



NOAA's Undersea Research Center for the West Coast and Polar Regions

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The West Coast & Polar Regions Undersea Research Center operates in the waters offshore of California, Oregon, Washington, Alaska, and the Arctic and Antarctic. Fisheries within the region are of major economic importance, comprising over 65% of the U.S. total resource by weight and approximately 40% by value.

The region also contains active tectonic margins with earthquake-producing subduction zones and fault zones; cold seeps and gas hydrate deposits; submarine canyons; seamounts; and volcanically active mid-ocean ridges. To support research of this geologically unique and biologically diverse environment, the WCPR Center leases manned submersibles, shallow- and deep-diving ROVs, and other research equipment, and funds SCUBA operations.



Highlights

- Pioneered use of benthic habitat mapping and new interdisciplinary research techniques to study the relationships between fish populations and the geology and ecology of benthic habitats on the West Coast
- Initiated and supports the multi-agency Heceta Bank rockfish habitat study off the coast of Oregon
- Discovered huge mating aggregations of Tanner crabs (Chiniak Bay, AK), a commercially important species
- Baseline study of the Cowcod Conservation Areas (southern CA), the largest marine protected area off the West Coast, to evaluate whether protection accomplishes its intended purpose of groundfish species recovery

WCPR Center supports development and testing of new instruments and techniques, such as:

- video/datalogger systems mounted on marine mammals
- laser line scan mapping for seafloor habitat mapping
- fuel cell technology applications at cold methane seeps
- pressurized recovery system and pressurized thermal gradient chamber to study live hydrothermal vent tubeworms
- ROV-mounted Raman spectroscopy to study crystal structure and composition of seafloor methane hydrate

