Zootaxa 3420: 1–37 (2012)
www.mapress.com/zootaxa/
Copyright © 2012 · Magnolia Press

Article

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

Contribution to the knowledge of Chinese *Epilachna* Chevrolat with descriptions of new species (Coleoptera: Coccinellidae: Epilachnini)

HONG PANG[1], ADAM ŚLIPIŃSKI[2], YAPING WU[1] & YONGSHENG ZUO[1]

[1]*State Key Laboratory of Biocontrol, The Museum of Biology, Sun Yat–sen University, Guangzhou 510275, China; e-mail: Lsshpang@mail.sysu.edu.cn*

[2]*CSIRO Ecosystem Sciences, GPO Box 1700, Canberra ACT 2601 Australia; e-mail: Adam.Slipinski@csiro.au*

**** corresponding author** Adam.Slipinski@csiro.au*

Abstract

The results of examination of extensive collections of *Epilachna* Chevrolat (Coccinellidae: Epilachnini) from China, housed at the Natural History Museum Basel and the Museum of Biology, Sun Yat-sen University, Guangzhou are presented. New distribution data of 33 species and detailed digital illustrations of external morphology and male genitalia of 20 poorly known species are included. Six new species: *Epilachna bocaki, E. crepida, E. echinata, E. hamulifera, E. max, E. sichuana* **Pang et Ślipiński spp. nov.** are described. An updated list of 106 species of *Epilachna* recorded from China is also presented.

Key words. Cucujoidea, Coccinellidae, Epilachnini, Epilachna, China, new faunistic records, new species, checklist

Introduction

The Epilachnini comprises a cosmopolitan and diverse group of herbivorous ladybird beetles with 23 genera and over 1000 species recorded from all continents except Antarctica (Jadwiszczak & Węgrzynowicz, 2003). Larvae and adult Epilachnini feed on foliage of plants of Cucurbitaceae, Solanaceae, Urticaceae, Lamiaceae, Fabaceae, Asteraceae and various grasses, and some species are regarded as the most economically important pests among the beetles (Li & Cook 1961). Herbivorous and distinctly hairy, Epilachninae (called Trichoisomides) was regarded by Mulsant (1846, 1850) as a sister group to the glabrous, shiny and apparently predatory Coccinellinae (Gymnosomides). In more recent classifications (Sasaji 1971, Kovář 1996) Coccinellidae was divided into five to seven subfamilies, and Epilachninae was always placed as a sister taxon to Coccinellinae. Molecular and morphological phylogenetic research by Giorgi *et al*. (2009) and Seago *et al.* (2011) gave no support to such sister group relationships, recovering monophyletic Epilachnini among a mixture of scale feeding clades classified in the broadly defined Sticholotidinae and Coccidulinae. Following Ślipiński (2007) and Seago *et al.* (2011), here we recognize Epilachnini as a tribe within the broadly defined Coccinellinae.

Since the genus *Epilachna* was established in 1836, hundreds of species from all over the world have been described in the genus. Many species were subsequently removed to other genera, leaving 581 species in *Epilachna*, predominantly from tropical or subtropical regions of the world (Jadwiszczak & Węgrzynowicz 2003). The generic concepts and higher relationships in Epilachnini are poorly understood and authors working on their local faunae have employed various classification schemes. The distinctiveness of the two largest genera, *Epilachna* and *Henosepilachna* Li, is one of the most problematic issues in Epilachnini (Li & Cook 1961, Kapur 1967, Richards 1983, Ślipiński 2007). Pending a comprehensive and worldwide phylogenetic investigation on Epilachninae (Tomaszewska & Szawaryn, in preparation), we follow a restricted concept of *Epilachna* as advocated by Li & Cook (1961) and Szawaryn (2011).

Investigation of the coccinellid fauna of China started in the middle of the nineteenth century with world monographs of Coccinellidae by Mulsant (1850) and Crotch (1874), followed by individual descriptions in numerous papers of J. Weise or L. Mader. However, a truly comprehensive study of the Chinese Epilachninae started with a monograph of the Epilachninae of Asia, Europe and Australia by Dieke (1947). Dieke recorded 36 species in four genera of Epilachninae from China, including 21 new species and numerous new color forms. Weise

Accepted by Nathan Lord: 27 Jun. 2012; published: 13 Aug. 2012