

Context:

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Errors and omissions:

Reference:

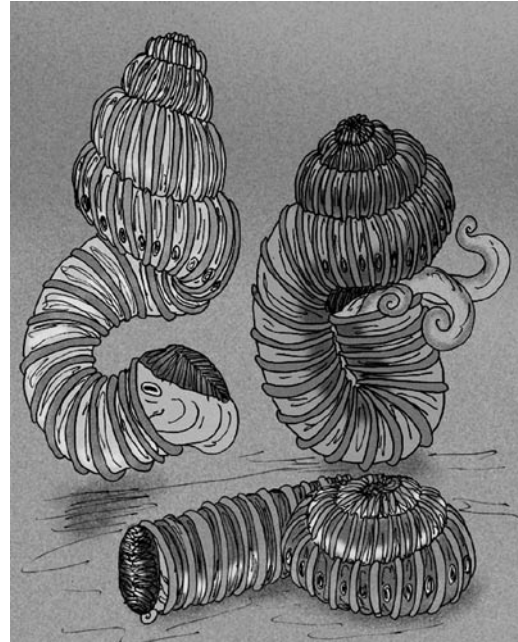
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Above: A small heteromorph ammonite fossil on the shale beach west of the Community Cemetery on Gabriola. Late-Cretaceous Campanian-Maastrichtian, possibly *Nostroceras hornbyense*, about 70-million years old. Horizontal FOV 70 mm.

Right: Heteromorph ammonites with their curious uncoiled shells.



### A heteromorph ammonite—by Nick Doe

Ammonites had coiled-up shells, like a snail and the modern nautilus. They lived in the sea and were fierce predators, excellent swimmers, and had good eyesight. They hunted in large schools. Their shells make attractive fossils and are often found in jewellery stores. Fossil fragments are occasionally found on Gabriola.

During the Cretaceous period however, [which is the age of the sandstone, conglomerate, and shale on Gabriola] these regularly coiled ammonites declined as the suborder of ammonite known as *Ancyloceratina* exploded onto the scene with a vast array of new— and often peculiar—uncoiled shell designs. These uncoiled ammonites, which are characteristic of the Cretaceous, are called “heteromorph ammonites”. <http://northislandexplorer.com>

The most extreme case of the uncoiled design is the *Baculite*, an ammonite species that was completely straight. Their long torpedo-shaped fossil shells are common on Hornby Island and the Vancouver Island coast north of here, and it would be no surprise if some were found on Gabriola.

Exactly why the uncoiled designs became so popular is not known. Their shape must have made them poor swimmers compared with their predecessors. Perhaps they gave up chasing fish, or the fish became too difficult to catch, and they took to feeding on plankton drifting in the open ocean, the way jellyfish do today. If so, the body design may have helped orientate the ammonites in the water. But this is only one hypothesis. All we know for certain is that these were the last of the ammonites and they became extinct along with the dinosaurs at the end of the Cretaceous 65-million years ago.

#### **Acknowledgement:**

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