

PUGET SOUND

National Estuary Program

Investigation of Nutrients and Phytoplankton in Admiralty Inlet and Northern Hood Canal

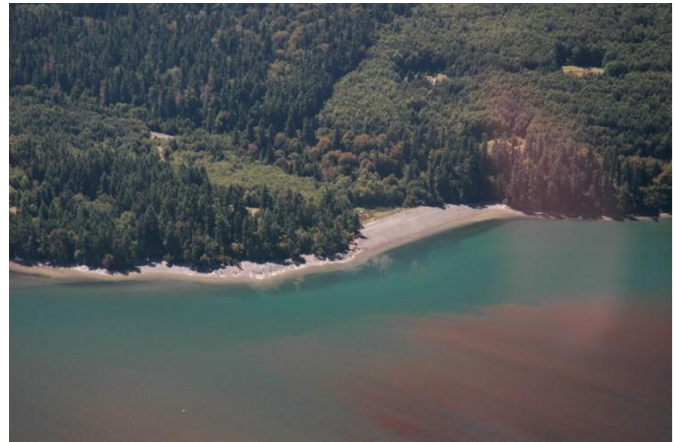
This project adds phytoplankton and nutrient monitoring to the existing Salish Sea Marine Survival Project (SSMSP) zooplankton monitoring program at two sampling stations in 2021. By coupling zooplankton data with phytoplankton and nutrient data, we will have a more complete understanding of the environment in which juvenile and adult salmon encounter in their migrations to and from their natal streams. The result will be a deeper understanding of the base of the food web and the incidence of harmful algal blooms (HABs) that can impact salmon survival.

What we're doing

This project will couple nutrient and phytoplankton sampling with existing zooplankton monitoring at two sites- one in Admiralty Inlet and another in northern Hood Canal. Sampling will be done in cooperation with the Washington Department of Fish and Wildlife and the Port Gamble S'Klallam Tribe. Whole-water samples will be collected from several depths to characterize the phytoplankton community and to complete nutrient analyses. This one-year project could be a model for adding phytoplankton and nutrient monitoring to the other fourteen SSMSP zooplankton monitoring sites throughout the Salish Sea.

WHY IS THIS ISSUE IMPORTANT?

Harmful algal blooms are detrimental to salmon and marine ecosystems and result in economic losses. Nutrients in runoff from surrounding lands increase algal blooms and can change the structure of the marine food web. Several types of harmful algae, such as *Heterosigma akashiwo*, can directly impact salmon survival. We do not yet have a full understanding of how excess nutrients affect the food web of the Salish Sea and how this impacts salmon survival.



*A bloom of Heterosigma akashiwo in northern Puget Sound.
Photo courtesy V. Trainer, NOAA*

WHAT YOU CAN DO

Help keep nutrients from entering Puget Sound!

Sources: stormwater, sewage, fertilizers, and animal wastes.

What to do: build a rain garden, reduce or eliminate fertilizers, cleanup pet waste. Get involved.

Learn more: [Reducing nutrients in Puget Sound](#)

ABOUT US

The Jamestown S'Klallam Tribe's Natural Resources Department protects the natural resource treaty rights within the Point No Point Treaty area for the benefit of Jamestown S'Klallam Tribal members and future descendants. It ensures the sustainable harvest of fish, shellfish and wildlife by Tribal members and provides increased opportunity through restoration, enhancement and scientific study, and reversing the decline of these resources resulting from environmental degradation.

FOR MORE INFORMATION

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