

**Massive mortality event (June-July, 2018) of Purple Olive Snails, *Olivella biplicata* on the west coast of Vancouver Island, B.C.**

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I was surprised this summer to find thousands of purple olive shells, *Olivella biplicata*, washed up on Chesterman Beach, Tofino on the west coast of Vancouver Island (**Fig. 1, 2**). This was the second occasion that I had witnessed such an



event on this beach; the first time was in the 1980's. In 2014 there was a mass mortality of purple olive snails at Hoebuck Beach, Neah Bay, on the open coast of Washington. Annual surveys of the olive snails are carried out by the Makah Natural Resources Department and it is good news that the populations are recovering and no further mass mortalities have occurred since 2014. The few natural predators of purple olives are moon snails (**Fig. 3**), sea stars and sea birds.

Purple olive shells have long been collected by the Makah people for traditional cultural practices including making necklaces and decorating headbands, belts and other clothing. The *Olivella* shells have been found in the oldest archeological digs in Neah Bay. It is interesting that no other mollusk or other marine creatures experienced this sudden mass mortality. Although a few other mollusks were found mixed in with the olive shells on the beach, they were in small numbers and were a natural, normal occurrence. Park naturalists at the nearby Pacific Rim Park Reserve first reported windrows of purple olive shells in late June at Chesterman, Cox and Schooner beaches.

The massive mortalities of the olive snails appear to be a rare event that spans a couple of weeks time in the summer months. The Makah Natural Resources program have on-going purple olive snail studies and are prepared to undertake a variety of analyses in an effort to determine the causes if there is another large die-off. The naturalists at the Pacific Rim National Park Reserve, the Raincoast Education Society (Tofino) and the Ucluelet Aquarium are also monitoring the beaches for any further events.

