Crepidula onyx G. B. Sowerby I, 1824 collected in Puget Sound

Article and photos by George P. Holm

Crepidula onyx G. B. Sowerby I, 1824 from Mitchell Point, Port Orchard, Sinclair Inlet, Kitsap County, Washington. Drew V. Skinner Jr. collector.

A species of *Calyptraeidae* previously not found in the Pacific Northwest may have become established in Puget Sound in an area around Bremerton, Washington. *Crepidula onyx* G. B. Sowerby I, 1824, a species normally found in Southern California has been collected intertidally for the past two years by PNWSC members.

The two areas where club members have collected the species are at Port Washington Narrows by Bremerton and at Mitchell Point on Sinclair Inlet by Port Orchard. Both of these areas are on either side of the Bremerton Naval Shipyard where it is possible that the accidental introduction of the species may have occurred. Crepidula onyx can be dispersed either by attachment to the hull of a ship or as in the larval stage in the discharge of ships ballast water.

A front page article in *The Oregonian* on July 11, 2006, dealt with the U. S. Maritime Administration, which, under pressure from the U.S. Coast Guard, has been ordered to clean the hulls of aging ships before moving them to be scrapped. The fleet sites are in Virginia, Texas and California where the ships must now be cleaned of potential aquatic invaders attached to the hulls before they can be moved to the scrap yards.

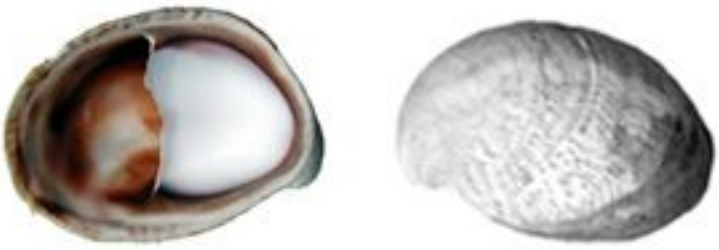
An introduction through the discharge of ballast water has occurred in China where *C. onyx* has now become established along a large section of coastline there.

Pacific Northwest Slippersnails

Slippersnails of the Pacific Northwest have up to now consisted of six or eight species, depending on which literature one consults.

The species are - *Crepidula perforans* Valenciennes, 1846, *C. nivea* C. B. Adams, 1852, *C. nummaria* Gould, 1846, *C. adunca* G. B. Sowerby I, 1825, *C. convexa* Say, 1822, *C. fornicata* (Linné, 1758), *Calyptraea fastigata* Gould, 1856, and *Crepipatella dorsata* (Broderip, 1834). The discrepancy with the species total is with *C. perforans* and *C. nivea* which may be the same as *C. nummaria.*

Crepipatella dorsata (Broderip, 1834) Bremerton Narrows, Washington. Linda Schroeder collection + photo



Crepiduda fornicata (Linné, 1758) Penrose Point State Park, Washington. Linda Schroeder collection + photo

Above.
Crepidula nummaria Gould, 1846
Found under a rock at low tide.
Mitlenatch Island, B.C.

Above
Crepidula nivea C. B. Adams, 1852
A heavy shell found washed ashore on Long Beach South, Ucluelet, Vancouver Island, B.C.

Above.
Crepidula convexa Say, 1822.
Attached to *Batillaria cumingi* (Crosse, 1862)
Boundary Bay, Delta, B.C.
The species can vary in colour from creamy white to purplish-brown.

Above.
Crepidula perforans (Valenciennes, 1846)
Found inside *Thais canaliculata* housing hermit crabs.
Ogden Point Breakwater, Victoria B.C.

Right.
Crepidula adunca G. B. Sowerby I, 1825
Intertidal on rocks and shells.
Port Hardy, Vancouver Island, B.C.
Males are very small and sit attached to shell of larger female.
Note attachment area of male in the lower picture.

Left.
Calyptraea fastigata Gould, 1856.
Intertidal on small rocks.
Port Hardy, Vancouver Island, B.C.

Scans of shells by G. Holm. All specimens on this page are in G. P. Holm collection.