



Three new species of ptyctimous mites (Acari: Oribatida: Phthiracaroidea) from Spain

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Abstract

Three new species of the superfamily Phthiracaroidea, *Austrophthiracarus parainusitatus* **sp. nov.**, *Atropacarus (Atropacarus) parainsularis* **sp. nov.** and *Atropacarus (Atropacarus) parastriculus* **sp. nov.** are described and figured. All species are from soils of the Provinces Galicia and Cantabria in North and North-West Spain. A comparison with the most related species of the genera *Austrophthiracarus* and *Atropacarus* is performed. The faunal composition and distribution of all species of the taxons *Austrophthiracarus* and *Atropacarus (Atropacarus)* in the Palearctic region and in the Iberian Peninsula are discussed.

Key words: oribatid mites, Phthiracaroidea, descriptions, *Austrophthiracarus*, *Atropacarus*, Galicia, Cantabria

Introduction

Oribatid mites of the superfamily Phthiracaroidea live in many various habitats especially in different types of forest soils, and have semicosmopolitan distribution pattern. They are absent in the High Arctic, Continental and Maritime Antarctic (Starý & Block 1998). Phthiracaroidea are macrophytophagous (Luxton 1972) and their juveniles live inside of needles and leaves, feeding on their tissues, thus accelerating their secondary decomposition (Jacot 1939, Luxton 1972, Hågvar 1998).

Dr. M. Svoboda (Brno, Czech Republic) has collected a large material of soil samples from Spain and also from other countries of the Western Mediterranean and deposited it at the Institute of Soil Biology in České Budějovice, Czech Republic. Three new species of the superfamily Phthiracaroidea were identified in this material. Type material is partly deposited at the Department of Animal Taxonomy and Ecology, Poznań, Poland (DATE) and partly at the Institute of Soil Biology BC ASCR, České Budějovice, Czech Republic (ISB).

Methods

Soil samples were extracted by using modified high-gradient tullgren extractor. The mite specimens were preserved in ethanol, mounted and cleared in slides with 80% lactic acid, then mounted to slides with glycerol. Observations, measurements and illustrations were made using a standard light microscope equipped with a drawing attachment. All measurements are given in micrometers. The terminology is based on that of Niedbała (2000).