



A new subgenus and three new species of catocaline noctuids from China (Lepidoptera, Noctuidae: Catocalinae)

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Abstract

Based on the collection of the Zoological Research Institute and Museum Alexander Koenig, Germany, Bonn, two new species of the genera *Lygephila* Billberg, 1820 and *Apopestes* Hübner, [1823] are described from China. The new taxa belong to the subfamily Catocalinae, tribe Toxocampini: *Lygephila stueningi*, **sp. n.**, *Lygephila longicoecum* **sp. n.**, and *Apopestes curiosa* **sp. n.** The new subgenus *Sinocampa*, **subgen. n.** (type species *Lygephila longicoecum*, **sp. n.**) of the genus *Lygephila* is described. The adults and male and female genitalia are illustrated, and distribution maps of the new species are presented.

Key words: Lepidoptera, Noctuidae, Catocalinae, Toxocampini, *Apopestes*, *Lygephila*, *Sinocampa*, new species, China

Introduction

In the course of examination of the collection of Chinese noctuids in the Zoological Research Institute and Museum Alexander Koenig (Zoologisches Forschungsinstitut und Museum Alexander Koenig, ZFMK, Germany, Bonn) three unidentified catocaline species were discovered. Externally, two of these matched well with species of the genus *Lygephila*, while the generic position of the third species seemed unclear. After dissection of the male and female genitalia of the first two species, it was confirmed that they belong to *Lygephila*, one being a sister species of *L. ludicra* (Hübner, 1790). It also became evident that the second species required a new subgenus, *Sinocampa*, **subgen. n.**, as it differed from all species in the subgenus *Lygephila*. The third new species is externally quite different from other species in the genus *Apopestes* Hübner, [1823] 1816, but its size and male genitalia, though with many apomorphic features, place the new species there. Judging from the structures of the male and female genitalia, *Lygephila*, *Apopestes* and *Autophila* Hübner, [1823] 1816 are very closely related.

All taxa treated here belong to the tribe Toxocampini of the quadrifid subfamily Catocalinae. The European fauna of the subfamily Catocalinae was recently revised by Goater *et al.* 2003. The genus *Lygephila* occurs mainly in the Old World with only one species, *Lygephila victoria* (Grote, 1874) in the Nearctic. The genus *Apopestes* is distributed exclusively in the Old World.

Type materials for the new species are preserved in the collection of the Zoological Institute and Museum Alexander Koenig (ZFMK, Germany, Bonn) with the following exceptions: two paratypes of *L. stueningi* (male and female) are in the collection of M. Fibiger; two male paratypes of *L. longicoecum* are preserved in the collection G. Ronkay (Budapest, Hungary), one male paratype in the Zoological Institute of the Russian Academy of Sciences (St. Petersburg), and one female paratype in the Institute of Biology and Soil Science, Far Eastern Branch of Russian Academy of Sciences, Russia, Vladivostok.