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Taxonomic study of the genus *Promalactis* Meyrick, 1908 from Southeast Asia (Lepidoptera: Oecophoridae)

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Abstract

The genus *Promalactis* Meyrick, 1908 is reviewed in Southeast Asia. Twenty-seven new species are described based on the specimens collected in Malaysia, Thailand, Brunei, Burma, Philippines. The new species include *P. alveiformis* sp. nov., *P. angusta* sp. nov., *P. bruneiensis* sp. nov., *P. conicispinalis* sp. nov., *P. ellipsoidea* sp. nov., *P. exiliprocessa* sp. nov., *P. extumida* sp. nov., *P. fascisetacea* sp. nov., *P. flagellaris* sp. nov., *P. foraminulata* sp. nov., *P. fortijustalis* sp. nov., *P. lancea* sp. nov., *P. latuncata* sp. nov., *P. longisaccata* sp. nov., *P. lophacantha* sp. nov., *P. medispinata* sp. nov., *P. palmifolia* sp. nov., *P. pectinifera* sp. nov., *P. sectoralis* sp. nov., *P. semiovata* sp. nov., *P. sinualis* sp. nov., *P. spinosicostalis* sp. nov., *P. strenna* sp. nov., *P. superimposita* sp. nov., *P. truncatapicalis* sp. nov., *P. undulata* sp. nov. and *P. vulvida* sp. nov. *Promalactis parasuzukiella* Wang, 2006 and *P. similiflora* Wang, 2006 are recorded from Southeast Asia for the first time. Three species described by Lvovsky are fully redescribed. Images of adults and genitalia are provided, along with a check list of 71 species from Southeast Asia.

Key words: Lepidoptera, Oecophoridae, *Promalactis*, new species, Southeast Asia.

Introduction

Promalactis Meyrick is a large Palaearctic and Oriental genus with 178 valid species. Major contributions to the taxonomy of the genus were made by Meyrick during the early period of the twentieth century; he described 22 species from India (Meyrick 1922, 1923, 1930, 1931, 1935), five species from Sri Lanka (Meyrick 1906, 1908a, 1918), one species from Bengal (Meyrick 1937) and five species from South Africa (Meyrick 1913, 1914, 1918, 1937). In more recent years, Park (1981), Park & Park (1998) described 14 species from Korea, Fujisawa (2002) reported 12 species from Japan, and Lvovsky (1985, 1986, 2000a) reported three species from Nepal and 10 species from the Far East of Russia. Wang *et al.* (2006, 2009) and Du *et al.* (2011, 2012) studied the Chinese fauna of *Promalactis* and reported a total of 109 species.

So far, 41 *Promalactis* species have been recorded in Southeast Asia. Meyrick described *P. nebrias* Meyrick, 1908 from Burma. Lvovsky (1988, 1997, 2007) described seven new species and one known species from Vietnam; Lvovsky (2000a & b, 2007) described one new species from Malaysia, 20 new species and one new subspecies from Indonesia, and two new species from Philippines, and transferred *P. atrofasciella* Lvovsky, 1988 to the genus *Epicallima*. Kim *et al.* (2010, 2012) described eleven new species from North Vietnam. To date, there is no record of *Promalactis* from Thailand or Brunei. In this paper, we describe eleven new species and report three known species from Malaysia, six new species and two newly recorded species from Thailand, seven new species and one newly recorded species from Brunei, two new species from Philippines and one new species from Burma. In addition, *P. parasuzukiella* Wang, 2006 and *P. similiflora* Wang, 2006 are newly recorded in Southeast Asia.

Little is known of the habitat of *Promalactis* larvae. According to Meyrick (1922), larvae fed on rotten wood or bark of Pinaceae and other trees. Meyrick (1918) reported that *P. cornigera* Meyrick reproduced in the wood or bark of *Pinus palustris* Mill (= *Pinus longifolia* Salisb.) in August in south India; Park (1981), Park & Park (1998) reported that pupae of *P. suzukiella* (Matsumura) live under the bark of *Prunus persica* (L.) and *P. odaiensis* Park live under the bark of *Pinus densiflora* Sieb. & Zucc. in Korea; Fujisawa (2002) reported that larvae of *P. enopisema* (Butler) feed under bark of rotten wood of oak (*Quercus*) in Japan; Adamski *et al.* (2009) reported that larvae of *P. suzukiella* (Matsumura) live under bark of rotting logs of *Prunus virginiana* L. and *Quercus* sp. in the United States, where it has recently been introduced.

Materials and methods

Examined specimens were collected from Malaysia, Thailand, Brunei, Philippines and Burma. They are on loan from the following institutions: the Natural History Museum of the Humboldt University, Berlin, Germany (MNHU); the Natural History Museum, London, United Kingdom (BMNH); and the Zoological Museum, University of Copenhagen, Denmark (ZMUC). Genitalia dissections and mounting methods follow Li (2002). Images of adults were taken with a Nikon D300 digital camera plus macro lens, and the genitalia were prepared with an Olympus C-7070 digital camera. All the specimens studied, including types, are deposited in the above three museums (Table 1).