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A taxonomic review of *Oberthueria* Kirby, 1892 (Lepidoptera, Bombycidae: Oberthuerinae) with description of three new species

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Abstract

The genus *Oberthueria* Kirby, 1892 is revised and three new species are described: *O. yandu* Zolotuhin & Xing Wang, **sp. nov.** (TL: China, Sichuan, Volong Reserve, Siguliang Shan), *O. jiatongae* Zolotuhin & Xing Wang, **sp. nov.** (TL: China, prov. Shaanxi, Taibaishan Mts (S), Tsinling Mts., Foping NT), and *O. lunwan* Zolotuhin & Xing Wang, **sp. nov.** (TL: Yunnan prov. (NW), Dali Bai autonom. pref., Yulong county).

Key words: Lepidoptera, Oberthuerinae, *Oberthueria*, taxonomy, new species, China, Myanmar, Japan, Korea, Russia

Introduction

This article addresses a small bombycoid genus, *Oberthueria* Kirby, 1892, the type genus of its own subfamily of Bombycidae (presently tentatively treated as a subfamily within the Endromidae sensu lato). Until now, only three species were known in the genus, but specific attribution of Chinese populations was unclear because both external and genitalic characters are rather variable within populations. To resolve the problem, the mitochondrial gene COI was analysed, and the results indicate that at least five independent lineages can be separated within the genus; one more lineage is strongly supported by morphological features. Three new species are described here.

Materials and methods

Genitalic preparations illustrated were made using standard dissecting techniques, and mounted in Euparal on glass slides. Photographs of adult, abdomen and male genitalia were taken using a Canon EOS50D and Olympus Camedia C-750 camera with Soligor Adapter Tube for Olympus and Slide Duplicator for Digital 10 dptrs modified for object glasses. Five species of the genus were analyzed for the 5' terminus of the mitochondrial cytochrome c oxidase I (COI) gene including the standard 648 bp. Genetic distances are given in % minimum pairwise distance, Kumura 2 Parameter, infraspecific genetic variation in % maximum pairwise distance, Kumura 2 Parameter. With the present publication, these data will be released to public access in BOLD (<http://www.barcodinglife.com>) and GenBank databases. Institutional acronyms are as follows: BMNH—British Museum, Natural History (London, UK); EIHU—Hokkaido University (Sapporo, Japan); HUNAU—Hunan Agricultural University (Changsha, China); MWM—entomological Museum Th. Witt (Munich, Germany, now in ZSM); NSMT—National Museum of Nature and Science (Tsukuba, Japan); SCAU—South China Agricultural University (Guangzhou, China); SMFL—Senckenberg Museum (Frankfurt-am-Main, Germany); ZFMK—Zoologisches Forschungsinstitut und Museum Alexander Koenig (Bonn, Germany); ZISP—Zoological Museum of Russian Academy of Sciences (St. Petersburg, Russia); ZMHU—Zoologisches Museum der A. Humboldt Universität (Berlin, Germany); ZSM—Zoologische Staatssammlung des Bayerischen Staates (Munich, Germany). Additional abbreviations: TL = type