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Notes on the Herminiine Moths (Lepidoptera, Noctuidae) Described or Recorded by Embrik STRAND from Taiwan[1)]

By

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Abstract The herminiine moths described or recorded from Taiwan by E. STRAND are revised and illustrated. Taxonomic changes proposed are as follows: *Adrapsa bupalistis* STRAND is synonymized with *A. rivulata* LEECH; *Mecodina karapinensis* STRAND is transferred to the genus *Mosopia*; *Bleptina satyrata* STRAND is transferred to the genus *Idia*; *Hypena suisharyonis* STRAND is synonymized with *Bertula kosemponica* (STRAND); *Bleptina grimsgaardi* STRAND is synonymized with *Bertula centralis* (WILEMAN); *Bleptina hadenalis alikangialis* STRAND is synonymized with *Bertula hadenalis persimilis* (WILEMAN), stat. nov.; *Alelimma zema* STRAND is synonymized with *Nodaria externalis* GUENÉE; *Alelimma zemella* STRAND is transferred to the genus *Nodaria*; *Nodaria formosana* STRAND is transferred to the genus *Simplicia*; *Nagadeba obenbergeri* STRAND is synonymized with *Hipoepa biasalis* (WALKER). The following misidentifications are recognized: *Adrapsa simplex* sensu STRAND is *A. quadrilinealis* WILEMAN; *Adrapsa geometroides* sensu STRAND is *A. subnotigera* OWADA.

Embrik STRAND described or recorded many herminiine taxa from Taiwan on the basis of the SAUTER collection, and most of them has not been revised. Through the courtesy of Dr. R. GAEDIKE, Deutsches Entomologisches Institut, Eberswalde, I was able to examine those type specimens under his curation. In this paper, I will revise and illustrate them with taxonomic notes.

The museums or institutions of type depository are abbreviated as follows: Deutsches Entomologisches Institut, Eberswalde (DEIE); Museum für Naturkunde der Humboldt Universität, Berlin (MNHU); National Science Museum, Tokyo (NSMT); Natural History Museum, London (NHML); University Museum, Oxford University, Oxford (UMOU).

Before going further, I wish to express my hearty thanks to Dr. R. GAEDIKE, Deutsches Entomologisches Institut, Eberswalde, for giving me the privilege to examine type specimens in his institute, and for the loan of some specimens. My thanks are also due to the following entomologists for examining the type material: Dr. I. J. KITCHING and Mr. M. HONEY, Natural History Museum, London; Dr. W. MEY, Museum für Naturkunde der Humboldt Universität, Berlin; Dr. G. MCGAVIN, University Museum, Oxford University, Oxford. Finally, but not to the least, my deep thanks are expressed to Dr. S.-I. UÉNO, National Science Museum, Tokyo, for reading

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and criticizing the manuscript of this paper.

Adrapsa quadrilinealis WILEMAN

Adrapsa quadrilinealis WILEMAN, 1914, Entomologist, **47**: 222.
Adrapsa simplex: STRAND, 1919, Archiv Naturg., **83A** (10): 154, nec BUTLER, 1879, misidentification.

Material examined. Lectotype of *Adrapsa quadrilinealis*, ♂ (Fig. 1), designated herein, labeled "Type [red label]/Kanshirei, Formosa, 1,000 ft., 22. IV. 1908, A. E. Wileman, ♂/1004F/*Adrapsa quadrilinealis* sp. n., Type ♂/Wileman coll., B. M. 1929–261", in NHML; 1 ♀ (Figs. 2, 40), labeled "Kosempo, Formosa, H. Sauter, 1911/5. VII./*Adrapsa simplex* Butl: ♀, Strand det.", in DEIE.

Notes. *Adrapsa quadrilinealis* was described on "one example of each sex from Kanshirei; the male obtained April 22nd, 1908, and the female, April 19th, 1906".

Adrapsa subnotigera OWADA

Adrapsa subnotigera OWADA, 1982, Moths Japan, 1: 915, **2**: 405, pl. 224, figs. 7, 8, pl. 385, fig. 2.
Adrapsa geometroides: STRAND, 1919, Archiv Naturg., **83A** (10): 154, nec WALKER, [1858], misidentification.

Material examined. Holotype of *Adrapsa subnotigera*, ♂ (OWADA, 1982, pl. 224, fig. 7), labeled "Mikyô, Tokunoshima Is., C. M. Yoshimoto/Holotype, *Adrapsa subnotigera* Owada, 1982", in NSMT; 1 ♀ (Fig. 3, 41), labeled "Suisharyo, Formosa, H. Sauter, XII. 1911/*Adrapsa geometroides* Walk., ♀, Strand det.", in DEIE.

Adrapsa rivulata LEECH

Adrapsa? *rivulata* LEECH, 1900, Trans. ent. Soc. Lond., **1900**: 615.
Adrapsa bupalistis STRAND, 1920, Archiv Naturg., **84A** (12): 162, **syn. nov.**

Material examined. Holotype of *Adrapsa rivulata*, ♂ (Fig. 5), labeled "Type [red label]/Omei-shan, 3500 ft., Native coll., June & July 1890/Leech Coll., 1900–64/*Adrapsa* (?) *rivulata* sp. n., Type ♂", in NHML; lectotype of *Adrapsa bupalistis*, ♀ (Figs. 6, 42), designated herein, labeled "Holotypus [red label]/Kosempo, Formosa, H. Sauter, X. 1911/*Adrapsa bupalistis* m. ♀, Strand det.", in DEIE.

Notes. *Adrapsa bupalistis* was described on "ein ♂ von Shisa V–VI. 1912; zwei ♀♀: Kosempo X. 1911, Suisharyo X. 1911".

Bocana manifestalis WALKER

Bocana manifestalis WALKER, [1859], List Specimens lepid. Ins. Coll. Br. Mus., **16**: 171; OWADA, 1992 a, Tinea, **13**: 183, fig. 4, holotype.
Pseudaglossa pygata STRAND, 1920, Archiv Naturg., **84A** (12): 158; OWADA, 1992 a, Tinea, **13**: 184, fig. 8, holotype, synonymy.

Notes. The type specimens and the labels of *Bocana manifestalis* and *Pseu-*

daglossa pygata were illustrated by OWADA (1992 a, figs. 4, 8).

Edessena gentiusalis WALKER

Edessena gentiusalis WALKER, [1859], List Specimens lepid. Ins. Coll. Br. Mus., **16**: 162.
Edessena gentiusalis var. *formosensis* STRAND, 1920, Archiv Naturg., **84A** (12): 157; OWADA, 1987, Taxon. Study Subfamily Herminiinae Japan, p. 31, synonymy.

Material examined. Lectotype of *Edessena gentiusalis*, ♂ (Fig. 7), designated herein, labeled "Type [blue label]/N. CHINA., 54.8./1. *Edessena Gentiusalis*.", in NHML; holotype of *Edessena gentiusalis* var. *formosensis*, ♀ (Fig. 8), labeled "TYPUS [red label]/Kosempo, Formosa, H. Sauter, VIII. 1911/*Edessena gentiusalis* var. *formosensis* m. ♀, Strand det.", in DEIE.

Mosopia karapinensis (STRAND), comb. nov.

Mecodina karapinensis STRAND, 1920, Archiv Naturg., **84A** (12): 150.

Material examined. Holotype of *Mecodina karapinensis*, ♀ (Fig. 8), labeled "Holotypus [red label]/Karapin, VIII. 11., Japan [sic], H. Sauter/*Mecodina karapinensis* m. Strand det.", in DEIE.

Notes. Though POOLE (1989) noted the type locality of this species as existing in Japan, Karapin (=Chaoliping) is a village near Fenchihu, Chiayi, Taiwan.

Cidariplura gladiata BUTLER

Cidariplura gladiata BUTLER, 1879, Ann. Mag. nat. Hist., (5), **4**: 449.
‡ *Cidariplura gladiata* ab. *ochreimacula* STRAND, 1919, Archiv Naturg., **83A** (10): 149, aberrant name, unavailable.
Cidariplura (?) *gladiata* BUTL. ? var. *gladiatella* STRAND, 1920, Archiv Naturg., **84A** (12): 159; POOLE, 1989, Lepid. Cat., (N. S.), (118): 253, synonymy.

Material examined. Lectotype of *Cidariplura gladiata*, ♂ (Fig. 9), designated herein, labeled "Type [red label]/*Cidariplura gladiata* Butler Type/Japan, 79.48, 902", in NHML; Holotype of *Cidariplura gladiata* ab. ‡ *ochreimacula*, ♂ (Fig. 11), labeled "Typus [in red label]/Kosempo, Formosa, H. Sauter, X. 1911/*Cidariplura gladiata* ab. *ochreimacula* m., ♂, Strand det.", in DEIE; holotype (?) of *Cidariplura gladiata* var. *gladiatella*, ♀ (Fig. 10), labeled "Alikang, Formosa, Sauter, 09/7. X./*Cidariplura gradiata* Butl. ?", in DEIE.

Notes. BUTLER (1879) described *C. gladiata* without statement of the number of specimen(s).

Although the type label and the name "*gladiatella*" are not attached to the holotype of *C. gladiata gladiatella*, the collecting data and the determination label with question mark are identical with the original description. I therefore considered the specimen to be the holotype.

Idia satyrata (STRAND), comb. nov.

Bleptina satyrata STRAND, 1920, Archiv Naturg., **84A** (12): 163.
Elyra satyrata: POOLE, 1989, Lepid, Cat., (N. S.), (118): 356.

Material examined. Lectotype of *Bleptina satyrata*, ♂ (Figs. 12, 34), designated herein, labeled "Syntypus [red label]/Punkiko, VIII. 11., Japan [sic], H. Sauter/*Bleptina satyrata* m., Strand det., ♂", in DEIE; paralectotype of *Bleptina satyrata*, ♀ (Fig. 46), labeled "Syntypus [red label]/Suisharyo, Formosa, H. Sauter, X. 1911/*Bleptina satyrata* m., Strand det.", in DEIE.

Notes. *Bleptina satyrata* was described from "ein ♀ von Suisharyo X. 1911, ein ♂ von Punkiko (Japan) VIII. 1911".

The male labial palpus of *I. satyrata* is normally sickle-shaped, and the male foretibia has a short distal spine (Fig. 39, arrow), which is also found in *Mosopia* and *Cidariplura*. Although the male labial palpi of the latter two genera are highly specialized (OWADA, 1978), the genus *Idia* may be related to them. The male and female genitalia of *I. satyrata* (Figs. 34, 46) are similar not only to those of the other species of *Idia* but also to those of *Mosopia* and *Cidariplura*. On the other hand, the genitalia of the genus *Hadennia* are rather similar to those of *Bocana*, *Edessena* and *Paracolax*, though I stressed a close relationship among three genera, *Hadennia*, *Trotosema* (=*Mosopia*) and *Cidariplura*, on the basis of the characteristics of the male specialized labial palpi (OWADA, 1978).

Hydrillodes pseudomorosa STRAND

Hydrillodes pseudomorosa STRAND, 1920, Archiv Naturg., **84A** (12): 166.

Material examined. Lectotype of *Hydrillodes pseudomorosa*, ♂ (Fig. 13), designated herein, labeled "Syntypus [red label]/Kosempo (Formosa), H. Sauter, X. 1912/*Hydrillodes pseudomorosa* m. ♂, Strand det.", in DEIE.

Notes. *Hydrillodes pseudomorosa* was described on "je ein ♂ von Suisharyo II. 1912 und Kosempo X. 1911; 5 ♀♀ von Suisharyo II. 1912 und 22. XII. 1911".

Hydrillodes lentalis GUENÉE

Hydrillodes lentalis GUENÉE, 1854, in BOISDUVAL & GUENÉE, Hist. nat. Ins. Lepid., **8**: 66, pl. 5, fig. 3; OWADA, 1992 a, Tinea, **13**: 187, fig. 30, lectotype.
Hydrillodes submorosa STRAND, 1920, Archiv Naturg., **84A** (12): 165; OWADA, 1992 a, Tinea, **13**: 187, fig. 33, holotype, synonymy.

Notes. The type specimens and the labels of *Hydrillodes lentalis* and *Hydrillodes submorosa* were illustrated by OWADA (1992 a, figs. 30, 33).

Bertula kosemponica (STRAND)

Bleptina kosemponica STRAND, 1917 b, Archiv Naturg., **82A** (3): 138.

Bertula kosemponica: POOLE, 1989, Lepid. Cat., (N. S.), (118): 162.
Hypena? *suisharyonis* STRAND, 1920, Archiv Naturg., **84A** (12): 172, **syn. nov.**
Bertula suisharyonis: POOLE, 1989, Lepid. Cat., (N. S.), (118): 162.

Material examined. Holotype of *Bleptina kosemponica*, ♂ (Figs. 15, 35), labeled "Holotypus [red label]/Kosempo, Formosa, H. Sauter, X. 1911/*Bleptina kosemponica* m., ♂ Strand det.", in DEIE; lectotype of *Hypena suisharyonis*, ♀ (Figs. 16, 43), designated herein, labeled "Syntypus [red label]/Suisharyo, Formosa, H. Sauter, II. 1912/*Hypena* (?) *suisharyonis* m. ♀, Strand det.", in DEIE.

Notes. *Hypena suisharyonis* was described on "zwei ♀♀ von Suisharyo II. 1912 und X. 1911".

Bertula centralis (WILEMAN)

Bleptina centralis WILEMAN, 1915, Entomologist, **48**: 13.
Bleptina (*Bertula*) *grimsgaardi* STRAND, 1919, Archiv Naturg., **83A** (10): 161, **syn. nov.**
Bertula grimsgaardi: POOLE, 1989, Lepid. Cat., (N. S.), (118): 162.

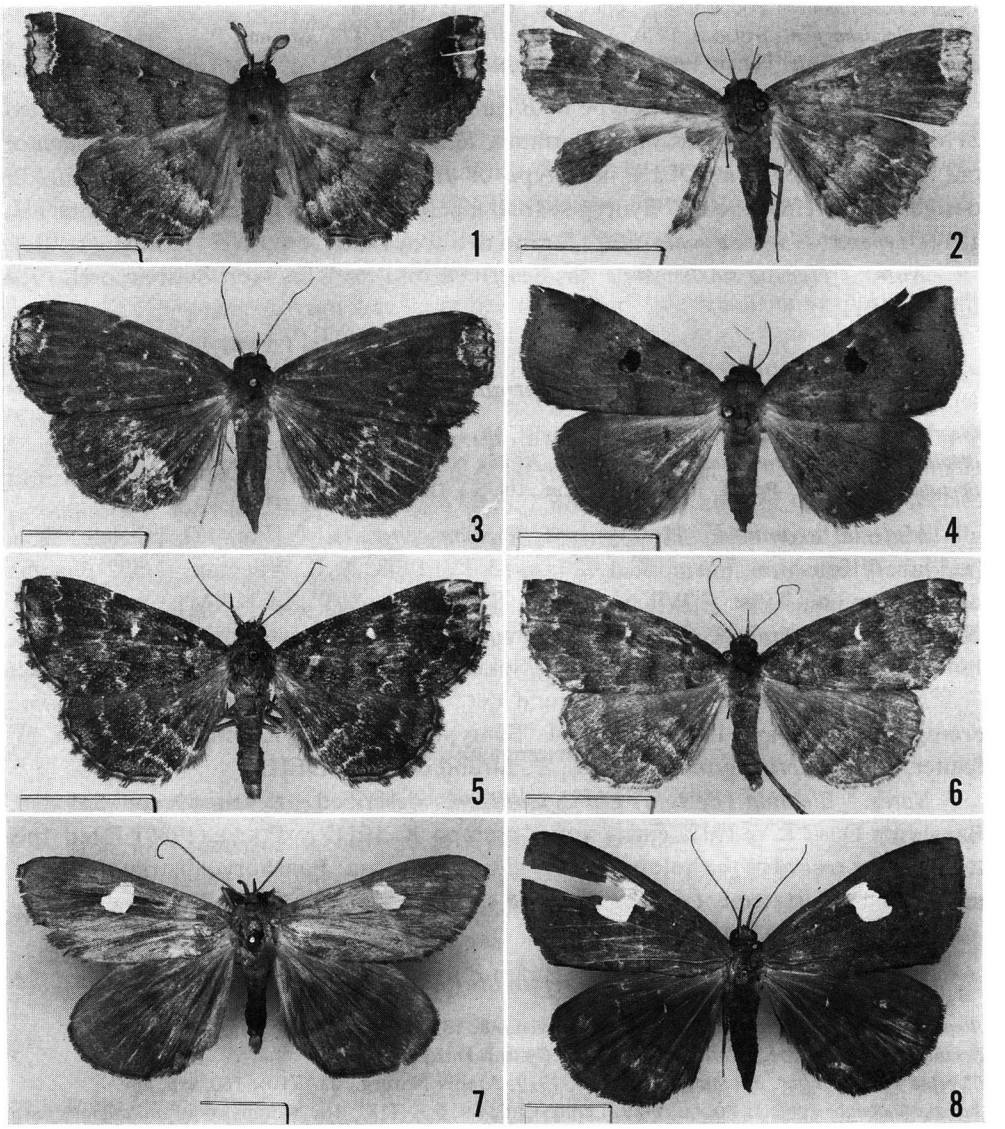
Material examined. Holotype of *Bleptina centralis*, ♂ (Fig. 17), labeled "Type [red label]/Kanshirei, Formosa, 1,000 ft., 15. IV. 1908, A. E. Wileman, ♂/527/*Bleptina centralis* sp. n., Type ♂/Wileman coll., B. M. 1929–216", in NHML; lectotype of *Bleptina grimsgaardi*, ♂ (Fig. 18), abdomen missing, designated by POOLE (1989) as holotype, labeled "Syntypus [red label]/Sokutsu, Banshoryo Distr., H. Sauter, 1912/7. V./*Bleptina grimsgaardi* m. ♂, Strand det.", in DEIE; paralectotype of *Bleptina grimsgaardi*, ♀ (Figs. 19, 44), labeled "Syntypus [red label]/Kosempo, Formosa, H. Sauter, 1911/*Bleptina grimsgaardi* m., ♀, Strand det.", in DEIE.

Notes. *Bleptina* (*Bertula*) *grimsgaardi* was described on "ein ♂ von Sokutsu, Banshoyo Dist. 7. V. 1912, ein ♀ von Kosempo X. 1911". POOLE (1989) listed this taxon with a record of the holotype as "[Taiwan] Formosa: Banshoryo district, Sokutsu, male", and this statement can be regarded as the designation of the lectotype.

Bertula hadenalis persimilis (WILEMAN), stat. nov.

Bleptina persimilis WILEMAN, 1915, Entomologist, **48**: 13.
Bertula persimilis: POOLE, 1989, Lepid. Cat., (N. S.), (118): 162.
Bleptina hadenalis var. *alikangialis* STRAND, 1919, Archiv Naturg., **83A** (10): 160, **syn. nov.**
Bertula hadenalis (part.): POOLE, 1989, Lepid. Cat., (N. S.), (118): 162, synonymy of *alikangialis* with *B. hadenalis*.

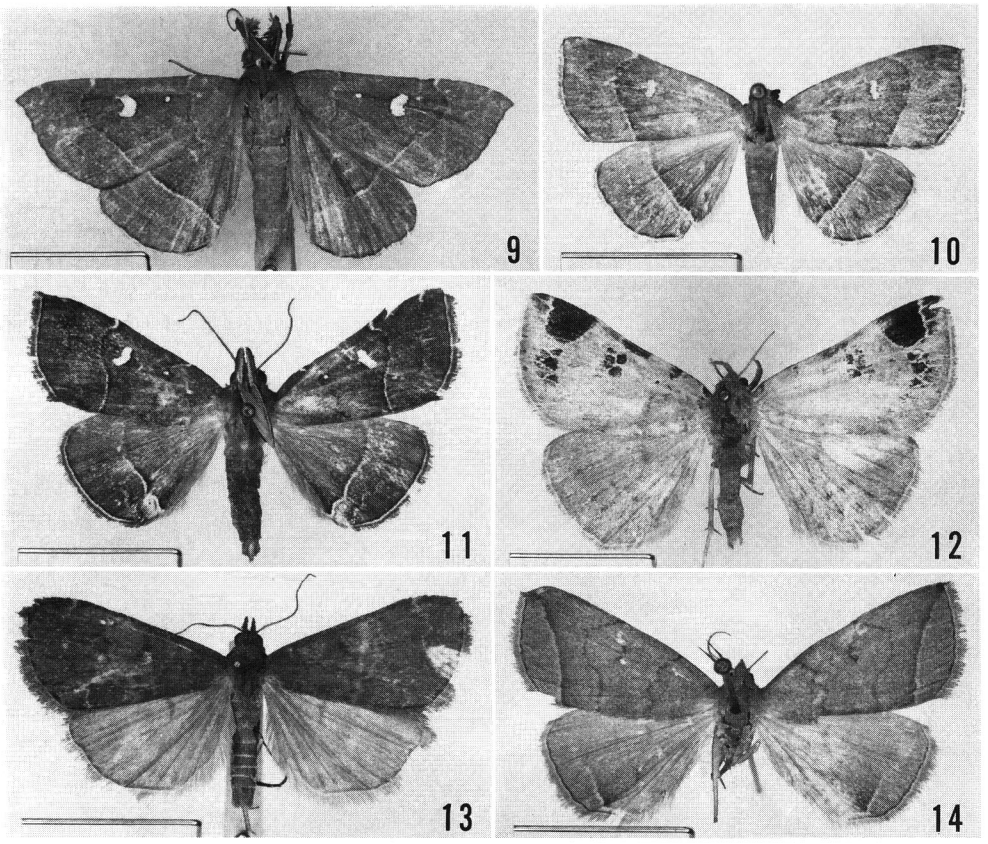
Material examined. Lectotype of *Herminia hadenalis* MOORE, 1867, ♂ (Fig. 20), designated herein, labeled "Darjeeling, Coll. Atkinson/*Herminia Hadenalis*", in MNHU; holotype of *Bleptina persimilis*, ♂ (Fig. 21), labeled "Type [red label]/Rantaizan, Formosa, 7,500 ft., 8. V. 1909, A. E. Wileman, ♂/1745F/*Bleptina persimilis* sp. n., Type ♂/ Wileman coll., B. M. 1929–216", in NHML; lectotype of *Bleptina hadenalis* var. *alikangialis*, ♀ (Figs. 22, 37), designated herein, labeled "Typus [red label]/Alikang, Formosa, H. Sauter, IX. 09/*Bleptina hadenalis* Mr. v. *alikangialis* m., Strand



Figs. 1–8. Imagines. —— 1. Lectotype of *Adrapsa quadrilinealis* WILEMAN. —— 2. "*Adrapsa simplex*", sensu STRAND. —— 3. "*Adrapsa geometroides*", sensu STRAND. —— 4. Holotype of *Mecodina karapinensis* STRAND. —— 5. Holotype of *Adrapsa rivulata* LEECH. —— 6. Lectotype of *Adrapsa bupalistis* STRAND. —— 7. Lectotype of *Edessena gentiusalis* WALKER. —— 8. Holotype of *Edessena gentiusalis* var. *formosensis* STRAND. Scale: ca. 10 mm.

det.", in DEIE; paralectotype of *Bleptina hadenalis* var. *alikangialis*, ♀ (Fig. 45), same data as the lectotype, in DEIE.

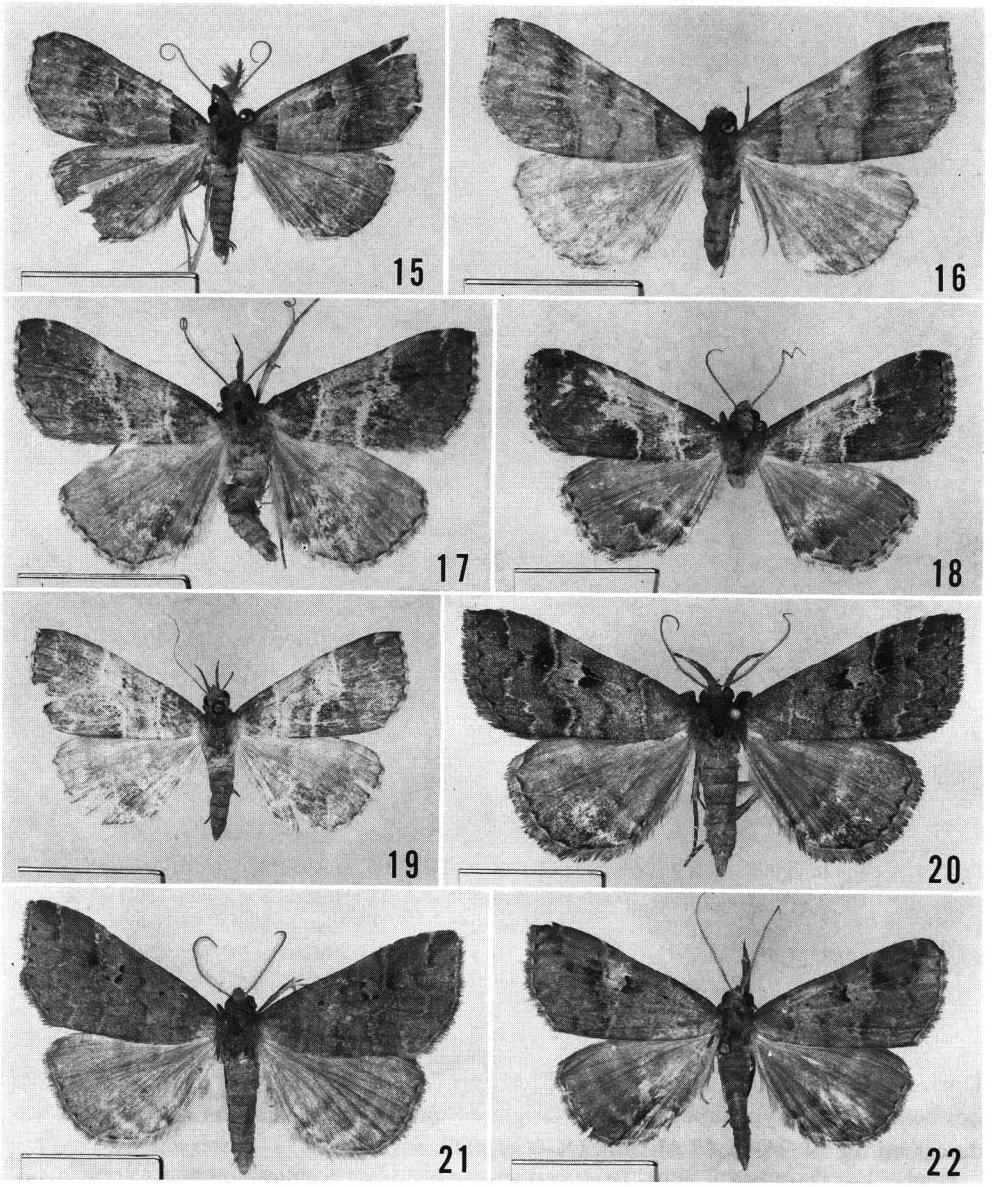
Notes. *Herminia hadenalis* was described by MOORE (1867, p. 85) on "Male(s).



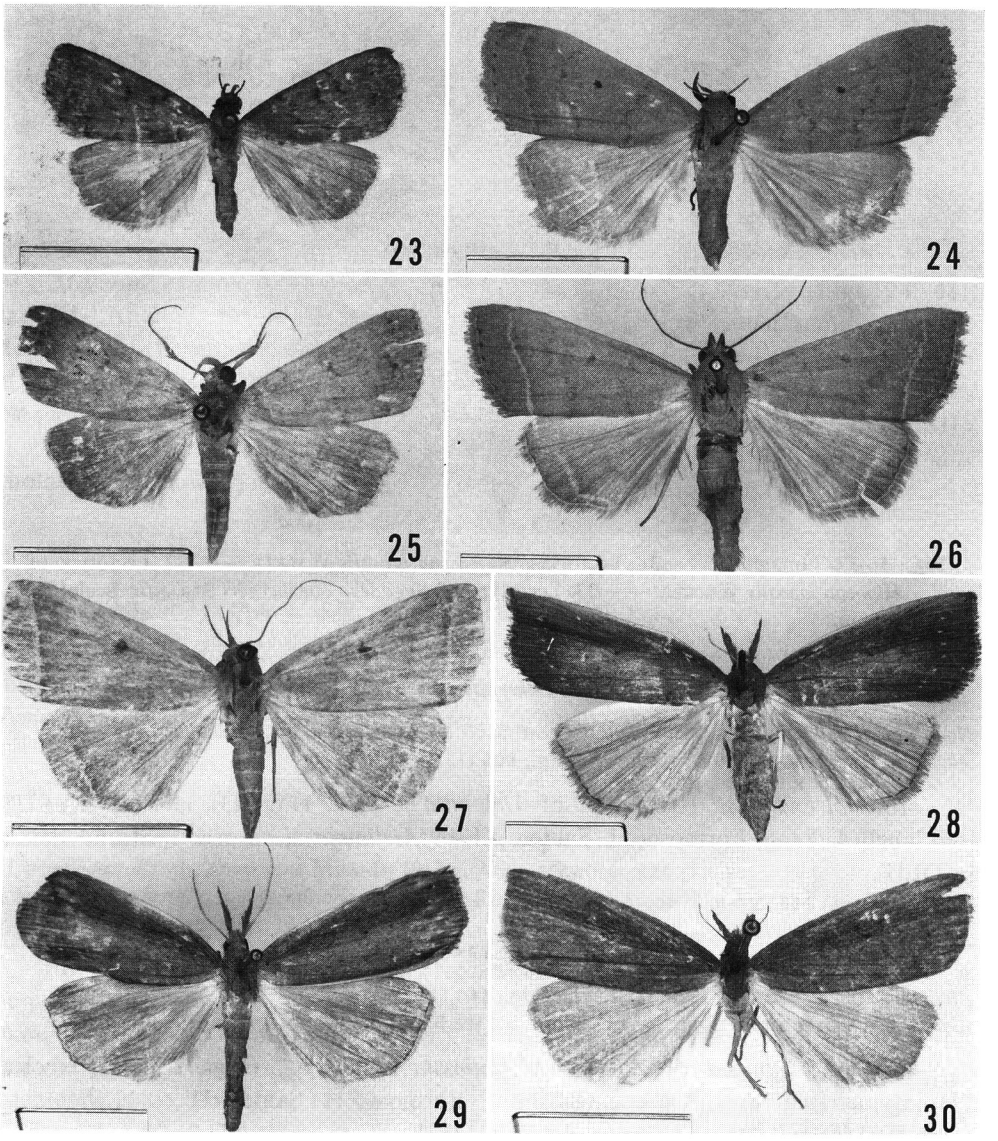
Figs. 9–14. Imagines. —— 9. Lectotype of *Cidariplura gladiata* BUTLER. —— 10. Holotype (?) of *Cidariplura gladiata* var. *gladiatella* STRAND. —— 11. Holotype of *Cidariplura gladiata* ab. ‡ *ochreimacula* STRAND. —— 12. Lectotype of *Bleptina satyrata* STRAND. —— 13. Lectotype of *Hydrillodes pseudomorosa* STRAND. —— 14. Holotype of *Zanclognatha subtriplex* STRAND. Scale: ca. 10 mm.

Darjeeling. In Coll. W. S. Atkinson; F. Moore". The lectotype of *H. hadenalis* does not bear the blue type label printed "Origin." *Bleptina hadenalis* var. *alikangialis* was described on "4 ♀♀ 1 ♂: Alikang IX–X. 1909".

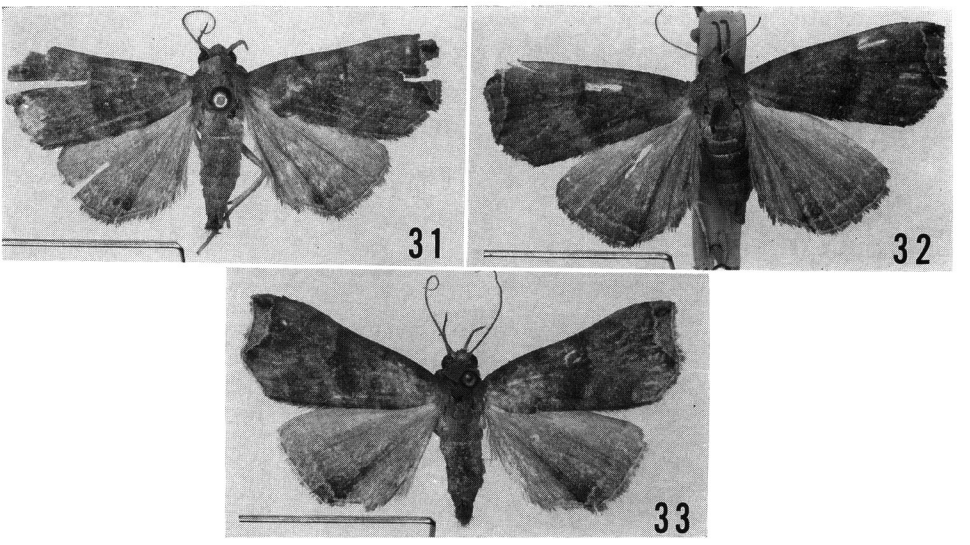
Bleptina persimilis is considered to be conspecific with *Herminia hadenalis* because of the similarity of the complicate conformation of everted vesica. The wing maculation of the Taiwanese population is slightly different from that of the nominotypical Himalayan one as follows: the postmedial line of forewing straightly down to dorsum, while it is strongly curved inwards and shaded with black in the nominotypical subspecies. The shape of apical portion of valva of ssp. *persimilis* (Fig. 37) is slightly different from that in ssp. *hadenalis* (Fig. 36).



Figs. 15–22. Imagines. —— 15. Holotype of *Bleptina kosemponica* STRAND. —— 16. Lectotype of *Hypena suisharyonis* STRAND. —— 17. Holotype of *Bleptina centralis* WILEMAN. —— 18. Lectotype of *Bleptina* (*Bertula*) *grimsgaardi* STRAND. —— 19. Paralectotype ♀ of *Bleptina* (*Bertula*) *grimsgaardi* STRAND. —— 20. Lectotype of *Herminia hadenalis* MOORE. —— 21. Holotype of *Bleptina persimilis* WILEMAN. —— 22. Lectotype of *Bleptina hadenalis* var. *alikangialis* STRAND. Scale: ca. 10 mm.



Figs. 23–30. Imagines. — 23. Holotype of *Alelimma zema* STRAND. — 24. Holotype of *Alelimma zanclognathalis* STRAND. — 25. Holotype of *Alelimma zemella* STRAND. — 26. Holotype of *Simplicia aperta* PROUT. — 27. Lectotype of *Nodaria formosana* STRAND. — 28. Lectotype of *Stenhypena costalis* WILEMAN et SOUTH. — 29. Syntype (?) of *Hypena adustalis* var. *formosana* STRAND. — 30. Syntype of *Stenhypena adustalis* var. *formosana* ab. ‡ *miniata* STRAND. Scale: ca. 10 mm.



Figs. 31–33. Imagines. —— 31. Lectotype of *Bocana biasalis* WALKER. —— 32. Lectotype of *Hipoepa lapsalis* WALKER. —— 33. Lectotype of *Nagadeba obenbergeri* STRAND. Scale: ca. 10 mm.

Nodaria externalis GUENÉE

Nodaria externalis GUENÉE, 1854, in BOISDUVAL & GUENÉE, Hist. nat. Ins. Lepid., **8**: 64.
Alelimma zema STRAND, 1920, Archiv Naturg., **84A** (12): 182, **syn. nov.**

Material examined. Holotype of *Alelimma zema*, ♀ (Fig. 23), labeled "TYPUS [red label]/Alikang, Formosa, H. Sauter, XI. 09/*Alelimma zema* m., ♀, Strand det.", in DEIE.

Nodaria zemella (STRAND), comb. nov.

Alelimma zemella STRAND, 1920, Archiv Naturg., **84A** (12): 182.
Alelimma zemsella [sic]: POOLE, 1989, Lepid. Cat., (N. S.), (118): 60, misspelling.

Material examined. Holotype of *Alelimma zemella*, ♂ (Figs. 25, 38), labeled "Holotypus [red label]/Kankau (Koshun), Formosa, H. Sauter, IV. 1912/*Alelimma zema* m. ? (*zemella* m.), ♂, Strand det.", in DEIE.

Simplicia formosana (STRAND), comb. nov.

Nodaria formosana STRAND, 1919, Archiv Naturg., **83A** (10): 153.

Material examined. Lectotype of *Nodaria formosana*, ♀ (Figs. 27, 47), designated herein, labeled "Holotype [red label]/Kankau (Koshun), Formosa, H. Sauter, VIII. 1912/*Nodaria formosana* m. ♀, Strand det.", in DEIE.

Notes. *Simplicia formosana* was described on "je zwei ♀♀ von Kosempo X. 1911 und Kankau-Koshun IV. u VIII. 1912".

Simplicia zanclognathalis (STRAND)

Alelimma zanclognathalis STRAND, 1920, Archiv Naturg., **84A** (12): 181.
Simplicia aperta PROUT, 1929, Bull. Hill Mus., **3**: 21; POOLE, 1989, Lepid. Cat., (N. S.), (118): 911, synonymy.
Simplicia zanclognathalis: POOLE, 1989, Lepid. Cat., (N. S.), (118): 913.

Material examined. Holotype of *Alelimma zanclognathalis*, ♀ (Figs. 24, 48), labeled "Alikang, Formosa, Sauter, IX. 09/*Alelimma zanclognathalis* m. ♀, Strand det.", in DEIE; holotype of *Simplicia aperta*, ♂ (Fig. 27), labeled "Type [red label]/Khasia Hills, Assam, Nissary/*Simplicia aperta* A. E. Prout, ♂-holotype (1929)/Joicey Bequest, Brit. Mus., 1934–1201, Noctuidae/Brit. Mus. slide No. 14499 ♂", in NHML.

Notes. Further study is needed for clarifying the synonymy of *S. zanclognathalis* (holotype ♀, Taiwan) and *S. aperta* (holotype ♂, Assam).

Zanclognatha subtriplex STRAND

Zanclognatha subtriplex Strand, 1919, Archiv Naturg., **83A** (10): 152.

Material examined. Holotype of *Zanclognatha subtriplex*, ♀ (Fig. 14), abdomen missing, labeled "Holotypus [red label]/Kosempo, Formosa, H. Sauter, X. 1911/*Zanclognatha subtriplex* m., ♀, Strand det.", in DEIE.

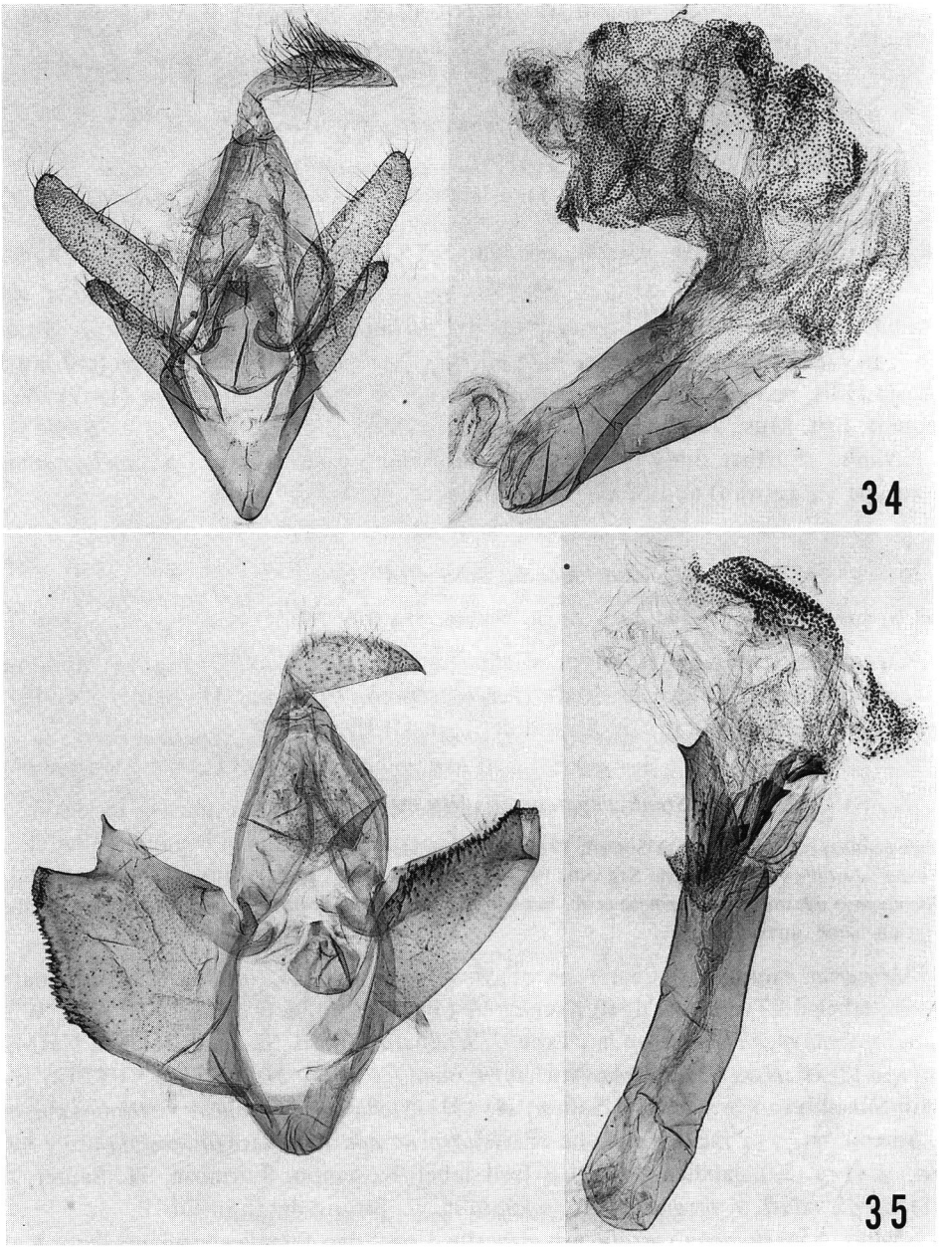
Stenhypena costalis WILEMAN et SOUTH

Stenhypena costalis WILEMAN et SOUTH, 1916, Entomologist, **49**: 268.
Hypena adustalis var. *formosana* STRAND, 1917 a, Archiv Naturg., **82A** (1): 145.
‡ *Stenhypena adustalis* var. *formosana* ab. *miniata* STRAND, 1919, Archiv Naturg., **83A** (10): 156, aberrant name, unavailable.

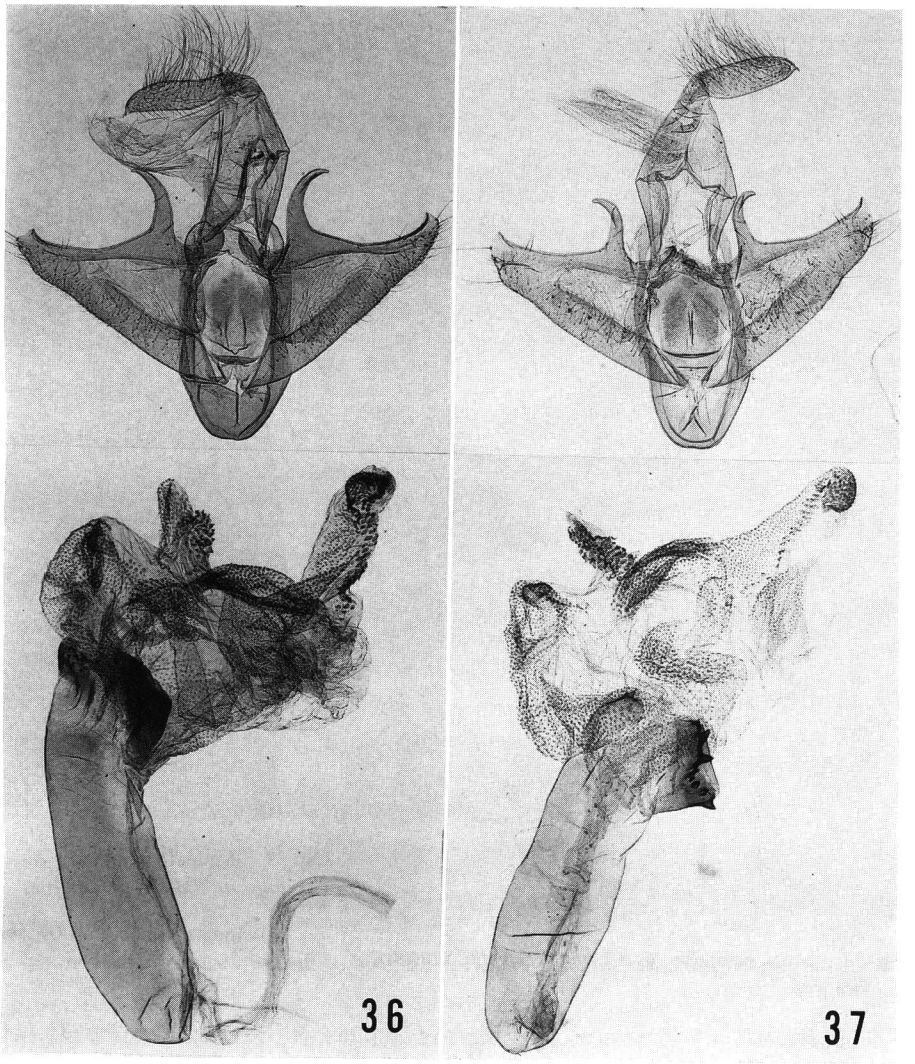
Material examined. Lectotype of *Stenhypena costalis*, ♀ (Fig. 28), designated herein, labeled "Type [red label]/Kanshirei, Formosa, 1,000 ft., 3. 3. 1908, A. E. Wileman, ♀/*Stenhypena costalis* sp. n., Type ♀/Wileman coll., B. M. 1929–261", in NHML; syntype [?] of *Hypena adustaris* var. *formosana*, ♀ (Fig. 29), labeled "TYPUS [red label]/Suisharyo, Formosa, H. Sauter, II. 1911/*Stenhyp.* [sic] *adust.* v. *formosana* m., ♂, Strand det.", in DEIE; syntype of *Stenhypena adustalis* var. *formosana* ab. ‡ *miniata*, ♀ (Fig. 30), labeled "TYPUS [red label]/Kosempo, Formosa, H. Sauter, X. 1911/*Stenh. adust.* v. *formosana* ab. *miniata* m. ♀, Strand det.", in DEIE.

Notes. *Stenhypena costalis* was described on "two female specimens from Kanshirei, one obtained in March, 1908, the other in April of the same year".

Hypena adustalis var. *formosana* was described from "ein ♀ von Kankau (Koshun) V. 1912 und drei von Kanshizei [sic] V–VI. 1909". The collecting data of the syntype with the red label "TYPUS" are different from those in the original description.



Figs. 34–35. Male genitalia. —— 34. Lectotype of *Bleptina satyrata* STRAND. —— 35. Holotype of *Bleptina kosemponica* STRAND.



Figs. 36–37. Male genitalia. —— 36. *Bertula hadenalis hadenalis* (MOORE), India, Sikkim, Yoksum 2,700 m, genit. slide no. NSMT2222 ♂. —— 37. Lectotype of *Bleptina hadenalis* var. *alikangialis* STRAND.

Although POOLE (1989) treated *Stenhypena adustalis formosana* as a secondary homonym of *Hypena adustalis formosana*, STRAND (1919) did not describe a new variety, *S. adustalis* var. *formosana* but a new aberrant form, *S. adustalis* var. *formosana* ab. ‡ *miniata*.

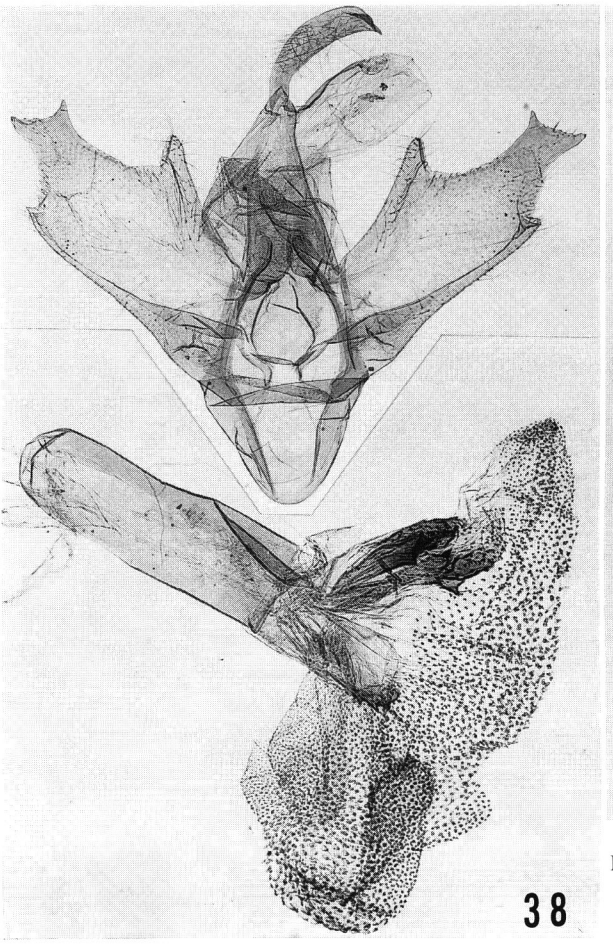


Fig. 38. Male genitalia of *Alelimma zemella* STRAND, holotype.

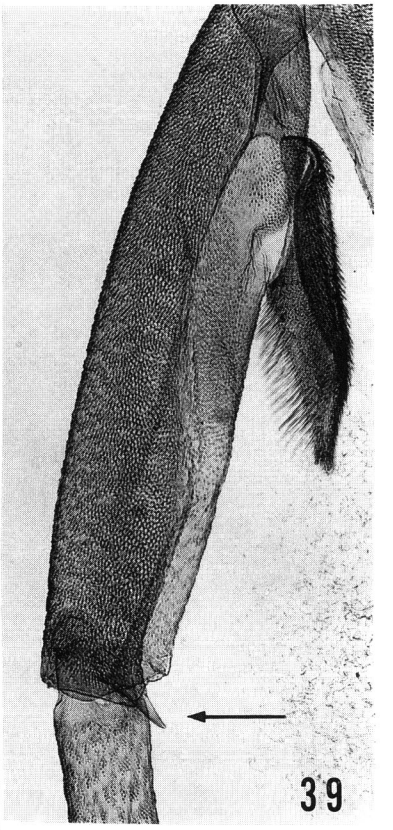
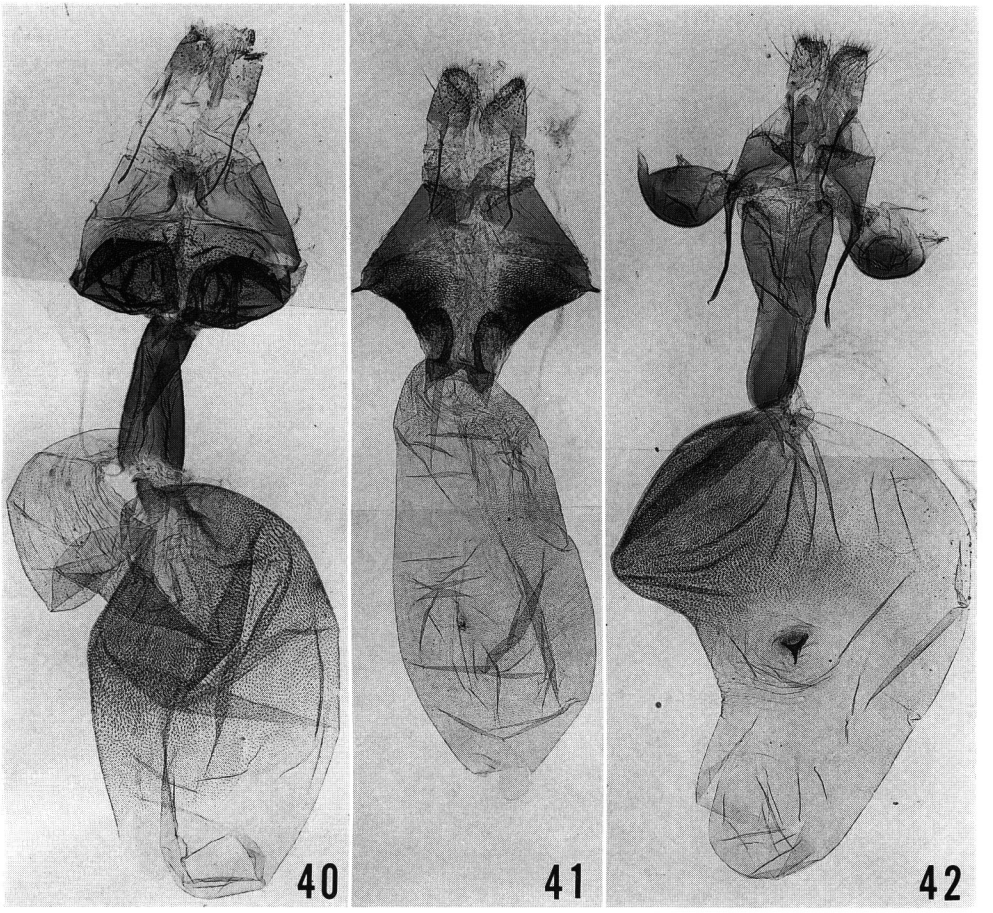


Fig. 39. Male foretibia of *Bleptina satyrata* STRAND, lectotype.

Hipoepa biasalis (WALKER)

Bocana biasalis WALKER, [1859], List Specimens lepid. Ins. Coll. Br. Mus., **16**: 181.
Hipoepa lapsalis WALKER, [1859], List Specimens lepid. Ins. Coll. Br. Mus., **16**: 188.
Nagadeba obenbergeri STRAND, 1920, Archiv Naturg., **84A** (12): 164, **syn. nov.**

Material examined. Lectotype of *Bocana biasalis*, ♂ (Fig. 31), designated herein, labeled "This is the Bornean representative of *Hipoepa lapsalis* Wk./*Bocana Biasalis*, Type Walk/SAR/TYPE LEP: No. 1793, *Bocana biasalis* Walker, HOPE DEPT. OXFORD", in UMOU; lectotype of *Hipoepa lapsalis*, ♀ (Fig. 32), designated herein, labeled "Type [blue label]/Ceylon, 76.62/*Hipoepa lapsalis*, Type Walk./*Hipoepa lapsalis*", in NHML; lectotype of *Nagadeba obenbergeri*, ♂ (Fig. 37), designated herein,



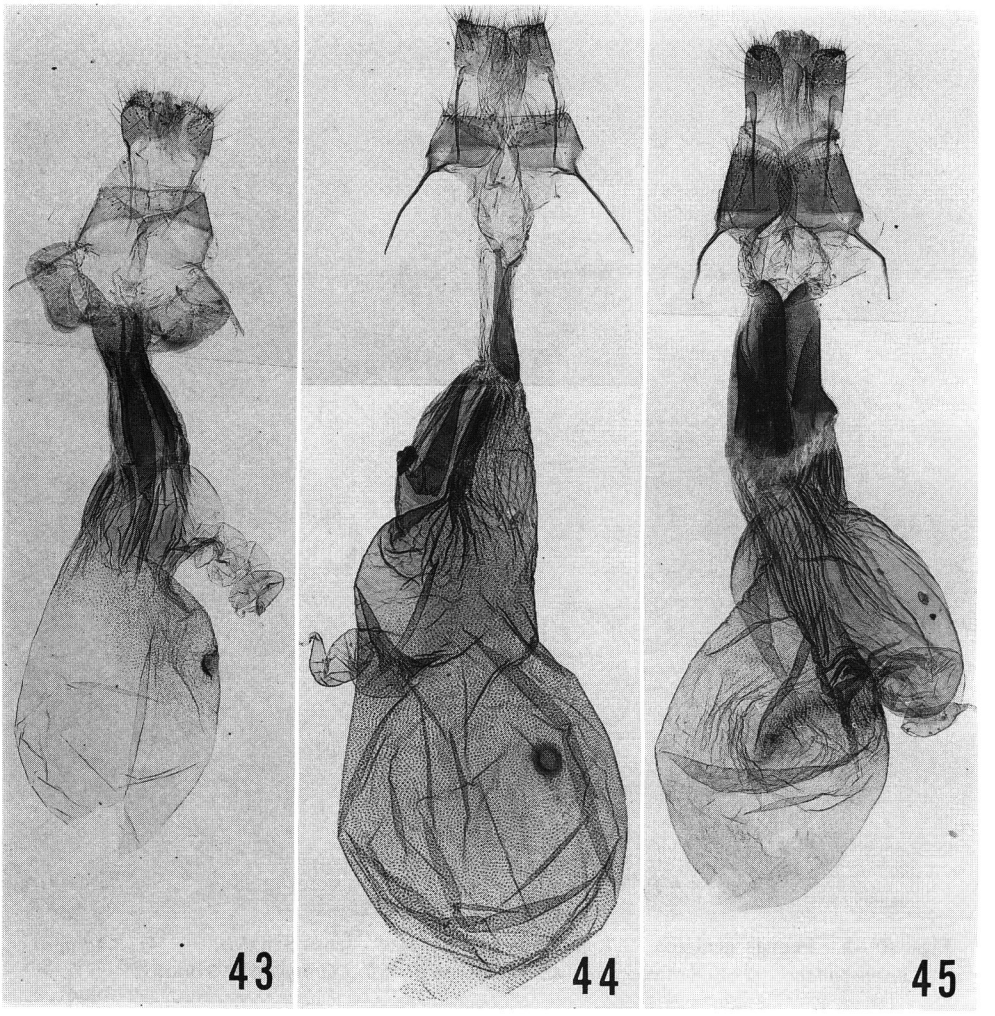
Figs. 40–42. Female genitalia. —— 40. "*Adrapsa simplex*", sensu STRAND. —— 41. "*Adrapsa geometroides*", sensu STRAND. —— 42. Lectotype of *Adrapsa bupalistis* STRAND.

labeled "Syntypus [red label]/Kosempo, Formosa, H. Sauter, X. 1911/*Nagadeba obenbergeri* m., ♂, Strand det.", in DEIE.

Notes. *Bocana biasalis* was described on "male(s), Sarawak, Borneo, in Mr. SAUNDER's collection". *Hipoepa lapsalis* was described on "Male(s), a. Ceylon, presented by R. TEMPLETON, Esq.". Though POOLE (1989) recorded the presence of the holotype of *H. lapsalis*, WALKER ([1859]) described the monotypic genus *Hipoepa* on the "male and female", therefore, the type specimen(s) of *H. lapsalis* should be considered syntype(s).

Hipoepa fractalis (GUENÉE)

Herminia fractalis GUENÉE, 1854, in BOISDUVAL & GUENÉE, Hist. nat. Ins. Lepid., **8**: 60; OWADA,



Figs. 43–45. Female genitalia. —— 43. Lectotype of *Hypena suisharyonis* STRAND. —— 44. Paralectotype of *Bleptina* (*Bertula*) *grimsgaardi* STRAND. —— 45. Paralectotype of *Bleptina hadenalis* var. *alikangialis* STRAND.

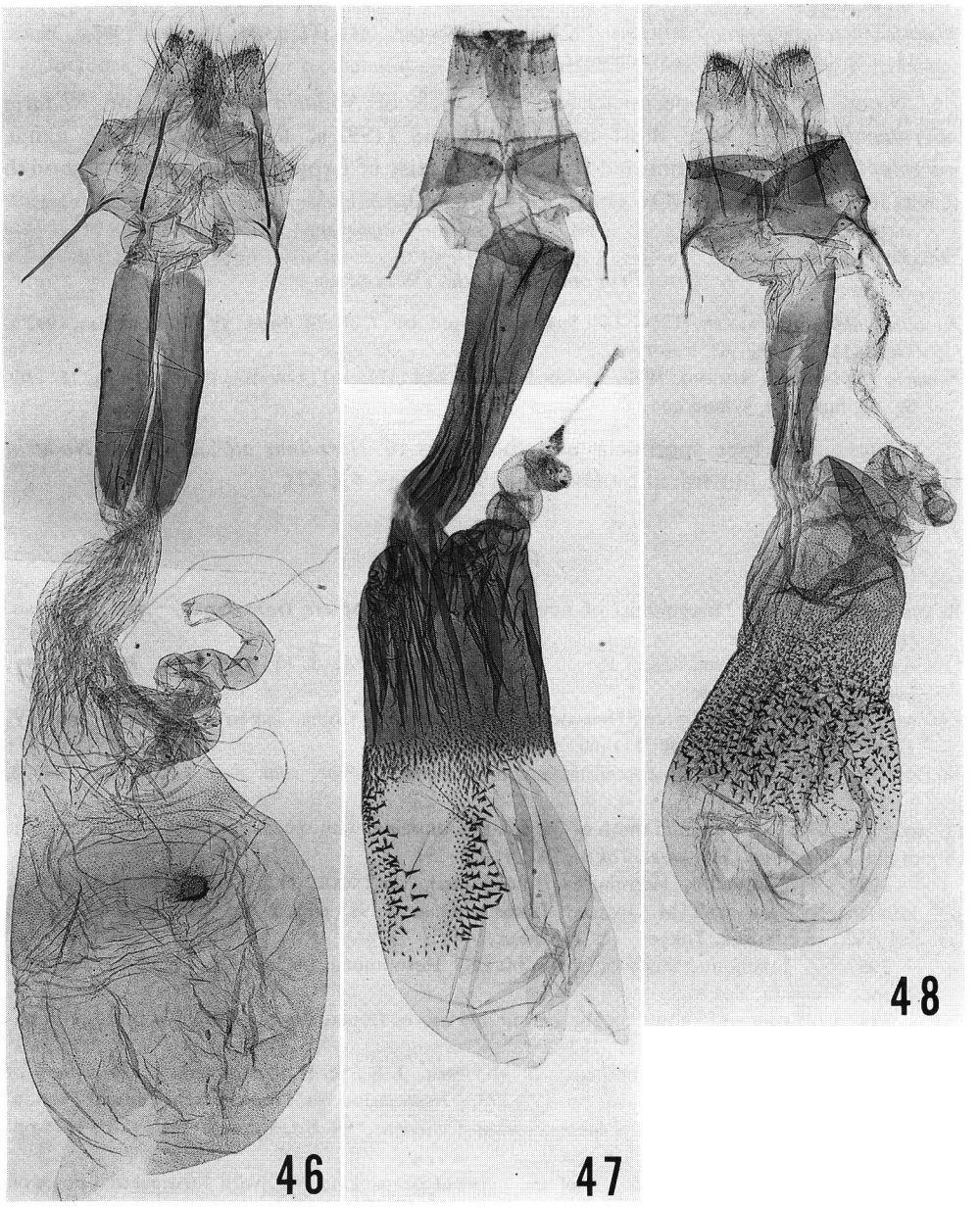
1992 a, Tinea, **13**: 191, fig. 52, holotype.

Zanclognatha vermiculata f. *feminina* STRAND, 1919, Archiv Naturg., **83A** (10): 152; OWADA, 1992 a, Tinea, **13**: 191, fig. 55, holotype, synonymy.

Notes. The type specimens and the labels of *Herminia fractalis* and *Zanclognatha vermiculata* f. *feminina* were illustrated by Owada (1992 a, figs. 52, 55).

Sinarella nigrisigna (LEECH)

Nodaria nigrisigna LEECH, 1900, Trans. ent. Soc. Lond., **1900**: 640; OWADA, 1992 a, Tinea, **13**: 191, fig.



Figs. 46–48. Female genitalia. —— 46. Paralectotype of *Bleptina satyrata* STRAND. —— 47. Lectotype of *Nodaria formosana* STRAND. —— 48. Holotype of *Alelimma zanclognathalis* STRAND.

58, lectotype.

Nodaria microlopidopteronis STRAND, 1920, Archiv Naturg., **84A** (12): 160; OWADA, 1992 a, Tinea, **13**: 191, fig. 59, holotype, synonymy.

Notes. The type specimens and the labels of *Nodaria nigrisigna* and *Nodaria microlepidopteronis* were illustrated by OWADA (1992 a, figs. 58–59). The name, *microlepidopteronis*, was omitted from the checklist of Lepidoptera of Taiwan, though it was listed in the index (OWADA, 1992 b, pp. 173, 231).

Progonia oileusalis (WALKER)

Herminia oileusalis WALKER, [1859], List Specimens lepid. Ins. Coll. Br. Mus., **16**: 116; OWADA, 1992 a, Tinea, **13**: 200, fig. 63, lectotype.

Nodaria epiplemoides STRAND, 1920, Archiv Naturg., **84A** (12): 161; OWADA, 1992 a, Tinea, **13**: 200, fig. 67, holotype, synonymy.

Notes. The type specimens and the labels of *Herminia oileusalis* and *Nodaria epiplemoides* were illustrated by OWADA (1992 a, figs. 63, 67).

References

BUTLER, A. G., 1879. Descriptions of new species of Lepidoptera from Japan. *Ann. Mag. nat. Hist.*, (5), **4**: 437–457.

GUENÉE, M. A., 1854. Deltoids et Pyralites. *In* BOISDUVAL, M., & M. A. GUENÉE, *Hist. nat. Ins., Lepid.*, **8**: 1–448, 10 pls.

LEECH, J. H., 1900. Lepidoptera Heterocera from northern China, Japan and Corea. Part IV. *Trans. ent. Soc. Lend.*, **1900**: 511–663.

MOORE, F., 1867. On the lepidopterous insects of Bengal. *Proc. zool. Soc. Lond.*, **1867**: 44–98, 2 pls.

OWADA, M., 1978. The noctuid moth of the genus *Trotosema*, with special reference to its male secnt organ. *Bull. natn. Sci. Mus., Tokyo*, (A), **4**: 281–291.

——— 1982. The subfamily Herminiinae (Noctuidae). *In* INOUE, H., S. SUGI, H. KUROKO, S. MORIUTI, A. KAWABE & [M. OWADA], *Moths of Japan*, **1**: 913–935, **2**: 405–408, pls. 224–226, 356, 381–392. Kodansha, Tokyo. (In Japanese.)

——— 1987. A Taxonomic Study on the Subfamily Herminiinae of Japan. ii+208 pp. National Science Museum, Tokyo.

——— 1992 a. Synonymic notes on the herminiine moths (Noctuidae) of Japan, with descriptions of three new species. *Tinea*, **13**: 183–203.

——— 1992 b. Noctuidae, Herminiinae. *In* HEPPNER, J. B., & H. INOUE (eds.), *Lepidoptera of Taiwan*, Vol. 1, Part 2: Checklist, pp. 172–173. Association for Tropical Lepidoptera, Florida.

POOLE, R. W., 1989. Noctuidae. *Lepidopterorum Catalogus*, (N. S.), Fascicle 118. xii+1314 pp. E. J. Brill, Leiden.

PROUT, A. E., 1929. Some new forms of the hypenid genus *Simplicia*, with forward and notes on *Simplicia* (*Culicula*) *bimarginata*. *Bull. Hill Mus.*, **3**: 13–22.

STRAND, E., 1917 a. H. SAUTER's Formosa-Ausbeute: Epiplemidae u. teilweise Noctuidae, Lymantriidae, Drepanidae, Thyrididae u. Aegeriidae. *Archiv Naturg.*, **82A** (1): 137–152.

——— 1917 b. H. SAUTER's Formosa-Ausbeute: Lithosiinae, Nolinae, Noctuidae (p. p.), Ratardidae, Chalcosiinae, sowie Nachträge zu den Familien Drepanidae, Limacodidae, Gelechiidae, Oecophoridae und Heliodinidae. *Ibid.*, **82A** (3): 111–152.

STRAND, E., 1919. H. SAUTER's Formosa-Ausbeute: Noctuidae I. *Archiv Naturg.*, **83A** (10): 129–162.
——— 1920. H. SAUTER's Formosa-Ausbeute: Noctuidae II nebst Nachträgen zu den Familien Arctiidae, Lymantriidae, Notodontidae, Geometridae, Thyrididae, Pyralididae, Tortricidae, Gelechiidae und Oecophoridae. *Ibid.*, **84A** (12): 102–197.
WALKER, F., [1858] 1857. *List of the Specimens of lepidopterous Insects in the Collection of the British Museum*, **13**: 983–1237.
——— [1859] 1858. *Ibid.*, **16**: 1–253.
WILEMAN, A. E., 1914. New species of Noctuidae from Formosa. *Entomologist*, **47**: 219–223.
——— 1915. New species of Heterocera from Formosa. *Ibid.*, **48**: 12–19.
——— & R. SOUTH, 1916. New species of Lepidoptera from Formosa. *Entomologist*, **49**: 266–268.