



A revised checklist and key to the genus *Podocinum* Berlese (Acari: Podocinidae) with description of a new species from Tibet, Southwest China

YI YAN^{1,2}, DAO-CHAO JIN², DIAN WU¹, JIAN-JUN GUO² & XIAN-GUO GUO^{1,3}

¹Vector Laboratory, Institute of Pathogens and Vectors, Dali University, Dali, Yunnan Province 671000, P. R. China

²Institute of Entomology, Guizhou University (The Provincial Key Laboratory for Agricultural Pest Management of Mountainous Region), Guiyang 550025, P. R. China. Yi Yan's E-mail: miteyy@yahoo.cn

³Corresponding author. E-mail: xianguoguo@yahoo.com

Abstract

The family Podocinidae Berlese is reported from the Qinghai-Tibet Plateau in Southwest China for the first time, on the basis of a new species, *Podocinum tibetensis* **sp. nov.** A revised global checklist of the genus *Podocinum* is provided, including distribution information and bibliography for all species. A revised key for all known species of *Podocinum* is also provided, based on the adult females. The new species increases the Chinese fauna of *Podocinum* to 12 species and the global fauna to 30 species.

Key words: Podocinidae, *Podocinum*, new species, checklist, key, China

Introduction

The family Podocinidae Berlese, 1913 was reviewed by Evans & Hyatt (1958), who included two genera, *Podocinum* Berlese, 1882 and *Podocinella* Evans & Hyatt, 1958. Other species have gradually been added to the family since then. Some authors have used an alternative classification of Podocinidae including some genera that are usually placed in the families Ascidae and Phytoseiidae (Westerboer, 1963; Karg, 1986). The genus *Derrickia* Womersley, 1956 was originally placed in the family Podocinidae, but has been transferred to the suborder Trigynaspida (Womersley, 1956; Karg, 1986; Halliday, 1990; Krantz & Walter, 2009). Here we follow the most generally accepted concept of the family (Evans & Hyatt, 1958; Halliday, 1990) including only the genera *Podocinum* and *Podocinella*. The two genera can be easily recognised by their highly developed ornamentation on the dorsal shield, and the extreme length of leg I, with two long whip-like setae in *Podocinum*, but only one in *Podocinella* (Evans & Hyatt, 1958; Halliday, 1990).

The genus *Podocinum* includes more species than *Podocinella*. We previously published a key to the known species of *Podocinum* from China, with description of a new species, *Podocinum guizhouense*, which was collected from Guizhou Province (Yan *et al.*, 2011). The present paper extends our former work by providing a revised checklist to all the known species in the genus *Podocinum* world-wide. The checklist contains all the valid species names, distribution information and references to the related literature. A revised key to all the recorded species of *Podocinum* is also provided, with description of another new species, *Podocinum tibetensis* **sp. nov.**, which was collected from litter under pine in Tibet. This represents the first report of a species from the family Podocinidae on the Qinghai-Tibet Plateau. Prior to this paper, there were 29 species in the genus *Podocinum* (Yan *et al.*, 2011), with 11 species reported from China (Wen, 1965; Liang, 1992, 1993; Ma & Wang, 1998; Ho *et al.*, 2009; Yan *et al.*, 2011). The new species in this paper increases the Chinese fauna of *Podocinum* to 12 species and the global fauna to 30 species.