

# NPC MRC

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## NPC MRC

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## *The NPC MRC Newsletter*

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For an electronic copy, contact Rich Osborne  
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## Introduction

The North Pacific Coast Marine Resources Committee (NPC MRC) is pleased to present its newsletter to West End residents and visitors. The NPC MRC is an organization to support projects, initiatives, and communications that benefit the outer coast, its resources, and coast communities.

The NPC MRC was established through Washington State's Coastal MRC Program and a partnership between Clallam and Jefferson Counties. Area governments, state and local agencies, non-profit organizations and local citizens participate in the MRC as members and volunteers.

## MRC FAQ:

### *What are Marine Resources Committees?*

Marine Resource Committees are local groups promoting community involvement in coastal issues. MRC members and participants learn about resource conditions and coastal community needs, participate in local and regional projects, and sponsor activities and studies having to do with the unique management issues of Washington's outer coast. In addition to the NPC MRC, coastal MRCs also operate in Grays Harbor County and Pacific County. Wahkiakum County is currently exploring the possibility of forming a MRC.

### *What is the funding source for MRCs?*

The Washington State Legislature created the Coastal MRC Program within the Washington Department of Fish and



*This aerial photo is of the Hobuck Beach area.*

Wildlife to provide for the administration and coordination of MRCs and to fund MRC-sponsored projects.

### *What is the focus area of the NPC MRC?*

The NPC MRC is primarily concerned with the outer coasts of Clallam and Jefferson Counties including state waters out to three miles.

### *How can interested people participate?*

The NPC MRC currently meets on the third Tuesday of the month in Forks. Meetings and events are open and the public is always welcome. Contact MRC coordinator Rich Osborne at: (360) 374-2893 or [rosborne@co.clallam.wa.us](mailto:rosborne@co.clallam.wa.us) for more information.

## Local NPC MRC-Sponsored Projects

In 2009, the exploratory NPC MRC group supported projects that included school field trips to the Feiro Marine Life Center in Port Angeles and the annual beach clean-up with CoastSavers. This year, the NPC MRC focused on similar education and cleanup efforts and also funded a study to determine whether river otters are having an impact on salmon in Lake Ozette.

## West End Students Visit Feiro Marine Life Center

by Shannon Walz and Tami Pokorny

Frequently this spring, the Feiro Marine Life Center (FMLC) was filled with West End students oohing and ahing as they shook “hands” with tube worms or came eyeball to “eyeball” with plankton through their microscopes. Many of the outer coast schools – Forks, Clallam Bay, Quileute Tribal School, and Neah Bay – spent time at FMLC in Port Angeles during school field trips.

The older students participated in a brand new program entitled, “Small Creatures, Big Impacts” which explores the world of plankton, ocean currents and ocean acidification. At the start of each day, students were asked, “What do you know about plankton, ocean currents and ocean acidification?” Like many of us who live and work with the ocean in our backyards, they were mostly unfamiliar with the ocean’s circulatory system and the flow of nutrients and oxygen along our coast and around the world.

The students, armed with modeling clay, created dioramas of coastlines, headlands, bays and inlets inside of large plastic bins. They activated their “current models” with garden hoses and watched how different landforms influence the movement of water through the miniature straits and the sounds. Replicas of familiar places, such as Cape Flattery and Admiralty Inlet, forced the water to circulate into eddies and “back up”. It became obvious that limited amounts of water flowing into narrow openings, like Deception Pass, also sped up. Dyes added to the water gave an indication of how plankton and nutrients tend to get “stuck” on either side of these constricting landforms. This helps explain why waterbodies like Hood Canal don’t flush well.

The FMLC is using this type of information in a citizen science project to help predict the harmful algal blooms that cause shellfish toxicity on the strait and outer coast. Since algae travel predictably in coastal currents as a constituent of phytoplankton, early detection of harmful species can provide warning to shellfish and fish farming industries to prevent illness and economic loss.

Back on the docks, students hauled in plankton from different depths in specially designed nets. Would the plankton populations differ? The data the students collected is being used to detect local seasonal and long term trends in the plankton communities found in the Port Angeles Harbor. Currently students are finding the greatest diversity of plankton species at a depth of two meters and heavy concentrations of phytoplankton at all levels.

Later, at the Marine Sanctuaries Olympic Coast Discov-



*Forks High School students sample plankton at the Feiro Marine Life Center in Port Angeles.*

ery Center, the students learned about deep sea exploration and the corals discovered recently off our shores. Scientists are finding that the corals provide important habitat and breeding areas for animals that live on the ocean floor. The corals and many other animals are feeding on plankton and other nutrients floating in the water column.

The last topic of the day was ocean acidification. The students took a short look at what ocean acidification is and what it means for the future of our oceans. Scientists are beginning to see that even very small changes in the pH of the ocean can have very big consequences. Plankton, corals and other animals with calcium carbonate shells or skeletons are some of the first creatures likely to be impacted by ocean acidification. Such animals form the base of the ocean food web and are essential to the survival of other species including fish and marine mammals.

At the end of each busy day, the students and teachers boarded their buses with smiles and waves and promises of returning the next year. At the marine center, we feel a deep satisfaction. It is always a pleasure to see the interest and amazement of the kids and to open another door to the beautiful and interesting ocean world that is their backyard.

For more information on field trips and visiting the FMLC, contact Shannon Walz, education specialist at [ShannonW@feiomarinelifecenter.org](mailto:ShannonW@feiomarinelifecenter.org) or call (360) 417-6254.

## Beach Cleanup No Slouch

Well, the weather wasn’t so terrific on April 17, the day of the outer coast cleanup and Earth Day celebration. Nevertheless, over 1,000 volunteers removed over 24 tons of marine debris. The NPC MRC helped make the event



*Liam Antrim with a prized collection of marine debris at the mouth of the Hoh River in April.*

happen by supporting the administrative and waste disposal costs of CoastSavers, a program of the Washington Clean Coast Alliance. The Alliance formed in 2007 to coordinate the efforts of volunteer groups and individuals that have worked to clean up this shoreline as far back as 1971.

On the North Coast specifically, 486 folks removed 4.3 tons of debris which cost \$2113 for disposal according to David Lindau, program coordinator. “Volunteers and other organizations are attracted to getting involved with a program that seems coherent and well-run. And, dare I say, the fact that we’re pretty well organized helped us weather the storm that day. A disorganized program might have lost the support and trust of its volunteers and been demolished by that day’s driving rain and blowing sand. Our volunteers stuck it out and will no doubt return in even greater numbers for a future cleanup, thanks to the strength of our broader program.”

MRC funds also supported BBQs that day at Hobuck and Three Rivers. Adds David, “It’s critically important to thank volunteers for their assistance on the beach, and giving them fresh hot food seems like a perfect way to do it. Plus, it gives them a chance to chat with each other and deepen their overall satisfaction with the cleanup experience.”

To see photos of the event, see the Flickr group at: <http://www.flickr.com/groups/coastsavers>

Understand marine debris? Visit <http://www.coastsavers.org/resources.html> for brochures, fact sheets, posters, and guidebooks on preventing it and dealing with it. Resources for teachers too.

## Are river otters eating the salmon at Lake Ozette?

Preliminary results of a study coordinated by Makah Tribe marine mammal biologist Joe Scordino indicate that yes, river otters are eating salmon at Lake Ozette, but seldomly as compared to other prey species. A member of the weasel family, river otters grow to over 50 inches long and can weigh up to 30 pounds. Otters use muddy clearings in the forest as “latrine sites” that they mark with scats, and biologist can analyze these scats to learn what the otters are eating.



Nearly 300 river otter scats collected from latrine sites in the Lake Ozette area by the National Marine Fisheries Service from 1998 to 2003 have been sent to marine biologist Susan Reimer, in southern Oregon for analysis. “So far a lot of what I’m finding is crayfish. There’s also prickly sculpin that are found in the lake and probably squaw fish or peamouth which are both sucker fish. There are definitely some adult and juvenile salmon, as well as three-spined sticklebacks, a rodent – probably a mouse – and an amphibian that is likely a frog.” Otters are enthusiastic chewers, so many of the bones and other remains have seen better days. “Some of the crayfish are chewed to smithereens,” added Susan. Adult salmon can be identified to species visually by the nature of their ear bones or otoliths if they’re in good condition. Additional funding could be sought to determine which salmon species are represented in the scats using genetic testing.



*Loose Gravel Bluegrass Band donated their time and abundant musical talents to the event.*

“starts”. The divers plant them among the rocks to reestablish the forests - which isn’t all that difficult. I thought it was something we should at least be aware of. Kelp forests are extremely productive ecosystems that provide food and cover for a whole wide range of local species including salmon, rock fish, crabs, and juvenile halibut. We need to know more about the kelp forests we have here. We shouldn’t one day say, “Oh, we should have been paying closer attention.” Carl Chastain grew up in Forks and is volunteer coordinator for the Pacific Coast Salmon Coalition.

Hannah Robbins

Marine education. I think it’s important for kids to have experiences that foster an understanding of the dynamic relationship between conservation, economy and their future. Kids ought to have the opportunity to learn the basics of marine ecology and also hear from professionals who are dealing directly with the resources.” Hannah grew up in the woods of Maine and currently works as a marine educator in Port Angeles.



**Hannah Robbins**

Lauren Kerr

Plastics. Through my work as a seabird biologist for NOAA Fisheries on the Oregon and Washington coasts, I’ve seen the impacts of plastics on wildlife firsthand. During this past winter’s harmful algal bloom that affected seabirds all along the coast, we necropsied carcasses and found that the surface-feeding birds such as northern fulmars consistently had plastics in their stomachs. These birds tend to pick up small pieces of plastic while skimming the surface of the water for plankton, squid, fish and other food. They then return to their nests to feed their chicks who can neither digest nor expel the plastics from their stomachs. I participated in this year’s beach clean-up and it was astounding how much plastic was recovered from Mora Beach alone. Lauren currently conducts snorkel surveys for Olympic National Park. Her husband, Jim, owns RainCoast Guide Service.



**Lauren Kerr**

## NPC MRC News and Events

### *A Sunny Day for a Potluck*

The second annual North Pacific Coast Community Potluck was held June 12 at the Forks Community Center on a gorgeous Saturday afternoon. Attendees learned about our coast and its marine life from Feiro Marine Life Center and Olympic Coast National Marine Sanctuary staff members. The Loose Gravel Bluegrass Band entertained



*Steve Allison makes a sunny day even brighter with the help of some spring Chinook.*

participants who also discussed a wide array of coastal issues and enjoyed donated spring chinook hot off the grill.

NPC MRC outreach coordinator Tami Pokorny asked some of them, “In your view, what coastal issue should West End residents and visitors be thinking more about?” Below are few of the answers:

Carl Chastain

Kelp beds. We need to learn more about the extent and status of our coastal kelp beds. There used to be huge forests of kelp in Clallam Bay, for example. In California, volunteer divers are repopulating former kelp forests with kelp



**Carl Chastain**



## Love that Student Art!

Thank you to Mr. Isenberger's 5<sup>th</sup> grade class at Forks Elementary School for submitting wonderful paintings of the ocean deep in response to our request for student artwork. We love them! Great work, Alessandria Muro, Junior Reves, Jensen Gimlin, Mariah Harless, Carlos Tejano, Melissa Weston, Lauren Decker, Dylan Imel, Tim Jackson, A. J. Barnhart, Cameron Hodges, Carsen Jones, Makayla Brewer, and Alina Goakey. We picked Lauren's for its bright colors and fine humor to include in this newsletter. The artwork was proudly displayed at the community potluck, and you'll likely see more examples of it in future MRC publications.

### Stay informed via email

The *NPC MRC News* is an electronic newsletter that comes out once or twice a month. It includes meeting and event information for the north coast specifically as well as information and pertinent announcements from the State Ocean Caucus, other coastal MRCs, and more. Send an email to Rich Osborne ([rosborne@co.clallam.wa.us](mailto:rosborne@co.clallam.wa.us)) if you'd like to receive it.

### Stay informed via websites

Read about Washington State's Coastal MRC Program at: <http://wdfw.wa.gov/about/volunteer/mrc>.

For more information on the State Ocean Caucus and Washington's Ocean Resources website, visit

<http://www.ecy.wa.gov/programs/sea/ocean/oceangroup.html>

The WA Department of Ecology Marine Spatial Planning website is located at <http://www.ecy.wa.gov/programs/sea/ocean/index.html>

## Send us your 2011 NPC MRC project ideas

Do you have an idea for a project to benefit coast resources, to enhance our appreciation of the coast, or to improve our understanding and ability to respond to coastal issues? Information about the next funding cycle will appear in upcoming issues of the electronic *MRC News* and elsewhere. Contact Rich Osborne ([rosborne@co.clallam.wa.us](mailto:rosborne@co.clallam.wa.us)) for more information.

## NPC MRC meetings: You're invited!

NPC MRC meetings are currently held the third Tuesday of each month in Forks. The public is invited and encouraged to attend. Contact Rich for more information at (360) 374-2893 or [rosborne@co.clallam.wa.us](mailto:rosborne@co.clallam.wa.us) and watch for notices in the *Forks Forum*.

## How to Approach Marine Spatial Planning in Washington?

Currently, Washington and many other coastal states lack a coordinated, comprehensive vision or plan for the future uses of the marine environment. The State Ocean Caucus (SOC) is working with MRCs and others to develop initial recommendations on how to approach Marine Spatial Planning (MSP) for the outer coast, Puget Sound and the lower Columbia. The State Ocean Caucus is an interagency team chaired by the Governor's office and coordinated by the Department of Ecology. They are required to produce a report with recommendations to the legislature by December 15, 2010.

Often, the MSP process inventories existing marine-based uses and resources and, then, uses this information to plan for potential new uses or reduce conflicts among existing uses. This type of planning can decrease user conflicts, improve planning and regulatory efficiencies and decrease their associated costs and delays, and preserve critical ecosystem function and services.

On the outer coast, topics of particular importance may include alternative energy generation such as wind and underwater turbines, offshore fish aquaculture, underwater cables, sediment placement or disposal from dredging activities, protection of sensitive species and areas, shipping, scientific research equipment, shellfish aquaculture, and new fisheries.

Public involvement and participation at this stage is essential to identify the issues and needs that you feel should be considered as part of marine spatial planning for Washing-

ton. Take the opportunity to complete an important survey from the State Ocean Caucus that is available at: <http://www.surveymonkey.com/s/9W2ZXQY>. The State Ocean Caucus will summarize and use the results of this survey in developing the legislative report.

Please also complete the NPC MRC paper survey included with this newsletter. Results will be also be compiled and forwarded to the State Ocean Caucus.

While the new state law provides some broad goals and objectives and key elements for doing planning, the legislative report will include more specific information and initial recommendations on the on the major tasks and elements of the planning process that would be necessary, if the state moves forward with marine spatial planning. The goals and objectives for marine spatial planning are open for comment as well. Draft goals and objectives summarized from the new state law may be viewed at: <http://www.ecy.wa.gov/programs/sea/msp/survey.html>.

More information on the state's marine spatial planning effort is available at: <http://www.ecy.wa.gov/programs/sea/msp/index.html>

## Surfrider Initiates 2010 MRC Summit

The Surfrider Foundation is a non-profit grassroots organization dedicated to the protection and enjoyment of our world's oceans, waves and beaches. Founded in 1984, the organization has over 50,000 members and 90 chapters worldwide. Surfrider recently received funds to help lead the sponsorship of a fall 2010 coastal MRC summit with the goal of discussing opportunities for MRC collaboration across the outer coast.

Kathy Greer represents Surfrider and recreation uses on the Grays Harbor County MRC and serves as the committee's chair. She's a frequent participant at NPC MRC meetings and events. Kathy holds a BA in environmental studies



Kathy is pictured here with Jody Kennedy. Jody is Surfrider's Washington policy coordinator.

and photojournalism from Evergreen State College and has worked many years with Ecology and WDFW.

Kathy will be sending a formal request out to all MRCs in the coming weeks to create a steering committee to organize and plan the event. Summit attendees would ideally include MRC participants, coastal business leaders and decision makers, concerned citizens and interest groups, tribal representatives, educators, scientists, and representatives from the Northwest Strait Commission or MRCs.

To get involved in the summit or to learn more about Surfrider, contact Kathy at [kgreer@surfrider.org](mailto:kgreer@surfrider.org) or visit <http://www.surfrider.org/chapters.asp>.



Photo credit USFWS/WMNWR

Common murre colony in Quillayute Needles NWR photographed during the survey.

## The Washington Island Wilderness

by Kevin Ryan

The mystique of the North Pacific Coast is intrinsically linked to the hundreds of iconic rocks and islands scattered offshore. All but Protection Island lie within the hundred-mile long Washington Island Wilderness managed by the US Fish and Wildlife Service. The wilderness designation overlies three national wildlife refuges: Flattery Rocks, Quillayute Needles, and Copalis distributed from north to south along a 100-mile coastal expanse. The islands offer nesting sites and ocean food sources for 150,000 seabirds including storm petrels, auklets, tufted puffins, common murres, comorants, oystercatchers, pigeon guillemots and gulls. During migration periods, over a million birds may be present. Sea lions, bald eagles and peregrine falcons are also regular visitors.

To protect bird colonies and the productivity of the sites, visitors are not allowed on the islands. Instead, they're encouraged to view and appreciate their contributions from Hwy 101 and peninsula beaches. Much of the work of

preserve managers is conducted remotely as well. A case in point was the helicopter survey of murre and cormorant conducted by USFW this June – the first in five years. These two species nest in the open rather than in burrows, so thanks to good flying conditions, it was possible to digitally photograph individual birds and their nests from the air without significant disturbance to them. The counts are still in progress as we go to press.



## Discovering A Rare Fossil

reprinted from The Bugler

by Steve Fradkin

In June 2009 a vigilant visitor to the park coast made a remarkable discovery. Recently exposed by the incessant forces eroding the Olympic coast, a rare fossil seastar lay hiding in plain sight. The seastar, a distant ancestor of those currently found on the park coast, was buried by a coastal avalanche 12 to 20 million years ago as sediments piled up forming the Olympic Peninsula through the action of plate tectonics.

Once alerted by the visitor, park staff consulted with paleontologists at the University of Washington. Few complete sea star fossils exist worldwide, with none known from North America's west coast. Due to its rarity and likelihood of degradation through exposure, park natural resources staff extracted the fossil from the beach. Bruce Crowley of the University of Washington's Burke Museum in Seattle prepared and stabilized the fossil, which is now on loan as the object of scientific study at the museum. A remarkably realistic reproduction of the fossil prepared by the museum is on display at the park visitor center in Port Angeles.

This discovery illustrates the unique resources that make Olympic National Park one of America's special places, and highlights the role that visitors play in the preservation and stewardship of these resources. While such fossil finds are rare, when they do occur, visitors should not attempt to remove them, but should alert park staff who will take appropriate actions to ensure the safety of fossil finds.

## Summer Research Efforts in Olympic Coast National Marine Sanctuary

by Liam Antrim

June brought two exciting research cruises to the Olympic Coast National Marine Sanctuary. For 30 days the NOAA Ship *Fairweather* and its four smaller launches mapped approximately 175 square miles of seafloor habitats around Cape Alava. The goal of seafloor habitat mapping is to gather information about the natural marine ecosystems that are linked with seafloor sediment types. Around Cape Alava are rocky reefs, rock and cobble outcrops, and sandy sediments. All of these seafloor habitats are valuable to fish, invertebrates, seabirds and marine mammals.

From June 12-17 the NOAA Ship *McArthur II* surveyed deep-sea coral and sponge communities in the Sanctuary in support of NOAA's Deep-Sea Coral Research and Technology Program. Researchers used a remotely operated vehicle (ROV) and an autonomous underwater vehicle (AUV) further offshore of Cape Alava, to document seafloor habitats, coral/sponge communities, and fish that use these habitats. The areas prioritized for the McArthur II survey include hard bottom substrates where these animals are typically found.



Sanctuary staff, with assistance of volunteers, also visited established stations at rocky and sand intertidal sites to monitor biological communities, a long-term monitoring program that complements work in Olympic National Park and the MARINe (Multi-Agency Rocky Intertidal Network) monitoring that spans the West Coast.



In May 2010, the Sanctuary deployed moorings between Makah Bay and Point Grenville to collect physical and chemical oceanographic data from coastal waters between 15m and 45m depth. This mooring program was initiated in 2000 and has provided data to support oceanographic modeling and improved understanding of harm-

*The SeaBED AUV explored unmapped areas of the Olympic Coast National Marine Sanctuary*

ful algal blooms off the Olympic Coast.

All of these efforts involve collaborations with partners and assistance from volunteers to provide information that is critical for management, sustainable use and protection of the marine environment.



*The Kraken 2 ROV was used to visualize coral and sponge communities at depths of 100-200 meters.*

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