

Molluscs in Pholad Holes

by Bill Merilees February, 2013

Becoming a 'mollusc detective' requires a sharp eye, a healthy dose of curiosity and a little practice. Pathways in the sand (Tellins and olive shells), blemishes to the beach surface (moon snails), and siphon holes (clams) are some of the clues to locating species that try to remain hidden from view. Another tell-tale sign are the entrance holes to the burrows of pholads or piddocks, ground into softer rocks or clay. Once a pholad has started boring, it quickly becomes imprisoned by the matrix as its cavity becomes flask shaped. (Photo) Should the clam die, and after its shell has disintegrated, these cavities become the homes of a great variety of marine creatures. Purple sea urchin 'pockets' also become similar habitats.

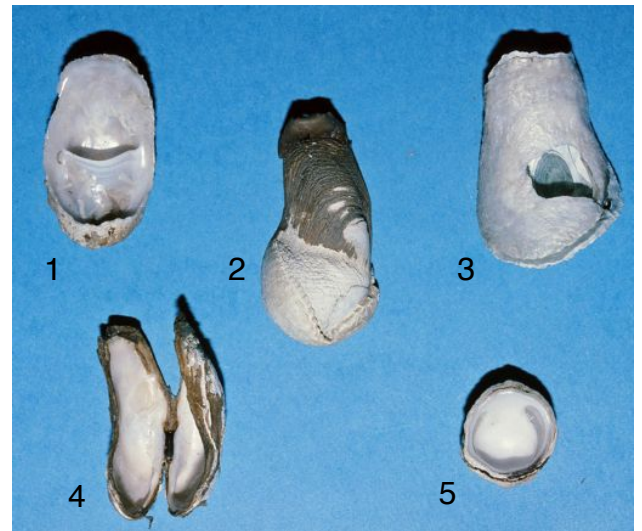
Along our west coasts, the most frequently encountered piddock species is *Penitella penita* (the Flap-tipped Piddock) which burrows into sedimentary rock, particularly sandstone. The much larger *Zirfaea pilsbryi* (the Rough or Pilsbry's Piddock) with a shell length to 15+ cm or 6+ inches) prefers blue clay. Here it can penetrate 40 cm (16") or more.



Penitella penita in situ. Note flask shaped burrows. Bill Merilees photos

During a visit to LeClaire Point in Hesquiat Harbour on Vancouver Island's west coast a fine sandstone formation was present, an ideal *Penitella* habitat.

Considerable physical labour pried loose a nice assortment of marine life; crabs, worms, small urchins plus some unusual molluscs. Notable was the Flat Hoofsnail, *Antisabia panamensis*, certainly not flat in this situation. It was so round in fact, that it was first mistaken for a clam! Also present were the slipper shell, *Crepidula perforans* and the clams *Pododesmus macrochisma* and *Hiatella arctica*, (cf *pholadis* 'type')*. The latter two species were considerably distorted to fit the shape of their prison. (photo).



1 - *Crepidula perforans* 2 - *Penitella penita* 3 - *Pododesmus macrochisma* 4 - *Hiatella arctica* cf *pholadis* type 5 - *Antisabia panamensis*.

*Differing views on the nomenclature of this very variable species exist. Larger size, with a brown periostracum and the fact they were found in pholad burrows, sort of convinces the author to designate the LeClaire Point material as cf *pholadis* 'type'.

Every visit to the seashore usually provides a surprise or two. On this occasion it was my first encounter with the Hoof Shell. This species secretes a base plate to which it then attaches. This feature gave this specimen a distinctly clam like appearance. Only when the muscle scars were observed, was its identity revealed. At Le Claire Point the shape of the pholad burrow offered just the right conditions to provide this deception. A clever 'trick'!

References:

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