Marine reserves impact humans as well as sea life

Surveys tell how many visitors understand ocean issues

By Nancy McCarthy For Cannon Beach Gazette

While scientists are busy assessing the ecological impacts of five marine reserves along the Oregon coast, one scientist is studying the reserves' "human dimensions."

Tommy Swearingen, the only social scientist with the Oregon Department of Fish and Wildlife, hopes to determine how the marine reserves affect communities that are attempting to manage their shorelines.

Swearingen spoke during a "World of Haystack Rock" lecture in the Cannon Beach Library March 8.

"We are there not only to assess the impact of the reserves. If we can contribute to the near shore management of our environmental resources, we are glad to help with that broad goal," Swearingen said.

Marine reserves were established by the state between 2014 and 2016 at Cape Falcon; Cascade Head; Otter Rock; Cape Perpetua; and Redfish Rocks, south of Port Orford. Dedicated to conservation and scientific research, they are within three nautical miles from shore and range in size from 1.2 to 14.1 square miles of ocean. All fishing, removal of sea life and ocean development are prohibited. Adjacent marine protected areas also prohibit ocean development but allow limited fishing.

With the help of professors and post graduate students, Swearingen is surveying communities where the reserves are located and individuals, including tourists, fishers, surfers and environmentalists.

At least 2,100 interviews have been conducted, and observations have been made of 33,264 visitors to the marine reserves, Swearingen said. Another 1,008 surveys were mailed to affected groups.

Iwelve case studies will be done of eight communities, and business studies will examine the reserves' economic

Inn at Cannon Beach

Inn at Haystack Rock

Mariner Market

Mo's Restaurant

Martin Hospitality



Oswald West State Park overlooks the adjacent Cape Falcon Marine Reserve on the last day of the marine reserves summit.

interviews measured peoples' awareness of marine reserves and their knowledge of ocean issues. They were taken just as the marine reserves were created to obtain a base line for future surveys.

"If we're going to monitor the impact of the reserves, we have to know where we are right now," Swearingen said. "Then we will know how things have changed."

The state Legislature will review the environmental and sociological impacts in 2023.

Legislators will ask "if the system, as a whole, is a good design," Swearingen said.

The field surveys asked who visited the reserves, what other activities they enjoyed and how much money they spent. The surveys also measured visitors' attitude toward

Of those visiting the areas when the reserves first were established, 20 percent knew about them.

"I was surprised it was that high," he said, noting that little publicity had been given to them. "There were no kiosks with information, and the brochures had just been printed."

Half of the respondents answering the several surveys taken at the reserves were Oregonians; of those, 16 percent were coastal residents. Another 14 to 19 percent were from Washington; 4 to 7 percent from California; and 5 to 6

from Ghana and Rwanda.

Over half of the visitors surveyed had college degrees and household incomes of at least \$50,000. They were managers, professionals or retired. Those who visited Cape Falcon tended to be younger and enjoyed hiking and surfing, Swearingen said.

About 66 percent of the visitors stayed overnight at the coast, and the average number of nights was six. While 25 to 45 percent of them stayed in hotels, another 28 to 30 rented condos or houses.

The No. 1 reason 86 to 92 percent of the visitors came to the coast was to "go to the beach;" over half said they enjoyed tidepooling, he said. The second reason was to "engage in artistic endeavors," usually photography or painting, he added. Others wanted to participate in water sports; 10 percent had fished on the coast during their visit.

Hiking and sightseeing also were among the coastal activities visitors enjoyed.

Future studies will focus on what the public expects from the reserves, why the public does or doesn't support the reserves and how, through time, the public's knowledge of ocean issues changes.

Of those who were quizzed on how much they knew about pollution, marine debris, over fishing, invasive species and rising sea temperatures averaged a score of 62, Swearingen said. "Everybody flunked," he



NANCY MCCARTHY/FOR CANNON BEACH GAZETTE

Tommy Swearingen holds up one of the visitor surveys that was conducted at the marine reserves.

added, although coastal residents fared better than those living inland.

Neal Maine, co-founder of the Haystack Rock Awareness Program, who attended the lecture, noted that the 1967 Oregon Beach Bill, which deemed Oregon's 361-mile coastline public, omitted the "coastal ecosystem."

'The marine reserves brought out that attention to ecological systems," Maine said. "They could be the stepping stones to future discussions we need to have.'



SOLVE student volunteers in Cannon Beach.

Annual SOLVE Spring Oregon Beach Cleanup

On Saturday, April 1, SOLVE welcomes volunteers of all ages to join together in clearing the entire Oregon coast of litter and marine debris. Presented by AAA Oregon, the 32nd annual SOLVE Spring Oregon Beach Cleanup takes place from 10 a.m. to 1 p.m. Residents and visitors alike are encouraged to join the local cleanup in Cannon Beach. It's an easy, fun way to get outside, meet your neighbors, and keep the beach clean. Volunteers at the Cannon Beach Cleanup check in outside City Hall at 10 a.m. Available cleanup areas span from Ecola State Park to Arch Cape. For more information and to see a list of all cleanup sites, please visit solveoregon.org or call Kaleen Boyle at 503-844-9571, ext. 332. Visit solveoregon.org for more information.

Beach season at Haystack Rock

Join the Haystack Rock Awareness Program on the beach, daily during low tide, now through the end of Oc-

The program's mission is to protect, through education, the intertidal and bird ecology of the Marine Garden and National Wildlife Refuge at Haystack Rock.

HRAP rocky shore environmental interpreters will be on the beach, weather permitting, during daily low tides to educate visitors at Haystack Rock about biodiversity found both on and around the rock. The free, public education program will change as the seasons change — with the arrival and departure of various animals to the area. The program offers bird scopes, aquaria stations, an interactive visitor table with a microscope, and many other fun and exciting educational opportunities. HRAP offers both vol-

unteer opportunities as well as field trip opportunities. Volunteers can register to volunteer online, through the city of Cannon Beach website, with education and volunteer coordinator and 15-year veteran Lisa Habecker. Events run May through September and are free and open to the public. The week-long kids' camps and day camps for kids and adults will run during the summer months. Contact program coordinator Melissa Keyser at 503-436-8060 or email hrap@ci.cannon-beach.or.us.





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