

It is interesting to note that one of the molluscs which is common in Sydney harbour, Cape Breton island, where *Teredo* has perhaps its maximum abundance, is the rock borer *Zirfaea crispata*. Although reported rarely in the gulf of St. Lawrence by Whiteaves I have found it rather abundant near low-tide mark at North Sydney. Along the Bay of Fundy coast of Nova Scotia, however, I have found no trace of it. Stimpson reports it to be very rare at Grand Manan. Verrill has recorded it at from 8 to 70 fathoms in the Bay of Fundy. But it does not appear to occur in the Bay of Fundy near tide mark, as it does at Sydney. Like *Teredo*, *Z. crispata* appears to be absent or rare along the Atlantic coast south of the Bay of Fundy. This species, like *T. navalis*, has a wide distribution. On Pacific coast it is reported from Vancouver to San Diego, California, by Carpenter.¹ It is distributed along the European side of the Atlantic from France to northern Norway.² Although found in an elevated beach near Christian shoal, Greenland, Jensen states "that *Zirfaea (Pholas) crispata* no longer lives at Greenland may be regarded as a fact."³

Another boring shell which is associated with *T. navalis* around the shores of Prince Edward Island is *Petricola pholadiformis*. The Canadian Geological Survey Museum collections include a specimen of hard red shale with shells of this mollusc from Charlottetown, P.E.I. Concerning this shell, Dr. A. G. Huntaman⁴ writes: "*Petricola pholadiformis* is abundant in the lower part of the gulf of St. Lawrence around Prince Edward Island, and occurs boring in the red sandstone there. It has been reported by Verkrusen from St. Marys bay, Nova Scotia, and I have myself dredged it there in 30 fathoms hard clay bottom. I have not found it in the Bay of Fundy proper." Dr. Huntaman's observations on this shell indicates pretty clearly the discontinuous distribution of *T. navalis* and *Z. crispata*, which eliminates them from the fauna of the upper part of the Bay of Fundy.

Teredo navalis belongs in the gulf of St. Lawrence to an isolated faunal group which is confined to Dawson's warm "Acadian bay." The subboreal or arctian fauna of the central and northern part of the gulf of St. Lawrence are excluded from this fauna. Concerning this fauna, Dawson⁵ wrote: "It thus forms a peculiar and exceptional zoological province" . . . "It affords to the more delicate marine animals a more congenial habitat than they can find in the Bay of Fundy or even on the coast of Maine."

Among the characteristic species which comprise this Northumberland strait colony of the Acadian fauna are the following:—

- Ostrea virginica*.
- Venus mercenaria*.
- Zirfaea crispata*.
- Astarte undata*.
- Crepidula fornicata*.
- Crepidula plana*.
- Ilyanassa obsoleta*.

Some of these species, as *O. virginica* and *V. mercenaria* are entirely absent from the Bay of Fundy waters. Some others, like *I. obsoleta* are entirely absent on the west coast of the Bay of Fundy but present in the warm shallow inlets on the eastern side of the bay. The Northumberland Strait colony is separated from the northeastern border of the New England zone of the Acadian fauna by the deep basin of the Bay of Fundy and the Atlantic coast waters of northern Nova Scotia. The

¹ Dall considers the Pacific Coast form to be a species distinct from *Z. crispata*.

² Adolf S. Jensen, *Middeldiser on Groenland*, Vol. XXIX, 1905, p. 296.

³ *Ibid.*

⁴ Letter to the author, February 12, 1917.

⁵ Dawson, J. Annual address. Can. Nat. Ser. 2, Vol. VII, 1875, p. 27-8.

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