

Five New and Three Newly Recorded Moths (Lepidoptera: Autostichiidae, Blastobasidae, Oecophoridae, Stathmopodidae, Nolidae, and Noctuidae) from Korea

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Abstract

A total of eight moths are added to the Korean fauna, including five new species, *Meleonoma jugeumensis* sp. n., *Neoblastobasis cryptobiceratala* sp. n., *Evippe geminialbidorsella* sp. n., *Promalactis apexalba* sp. n., *Acronicta spinosa* sp. n., and three newly recorded species, *P. quadrimacularis* Wang et Zheng, 1998, *Stathmopoda gemmiconsuta* Terada, 2012 and *Nola infralba* Inoue, 1976.

Key words: new species, new record, Lepidoptera, taxonomy

Introduction

The biodiversity of insects represents a vital and frequently underestimated component of Earth's ecosystems. Lepidopterans, or moths, play a significant role in ecosystems as pollinators, herbivores, and prey for numerous species. Despite the vital role they play in global ecosystems, the abundance and diversity of moths worldwide remains poorly understood, with a significant number of species undocumented, particularly in Asia. Given the country's diverse climatic conditions and habitats, ranging from coastal wetlands to mountainous forests, Korea is home to a unique and diverse range of moth species.

Over the past three years, we have explored the Lepidopterous fauna of Korea. As a result, five new species and three newly-recorded species have been identified. All of these species are illustrated, diagnosed and described in this study. The findings are expected to have a significant impact to on ecological understanding as well as their value from a lepidopteran taxonomic perspective.

Materials and methods

The materials for this study are deposited in the following institutes: **NIBR**: National Institute of Biological Resources, Incheon, Republic of Korea; **HNIBR**: Honam National Institute of Biological Resources, Mokpo, Republic of Korea;

KNA: Korea National Arboretum, Pocheon, Republic Korea; **IPE JBNU**: Lab. Of Insect Phylogenetics & Evolution. Jeonbuk National University, Republic of Korea.

The specimens were examined under a Leica Z16 APO with Dome illuminator Leica LED5000HDI (Leica Microsystems, Germany) and photographed with Tucsen Mosaic 2.4 (Tucsen Photonics, China) and Nikon Z5 Mirrorless camera (Nikon Corporation, Japan) with NKKOR Z MC 105 mm f/2.8 VR S (Nikon Corporation, Japan). The abbreviations used here including the provinces in Korea are as follows: GG, Gyeonggi Province; GW, Gangweon Province; CB, Chungcheongbuk Province; CN, Chungcheongnam Province; JB, Jeonlabuk Province; JN, Jeonlanam Province; GB, Gyeongsangbuk Province; GN, Gyeongsangnam Province; JJ, Jeju Island; TL, type locality; ex, the specimen with abdomen missing.

Taxonomic accounts

Order Lepidoptera

Family Autostichidae Le Marchand, 1947

1. *Meleonoma jugeumensis* Kim sp. n.

주금점원뿔나방 (신칭) (Figs 1, 2, 17–22)

Type. Holotype. Male, GG, Pocheon-si, Naechon-myeon, Jugeum-san (37°46'59.4"N 127°16'11.8"E), 25. VI. 2004,

B.K. Byun, Y.M. Lee, H.S. Choi, gen. slide no. 9137. Paratypes. Two males, GG, Pocheon-si, Naechon-myeon, Jugeum-san (37°46'59.4"N 127°16'11.8"E), 25. VI. 2004, B.K. Byun, Y.M. Lee, H.S. Choi; one male, GG, Gwangleung, 25. VI. 1999, TS. Kwon & B.K. Byun.

Diagnosis. This species is externally similar to *Meleonoma malacobyrsa* (Meyrick) in the wing pattern in wing patterns and coloration, but it can be easily differentiated from the latter by the genitalic characters. The male genitalia of the new species are recognized by the triangular valva with a projection on the costal margin, and a shorter and slightly curved uncus.

Description. *Adult* (Figs 1, 2). Wingspan 16.0–17.0 mm. Head: frons and vertex whitish yellow. Scape of antenna shorter than length of a diameter of eye, whitish yellow tinged with dark brown at base; flagellum dark brown and pale yellow alternately on dorsal and ventral surface. Second segment of labial palpus whitish yellow, mixed with dark brown only on the outer side; 3rd segment whitish yellow with dark brown at sub-apex; 2nd segment almost twice length of the 3rd segment. Thorax and tegula pale grayish brown. Forewing ground color pale grayish brown with irregular three pale yellow patterns: one just before the half of costal margin; the other at 3/4 of coastal margin; another before tornus. Hindwing ground color pale grayish brown.

Male genitalia (Figs 17–22). Uncus small, a thumb-shaped, wide at base, gradually narrowed beyond to the half of that; apex slightly curved. Gnathos absent. Tegumen simple. Valva triangular-shaped; costal margin bearing protruding processus antemedially, slightly concave postmedially; ventral margin with strongly edged, bearing long dense setae. Sacculus rather rectangular-shaped, large, sclerotized, bearing two protruding processus on inner margin. Juxta bearing finger-shaped lobes. Saccus large, funnel-shaped. Aedeagus slender bearing one large and serrated processus; apex bifurcate: one side consisting two rounded margined lobes, with more than two sclerotized cornuti.

Female genitalia. Unknown.

Distribution. Korea (this study).

Etymology. This species name was derived from the type locality, Mt. Jugeum.

Family Blastobasidae Meyrick, 1894

2. *Neoblastobasis cryptobiceratala* Kim sp. n.

짧은깃밀두리뿔나방 (신칭) (Figs 3, 4, 23–25)

Type. Holotype. Female, CN, Gongju-si, Banpo-myeon, Hakbong-ri, 24. VII. 2012, S. Kim, gen. slide no. 9553. Paratype. One male, ditto.

Diagnosis. This species is almost identical to *Neoblastobasis biceratala* (Park) in the wing patterns and genitalia (see figs. 4a, 1–2 in Kim *et al.* 2020). However, it can be differentiated from the latter by having the shorter scape of antennae in the female adult, and is also characterized by the first segment of flagellum of the antennae without protruding part (see fig. 5a, b in Kim *et al.* 2020; fig. 1D in this study).

Description. *Adult* (Figs 3, 4). *Female.* Wingspan 10.0–11.0 mm. Head: frons and vertex grayish brown. Scape of antennae almost same length as a diameter of eye, grayish brown tinged with pale yellow; 1st segment of flagellum moderate without protruding. Labial palpus grayish brown slightly tinged with yellow; the 2nd segment longer than the 3rd segment. Thorax and tegula grayish brown. Forewing ground color grayish brown slightly shiny, with two vertical markings dark brown: one wide, just after the half of forewing; the other narrower than former at 1/3 of forewing; dark brown scales tinged after both markings. Hindwing lanceolate, pale grayish brown ground color.

Male genitalia (Figs 23, 24). Uncus small, a thumb-shaped, curved medially. Gnathos absent. Tegumen large. Valva largely developed, rounded bullnose, bearing a thorn-shaped processus at the half of costal margin. Saccular margin moderate bearing sacculus apically. Aedeagus simple.

Female genitalia (Fig. 25). Papilla anales setose. Apophyses posteriores more than two times length of apophyses anteriores. Lamella postvaginalis narrow. Lamella antevaginalis wide, lateral margin rather triangular-shaped. Antrum a cup-shaped. Ductus bursae very long, almost two times longer than the length of apophyses posteriors. Courpus bursae small, ovate-like, bearing a hook-shaped signum.

Distribution. Korea (this study).

Etymology. The species name is derived from the resembling species, *N. biceratala* with a Latin prefix ‘crypto-’ which means ‘hidden’, referring to the cryptic species of *N. biceratala* in the previous DNA barcoding work (Kim *et al.* 2020).

Remarks. Kim *et al.* (2020) have identified this species as a cryptic species (NCBI Genbank accession No. MK210858, MK210860), genetically distinct from *N. biceratala* with a range of 2.76 to 3.87% in the COI barcoding. The present study reports the first taxonomic description of this species.

Family Gelechiidae Stainton, 1854

3. *Evippe geminialbidorsella* Kim sp. n.

무침다리뿔나방 (신칭) (Figs 5, 6, 26, 27)

Type. Holotype. Male, JN, Gwangyang-si, Okryong-myeon, Chusanri, 26. VII. 2013, Y. Lee, slide no. 9559.

Diagnosis. This species is superficially close to *Evippe albidorsella* (Snellen) in having a white triangular traverse fascia on the forewings and a round apex of cucullus of male genitalia (see figs 4b, 3, 4 in Kim *et al.* 2020). However, it can be distinguished from the latter by the mid-tibia without a spur in the mid-leg (see figs 5c-b in Kim *et al.* 2020; fig.

1F in this study), and male genitalia with longer gnathos and wider saccus.

Description. *Adult* (Figs 5, 6). *Male*. Wingspan 8.5 mm. Head: frons and vertex pale yellowish white. Scape of antennae slightly shorter than the length as a diameter of eye, dark brown; flagellum dark brown from base to 1/3, mixed with pale yellowish white alternately to apex. Labial palpus pale yellowish white; 2nd segment almost same length as the 3rd segment; 3rd segment mixed with dark brown basally. Thorax and tegula pale yellowish white, the latter mixed dark brown followed by outer margin. Forewing ground color dark brown, three triangular pale yellowish white markings: one large at 1/3 of forewing; the other and another triangles with vetices touching each other at 2/3 of forewing. Hindwing lanceolate, white ground color, tinged with pale gray after 1/2. Mid of leg dark brown without spur.

Male genitalia (Figs 26, 27). Uncus large, wide at base, steeply tapered to 1/3, gradually narrowed from 1/3 to 1/2, straight to apex. Gnathos almost same length as cucullus. Cucullus extremely long, bearing club apex, numerous setose on inner margin. Saccus rather wide, shorter than the length of uncus. Aedeagus simple, slightly bent medially.

Female genitalia. Unknown.

Distribution. Korea (this study).

Etymology. The species name is derived from the resembling species, *E. albidorsella* with a Latin prefix ‘*gemini-*’ which means ‘twin’, referring to the cryptic species of *E. albidorsella* in the previous DNA barcoding work (*E. albidorsella* was misspelled as *E. albidoesella* in Kim *et al.* 2020).

Remarks. This species has been confirmed that is genetically and morphologically differentiated from the similar-looking moth, *E. albidorsella*, as detailed in Kim *et al.* (2020). In the COI barcodes, this species is separated from the *E. albidorsella* (NCBI Genbank accession No. MK210962), by a range of 4.1–4.33%. In contrast, the intraspecific genetic divergence of *E. albidorsella* is demonstrated to range from 0.00 to 0.15%.

Family Oecophoridae Bruand, 1850

4. *Promalactis apexalba* Kim sp. n.

흰꼭지검은원뿔나방 (신칭) (Figs 7, 8, 28)

Holotype. Male, Korea, GW, Hongcheon, Dong-myeon, Suta-san, 16. VI. 2017, S. Kim. **Paratype.** One female, ditto.

Diagnosis. This species is superficially similar to *Promalactis atriplagata* Park et Park in wing pattern of the adult and the elongated coiled ductus bursae of female genitalia (see figs 4c, 5, 6 in Kim *et al.* 2020). However, it can be differentiated from the latter by the almost same length of the third segment of labial palpus as like the second segment (Fig. 1F). The new species is also characterized by the third

segment of labial palpus, which covered dark brown scales with white apical tips (see figs 5e, f in Kim *et al.* 2020; fig. 1H in this study). The female genitalia are also differentiated from the latter by corpus bursa bearing two signa, leaf-shaped.

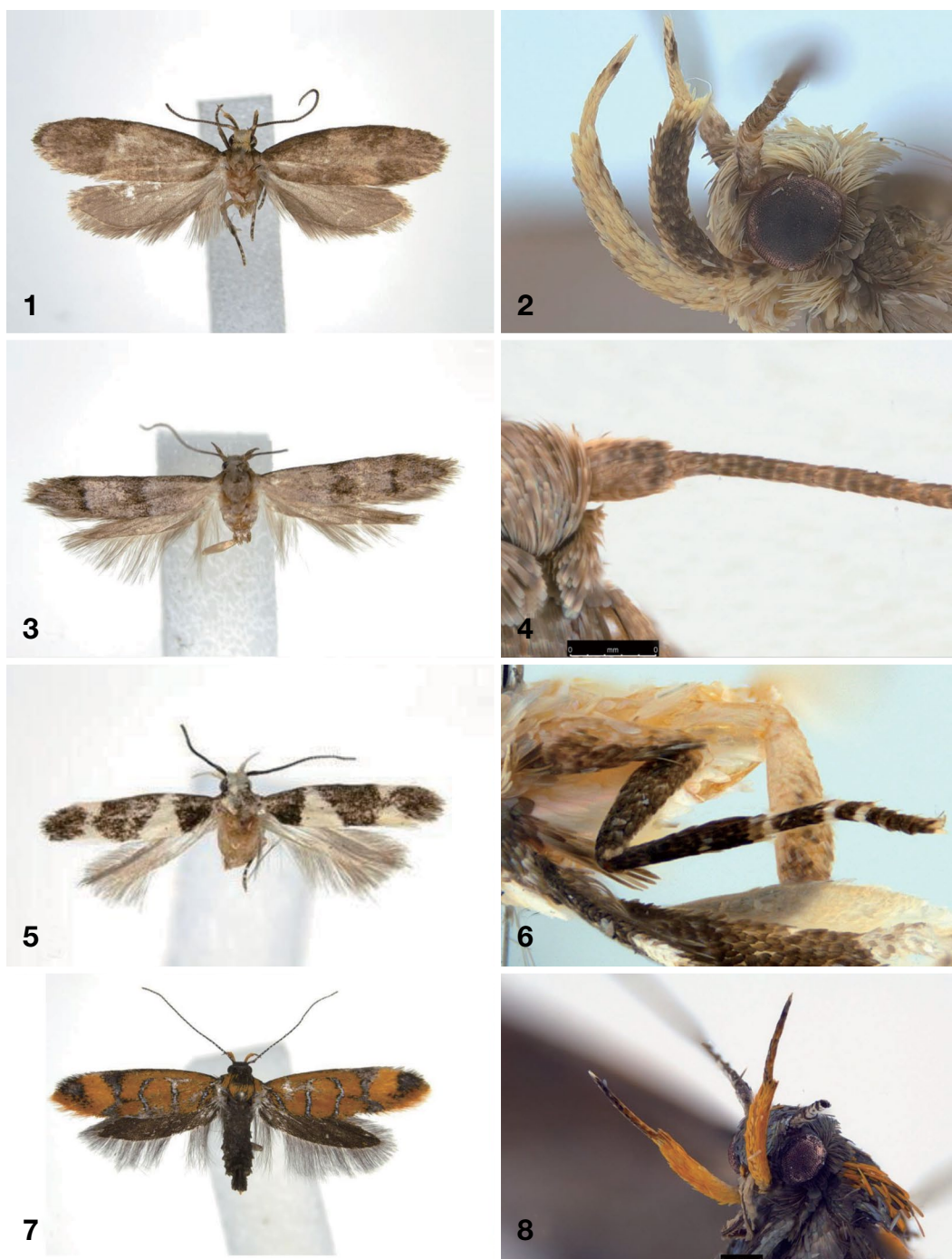
Description. *Adult* (Figs 7, 8). *Female*. Wingspan 12.0–13.0 mm. Head: frons and vertex blackish brown. Scape of antennae is shorter than the length of a diameter of eye, blackish brown; flagellum blackish brown tinged with white alternately. 2nd segment of labial palpus yellowish orange, almost same length as the 3rd segment; 3rd segment yellowish orange tinged with dark brown after half, bearing white tip. Thorax and tegula blackish brown mixed with yellowish orange. Forewing ground color yellowish orange; three white bands surrounded by fuscous scales: one band near wing base, oblique toward to wing base; 2nd band rather straight, at antemedial margin of forewing; 3rd band slightly oblique toward to the former band at middle of forewing. Three triangular fuscous markings: two triangles touching at 2/3 of forewing, transverse from costa to just before tonus; the last one large triangular at apex. Hindwing moderate, blackish brown ground color.

Male genitalia. Unknown.

Female genitalia (Fig. 28). Papilla anales small, setose. Apophyses posteriores longer than the height of 8th abdominal segment. Apophyses anteriores 3/4 length of Apophyses posteriors, extremely thicker, a spear-shaped. Lamella plus antrum large, sclerotized, a flower bud-shaped: lamella postvaginatilis circular, concave at apex; antrum gradually narrow, connected to ductus bursae, funnel-shaped. Ductus bursae membranous posteriorly, rather sclerotized after half, coiled anteriorly with distinct processus. Corpus bursae ovate with two signa, leaf-shaped consisting numerous spines.

Etymology. The species name is derived from a Latin, *apex* (= top) plus a Latin, *albus* (= white), referring to ‘white top’ which can be descriptive of a white apex of the labial palpus in adult.

Remarks. Korean *Promalactis* spp. has been the subject of two taxonomic reviews of the genus to date. In the first, Park et Park (1998) reported *P. atriplagata* as a new species, which was subsequently revised by Kim et Lee (2016), 18 years later. In their paper, the description of female genitalia of *P. atriplagata* differed from those of the original description. Later, in 2020, Kim *et al.* used DNA barcoding to show that the female of *P. atriplagata* in Kim et Lee (2016) was actually a cryptic species that was morphologically similar to original *P. atriplagata* but genetically distinct. In the Kim *et al.* (2020), a threshold value for maximum intraspecific variation in the superfamily Gelechioidea was calculated as 2.5% in the COI gene. This species, *P. apexalba* sp. n. (NCBI Genbank accession No. MK210793–MK210794), is identified as a cryptic species of *Promalactis atriplagata* based



Figures 1–16. Adults of five new and three newly recorded species. 1–2, *Meleonoma jugeumensis* sp. n.; 3–4, *Neoblastobasis cryptobiceratala* sp. n.; 5–6, *Evippe geminialbidorsella* sp. n.; 7–8, *Promalactis apexalba* sp. n.; 9–10, *Promalactis quadrimacularis* Wang et Zheng; 11–12, *Stathmopoda gemmiconsuta* Terada; 13–14, *Acronicta spinosa* sp. n.; 15–16, *Nola infralba* Inoue.

on a genetic divergence of 3.25%. The intraspecific genetic divergence between individuals of *P. atriplagata* is 0.00%.

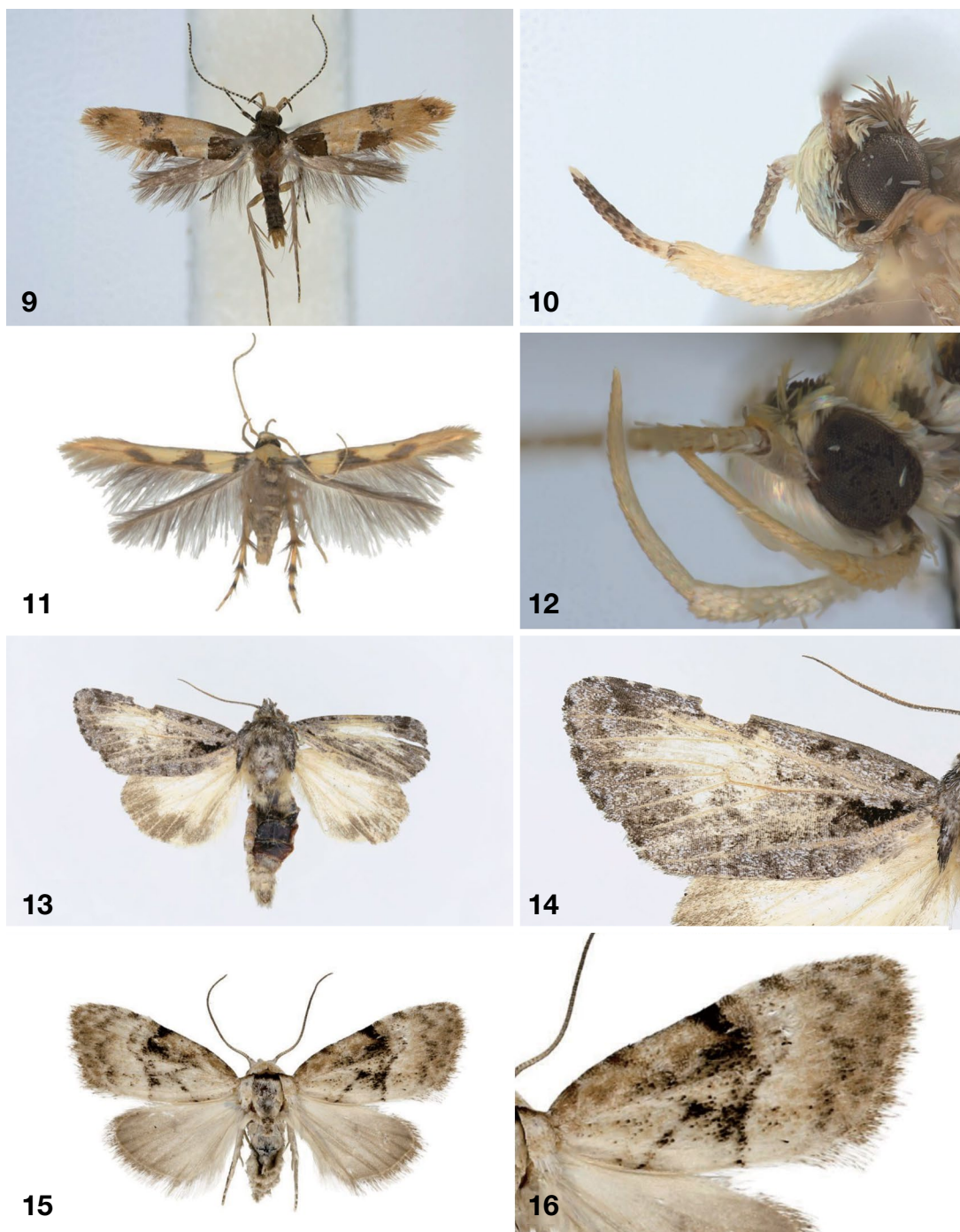
Consequently, this new species is reported taxonomically in this study.

5. *Promalactis quadrimacularis* Wang et Zheng, 1998

길곡원뿔나방 (신칭) (Figs 9, 10, 29–32)

Promalactis quadrimacularis Wang et Zheng, 1998: 404.

Diagnosis. This species is superficially similar to *Proma-*

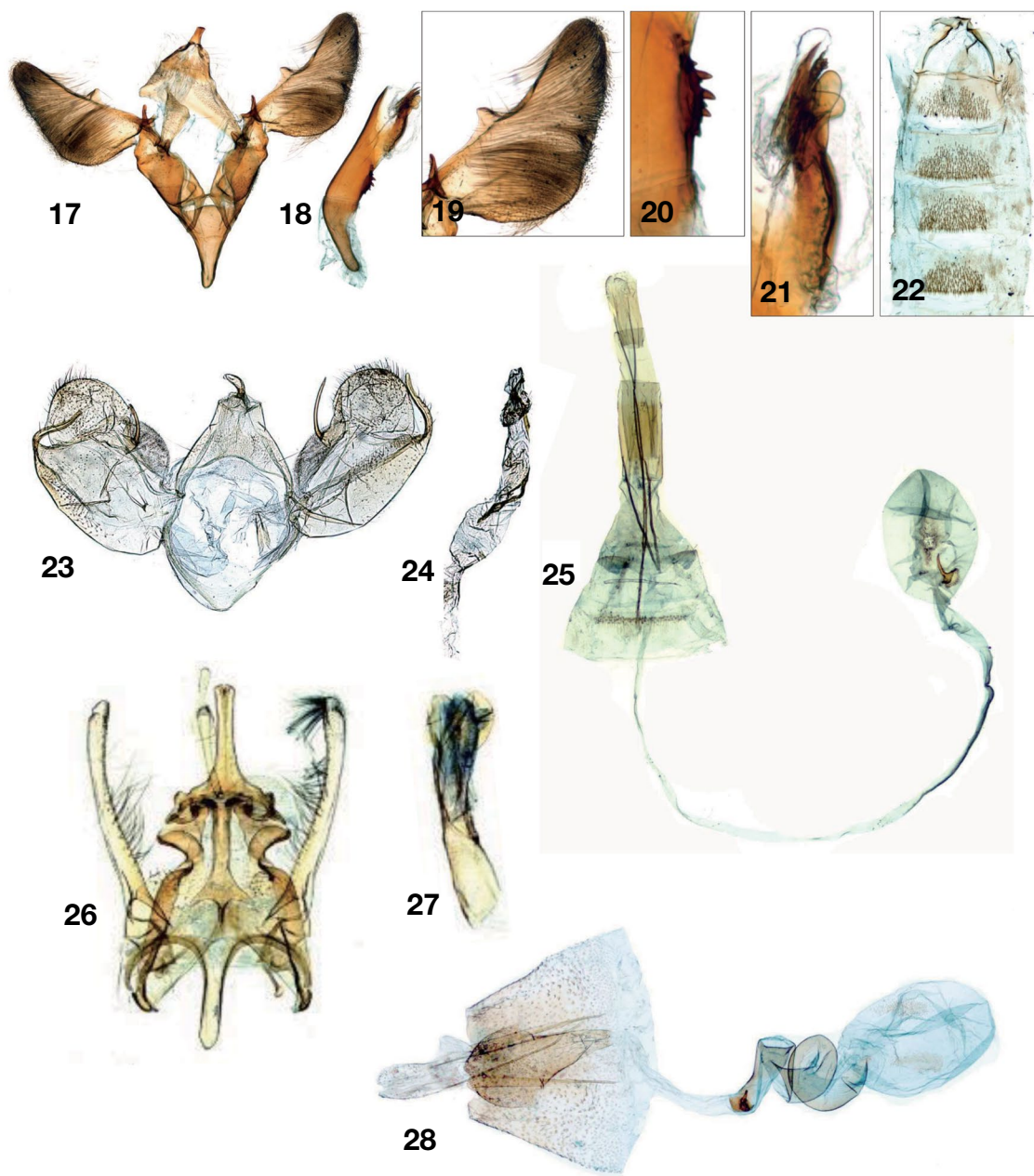


Figures 1–16. Continued.

lactis auriella Park et Park in having wing pattern, but it can be easily distinguished from the latter by the yellow ground color, ante-medial white band rather straight and dark brown patches at 2/3 costal and posterior margins of forewing. The ante-medial white band of the *P. auriella* is an oblique developed. The female genitalia of *Promalactis quadrimacu-*

laris are also very differentiated from the latter by the large antrum with narrower posterior margin, the twisted ductus bursae bearing many sclerotized setose centrally, the ovate corpus bursae and two distinct and serrated signa.

Material examined. Two females, Korea, GB, Uljin, Maehwa-myeon, Gilgok-ri (36°47'03"N 129°20'06"E), 27. VII.



Figures 17–39. Genitalia of five new and three newly recorded species. 17–22, *Meleonoma jugeumensis* sp. n.; 23–25, *Neoblastobasis cryptobiceratala* sp. n.; 26–27, *Evippe geminialbidorsella* sp. n.; 28, *Promalactis apexalba* sp. n.; 29–32, *Promalactis quadrimacularis* Wang et Zheng; 33–35, *Stathmopoda gemmiconsuta* Terada; 36–37, *Acronicta spinosa* sp. n.; 38, *Nola infralba* Inoue.

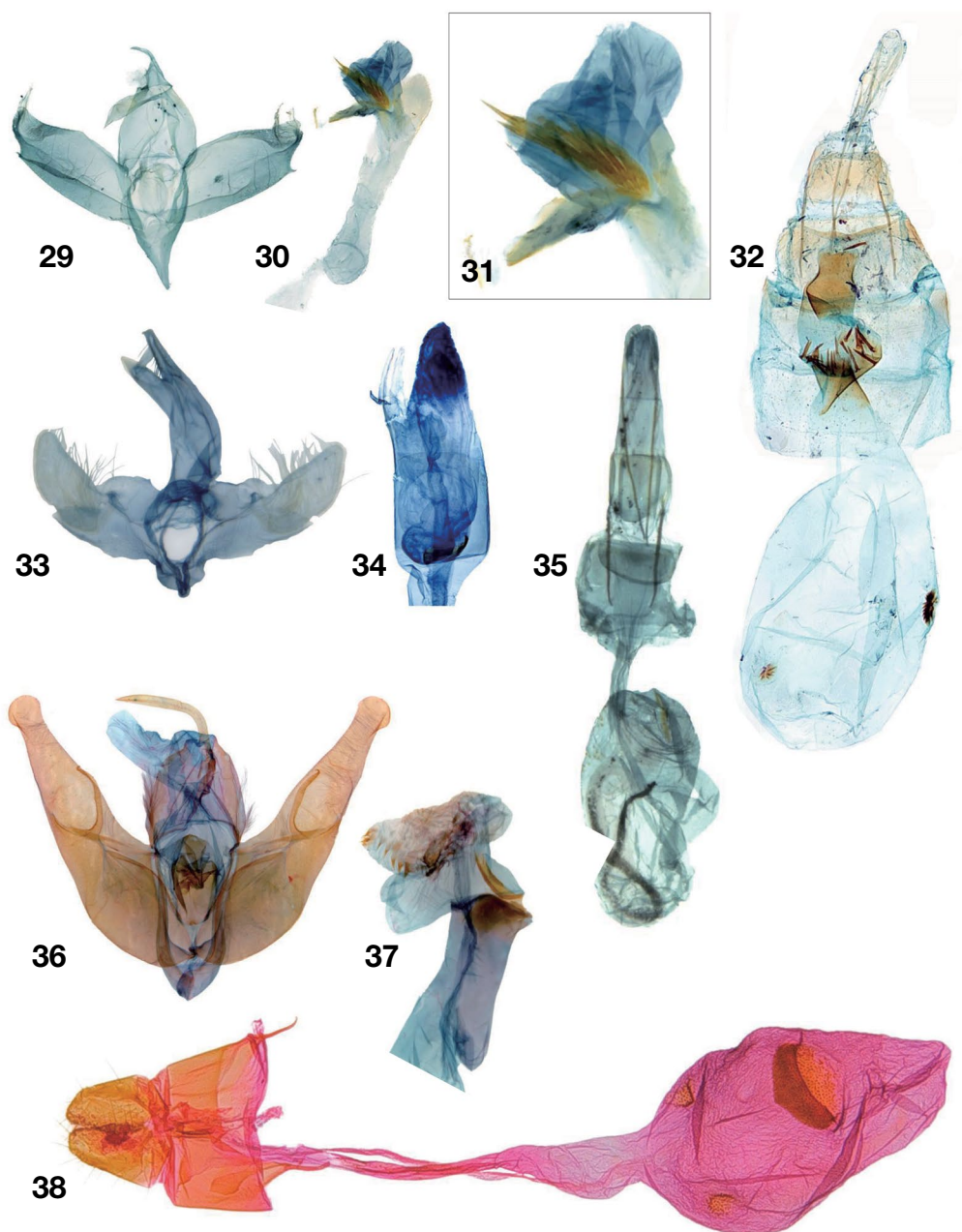
2023, D. Ra, gen. slide no. IPE04, 05/ S. Kim; one male, Korea, GB, ditto, 9. VII. 2024, D. Ra.

Distribution. Korea (this study), China (Wang 2006).

6. *Stathmopoda gemmiconsuta* Terada, 2012

작살무늬꼭지나방 (신칭) (Figs 11, 12, 33–35)
Stathmopoda gemmiconsuta Terada, 2012: 54–56.

Diagnosis. This species is superficially similar to *Stathmopoda flavescens* Kuznetsov, but can be easily distinguished by streak and shape of fascia on the forewing. In *S. flavescens*, the second fascia is oval-shaped and streak is absent at apex. But in this species, the second fascia is triangular and streak originated from the third fascia, extending to apex. In genitalia, this species is close to *Stathmopoda luxuriivora* Terada, but has several differences. In male, *S. luxuriivora* has saccu-



Figures 17-39. Continued.

lus that is slightly convex at median, with apex bent outwardly, whereas in this species, sacculus has no convex or bent part. In female, *S. luxuriivora* has signum located at median of corpus bursae, whereas in this species, signum is located at caudal margin of corpus bursae.

Material examined. Korea, GN, Tongyeong, Hansan-myeon, Yongho-ri (34°44'28"N 128°29'18"E), 13. V. 2024, Cha *et al.*, gen. slide. no. IPE13180/ I.W. Jeong; Korea, JB, Buan, Byeonsan-myeon, Junggye-ri (35°38'07"N 126°34'35"E), 31. V. 2024, Kim *et al.*, gen. slide. no. IPE13226/ I.W. Jeong.

Distribution. Korea (this study), Japan (Terada 2012).

Family Noctuidae Latreille, 1809

7. *Acronicta spinosa* Park and Kim sp. n.

닭은목검은저녁나방 (신칭) (Figs 13, 14, 36, 37)

Holotype. Male, Korea, JN, Gwangyang-si, Daap-myeon, Val. Neuraengi, 3. VIII. 2000, J. H. Son., gen. slide. no. IPE12083, IPE12104/ J. Park.

Diagnosis. This species is superficially similar to *Acronicta digna* in having black bands on terminal field of hindwings but it can be easily differentiated from that by the narrower valva from the middle to the apex; the end of valva of new species is widened and rounded, giving it a pawn-like shape; the sclerite from carina on vesica of aedeagus is shorter than *A. digna*. Additionally, the number of cornuti is 13 with somewhat weakly sclerotized conical bases, whereas *A. digna* typically has 5 to 9 cornuti.

Descriptions. *Adult* (Figs 13, 14). Head dark brown with ivory and black scales scattered; antenna filiform; scape ivory dorsally, dark brown ventrally; flagellum dark brown with ivory scales scattered dorsally, brown ventrally; ground color of labial palpus dark brown; first segment cylindrical, ivory with dark brown scales scattered dorsally; black band present on outer surface of cylindrical second segment, ivory scales scattered at start and end of segment; third segment thin, short, ivory scales scattered; ratio of segment 2 : 3. Thorax with dark brown, tinged with ivory, black scales; end of tegula black. Abdomen light brown tinged with brown scales. Forewing dark brown ground color tinged with whitish scales; basal streak black; short black streak at costa; terminal line black, dot-like. Hindwing light brown ground color; discal spot diffused; black band present on terminal field.

Male genitalia (Figs 37, 38). Uncus cylindrical, stout, curved at one third from base, tapering apically, setose. Scaphium and subscaphium absent. Tegumen rhombus-shape, more sclerotized marginally; peniculus densely setose. Juxta strongly sclerotized, elongated with minute spin distally; anterior margin of juxta rounded, minutely concave at middle. Vinculum robust, thin, gradually thicker toward saccus; saccus V-shape. Sacculus rather lanceolate, strongly sclerotized, lobular basally, extended until middle of valva; groove present from base of harpe to anterior margin. Harpe dentate, thin, slightly arched outward, hooked inward at apex, pointed apically. Valva gradually narrower to apex, widened at apex, a pawn-shape apex; length of sacculus-valva complex slightly longer than tegumen-vinculum complex.

Female genitalia. Unknown.

Distributions. Korea (this study).

Etymology. The species name is referred to the most conspicuous key, dense cornuti.

Remarks. Unfortunately, the only specimen we had was damaged, making it impossible to describe the wing patterns and compare it with similar species. However, the morphological features of male genitalia are distinctly characterized, so that we can report as the new species. Further studies are needed to describe the wing patterns, female genitalia and ecological information such as hostplant.

Family Nolidae Bruand, 1846

8. *Nola infralba* Inoue, 1976 뿔흰무늬흑나방 (신칭)

(Figs 15, 16)

Nola infralba Inoue, 1976: 165. TL: Kami, near Kamogawamachi, Awa-gun, Chiba Pref. Holotype: in coll. Inoue.

Nola infralba: László *et al.*, 2010: 62.

Nola infralba: Joshi *et al.*, 2020: 133.

Diagnosis. This species is easily distinguished from its congeners in Korea. The forewing costal margin and terminal area brownish gray, and the black medial fascia resembles that of some *Meganola* spp. The female genitalia are also distinctive, with two small granulated signa and a large chestnut-shaped signum.

Material examined. Korea, JN, Wando, Cheongsan-myeon, Yeoseo-ri 338 (33°59'04"N 126°55'22"E), 22. VIII. 2023, Kim *et al.*, gen. slide no. CYBG-0048/ Y.B. Cha.

Distribution. Korea (this study), Japan (Inoue 1976), Thailand (László *et al.* 2010), India (Joshi *et al.* 2020).

Remarks. This species was originally described in Japan, but additional two records are in the Oriental region. Here, we newly reported this species in the East Asia, Palearctic region. The Korean name follows its scientific name *infra-alba*.

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References

- Bruand MT (1846) Catalogue systématique et synonymique des Microlépidoptères du Département du Doubs. *Mémoires de la Société d'émulation du Doubs* 2(3)5–6: 109–124.
- Inoue H (1976) Some new and unrecorded moths belonging to the families of Bombyces and Sphinges from Japan. *Bulletin of Faculty of Domestic Science, Otsuma Women's University* 12: 153–179.
- Joshi R, Singh N, Kuni N (2020) Introduction of a new generic synonymy and three newly recorded species of Nolinae (Lepidoptera: Nolidae) from India. *Zootaxa* 4890(1): 129–134.
- Kim S, Lee S (2016) Taxonomic review of genus *Promalactis* (Lepi-

- doptera: Oecophoridae) from Korea: Description of new species with a catalog. *Journal of Asia-Pacific Entomology* **19**: 423–437.
- Kim S, Lee Y, Mutanen M, Seung J, Lee S (2020) High functionality of DNA barcodes and revealed cases of cryptic diversity in Korean curved-horn moths (Lepidoptera: Gelechioidea). *Scientific Reports* **10**: 6208.
- László GM, Ronkay G, Witt TJ (2010) Contribution to the Noctuidae (Lepidoptera, Noctuidae) fauna of North Thailand (Plates 1–11). *Esperiana* **15**: 7–125.
- Park KT, Park YM (1998) Genus *Promalactis* Meyrick (Lepidoptera, Oecophoridae) from Korea, with descriptions of six new species. *Journal of Asia-Pacific Entomology* **1**(1): 51–70.
- Terada T (2012) Four new species of the genus *Stathmopoda* (Lepidoptera, Stathmopodidae) closely related to *S. flavescens* from Japan. *Lepidoptera Science* **63**(1): 47–59.
- Wang SX (2006) Oecophoridae of China (Insecta: Lepidoptera). Science Press, Beijing.
- Wang SX, Zheng ZM (1998) Five new species and one new record of the genus *Promalactis* Meyrick from China (Lepidoptera: Oecophoridae). *Acta Zootaxonomica Sinica* **23**(4): 399–405.