

A newly recorded species of *Carea* from China (Lepidoptera: Noctuidae)

CHEN Liu-sheng, WANG Min

(Department of Entomology, South China Agric. Univ., Guangzhou 510640, China)

Abstract: *Carea subangulata* Kobes, 1997 is reported for the first time from China. The species is similar to *C. angulata* (Fabricius) and *C. parangulata* Kobes from the external characters, but can be easily recognized by male genitalia. A key to Chinese species of the genus *Carea* is given.

Key words: Noctuidae; new record; *Carea subangulata* Kobes; China

CLC number: Q969

Document code: A

Article ID: 1001-411X (2005) 01-0096-02

中国赭夜蛾属一新记录种(鳞翅目:夜蛾科)

陈刘生, 王 敏

(华南农业大学 昆虫学系, 广东 广州 510640)

摘要: 报道了夜蛾科赭夜蛾属 *Carea* Walker 中国一新记录种, 即 *Carea subangulata* Kobes, 1997. 该种在外部形态上与 *C. angulata* 和 *C. parangulata* 很相似, 但很容易从雄虫外生殖器上区分. 编制了赭夜蛾属 *Carea* Walker 在中国已知种的检索表.

关键词: 夜蛾科; 新记录; 莎赭夜蛾 *Carea subangulata* Kobes; 中国

The genus *Carea* was established by Walker in 1857 with *Carea varipes* Walker as the type species. Adults of the genus are medium-sized moths. Head with rostrum strong, maxillary palpus prolonged, compound eyes large and rounded, male antenna filiform with cilium, the tibiae of the middle and the hind legs covered with long hairs, male hind tibiae short, the first tarsus long and broad with long hairs on the inner side; the two basal segments of abdomen with hair cluster; apex of fore wing relative pointed, and no serrate shape in costa. It is reported more than 128 species^[1] up to now, and 9 species^[2] occur in China; *Carea angulata* (Fabricius), *C. chlorostigma* Hampson, *C. tumida* Hampson, *C. varipes* Walker, *C. dione* Swinhoe, *C. metaphaea* Hampson, *C. fasciata* (Moore), *C. sabulosa* Warre and

C. leucocraspis Hampson.

Carea subangulata Kobes was recently described from Sumatra^[3], Indonesia. During the surveys on moths in South China, a pair of the species were collected and confirmed. Here it is reported for the first time from China together with a key to Chinese species.

1 Key to the species of *Carea* in China^{na}

1. Forewing termen below apex bent inwardly, convex and nose-shaped at middle, bent inwardly again to tornus 2
Forewing termen rounded 3
2. Cornutus slender, about 1/3 length of aedeagus *C. angulata*

Received date: 2004-11-22

Biography: CHEN Liu-sheng (1978-), male, postgraduate student. Corresponding author. WANG Min (1964-), male, Associate Professor. E-mail: minwang@scau.edu.cn

- Cornutus stout, shorter than 1/3 length of aedeagus
..... *C. subangulata*
3. Forewing with green spots *C. chlorostigma*
Forewing without green spots 4
4. Forewing with obvious transverse lines 5
Forewing with obscure transverse lines 7
5. Forewing with antemedian line and postmedian line
..... *C. dione*
Forewing with only postmedian line 6
6. Forewing costa concav medially *C. tumida*
Forewing costa convex *C. varipes*
7. Forewing costa white *C. metaphaea*
Forewing costa brown 8
8. Hindwing buff 9
Hindwing light brown *C. fasciata*
9. Forewing postmedian line gradually wavy
..... *C. sabulosa*
Forewing postmedian line straight
..... *C. leucocraspis*

2 *Carea subangulata* Kobes, 1997(Fig. 1)

Carea subangulata Kobes, 1997, Heterocera Sumatrana 11: 92, pl. 9, figs. 311 C-F (adults); fig. 485 (male genitalia).

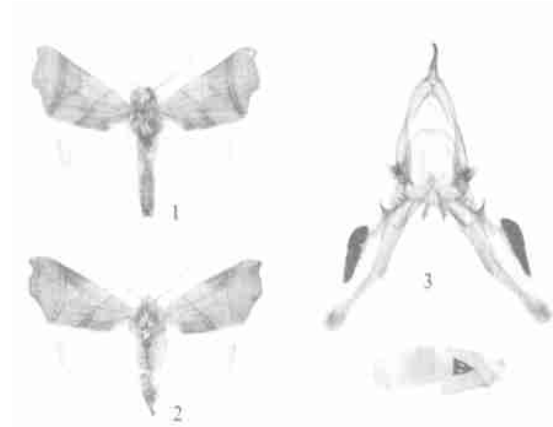
Fore wing length from 15 to 17 mm. Antenna filiform. Head, antenna, thorax and forewing buff, abdomen grayish white; thorax and abdomen with a crimson gray line dorsally. Antemedian line very oblique from one third of costa to middle of dorsum; postmedian line double, blackish, slight bent inwardly from outer 1/4 of costa to tornus. Marginal area out of the postmedian line somewhat brighter. Apex pointed, termen below apex bent inwardly, convex in the middle of termen, bent inwardly again to tornus. From the half of dorsum to anal margin covered with bright red hairs. Distal half of the cell with two small black spots. Hindwing white with orange-red suffusion from outer margin to costal margin.

Male genitalia: Uncus large, broad in basal 1/3, narrowed toward pointed apex, bent downwardly at distal 1/3. Valva narrowed basally, gradually broadened

distally, apex rounded; Sacculus roundly projected. Costa well sclerotized, with a short triangle spine at the base, distal process large. Saccus extremely short rounded. Juxta small and slender, “V” shaped. Aedeagus stout and straight, with three sclerotized short and stout cornuti.

Material examined. 1 ♂, Mt. Nankunshan, Longmen County, Guangdong Province, China, March 30, 2004, Chen Liu-Sheng leg. 1 ♀, Guangzhou, Guangdong Province, China, February 15, 2004, Yu Yong-Hao leg.

Distribution: China (Guangdong); Indonesia (Sumatra)^[3 4].



1. male adult. 2. female adult. 3. male genitalia
Fig. 1 *Carea subangulata* Kobes 1997

Acknowledgements: We thank Mr. Yu Yong-Hao of Department of Entomology, South China Agricultural University for offering female specimen for the study.

References:

[1] POOLE R W. Noctuidae Lepidoptera catalogus (new series)[M] . Florida: E J Brill/Flora & Fauna Publications. 1989. 204—208.

[2] 陈一心. 中国动物志——昆虫纲(鳞翅目: 夜蛾科) [M] . 北京: 科学出版社. 1999. 846—850

[3] KOBES L W R. Heteroceta Sumatrana[M] . Bindlach: Werner Wolf Verlag 1997. 85—92.

[4] KOBES L W R. Heterocera Sumatrana[M] . Bindlach: Werner Wolf Verlag 1988. 92—107.

【责任编辑 周志红】