

also occur, and teeth of dipnoid fishes (*tenodus*), also various species of sharks (*Ctenoptychius*, *Psammodus*, *Diptodus*, &c). Some of these sharks must have attained to a considerable size, and they no doubt found access to the inland waters by the outlets communicating with the sea, and were attracted to visit these comparatively impure lagoons by the abundance of food which they afforded.¹ Very rarely there have been found in these beds bones of amphibians and shells of pulmonate snails, (*Pupa vetusta*, &c.). Animals of these kinds no doubt haunted the margins of the lagoons or creeks; but only occasionally left their remains in deposits accumulating in these places.

We perhaps obtain a glimpse of purer inland waters, similar to those of modern Canadian lakes, by means of a remarkable shell, discovered by Mr. Weston, of the Geological Survey, at the South Joggins in 1893, and which has been described by Mr. Whiteaves, F.G.S., under the name *Asthenodonta Westoni*.² It resembles in general form the large pearl-mussel of our modern lakes, (*Margaritana margaritifera* L.) and some specimens are no less than nine inches in length, and of somewhat massive thickness anteriorly. It was found in a sandstone with drift trunks of trees, and may have come from some distance inland. Such a shell could scarcely have been a companion of our little *Naiadites* or *Anthrocomya*, and points to more favorable conditions for fresh-water molluscan life in lakes or large streams in the interior of the continent.

Conditions favourable to such mollusks were probably, as I have elsewhere suggested, more prevalent in the later Erian or Devonian than in the Carboniferous. Hence the occurrence of such large *Anodon*-like shells as *Amnigenia Cattskillensis*, Hall in New York, and *Anodon Jukesii* in the Kiltoran beds in Ireland. The above discovery however now gives reason to believe in similar conditions as existing in higher grounds contemporaneously with the great coal swamps of the low plains of the carboniferous period.

¹ Notices of this fauna will be found in Acadian geology. pp. 202 et seq., and supplements.

² Trans. Royal Society of Canada, Section iv, 1893.