

## A New Record of *Perigrapha extincta* (Lepidoptera, Noctuidae) from China

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### 중국내 *Perigrapha extincta*(나비목: 밤나방과)의 최초 보고

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**ABSTRACT:** A total of four *Perigrapha* species were found in Northeast China. Among them, *Perigrapha extincta* Kononenko, 1989 is reported for the first time in China. The species is briefly redescribed with adult and male genitalia pictures, key, and geographic distributions

**Key words:** Hadeninae, *Perigrapha*, New record, Northeast China

**초 록:** 중국 동북지역의 밤나방과 *Perigrapha* 속에 대한 분류학적 연구를 통해 총4종이 조사되었다. 이 중 *Perigrapha extincta* Kononenko, 1989는 중국에서 처음 보고되는 종이다. 미기록종에 대한 성충, 수컷생식기의 도해를 포함해서 검색표, 재기재, 및 분포 등을 포함해서 간단하게 정리하였다.

**검색어:** Hadeninae, *Perigrapha*, 미기록, 중국 동북지역

*Perigrapha* Lederer, 1857 is widely distributed in mountainous areas of the Oriental Region (Table 1), and contain 11 species in the world (Kononenko, 1989; Poole, 1989). Four species of the genus *Perigrapha*: *P. hoenei* Pungeler, 1914, *P. extincta* Kononenko, 1989, *P. circumducta* (Lederer, 1855) and *P. uniformis* Draudt, 1950 were appeared in Northeastern Asian. 4 species from the Korean Peninsula; 2 species from Japan; 3 species from Russian Far Eastern (Sugi, 1982; Kononenko, 2003, 2005; Kononenko *et al.*, 1999; Kononenko & Han, 2007). Five species (*Perigrapha albilinea* Draudt, 1950; *P. i-cinctum* ([Denis & Schiffermüller], 1775); *P. hoenei* Pungeler, 1914; *P. circumducta* (Lederer, 1855) and *P. uniformis* Draudt, 1950) had been recorded from China, among them *Perigrapha extincta* is reported for the first time from China, with

the revision of the genus *Perigrapha* from Northeastern China in this study. (Chen, 1999; Hua, 2005; Kononenko *et al.*, 1999; Kononenko & Han, 2007; Poole, 1989).

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### Taxonomic accounts

Genus *Perigrapha* Lederer, 1857

Type species: *Noctua i-cinctum* [Denis & Schiffermüller], 1775 [Austria].

*Anorthoa* Berio, 1880, subgenus (Type species: *Noctua munda* [Denis & Schiffermüller], 1775 [Austria]).

*Harutaegrapha* Yoshimoto, 1993, subgenus (Type species: *Hadena fasciculate* Hampson, 1894 [India: Sikkim]).

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**Table 1. Distribution of the genus *Perigrapha* in China, the Korean Peninsula, Russia (RFE, Siberia) and Japan**

Species	C	K	R	J
<i>P. hoenei</i> Püngeler, 1914	●	●	●	●
<i>P. extincta</i> Kononenko, 1989	★	●	●	
<i>P. circumducta</i> (Lederer, 1855)	●	●	●	●
<i>P. i-cinctum</i> ([Denis & Schiffermüller], 1775)	●			
<i>P. uniformis</i> Draudt, 1950	●	●		
<i>P. albilinea</i> Draudt, 1950	●			

\*: C: China; K: Korean Peninsula; R: Russian Far East and Siberia; J: Japan; ★: New record.

*Opacographa* Hreblay, 1996, subgenus (Type species: *Perigrapha cilissa* Püngeler, 1917 [Turkey]).

*Rororthosia* Beck, 1999, subgenus (Type species: *Orthosia rorida* Frivaldszky, 1835 [Bulgaria]).

**Adult.** Wingspan 30-60 mm, medium or large size species; body strong, elongate; male antenna broadly bipectinate, female with biserrate or shortly bipectinate. Thorax with long and thick scale; abdomen strong, cylindrical or slightly flattened, some species rather short. Forewing broad and long, median to postmedial areas darker color; ordinary spots appear, slightly fish mark in some species; terminal line with small dots line. Hindwing roundly, outer margin thin color; discal margin smog or very thin.

**Male genitalia.** Uncus large and broad, point at tip. Valva complicated process of cost extend and strong; harp horn, curved; saccus thick and broad. Juxta elongate. Aedeagus cylindrical, slightly curved or straight, vesica circle, with cornuti band.

**Female genitalia.** Apophysis long and slender. Ostium broad. Ductus bursae flattened, shorter than corpus bursae. Corpus bursae large, with signa; appendix bursae at posterioris part, with wrinkle.

Key to the species of genus *Perigrapha* from NE China

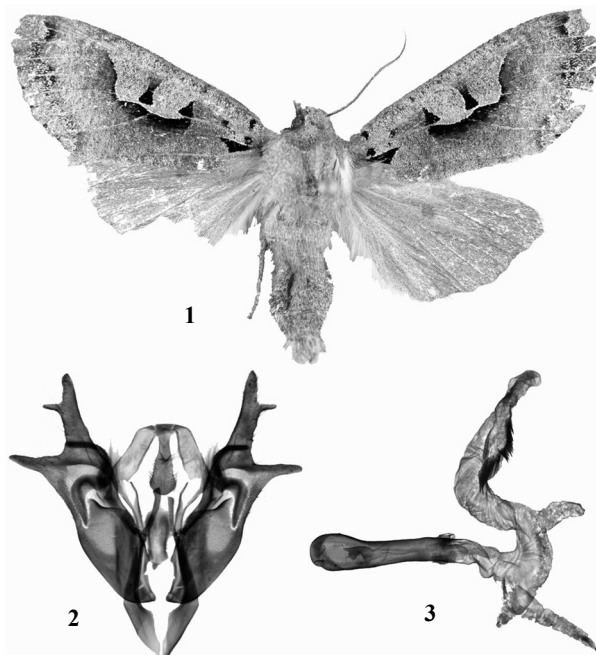
- 1. Valva with branch ..... 2
- Valva without branch ..... *P. circumducta* (Lederer, 1855)
- 2. Valva without biparous ..... 3

- Valva with biparous ..... *P. uniformis* Draudt, 1950
- 3. Valva with trifurcate; harpe short, hardly curved ..... *P. extincta* Kononenko, 1989
- Valva with quatrefurcate; harpe long, slightly curved ..... *P. hoenei* Püngeler, 1914

***Perigrapha extincta* Kononenko, 1989 (Figs. 1-3)**

*Perigrapha extincta* Kononenko, 1989, Ann. Ent. Fennici. 55: 79, figs. 1, 3 (TL: RFE, Primorye terr., Gornotaezhnoe [Preserved in ZIN, St. Petersburg]).

**Diagnosis (Fig. 1).** This species is superficially similar to *P. hoenei* Püngeler, 1914, but can be distinguished by ground color of subterminal and terminal areas finely grey;



**Fig. 1-3. *Perigrapha extincta* Kononenko, 1989: 1, Adult; 2-3, Male genitalia.**

triangle mark rather small; lacuna narrow between orbicular and reniform spots; ordinary spots usually large, and open at costal direction of forewing.

**Redescription.** Wingspan 46-48 mm. Head, thorax and abdomen with grey, mixed little brown; patagium with long hair. Forewing with grey ground color; basal dash short, form by two black dots; antemedial line finely waved, black, slender, indistinct; triangle mark at basal part; median and postmedial lines black, blurry, only clearly short at cell part; the circle line of reniform and orbicular spots connect at behind part, black, and mixed brown; the top line of cell with brownish black; postmedial line blurred, dark grey; subterminal line brownish black, distinct. Hindwing grey; discal spot darkly and distinctly, rounded distinct; outer margin with sunken at  $M_2$ , and between  $Cu_2$  and 2A.

**Male genitalia (Figs. 2-3).** Uncus long, gently broad from basal to top, flat. Tegumen broader than basal part of uncus, same length. Juxta bar shaped with thin sunken at top. Valva complex, sacculus broad, process part short and sharp; clasper thick and hook; harpe slender and hook; costa thick, process part straight, strong, extend out ventral; digitus short, finger shaped, shorter than costal process; cucullus narrow, broader and longer than digitus. Aedeagus cylinder with weakly sclerotized carina; caecum slightly swollen. Vesica anomalous curved; basal part with a short and a long subbasal diverticulum, the long diverticulum with a short cornutus; middle part with 1 median diverticulum; posterior part with a cornutus band.

**Material examined.** 2 ♂, Prov. Heilongjiang, Maorshan, Laoyeling, 1-6 VIII 2009 (Mu-Jie Qi).

**Distribution.** China (Heilongjiang), Korea (Central, South), Russia (RFE: Primorye terr.).

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