



Two new species of soil mites (Acari, Oribatida, Oppiidae and Machuellidae) from Turkey

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Abstract

Two new species of soil mites (Acari: Oribatida), *Machuella turcica* **sp. nov.** (Machuellidae) and *Oxyoppia (Dzarogneta) ilicaensis* **sp. nov.** (Oppiidae) are described from Turkey. They were collected from moss on rocks and litter under oak trees respectively. A key to the known species of the genus *Machuella* Hammer, 1961 is provided.

Key words: Acari, Oribatida, Oppiidae, Machuellidae, soil mites, new species, Turkey

Introduction

Prior to this study there was no record for the family Machuellidae Balogh, 1983 and subfamily Oxyoppiinae Subías, 1989 from Turkey. The subfamily Machuellinae, with two genera, *Machuella* Hammer, 1961 and *Gredosella* Gil-Martin *et al.*, 2000, was created by Balogh (1983) within the family Oppiidae Grandjean, 1951. Later Subías & Balogh (1989) considered that this subfamily had to be excluded from the Oppiidae, and it is now considered as a separate family within the Oppioidea (Subías & Arillo, 1993). The genus *Machuella* Hammer, 1961 is recognized by long epimeral setae directed toward the centre of the epimeral region to form a basket, within a thick layer of secretion. There are three known species and five subspecies of the genus *Machuella* (Subías, 2004). The subgenus *Oxyoppia (Dzarogneta)* Kuliev, 1978 is recognized by the well developed humeral process, well developed lamellar crests, and five or six pairs of genital setae.

In the present paper, two new species, *Machuella turcica* **sp. nov.** (Machuellidae) and *Oxyoppia (Dzarogneta) ilicaensis* **sp. nov.** (Oppiidae) from Turkey are described. They were collected from moss on rocks and litter under oak trees respectively.

Material and methods

Mites were collected in soil and litter samples from Erzurum province and extracted using a Berlese funnel apparatus. They were fixed and stored in 70% ethanol. Mites were sorted from the samples under a stereomicroscope and mounted on slides in modified Hoyer's medium or 35% lactic acid. Drawings were made with the aid of a camera lucida attached to a compound microscope.

The terminology used in this paper follows Grandjean (see Travé & Vachon 1975), Balogh (1983) and Subías & Balogh (1989). All measurements are given in micrometres (µm). Type material and specimens