



Seven new species of the genus *Chrysolina* Motschulsky from China (Coleoptera: Chrysomelidae: Chrysomelinae)

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Abstract

Seven new species of Genus *Chrysolina* Motschulsky are described: *Chrysolina markamensis* Daccordi et Ge, *Chrysolina hohxilensis* Daccordi et Ge, *Chrysolina gyacaensis* Daccordi et Yang, *Chrysolina hongyuanensis* Daccordi et Ge, and *Chrysolina cuiiae* Ge et Daccordi, *Chrysolina shuyongi* Ge et Daccordi, *Chrysolina zhangi* Daccordi et Ge. Illustrations of habitus, male and female antennae, and male protarsi and aedeagus, and a map showing known localities are provided.

Key words: Chrysomelidae, Chrysomelinae, *Chrysolina*, new species, China

Introduction

The genus *Chrysolina* Motschulsky (1860) is one of the largest genera of Chrysomelinae with 469 valid species recorded from Asia, Europe, Africa, North America, and introduced by man into S. America and Australia (Bieńkowski, 2007). Seventy-six previously described species have been recorded from China and apportioned among 17 subgenera (Bieńkowski, 2001), but the subgeneric affinities of more than 20 of those species have not yet been established. This is because the diagnostic characters of the subgenera are unstable and often difficult to interpret, particularly among species from southwestern China.

In the present paper, seven new species from the southwestern provinces of Qinghai, Yunnan, Xizang, and Sichuan are described, with holotype specimens deposited in the Institute of Zoology, Chinese Academy of Sciences, Beijing, China (IZAS) and paratypes deposited there and in The Natural History Museum, London, United Kingdom (BMNH), California Academy of Sciences, San Francisco, California, USA (CAS), Mauro Daccordi's collection, Verona, Italy (MDc) and Horst Kippenberg's collection, Herzogenaurach, Germany (HKc). We are currently engaged in a revisionary study of the Chinese *Chrysolina* species and a cladistic analysis of the Chinese subgenera; but pending completion of that study, we will describe the new species here without subgenus rank.

Material and methods

Internal and external morphological characters form the basis of this work. Specimens were examined using a Leica microscope with a camera lucida (8 to 100x). Measurements were made using an ocular micrometer. Internal sclerotized structures were dissected in hot water. Heavily sclerotized parts were soaked in a dilute solution of potassium hydroxide (about 25%), then put in acetic acid and in ethanol finally. In most cases, the dissected parts were glued to a triangular label pinned under the specimen. Line figures were drawn with the aid of a camera lucida mounted on a Leica MZ 12.5 stereomicroscope. All illustrations were evaluated and assembled with Adobe Photoshop® and Illustrator® CS software.