

Volunteer Newsletter

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Upcoming Events

Thurs. Nov. 12 (9:30am-3pm) Beachcombing Museum field trip to Forks for education on coastal marine debris over the past ~40 years. Picnic on beach near La Push pending weather.

Sun. Nov. 15 (11am-5pm) COASST Marine Debris Program Training at Clallam County Courthouse, Port Angeles. For information or to register, contact coasst@uw.edu or 206-221-6893.

Fri. Nov. 20 (5pm) Annual Olympic Coast Discovery Center Awards Ceremony at sanctuary classroom in The Landing Mall

TBD Holiday party with Olympic Coast National Marine Sanctuary staff and Feiro Marine Life Center

THANK YOU, ALL!

This season, the Olympic Coast Discovery Center welcomed a total of **5,590** guests, with **12** docents that contributed a total of **711** volunteer hours. For the entire fiscal year (October 1, 2014 to September 30, 2015), a total of **23** volunteers participated in Olympic Coast Discovery Center-related activities for a total of 1,182 volunteer hours.

Visitors who signed our guest book hailed from 43 different states plus Washington D.C., 24 foreign countries and one U.S. territory (American Samoa). International visitors spanned Belarus, Ethiopia, Jordan, Peru and Slovakia! Some of the comments we received this year included: "Amazing place!" "Love learning about the ocean, very knowledgeable," "Superb information and very interesting," "I'm glad you are protecting the animals," "Lovely surprise" and many more.

Until we reopen on Saturday, May 28, 2016, visits are by appointment only.

Welcome Becca Lewis, Our AmeriCorps Service Member!

Rebecca (Becca) Lewis is a Washington Service Corps AmeriCorps member serving as the Education and Stewardship Specialist at Olympic Coast National Marine Sanctuary. She recently earned a Bachelor of Science in Zoology and a minor in Environmental Studies from Southern Illinois University. Although she primarily grew up in the Midwest, she has always been driven to learn more about marine environments and protect their inhabitants. She is thrilled to live in an environmentally conscious area so, and eager to promote this kind of compassionate and sustainable attitude to a greater number of people! When she is not catching up on the latest cetacean documentary, she finds peace dancing and spending time outdoors with her three dogs.



Results from International Coastal Cleanup

On September 19, the third International Coastal Cleanup in Washington drew 338 people to dozens of coastal beaches on our outer coast and Strait of Juan de Fuca to collect and remove over six tons of debris. Volunteers of all ages, including scout troops, non-profit groups, like the Mountaineers, Lions Club and Surfrider Foundation, college groups and motivated locals, all pitched in to reduce the



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amount of plastic pollution on our cherished beaches. It was also the 30th anniversary of the International Coastal Cleanup, which involved over half a million volunteers from 91 countries. Olympic Coast National Marine Sanctuary (OCNMS) partnered with Washington CoastSavers and Surfrider Foundation on beaches from Columbia River to Cape Flattery and along the Strait of Juan de Fuca. OCNMS staff organized volunteers at Neah Bay registration station and coordinated cleanups at Hobuck, Sooes, Shi Shi, Portage Head and Point of the Arches beaches. The sanctuary is also a founding member of Washington CoastSavers and contributes significantly to the organization's long-range planning, funding and event coordination. Surfrider Foundation, Friends of Olympic National Park, Lost Resort at Ozette, Clallam Bay/Sekiu Lions Club and Kalaloch Lodge sponsored barbecues at select coastal locations to offer volunteers food and entertainment. Additionally, following the cleanup, volunteers were treated to barbecues at registration stations, as well as the opportunity to attend the free Salmon Feed and Poetry Read at Tillicum Park in Forks, WA. The day was a great success due to the collaboration between several organizations and outstanding volunteer dedication.

For more information, visit the Washington CoastSavers website at www.coastsavers.org/. The 2016 Washington Coast Cleanup is set for April 23, 2016! Mark your calendar now!



Smithsonian Institution Production Features Olympic Coast



Smithsonian Institution Multimedia Information Specialist Tiffany Cheng and film crew came to Olympic Coast for the International Coastal Cleanup, which presented a fantastic opportunity for our staff to share stories of how scientists and citizens can help care for their natural resources. Several staff were interviewed, including Nicole Harris, Liam Antrim, Justin Ellis, Kathy Hough and Becca Lewis. Additionally, Jacqueline Laverdure supported filming at the Neah Bay student cleanup. Other sanctuary partners and volunteers involved in the cleanup were also interviewed for this Smithsonian Institution production. The video will examine the deep relationships between water and human societies through stories of how Americans interact with their environment. The video was created for Museum on Main Street, a special program within the Smithsonian Institution Traveling Exhibition Service, which sends high-quality, humanities-based exhibitions to museums, libraries and cultural institutions in small towns across America. In its twenty-first year, the program has reached over 1,000 communities in order to help build their professional capacities and shine a light on their local stories.

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Dungeness River Festival 2015



On September 25-26, Olympic Coast National Marine Sanctuary educators Nicole Harris and Becca Lewis educated over 3,000 visitors at the Dungeness River Festival in Sequim

about kelp forests and sea otters. Hosted by the Dungeness River Audubon Center, the theme of the event was “Healthy environment for healthy communities.” On Friday, Kid’s Day, more than 900 area grade school students attended the festival. The sanctuary education booth provided students the opportunity to “dive” into our kelp forests to learn about sea otters and the keystone role they play in a healthy kelp forest ecosystem. On Saturday, the event shared information of marine protected areas with the general public.

14th Annual Dungeness Crab and Seafood Festival



On October 9-11, Olympic Coast National Marine Sanctuary participated in the 14th annual Dungeness Crab and Seafood Festival in Port Angeles (www.crabfestival.org). Olympic Coast Discovery Center volunteers and staff member, Karlyn Langjahr, hosted an education booth for the general public, that

provided both general information about the sanctuary and hands-on activities about ocean acidification. This family-friendly event drew between 10,000-15,000 people from the area, as well as other parts of the U.S. and Canada.



Ecosystem Pen Pals Program Bridges Tribes Across the Pacific

Olympic Coast National Marine Sanctuary manages the Pacific Northwest Bay



Watershed Education and Training (B-WET) program, which grants funds to locally-placed organizations, academia, tribal or other groups to support hands-on educational activities the promote the understanding and stewardship of watersheds and the ocean.

One of the seven Washington-funded projects went to the Suquamish Tribe’s Chief Kitsap Academy to conduct a year-long Ecosystem Pen Pals Exchange Program. This cultural and natural history exchange program will take place among high school students from different tribes in the Pacific Rim region to share common ideas, values and traditional knowledge. Participants span American Samoa, Hawaii and Washington. On September 29, the sanctuary held an orientation workshop for high school teachers from Muckleshoot Tribal School, Chief Kitsap Academy, Taholah High School, Quileute Tribal School and Neah Bay High School.

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The program will help foster support for ocean conservation through learned awareness of coastal ecosystems, while facilitating cultural-themed written exchanges between students in the Pacific Rim. Students and teachers will connect with their local national marine sanctuary for assistance and resources about their local marine ecosystems. Karen Matsumoto from Suquamish Tribe Chief Kitsap Academy is coordinating the project. Nicole Harris, from Olympic Coast National Marine Sanctuary, Patty Miller, from Hawaiian Island Humpback Whale National Marine Sanctuary, and Isabel Gaoteote, from National Marine Sanctuary of American Samoa, will also participate in the program.

Tribal Students Trained in Marine Debris



Following a week-long Ocean Science Trash-Free Seas summer teacher professional development training, two outer coast teachers adopted beaches with their students.

On September 29, Heidi Pedersen and Becca Lewis visited Linda Johnson's fourth grade classroom in Neah Bay and worked with 21 students on marine debris activities. Approximately one month later, local community member and volunteer, Sally Parker, led Linda's fourth grade students on their first survey of Front Beach. Students retained the survey methodology and thus, located a significant

amount of debris.. Specifically, students classified and tallied the debris on a NOAA marine debris data form customized for Olympic Coast National Marine Sanctuary. Thanks to dedicated volunteers and educators like Linda and Sally, education work place-based environments are made possible at a local level. The class, assisted by Sally, plans to monitor Front Beach on a monthly basis.

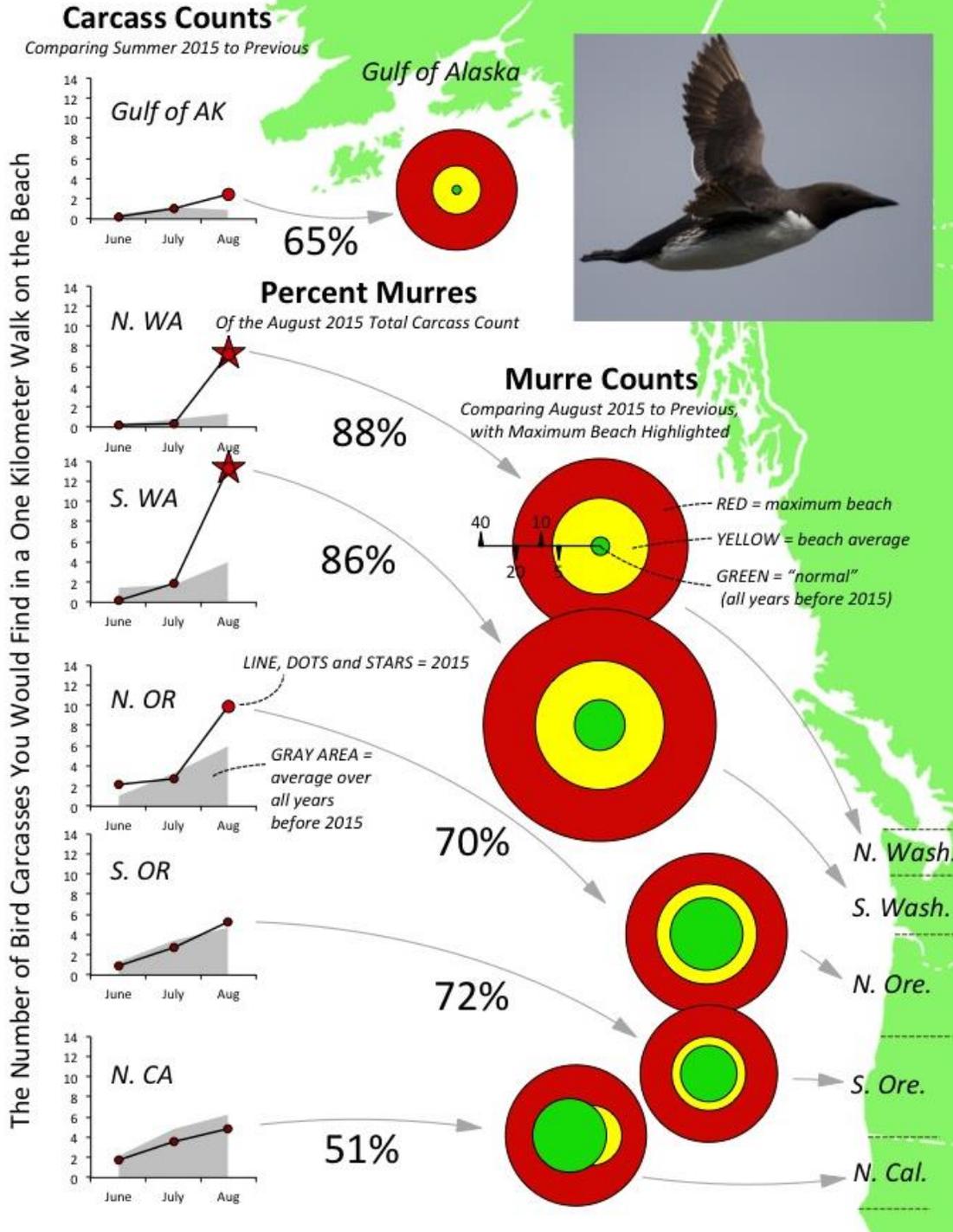


On October 8, the pair visited the Quileute Tribal School in La Push to initiate a NOAA marine debris site. Twenty students from fourth through sixth grades helped setup and perform a NOAA marine debris survey at First Beach. During the school year, students and their teacher will conduct a monthly survey at this site located near their school. After collecting and categorizing the debris, the students and educators discussed ocean currents, the origin of marine debris, harmful impacts of marine debris and what people can do to prevent and reduce marine debris.

COASST/News From the Field

Coastal Observation and Seabird Survey Team (COASST) continue to notice and study the common murre die-off, with reports of high numbers of dead birds washing ashore beaches where COASST volunteers conduct monthly surveys; COASST

Murres on the Beach in 2015



created the following infographic to help convey the information collected. Along the outer coast of Washington, the carcass encounter rate is significantly higher (stars) than normal (gray area), as well as higher than any other year in the COASST record. Murres are also significantly above normal (see green versus yellow on bull's eye plot) in Washington, with the maximum beach spiking to 3-4 times the average (see red versus yellow).

For murres, the long-term average in Oregon and northern California is not different than the 2015 value, even though single beaches (e.g., the maximum value) are reporting high values.

In the Gulf of Alaska, murre numbers are contributing to higher than normal carcass counts, although this signal pales in comparison to the lower 48.

The Number of Bird Carcasses You Would Find in a One Kilometer Walk on the Beach

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(*Note: The long-term averages are variable length intervals: AK from 2007, N. WA – 2002, S. WA – 2001, N. OR – 2002, S. OR – 2006, N. CA – 2006.)

COASST is also preparing to officially launch its new marine debris program, with initial trainings scheduled to take place in Forks on November 14 from 10:00am-4:00pm and in Port Angeles on November 15 from 11:00am-5:00pm.



A volunteer found a bucket with Japanese characters in Steamboat Creek, a tributary of the North Umpqua River in Oregon. Translators indicated that the text meant, “Best thing on Earth” and referred to jiyota miso contained inside, a type of bean paste included in miso soup. The brand name, Tenka Ippin, was linked to a restaurant chain in Japan that specializes in ramen.



Another unique Oregon find, a salmon shark, occurred at Cape Meares (according to Collections Manager Katherine Maslenikov at University of Washington’s Burke Museum). Salmon sharks have a slightly

bulbous body with a conical snout and are usually found roaming the subarctic and temperate North Pacific. They feed primarily on Pacific salmon, yielding their name, but will also occasionally consume other bony fish. A typical salmon shark measures 6.5-8 feet long, but they can reach up to 10 feet in length!

Dr. Julia Parris, UW Professor and COASST Executive Director, recently traveled to the White House, where COASST was recognized again as an example of a citizen science program that provides useful data to scientists and resource managers. Julia highlighted the following points, which reiterate the need for effective citizen science:

- The world is changing too fast to rely only on scientists to measure and monitor the environment;
- Involving residents in communicating what is happening in the places, spaces and habitats they know and love can only improve our knowledge; and
- People will use and respect science that comes from within, and not just from the ivory tower.

From her trip, Julia shared outcomes that included:

- A policy memo released by the President’s Council of Advisors on Science and Technology outlining the importance of citizen science and what the White House and federal agencies can do (referencing COASST as an exemplary program);
- A speech by the Director of the National Science Foundation invoking the power of citizen science to advance science, again recognizing COASST as a rigorous model; and
- Her opportunity to speak to Washington delegation staffers about COASST, that resulted in a tweet from Senator Patty Murray (WA).

Julia thanked the dedicated COASST volunteers for their countless hours and contributions to moving coastal science and management forward! For more information, visit <http://blogs.uw.edu/coasst>.

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Creature Feature

Lake Ozette Sockeye Salmon (*Oncorynchus nerka*)

Lake Ozette, just two miles from sanctuary waters on the northwestern Olympic Peninsula, is home to a single genetic population of sockeye salmon. Lake Ozette sockeye salmon are also nicknamed “blue-



backs” for the deep blue color on their silver bodies when not in coloration. Most people associate sockeye with their iconic red bodies and dark green heads, where males develop a more pronounced hook on their nose and dorsal hump.

The historical abundance for Lake Ozette sockeye is estimated at more than 50,000 fish before the 1940s, with a decline to approximately 580 in the 1990s; in 1999, this decline led to its threatened status under the Endangered Species Act. The identified population lives in the state’s third largest natural lake, Lake Ozette. With a current population around 2,600 wild spawners, the target number for recovery is set at 31,250 individuals.

Mature adults (typically four years old) of this genetically distinct group of sockeye journey to freshwaters via the six miles of Ozette River in the spring through late summer, where they stay for six months prior to spawning. The vibrantly colored spawning salmon primarily chose Allen’s Beach and Olsen’s Beach at the southern end of the lake, as well as Umbrella Creek and Big River at the northern end of the lake. The fry, or juvenile salmon, remain in Lake Ozette for one year before they undergo

smoltification (physiological changes where juvenile salmon adapt from living in freshwater to living in seawater) and emigrate to marine waters, where they end up in Olympic Coast National Marine Sanctuary!

<http://www.nps.gov/olym/learn/nature/sockeye-salmon.htm>

Some of the factors for the sockeye population decline include commercial and recreational harvests in the 1900s, altered hydrology resulting in degraded beach spawning habitat, changes in land use practices and predators (birds, river otters, harbor seals, sea lions and non-native fish). Furthermore, recent studies by Washington State Department of Ecology revealed heavy loading of both polychlorinated biphenyls (PCBs) and mercury in Lake Ozette, in spite of its pristine and isolated location, for uncertain reasons. It is also believed that many juvenile salmon are preyed upon in marine waters.

To learn more, visit

wdfw.wa.gov/fishing/salmon/sockeye/ozette_lake.html and www.nps.gov/olym/learn/nature/sockeye-salmon.htm

For information on the Lake Ozette Sockeye Salmon Recovery Plan, visit

www.westcoast.fisheries.noaa.gov/protected_species/salmon_steelhead/recovery_planning_and_implementation/lake_ozette/lake_ozette_sockeye_salmon_recovery_plan.html.

