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Eight Species of Olethreutinae (Lepidoptera, Tortricidae) New to Korea*

애기잎말이나방亞科(나비目 : 잎말이나방科)의 한국未記錄 8種

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ABSTRACT Eight species of Olethreutinae; *Statherotmantis pictana* (Kuznetsov), *Olethreutes electana* (Kennel), *Pammene orientana* Kuznetsov, *P. griseana* Walsingham, *Epinotia pentagonana* (Kennel), *E. exquistiana* (Christoph), *Spilonota semirufana* (Christoph), and *Kennelia xylinana* (Kennel) are reported for the first time from Korea.

KEY WORDS systematics, Lepidoptera, Tortricidae, Olethreutinae

초 록 애기잎말이나방亞科의 노랑눈애기잎말이나방 〈*Statherotmantis pictana* (Kuznetsov)〉, 노랑연줄애기잎말이나방 〈*Olethreutes electana* (Kennel)〉, 뒤흰애기잎말이나방 〈*Pammene orientana* Kuznetsov〉, 회색점애기잎말이나방 〈*P. griiseana* Walsingham〉, 자무늬애기잎말이나방 〈*Epinotia pentagonana* (Kennnnel)〉, 흰마당잎말이나방 〈*E. exquisitana* (Chrıstoph)〉, 고동색애기잎말이나방 〈*Spilonota semirufana* (Christoph)〉, 볼록날개애기잎말이나방 〈*Kennelia xylinana* (Kennel)〉등 8種이 우리나라에서는 처음으로 報告된다. 이중 *Kennelia*屬은 우리나라에서 처음으로 報告되는 屬이었다.

검 색 어 分類, 나비目, 잎말이나방科, 애기잎말이나방亞科

DESCRIPTION

Subfamily Olethreutinae 애기잎말이나방亞科
Tribe Olethreutini 산애기잎말이나방族

Statherotmantis pictana **(Kuznetsov)**
노랑눈애기잎말이나방(新稱) (Fig. 1)

Proschistis pictana Kuznetsov, 1969, Ent. Obozr. 48: 355-357, figs. 5, 6.

Statherotmantis pictana: Kawabe, 1982, Moths of Japan 1: 97, 2: 168, pl. 22: 46.

Wings expanse, 14 mm in both sexes. It has been known as an endemic species in Japan. One of the rare species in Korea.

Male genitalia (Fig. 9). Uncus atrophied. Socius very broad, with numerous long hairs. Valva slender, with a short spine at middle of costa and a densely haired protrusion near middle of ventral margin; ventral margin densely setosed beyond half. Aedeagus short, simple.

Female genitalia (Fig. 16). Papillae anales

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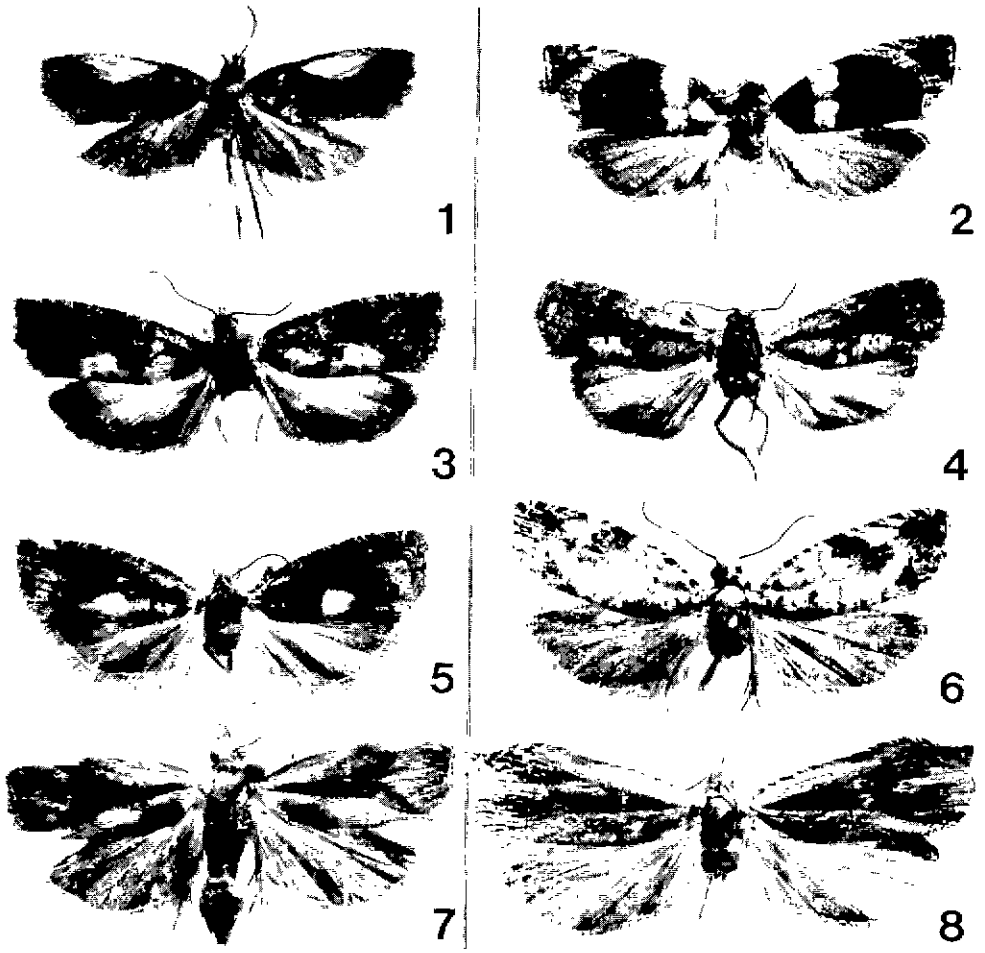

Fig. 1~8. Adults, 1, *Statherotmantis pictana* (Kuznetsov); 2, *Olethreutes electana* (Kennel); 3, *Pammene orientana* Kuznetsov; 4, *P. griseana* Walsingham; 5, *Epinotia pentagonana* (Kennel); 6, *E. exquisitana* (Christoph); 7, *Spilonota semirufana* (Christoph); 8, *Kennelia xylinana* (Kennel).

small. Antrum sclerotized, cup-shaped. Ductus bursae narrowed towards middle, then broadened to conjunction of corpus bursae. Corpus bursae ovate, with two signa bearing numerous denticles.

Material examined. 1♂, 1♀, Jeongseon, GW, 30. Ⅶ. 1991 (K.T. Park); 1♂, Mt. Jirisan, KN, 15. V. 1992(K.T. Park).

Distribution. Korea, Japan.

Olelhreutes electana (Kennel)

노랑연즐애기잎말이나방 (新稱) (Fig. 2)

Penthis electana Kennel, 1901, Iris 13: 257.

Olethreutes electana: Kawabe, 1982, Moths of Japan, 1: 106, 2: 170, pl. 24: 10, 284: 8, 291: 12.

Wings expanse, 15~16 mm. Moths were collected May-June in the mountain areas. A common species in Korea.

Male genitalia (Fig. 10). Uncus fairly short,

rounded terminally. Socius narrow with numerous hairs laterally. Valva broadest near basal 1/3, and distal half slender, with numerous strong setae near half of ventral margin. Sacculus well sclerotized, deeply concave dorsally. Aedeagus short, stout with a cornutus *in vesica*.

Female genitalia (Fig. 15, 15a). Papillae anales narrow. Apophysis anterioris as long as posterioris. Ostium bursae sclerotized, pocket-shaped, with weakly sclerotized lateral plates. Ductus bursae short. Corpus bursae ovate without signum.

Material examined. 3♂♂, Mt. Odae-san, GW, 26. Ⅵ. 1989 (K.T. Park & B.K. Byun); 1♀, Chuncheon, GW, 28. V. 1991 (K.T. Park); 1♀, Hongcheon, GW, 30. Ⅵ. 1992 (K.T. Park & B. K. Byun).

Distribution. *Korea, Japan.*

Tribe Laspeyresiini 애기잎말이나방族

Pammene orientana **Kuznetsov**

뒤흰애기잎말이나방 (新稱) (Fig. 3)

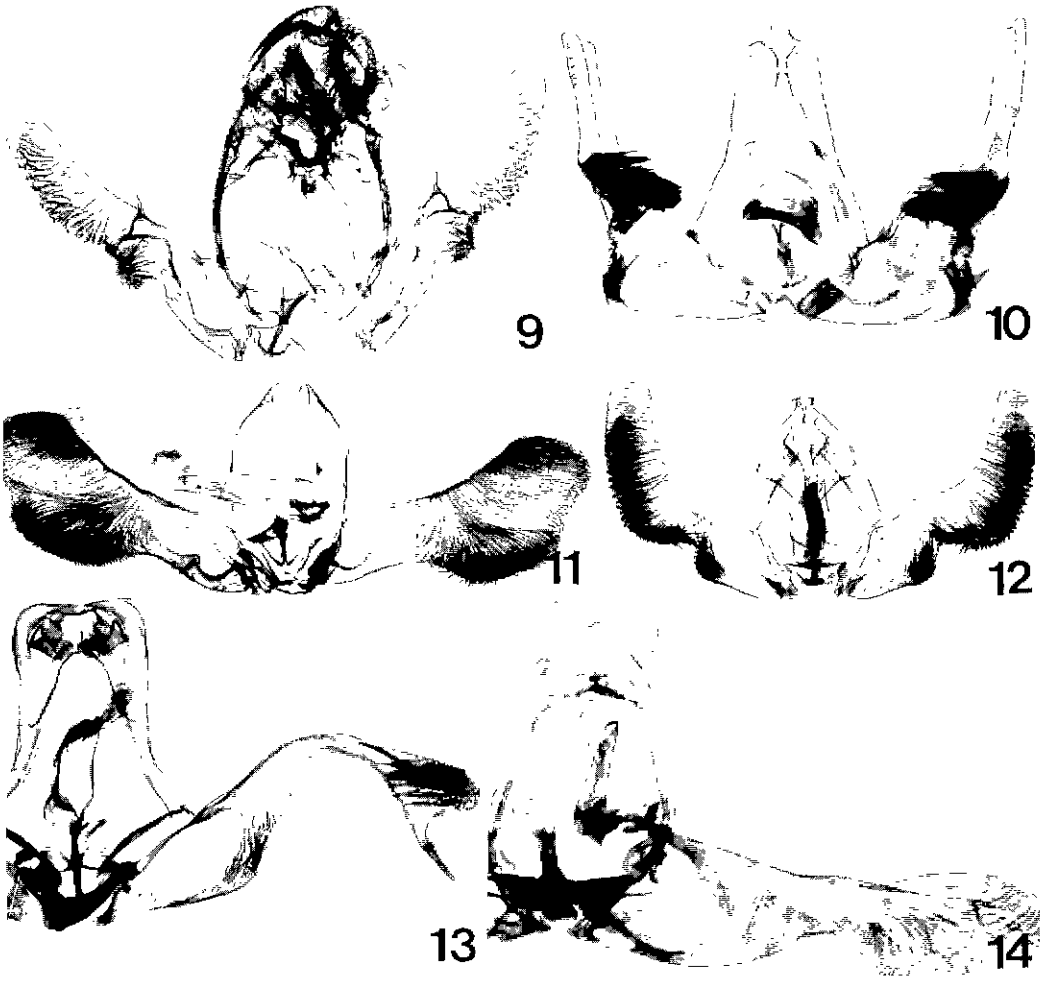

Fig. 9~14. Male genitalia. 9, *Statherotmantis pictana* (Kuznetsov); 10, *Olethreutes electana* (Kennel); 11, *Pammene griseana* Walsingham; 12, *Epinotia pentagonana* (Kennel); 13, *Spilonota semirufana* (Christoph); 14, *Kennelia xylinana* (Kennel).

Pammene orientana Kuznetsov, 1960, Ent. Obozr. 39: 194, Fig. 9; Kawabe, 1982, Moths of Japan 1: 147, 2: 180, pl. 30: 38.

Wing expanse. 15~17 mm in female. Moths were collected before the early Summer. A common species in Korea.

Female genitalia (Fig. 17, 17a). Papillae anales broad. Apophysis anterioris as long as posterioris. Ostium bursae strongly sclerotized, U-shaped. Ductus bursae extremely short. Corpus bursae semiovate, somewhat sack-shaped; two push-pin like signa on middle of corpus bursae; appendix bursae originated from just before corpus bursae.

Material examined. 1♀, Gwanglueng, GG, 19. V. 1985 (K.J. Weon); 1♀, Gwangleung, GG, 3. Ⅵ. 1988 (K.T. Park); 1♀, Gwangleung, GG, 17. V. 1988 (K.T. Park); 1♀, Mt. Dodram-san, GG, 19. V. 1990 (K.T. Park); 1♀, Mt. Jiri-san, GN, 29. V. 1982 (C.M. Kim).

Distribution. Korea, Japan, Russia (Amur).

Host plant. *Quercus mongolica* has been known from Russia (Kuznetsov, 1968).

Pammene griseana Walsingham

회색점애기잎말이나방 (新稱) (Fig. 4)

Pammene griseana Walsingham, 1900, Ann. Mag. nat. Hist. (7)6: 436; Kuznetsov, 1968, Faun. SSSR : 429, Fig. 309; Kawabe, 1982, Moths of Japan 2: 180.

Wings exapnse, 15 mm in male. It has been known as an endemic species in Japan. One of rare species in Korea. Only a male specimen collected to date.

Male genitalia (Fig. 11). Uncus nearly atrophied. Tegumen broad. Valva spatulate, rather narrow at basal 1/3, then broadened distally. Aedeagus short, with a number of short cornuti in vesica, narrowed terminally.

Material examined. 1♂, Chuncheon, GW, 16. V. 1990 (K.T. Park).

Distribution. Korea, Japan.

Tribe Eucosmini 꽃날개애기잎말이나방族

Epinotia pentagonana (Kennel)

각무늬애기잎말이나방 (新稱) (Fig. 5)

Epiblema pentagonana Kennel, Dt. ent. Z. Iris 13: 289.

Epinotia maculosa Kuznetsov, 1966, Trudy Zool. Inst. Leningr. 37: 177, Fig. 1, 2.

Epinotia pentagonana : Kawabe, 1982, Moths of Japan 1: 125, 2: 175, pl. 26: 49.

Wing expanse, 15 mm in both sexes. Palaearctic species. One of the common species in Korea, and abundant in mountain areas. Most of speciments were collected in August.

Male genitalia (Fig. 12). Uncus shortly bifurcated. Tegumen triangular. Socius broad, narrow terminally. Valva curved medially, concaved at 1/3 of ventral margin, densely setosed along the ventral margin. Sacculus short. Aedeagus stout, narrowed towards terminal, with a bundle of cornuti in vesica.

Female genitalia (Fig. 18, 18a). Very similar to that of *E. exquisitana*. Ostium bursae U-shaped. Ductus bursae as same as corpus bursae in length, with a neck prior to antrum. Corpus bursae ovate, two signa with rounded apex at medio-lateral sides.

Material examined. 2♂, 1♀, Mt. Odae-san, GW, 6. Ⅷ. 1989 (K.T. Park & B.K. Byun); 1♂, 1♀, Mt. Gyebang-san, GW. 24. Ⅷ. 1989 (K.T. Park & B.K. Byun); 1♀, Mt. Gyebang-san, GW, 2. Ⅷ. 1989 (K.T. Park & B.K. Byun).

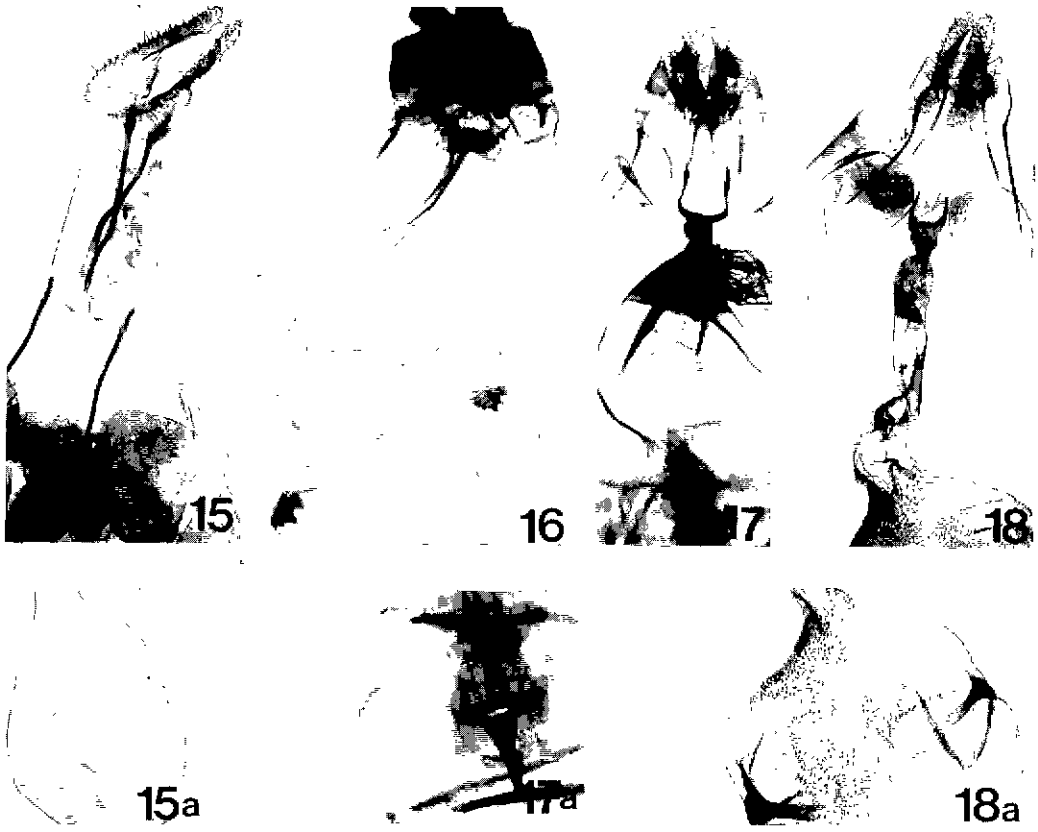

Fig. 15~18a. Female genitalia. 15, *Olethreutes electana* (Kennel); 15a, ditto, corpus bursae; 16, *Statherotmantis pictana* (Kuznetsov); 17, *Pammene orientana* Kuznetsov; 17a, ditto; 18, *Epinotia pentagonana* (Kennel); 18a, ditto, signa.

Distribution. Korea, Japan, Russia (Ussuri).

Host plant. *Celtis* sp. (Ulmaceae) has been known from Japan (Kawabe, 1982).

***Epinotia exquisitana* (Christoph)**

흰마당잎말이나방 (新稱) (Fig. 6)

Steganoptycha exquisitana Christoph, 1881, Bull. Soc. imp. Nat. Moscou 57 (2): 428.

Eucosma pica Walsingham, 1900, Ann. Mag. nat. Hist. (7)6: 337.

Epinotia exquistiana: Kawabe, 1982, Moths of Japan 1: 125, 2: 175, pl. 26: 47.

Wing expanse, 16 mm in female. Only a male was collected.

Female genitalia (Fig. 19, 19a). Papillae anales moderate. Apophysis anterioris 2 times longer than posterioris. Ostium bursae U-shaped. Ductus bursae 2/3 of corpus bursae in length, with a neck prior to antrum; ductus semnalis originating from middle of it. Corpus bursae large, ovate with two big nail-shaped signa medio-laterally.

Material examined. 1♀, Mt. Yaksu-san, GW, 9. Ⅷ. 1989 (K.T. Park).

Distribution. Korea, Japan, Russia (Amur).

Host plants. *Prunus maximowiczii* Rupr.,

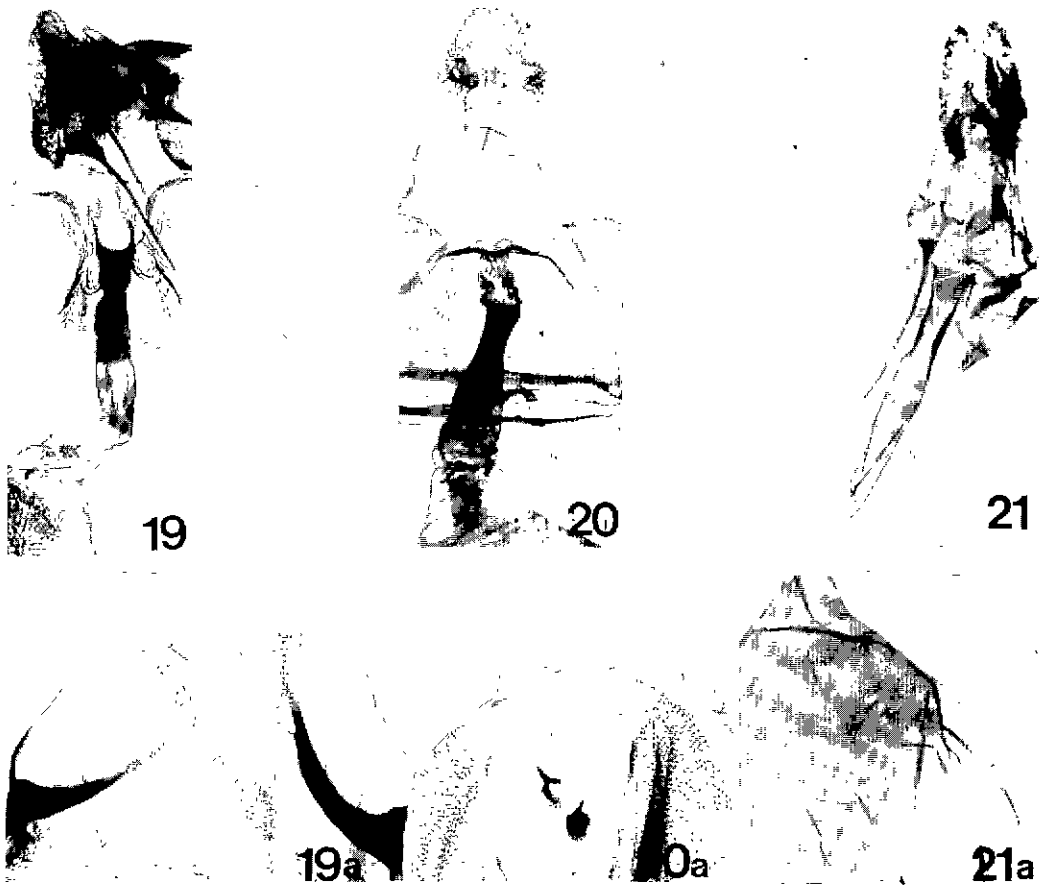

Fig. 19~21a. Female genitalia. 19, *Epinotia exquisitana* (Christoph); 19a, ditto, signa; 20, *Spilonota semirufana* (Christoph); 20a, ditto, signa; 21, *Kennelia xylinana* (Kennel); 21a, ditto, corpus bursae.

Sorbus commixta Hedlund, and *S. alnifolia* (S. et Z.) (Rosaceae) have been known from Japan (Kawabe, 1982).

Spilonota semirufana (Christoph)

고동색애기잎말이나방 (新稱) (Fig. 7).

Grapholitha semirufana Christoph, 1881, Bull. Soc. imp. Nat. Moscou 56 (2) : 48.

Spilonota ochrea Kuznetsov, 1966, Trudy Zool. Inst. 37: 189, Figs. 11, 12.

Spilonota semirufana: Kawabe, 1982, Moths of Japan 1: 122, 2: 174, pl. 26: 19.

Wing expanse, 14~18 mm in male and female. Palaearctic species and one of common species in Korea. Moths appear from the early of July to the end of August.

Male genitalia (Fig. 13). Uncus nearly atrophied. Tegumen very broad. Socius small, triangular. Valva broad at base, forming a neck beyond middle, slightly curved downwardly; cucullus with a strong spine at ventral apex. Aedeagus short with a bundle of cornuti in vesica.

Female genitalia (Fig. 20, 20a). Papillae anales rather small. Ostium bursae well sclerotized, concave at middle of distal margin,

lip-like in shape. Ductus bursae as long as length of corpus bursae; ductus seminalis originated beyond half of ductus bursae. Corpus bursae ovate, with two small push pin-shaped signa, developed on middle.

Material examined. 2우우, Hongcheon, GW, 14. Ⅷ. 1987(K.T. Park); 1우, Chuncheon, GW, 2. Ⅶ. 1989 (K.T. Park & B.K. Byun); 1우, Chuncheon, GW, 22. Ⅶ. 1991 (K.T. Park); 2우, Chuncheon, GW, 21. Ⅶ. 1992 (K.T. Park & B.K. Byun); 1우, Yongpyong, GW, 1. Ⅷ. 1991 (K.T. Park); 1우, Pyongchang, GW, 31. Ⅶ. 1991 (K.T. Park); 1우, Mt. Myoungji-san, GG, 28. Ⅶ. 1992 (K.T. Park & B.K. Byun); 1우, Mt. Jeombong-san, GW, 10. Ⅷ. 1992 (K.T. Park); 1우, Seoungpanak, JJ, 23. Ⅷ. 1992 (K. T. Park & B.K. Byun).

Distribution. Korea, Japan, Russia (Siberia).

Kennelia xylinana (Kennel)

볼록날개애기잎말이나방 (新稱) (Fig. 8)

Anomalopteryx xylinana Kennel, 1901, Dt. ent. Z. Iris 13: 157, pl. 5: 33~35.

Kennelia xylinana: Kawabe, 1982, Moths of Japan 1: 115, 2: 172, pl. 25: 18.

Wing expanse, 17 mm in male, 18mm female, Palaearctic species.

Male genitalia (Fig. 14). Uncus nearly atrophied. Socius small. Valva rather slender, costa nearly straight; ventral margin concaved near 2/3, rounded apically. Sacculus weakly sclerotized.

Female genitalia (Fig. 21, 21a). Ostium simple. Ductus bursae as long as 1.5 times of corpus bursae. Corpus bursae semiovate, without signum.

Material examined. 1♂, 1우, Mt. Gyebang-san, GW, 2. Ⅷ. 1989 (K.T. Park).

Distribution. Korea, Japan, China, Russia (Amur).

Host plant. *Rhamnus* sp. (Kawabe, 1982).

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