

General form rounded, and probably when not changed by pressure tumid. Anterior end broad and abruptly rounded; hinge line straight. Beaks raised and somewhat near the front; lower and posterior margins broadly rounded, shell thin, wrinkled when flattened, strongly marked with growth-lines.

This species resembles somewhat *A. Adamsii* var. *expansa*, England. It is rare. Our only specimens are from McLellan's Brook, Pietou, and Mabou, in Cape Breton, and are mostly flattened, except some very young examples from the latter place.

In addition to fragments of plants and comminuted debris of vegetable matter, the beds holding Naiadites, contain a number of other animal remains, constituting a peculiar fauna altogether different from that of the lower carboniferous marine limestone, and also in many respects distinct from that of the sandstones of the millstone grit and upper coal formation. This fauna, though not that which we would expect in fresh-water lakes or streams under ordinary conditions, seems of such a nature as to be appropriate to bodies of shallow, fresh or brackish water loaded with vegetable matter, or to wide and sluggish creeks traversing the great swamps of the period, and occasionally widening into lagoons, receiving much fresh water from the land, and having but little communication with the open sea. The beds supposed to be thus deposited are carbonaceous or bituminous shales and laminated, impure limestones full of earthy matter, and blackened with bituminous and carbonaceous debris. In addition to the bivalve shells in question, they contain vast numbers of minute bivalve crustaceans. (*Bairdia* and *Carbonia*)<sup>1</sup> Species of *Eurypterus*, *Diplostylus* and *Anthropotaemon*, representing crustaceans of higher types. Great numbers of the little *Spirorbis carbonarius* are also attached to many of the plants and other fossils. Numerous scales and teeth of ganoid fishes of the genera *Palæoniscus*, *Rhizodus*, &c.,

<sup>1</sup> Rupert Jones, London Geological Magazine, August, 1891, p. 269, and June, 1889, p. 356.