

## A Review of Blastobasidae (Lepidoptera) in Korea

韓國產 밀두리빨나방科의 分類學的 整理

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**ABSTRACT** A species of Blastobasidae, *Pseudohypatopa longicornutella* sp. nov. is described as new to science and illustrated, and *Neoblastobasis decolor* (Meyrick) is newly recorded from Korea. The total of four species known for Korean fauna including the previously known species, *Blastobasis sprotundalis* Park and *Neoblastobasis biceratala* (Park), are briefly reviewed with new distributional data.

**KEY WORDS** Lepidoptera, Blastobasidae, *Pseudohypatopa*, *Neoblastobasis*, *Blastobasis*

**抄 錄** 쌍돔기밀두리빨나방과 흰밀두리빨나방 등 2종이 필자에 의해 신종으로 발표됨으로서(1984) 우리나라에서는 처음으로 밀두리나방科가 보고되었었다. 금번의 조사에서 1 신종을 확인, 두점밀두리빨나방(*Pseudohypatopa longicornutella*)으로 기재하였으며 현재까지 남방계종으로 알려진 남방밀두리빨나방(*Neoblastobasis decolor* Meyrick)을 춘천지방에서 채집하였기에 우리나라 미기록종으로 보고한다.

**檢 索 語** 분류나비목, 밀두리빨나방과

The Blastobasidae has been represented in Korea by two species, viz., *Blastobasis sprotundalis* Park and *Neoblastobasis biceratala* (Park) which was described in 1984. Herewith I describe a new species belonging to genus *Pseudohypatopa* which was recently described by Sinev (1986), and report an unrecorded species viz., *Neoblastobasis decolor* (Meyrick), from Korea, 1985. A male specimen, which is clearly different species from the above four species, was also collected and examined, but I delayed it to report in this paper until more materials are available for further detailed examination. These four species, as well as other species in this family, are very similar in superficial and extremely difficult to separate into one another without examination of their genitalia of both sexes.

For this paper, I wish to express my sin-

cere thanks to Dr. S. Yu Sinev, Academy of Sciences, Institute of Zoology, Leningrad, U. S.S.R. and Dr. S. Moriuti, Entomological Laboratory, University of Osaka Pref., Japan for their help in supplying with valuable references. Also my thanks are due to Dr. K. Sattler, British Museum (Nat. Hist.) for allowing me to examine specimens during my stay at the Museum in 1981.

### DESCRIPTION

*Pseudohypatopa longicornutella* sp. nov.

두점밀두리빨나방(新稱) (figs. 1~6)

Male and female, 13~14 mm. Head smooth with appressed scales. dark fucous; face tinged with ochreous. Antenna about four-fifths in male with broadly dilated scape, without notch at base of flagellum. Palpus dark grey, closely recurved to face and it, 3rd segment

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Figs. 1~2. (1) *Pseudohypatopa longicoruntella* sp. nov. (2) ditto; flagellum of antenna (X500).

pointed, shorter than 2nd. Forewing narrow, whitish, sprinkled with dark grey; an indistinct fascia before middle, preceded by whitish suffusion; two distinct blackish round spots, *viz.*, one at middle of cell and the other at end of cell; cilia grey. venation is similar to genus *Blastobasis* Zeller, however this species may be satisfactorily separated from the latter by the hindwing venation. In the forewing,  $R_1$  from before middle of cell;  $R_2$  connate or shortly stalked;  $R_4$  and  $R_5$  with long stalk;  $M_1$  nearer to  $R_4+R_5$  at base;  $M_2$ ,  $M_3$  and Cula connate; Culb arising a little before angle, running vertically to inner margin. Hindwing lanceolate, grey. 8-veined instead of 7-veined by coincidence of  $M_3$  and Cula in *Blastobasis*, rather similar to genus *Hypatopa*;  $R_4$  and  $M_1$  well separated nearly parallel,  $M_2$  free;  $M_3$  and Cula shortly stalked.

Male genitalia: Uncus short, semiovate, with rounded apex. Gnathos simple, median part a little protruded into a triangular shape, with a small emargination at middle. Valva elongated, free spiny process, without a distinct bristled ridge or spiny plate in disc at base; saccular process well sclerotized, horn-like, with sharply pointed apex. Aedeagus long, slender, about 1.5 times of total length of genitalia, with a very long cornutus which bifurcated at terminal part.

Female genitalia: Eighth abdominal tergite sclerotized, with long stiff hairs beyond posterior half. No lateral patches of pits on 7th-8th intersegmental membrane. Apophyses posteriores twice length of apophyses anteriores. Ductus bursae as long as apophyses posteriores. Corpus bursae semiovate; signum diamond-shaped in outline with diagonal groove.

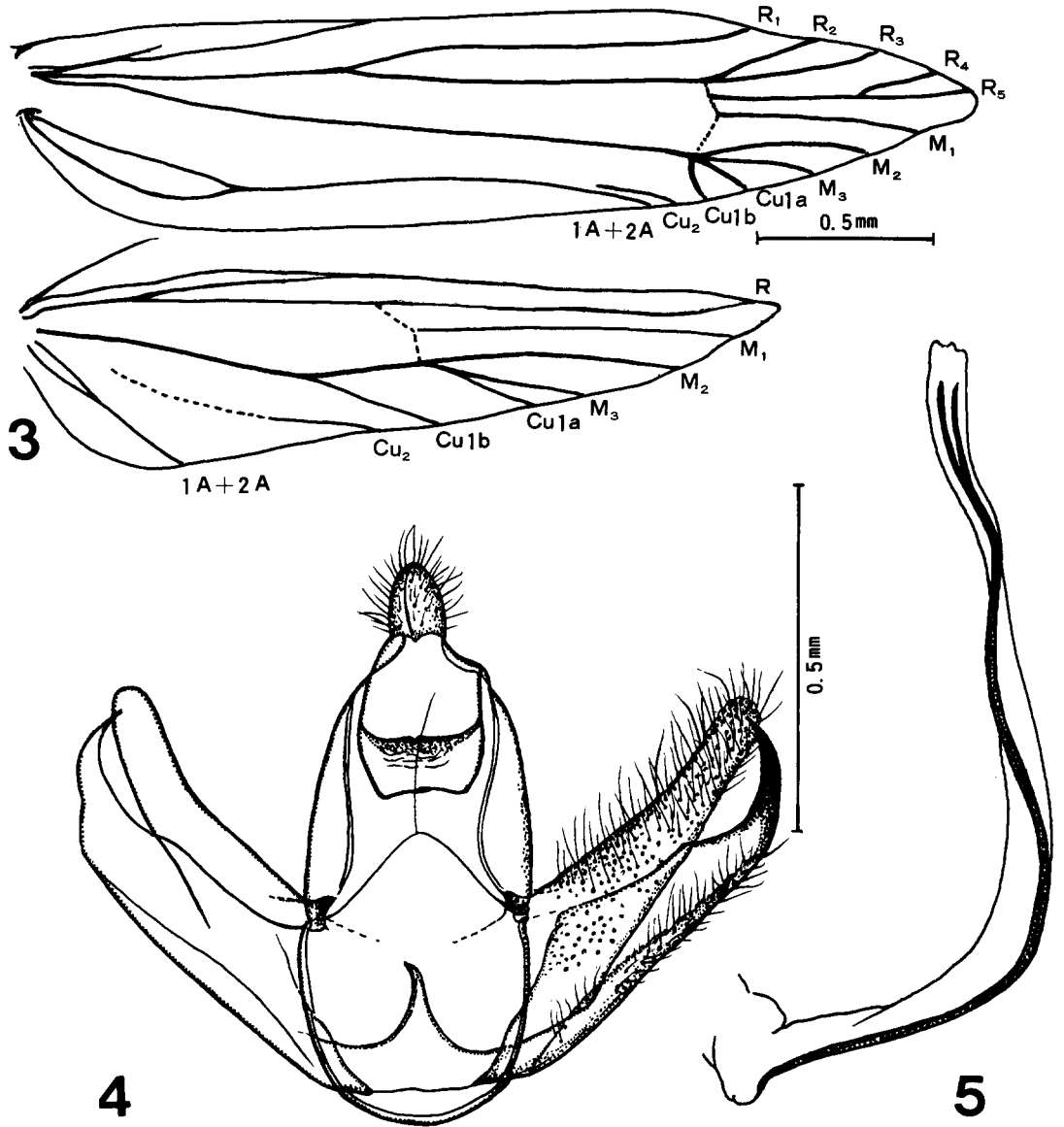
**Host.** *Pinus densiflora* (larvae were collected in the cone).

**Material examined.** Holotype: male, Cheongyangri, Seoul, 25. V. 1983 (K.T. Park)-gen. slide no. 1227, larva was collected from a cone of *Pinus densiflora*.

Paratypes: 1♂, Gwangrung, Kyunggi Prov., 18. V. 1983 (K.T. Park) 3♂, same locality as holotype, 18, 20 & 25. V. 1983 (J.D. Park)-gen. slide no. 1709; 1♂, 1♀ Chuncheon, Kangweon Prov., 2. VIII. 1989 (K.T. Park)-gen. slide no. 1708 (male) and 1725 (female). All type materials are deposited in the collection of Dept. of Agro-Biology, Kangweon National University.

**Distribution.** Korea (South)

**Remarks.** The genus *Pseudohypatopa* Sinev recently was described, based on type species, *Holocera pulvera* (Meyrick), from U.S.S.R. The distinguishing characters from *Hypatopa* Zeller are the wing venation, especially by the coincidence of  $M_2$ ,  $M_3$  and Cula in the



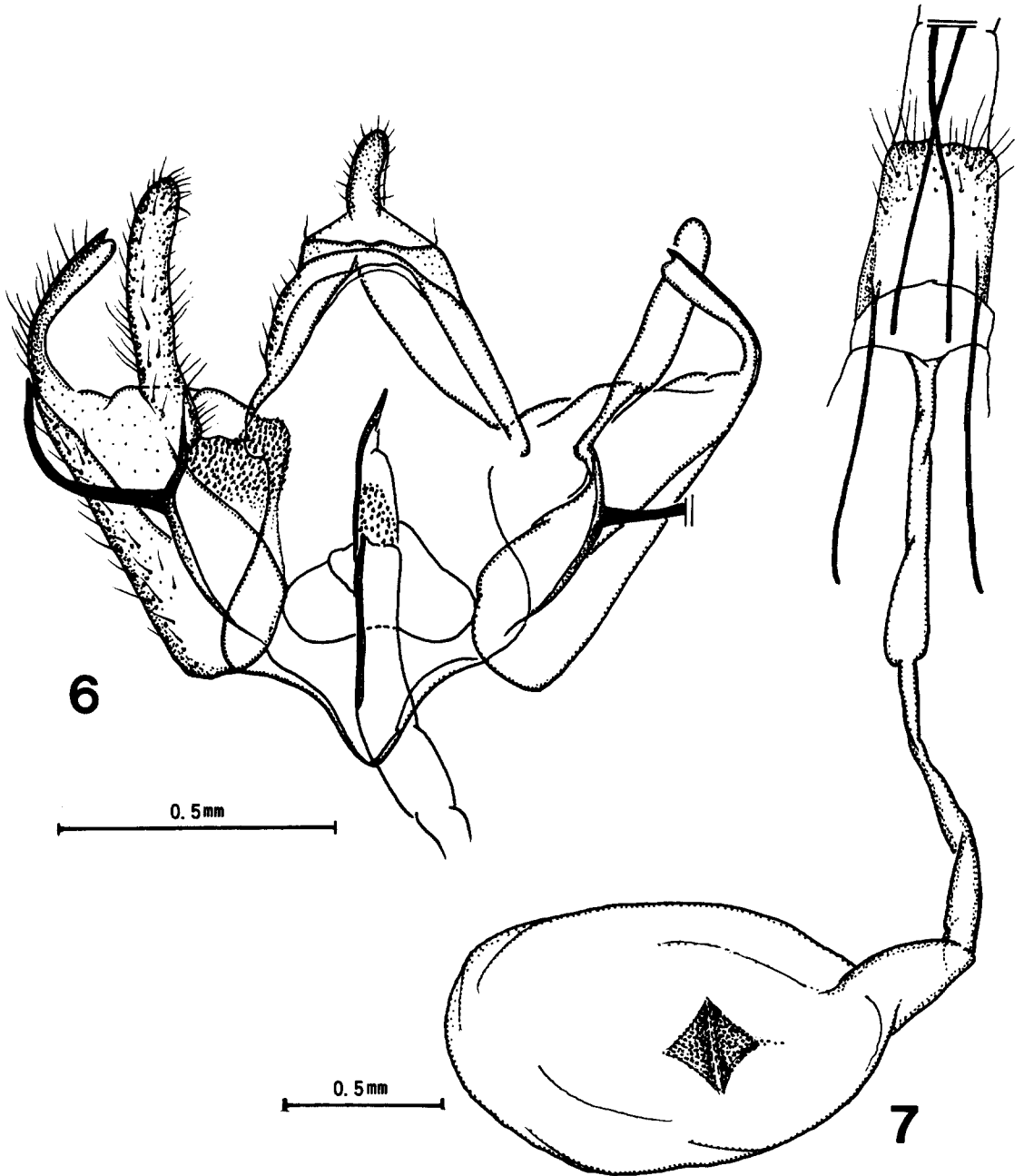
Figs. 3~5 (3) Wing venation of *Pseudohypatopa longicornutella* sp. nov. (4) ditto; male genitalia.  
 (5) ditto; aedeagus.

fhorewing and genital characters of male and female. In general appearance, male genitalia of this species is very similar to the species of the *Blastobasis*, but clearly distinct from the latters by the simple ridge in disc of valva and long aedeagus with a characteristic cornutus.

*Neoblastobasis decolor* (Meyrick)

남방밀두리뿔나방(新稱) (fig. 7)

*Blastobasis decolor* Meyrick, 1907 : 159. - Meyrick, 1916 : 596. -Inoue, 1954 : 57. -Moriuti, 1982 : 1/265, 2/209, p1. 10, fig. 56, p1. 242,



Figs. 6~7. (6) Male genitalia of *Neoblastobasis decolor* (Meyrick).  
 (7) Female genitalia of *Pseudoyapatopa longicornutella* sp. nov.

fig. 4, pl. 257 fig. 2.

*Neoblastobasis decolor*: Kuznetzov et Sinev, 1985 : 536, figs. 2d, 3b. -Sinev, 1986 : 61.

-Moriuti, 1987 : 177, figs. 15 & 23.

Male, 13mm. This species was originally described from Sri Lanka. Only a male spe-

cimen, which is not good condition, was found in my collection this time and identified as *B. decolor* Meyrick by the examination of its genitalia. A result of examination of a male specimen (genital slide no. BM 19478) in some years ago, which determined by Meyrick and has preserved at British Museum, makes me to do it possible.

The genus *Neoblastobasis* was newly described by Kuznetsov et Sinev in 1985, based on type species, *Blastobasis biceratala* Park which was described from Korea in 1984. The genus has characteristically a notch at base of flagellum in male antenna as well as the genus *Blastobasis*, but it can be separated from the latter by the presence of the distinct free process on the valva in male genitalia.

Male genitalia. As in fig. 7.

**Material examined.** 1♂, Cheungyangri, Seoul, 3. IX. 1982 (K.J. Won)-gen slide no. 1712

**Distribution.** Korea, Japan, Taiwan, India, Sri Lanka and USSR (Caucasus).

#### *Neoblastobasis biceratala* (Park)

쌍돌기 밀두리 빨나방

*Blastobasis biceratala* Park, 1984 : 56, pl. 1, figs. 1, 3, pl. 2,

*Neoblastobasis biceratala*: Sinev, 1986 : 61. —Kuznetsov et Sinev, 1985 : 533, figs. 1, 2a, 2b, 2v.—Moriuti, 1987 : 168~181, figs. 6, 17, 24.

After this species was originally described under the genus *Blastobasis* by writer(1984), Kuznetsov and Sinev(1985) placed this species in his newly described genus *Neoblastobasis*, based it on the type species.

Superficially this species is very similar to *B. sprotundalis* Park, but relatively larger in size. It can be easily separated from the latter by the male and female's genital characters.

Male genitalia: See Park, 1984: fig. 1, Moriuti, 1987:fig. 17.

Female genitalia: See Park, 1984: fig. 2, Moriuti, 1987:fig. 24.

**Material examined.** Further collected materials except the types series: 13♂, 18♀, Namhae, Kyungnam Prov., 25. VII. 1985 (K.T. Park); 1♂, Punchball, Kangweon Prov., 10. VIII. 1985 (K.T. Park); 1♂, Yanggu, Kangweon Prov., 15. VIII. 1985 (K.T. Park); 3♂, Chugok, Kangweon Prov., 30. VII. 1986 (K.T. Park); 1♀, Yanggu, Kangweon Prov., 15. VI. 1987 and 2♂, 3♀, same locality, 25~26 VIII. 1987 (K.T. Park); 1♂, 2♀, Sogumgang, Kangweon Prov., 6. VII. 1988 (K.T. Park).

**Distribution.** Korea, Japan, Far-Eastern region of USSR.

**Remarks.** Moths appear from June to the end of August, but mostly collected in July.

#### *Blastobasis sprotundalis* Park

흰밀두리빨나방

*Blastobasis sprotundalis* Park, 1984 : 57, pl. 1, fig. 2, pl. 2, figs. 4~6—Sinev, 1986 : 57, figs. 1, 5~7.—Moriuti, 1987 : 171~172, figs., 1, 11, 19.

Since writer described this species as a new one, it has been reported from Far-Eastern U.S.S.R. and Japan. *B. parki* Sinev, 1986 which was described from Primor region, seems to be very related to this species in male genital characters, but I have had no chance to examine the species.

Male genitalia: See Park, 1984: fig. 4, Sinev, 1986: fig. 1, Moriuti, 1987: fig. 11.

Female genitalia: See Park, 1984: fig. 6, Sinev, 1986:fig. 5~7, Moriuti, 1987: fig. 19.

**Material examined.** Further collected materials except type materials: 1♂ 1♀, Suweon, Kyunggi Prov., 19. VIII. 1983 (S.B.

Ahn); abdomen missed, Mt. Jiri, 23. VII. 1985 (K.T. Park); 1♂, Chuncheon, 21. VI. 1985, 1♂, 15. VII. 1985 (K.T. Park); 2♂, 4♀, Yangyang, Kangweon Prov., 10. VIII. 1987 (K.T. Park).

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