

FIRST RECORD OF *LIPOTHRIX ITALICA* (CASSAGNAU, 1968) (HEXAPODA: COLLEMBOLA) IN ROMANIA

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Abstract: The authors present the first record of the springtail *Lipothrix italica* (Hexapoda: Collembola) in the Romanian fauna. Notes on the taxonomic status, morphology, distribution and ecology of the species are given.

Key words: Collembola, *Lipothrix italica*, first record, Romania.

1. INTRODUCTION

The genus *Lipothrix* Börner, 1906 is a very small genus of the Sphyrothecinae Betsch, 1980 (Collembola: Sminthuridae), with only four species described worldwide (BELLINGER *et al.* 2017). Three species are reported in Europe: *Lipothrix bernardi* Delamare Deboutteville, 1954, *Lipothrix italica* (Cassagnau, 1968) and *Lipothrix lubbocki* (Tullberg, 1872).

This genus and is characterized by the following key diagnostic characters: head apex with vesicles, head apex and large abdomen with short, stout spines, mesothorax with 1 pair of vesicles, antennal segment IV with 5–7 subsegments, tibiotarsi distally with only straight setae and dens anteriorly with 3 to 1 setae (BRETFFELD, 1999).

2. MATERIAL AND METHODS

The species was collected in Nerei-Beușnița Gorge (44° 59' 40" N, 22° 47' 16" E), Anina Mountains, The Cheile Nerei-Beușnița National Park (National Park category II IUCN) using a pitfall trap (with olfactory attractant and ethyl alcohol). The trap was emptied after 5 days (18–22 July 2009) and the specimens were transferred in 70% ethyl alcohol. The sorting of the biological material was done at stereo microscope. The specimen was cleared in a Lactophenol solution and mounted under a coverslip in Marc André II solution. For identification at species level we used the work of BRETFFELD, 1999.

3. RESULTS AND DISCUSSION

Lipothrix italica (Cassagnau, 1968) (Figs. 1 – 5)

Material examined. One specimen, collected from soil (edaphic), pitfall trap, 22.07.2009, leg. Nitzu E., Nae A., Popa I., sampled together with *Caprainea marginata* (Schött, 1893) (1 specimen), *Pseudachorutes palmiensis* Börner, 1903 (1 specimen), *Lepidocyrtus lignorum* (Fabricius, 1775) (3 specimens) and *Lepidocyrtus paradoxus* Uzel, 1890 (5 specimens).

Total length 1.2 mm. Colour marbled violet of variable intensity, extremities darker (Fig. 1). Spines of large abdomen very short, stout, blunt.

The measured length of the morphological characters: spines of large abdomen = 24–26 μm (Figs. 2, 3b); claw II = 56 μm (Fig. 3a). The ratio of spines of large abdomen / Claw II = 0.42 (Figs. 3a, 3b). Normal setae of large abdomen = 40–42 μm . The ratio of spines of large abdomen / Normal setae of large abdomen = 0.6. Furca with mucro of 80 μm length. The inner edge of mucro serrate, outer smooth (Fig. 4). Dens about 220 μm . The ratio dens / mucro = 2.75. Appendices anales long, setalike, tip slightly curved, of 88 μm length (Fig. 5). The ratio appendices anales / Mucro = 1.1. Other characteristics as in *Lipothrix lubbocki* (Tullberg, 1872).

According to BRETTFELD, 1999, *L. italica* is a thermophile species.

Distribution: Italy, Prealpe Veneti, Mt. Spitz, up to 930 m on limestone (type locality). Also found in Austria (QUERNER, 2004) and Hungary (DANYI and TRASER, 2008).



Fig. 1. Habitus.



Fig. 2. Abdominal spines of large abdomen.

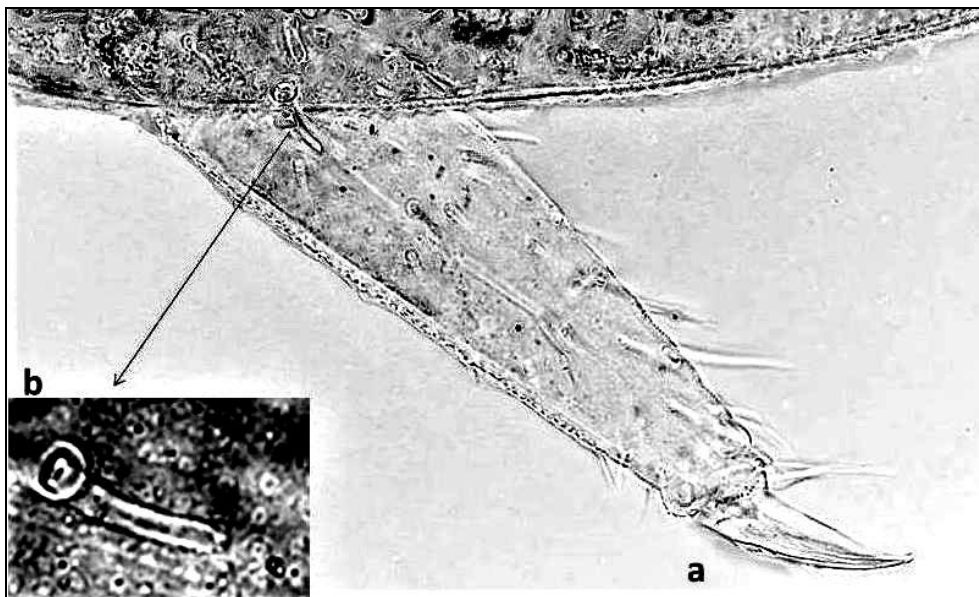


Fig. 3. a: Claw II, b: Abdominal spine.

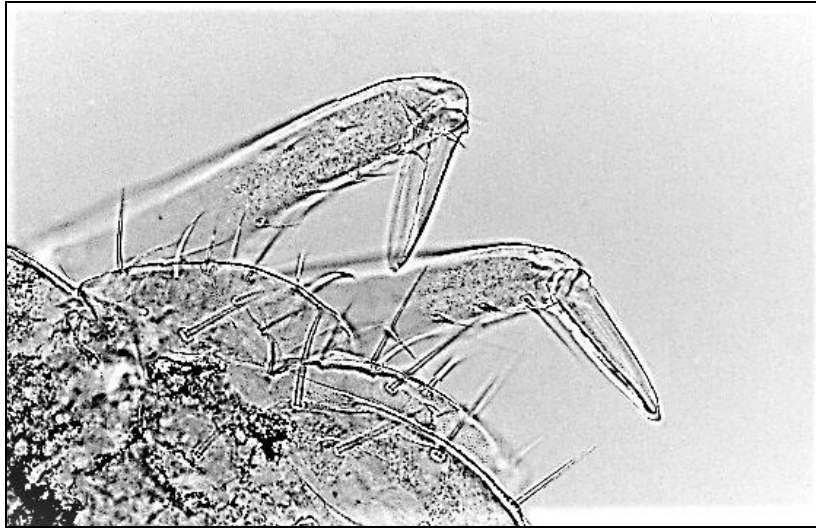


Fig. 4. Furca with dens and mucro.

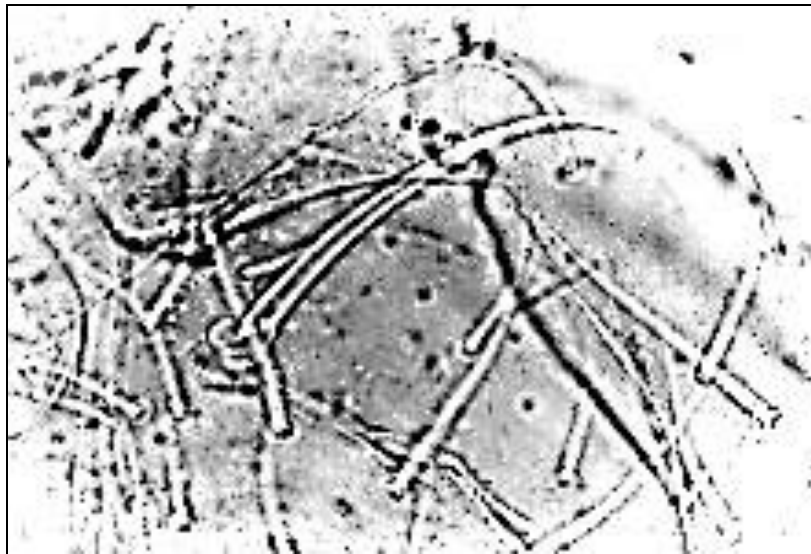


Fig. 5. Appendices anales.

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