

## **Shellfish population survey of the Swinomish Reservation**

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The Swinomish Indian Tribal Community Water Resources Program has conducted annual shellfish population surveys of several culturally important areas from 2002-2004. The surveys monitor general shellfish population trends and species abundance found in the tideland areas of the Reservation. This information is important to the Tribe since the Swinomish people historically and currently use these areas for subsistence shellfish harvesting. Survey methods have been modified from the Northwest Indian Fisheries Commission methods. We delineated the beach boundaries by determining the upper (+5' MLLW) and lower clam boundaries (-2' MLLW). Transects were set perpendicular to the water's edge and spaced 50 feet apart between these boundaries. One square-foot dig sites were established every 50 feet along the transects using a Global Positioning Satellite Unit to navigate to the sites. From 1200 to 2400 clams were collected and measured for length from approximately 400 dig sites covering nearly 30 acres each year. Length data was converted to weight using past data and length/weight trend lines. Weight density maps for each beach were produced using GIS post-processing.