

## Bryozoa of the Canadian Arctic Expedition, 1913-18

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From the Kara sea westward to the American archipelago the marine bryozoa are perhaps as well known as in any other part of the world. Beyond these limits we have known practically nothing of the circumpolar distribution of this group. The bryozoan studies of Hincks (1881) and Robertson (1900) on the British Columbian and southern Alaskan species have indicated similarity to the northern Atlantic fauna and the supposition has been general that most of the arctic bryozoa are circumpolar in distribution.

The study of the bryozoan collections made by the Canadian Arctic Expedition, 1913-18, confirms this belief. Though this material contains only 48 species, and is therefore probably not half of the complete list that might be found in the region covered by the survey, all those obtained have previously been taken elsewhere and for the most part are well distributed in the arctic waters thus far explored.

The region collected over extends from Berners Bay harbour, on Dolphin and Union strait, westward to Grantley harbour, on Bering strait, or from about 115 to 165 degrees west longitude.

To make the series more complete for arctic America, I have included in the report the species taken farther eastward in Hudson bay and strait by the *Diana* and *Neptune* expeditions in the years 1897 and 1903-1904 respectively.

The bryozoa of Greenland have been quite thoroughly studied,\* and Nordgaard (1906) has reported on 77 species taken in the region of North Devon island, just west of Ballin bay.

Our knowledge of the arctic bryozoa may be said to have made a partial advance some 80 degrees of longitude farther westward by the work of the Canadian Arctic Expedition, 1913-18. The collections are too small and the area covered too limited to yield more than a partial view of the distribution in this region.

There still remains a vast region north of Siberia from Bering strait to the Kara sea, 165 degrees west longitude to 70 degrees east longitude, or nearly a third of the circumpolar area, in which the bryozoan fauna is quite unknown to us as yet. There can, however, be little doubt that the species will be found to be very similar to those of other arctic waters.

Nordgaard (1917, p. 90) has indicated that "there seems to be some difference between the arctic region of the Atlantic and that of the Pacific." However, it may be that when the unexplored regions of the Arctic ocean have been studied and the regions in which but little investigation has been made, are better known, we may come to the conclusion that there is no fundamental difference. It is probably to be expected that certain species may occur in limited regions of the arctic seas, due to recent distribution from more southerly waters or for some, at present, unknown reason, but the conditions of life in the waters about the north pole and for an average of 20 degrees to the southward are so constant that a fairly uniform distribution of species is to be ex-

\*For a digest of the work done and a complete list of the 186 species and varieties known from Greenland, see Osburn, 1919.