

Olympia Oysters The Nature Conservancy in



Native oyster restoration in Washington

The native Olympia oyster was once a dominant shellfish in most large bays along the West Coast. Olympia oysters play an important ecological role because they continuously filter and clean large volumes of water. Their shells form reefs that serve as important habitat for many species including invertebrates and juvenile salmon, which rest in bays and estuaries before migrating into the ocean. The shallow subtidal estuaries of Puget Sound were once covered with a mosaic of soft bottom, eelgrass and oyster reef, providing habitat for a rich food web of invertebrates, crab, and fish.

Although still present in much of their historic range, the numbers of Olympia oysters have dwindled to a shadow of their previous abundance. The oyster was harvested heavily in the late 1800s and early 1900s. Their reef habitat, essential to the recruitment of young oyster larvae, was lost to harvest, and further degraded by sedimentation from logging, forest fires and shoreline development. Pollution has also played a role; toxic discharges from pulp mills caused large oyster die-offs. Remaining populations continue to be challenged by habitat loss, excess nutrients that lead to oxygen depletion, and non-native predators.



Fast Facts

- A single adult oyster can filter up to12 gallons of water a day.
- The Olympia oyster (Ostrea conchaphila) is the only oyster native to the West Coast and is found from Baja, California, to Sitka, Alaska.
- Annual harvest of Olympia oysters in Washington reached 130,000 bushels by the 1890s. By 1910, production declined to only 16,000 bushels a year.
- There are still natural sets of Olympia oysters in South Puget Sound, but the juvenile mortality rate has remained high and natural recovery is slow.

Science in Action

Goal: To restore self-sustaining populations of native Olympia oysters in Puget Sound by enhancing habitat to attract and support natural recruitment from remnant populations of oysters.

Science in action: The Conservancy has spread nearly 1,700 cubic yards of oyster cultch over five acres of habitat in close proximity to existing populations of native oysters. In the summer of 2008, another four to five acres will be targeted for enhancement. Pending success at these three sites, expansion of habitat enhancement will be initiated at a much broader scale.

Future: In 10 years, we expect to see self-sustaining populations of Olympia oysters fulfilling their natural role in the ecosystem—filtering water to improve water quality, maintaining algae at natural levels, and providing habitat for other species such as salmon, starry flounder, Dungeness crab, shiner perch, surf perch, anchovies, herring, Pacific lamprey, juvenile rockfish, and myriad marine invertebrates. Project monitoring will focus not only on the health of the oysters themselves, but on changes to the broader benthic community and on use of the newly created reefs by fish.





The National Partnership between the NOAA Community-based Restoration Program and The Nature Conservany implements innovative conservation activities that benefit marine, estuarine and riparian habitats across the United States. The NOAA Restoration Center has worked with community organizations to support locally-driven projects that provide strong on-the-ground habitat restoration components that offer educational and social benefits for people and their communities, as well as long-term ecological benefits.

Working Together

Funders:

NOAA's Community Based Restoration Program TNC's Global Marine Initiative USDA- Natural Resources Conservation Service Russell Family Foundation Coastal Protection Fund

Partners:

Puget Sound Restoration Fund WA Dept. of Fish & Wildlife WA Dept. of Natural Resources Taylor Shellfish Olympia Oyster Company Squaxin Island Tribe Thurston County Parks Suguamish Tribe U.S. Navy University of Washington Baywater Inc Washington State University Private landowners Hama Hama Oyster Company Interlocking Software U.S. Environmental Protection Agency Olympia Trucking Company **D&M** Excavating Port of Poulsbo Kitsap County

The mission of The Nature Conservancy is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.

For more information

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