to Japan with a cargo of scrap metal, the ship ran aground on the rocks inside of Quillayute Needles, curiously, not in the direction it should have been traveling. Speculation circulated that the ship was intentionally grounded to prevent the Japanese from acquiring the metal for its war needs. The ship was a loss but the crew was rescued and the steel was salvaged (Schwemmer 2008).

NEWS COVERAGE

04/03/11

Spring cleaning on the coastal beaches

<http://www.theolympian.com/2011/04/03/1602470/spring-cleaning-on-the-coastal.html>

The Olympian - Article by Jeffrey P. Mayor

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

Recent Updates

Visit the web pages listed below to see recently updated sections of the OCNMS web site.

- OCNMS Calendar of events <http://olympiccoast.noaa.gov/AboutUs/calendar/welcome.html>

Follow the OCNMS on Facebook and Twitter!

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

Comments and suggestions can be sent to Thomas.Baker@noaa.gov.

FUN, OCEAN RELATED WEB SITES

NOAA Online Media Library

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

Encyclopedia of the Sanctuaries

<http://www.ocean.com/Library/Encyclopedia/>

Oceans Live

<http://www.oceanslive.org/portal/>

Sanctuary Integrated Monitoring Network (SIMoN)

www.sanctuary-simon.org

Office of National Marine Sanctuaries

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

NOAA Ocean Explorer

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

National Data Buoy Center

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

National Ocean Service

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

National Oceanic & Atmospheric Administration

<http://www.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/AboutUs/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/AboutUs/volunteer/welcome.html>



OCNMS Staff

- Carol Berthal** – Superintendent (on detail)
- George Galasso** – Acting Superintendent
- Dawn Hayes** – Acting Assistant Superintendent
- Patrick A’Hearn** – Oceanography Specialist
- Liam Antrim** – Resource Protection Specialist
- Thomas Baker** – Resource Protection Specialist
- Ed Bowlby** – Research Coordinator
- Katie Brenkman** – Research Technician
- Jennifer Bright** – Research Technician
- Eric Evans** – IT Consultant
- Rick Fletcher**– R/V Tatoosh Captain
- Carey Floyd** – Graphic and Web Designer
- Norma Klein** – Office Administrator
- Janet Lamont** – Visitor Services Specialist
- Jacqueline Laverdure**– Education Specialist
- Heidi Pedersen** –Education Specialist
- Robert Roundtree** – Visitor Services Specialist
- Robert Steelquist** – Education & Outreach Coordinator
- Nathan Witherly** – Operations Officer
- Nancy Wright** - Geographer

- Contact Information -

Olympic Coast National Marine Sanctuary

115 East Railroad Ave
Port Angeles, WA
Phone (360) 457-6622
Fax (360) 457-