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A review of *Peratophyga* Warren, 1894 in China, with descriptions of two new species (Lepidoptera: Geometridae, Ennominae)

NAN JIANG^{1,2}, DAYONG XUE¹ & HONGXIANG HAN^{1,3}

¹Key Laboratory of Zoological Systematics and Evolution, Institute of Zoology, Chinese Academy of Sciences, Beijing 100101 China.
E-mail: jiangn@ioz.ac.cn; xuedy@ioz.ac.cn; hanhx@ioz.ac.cn.

²Graduate University of Chinese Academy of Sciences, Beijing 100049 China.

³Corresponding author

Abstract

The genus *Peratophyga* Warren, 1894 in China is reviewed. Six species are recognized, of which *P. crista* **sp. nov.** and *P. recta* **sp. nov.** are described. *P. hyalinata grata* (Butler, 1879) is restored to specific rank as *P. grata* (Butler, 1879) **stat. rev.** *P. grata totifasciata* Wehrli, 1923 **comb. nov.** is proposed. *P. xanthyla* (Hampson, 1896) and *P. grata grata* (Butler, 1879) are newly recorded for China. Two species are transferred from *Peratophyga* to the genus *Stegania* Guenée, 1845: *S. castaneostriata* (Yazaki & Wang, 2004) **comb. nov.** and *S. modesta* (Yazaki & Wang, 2004) **comb. nov.** A key to Chinese *Peratophyga* and diagnoses for Chinese species are provided. Illustrations of external features and genitalia are presented.

Key words: taxonomy, morphology, distribution, *Stegania*, new species, new combinations

Introduction

The genus *Peratophyga* was described by Warren (1894) on the basis of *Acidalia aerata* Moore, 1868 from India, which was later considered to be a junior synonym of *Idaea hyalinata* Kollar, 1844 by Wehrli (1939). The genus name *Peratophyga* Swinhoe, 1894 (described at May 11) was homonym and junior objective synonym of *Peratophyga* Warren, 1894 (described at April 16). Additionally, Holloway (1994) considered *Euctenostega* Prout, 1916 to be a junior synonym of *Peratophyga*. He also provided the diagnostic characters for *Peratophyga*: the forewing M_2 is stalked with M_1 at the anterior angle of cell; a kidney-shaped fovea is often present at the base of the male forewing. *Peratophyga* is currently treated in the tribe Cassymini within the subfamily Ennominae, as it has some typical features of Cassymini: the forewing veins are reduced in number; the tuft of scales are present on the third sternite of the male abdomen; in the male genitalia, the valva has a long narrow and curved dorsal process (Holloway 1994).

The species of *Peratophyga* are mainly distributed in Southeast and East Asia. Parsons *et al.* (1999) listed 14 species in *Peratophyga*. Up to the present, 16 species of the genus *Peratophyga* have been recognized, with five species recorded in China (Warren 1905; Prout 1915; Wehrli 1923, 1939; Yazaki & Wang 2004). However, following study of material obtained during recent expeditions and re-examination of the collection in IZCAS, it has become apparent that new species need to be described, and the taxonomy needs to be revised.

The purposes of this paper are: to describe two new species, *P. crista* **sp. nov.** and *P. recta* **sp. nov.**, to restore *P. hyalinata grata* (Butler, 1879) to specific rank as *P. grata* (Butler, 1879) **stat. rev.**; to newly combine *P. hyalinata totifasciata* Wehrli, 1923 with *P. grata* (Butler, 1879); to newly record one species, *P. xanthyla* (Hampson, 1896) and one subspecies, *P. grata grata* (Butler, 1879) for China; to transfer *P. castaneostriata* Yazaki & Wang, 2004 and *P. modesta* Yazaki & Wang, 2004 to the genus *Stegania* Guenée, 1845; to review all known Chinese *Peratophyga* species and determine their diagnostic characters; and to provide a key for their determination and illustrations of external features and genitalia. As a result six species and two subspecies of *Peratophyga* are recorded for the fauna of China and 17 species worldwide.