



***Superodontella gladiator*, a new species of the family Odontellidae (Collembola: Poduromorpha) from Nepal with extremely elongated mouthparts**

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Abstract

Superodontella gladiator, a new Odontellidae species from Nepal, is described with emphasis on its extremely elongated mouthparts, which are unique in the family.

Key words: taxonomy, springtails, morphology, chaetotaxy, buccal cone

Introduction

The Odontellidae, first described as a subfamily by Massoud (1967), then redefined and upgraded to the family level by Deharveng (1981a), are characterized mainly by the presence of lateral microsensillae on thoracic tergites II and III and their mouthparts. They display the most spectacular mouthpart diversification in the whole Collembola class. Not only do they differ from the other collembolan by a dramatic alteration of the otherwise immutable organization of the stipes, cardo and fulcrum—the stipes is directly articulated to the fulcrum, the cardo is either modified, lost or cannot be identified with certainty, the mandibles are very regressed, always lack a molar plate and are sometimes absent on one side—but they also present a tremendous amount of variation in maxilla shape and labium chaetotaxy within the family. In this respect, the genus *Superodontella* Stach, 1949, as re-diagnosed by Deharveng (1981a), is particularly notable for it encompasses most of this variation and exhibits its most extreme instances. Within this genus, Deharveng (1981a) distinguished three groups, amongst which group 3 is characterized by a strong elongation of the whole buccal cone ranging from a conic beak to a slender stylet. It encompasses species from North America and Asia. The new Nepalese species hereafter described, *Superodontella gladiator* **sp. nov.**, belongs to the Asiatic group and exhibits the most advanced state of mouthpart elongation ever recorded.

Terminology used in description

The nomenclature for tergal chaetotaxy used in the present description follows the classical a,m,p pattern (see Arbea & Jordana 1997). To indicate general tergal areas, we used the Di, De and D1 chaetal groups originally defined in Neanurinae, where they are often delimited by tubercles (Deharveng, 1983). Antennal S-chaetae are numbered after D'Haese (2003), perilabial chaetae after Gama (1969) and Yosii (1971).

Abbreviations: Abd.—abdomen, Ant.—antenna, hr—anal valve microchaetae, SEM—scanning electron microscope.