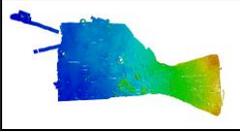
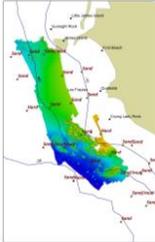


## OCNMS Research and Monitoring, 2013

<p><b>Seafloor Mapping</b> – Misawa Dock Reconnaissance Seafloor Survey  <a href="http://olympiccoast.noaa.gov/science/surveyscruises/2013/2013_misawa.html">http://olympiccoast.noaa.gov/science/surveyscruises/2013/2013_misawa.html</a></p> <p>Surveying and ground truthing the seabed between Mosquito Creek and Hoh Head in preparation for the removal of the Misawa Dock is summarized. Two reports are included. <i>The final habitat classification report is pending adequate staff time to write.</i></p>	
<p><b>Seafloor Mapping</b> – Ground Truth Survey for Quillayute Needles  <a href="http://olympiccoast.noaa.gov/science/surveyscruises/2013/2013_groundtruthing.html">http://olympiccoast.noaa.gov/science/surveyscruises/2013/2013_groundtruthing.html</a></p> <p>During 2012-2014 OCNMS survey crew is gradually mapping, ground truthing and producing habitat characterizations of the area from James Island to Teahwhit Head known as the Quillayute Needles. In the summer of 2013, 26 sites were ground truthed and the sediment data were analyzed. <i>Mapping and data analysis to complete this area will continue in the 2014 field season.</i></p>	
<p><b>Seafloor Mapping</b> – Multibeam Mapping of Cape Alava Area 2010  <a href="http://olympiccoast.noaa.gov/science/surveyscruises/2010/2010_multibeam_alava.html">http://olympiccoast.noaa.gov/science/surveyscruises/2010/2010_multibeam_alava.html</a></p> <p>In 2010 the NOAA Ship FAIRWEATHER mapped 207 mi<sup>2</sup> off Cape Alava. In 2013 we ground truthed that large area and the final habitat classification for that large area was written and posted this season. <i>This project is complete.</i></p>	
<p><b>Oceanography</b> – Oceanographic Research Moorings  <a href="http://olympiccoast.noaa.gov/science/surveyscruises/2013/2013_moorings.html">http://olympiccoast.noaa.gov/science/surveyscruises/2013/2013_moorings.html</a></p> <p>Ten research moorings were deployed at the regular OCNMS sites. Deployment locations and program details can be downloaded. <i>Data processing is pending adequate staff time.</i></p>	
<p><b>Wildlife Research</b> – Unmanned Aircraft for Surveying Marine Wildlife Test Mission  <a href="http://olympiccoast.noaa.gov/science/surveyscruises/2013/2013_puma_seabirds_test.html">http://olympiccoast.noaa.gov/science/surveyscruises/2013/2013_puma_seabirds_test.html</a></p> <p>OCNMS partnered with NOAA's UAS Program to test the effectiveness of unmanned aircraft to survey seabird colonies. The video is currently being reviewed by OCNMS, but the initial indication is that higher resolution cameras are required for bird species identification. <i>No report will be generated. Another test is planned for 2014.</i></p>	

<p><b>Coastal Habitats</b> – Unmanned Aircraft for Surveying Marine Debris Test Mission  <a href="http://olympiccoast.noaa.gov/science/surveyscruises/2013/2013_puma_debris_test.html">http://olympiccoast.noaa.gov/science/surveyscruises/2013/2013_puma_debris_test.html</a></p> <p>OCNMS hosted a test project to survey remote shorelines for marine debris. It was determined that large debris with bright colors could be noted but natural colored objects blended into the natural background of the beach. A higher resolution camera would improve the utility of the UAS for shoreline debris assessment. <i>No further report on this topic.</i></p>	
<p><b>Citizen Science</b> – OCNMS Provides Data for National Marine Database  <a href="http://olympiccoast.noaa.gov/science/surveyscruises/2013/2013_citiscience_marinedebris.html">http://olympiccoast.noaa.gov/science/surveyscruises/2013/2013_citiscience_marinedebris.html</a></p> <p>OCNMS volunteers are currently monitoring over 20 sites along the Strait of Juan de Fuca and the outer coast using the NOAA Marine Debris Program’s Shoreline Survey Field Guide, standardizing our survey methods to national database and adding items found on our coast that are not in the national database. The goal is to reduce marine debris and improve beach cleanup.</p>	
<p><b>Coastal Habitats</b> – Field Report on Intertidal Monitoring  <a href="http://olympiccoast.noaa.gov/science/surveyscruises/2013/2013_intertidalmonitoring.html">http://olympiccoast.noaa.gov/science/surveyscruises/2013/2013_intertidalmonitoring.html</a></p> <p>Continued annual monitoring at rock and sandy intertidal sites on Makah and Quinault reservation shores adjacent to the sanctuary following longterm studies established by the MARINE database and the National Park Service. <i>Data processing and submission is pending the arrival of a summer Hollings Scholar.</i></p>	