

**The Mollusca of the Arctic Coast of America collected by
the Canadian Arctic Expedition west from Bathurst
Inlet with an Appended Report on a Collection
of Pleistocene Fossil Mollusca.**

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With three plates.

The collection of Mollusca in the region indicated by the title of this report is of special interest, since the only collections hitherto made between the Mackenzie delta and the archipelago to the eastward were due to R. Macfarlane of the Hudson's Bay Company, factor of the most northern post of the company, and who, about 1863, made a journey from the head of the delta to the sea and collected *Chrysodomus heros*, *Astarte borealis*, and very thin valves of *Mytilus edulis*, in considerable numbers. The fauna to the eastward of the delta has remained entirely unknown. The great outpour of fresh water from the Mackenzie might reasonably have proved a barrier which the characteristic species of the western Arctic ocean might not have been able to pass, and there was, therefore, a possibility that the eastward fauna would show a considerable infusion of Greenlandic forms.

It may be observed here that the Bering Strait region and the Polar sea north of it have a fauna which, when the truly circumpolar species are eliminated, is markedly distinct from that of the Greenlandic and boreal Atlantic seas. During the Pliocene the Arctic land was lower, and there was more easy communication between the two areas, as is made evident by the discovery in each Pliocene fauna of species now extinct there, but which have survived in the other area. It is convenient, therefore, to refer to the respective faunas of the two areas by the denomination Western or Eastern Arctic fauna.

The result of the study of the collection was somewhat unexpected, since it proved that out of all the species collected east of cape Bathurst only five can be considered at present as characteristically Eastern Arctic, namely :

Arca glacialis Gray.
Lamellidors cf. liturata Beck.
Philine finmarchica M. Sars.
Lamellaria grönländica Möller.
Littorina grönlai . Mörch.

The fresh-water and land species are, with the exception of the *Physa*, common to most of boreal America and have an entirely different distribution from the marine forms. They include:—

Succinea chrysis Westerlund.
Agriolimnax hyperboreus Westerlund.
Physa jennessi, n. sp.
Aplexa hypnorum Linné.
Lymnæa palustris rahli Beck.
Lymnæa stagnalis appressa Say.
Valvata lewisii Currier.
Pisidium rotundatum Prime.