Zootaxa 2234: 21–38 (2009)
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

Water mites of the genus *Limnesia* Koch, 1836 (Acari: Hydrachnidia, Limnesiidae) from China, with description of four new species

TIANCI YI & DAOCHAO JIN[1]

Institute of Entomology, Guizhou University; The Provincial Key Laboratory for Agricultural Pest Management of Mountainous Region, Guiyang, 550025, China

[1]*Corresponding author. E-mail: dcjin@gzu.edu.cn*

Abstract

Seven species of *Limnesia* Koch, 1836, from China are described or redescribed from newly collected material. Treated herein are four new species (*Limnesia diploseta* **sp. nov.**, *Limnesia turgeotrochanter* **sp. nov.**, *Limnesia megaseta* **sp. nov.** and *Limnesia hirtigenitalia* **sp. nov.**) as well as three previously known species (*Limnesia maculata* (Müller, 1776), *Limnesia papillosa* Viets, 1935 and *Limnesia undulata* (Müller, 1776)).

Key words: *Limnesia*, taxonomy, China

Introduction

The genus *Limnesia* Koch, 1836, one of the largest genera of the family Limnesiidae Thor, 1900, has a diversity of more than 270 species in 12 subgenera worldwide (Cook 1974; Viets 1987; Otero 1987; Cook 1988; Davids 1997; Jin 1997; Tuzovskij 1997, 2007; Wiles 1999; Smit 1996, 1998, 2002; Ferradás *et al*. 2004). In China, 12 species in the genus *Limnesia* have been previously recorded (Yi *et al*. 2008): *Limnesia maculata* (Müller, 1776), *L. undulata* (Müller, 1776), *L. koenikei* Piersig, 1894, *L. lembangensis* Piersig, 1906, *L. neokoenikei* Jin, 1997, *L. rimiformis* Jin, 1997, *L. anomalia* Jin, 1997, *L. crassignatha* Jin, 1997, *L. paracorpulenta* Jin, 1997, *L. falcata* Jin, 1997, *L. trifurcata* Wen *et al*., 2001 and *L. microplatus* Wen & Zhu, 2001. In this study, the descriptions are given for four new species, as well as for three known species, including a newly recorded species from China, with portrayals in detail, which increases the number of known water mite species in the genus *Limnesia* in the Chinese fauna to seventeen.

Material and methods

Specimens examined in this study were collected by the authors and Guo Jianjun, during 1996–2008 from China, and preserved in Koenike's solution. Holotypes and paratypes are deposited in Institute of Entomology, Guizhou University (GUGC).

Terms follows Jin (1997). The following abbreviations are used:

A1, A2: antennal glandularia 1 and 2;
ACG: anterior coxal group (CxI + CxII);
CxI–CxIV: coxae I–IV;
D1–D4: dorsoglandularia 1–4;
E1–E4: epimeroglandularia 1–4;

Accepted by P. Martin: 29 Jul. 2009; published: 17 Sept. 2009