



### **[EPA Region 10 Dive Team](http://www.epa.gov/region10/dive)**

#### **Survey of Shellfish for PSP and Domoic Acid in Puget Sound, 1994-1995**

**What:** The EPA Region 10 Dive Team collected snails and clams for a limited survey of paralytic shellfish poison (PSP) and domoic acid.

**Why:** To assess the PSP and domoic acid concentrations in predatory and other gastropods and bivalves within the Puget Sound basin and potential human health risk.

**Where/When:** Agate Passage September 1994 & April 1995, Double Bluff September 1994, and Mystery Bay October 1994, all in Puget Sound, WA.

**How:** Moon snails (*Polinices lewissi*), dogwinkle (*Nucella lamellosa*), an omnivorous snail (*Searlesia dira*), Pacific oysters (*Crassostera gigas*), blue mussels (*Mytilus edulis*), and horse mussels (*Modiolus modiolus*) were collected by hand from shallow subtidal areas. Butter clams (*Saxidomus gigantus*), Pacific littleneck clams (*Protothaca stamina*), and soft-shell clams (*Mya arenaria*) were dug from the intertidal area. All tissues were frozen. Analyses for PSP and domoic acid were performed by NMFS's NW Fisheries Science Center.

**Results:** Analyses of tissue from two predatory gastropods, moon snails and dogwinkles, indicated a presence of PSP, but domoic acid was not detected. Puget Sound predatory marine snails accumulate PSP toxins to levels above the regulatory level (80 mg of STX equiv./100 g). In 1994, moon snails in Agate Passage averaged 145 mg of STX equiv./100 g, while butter clams from the same area averaged 73 mg of STX equiv./100 g.

**More Details:** [Wekell, J.C., R.M. Lorenzana, M. Hogan, and H. Barnett. 1996. Survey of paralytic shellfish poison and domoic acid in Puget Sound predatory gastropods. J. Shellfish Res. 15\(2\):231-236. \(6 pp, 1 MB pdf\)](#)

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