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Clallam MRC
2013 Annual Report

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This report summarizes the activities and progress of the Clallam County Marine Resources Committee during the 2013 calendar year.

**Activities:**

Clallam County MRC activities for 2013 focused on administration; participation in MRC and NWSC meetings; training, outreach, and education; and specific projects related to the goals and objectives of the NWSC.

Prominent among MRC activities were outreach and education activities such as co-sponsoring the Elwha Nearshore Consortium; staffing a booth at the Dungeness River Festival; and sponsoring a community forum on ocean acidification.

The MRC partnered with the Jamestown S’Klallam Tribe to restore Olympia oysters in Sequim Bay; the MRC provided seed and created an educational poster and brochure.

The committee accomplished the following in 2013:

- Conducted 10 regular MRC meetings.
- Participated in the annual NWSC training workshop.
- Attended regularly scheduled NWSC meetings and conference calls.
- Hosted several speakers at MRC meetings.
- Engaged in local symposia and festivals with MRC activities and displays.
- Sponsored and coordinated symposia, workshops, and local events.
- Sponsored college interns to compile workshop and symposium proceedings.
- Provided Olympia oyster seed to restore Olympia oyster populations in Sequim Bay.
- Developed a poster and brochure illustrating the history of Olympia oysters and the restoration efforts underway in Sequim Bay.

**Administration** – Local: County staff and the MRC coordinator continued to provide support to the MRC. During this year, County staff organized monthly meetings, prepared agendas, meeting materials, minutes, and public notices for the monthly MRC meetings. Contact lists were also updated and maintained.

County staff and the MRC coordinator assisted MRC members in the preparation of the 2013/2014 work plan.
Participation in NWSC meetings and programs – MRC members attended NWSC meetings and conference calls held during the year. MRC members and staff also attended the annual NWSC training conference.

Training and education – During the year the committee invited speakers to regularly scheduled monthly meetings:

Clallam MRC hosted guest speakers:

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Outreach
MRC staff and members participated in festivals and spoke to community groups about topics such as marine debris and the 2011 Tohoku earthquake and tsunami. The MRC also sponsored a forum on ocean acidification.

Community Forum on Ocean Acidification:
The MRC coordinated a County Commissioners’ work session and community forum on ocean acidification:
Clallam County Commissioner Mike Doherty welcomes community forum participants

Community forum participants learn about the effects of ocean acidification

Blue Ribbon Panel members share ideas with community forum participants
Panel: Ocean acidification threatening sea life here

State Department of Ecology
By Rob Ollikainen
Peninsula Daily News
PORT ANGELES — Acidification of the world's oceans could have a profound effect on the North Olympic Peninsula, a panel of experts told Clallam County commissioners Monday.
Caused by carbon dioxide from the burning of fossil fuels, ocean acidification can destroy shells of crabs, clams, oysters and scores of creatures at the bottom of the food chain.

The Strait of Juan de Fuca, Puget Sound and outer coast of Washington are particularly vulnerable because acidic water is upwelled off the coast every spring and summer.

The state supports 42,000 jobs in the seafood industry.

"There is no silver bullet," said panelist Eric Swenson, Seattle-based communications and outreach director for the Global Ocean Health Program. "It's a whole number of lead bullets that are going to make this happen."

Swenson was joined by members of the Washington State Blue Ribbon Panel on Ocean Acidification, which recently reported that 80 percent of the oyster larvae in some hatcheries were killed by acidification. The Clallam Marine Resources Committee invited the governor-appointed panel to speak at the commissioners' work session. The same panel was scheduled to make a presentation at the Port Angeles Senior Center Monday night.

After the work session, Swenson said that raw sewage from Victoria is not contributing to acidification in the Strait. "There is no real effect on the quality of ocean water that comes out of Victoria," he said. "If there were 10 Victorias, maybe there would be a problem. But the power of the currents and what comes

through, they've got a good cause for the fact that they're not causing any harm to the ocean.”

Ed Bowlby, a marine resource committee member and research coordinator for the Olympic Coast National Marine Sanctuary, said that “it may be a different story” on the north side of the Strait, adding: “We haven't seen any effects here.”

Brad Warren, director of the Global Ocean Health Program, used his time to summarize the panel's work and present its recommendations.

Swenson said there is little doubt that ocean acidification is being caused by humans. “Just like DNA evidence, there are fingerprints left on the isotopes, and the ratio between carbon 12 and carbon 13 is definitive,” he said. “It shows that this came from burning fuel, and therefore our fingerprints are all over the carbon.”

The water being upwelled off the coast came from the surface of the South China Sea about 40 years ago. “We've got 40 years or so of bad water ahead of us, or increasingly bad water, because of our increasing emissions of CO²,” Swenson said. “We can't do anything about that except strive to protect the resources we have, and try and adapt to what we know is coming our way. What we must do, on the big problem, is reduce our CO² significantly.”

Acidification is measured on a pH scale of 0 to 14, with neutral water being a 7 and battery acid rating 0.

“We're are [at] about 8.1 right now,” Swenson said. “Before they started out with the industrial revolution, they were about 8.2. That seems like a minuscule drop, but this is a logarithmic scale. So that drop of 0.1 percent equals a 30 percent increase in acidity.”

A University of Washington professor began studying the effects of acidification at Tatoosh Island about 30 years ago. In 2000, the work was passed onto researchers from the University of Chicago, who became “alarmed at what they're finding,” Swenson said.

The panel found that more than 30 percent of the marine species in the Strait of Juan de Fuca and Puget Sound are vulnerable to acidification. “The calcifiers are the first to be hit,” Swenson said. “In addition to the disruption of the food chain, there is a direct effect on fin fish.”

Among the vulnerable species is the pteropod, a shelled snail whose demise would cause “important ripple effects on the wider food chain,” said Nina Bednarsek, a National Oceanic and Atmospheric Administration scientist. “This would be one of the first species to be severely affected by the ocean acidification,” Bednarsek said, while showing slides of rapidly deteriorating
pteropod shells.

Other speakers included Betsy Peabody, founder of the Puget Sound Restoration Fund, and John Forster, a Port Angeles consultant who is exploring seaweed aquaculture as a means to “make a meaningful contribution to the food supply” while reducing local carbon levels.

Former Gov. Christine Gregoire appointed the 28-member panel on ocean acidification in February 2012.

To see its findings and 42 recommendations, which were presented in November in Seattle, visit http://tinyurl.com/oceanacidificationreport. Reporter Rob Ollikainen can be reached at 360-452-2345, ext. 5072, or at rollikainen@peninsuladailynews.com.

Dungeness River Festival:
MRC members once again staffed a booth at the Dungeness River Festival in September:

Setup was easy with a new canopy and plenty of heavy duty extension cords – thank you, Eric!

2500 people visited the festival, 500 of them on a rainy/windy Saturday

Clallam MRC gave away 550-600 “I kissed a geoduck” stickers, mostly to students. Some adults were into it, though! To get the sticker, a person was required to touch the geoduck, and give it an ‘air kiss’. Several students brought their parents to the booth on Saturday to ‘kiss the geoduck’.
Greig enthralled students with the geoducks

Lyn, Ed, and curious students

Even Smokey came by for a visit

Jeff and Lyn display their geoduck stickers
Olympia oyster restoration:
MRC members and MRC coordinator worked with NWSC staff, Jamestown S'Klallam Tribe shellfish biologists, and Puget Sound Restoration Fund on Olympia oyster restoration in Sequim Bay. A poster and brochure describing the restoration effort were developed:
Oil Spill preparedness:
Outreach and education continue to be a high priority for the MRC. In addition to its public meetings with invited speakers, in 2013 the MRC also sponsored HAZWOPER for 75 community volunteers:

Photos courtesy of Andrew Acomb

Hazwoper instructors Andy Carlson and Kevin Peterson demonstrate proper taping of Personal Protective Equipment

Hazwoper class participants practice wearing a Personal Floatation Device

Elwha Nearshore Research Consortium:
The MRC co-sponsored the Elwha Nearshore Research Consortium workshop, which highlighted presentations and dialogue for nearshore restoration researchers and the public. The focus of the annual event is Elwha nearshore restoration. Proceedings were compiled, funded by the MRC. Proceedings may be found at:

Beach cleanup:
Highly successful beach cleanups were conducted in celebration of Earth Day, in April. The MRC partnered with the Clallam Bay–Sekiu Lions’ Club and Clallam Bay–Sekiu Chamber of Commerce to clean up beaches between Shipwreck Point and Pillar Point. Fifty-one volunteers collected 720 pounds of debris in the Clallam –Bay Sekiu area.
Clallam Bay/Sekiu
Community Beach Clean Up
Saturday April 20th
Please join us in celebrating Earth Day by helping
remove litter from our local beaches-
Pillar Point to Bullman Beach!

TRASH BAG & GLOVE HANDOUT: 9AM
Compass Rose in Clallam Bay
Hoko River (in Vista neighborhood by mailboxes)
Sekiu River (NW corner past bridges)
Ray’s Grocery
Shipwreck Point (Pull out with historic marker)

A dumpster will be available at the Clallam Co. Park in Clallam Bay.

1-4 PM: Refreshments, Music and “Most Unusual Find” display
& contest with prizes to follow at Chito Beach Resort
Note: “Unusual finds” can also be entered at the dumpster in Clallam Bay (if you
can’t make it to Chito Beach) Entry deadline is 3:00 pm.

Dumpster, Bags & Gloves provided by Clallam County Marine Resources Committee
For More Info Call: Rey 963-2442 or Carol 963-2212