To a study of asiatic Lasiocampidae
3. Short taxonomic notes on *Paralebeda* AURIVILLIUS, 1894
   (Lepidoptera)

**VADIM V. ZOLOTUHIN**

**Abstract**

4 species are recognized up-to-date as members of *Paralebeda* AURIVILLIUS, 1894. *Paralebeda plagifera* sensu HOU 1983 and 1987 is attributed to *Paralebeda femorata* (MÉNÉTRIES, 1858); *Paralebeda plagifera* sensu CHANG 1989 and KISHIDA 1992 to *Paralebeda femorata mirabilis* ssp. nov. (LT: Taiwan). *Paralebeda femorata karmata* ssp. nov. is described from Himalaya and NE Pakistan. The next taxonomic changes are accepted in the *crinodes / uniformis* complex: *uniformis* HOLLOWAY is considered only as a subspecies of *crinodes* FELDER, 1868 with establishing a new combination *Paralebeda crinodes uniformis* (HOLLOWAY, 1979) comb. nov., and *Paralebeda crinodes paos* ssp. nov. is described from Hongkong. Small diagnoses are given for all species.

**Zusammenfassung**

Introduction

Some questions and problems dealing with the interpretation of taxonomic statuses and distribution of sole taxa are still open in spite of three attempts to revise the members of that small genus (DE LA JONQUIÈRE 1980; HOLLOWAY 1982, 1987). For decision of these problems this article is devoted.

At present, genus Paralebeda AURIVILLIUS, 1894 consists of five asiatic species. HOLLOWAY (1987: 22) also noted, that there is an as yet undescribed species from Luzon but in reality there are about four undescribed species from Indonesia and Philippines. Their descriptions will be published soon after in a separate paper.

This article is arranged in three parts dealing with different species or specific complexes. The author has to note that this division is artificial and adopted only for the aims of this article.

The following abbreviations are accepted in the text for a designation of the museums where the material is deposited: NHMK = Naturhistorisches Museum, Karlsruhe; ZFMK = Zoologisches Forschungsinstitut und Museum Alexander KÖNIG, Bonn; ZISP = Zoological Institute of The Russian Academy of Sciences, St. Petersburg; BMNH = The Natural History Museum, London; ZSM = Zoologische Staatssammlung, München; MWM = Museum Th. WITT, München; MNHNBF = Muséum National d'Histoire Naturelle, Paris.

1. Paralebeda plagifera (WALKER, 1855)  
(colour plate, figs 1 ♂, 3 ♀)


The type-species of the genus.

Differs from other species either in male genitalia structure or in pattern and colouration of forewings. In forewings inner border of forewing's medial loop smooth, without projections or separate spots; tornal spot reduced or very small; coloration very contrasting, a bright silver-blue apical touch is typical. In male genitalia, aedoeagus with short base and long conical top, resembling those of Paralebeda crinodes (FELDER, 1868).

Distribution (fig. 1): Northern and Central India, Nepal, Southern and South-east China, Northern Thailand and Northern Vietnam. The species was twice noted from China but as a matter of fact Paralebeda femorata (imago and genitalia) were figured (HOU 1983: pl. 146 N 3060 ♀ ♂; HOU 1987: 133 male genitalia, fig. 105, pl. 27, N 23 ♀, 24 ♂ [sic! the legends to plate NN 23 and 24 were confused!]). At the same time both species really occur in China (see "Material"; also HOU 1987a: figs. 17, 19). Was recorded from Nepal by KISHIDA (1992a), but Paralebeda femorata was illustrated instead (ibidem: pl. 19, fig. 12). Was listed for Taiwan by CHANG (1989) and by KISHIDA (1992b), but really all these findings are Paralebeda femorata bona ssp., described below as mirabilis ssp. nov.

Comments: One of the problems in the researchs of the plagifera/femorata-complex concerns the identity of the type specimen of plagifera. It was described on one female but females determination is very difficult or so far impossible for majority species of

246
the genus. It would be no problem if only *plagifera* inhabits Nepal, from where the type-material originates (this point of view was expressed by Y. DE LAJONQUIÈRE and later by J. HOLLOWAY as "the N.W. Himalayan to Korea range attributed to *plagifera* by LAJONQUIÈRE" - HOLLOWAY 1987: 22). Contrary, both species occur in the Himalayas and it was a success that the female type-specimen (colour plate, fig. 1) really can be attributed only to the taxon called now as *plagifera*.


2. *Paralebeda femorata* (MÉNÉTRIÈS, 1858).


The species differs easily from other *Paralebeda* first of all by the peculiarities of the male genitalia: aedoeagus (fig. 2) tubular with elongated base, short teethed top and obvious thorn above it. In external characters, it may be confused only with *plagifera*, especially being the specimens of the taiwanic population. For continental populations, clear brown tornal spot, considerable weakening of silver-bluish apical touch and presence of an obviuos hump-like projection on inner border of forewing’s medial loop are characteristic.
Distribution (fig. 3): From Russian Far East (there its distribution was mapped by ZOLOTUHIN 1992), eastern Mongolia (firstly noted from the country, see "Material"), Korea and North-east China over Eastern and Central China and Taiwan to Bhutan, Nepal, northern India, Pakistan and Northern Vietnam. Four subspecies are considered (one of them, from northern Vietnam, Mt. Fan-si-pan, and northern Burma, is as yet undescribed).

2.1. Paralebeda femorata femorata (Ménétries, 1858)  
(colour plate, fig. 4  ♂)


Inner part of forewing's medial zone with obvious hump-like projection. Loop top kegle-shaped bilobated. Some (1-3) white veins presented in the loop. Top of aedoeagus flattened weakly and teehed finely, especially dorsal (fig. 4, A, B). Continental subspecies present in South-eastern Russia, Korea, North-eastern and Eastern China.

2.2. Paralebeda femorata mirabilis ssp. nov.  
(colour plate, figs 2 ♀, 5 ♂)

Holotype: ♂, China, Formosa [Taiwan], Puli, 550 m, VII.1958, H. coll. Dr. R. BENDER (ZFMK).

Male: Inner part of forewing's medial zone without obvious hump-like projection, rounded broadly and looks like those of plagifera. Loop top rounded. No single or, as exception, one small white vein present in the loop. Top of aedoeagus flattened weakly and teehed strongly (figs 2; 4 C). Wingspan 70-72 mm, forewing length 37-38 mm.

Female: Similar to a male but larger, medial loop of its forewings also larger and the hump-like projection of its inner border more expressed. Wingspan of the paratype 104 mm, forewing length 48 mm.
Distribution: As far as known only from Taiwan, where its distribution was mapped by Chang (1989) as for *Paralebeda plagifera* (Walker, 1855).

Biology: Chang (1989) noted a feeding of the caterpillars on *Quercus dentata* and *Quercus acutissima*.

2.3. *Paralebeda femorata karmata* ssp. nov.

(colour plate, fig. 6 c?)

Holotype: ♂, Nordwestpakistan, Hazara, Nathiagali, 2400-2600 m, 16.VII.-1.VIII.1979, leg. WEISS. (ZSM München, Enr. 10/91, Coll. R. Bender).


Male: Inner part of forewing's medial zone with small but obvious hump-like projection. Loop top rounded. No white veins in the loop. Top of aedoeagus flattened weakly and teated finely, shorter than in other subspecies (fig. 4 D). Wingspan 70-82 mm, forewing length 32-37 mm.

Female with the indistinct loop's projection but inner margin of the loop is rounded broadly. Wingspan 90-115 mm.
2. *Paralebeda femorata mirabilis* ssp. n. - female, Taiwan, paratype (BMNH).
5. *Paralebeda femorata mirabilis* ssp. *n.* - male, Taiwan, Wushai, holotype (BMNH).
Distribution: North-eastern Pakistan, Northern India, Nepal, South-eastern China. One male from Tadjikistan, Dushanbe, Tsuljanazar, 12.VI.1966 is kept in the collection of NHMK. This label is doubtful in the author’s opinion so it is not included in the type-series. A montainous subspecies.

3. Paralebeda crinodes (FELDER, 1868)

*Opsirhina crinodes* FELDER, 1868, Reise Novara, Lep. 2: 7, pl. 84, fig. 3. Locus typicus: erroneously pointed to be Guyana. By HOLLOWAY (1987: 22) proposed to be Java or Bali. Holotype: ♀ (BMNH).

*Here this species is considered as to be consisting of three subspecies: nominative one from Java and Bali; ssp. *uniformis* (HOLLOWAY, 1976) comb. nov. from Borneo, Sumatra, Philippines, peninsular Malaysia and *paos* ssp. nov. *Uniformis* is accepted here as a subspecies of *crinodes* because it has only few small distinguishing characters in wing pattern and coloration that cannot be considered as a sign of a specific rank for members of this genus.*

3.1. Paralebeda crinodes *paos* ssp. nov.

(colour plate, figs 7 ♂, 8 ♀)

Holotype: ♂, Hongkong, 1905 (ZFMK).

Paratype: 1 ♀, the same data (ZFMK).

Male: Body and background of wings sandy-brown. Upper part of medial loop of the forewings brown; apical silver-blue touch distinct; contrast sandy-yellow spots are presented through all the wing. Wingspan 62 mm. Male genitalia (fig. 5): as illustrated, similar to those of other subspecies.

Female: With more bright and contrast colouration, very similar to females of *crinodes* and *uniformis*. Wingspan 87 mm. Female genitalia were not studied.

Diagnosis: Differs from the males of other subspecies as follows:

1. Background of forewings sandy-brown; lower part of medial loop darker than the wing’s background; larger (male wingspan 62 mm). Hongkong

2. Upper part of medial loop obvious darker than lower. Java (and, possibly, Bali)

Biology and preimaginal phases are unknown.

Distribution: At present it is known only from the type-locality, but perhaps is distributed wider in adjoining regions of China and Northern Vietnam.

The last hitherto known species of this genus, *Paralebeda lucifuga* (SWINHOE, 1892), well differs from other species by small size and by *plagifera*-like pattern of the forewings. It inhabits lowland forests of Sundaland [Sumatra, Borneo, the Philippines (Palawan), Bali] and peninsular Malaysia north to middle Thailand. A note by HOU (1988) on a presence of this species in Xizang belongs most probably to *Paralebeda plagifera* and should be confirmed.

252
Fig. 1: Distribution of *Paralebeda plagifera* (WALKER, 1855).

Fig. 2: Male genitalia of *Paralebeda femorata mirabilis* ssp. nov., ventral view and aedoeagus extracted.
Fig. 3: Distribution of *Paralebeda femorata* (MÉNÉTRIES, 1858).

Fig. 4: Tops of aedoeagi of *Paralebeda femorata* ssp.: A - *Paralebeda f. femorata* MÉN., China, Chekiang; B - *Paralebeda f. femorata* MÉN., Korea, Chaonyi; C - *Paralebeda f. mirabilis* ssp. nov., Taiwan; D - *Paralebeda f. karmata* ssp. nov., Pakistan.
Fig. 5: Male genitalia of *Paralebeda crinodes paos* ssp. nov., ventral view and aedoeagus extracted.

References

CHANG, B.S. - 1989. The illustrated moths of Taiwan 1: 194. Taiwan.


Author’s address:
Dr. Vadim V. ZOLOTUHIN
Ablukova 13-12
Uljanovsk
Russia 432005