One New Species of Phycitine Moths with One New Record
(Lepidoptera, Pyralidae) in Korea

Mun-Ki Paek* and Yang-Seop Bae*
(*Jirisan Headquarters, National Parks Authority, Sancheong, Gyeongnam Prov. 922-18;
Department of Biology, College of Natural Sciences, University of Incheon, Incheon 402-749, Korea)

ABSTRACT

A new phycitine moth, Ceroprepes dorsomaculata sp. nov. is described from Korea. Acrobasis rufilimbalis (Wileman) is newly added to the pyralid fauna of Korea, with redescription and illustrations of adult and both sexes of genitalia.

Key words: Lepidoptera, Pyralidae, Ceroprepes dorsomaculata sp. nov., Acrobasis rufilimbalis, taxonomy, Korea

INTRODUCTION

Recently we examined two unfamiliar phycitine moths from Korea and concluded that they represent a new species of Ceroprepes and a species of Acrobasis hitherto unrecorded from Korea. In the following lines we describe the former as new to science and record the latter as new to the moth fauna of Korea, with illustrations of adults and both sexes of genitalia.

All the specimens recorded here including type specimens are deposited in the collection of the Department of Biology, College of Natural Sciences, University of Incheon, Incheon, Korea.

Abbreviations used are as follows: UBB: Department of Biology, University of Incheon,

* Corresponding author: Yang-Seop Bae
E-mail: baeys@incheon.ac.kr, Tel: 032-770-8246
SYSTEMATICS

Genus Ceroprepes Zeller, 1867
Type species: Ceroprepes patriciella Zeller, 1867.

*Ceroprepes dorsomaculata* sp. nov. 큰경운부녀알락명나방 (新稱) (Figs. 1A, 2A, 2C, 3A)


**Description.** Wingspan, 24-28 mm. Head yellowish brown. Labial palpus strongly upturned, yellowish brown in male, dark grayish brown in female. Antenna of male pale blackish brown, with sensilla trichodea of flagellum long, abundant; sinus distinct. Thorax fuscous brown; patagium reddish brown; tegula blackish brown. Ground color of forewing blackish brown, scattered with dirty white; antemedian line dirty white, waved; inner antemedian line with two large blackish brown dots; dorsum of antemedian line suffused with dirty white; discal dots of ocelloid patch obscure; submarginal line dark grayish brown, dentally waved, obscure. Hindwing dark grayish brown, a normal phycitine type.

Male genitalia (Figs. 2A, 2C). Uncus triangular, covered with rather long hairs. Apical process of gnathos elongate, blunt at apex; transtilla broadly arched, with a semiquadrate central projection; juxta V-shaped, with a slightly bent at apical area, large lateral arm. Valva broad, rounded at apex; costa well-sclerotized about basal 2/3 of costa; harpe nipple-like, with several thin hairs; sacculus well-developed, basally broad, with rather acute lobe near apex. Vinculum rather short, about 0.7 times as long as valva. Aedeagus rather short, almost as long as the length of valva, armed with numerous stout dents at posterior end. Structure of 8th abdomen shown in fig. 2C.

![Fig. 1. Adults of Phycitinae moths. A, Ceroprepes dorsomaculata sp. nov., ♂; B, Acrobasis rufilimba (Willman), ♀. Scales: 5 mm.](image-url)
Female genitalia (Fig. 3A). Apophysis anterioris as long as apophysis posterioris. Ostium bursae wide, strongly sclerotized. Ductus bursae rather broad, constricted near middle, minutely dentated anteriorly; colliculum long, about 0.5 times as long as ductus bursae, asymetrically infolded at inside margin. Ductus seminalis membranous, slender, originating from posterior part of corpus bursae. Corpus bursae oblong; signum very small, nipple-like, with numerous minute dents.

**Etymology.** The species name was derived from the Latin “dorso” and “maculata” (= spot), corresponding to the forewing markings.

**Remarks.** This new species is very similar to Ceroprepes ophthalmicella (Christoph) (Inoue, 1982: pl. 48: 29, 30) in the superficial appearance, but can be separated from the latter by the blackish brown forewing, inner antemedian line with two larger blackish brown dots, and a smaller signum. Moths are collected from the mid of June to the mid of July in Korea. The genus Ceroprepes Zeller is one of the smaller genera of Phycitinae and distributed in the Palaearctic and Oriental regions. Two species, ophthalmicella (Christoph) and nigrolineatella Shibuya, are known to occur in the Korean Peninsula.

**Distribution.** Korea (GW, GG, GB).

Genus *Acrobasis* Zeller, 1839
Type species: *Tinea consociella* Hübner, 1796.

*Acrobasis rufilimbali* (Wileman) 가는흰머리알혈나방 (新稱) (Figs. 1B, 2B, 2D, 3B) 


**Fig. 2.** Male genitalia and 8th abdomen (v: valva, a: aedeagus, tg: tergite, tf: tuft) of Phycitinae moths. A, C, *Ceroprepes dorsomaculata* sp. nov.; B, D, *Acrobasis rufilimbali* (Wileman).


Description. Wingspan, 14-18 mm. Head dark gray. Labial palpus upturned, dark brownish gray with scattered whitish scales at inner surface. Antenna of male dark grayish brown, with sensilla trichodea of flagellum moderately abundant; scape enlarge, horn-like, with dirty white at inner

Fig. 3. Female genitalia of Phycitinae moths. A, Ceroprepes dorsomaculata sp. nov.; B, Acrobasis rufilimbalis (Wileman).
surface; sinus distinct, with a spine-like sensillum at distal area of sinus. Thorax dark gray. Ground color of forewing above dark gray; antemedian line narrow, white, semicircularly curved, running from costa to dorsum; inner antemedian line spread by deep purplish red scales; submarginal line dirty white, obvious, slightly bent. Hindwing brownish gray, a normal phyctine type.

Male genitalia (Figs. 2B, 2D). Uncus subtriangular, pointed at apex, laterally covered with rather long hairs. Apical process of gnathos elongate; transfista broadly arched, shallowly concave at terminal margin; juxta V-shaped, with slender lateral arm. Valva broadened, sickle-shaped, medially concave; harpe small, semiquadrature; sacculus narrow, weakly developed. Vinculum sclerotized, rather broad, about 0.7 times as long as valva, shallowly convex at terminal margin. Aedeagus stout, about 0.8 times as long as valva. Structure of 8th abdomen shown in fig. 2D.

Female genitalia (Fig. 3B). Apophysis posterioris short, about 0.7 times as long as apophysis anterioris. Ostium bursae simple, cup-shaped, weakly sclerotized. Ductus bursae, membranous, anteriorly broad. Ductus seminalis membranous, slender, originating from posterior part of corpus bursae. Corpus bursae oval, posterior part of corpus bursae with numerous minute spines; signum small, nipple-like, with numerous minute dents.

Remarks. This species is very similar to Conobathra obrutella (Christoph) (Park, 1983, 437, pl. 30) in superficial appearance, but it can be distinguished from the latter by the smaller size and narrower antemedian line. This species is new to the fauna of Korea. Moths are collected from the late of July to the mid of August in Korea. This genus is morphologically similar to Conobathra Meyrick (type species: Conobathra automorpha Meyrick, 1886), but it can be distinguished by the connate M2 and M3 of the forewing.

Distribution. Korea (GW, GG, GB) and Japan.

ACKNOWLEDGMENTS

We are very grateful to Professor Kyu Tek Park of the Center for Insect Systematics, Kangwon National University, Chuncheon, for his constant guidance and gave us an opportunity to examine the valuable material. We are especially obliged to Dr. Jin Yeoul Cha of Ministry of Environment, Korea, for his generous help in collecting materials in the National Parks. Many thanks are also due to Messrs. Y.K. Kim and J.H. Kim of UIB, N.H. Ahn and B.W. Lee of Osaka Prefecture University, Japan for their assistance in collecting. This work was supported in part by a grant from the Korea Science and Engineering Foundation (KOSEF, 981-0603-0113-2).

REFERENCES


알락명나방亞科(나비目, 명나방科)의 1新種과 1韓國未記錄種

白 文 基* · 袁 良 端

(*國立綜合生物多樣性資源開發中心, 見善大學 資源與環境學系, 女真大學 地理科學系)

요 약

알락명나방亞科의 1新種, *Ceroprepes dorsomaculata* sp. nov. 큰점온무늬알락
명나방을 기재하고, 가는흰미알락명나방 (*Acrobasis rufilimbalis*) 1종을 한국 미
가록종으로 보고하며, 이들에 대한 성충, 생식기의 도해 및 생태적 기록을 정리하
였다.