

**Description of *Ypsolopha nigrimaculatus* sp. nov.
(Lepidoptera, Yponomeutidae) from Korea**

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ABSTRACT

A new species, *Ypsolopha nigrimaculatus* sp. n. is described from Korea.

Key words: *Ypsolopha*, Yponomeutidae, Lepidoptera, Insecta, *Ypsolopha nigrimaculatus* sp. n. systematics, Korea

INTRODUCTION

Genus *Ypsolopha* Latreille is a large taxa of the family Yponomeutidae distributed in the worldwide, which has been known to feed on conifers and dicotyledonous plants (Moriuti, 1977, 1982; Park, 1983a, b). The larvae of many species usually feed on leaves, in a loose or dense webs on buds, leaves or twigs. Some species bore into buds, shoots, and petioles or mine leaves.

In Korea, since Park (1983) reported five species of the genus for the first time, no further study has been conducted to date. All type specimens are preserved in the Center for Insect Systematics (CIS), Kangwon National University, Chuncheon, Korea.

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DESCRIPTION

Ypsolopha Latreille, 1796

Type species: *Phalaena (Tinea) vittella* Linnaeus, 1758

Ypsolopha nigrimaculatus sp. nov. 검은점좁나방 (신칭) (Fig. 1)

Material examined. Holotype: ♂, Mt. Gyeongbongsan, Prov. Gangwon, Korea, 2. Aug. 1989, K. T. Park, preserved in CIS. Paratypes: 5♂, 4♀, same data as holotype; 1♂, Mt. Gyeongbongsan, Prov. Gangwon, 24. Aug. 1989, K. T. Park; 2♂, Mt. Yaksusan, Prov. Gangwon, 8. Aug. 1989, K. T. Park; 3♂, Mt. Odaesan, Prov. Gangwon, 6. Aug. 1989, B. K. Byun; 1♂, 1♀, Pyongchang, Prov. Gangwon, 31. July 1991, K. T. Park; 2♂, Gapyong, Prov. Gyeonggi, 21. May 1983, K. T. Park; 1♂, Mt. Myeongjisan, Prov. Gyeonggi, 5. July 1999, G. H. Lee; 1♂, Mt. Jirisan, Prov. Gyeongnam, 22. July 1981, S. G. Lee, preserved in CIS.

Description. Wingspan (Fig. 1A), 22-25 mm. Head covered with rough, creamy dark-brown scales; face whitish. Antenna pale whitish yellow, mixed with slightly fuscous, ringed with blackish brown; small swollen at scape. Labial palpus grayish brown, with characteristically erected short scale tuft on 2nd segment upwardly; terminal segment pale fuscous; inner side of each segment and basal half of tuft suffused with pale whitish scales. Thorax slightly fuscous. Legs: femur, tibia and tarsus white on dorsal end; mid-leg pale grayish fuscous inwardly and grayish fuscous on outwardly; hind leg pale dark brown medially and fuscous outwardly, the tibia whitish fuscous on anterior half of outer side. Abdomen grayish fuscous, paler ventrally.

Forewing with apex acutely expanded outwardly, castaneous brown; dorsal area and distal quarter grayish purple, speckled with dark fuscous scales; broad, lanceolate, silvery white longitudinal streak well developed from base to end of cell reaching near 2/3 of costa, slightly covering about 1/3 of forewing in width, lower margin being near straight and slightly turned upward at its apex, upper margin gently arched downwardly; slightly suffused with blackish brown along upper margin of streak, with distinct dark fuscous spot at near end of cell; cilia castaneous-brown, maculated with longitudinal gray lines along veins of distal area; whitish suffusion from costa just before apex, towards end of white streak; distal half dark brown near apex and along termen, becoming paler towards tornus; dorsum gray. Hindwing gray, gradually paler towards base; cilia pale gray, grayish-ochreous near base.

Male genitalia (Fig. 1C). Tegumen wide, well-sclerotized; uncus rather long bilobed; gnathos rather long, parallel laterally, with rounded apex, bearing numerous tiny spinules. Valva large, ovate; costa strongly bent beyond middle, heavily sclerotized; sacculus fairly long and strong; saccus very narrow, as long as 2/3 of uncus. Aedeagus as long as 4/5 of length of valva, broad, almost curved; cornuti composed of several strong spine-like setae, one of them as long as half of aedeagus; ductus ejaculatus swollen, rounded, near base. Superficially, the male genitalia are very similar to that of *Y. strigosus* (Butler), but they can be distinguished by the following characters of new species: uncus somewhat strong, thick; tegumen very well sclerotized and definitely presented; valva rather long and broader, with stronger costa; saccus slightly longer than that of latter; aedeagus nearly straight with thick base, while *Y. strigosus* (Butler) is gently curved at middle with

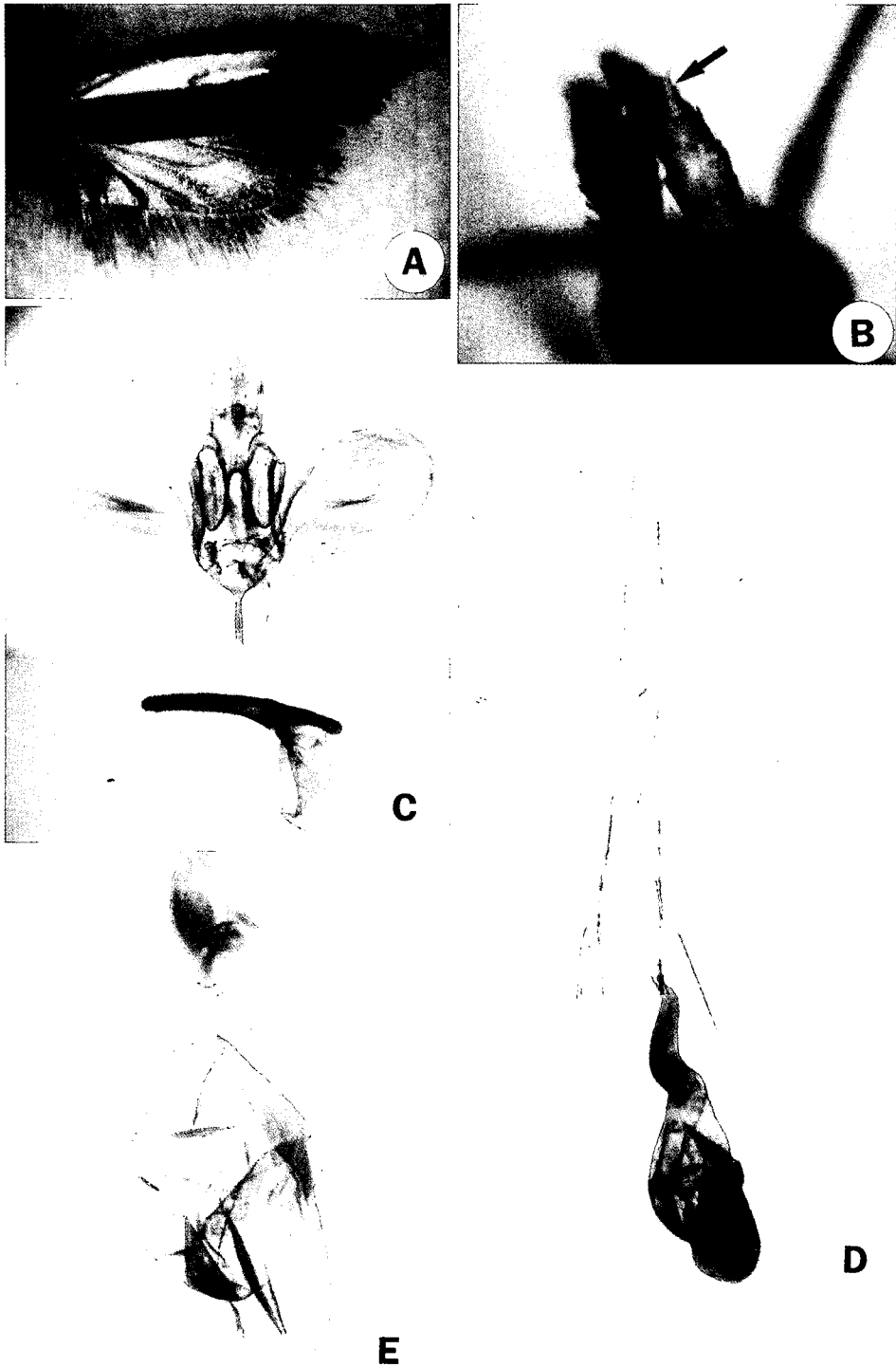


Fig. 1. *Ypsolopa nigrimaculatus* sp. nov. A, adult; B, labial palpus; C, male genitalia; D, female genitalia; E, magnification of corpus bursae.

somewhat narrow base and depressed dorsally.

Female genitalia (Fig. 1D, E). Segmental membrane between papillae anales and 8th abdominal segment extremely long, 2 times as long as of corporatrix, greatly extended. Lamella postvaginalis with indistinct V-shaped sclerotization. Apophysis anterioris about half of apophysis posterioris in length. Ostium bursae narrow, rounded; antrum almost parallel-sided; ductus bursae as long as 2/3 of corpus bursae, one twisted near ostium bursae, broader towards corpus bursae, slightly twisted at 1/4 and near entrance of corpus bursae; corpus bursae very large, but smaller than that of *Y. strigosus*, ovate, folded once distally; inception of ductus seminalis just before antrum; accessory bursae small, half of corpus bursae in size, attaching near 2/3 of corpus bursae distally; Signum cone-shaped in outline, strongly sclerotized horizontally on middle, with one ridge medially.

Etymology. The species name is derived from Latin *niger* (=black) and *macula* (=spot) corresponding to the black spot at the end of the forewing-cell.

Remarks. The new species is very similar to *Y. strigosus* (B.) superficially, but it can be distinguished by the longitudinal white streak ending at 2/3 of forewing and a distinctly presented dark fuscous dot at the end of the white streak.

Biology. Adults fly from the middle of May to the end of August, mainly in montane area.

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집나방과 (나비목, 집나방과)의 1新種 記載

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요 약

집나방과 *Ypsolopha*屬에 속하는 1種이 新種으로 確認되어 *Ypsolopha nigrimaculatus* sp. nov. (검은점좁나방)으로 命名 記載한다.