

Hirudinea of the Canadian Arctic Expedition, 1913-18.

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The Canadian Arctic Expedition from 1913 to 1916 collected a very few leeches. These are contained in four bottles and one box along with a few bottles of planarians by Mr. Frits Johansen. There are but two species already well known from the seas of northern Europe but as they have not been recorded previously from American waters it seems worth while to publish a notice of the extension of their known geographical range. Both belong to the family Ichthyobdellidae.

Family ICHTHYOBDELLIDÆ.

Abranchus scorpii Malm.

This species, with which *A. brunneus* Johansson is probably identical, is represented by nineteen specimens varying from 14 mm. to 40 mm. long and from .8 mm. to 2.7 mm. in maximum diameter. All of the specimens are nearly terete or only very slightly flattened, the young ones most so. The greatest diameter is shortly behind the middle from which it tapers both ways but unequally. The anterior end is more slender and more gradually tapered but there is no distinct division into two regions. In the better preserved specimens both oral and caudal suckers are large, thin and widely expanded, the oral relatively less so on the larger examples.

On none of the specimens is the annulation strongly marked, the somites being dominantly triannulate with the secondary annuli more or less well differentiated. Thus in the widest part of the posterior region the neural or middle primary annulus is enlarged and clearly subdivided into secondary annuli which, however, are smaller than the entire first and third primary annuli so that we have the formula $(b^1 + b^2) < b^3 + b^4 > (b^5 + b^6)$. In the anterior region development of annuli has gone less far, being recognizable only in the neural annuli. The formula is, therefore, $A^1 < (b^3 + b^4) > A^2$. The sensillæ and larger non-segmental cutaneous sense organs are developed on annulus b^3 and a few smaller ones on b^1 , b^2 and b^5 .

The fresh colour as described in the collector's notes is "a dark purple-brown main-color; strongest red in shape of segmental bands. The two terminal suctorial discs pale inside with the brown muscles shining through. Eyes black." The preserved specimens differ considerably chiefly as a result of size and fading. Those from station 42^m are most deeply pigmented, being of a dark reddish brown above, paler below. The margins of both discs, two transverse bands on the oral disc and radiating lines and marginal spots on the caudal disc, several transverse bands on the body, and the region about the anus also paler. Those from station 49^m are pale reddish brown above with whitish transverse bands especially conspicuous laterally on the first annulus (A^1) of each somite. All of the parts indicated as pale reddish on the specimens from 42^m are on these whitish. Small individuals are nearly colourless. The sensillæ and non-segmental sense-organs are clear white and very conspicuous on dark specimens. The three pairs of eyes are black and arranged as figured by Johansson. The caudal eye-spots also are black, small and arranged in a circle at the central ends of the pale marginal spots.

Following is a list of the specimens with labels and collector's notes quoted in full: