

Comparative Habitat Use of Estuarine Habitat With and Without Oyster Aquaculture

This project will examine the environmental impacts of shellfish aquaculture by furthering the understanding of how benthic invertebrate communities are affected by the presence of cultch-on-longline oyster aquaculture.

Numerous studies on the U.S. West Coast have documented differences in species diversity and abundance associated with estuarine habitat types with and without oyster culture. However, due to the relatively recent transition to off-bottom culture, few studies have addressed how and whether off-bottom oyster culture affects species use and abundance or whether these differences affect the overall food web ecology of the system. We will examine how off-bottom oyster culture influences the benthic invertebrate community in Humboldt Bay, California's second largest estuary.

Hannah Coe received her B.A. degree in Biology with a minor in Environmental Studies from St. Mary's College of Maryland. Following graduation she worked her way west with stops at Flathead Lake Biological Station in Montana, a term with the Americorps Watershed Stewards Program, and a few seasons with CDFW and WDFW-conducting salmonid spawning ground surveys and rotary screw trap work. Although she enjoyed working with salmonids, she was drawn back to her coastal roots and wanted to study estuarine environments. Hannah was admitted to the Fisheries Program at HSU in January 2017 and is pursuing a master's degree with Dr. Mark Henderson. Her project focuses on the impacts of long-line oyster culture on the aquatic community of Humboldt Bay. The proposed expansion of longline oyster aquaculture in Humboldt Bay necessitates further research to understand how fish and invertebrate communities are affected by the presence of cultch-on-longline oyster aquaculture.



She hopes that earning an advanced degree will facilitate her future endeavors to explore the impacts of human actions on the aquatic environment, with the goal of influencing management decisions to aid in the conservation of ecosystems for generations to come.