

The fauna of the region north of Pictou, between the west coast of Cape Breton and the east of Prince Edward Island, is essentially of an Acadian type. To the north, northwest, and west of Cape Breton, the deep water assemblage has probably an Arctic character.

In the marine slip at Pictou, I collected specimens of *Teredo navalis* and *T. Norvegica*, burrowing into the black birch of which the roller frames of the cradle are composed. At Souris, (Prince Edward I.), the common periwinkle of England (*Littorina littorea*) was plentiful, and it was subsequently observed at Charlottetown. An *Argulus*, closely allied to *A. Alosae* of Gould, if not identical with it, was taken off Pictou Island, in towing nets, attached to *Gasterosteus biculcatus*? and other small fishes. *Idotea irrorata* Say, was common on the surface at the same place, and was subsequently obtained at Shediac Bay, and elsewhere. On the shores of the Magdalen Islands it is tolerably common.

Cruise 4.—In the last cruise we endeavored to explore both sides of Northumberland Straits, and dredged from Pictou as far to the northwest as Miramichi Bay. Leaving Pictou on the 19th of August, we first dredged a little to the N.N.W. of Pictou Island, and were then compelled by stormy weather to take shelter in Shediac Bay. Being detained at Point du Chêne for two days, we availed ourselves of the opportunity to examine the oyster beds of Shediac Bay. On these beds, from low water mark down to three fathoms, the following species were met with:

CRUSTACEA.

Cancer irroratus Say.
Crangon vulgaris Fub.
 †*Gammarus ornatus* Edw.
Idotea irrorata Say.

MOLLUSCA.

Ostrea borealis Lam.
O. Virginiana Lister.
Mytilus edulis Linn.
Modiola modiolus Linn.
Mercenaria violacea Schum.
Gemma Tottenii St.
Callista convexa Say.
Petricola pholadiformis Lam. and var. *dactylus*.
Mactra solidissima Chemn.
Mya arenaria.
 " *truncata*.
Angulus tener Say.
Thracia Conradi (fine and frequent).
Pandora trilineata ? Say.

Solen ensis, v. *Americana*.
Teredo, sp. (in a spruce log).
Haminea solitaria Say.
Cylichna pertenuis Migh.
Lottia alveus Conrad.
Crepidula fornicata Linn.
 " *unguiformis* Lam.
Paludinella minuta.
Odostomia trifida Totten.
Turbonilla interrupta Totten.
Lunatia heros Say.
Bitium nigrum Totten.
Nassa obsoleta Say.
 " *trivittata* Say.
Astyrus lunata Say.

ECHINODERMATA.

Asterias vulgaris St.
Cribella sanguinolenta.
Echinarachnius parma.
Echinus Dröbachiensis.
Caudina arenata (Gould).

Leaving Shediac by daybreak on the 22d of August, we dredged from that place to the Egmont Bank, and stood back again to the south shore the same evening. The Egmont Bank