

First record of *Folsomia bisetosella* Fjellberg, 2005 (Hexapoda, Collembola) from High Arctic Islands.

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The isotomid collembolan *Folsomia bisetosella* Fjellberg, 2005 is reported for the first time in the Svalbard Archipelago. This represents the first record of this species from a High Arctic island.

Keywords: Svalbard, Spitsbergen, Isotomidae, *Folsomia bisetosella*.

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INTRODUCTION & METHODS

The isotomid collembolan *Folsomia bisetosella* Fjellberg, 2005 has been identified from soil core samples taken during September 2006 in Adventdalen (western Spitsbergen, Svalbard) at 78° 10'N 16° 6'E. This represents the first record of the species in high Arctic islands, and the northernmost known population of the species. The majority of studies of invertebrate biodiversity have been carried out in western Svalbard and, until now, *F. bisetosella* has not been recorded in the archipelago (Coulson 2007). The total number of species recorded from Svalbard was 60 (Coulson and Refseth 2004, Coulson 2007), this identification brings the total to 61.

SPECIES DIAGNOSIS

White blind species, smaller than *F. bisetosa* Gisin, 1953. Manubrium with 2+2 ventroapical setae, anterolateral microsensillum absent on abd.1 (Figure 1), seta ml₁ present on manubrium (Figure 2).

DISCUSSION

In Svalbard this species was found in a mesic habitat in a broad river valley approximately 10 km from the coast (Cooper et al. 2006). *F. bisetosella* has an overlapping distribution with its close relative *F. bisetosa* but with a more southerly range, until now being found in southern Sweden, Norway, Denmark, Iceland, Faroe Islands and as far north as 75° in Greenland (Fjellberg 2005, 2007). It seems likely that the range of *F. bisetosella* is not yet fully known as this species may have been previously misidentified as *F. bisetosa* in some studies. *Folsomia cryptophila* Potapov & Babenko, 2000 described from Taimyr is very similar to *bisetosella* but differs by absence of seta ml₁ and presence of two prelabral setae instead of three (observed in two specimens from Uboynaya, Taimyr, A.Fjellberg leg.). The separation of *bisetosella* and *cryptophila* should be verified by studies of more specimens from a wider range and a possible synonymy can at present not be excluded.

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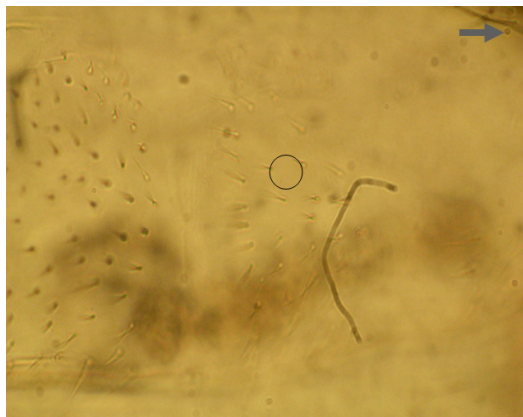


Figure 1. Left side of abd.1 with position of the absent microsensillum indicated by a circle. Arrow points towards head.

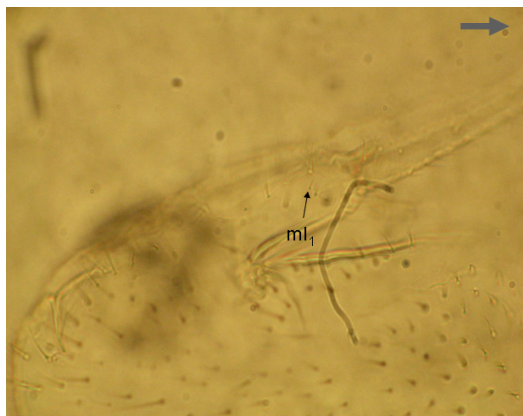


Figure 2. Left side of abd.3-6 with manubrial seta ml_1 marked by arrow. Thick arrow points towards head.

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