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POPULAR AND PRACTICAL ENTOMOLOGY. Further Remarks on Collembola. By charles macnamara, arnprior, ontario.

A very remarkable feature of the Collembola is their amazingly wide dis tribution. They are found all over the world, and as Dr. Folsom remarks' "may be expected to occur wherever there is a soil that supports vegetation." The one condition fatal to them is dryness. Some of the scaled kinds are said to live in comparatively arid situations, but the vast majority can exist only in a decidedly moist atmosphere. Given a modicum of humidity, however, they can make themselves at home anywhere. You can collect them on cloudcapped mountains, under the dense shade of forests, over grassy plains, along the sea shore, or in your own wood-shed at home. They are perhaps most abundant among the moss, dead leaves, and rotten logs of woodlands, but they are common also in fields, gardens, and green-houses. They shelter under the bark of trees, (I have found them living at the top of a 75-ft. maple)-they are plentiful in long grass and damp soil, and certain over-ripe toadstools often swarm with them. They are counted among the unbidden guests in ants' nests, and one species is known in the United States as a household pest, though admittedly a very minor one. Many frequent caves,-some species occur nowhere else-others find their way deep down into mines, and one ghastly white Isotoma (I. sepulcralis Fols.) makes its hideous habitation with mouldering human bodies in the grave. Some occur along the sea shore, and may be submerged by the tide for hours every day without hurt. Others live on the banks of fresh-water streams, and many venture out on to the surface of ponds. A curious accident sometimes happens to these aquatic kinds. The "surface skin" of the water is for them a firm floor which they cannot break through, but occasionally an adventurer among them, by crawling down the stem of a water plant, penetrates beneath the surface. If he returns by the same road, good and well: but if he lets go of the plant, he at once floats up against the under side of the water film, and being as unable to break through from beneath as he was from above, he perishes miserably.

Quite as remarkable as this "sub-ubiquity" of the order is the exceedingly wide range of certain genera and species. The name of the springtails common to the whole Northern Hemisphere is legion; indeed no other order of animals is known to show such a large proportion of Holarctic species. Isotoma palustris Mull., to mention only one, abundant on water in this country, is domiciled also in California, Great Britain and Siberia. Other species range even farther. Sminthurus hortensis Fitch, which you are sure to find in your garden in May and June if you look for it, is a resident also of Scotland, Bohemia, Japan and Tierra del Fuego. Achorutes armatus Nic., plentiful everywhere in our woods, is recorded from Greenland, Spitzbergen, Great Britain, Switzerland, North