

<http://dx.doi.org/10.11646/zootaxa.3973.2.5>
<http://zoobank.org/urn:lsid:zoobank.org:pub:5851DACP-8AD3-44AB-B289-8F7368E90B8E>

Penghou, a new genus of flea beetles from China (Coleoptera: Chrysomelidae: Galerucinae: Alticinae)

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Abstract

A new genus (*Penghou*) with a single new species (*P. yulongshan*) from Yunnan Province in China is described and illustrated. It is compared to *Hespera* Weise, *Hesperomorpha* Ogloblin, *Laotzeus* Chen, *Luperomorpha* Weise, *Mandarella* Duvivier, *Omeiana* Chen, *Stenoluperus* Ogloblin and *Taiwanohespera* Kimoto.

Key words: new genus, new species, flea beetle, Alticinae, China, Yunnan

Introduction

The Chinese fauna of flea beetles with about 100 genera and 1200 species, is one of the largest and most complex among regional Asian faunas. Recent flea beetle field investigations revealed a number of new taxa (e.g. *Cangshanaltica* Konstantinov *et al.* 2013) (Konstantinov & Lingafelter 2002, Konstantinov *et al.* 2011, 2013, Ruan *et al.* 2014, Sprecher-Uebersax *et al.* 2009). Here we describe a previously unknown genus of flea beetles. Based on morphological characters, particularly those of the elytra and legs, it resembles genera close to *Luperomorpha* Weise and *Hespera* Weise. A recent, mostly molecular, phylogenetic study (Ge *et al.* 2012) placed these genera deep within Galerucini. However, their phylogenetic position as well as relationships of Alticinae and Galerucini in general remains unclear, mostly due to a great species diversity (Galerucinae *sensu lato*, including Alticinae contain about 1200 genera and 18000 species), and resulting problems of inadequate sample size. Discovery and proper documentation of generic diversity of flea beetles will contribute to resolution of their phylogenetic relationships in the near future.

Material and methods

Beetle structures were studied under a Zeiss Stemi SV11 Apo microscope. The female genitalia were dissected and mounted into slides with Hoyer's medium, photos were taken with digital camera Nikon 5200D attached to the Zeiss Axistar Plus microscope. Observations of the male genitalia and habitus were made with a Zeiss Discovery V20 microscope and digital images were taken with an AxioCam HRC digital camera attached to it. Scanning electron micrographs were taken with FEI Quanta 450. Morphological terminology follows Konstantinov (1998). Abbreviations of collections:

IZCAS Institute of Zoology, Chinese Academy of Sciences, Beijing, China
USNM National Museum of Natural History, Washington DC, USA