

Hypogastrura armata (Axelson) L'imanietti, 1911, 1912. = Caroli, 1914.

Very variable in colouration. General colour vinaceous, pale violet, greenish grey, or dark blue. One variety is canary yellow marbled with lavender, with two dorsal stripes of the latter colour. The dorsum is commonly mottled or marbled, and the pleura and sternum are pale yellow with round spots made by hypodermal nuclei. A large interocular spot occurs. Ocular patches conspicuous, black. Eyes eight on each side. Postantennal organs (fig. 21) large, with four unequal peripheral tubercles. Antennae shorter than the head; segments in relative lengths as 5:4:5:6; fourth segment with seven sensory hairs: two outer, two inner, and three dorsal. Between the third and fourth antennal segments is a large ventral eversible bilobed sac. Body stout; abdomen feebly dilated. Unguis (fig. 22) long, slender, slightly curving, unidentate near the middle of the inner margin; lateral margins each unidentate one-fourth from the base. Unguiculus with suboblong basal lamella and setaceous apex, extending almost as far as the tooth of the opposite claw. One long tenent hair, unknobbed. Dentes stout, subcylindrical. Mucrones (fig. 23) half as long as dentes, apically rounded; inner lamella narrow, simple; outer lamella with a large subtriangular dorsal lobe. Anal spines (fig. 24) long, a little longer than the unguis in adult specimens, slender, curving, on large contiguous papillae, which are one-third to one-half as long as the spines. Clothing (fig. 25) dense, consisting of abundant short setae and numerous long hairs and setae, which are frequently serrate. Length, 1.5 mm.

The synonymy of this species I have discussed in a previous paper (Folsom, 1916).

The specimens collected by the Expedition were all of the dark blue variety. *Achorodes armatus*, one of the most abundant species of its genus, occurs in large colonies in a great variety of situations: under the loose moist bark of logs, on damp soil under wood or dead leaves, underground among the roots of grasses or other plants, in moss, on pools of fresh water. This species is the one commonly found on fungi, particularly agarics, though it occurs on *Boletus*, *Polyporus*, *Morchella* and other genera as well.

This is one of the most widely distributed species of Collembola. It occurs in all parts of Europe, in Siberia, Spitzbergen, Greenland, Northern Africa (Tripoli), Sumatra, Ceylon, New Zealand, Brazil, Paraguay, Uruguay, Chile, and doubtless throughout the United States. In Canada it has been taken at Arnprior, Ont., in September, by Mr. Charles Macnamara.

Several specimens on ponds, Bernard harbour, Northwest Territories, May 25, 1916; June 18, 25, 1915. Abundant in moss in swamp, Pihumalerksiak island (Cockburn point), Dolphin and Union strait, Northwest Territories, July 15, 1916. F. Johansen.

Onychiurus duodecimpunctatus, n. sp.

Plate 3, figs. 26-30; plate 4, figs. 31, 32.

White. Postantennal organs (fig. 26) elongate, with simple tubercles numbering 32 in one example and 44 in another. Pseudocelli of antennal bases (fig. 27) 6 + 6 (two specimens) or 5 + 5 (one specimen); of posterior border of head 4 + 4 (two specimens) or 5 + 5 (one specimen). Antennae subequal to head in length. Sense organ of third antennal segment (fig. 28) with five papillae, five guard setae, a pair of sense rods, and two capitate tuberculate sense clubs. Pseudocelli of body (fig. 29) as follows—Prothorax: dorsal, 0; lateral, 1 + 1. Mesothorax: dorsal, 2 + 2; lateral, 1 + 1. Metathorax: dorsal, 2 + 2; lateral, 1 + 1. First abdominal segment: dorsal, 4 + 4. Second abdominal, 4 + 4 (two specimens) or 5 + 5 (one specimen). Third, 5 + 5 (2 spms.) or 4 + 4 (1 spm.). Fourth, 6 + 6 (2 spms.) or 5 + 5 (1 spm.). Fifth, 5 + 5 (2 spms.) or 4 + 4 (1 spm.). Sixth, 0.