

middle of the inner margin. Unguiculi represented only by a toothlike rudiment. Tenent hairs single, unknobbed. Rami of tenaculum quadridentate. Lacinia very long, extending as far as the first pair of legs, clearly appended to the fourth abdominal segment. Mandibular short. Dentes long, strongly bowed outward, apically convergent, with an oblique transverse suture two-fifths from the base, and with the tubercles of the distal third arranged in transverse rings. Mucrones (figs. 2-3) three-fifths as long as hind ungues, with outer and inner lamellae, and with a prominent dorsal rounded-triangular basal lobe. Anal spines absent. Body clothing of few minute curving setae, dens with 12 to 17 long curving dorsal setae, most of which are in two longitudinal series. Integument tuberculate. Length, 1.3 mm.

Polyura aquatica, one of the most abundant collembodans in Europe and North America, occurs on the surface of standing water on the margins of ponds and streams, leaving special structural adaptations for a semi-aquatic life. It swarms on vegetation or mudflat along the shore, and at times is blown against the shore in masses of enormous numbers. This species often appears in freshwater aquariums, and is essentially a fresh-water species, though it has been found occasionally in pools of brackish water on the seashore.

The species has been recorded from Siberia. From Canada I have specimens taken at Annapolis, Ont., May 19, 1917, by Mr. Charles Macnamara.

Great numbers on ponds, Demarection point, Alaska, May 16, 1911, abundant large and small at Bernard harbor, Dolphin and Union Strait, Northwest Territories, June 25, 1915. F. Johansen.

Achorutes tullbergi Schaffer.

Plate I, figs. 3-10, plate 2, fig. 11.

Achorutes dubius Tullberg, 1876. Fazel, 1890. Schott, 1894. Dalla Torre, 1895. Schaffer, 1896. Skorikow, 1900.

Achorutes dubius, var. *concolor* Carpenter, 1900.

Achorutes tullbergi Schaffer, 1900a.

Achorutes tullbergi, var. *concolor* Schaffer, 1900a. Wahlgren, 1907. Folsom, 1916.

Pigmented with irregular patches of dark blue pigment (typical form) or uniformly pigmented (var. *concolor*). Eyes (fig. 4) eight on each side. Postantennal organs (fig. 4) with four (sometimes five) peripheral tubercles. Antenna shorter than the head, with segments 1:6:7:9:9 in relative lengths. Sense organ of third antennal segment as in fig. 5. Ungues (fig. 6) stout, slightly curving; inner margin unidentate one third from apex. Unguiculi with setaceous prolonged outer margin and with the basal lamella suboblong on the second and third pairs of feet. Tenent hairs knobbed; 2:3:3, as a rule; occasionally 3:3:3, or 4:3:3. Mucrones (figs. 7-9) one-third dentes in length, apically rounded, with narrow outer lamella. Rami of tenaculum quadridentate. Anal spines (figs. 10, 11) two, half as long as hind ungues, arcuate, on prominent contiguous papillae. Clothing of sparsely short curving setae, with longer setae on the posterior part of the abdomen. Length, 2 mm.

The specimens collected by the Expedition belong to the variety *concolor* Carp., which has been taken hitherto in Franz Josef Land, Ellesmere land, Bohemia and Massachusetts. The typical form of the species has been reported from Nova Zembla, Spitzbergen and Siberia.

Several specimens on ponds and from rotten driftwood, Bernard harbor, Northwest Territories, May, 25, 1916, June 18, 19, 1915; also several under driftwood, Demarection point, Alaska, May 16, 1911. F. Johansen.