



- HOME • NEWS • SPORTS • COMMUNITY • CLASSIFIEDS
- BUSINESS • ARTS • CRIME • OBITUARIES
- OPINION • ARCHIVE SEARCH • CONTACT US



Your information source for the Central Oregon Coast

News

- Local News
- Sports
- Community
- Business
- Crime
- Arts
- Opinion
- Obituaries
- Legal Notices
- Archives

Classifieds

- Employment
- Real Estate
- Rentals
- Merchandise
- Financial
- Instruction
- Announcements
- Services
- Transportation
- Rec, Vehicles
- Place an Ad

Reader Services

- Subscribe
- Contact Us

Extras

- Ask the Expert
- Map of Newport (PDF Format)
- Donate to the Oregon Coast Aquarium (PDF Format)
- Beleved Weather (PDF Format)
- Newport Surf Report
- Education Directory
- Seafood & Wine
- Advertise With Us

Posted: Aug 03, 2005 - 09:39:32 PDT

Archived Story

Ocean 'hot spots' identified

A study of barnacles on the central Oregon Coast has revealed significant "hot spots" of ocean productivity where marine life has much greater reproductive potential - information that could be a key to the successful siting of marine reserves.

Research by Oregon State University scientists showed that near Cape Perpetua, an ocean area of high primary productivity, barnacle populations produced five times as many offspring as those living near Cape Foulweather, a region of lower productivity. In controlled experiments, the scientists found an even larger effect of nearshore ocean conditions - Cape Perpetua barnacles produced more than 120 times as many babies as those in the Cape Foulweather area.

The study highlights the importance of including information on ecological processes when designing reserves and other types of marine protected areas, the scientists said. It is one of the first studies to link reproductive variation with key ecological processes on a scale that's relevant to management and conservation. The findings were published today in a professional journal, Proceedings of the National Academy of Sciences.

"This study demonstrates that not all ocean places are equivalent, and that some populations are more likely than others to contribute to future generations," said Heather Leslie, a marine ecologist at OSU. "This could serve as a model for how to link information on biodiversity patterns with underlying ecological processes."

The higher productivity, researchers say, is probably linked to the wider continental shelf and more complex bottom topography near Cape Perpetua.

Variability in ocean currents and bottom topography, as well as biological interactions, all can contribute to differences in the productivity of marine ecosystems. Biodiversity protection and enhancement of nearby fisheries are among the goals of marine reserves, the researchers said, and an important aspect of siting effective reserves would be understanding how the productivity of key populations vary.

This research is part of the work being done through PISCO, the Partnership for Interdisciplinary Study of Coastal Oceans, and was supported by grants from the David and Lucile Packard Foundation, the Andrew W. Mellon Foundation, and the National Science Foundation. PISCO focuses on understanding the nearshore ecosystems of the West Coast of the United States through interdisciplinary research, student training and outreach programs.

[adsy_ad::left]

Email this story

Print this story

[adsy_ad::left]

[adsy_ad::left]

[adsy_ad::bottomleft]

[adsy_ad::bottomright]

[Home | News | Sports | Community | Opinion | Business | Arts | Classifieds | Obituaries | Archives]

Copyright © 2005 Newport News-Times