

# OLYMPIC COAST NATIONAL MARINE SANCTUARY



## OLYMPIC COAST DISCOVERY CENTER

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### THANK YOU ALL!

During the month of June, the OCDC received 1,337 visitors with a total of 18 volunteers contributing 130 hours.

*Thanks for being sanctuary rock stars!*

### Happy 4th of July!

And happy Canada Day to our neighbors to the north, who celebrated their Independence on July 1st!



### Elwha River Tour

On Sat, June 22nd several of us took advantage of a unique experience to visit the Elwha River from a new perspective on the Lower Elwha reservation. Experience Olympic owner and tour guide, Carolyn Wilcox, led Karlyn and OCDC



volunteers Elizabeth, Anita, Genie and Jim J on our summer enrichment activity.

We started at the mouth of the Elwha, birding at scenic lagoons along the way. The foggy mist streaking up above the bodies of water produced a surreal and introspective feeling. It was a bit humbling to realize we were overlooking a beach that hasn't existed in 100 years. We felt fortunate to have access to the Lower Elwha's beach thanks to Carolyn's contacts with the tribe. Several eagles graced our presence proudly, seeming to affirm the dam removal and restoration efforts.



After a heartfelt discussion of what the Elwha means to us individually and to the region, we stopped for a scenic overlook of the Discovery Trail bridge before continuing on to the location of the former lower reservoir.

What a lovely day in fantastic company learning more about the U.S.'s largest dam removal project (and arguably the world's), right here in our own proverbial backyard!

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marine debris density and location. Our two year participation in this pilot program engages citizen-scientists who monitor 18 of these sites to use the NOAA designed survey protocol for gathering baseline and monitoring data on debris types, abundances, and distribution on beaches. Currently all but one of these volunteers is also a COASST volunteer. Thanks so much to all the hard working volunteers!

## Welcome New Volunteers!

I'm excited to introduce you all to our newest Discovery Center volunteers: Erin Wilson and Sara Jane Welton, both of Kalaloch Lodge, and Jennifer Jacques of AmeriCorps. They attended a condensed volunteer training with me and have already started in the OCDC, so you may come across their friendly and smiling faces soon!

## NOAA Marine Debris Monitoring & Assessment Project Pilot Program

Olympic Coast National Marine Sanctuary has been involved with the NOAA's Marine Debris Monitoring and Assessment Project (MD-MAP) Pilot Program since the spring of 2012 (<http://marinedebris.noaa.gov/tsunamidebris/monitoring.html>). We are currently monitoring 20 sites, 7 on the Strait of Juan de Fuca and 13 on the outer coast. In association with NOAA's Office of Response and Restoration Marine Debris Program, this pilot program hopes to apply data results and analysis to identify and assess

Here are examples of marine debris that we found in 100 meters at Hobuck Beach including a large rubber ship fender found at Hobuck beach:



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### **COASST Honored by the White House!**

The Executive Director of Coastal Observation And Seabird Survey Team (COASST), Dr. Julia Parrish, received the Champion of Change award for excellence in citizen science in Washington, D.C. A partner of Olympic Coast National Marine Sanctuary (OCNMS), COASST has come to light as an exemplary program by The Champions of Change program, sponsored by the President's Office of Science and Technology Policy. The program highlights transformative people and programs across the country. OCNMS is very proud to be partners with the University of Washington COASST program with our very own Heidi Pedersen coordinating COASST efforts on the Olympic Peninsula. Kudos to Julia and the COASST team (Heidi, Liz, Jane, Charlie) and especially to all the volunteers who make this program possible!

An article was published locally to highlight the achievement:  
[http://www.forksforum.com/news/article.exm/2013-06-18\\_coasst\\_volunteers\\_track\\_birds](http://www.forksforum.com/news/article.exm/2013-06-18_coasst_volunteers_track_birds)

### **Unmanned Aircraft Systems Testing in Olympic Coast National Marine Sanctuary**

A two week period testing and evaluating unmanned aircraft systems (UAS) in Olympic Coast National Marine Sanctuary (OCNMS) was successfully

concluded on June 29th. The primary mission was to determine if a UAS could monitor seabird nesting colonies on Washington Islands National Wildlife Refuges that are normally surveyed annually with a helicopter. Secondary missions surveyed for Japanese tsunami marine debris, both offshore and along some beach segments. Opportunistic surveys for other marine wildlife, such as sea otters, were also conducted. Two UAS were flown, launched and recovered from OCNMS' R/V Tatoosh. The amphibious PUMA UAS was the primary vehicle. The second UAS was a Quadrocopter that was launched and recovered from shore. Both recorded high definition video as well as digital still photos, which will be post-processed to assess behaviors and resolution of images for identifications of seabirds and marine debris. Preliminary results show that AUS surveys were quite successful and the much quieter flights around seabirds did not cause disturbance. The trial was also a collaborative success, bringing multiple agencies together including U.S. Fish and Wildlife Service, Quinault Indian Nation and Quileute Tribe, several of NOAA's programs and Washington Department of Fish and Wildlife.



## *Creature Feature*

### **The Leatherback Sea Turtle**

#### *(Dermochelys coriacea)*

Are you as enthralled about sea turtles as I am? Several of you have asked me where the replica Leatherback sea turtle skull came from and how it relates to OCNMS. Great question! Last year Jacqueline brought it out from our bin of marine animal skulls to incorporate into an educational activity. She was linking the source of our food to effects on beloved sea animals. In the case of the Leatherback sea turtles, who feed on large jellyfish, students learned how plastic bags floating in the ocean can appear to be the turtles' favorite food (ingestion of plastic bags causes many sea turtle deaths).

Of all 7 sea turtles species found worldwide, the Leatherback is the largest (and second largest reptile in the world after the saltwater croc) and the only sea turtle without a bony shell. The Leatherback's top shell, or carapace, consists of leathery, oil-saturated connective tissue overlapping loosely interlocking dermal bones with 7 longitudinal ridges. Its hydrodynamic shell allows for greater flexibility and speed when swimming and they've been clocked at speeds of 35 miles per hour. Leatherbacks are known to outswim sharks, one of their only predators as an adult (along with orcas).

Leatherbacks are also the only commonly occurring species found in our coastal waters because they are adapted to withstand the cold waters and high pressure in the depths. Their flexible shells resist cracking at high pressure of great depths and their blood and muscle tissue can hold high amounts of oxygen instead of storing oxygen in the lungs.

Leatherbacks large body size, high oil content and their use counter-current heat exchange systems for thermoregulation enable them to endure cold waters. They can descend over 4,000 feet deep, as deep as a whale!

Leatherbacks use our sanctuary waters as a feeding ground, but migrate to the tropics to mate and nest on sandy beaches. Females become sexually mature after about 16 years and will lay an average of 7 clutches during the nesting season, with an average clutch size of 100 eggs. It then takes an average of 2 years to build up the energy to become reproductive again. The eggs incubate for 55 to 75 days, developing into hatchlings which immediately make their way instinctively to sea. A single Leatherback's migration route has been recorded at over 10,000 miles, making them one of the widest ranging vertebrates on Earth.

The odds of encountering a Leatherback in our sanctuary is not high, but if you are out in a boat (preferably at night) you might see—or even just hear—these magnificent giant mariners. But it's amazing enough to me just knowing that they are here!

