

Olympia Oyster restoration in Washington State: A partnership with Puget Sound Restoration Fund.

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The Northwest Fisheries Science Center is just beginning a collaborative effort to restore native Olympia oyster (*Ostrea lurida*) in Puget Sound. A restoration shellfish hatchery is near completion (May 2014) at the Center's Manchester Research Station in Puget Sound. Olympia oyster is the only native oyster on the west coast of the United States. Its numbers have declined since late 1890s, so that now self-sustaining populations only exist in 4% of its historic distribution. The decline in Olympia oyster abundance was due to overharvest and habitat degradation. Efforts have begun in recent years to restore Puget Sound habitat by federal, state, local governments, tribes, and non-governmental organizations (NGOs) include oyster reef restoration. Oyster reef restoration provides many benefits, including recovering native species, rebuilding marine habitat, restoring ecosystem function and species diversity, mitigating nutrient pollution, improving marine water quality, and monitoring for ocean acidification. The restoration of Olympia oyster relies on collaboration with Puget Sound Restoration Fund, an NGO that has been working on Puget Sound restoration since 1997. The goal of the collaborative effort is to provide up to 10 million oyster seed per year to enhance populations in 40 hectares in Puget Sound by 2020. Genetically defined stocks of oysters will be ouplanted and studied to ensure appropriate genetic diversity is retained. Successful restoration will be determined using various criteria, including establishing self-sustaining populations at a density of at least 75 oysters/m<sup>2</sup>.