

Diurella collaris (Rousselet).

Collected by Jessup from lakes on Old Crow river flats, 40 miles north of New Rampart House, on July 3, 1911.

Diurella cavla (Gosse).

A few specimens in Jessup's collections from a pond near New Rampart House, at the International Boundary and Porcupine river, on June 12, 1911.

FAMILY SYNCHAETIDÆ.**Synchaeta oblonga** Ehrenberg.

Abundant in collections made from the lake at Bernard harbour by Johansen on May 6 and 7, 1916; same lake south of Bernard harbour, May 21, 1916.

Synchaeta johanseni, new species.

Plate 1, fig. 3.

The body is fairly slender, bell-shaped and very transparent. Its greatest width, about mid-length, is one third of the total length. The foot is well marked off from the body, large at the base and tapers gradually to the very small toes; its length is one fourth of the length of the body. The head is triangular and the auricles powerful; on the median line, between the anterior pair of tactile bristles, there is a tubular sensory organ as in *S. rorar* Rousselet. The dorsal antenna is in the normal position; the lateral antennae are near the posterior end of the body and well towards the ventral side; they are slender tubules, armed with a minute tuft of setae. The foot glands are very small. The form and position of the eyespot could not be made out from the preserved material.

Total length 350 μ ; width of body at mid-length 120 μ ; length of foot 70 μ ; length of toes 7 μ .

This species occurred in large numbers in a surface collection made by F. Johansen on August 23, 1914, at station 36, off Cape Lyon, in Amundsen gulf.

Synchaeta johanseni is closely related to *S. rorar* Rousselet, from which it differs in the more slender body, longer and stouter foot, very small foot glands and minute toes, as well as in the position of the lateral antennae. Its presence in Amundsen Gulf is of the greatest interest, as up to the present only two species of rotifers, *Synchaeta atlantica* and *Trichocerca* (= *Rattulus*) *henseni*, are known from oceanic waters; these were both found by Zelinka in the collections of the German Plankton Expedition from the Atlantic ocean, south of Iceland. While it would perhaps be incorrect to call Amundsen Gulf an ocean, the conditions where the collection was made are oceanic, at least as far as salinity and absence of admixture of fresh water are concerned; there are no rivers of any considerable volume discharging near Cape Lyon, and Mr. Johansen informs me that few of the rivers flowing into the Arctic ocean carry much water in the summer. How to account for the presence of this rotifer at a single station and its absence everywhere else is a problem for which no solution can be offered; it may be noted that the collection contained virtually no other zoöplankton, and it is possible that the absence of enemies may be an important factor in the maintenance of this rotifer in such a circumscribed area.

Filinia longiseta (Ehrenberg).

Triarthra longiseta HUDSON and GOSSE, Rotifera, 1886, vol. 2, p. 6, pl. 13, fig. 6.

Collected by Johansen in a brackish lagoon west of Martin point, Alaska, on July 28, 1914; lake south of Bernard harbour, November 28, 1915; on May 6, 7, and June 12, 1916.