



George Holm photo

***Carychium tridentatum* (Risso, 1826)**

When George Holm first saw this 2.2 mm snail on the edge of a leaf in Queen Elizabeth Park in Vancouver, B.C., he thought that it was so tiny that it could fit through the eye of a sewing needle. He took this photograph through his microscope to show just how close it came.

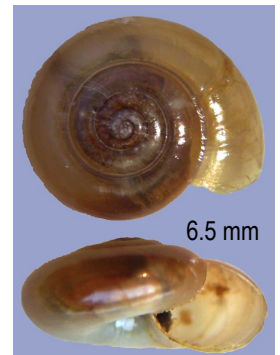
Exotic species of land snails from Mount Vernon, WA and Queen Elizabeth Park, Vancouver, B.C.
 Article and photos by George P. Holm



Trail in Queen Elizabeth Park where snails were first observed

The winter of 2009 - 2010 had been the mildest on record for the Pacific Northwest. Trees and flowers throughout the region bloomed a month or more early, and at least one species of land mollusk had emerged from hibernation earlier than normal. It was February, the middle of winter, and not a time I would normally be looking for land snails, but I observed a dozen snails, of a species I could not readily identify, crawling about on a cement sidewalk in Mount Vernon, Washington.

The snails had the shape and appearance of *Oxychilus alliarius* (J. S. Miller, 1822), but they were paler in color and did not emit the garlic odor that is normally associated with that species. I was able to return to the location eleven days later, and at that time, saw more than twice as many snails crawling about on the sidewalk. I could not have guessed that my chance happening upon those snails, and the subsequent effort to identify them, would ultimately come to occupy my spare time for the next month and would result in my finding and identifying four species of exotic snails that I had not collected locally. One of the four would also be a new record for Canada, and another, a new record for British Columbia.



Oxychilus alliarius

I drove to Queen Elizabeth Park in Vancouver, B.C. one day to try and find *Aegopinella nitidula* (Draparnaud, 1805) to compare against the Mount Vernon snails.

Aegopinella nitidula is an introduced European species and the park is one of a few places locally where it has been found. The trail where I entered passed through a small section of trees and bushes that had been allowed to grow with a minimum of maintenance. It was there I picked up some decaying leaves and small sticks to see what snails, if any, might be present on them. The snails I saw were what I had expected, several *Lauria cylindracea* (da Costa, 1778), an exotic species from Europe and now the most common snail in the park. There were also a couple species of *Oxychilus* and I did find the *A. nitidula*.

As I held up a leaf, it was what I almost didn't see, that got my attention. Near the edge was a tiny white speck, which was a snail, a *Carychium*, but smaller than *Carychium occidentale* Pilsbry, 1891, the only member of the species that I have collected locally. I thought initially that the snail might be a *Carychium minimum* Müller, 1774, since that species is found on Vancouver Island. When it was eventually identified, it turned out to be



3.9 mm

Lauria cylindracea

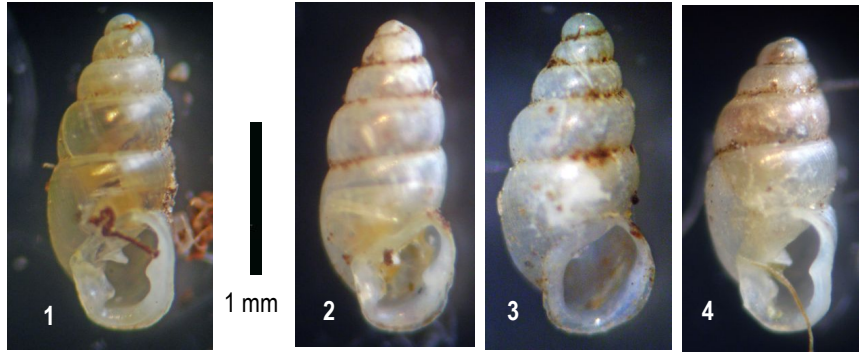


9.5 mm

Aegopinella nitidula

Carychium tridentatum (Risso, 1826), another exotic from Europe that had been found only once before in North America. The new location would be the first time the species had been found in Canada. It was first found in 1987 by Terry Frest at Ravenna Park in Seattle, Washington. He gave me a sample from that find, and since all *Carychium* are extremely tiny, ranging in size from 1.6 mm to 2.7 mm, a positive identification was not confirmed until photographs of those specimens were placed side by side with photographs of *C. minimum* I had collected in 1974 in Los Angeles, California.

There were more snails on other leaves and I placed those, along with a small sample of leaf litter, in a bag for further examination. The sample yielded other snail species, including one



1. *Carychium tridentatum* Queen Elizabeth Park, Vancouver, B.C.
2. *Carychium tridentatum* Ravenna Park, Seattle, WA
3. *Carychium occidentale* Salsbury Point State Park, Kitsap Co., WA
4. *Carychium minimum* Griffith Park, Los Angeles, CA



Intersection of Laventure Road and Little Mountain Lane in Mount Vernon. The *Oxychilus cellarius* [upper arrow] were found living in soil and vegetation between the curb and sidewalk [lower arrow] and would crawl onto the sidewalk when it warmed up.

that demanded return to the park for a further search of the area. That snail was a *Discus rotundatus* (Müller, 1774), yet another exotic from Europe that has very distinct color markings and sculpture, which I recognized from having collected it more than thirty years ago in Denmark. I started in the area where the first specimen was found and eventually came upon an area further along the trail where the species occurred in number. The park site is the second time the species has been found in British Columbia, the first being in a garden in Esquimalt on Vancouver Island in 1954. On the west coast it has also been found in California, and in 2001, Bellingham, Washington. The snail is also known to be in several eastern states and provinces.

The Mount Vernon snails that began it all have been identified as *Oxychilus cellarius* Müller, 1774, an introduced species from Europe and the Mediterranean. Thanks to El Niño, and the mild weather it brought our way, I got an early start on shell collecting that made the winter, for me, feel like no winter at all.

References: Forsyth, R. G. 2004. Land Snails of British Columbia. Royal BC Museum Handbook. Victoria. Royal British Columbia Museum. 188 p.



Discus rotundatus



Oxychilus cellarius