



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

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### Abstract

Two new species of soil mites (Acari: Oribatida), *Machuella turcica* **sp. nov.** (Machuelliidae) 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, Machuelliidae, soil mites, new species, Turkey

### Introduction

Prior to this study there was no record for the family Machuelliidae Balogh, 1983 and subfamily Oxyoppiinae Subías, 1989 from Turkey. The subfamily Machuelliinae, 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.** (Machuelliidae) 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