



Building a Coastwide Olympia Oyster Network to Improve Restoration Outcomes and Enhance Community Engagement

Overview

Although drastic global declines in oyster reefs over the past few centuries have resulted in significant native oyster restoration efforts on the United States' East Coast, the West Coast's Olympia oyster has received comparatively little attention. The public remains largely unaware of the decline of Olympia oysters and the benefits of restoration, and Olympia oysters have been the subject of relatively few scientific studies and restoration efforts. Although interest in the Olympia oyster has increased over the past decade, and projects are currently underway at a dozen locations along the West Coast, these efforts are disjointed and there is a critical need for greater communication, coordination, and information sharing among scientists and restoration practitioners.

This project is working to enhance the restoration success of Olympia oysters by creating a coastwide network linking Olympia oyster restoration work from British Columbia, Canada to Baja California, Mexico. By synthesizing past restoration projects, developing an experimental design to optimize native oyster dominance, and creating educational and outreach materials to convey the importance of native oyster restoration work on the Pacific Coast, the project team is enhancing future Olympia oyster restoration outcomes and engaging communities in supporting restoration efforts.

Anticipated Benefits

- Improved collaboration among Olympia oyster restoration practitioners and scientists to bolster restoration efforts along the West Coast.
- Improved understanding of the success rate of past Olympia oyster restoration projects and the impact of invasive species on restoration efforts.
- Enhanced restoration design informed by synthesis of existing information on invasive species interactions, which will position the network to apply for future grants.
- Increased public awareness of and engagement in Olympia oyster restoration.

Project Location

North American West Coast

Project Duration

September 1, 2018 to August 31, 2019

Project Lead

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Project Type

Catalyst – Targeted investment for
advancing collaborative science

Project Collaborators

- California State University, Fullerton
- Centro de Investigación Científica y de Educación Superior de Ensenada
- Confederated Tribes of Siletz Indians
- Elkhorn Slough National Estuarine Research Reserve, California
- Padilla Bay National Estuarine Research Reserve, Washington
- San Francisco Bay National Estuarine Research Reserve, California
- Smithsonian Environmental Research Center
- South Slough National Estuarine Research Reserve, Oregon
- Tijuana River National Estuarine Research Reserve, California
- University of California, Davis
- World Fisheries Trust

Project Approach

The project is being guided by a steering committee comprised of a group of 25 end users representing all major Olympia oyster restoration projects on the West Coast. A subset of 12 committee members is leading the various research, experimental design, and communications components of the project. To understand factors eliciting success in restoration projects and the role of invasive species in hampering success, the team is synthesizing past restoration projects—creating a database of Olympia oyster restoration efforts, and generating a story map of restoration efforts and existing populations on the West Coast. This information will inform the investigation of issues associated with invasive species in native oyster restoration, guiding the team in designing a replicated restoration experiment and framework for a future grant proposal. The team is also developing outreach and educational materials to enhance public awareness of restoration efforts. Outreach materials include an Olympia oyster restoration network website, which will provide information to the general public and end users about the network's efforts, and kindergarten through twelfth grade teaching materials and classroom activities that have been developed or used by network members to enhance West Coast-specific oyster education programs.

Targeted End Users and Anticipated Products

End users include scientists, restoration practitioners, tribal communities, education and outreach specialists, and groups involved in funding, permitting, and planning oyster restoration. All of these groups are represented on the project steering committee and are members of the newly formed network. The project team will produce a database synthesizing past restoration projects; a story map of restoration efforts and existing oyster populations along the West Coast; a summary report on invasive species' interactions with Olympia oyster restoration; experimental design for a replicated restoration experiment; and educational and outreach materials on West Coast oyster restoration efforts.



About the Science Collaborative

The National Estuarine Research Reserve System's Science Collaborative supports collaborative research that addresses coastal management problems important to the reserves. The Science Collaborative is managed by the University of Michigan's Water Center through a cooperative agreement with the National Oceanic and Atmospheric Administration (NOAA). Funding for the research reserves and this program comes from NOAA. Learn more at coast.noaa.gov/nerrs or graham.umich.edu/water/nerrs.