

- Isotoma palustris* Tullberg, 1871, 1872, 1876.—Uzel, 1890.
Isotoma Belfragei Packard, 1873.—MacGillivray, 1891.
Isotoma tricolor Packard, 1873 (part).—MacGillivray, 1891 (part).
Isotoma purpurascens Packard, 1873.—MacGillivray, 1891.
Isotoma plumbea Packard, 1873.—MacGillivray, 1891.
Isotoma capitola MacGillivray, 1896.
Isotoma glauca MacGillivray, 1896.

Colour very variable: dark green, greenish yellow, dull yellow, lilac, blackish blue, reddish purple, leaden purple or dark brown; usually with small pale dorsal spots. Without longitudinal lines, in the typical form. Eyes $8 + 8$, subequal (fig. 48). Postantennal organs (fig. 48) broadly elliptical, oval, or circular: shorter, to a little longer, than the diameter of an eye. Antennae one and one-half to two times as long as the head, with segments in relative lengths about as 4:7:7:8. Sense organ of third antennal segment consisting of a pair of slender rods. Abdominal segments without arkylosis. Fourth abdominal segment slightly shorter than the third. Ungues (fig. 49) long, slender, slightly curving, with a pair of large lateral teeth, with inner margin bidentate, and with parallel basal folds. Unguiculus extending two-fifths to two-thirds as far as unguis, lanceolate, unidentate near the middle of the inner margin. Tenent hairs absent. Furcula strongly developed, appended apparently to the fifth abdominal segment. Dentes slender, gradually tapering, more than twice as long as manubrium, crenulate dorsally, with a distal bristle extending beyond the mucro. Mucrones (fig. 50) falcately and subequally tridentate; second and third teeth opposite each other. Rami of tenaculum quadridentate (fig. 51); corpus with numerous ventral setae. Clothing (fig. 52) of dense simple or feebly serrate setae; with long outstanding fringed sensory setae. Maximum length, 6 mm. (typical form); 7 mm. (var. *arctica*).

The specimens of this well-known species collected by the Expedition agree with my examples from Europe and the United States, but are under the maximum size, being not more than 3 mm. in length. In colour they are clear green with pale spots, or dark blue.

Having examined Packard's types in the Museum of Comparative Zoölogy, Cambridge, Mass., I agree with MacGillivray ('96, p. 58) that *Isotoma Belfragei*, *purpurascens*, *plumbea*, and the Massachusetts specimens of *tricolor*, all belong to *viridis* Bourlet. The Texas specimens, for which MacGillivray retained the name of *tricolor*, are *palustris* Müller.

Isotoma capitola MacG. is synonymous with *viridis* Bourl., as I have found from a cotype sent to me by MacGillivray.

The form referred by MacGillivray to *glauca* Packard is also *viridis* Bourl., and is specifically distinct from Packard's *glauca*.

Isotoma viridis is one of the most abundant collembolans, is the largest known species of its genus in North America and Europe, and may easily be recognized with the naked eye. It belongs primarily to the fauna of the humus, and occurs in almost any soil that is not too dry—in grass lands, woods, swamps, or cultivated fields—congregating under stones, pieces of wood, dead leaves or other protection, and in piles of garbage or manure. It occurs in moss, on pools of water, on the seashore under driftwood or seaweed, and in winter on the snow.

The typical form of *Isotoma viridis*, ranging throughout Europe and the United States, including Alaska, has been reported from the following Arctic localities: Siberia, Spitzbergen, Bear island, Jan Mayen, Iceland and Greenland.

One specimen under old drift-wood logs in tundra behind house at Collinson Point, Alaska, Sept 27, 1913. F. Johansen.

Two specimens, under driftwood, Demarecration point, Alaska, May 16, 1914. F. Johansen.

A few specimens, under loose stones, Bernard harbour, Northwest Territories, May, 1915. F. Johansen.