

## 중국산 밤나방과(나비목) 3 미기록 종과 동북지역 1 미기록 종에 관한 보고

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## Three Species of the Noctuid Moths New to China, and a Newly Recorded Species from Northeast China (Lepidoptera, Noctuidae)

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**ABSTRACT** : Three species: *Anorthoa angustipennis* (Matsumura), *Harutaenographa stenoptera* (Staudinger), and *Cerastis pallescens* (Butler), are recorded for the first time from China, and *Nikara castanea* (Moore) is newly added to the fauna of Northeast China. The image of adult, genitalic characteristics, and the distributions are given as necessary.

**KEY WORDS** : *Anorthoa*, *Harutaenographa*, *Cerastis*, New record, China

**초 록** : 본 연구를 통해 밤나방과의 *Anorthoa angustipennis* (Matsumura), *Harutaenographa stenoptera* (Staudinger), *Cerastis pallescens* (Butler) 등 3종은 중국에서 처음으로 보고되며 *Nikara castanea* (Moore)는 처음으로 중국 동북지역에서 보고된다. 새로이 보고되는 중국 미기록 3종과 동북지역 미기록 1종 성충을 대상으로 외부형태적 특징과 암수생식기 또는 분포를 간략한 기술과 함께 도해하였다.

**검색어** : *Anorthoa*, *Harutaenographa*, *Cerastis*, 미기록, 중국

In China, more than 3,300 species of the family Noctuidae are known to date (Chang, 1991; Chen, 1999; Han *et al.*, 2003, 2005 a-b, 2006 a-b, 2007 a-c; Han and Lu, 2007; Han and Li, 2007 Hua, 2005 Inoue, 1992 Wang, 1993, 1994, 1995 a-b; Wang and Huang, 2005). In this study, we report three species of Noctuidae for the first time from China: *Anorthoa angustipennis* (Matsumura, 1926), *Harutaenographa stenoptera* (Staudinger, 1892) and *Cerastis pallescens* (Butler, 1878), and in addition, *Nikara castanea* (Moore, 1882) is newly added to the NE Chinese fauna. Among them, two species: *angustipennis* (Matsumura) and *stenoptera* (Staudinger) have been previously placed

under the genus *Orthosia* Ochseneimer, 1816 in before-time, based on the external and genitalia characteristics. They were transferred to the genus *Anorthoa* Berio, 1980 and *Harutaenographa* Yoshimoto, 1993 by Ronkay *et al.* (2001) and Kononenko (2005) respectively. The adults and genitalic characteristics of the species are briefly illustrated, with distributional information are also provided as available.

Materials examined in this study are mainly based on the research on winter Noctuidae. All the material in this study are deposited at Northeast Forestry University (NEFU), Harbin, China.

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## Systematic Accounts

### *Anorthoa angustipennis* (Matsumura, 1926) (Figs. 1, 5-6)

*Monima angustipennis* Matsumura, 1926, *Insecta matsum.* 1:12, pl. 1: 24 (TL: Japan, Hokkaido [EIHU, Sapporo]).

*Monima fluvilinea* Matsumura, 1926, *Insecta matsum.* 1: 13, pl. 1: 36 (TL: Japan, Hokkaido [EIHU, Sapporo]).

**Diagnosis (Fig. 1).** Wingspan 38 mm. This species is superficially similar to *O. incerta* (Hufnagel, 1766), but can be distinguished by following: forewing with dark brown; antemedial and median line very blurred post-medial line with slightly ochre; reniform spot with dark brown; orbicular spot rather small; hindwing with dark brown; discal spot very mistiness.

**Male genitalia (Figs. 5-6).** Uncus long, gently curved inwardly, with triangular tip. Valva asymmetrical, weakly sclerotized; sacculus distinctly broad ampulla small and slender; harpe hook shape, long; costal processus trifurcate, right clearer than left part. Saccus long v-shaped. Aedeagus straight, gradually narrow from towards terminal. Vesica screw subbasal diverticulum 1 slender and

expand, with a strongly sclerotized cornutus and 12 slender cornuti.

**Material examined.** 3 ♂, Heilongjiang Prov., Mt. Maor, 17 X 2007 (Han HL).

**Distribution.** China (new record), Korea (Central), Japan, Russia (RFE).

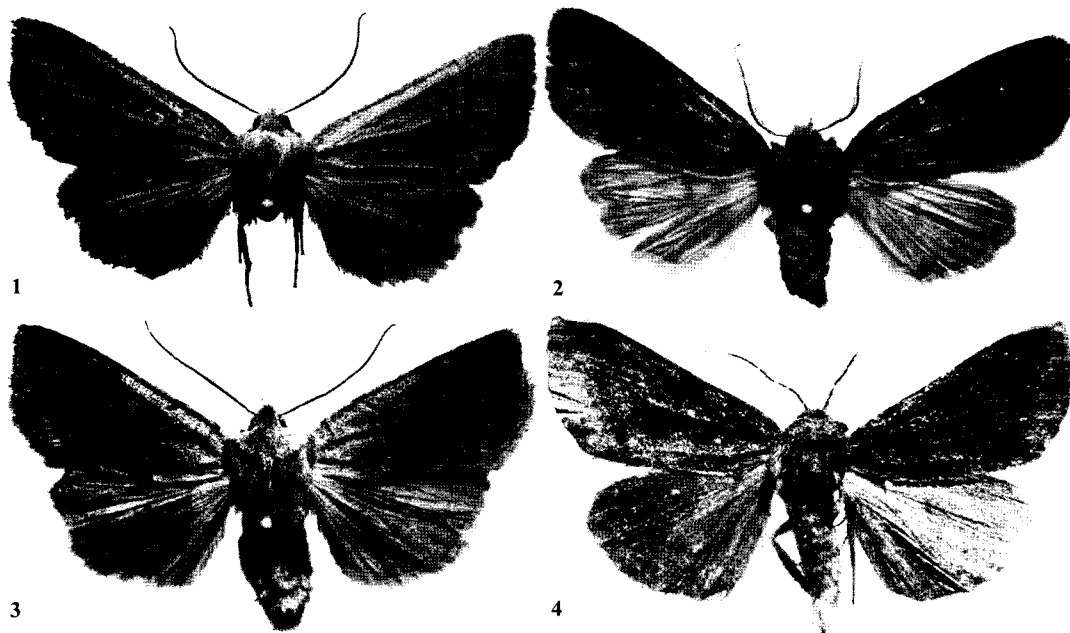
**Remarks.** This species had been removed from *Orthosia* Ochseneimer, 1816, and placed under the genus *Anorthoa* Berio, 1980 by Ronkay *et al.* (2001).

### *Harutaegrapha stenoptera* (Staudinger, 1892) (Figs. 2, 9)

*Taeniocampa stenoptera* Staudinger, 1892, in Romanoff, *Mem. Lepid.* 6: 497, pl. 9: 6 (TL: Primorye terr. ["Ussuri"]) [MNHU, Berlin].

**Diagnosis (Fig. 2).** Wingspan 35-36 mm. This species is superficially similar to *O. odiosa* (Butler, 1878), but can be distinguished by following: rather small size; antemedial line blurred and slender; median and post-medial line slightly white with dark black encircle hindwing with greyish brown; discal spot illegibility.

**Female genitalia (Fig. 9).** Papillae anales short. Apo-



**Figs. 1-4.** Adult. 1. *Anorthoa angustipennis* (Matsumura) 2. *Harutaegrapha stenoptera* (Staudinger) 3. *Cerastis pallescens* (Butler) 4. *Nikara castanea* (Moore).

physes posteriors and anteriores slender and long, terminal part of anteriores roundly swollen. Ductus bursae short, slender, about 1/5 length of corpus bursae. Bulla extended, short, with roundly compact ball. Corpus bursae abnormality, bottom part bowls shaped.

**Material examined.** 1 ♀, Liaoning Prov., Fengcheng, 15 IV 2007 (Han HL); 2 ♀, Heilongjiang Prov., Mt. Maor, 17 X 2007 (Han HL).

**Distribution.** China (new record), Korea (South), Russia (RFE).

**Remarks.** This species had been removed from *Orthosia* Ochsenheimer, 1816, and placed under the genus *Harutaetographa* Yoshimoto, 1993 by Kononenko (2005).

### *Cerastis pallescens* (Butler, 1878) (Figs. 3, 10)

*Semiophora pallescens* Butler, 1878, Ann. Mag. net. Hist. (5), 1: 166 (TL: Japan, Yokohama [BMNH, London]).

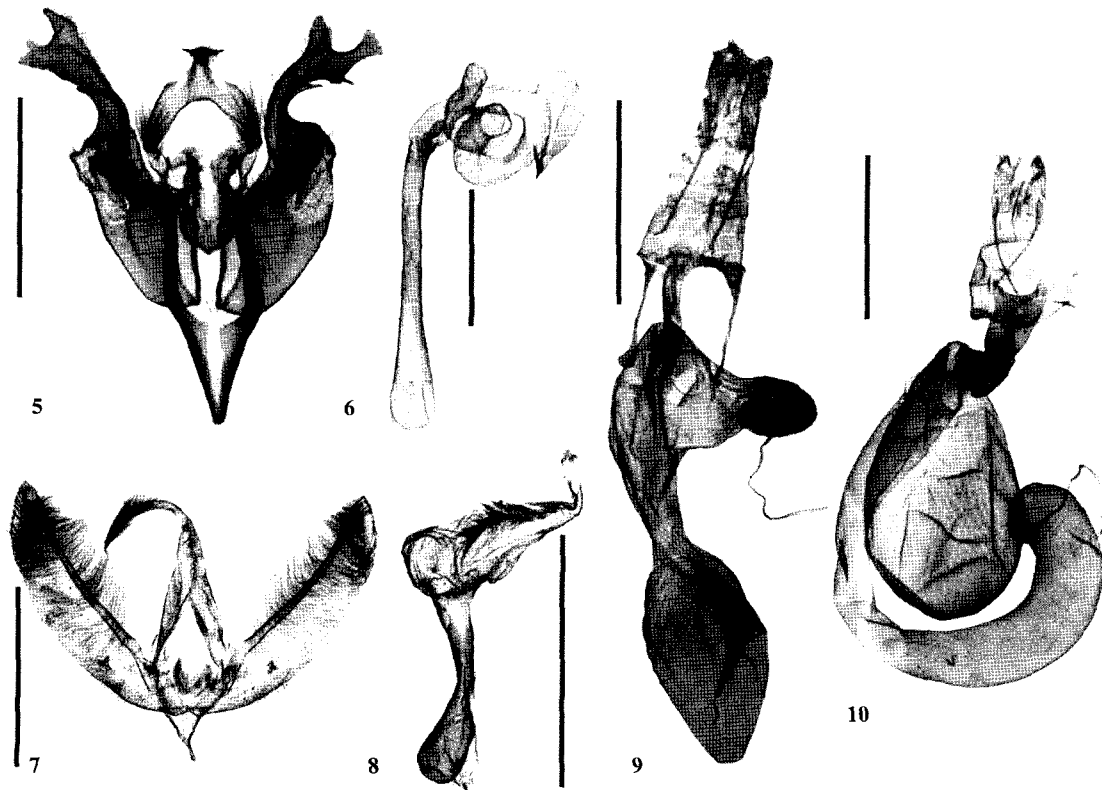
*Taeniocampa lata* Staudinger, 1892, in Romanoff, Mem. Lepid. 6: 496, pl. 9: 5 (TL: RFE, Primorye terr., Askold

Isl. [MNHU, Berlin]).

**Diagnosis (Fig. 3).** Wingspan 35 mm. This species is superficially similar to *C. violetta* (Boursin, 1955), but can be distinguished by following: rather brown ground color around basal and antemedial areas with right grey; antemedial, median and postmedial lined dark brown and blurred; orbicular spot round with a black band at inner part; reniform spot distinct subterminal part dark brown at nearby cost margin. Hindwing with greyish brown; discal spot indistinct; terminal line ocher.

**Female genitalia (Fig. 10).** Papillae anales long. Apophyses posteriores long, and anteriores short. Ostium membranous antrum broad, compressed. Ductus bursae short, broad, about 1/3 length of corpus bursae bottom part with compact tuber. Bulla extend, long, gradually swollen, and encircled the corpus bursae. Corpus bursae pear shaped, bottom part round.

**Material examined.** 1 ♀, Heilongjiang Prov., Mt. Maor, 17 X 2007 (Han HL).



**Figs. 5-10.** Genitalia; 5-8, male. 5-6, *Anorthoa angustipennis* (Matsumura) 7-8, *Nikara castanea* (Moore) female. 9. *Harutaetographa stenoptera* (Staudinger) 10. *Cerastis pallescens* (Butler, 1878). <Scale bars: 3 mm>

**Distribution.** China (new record), Korea (Central), Japan, Russia (RFE).

***Nikara castanea* (Moore, 1882) (Figs. 4, 7-8)**

*Nikara castanea* Moore, 1882, Lep. Atk. p. 126, pl. 4, fig. 24 (TL: India, Darjiling [MNHU]).

**Redescription (Fig. 4).** Wingspan 32-34 mm. Head, thorax deep brown, abdomen grayish brown. Forewing greyish brown; basal, antemedial, median and postmedial areas with dark brown; antemedial and postmedial line blackish brown with patina sheen; reniform spot indistinct, slightly with patina sheen subterminal and terminal areas grey, with small sheen; hindwing with greyish brown; discal spot indistinct.

**Male genitalis (Figs. 7-8).** Uncus long, gently curved inwardly, with pointed tip. Valva simple with numerous hairs; sacculus thin; sacculus processes small triangle, weakly sclerotized; costal margin distinct, and thick. Juxta curve moon-shaped. Aedoeagus curved, gradually narrow at middle part. Vesica swollen, with a strongly sclerotized cornuti band from middle part to terminal subbasal diverticulum 1 short and ball expand.

**Material examined.** 4 ♂, Liaoning Prov., Mt. Qianshan, 10-12 VIII 2007 (Han HL).

**Distribution.** China (new record from NE Chinese fauna, Sichuan), Sikkim, India.

**Remarks.** This species is always recognized to distribute in Himalayan region, which is founded for first time in Prov. Liaoning, NE. Chinese fauna, and had been founded a male in N. Korea by L. Ronkay (Kononenko and Han, 2007), so that it is not a Himalayan connatural species.

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