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(西南地区)

The tribe Leucaniini in Southwest China
(Lepidoptera, Noctuidae)
The Lepidoptera in the collection of Northeast Forestry University II

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前言

Preface

粘夜蛾族是隶属于鳞翅目夜蛾科夜蛾亚科中的一个小类群，目前在中国分布有 4 属 151 种。该族夜蛾广泛分布于温带、亚热带和热带，以季风气候区的山地环境物种多样性较为丰富。其主要栖息于各种草原生境，幼虫多以单子叶植物为寄主，尤其是禾本科植物。部分种类的幼虫为害谷类作物，如分泌夜蛾（粘虫）*Mythimna separata* 主要取食玉米、小麦、大米、小米等，是一类重要的经济害虫。这些种类同时具有很强的迁飞能力，可以突然入侵农牧区并造成破坏。

粘夜蛾族成虫前翅大多具有枯草色、锈红色的隐藏色调和较简单的翅面斑纹，并且不同种间翅面底色和斑纹相当一致。因该族之中相近似的种类数目众多，加之以往对该类群分类学研究工作的不足，在相当长的时期里，粘夜蛾族都被分类学者视为难以鉴定分类的复合类群。有关于中国地区秘夜蛾属 *Mythimna*、粘夜蛾属 *Leucania* 和案夜蛾属 *Analetia* 的相关文献资料，则大多分散在国内外多种昆虫学术期刊中，这些资料对于夜蛾科学者来说通常很难获得。同时，要对粘夜蛾族种类进行准确的鉴定，在比较检视成虫外部形态特征的同时，还需要结合雄、雌外生殖器等相关特征。

中国西南地区是亚洲粘夜蛾族物种多样性最高的地区，本书可作为该地区粘夜蛾族的物种鉴定指南。

本书包含中国西南地区分布的粘夜蛾族 3 属（秘夜蛾属 *Mythimna*，包含秘夜蛾亚属 *Mythimna*、乌秘夜蛾亚属 *Pseudaletia*、萨秘夜蛾亚属 *Sablia*、摩秘夜蛾亚属 *Morphopoliana* 和白秘夜蛾亚属 *Hyphilare*；粘夜蛾属 *Leucania*，包含粘夜蛾亚属 *Leucania*、希粘夜蛾亚属 *Xipholeucania* 和棘粘夜蛾亚属 *Acantholeucania*；案夜蛾属 *Analetia*，包含案夜蛾亚属 *Analetia* 和波暗夜蛾亚属 *Anapoma*）92 种的文字描述及图片说明。其中中国新记录种 24 个（单星号标注*），中国大陆新记录种 8 个（双星号标注**）。对每一个种提供了以下信息：

完整的分类学和命名信息；

详细的成虫外部形态及雄、雌外生殖器描述；

详细的国内外分布地信息；

标准成虫标本彩色图版；

雄、雌外生殖器黑白图版（雄 27 版、雌 25 版）。

同时，本书附有中国粘夜蛾族 *Leucaniini* 名录，共计 151 种。

本研究是在对东北林业大学林学院昆虫标本室馆藏标本进行分类研究的基础上完成的。

本书中所用标本采集时得到东北林业大学李成德老师、西藏农牧学院潘朝晖老师、西南林业大学熊忠平老师的大力支持；部分种类鉴定时得到匈牙利自然史博物馆 L. Ronkay 博士的大力支持，作者在此一并表示衷心的感谢。对历年来在各地进行野外采集时付出大量工作的东北林业大学林学院森林保护学科主楼西 408 实验室的同学们致以诚挚的谢意。

本研究得到以下基金项目资助：国家自然科学基金（No.31872261、31572294、31272355、30700641）、中央高校基本科研业务费专项资金资助项目（No.2572019CP11、2572017PZ08）。

由于作者水平有限，书中错漏和不足之处，万望读者不吝赐教、指正。

作者

2019 年 10 月于重庆、哈尔滨、海参崴（俄）

Summary

The tribe Leucaniini is a compact group in the subfamily Noctuinae (Noctuidae, Lepidoptera), and contains 151 species of four genera in China. The species of this tribe are distributed from temperate zone to subtropics and tropics, but especially are diverse in mountains of the monsoon climatic zone. The species of the tribe inhabit various grassland habitats; the larvae of most Leucaniini are trophically connected mainly with monocotyledon plants, especially with Poaceae. Some species of the tribe Leucaniini have an economic value: the larvae some of them, like *Mythimna separata* cause damage of cereal crop, corn, wheat, rice and millet. Having high migratory ability such species can suddenly invade on waste regions of agriculture and pastures.

Most species of Leucaniini have rather uniform simplified forewing pattern and straw or rusty-reddish cryptic coloration. Due high number of similar species, uniform external characters and weakly studied taxonomy of this group the tribe Leucaniini considered by researchers as difficult taxonomic complex. The literature data on the genera *Mythimna*, *Leucania* and *Analetia* in China are separated and dispersed in numerous publications in foreign and Chinese entomological issues, often hardly accessible for the Noctuidae students. The reliable identification of Leucaniini species requires comparative examination of external characters in combination with male and female genitalia.

Present book is a guide for identification of the Leucaniini species in Southwest China, where the highest in Asia diversity of the tribe is registered.

The book contains the diagnoses and illustrations of 92 species of three genera Leucaniini (*Mythimna*, with subgenera *Mythimna* s.str., *Pseudaletia*, *Sablia*, *Morphopoliana* and *Hyphilare*; *Leucania* with subgenera *Leucania* s.str., *Xipholeucania* and *Acantholeucania*; and *Analetia* with subgenera *Analetia* s.str. and *Anapoma*) recorded in the Southwest China. Among them 24 species are recorded in China for the first time (marked by one asterisk – *) and eight species firstly recorded for the mainland of China (marked by two asterisks – **). For each species the following information is provided:

- full taxonomic and nomenclature data;
- detailed diagnoses of external characters and male and female genitalia;
- detailed data on general and local distribution of species;
- colour plates of adult;
- black and white plates of male and female genitalia (in 27 and 25 plated respectively).

The Checklist of 151 species of the tribe Leucaniini recorded in China is presented.

The present research is done on the basis of the collections of the Laboratory of Entomology of the School of Forestry, Northeast Forestry University.

We thank to Dr. Li Cheng De (Northeast Forestry University), Dr. Pan Zhao Hui (Xizang Agricultural and Animal Husbandry University) and Dr. Xiong Zhong Ping (Southwest Forestry University) who supported us in the course of collecting material for this book, we are grateful to Dr. Laszlo Ronkay (Hungarian Natural History, Budapest) for help in identification of some species. We would like to express our thanks to the students of the West 408 Laboratory of the Forest Protection Department of Northeast Forestry University, who has done a lot of work in the field collection over the years.

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