



Tenuipalpidae of China: a review of progress*

ZHI-QIANG ZHANG

New Zealand Arthropod Collection, Landcare Research, 231 Morrin Road, St. Johns, Auckland 1072, New Zealand
Email: zhangz@landcareresearch.co.nz

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Abstract

This paper reviews the taxonomic research on the family Tenuipalpidae in China, with an updated checklist of 56 species belonging to nine genera. Major contributions to the Chinese fauna of the Tenuipalpidae were made by Ma En-Pei and his colleagues, who discovered and described over 20 species, Wang Hui-Fu and her colleagues, who described 10 species from China, and Yin Sui-Gong and students, who added five new species. There have been relatively few studies on the biology and control of the Tenuipalpidae in China and these are briefly reviewed.

Key words: false spider mites, flat mites, faunistics, biology, control, mainland China, Taiwan

Introduction

The false spider mites, also known as the flat mites, belong to one of the most diverse groups of plant feeding mites of importance in agriculture (Prostigmata: Tetranychoidae). The family Tenuipalpidae currently consists of 891 species in 34 genera according to a new world catalogue by Mesa *et al.* (2009).

During the last decade, there has been increasing interest in the Tenuipalpidae, due to the roles of *Brevipalpus* species in vectoring the leprosis virus resulting in the widespread epidemic in the Americas (Childers *et al.*, 2003) and the recent introduction of invasive mites such as *Raoiella indica* Hirst to the Americas (Flechtmann & Etienne, 2004). Also there has been recent interest in using tenuipalpid mites as model organisms to explore basic evolutionary questions such as sex determination and microorganism-mite interactions (Gerson, 2008). However, the study of the Tenuipalpidae in China has been neglected in recent years. In this paper, I provide a historical review of the research on the systematics and biology of the Tenuipalpidae in China, with an updated checklist. I hope that this review will help stimulate further studies of this important family of mites in China and also facilitate access to Chinese literature on the Tenuipalpidae for researchers outside China.

Historical review of taxonomic research

Takahashi (1938) was probably the first person to report the occurrence of the family Tenuipalpidae in