

Locality: One large larva taken in the melted ponds in the tundra at Denareption point, Alaska, May, 1914 (F. Johansen).

Length, 19.5 mm.; diameter, 2.4 mm.

Form cylindrical, the anterior segments narrower, the abdominal segment just before the cauda swollen. Body with a covering of short and delicate appressed hairs. Head-capsule of the long narrow structure of the tribe; mandibles (Pl. V, fig. 55) long, sickle-shaped; maxilla (Pl. V, fig. 54) with the outer lobe projecting from the oral opening when the head is completely retracted. Colouration uniform light yellow throughout. Spiracular disk (Pl. IV, fig. 44) small, with four lobes, the lateral and ventral pairs. Lateral lobes rather short and blunt, the ventral edge with an irregular linear brown mark, the outer edge with a dense fringe of long hairs; ventral lobes longer with a long, arcuate, brown line down the inner face; outer edge with a dense fringe of long hairs, those at the tip being very elongate. Anal gills four, short, blunt, oval.

TIPULINI.

A considerable number of Tipuline forms were included in the present collection. Only one of these, *Tipula arctica* Curtis, was reared and the generic reference of the remainder must be considered as being somewhat doubtful. I have studied each of these species, however, in the light of our knowledge of other life-histories, and have placed them as closely as the data will warrant.

Tipula arctica Curtis.

Locality: Larvae in the ground at Bernard harbour, Northwest Territories, May 27, 1916 (F. Johansen).

A male collected as a larva on May 27 pupated about June 20. (Rearing No. 106.)

LARVÆ. Length, 23-25 mm.; diameter, about 4 mm.

Form cylindrical. Mouth-parts with the mentum (see Pl. V, fig. 53) long and slender with a large, blunt, median tooth and two smaller teeth on either side; directly beneath these lateral teeth similar subequal teeth are (hypopharynx) visible. Labrum as in Pl. V, fig. 52.

Chartotaxy: Dorsal surface, a transverse row of delicate hair-like setae across the dorsum of the last thoracic segment and the abdominal segments, there being usually four of these punctures on the first three segments occurring at about mid-length of the segments; on the abdomen they lie on the posterior ring of each segment (see Pl. V, fig. 56); the lateral puncture bears two bristles, the inner punctures a single seta; they correspond exactly to the condition of the ventral segments except that here the solitary anterior bristle has moved caudad into alignment with the posterior paired bristles. In some there are a few weak supplementary bristles in the same line. Ventral surface (Pl. V, fig. 57) similar; two prominent widely separated setigerous punctures, each with two long bristle-like hairs nearer the caudal margin and two other smaller and more delicate bristles slightly cephalad and closer to the median line; these anterior ventral bristles are separated from one another by a distance that is a little less than the distance between them and the larger posterior bristles; on the lateral margin of the segment there is usually a more delicate hair.

Colouration dull yellow, the thoracic segments with abundant, tiny, appressed dark hairs that give a darker appearance to the anterior end of the body.

Spiracular disk (Pl. IV, fig. 45) surrounded by six short lobes, a dorsal pair, rather closely approximated medially, a dorso-lateral pair and a ventral pair. The dorsal pair are shorter than the lateral pair and the inner face in most specimens has a straight or slightly curved, dark brown, line. The lateral lobes are longer and more slender. The ventral lobes are short and broad.