

**Revision of the genus *Lophoterges* Hampson, 1906 (s. l.)  
(Lepidoptera: Noctuidae, Cuculliinae). Part I**

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**Abstract** – The first part of the revision of *Lophoterges* HAMPSON, 1905 (s. l.) contains the characterization of the supraspecific groups treated formerly as *Lophoterges*. Two new genera, *Atakterges* gen. n. and *Speidelia* gen. n. and two new species, *Speidelia apocrypha* sp. n. (China, Thailand) and *S. formosa* sp. n. (Taiwan) are described. "*Dichonia*" *areolona* is synonymized with *Atakterges fidia*. With 21 figures.

INTRODUCTION

*Lophoterges* HAMPSON, 1906 (s. str.) is a well-defined, easily recognizable Palaearctic genus, which comprises about ten species; the majority of the Asian taxa is undescribed. It can be separated into four evolutionary lineages; these lineages represent distinct, yet undescribed subgenera. Species of the two more derived groups are very similar externally and can hardly be confused with taxa of any other genera except some species of *Lithophasia* STAUDINGER, 1892 and *Brachygalea* HAMPSON, 1906 (e.g. *L. venosula* STAUDINGER, 1892, *L. cyaxares* WILTSHIRE, 1957 and *B. leptographa* RONKAY et GYULAI, 1997) being externally similar to the members of *Lophoterges*. The genus, together with the genera *Lithophasia*, *Bryomima* STAUDINGER, 1900 and *Brachygalea*, represents a common phyletic line, the outgroup of this lineage is the *Epimecia*–*Rhabinopteryx* line. The diagnosis and the characterization of the external and genital features are given by RONKAY & RONKAY (1995).

The eastern Palaearctic region harbours, however, two species, described or mentioned formerly as *Lophoterges*, *Lophoterges fidia* DRAUDT, 1950 and '*Lophoterges*' *taiwana* (WILEMAN, 1915) ("?*Cucullia*", "*Calophasia*") (see CHANG 1991, POOLE 1989, SUGI *et al.* 1992, YOSHIMOTO 1993, etc.) although they differ

strongly from the true *Lophoterges* species in several external and genital features. The detailed study of these taxa revealed the facts that 1) these two species belong to two distinct genera, which are not only rather remote from the *Lophoterges*-line but even the correct tribal (subfamilial sensu POOLE 1995) placement of whose is problematic; 2) '*L. taiwana*' represents a group of closely related taxa, two of them are yet undescribed. These two genera, *Atakterges* gen. n. and *Speidelia* gen. n., share numerous typical features of Oncocnemidini and Psaphidini, displaying also characteristic autapomorphies. The features being common with both tribes are the 1) long, tubular vesica, covered densely with cornuti, 2) collar producing into acute hood (this character is more typical to some groups of Oncocnemidini but it is present also in some genera which are associated with Psaphidini, e.g. *Pleromella* DYAR, 1921; *Provia* BARNES et MCDUNNOUGH, 1910). The characters shared with Psaphidini are 1) irregular spining of fore tarsi, although spines not very strong; 2) early spring (and late autumnal) flight period of adults. The characters shared with Oncocnemidini are 1) female genitalia with strongly bilobate bursa copulatrix; 2) ductus seminalis arising from apical end of cervix (appendix) bursae; 3) male genitalia with more specialized clasping apparatus; 4) presence of large frontal prominence in one genus; 5) male antenna filiform, rather thick, only slightly ciliate; 6) proboscis well developed.

The knowledge of larval structures may help to resolve the relationships of the two genera, the early stages of the species, however, are unfortunately unknown. Thus, only the information based generally on the adult morphology can be summarized. The genera *Atakterges* and *Speidelia* are considered as primitive Oncocnemidini species, representing ancient stages in the *Oncocnemis*–*Sympistis* evolutionary line.

The diagnoses and descriptions of the new genera and species are given in the systematic part of the paper.

*Abbreviations* – AKM – Alexander Koenig Museum, Bonn; BMNH – The Natural History Museum (formerly British Museum, Natural History), London; HH – HERMANN HACKER; HNHM – Hungarian Natural History Museum, Budapest; NMNS – National Museum of Natural Sciences, Taichung, Taiwan; RL – RONKAY LÁSZLÓ; SS – SHIGERO SUGI; TFRI – Taiwan Forestry Research Institute, Taipei; ZMFK – Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn (= AKM).

## SYSTEMATIC PART

**Atakterges** gen. n.

Figs (1–4, 13, 14)

*Type species: Lophoterges fidia* DRAUDT, 1950, *Mitt. münch. ent. Ges.* 40 : 57. Type locality: China, North Yunnan, A-tun-tse.

*Species included:*– *fidia* (DRAUDT, 1950)(= *areolona* (DRAUDT, 1950) **syn. n.**)

*Diagnosis* – *Atakterges* has the closest relationship with *Speidelia* gen. n. and *Xylocampa* GUENÉE, 1837, representing presumably the sister-group of the *Speidelia*–*Xylocampa* line. These three genera display easily recognizable similarities in the external appearance (stature of the body with hood-like collar, shape and general pattern of wings) and in the genitalia of both sexes. The characteristic autapomorphies of the genitalia of *Atakterges* are the helicoid coiling of the vesica with two full coils, the lack of the terminal cornutus (male), the similarly helicoid structure of the cervix bursae with heavily sclerotized plates and crests inside (female), these complementary parts of the copulatory organs display a very evident example for the “lock and key” model. In addition, the whole male copulatory organ of *Atakterges* is significantly larger than in the two related genera, the valva is stronger, broader, distally more dilated, the pollex-like extension is shorter, less prominent, the harpe is longer, narrower, more stick-like. The carina is unspecialized, without large, heavily sclerotized, dentate or serrate, saw- or crest-like plates. In the female genitalia the ductus bursae is membranous with weak medial sclerotization, the cervix bursae is considerably larger than the corpus bursae. The female genitalia of the *Speidelia* species have also bilobate bursa but it is most often more or less horseshoe-shaped, the cervix is much smaller than the corpus bursae, broadly tubular-sacculiform or slightly twisted, its walls are entirely membranous, except the sclerotized terminal “cap” around the ductus seminalis. The sclerotization of the ductus bursae is significantly stronger in *Speidelia*, most often the whole ductus is sclerotized, flattened. The bilobate bursa copulatrix of *Xylocampa* has almost equally large cervix and corpus bursae, the former is sacculiform, its basal part scobinate and wrinkled, the corpus bursae is membranous with long, narrow signum-stripe at middle.

*Description* – medium-sized species, wingspan 33–35 mm, length of forewing 15–16 mm. Head strong, frons smooth, convex, covered with long hairs, eyes large, globular, eye-lashes well-developed. Palpi slender, upturned, first two joints with long hairs ventrally, third (apical) joint slender,



relatively long, porrect, covered with smooth hair-scales; proboscis fully developed. Antenna of male shortly, weakly ciliate, that of female filiform; dorsal surface covered with scales, basal tuft double. Thorax robust, collar producing acute hood, tegulae wide, pro- and metathoracic tufts large. Abdomen rather slender, cylindrical, first abdominal segments with large dorsal tufts; abdominal coremata present but weak. Forewing relatively broad, with apex pointed, outer margin evenly arcuate. Ground colour dark grey, mixed with brown and whitish scales, crosslines obsolescent, orbicular and reniform stigmata present, stigmata and subcellular patch forming characteristic, large, whitish grey marking, defined with blackish line. Hindwing also broad, more or less patternless whitish grey with variably strong dark grey-brown irroration and dark marginal suffusion.



**Figs 1–6.** 1 = *Atakterges fidia* (DRAUDT), lectotype female, 2 = *A. fidia* (DRAUDT), paralectotype male, 3 = *A. fidia* (DRAUDT), male, China, A-tun-tse, 4 = *A. fidia* (DRAUDT) (holotype of *A. areolona* (DRAUDT)), 5 = *Speidelia apocrypha* sp. n., holotype female, 6 = *S. apocrypha* sp. n., paratype female

Male genitalia (Fig. 13): uncus medium-long, rather thick, basally curved, apically hooked. Tegumen narrow, high, penicular lobes narrow, weak, fultura inferior relatively large, shield-like, with deep apical (dorsal) incision; vinculum long, strong, V-shaped. Valva large, elongate, distal third slightly dilated, costa heavily sclerotized. Cucullus relatively short, triangular with finely pointed apex, corona long, rather weak, dorsal surface of cucullus finely setose. Saccus long, narrow, sclerotized, clavus reduced, pulvillus (editum) well-developed, bar-like, setose. Harpe broad-based, strong, digitiform, distally slightly dilated, apical third finely setose. Pollex-like costal extension short, broadly triangular, with apex acute. Aedeagus long, cylindrical, slightly arcuate, ca-



**Figs 7–12.** 7 = *Speidelia taiwana taiwana* (WILEMAN), male, Taiwan, 8 = *S. taiwana taiwana* (WILEMAN), female, Taiwan, 9 = *S. taiwana semialba* (YOSHIMOTO), male, Nepal, 10 = *S. formosa* sp. n., holotype male, 11. *S. formosa* sp. n., paratype male, Taiwan, 12 = *S. formosa* sp. n., paratype female, Taiwan

rina with weak, short dorso-lateral bar. Vesica long, broadly tubular, main part helicoid, coiled ventrally with two full turns. Basal part with large, ellipsoidal, strongly scobinate diverticulum, inner curve of basal third with numerous fine denticles. Medial and distal parts slightly broadened, large areas covered with variably long, fine, pin-like cornuti, their size increasing towards terminal part; terminal cornutus absent.

Female genitalia (Fig. 14): ovipositor relatively short, weakly sclerotized, papillae anales conical, densely setose, gonapophyses long, slender. Ostium bursae sclerotized, rather narrow, elongate, cup-shaped, dorsal plate broader, weaker, ventral plate narrower, stronger, with fine caudal incision at middle. Ductus bursae long, tubular, flattened, lateral margins slightly sclerotized at posterior end, both surfaces with weak medial sclerotization. Cervix bursae long, tubular, helicoid with two coils, distal part slightly dilated. Proximal part with large, flattened, sclerotized diverticulum at base and with strongly sclerotized ribs and crests, running from junction to ductus bursae to middle of first coiling. Medial and distal parts membranous with fine wrinkles, distal third recurved, ductus seminalis arising from apical end of cervix bursae, projected towards to axis of coiling. Corpus bursae small, elliptical-ovoid, weakly membranous.

*Atakterges fidia* (DRAUDT, 1950)  
(Figs 1–4, 13, 14)

*Lophoterges fidia* DRAUDT, 1950 *Mitt. münch. ent. Ges.* 40: 57.

*Dichonia areolona* DRAUDT, 1950: 64, **syn. n.**

*Type material examined* – “*fidia*”: syntype female, “A-tun-tse (Nord Yunnan) Talsohle (ca. 3500 m) 24.6.1936 H. Höne”, “Holotype (underlined), *Lophoterges fidia* ♀ Draudt.” (red label), “*Lophoterges fidia* ♀ Draudt.” (whitish label), “Bonn”. Slide No. RL2804 (ZFMK-Nr. 950), deposited in coll. AKM Bonn. This female syntype is designated here as lectotype. Two males, from the same locality, very probably from the type series but without type labels; these specimens are considered here as paralectotypes, one of them is illustrated by DRAUDT (1950, Plate IV, fig. 11). Slide Nos RL3325 (ZFMK-Nr. 1068), RL3324 (ZFMK-Nr. 1069).

“*areolona*”: holotype male, “A-tun-tse (Nord Yunnan), Mittlere Höhe (ca. 4000 m), 19.6.1936, H. Höne”, “Holotype (underlined) *Dichonia areolona* Draudt” (yellow-reddish label), slide No. RL3615 male, “Holotypus *Atakterges areolona* Draudt, det. L. Ronkay” (coll. AKM Bonn). The allotype of *areolona* (from China, Prov. Hunan) is not conspecific with the male holotype but represents the female of a distinct taxon described below as *Speidelia apocrypha* gen. et sp. n.

*Diagnosis* – *A. fidia* resembles externally mostly to the species of *Speidelia* and *Xylocampa* by its strong, robust body, the shape and size of the hood of the collar and the colouration and pattern of the forewing, respectively. *A. fidia* differs from *X. areola* (ESPER, 1789) and *X. mustapha* (OBERTHÜR, 1910) in the stature of the body by its more elongate, more acute hood of collar, shorter, more slender abdomen and broader, more acute forewing and in some details of the forewing pattern. *A. fidia* has, in comparison with the two *Xylocampa* species more oblique, much more flattened orbicular and narrower, more lunulate reniform stigmata, latter with stronger, more acute subcellular extension, larger, paler, more whitish

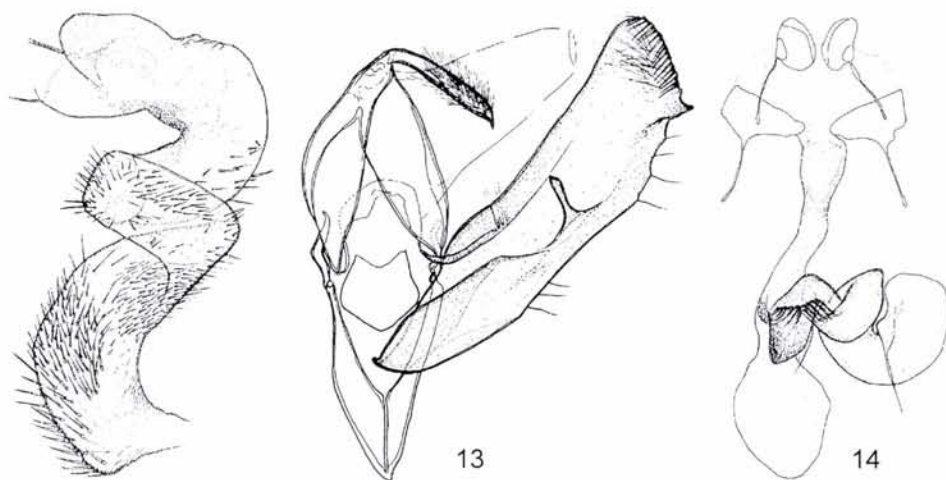


ter with stronger, more acute subcellular extension, larger, paler, more whitish subcellular patch and more obsolete crosslines, the cilia is strongly striolate with white.

The species of the genus *Speidelia* have narrower, more elongate forewings with less sharply defined outlines of the stigmata and the subcellular patch, their hindwings are shorter, more rounded, with regularly paler colouration.

The differences in the genitalia of the species of the three genera are discussed in the diagnosis of the genus *Atakterges*.

*Description* – wingspan 33–35 mm, length of forewing 15–16 mm. Male. Pubescence of head and thorax long, dark brownish grey, mixed with paler grey, whitish and blackish hairs. Antenna finely ciliate, dorsal surface covered with whitish scales; basal tufts of antenna also whitish. Palpi dark grey, collar producing acute hood, dark ashy grey with black medial line and whitish tip, tegulae marked with blackish and whitish hairs. Abdomen somewhat paler greyish brown, tufts of dorsal crest blackish grey. Forewing relatively broad, elongate triangular, with apex pointed, outer margin evenly arcuate. Ground colour dark grey, mixed with brown and whitish scales. Ante- and postmedial crosslines rather diffuse, dark grey, sinuous, median fascia variably strong, oblique. Orbicular and reniform stigmata present, orbicular oblique, flattened, encircled with blackish and whitish lines. Reniform large, lunulate, with huge extension at lower part, forming large, more or less sharply defined subcellular patch, marked with blackish line and variably intense whitish filling; claviform absent. Subterminal strongly sinuous, marked usually with fine white line, defined with strong black arrowhead-spots. Cilia as ground colour, chequered with whitish. Hindwing broad, more or less patternless whitish grey with variably strong dark grey-brown irroration and darker marginal suffusion. Veins covered with brown, discal spot small, diffuse, transverse line represented by dark spots



**Figs 13–14.** Genitalia of *Atakterges fidia* (DRAUDT): 13 = male, paralectotype, China; 14 = female, lectotype, China

on veins. Forewing underside fumous brown-grey, margins with weak whitish grey irroration, traces of stigmata present but diffuse, cilia chequered with whitish. Underside of hindwing whitish grey, densely irrorated with dark grey and brown scales; costal margin and veins covered with brown. Transverse line diffuse, dark grey, discal spot sharply marked, lunulate, defined with whitish. Cilia pale grey, chequered with whitish. Female. Similar to male, antenna filiform, median fascia strong, oblique, blackish, hindwing with stronger dark irroration.

The holotype of *areolona* differs only slightly from the other specimens of the species by its more uniformly greyish ground colour of the forewings with more expressed, longer whitish streak below cell and the less strong, more obsolescent subterminal line.

The genitalia of both sexes are characterized in the description of the genus (Figs 13–14).

**Bionomics** – The species is known from medium-high and high altitudes in North Yuennan, inhabiting probably the upper parts of the forest belt and the lower parts of the subalpine regions. The imagines were collected in June.

**Distribution** – The species is known only from the type locality, A-tun-tse (North Yuennan, China).

### **Speidelia** gen. n. (Figs 5–12, 15–21)

**Type species** – ?*Cucullia taiwana* WILEMAN, 1915, *Entomologist* 48: 144. Type locality: Formosa [= Taiwan].

#### *Species included:*

- *taiwana taiwana* (WILEMAN, 1915)
- *taiwana semialba* (YOSHIMOTO, 1993)
- *apocrypha* sp. n.
- *formosa* sp. n.

**Diagnosis** – The genus *Speidelia* is the allopatric sister-genus of *Xylocampa* GUENÉE, 1837, the outgroup of these genera is most probably the genus *Atakterges*. The species of *Speidelia* differ externally from those of *Xylocampa* by their narrower, more elongate forewings with reduced crosslines, longer, much more flattened orbicular stigma and less expressed, smaller subcellular extension of reniform stigma, and by their shorter, more rounded, whitish hindwings. A characteristic external feature of the genus *Speidelia* is the presence of strong, conical frontal prominence, while the frons is smooth, slightly convex in the species of *Atakterges* and *Xylocampa*.

The main differences between the male genitalia of *Speidelia* and *Xylocampa* are as follows:

- clasping apparatus of *Speidelia*: uncus longer, narrower; cucullus shorter, broader, less helmet-like; corona weaker; pollex-like extension without stronger



connection to basal plate of harpe; sacculus shorter, without sclerotized process; harpe situated more proximally, triangular-acute or flattened, apically tapering.

– clasping apparatus of *Xylocampa*: uncus shorter, medially dilated; cucullus larger, helmet-like; corona stronger; pollex-like extension connected to basal plate of harpe; sacculus longer, stronger, with large, triangular sclerotized process at middle; harpe situated more distally, flattened, apically dilated.

– aedeagus and vesica of *Speidelia*: carina with large or very large dorsal or dorso-lateral, heavily sclerotized, serrate crest which may continued in long, narrow, serrate bar extending into basal third of vesica; vesica long, tubular, usually fully recurved, without diverticula; cornuti field large, more or less homogeneous, covering large part of outer curve, only the size of cornuti increasing towards distal end; terminal cornutus situated oppositely (on inner curve), rather small in size, its base wide, flat, process short, acute.

– aedeagus and vesica of *Xylocampa*: carina without heavily sclerotized crest but with two lateral, dentate laminae; vesica shortened, partly recurved, with conical medial diverticulum; cornuti arranged into distinct fields; terminal cornutus larger, flattened.

The female genitalia of *Speidelia* can be characterized by the long, flattened, sclerotized, posteriorly folded ductus bursae, the usually more or less horse-shoe-shaped bursa consisting of smaller, broadly tubular, arcuate or slightly twisted, membranous cervix bursae, often having stronger terminal sclerotization



Fig. 15. Male genitalia of *Speidelia taiwana taiwana* (WILEMAN), lectotype, Taiwan

and of considerably larger, membranous corpus bursae; a weak, signum-like scobinate stripe may present. In the female genitalia of the *Xylocampa* species the bursa copulatrix is also bilobate but the ductus bursae is significantly shorter, membranous with longitudinal wrinkles and fine scobination; the cervix is as large as corpus bursae or slightly larger, its terminal end is membranous but the basal half is scobinate and wrinkled; the corpus bursae is membranous, elliptical, with a long signum-stripe at middle.

*Description* – medium-sized species, wingspan 31–39 mm, length of forewing 13–16.5 mm. Head strong; frons with strong, conical medial prominence; dorsal third covered with long hairs. Eyes large, globular; eye-lashes well-developed. Palpi slender, upturned, first two joints with long hairs ventrally, third (apical) joint very short, rather thick, apically tapering, covered with smooth hair-scales; proboscis fully developed. Antenna of both sexes filiform, relatively thick, consisting of tightly fused joints; dorsal surface covered with scales; basal tuft large. Thorax robust, collar producing acute hood, tegulae wide, pro- and metathoracic tufts large. Fore tibiae with large, flattened, acute inner claw; foretarsi with irregular spining, ventral and ventro-lateral side with rather four than three rows of strong spines. Abdomen rather slender, cylindrical, first abdominal segments with large dorsal tufts; abdominal coremata present, rather weak. Forewing elongate, with apex pointed, outer margin evenly arcuate. Ground colour pale or dark grey, mixed with brown and whitish scales, crosslines obsolescent, orbicular stigma flattened, oblique, lower extension of reniform stigma forming characteristic, large subcellular patch. Hindwing relatively short, rounded, more or less patternless whitish or greyish with variably strong dark grey-brown irroration and dark marginal suffusion, well-marked discal spot and diffuse transverse line; hindwings of females regularly darker greyish.

Male genitalia (Figs 15, 17, 19, 20): uncus medium-long, strong, curved at base, apex hooked. Tegumen narrow, rather low; peniculus lobes narrow, weak; fultura inferior relatively large, shield-like, with deep apical (dorsal) incision; vinculum long, strong, V-shaped. Valva elongate, distally tapering; costa heavily sclerotized. Cucullus short, triangular or trapezoidal, with pointed apex, an additional small spine-like process of outer margin may also present. Corona rather weak, dorsal surface of cucullus finely setose. Sacculus short or medium-long, partly sclerotized, without sclerotized extension; clavus reduced. Harpe broad-based, strong, flattened, triangular or digitiform, distally slightly curved, apically tapering, finely setose. Pollex-like costal extension short, spine-like or long, strong, broadly triangular, with apex acute. Aedeagus short or medium-long, cylindrical, slightly arcuate, carina with strong or very strong, heavily sclerotized, serrate dorsal (dorso-lateral) plate, which may continued in long, narrow, serrate bar. Vesica long, tubular, partly or fully recurved or slightly twisted. Basal part membranous, medial and distal parts slightly broadened, large areas of outer curve covered with variably long, fine, pin-like cornuti, their size increasing towards terminal part; terminal cornutus small, wide-based, with short, acute process.

Female genitalia (Figs 16, 18, 21): ovipositor relatively short, weakly sclerotized, papillae anales elongate, densely setose, gonapophyses long, slender. Ostium bursae heavily sclerotized, large, dorsal and ventral plates may be more or less equal, rounded-discoidal, or dorsal plate much larger, ellipsoidal, ventral plate narrow, lyrifiform; a conical prominence on ventral plate may present. Ductus bursae long, tubular, flattened, proximal part tapering towards cervix bursae, distal third with strong horizontal folds near proximal end of ostium bursae. Bursa bilobate, usually more or less horseshoe-shaped; cervix bursae shorter than corpus bursae, tubular or slightly twisted, turned caudally, its walls membranous, often with stronger apical (terminal) sclerotization; ductus seminalis arising from apical end of cervix bursae. Corpus bursae large, elliptical-sacculiform, weakly membranous, with fine, long signum-stripe(s).

*Bionomics and distribution* – The genus comprises early (mid) spring and late autumnal species, inhabiting medium-high and high forest regions in the southern Himalayas, northern Thailand, southern China and Taiwan, up to 3000 m a.s.l. The early stages and the foodplants are unknown, the imagines are attracted strongly to artificial light.

*Speidelia taiwana taiwana* (WILEMAN, 1915)  
(Figs 7, 8, 15, 16)

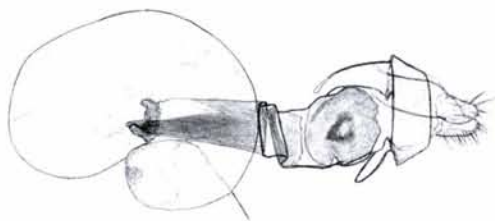
?*Cucullia taiwana* WILEMAN, 1915, *Entomologist* 48: 144.

*Type material examined* – 1 male, 2 female syntypes, [Taiwan] Formosa: Arizan. The male syntype is here designated as lectotype, slide No. RL3980 (coll. BMNH London).

*Additional material examined* – Taiwan. A larger series of both sexes, from the following localities: Prov. Taitung: 2 km E Hsiangyang, 2200 m, 11–13.III.1996, leg. GY. FÁBIÁN and L. NÉMETH. Prov. Ilan: between Suyuan-Yakou and Pinan, 1550 m, 29.III.1997, leg. G. CSORBA and L. RONKAY. Prov. Nantou: 5 km N Shihmen, Hohuan-Pass, 3000 m, 13.X.1996, leg. GY. FÁBIÁN & F. NEMES; 3 km S Hoshe, Yu-Shan Nat. Park, 1400 m, 16.X.1996, leg. GY. FÁBIÁN & F. NEMES. Prov. Hualien: Hohuan Pass, 3000 m, 3.IV.1997, leg. G. CSORBA and L. RONKAY; Kuanyutan, 2400 m, 4.IV.1997, leg. G. CSORBA and L. RONKAY; Tayuling, 2600 m, 12–14.III.1985, leg. K. YAZAKI; Tayuling, 2600 m, 23–24.III.1982, leg. H. YOSHIMOTO (coll. HNHM, GY. FÁBIÁN, B. HERCZIG, G. RONKAY).

Slide Nos RL6764, RL6765 (males), RL5908, RL6773 (females).

*Diagnosis* – *S. t. taiwana* differs from its Himalayan subspecies *S. t. semialba* by its larger size, broader wings and conspicuously darker whitish grey hindwings, irrorated with dark grey-brown, the hindwing of *S. t. semialba* is pure white with narrow dark margin and discal spot. The ground plan of the male genitalia of the two subspecies is rather similar, displaying, however, some easily recognizable differences in the shape and size of the fultura inferior and the distal part of the valva and in some features of the aedeagus and the vesica. The fultura inferior of *S. t. taiwana* is broader with more arcuate lateral margins, the apical incision is wider;



**Fig. 16.** Female genitalia of *Speidelia taiwana taiwana* (WILEMAN), Taiwan



the valva is stronger, longer, apically less tapering; the cucullus is larger, more quadrangular, the additional process of the outer margin is present, the pollex-like extension is considerably larger, stronger. The fultura inferior of *S. t. semialba* is narrower, more elongate, its lateral margins almost straight, the apical incision is small, narrow; the valva is narrower, apically more tapering; the cucullus is smaller, triangular, the additional process of the outer margin is missing, the pollex-like extension is much shorter, weaker. The aedeagus of *S. t. taiwana* is somewhat longer and stronger than that of *S. t. semialba*, the basal curve of the vesica has no cornuti or only a few, sparse, short spines, the basal plate of the terminal cornutus is larger, its apical process stronger, longer.

These strongly isolated taxa represent most probably two distinct species, the differences in the external appearance are rather conspicuous and those of the male genitalia are also well-discernible. These two taxa are considered here as two races of the same species because of the absence of the female sex of *semialba*, the discovery of the other sex of the latter taxon and the study of its genitalia can clarify the status of *S. t. semialba*.

The comparison of the external and genitalic features of *S. taiwana* and the *S. apocrypha*–*S. formosa* species-pair is given in the diagnoses of the two newly described species.

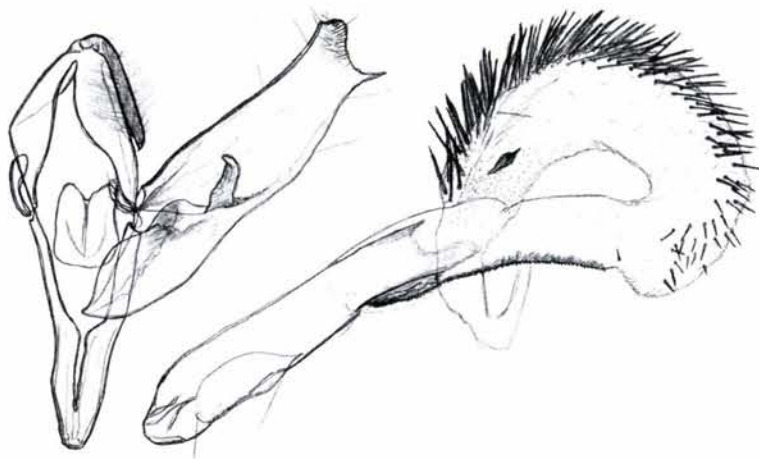


Fig. 17. Male genitalia of *Speidelia taiwana semialba* (YOSHIMOTO), Nepal

*Description* – wingspan 33–39 mm, length of forewing 15–18 mm. Male. Head, thorax and forewing dark brownish grey, lateral sides of palpi, collar at base and thorax marked with dark grey and/or whitish streaks of groups of scales. Abdomen paler, more brownish, dorsal crest short, consisting of large brown tufts. Forewing elongate, rather narrow, with apex pointed, outer margin finely crenulate. Wing pattern rather indistinct, basal dash long, very fine, ante- and postmedial lines dark grey, simple, strongly sinuous, defined by narrow, whitish grey zone. Median area narrow, more or less oblique, median fascia obsolescent. Orbicular stigma strongly flattened, narrow, whitish with fine, blackish outline. Reniform stigma large, narrow, strongly lunulate, outer part of lower third with double-peaked, short extension, inner part with huge extension forming long, wedge-shaped subcellular patch. Outline of reniform fine, blackish, often incomplete, filling whitish or whitish grey. Marginal area more or less striolate with blackish grey and white(ish), subterminal line interrupted, sinuous, whitish, defined with blackish arrowhead-spots producing characteristically variegated pattern. Terminal line fine, blackish, cilia as ground colour, variegated with white spots and medial line. Hindwing slightly transparent whitish, veins covered with brown, marginal suffusion diffuse, rather weak. Discal spot clearly visible, narrow, arcuate, transverse line represented mostly by dark spots on veins. Terminal line dark brown, cilia whitish with brown medial line. Underside of forewing whitish, costal and apical areas covered with brown and greyish scales; discal spot present, diffuse, trace of transverse line hardly visible. Hindwing paler, slightly transparent whitish, costal and marginal areas with a few brownish irroration, discal spot sharply defined, transverse line rather strong, upper part continuous, lower half interrupted; cilia as on upper side. Female. Slightly larger in size with somewhat broader forewings, usually darker in colouration, brownish suffusion stronger on both wings, hindwing almost entirely covered by brown scales.

Male genitalia (Fig. 15): uncus medium-long, strong, rather slender, with apex hooked. Tegumen narrow, relatively high, peniculus lobes narrow; fultura inferior relatively large, shield-like, with deep apical incision; vinculum long, strong, V-shaped. Valva elongate, distally tapering, slightly constricted below cucullus. Cucullus short, trapezoidal, with pointed apex and with additional small, spine-like process at middle of outer margin. Corona very weak, dorsal surface of cucullus finely setose. Sacculus medium-long, narrow, with sclerotized patches; clavus reduced. Basal bar of harpe strong, erected part sclerotized, flattened, more or less digitiform, distally slightly curved, tapering into fine apical tip. Pollex-like costal extension long, strong, broadly triangular, with apex acute. Aedeagus medium-long, cylindrical, slightly arcuate, carina with strong, heavily sclerotized, serrate dorso-lateral plate, continuing in long, narrow, serrate bar extending into basal third of vesica. Vesica long, tubular, fully recurved, basal part membranous, medial and distal parts slightly broadened, covered with variably long, fine, pin-like cornuti, their size increasing towards distal end; terminal cornutus wide-based, with short, acute process.

Female genitalia (Fig. 16): ovipositor relatively short, weakly, papillae anales conical, setose, gonapophyses long, slender. Ostium bursae sclerotized, large, dorsal and ventral plates similarly ellipsoidal-discoidal, ventral plate with conical medial prominence projecting ventrally. Ductus bursae long, tubular, flattened, proximal part tapering towards cervix bursae. Bursa bilobate, more or less horseshoe-shaped; cervix bursae considerably shorter than corpus bursae, its walls membranous, distal part with sclerotized patches. Corpus bursae large, elliptical-sacculiform, weakly membranous, without signum.

*Bionomics and distribution* – The nominotypical subspecies of *S. taiwana* appears as endemic to Taiwan, occurring in the mountainous regions, between 1400–3000 m altitudes, inhabiting different types of mixed deciduous and coniferous forests. The adults may appear above the timber line in the highest ranges of the eastern mountain systems. The moths are on wing mostly in the early spring (March–April), a few observations are also from the late autumn (mid-October). It is not impossible

that the species has two distinct generations, but a long, partially overwintering generation may also be possible (similarly to its allopatric congener, *S. apocrypha*).

*Speidelia taiwana semialba* (YOSHIMOTO, 1993)  
(Figs 9, 17)

*Lophoterges taiwana semialba* YOSHIMOTO, 1993, *Tinea* 13 (Suppl. 3): 133, pl. 62: 16.

*Type material examined* – the colour plate and the photo of the male genitalia of the holotype.

*Additional material examined* – Nepal: 5 males, Terhathum area, Gorja Deorali, 2900 m, 87°36'E, 27°20'N, 27.III.1996, leg. G. CSORBA, S.T. KOVÁCS and L. RONKAY (coll. HNHN, S. KOVÁCS and G. RONKAY).

Slide No.: RL5918 (male).

*Diagnosis* – The comparisons of *S. t. semialba* with *S. t. taiwana* and *S. apocrypha* are given under the diagnosis of the related species.

*Description* – wingspan 30–34 mm, length of forewing 15–16 mm. Male. Head, thorax and forewing dark brownish grey, lateral sides of palpi, basal half of collar and tips of thoracic tufts whitish-grey, collar marked with blackish line; tegulae more unicolorous, dark grey-brown. Abdomen more brownish, dorsal crest short, consisting of large tufts. Forewing elongate, narrow, with apex pointed, outer margin finely crenulate; costal area irrorated with whitish grey, veins covered partly with dark grey. Wing pattern diffuse, ante- and postmedial lines poorly visible, simple, strongly sinuous, with weak whitish grey definition. Median fascia obsolete, orbicular and reniform stigmata rather sharply defined, strongest elements of wing pattern. Orbicular stigma strongly flattened, narrow, whitish with fine, blackish outline. Reniform stigma narrow, lunulate, encircled with blackish, filled with whitish grey. Outer edge of lower half with short, double-peaked extension, inner edge with much longer extension forming large, wedge-shaped subcellular patch. Marginal area slightly variegated with blackish grey and whitish streaks, subterminal line obsolescent, interrupted, whitish grey, defined with diffuse blackish grey arrowhead-spots. Terminal line fine, blackish, cilia as ground colour, chequered with pale grey spots and medial line. Hindwing slightly transparent, shining white, veins with a few brownish scales, dark marginal suffusion absent; discal spot clearly visible, narrow, arcuate. Terminal line fine, dark brown, inner half of cilia brown, outer part white. Underside of forewing whitish with weak brownish irroration, discal spot and trace of transverse line well-discernible. Hindwing transparent, shining white, costal area irrorated with a few brownish scales, discal spot sharply defined, transverse line represented by dark spots on veins; cilia as on upper side. Female unknown.

Male genitalia (Fig. 17): uncus medium-long, strong, slender, with apex hooked. Fultura inferior more or less quadrangular with almost straight lateral margins, apical incision weak; vinculum long, strong, V-shaped. Valva elongate, dilated at middle, distally tapering, constricted below cucullus. Cucullus small, triangular, apex pointed, outer margin without additional process; corona very weak. Sacculus rather short, with sclerotized patches; clavus reduced. Basal bar of harpe strong, erected part sclerotized, flattened, slightly S-shaped, distal part tapering into fine apical tip. Pollex-like costal extension fine, slender, acute. Aedeagus cylindrical, carina with heavily sclerotized, serrate dorso-lateral plate, extending towards into basal third of vesica as long, narrow, serrate bar.



Vesica long, tubular, fully recurved, basal part membranous, basal curve armed with fine, short cornuti. Medial and distal parts slightly broadened, covered with fine, pin-like cornuti, their size increasing towards distal end. Terminal cornutus rather small with elliptical basal plate and short, acute process.

*Bionomics and distribution* – The species is known from the eastern and central parts of the Nepal Himalaya, occurring in the medium-high and higher forest regions (between 1700–3000 m a.s.l.). The imagines are on wing in March–April, and are attracted strongly to artificial light.

### ***Speidelia apocrypha* sp. n.**

(Figs 5, 6, 18, 19)

*Holotype* – female, “Hoeng-Shan (900 m), Provinz Hunan, China, 27.11.1933. H. Höne”; “Allotype (underlined) *Dichonia areolona* Draudt”, “Holotypus *Speidelia apocrypha* Ronkay, 1994”. Slide No. RL3619 (coll. AKM Bonn).

*Paratypes* – China: 1 male, Linping (sic), Pr. Kwangtung, 29.3.24, H. HÖNE; 1 female, Lingping (sic), Südkina, 5.11.23, H. HÖNE (coll. AKM Bonn). Thailand: 2 males, Doi Inthanon, Bang Khum Kiang, 1200 m, 98°32'E, 18°32'N, 7.I.1990, leg. CHANTARA MONGKOL & MALICKY; 2 males, from the same locality, 24.I.1990, leg. CHANTARA MONGKOL & MALICKY (coll. HACKER). Slide Nos HH5713, RL3616 (males).

*Diagnosis* – *S. apocrypha* is an allopatric twin species of *S. formosa* sp. n. These two species differ externally in the colouration and the intensity of pattern of both wings, the forewing ground colour of *S. apocrypha* is considerably darker, the wing pattern is more obsolete and the hindwings are also darker in both sexes. The male genitalia of the two species differ mostly in the coiling of the vesica which is fully recurved in *S. apocrypha*, the basal part is membranous, without cornuti. The basal third of the vesica of *S. formosa* is slightly twisted, armed with a few small cornuti, the distal half is upturned dorsally but not recurved. The sclerotized plate of the carina of *S. apocrypha* has much larger proximal tooth and smaller distal teeth, the valva is broader, more straight, the cucullus is larger, more triangular, the pollex-like extension is broader, acute triangular. The sclerotized plate of the ca-

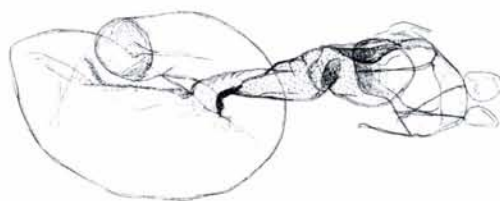


Fig. 18. Female genitalia of *Speidelia apocrypha* sp. n., holotype, China

rina of *S. formosa* is more evenly serrate, the valva is narrower, more curved ventrally, the costa is more arcuate, the cucullus is smaller, more quadrangular, the pollex-like extension is narrower, smaller, spine-like. The most conspicuous difference of the female genitalia of the two species can be found in the shape of the cervix bursae which is arcuate but not twisted in *S. apocrypha*, its terminal end projecting proximally while the cervix of *S. formosa* is twisted, its tip curved caudally. In addition, the dorsal plate of the ostium bursae is more elongate, ellipsoidal in *S. apocrypha*, the ductus bursae is longer, proximally less tapering than that of *S. formosa*.

*S. apocrypha* resembles also to *S. t. taiwana* but is smaller in size, more short-winged, its forewing ground colour is paler, with weaker, less irregular darker pattern; the hindwing of male whitish, but not as clear white as that of *S. t. semialba*. The male genitalia of *S. apocrypha* has, in comparison with those of *S. t. taiwana* and *S. t. semialba*, much shorter valvae with different shape, more triangular, broader, apically more acute harpe, shorter, triangular cucullus with smaller pollex-like lobe, much shorter aedeagus with significantly larger dorsal sclerotized plate of carina and significantly shorter, narrower tube of vesica with smaller, weaker terminal cornutus.

The female genitalia of *S. apocrypha* differ strongly from those of *S. taiwana* by its lyriform, half-ring-like ventral plate of ostium bursae, having no medial prominence projecting ventrally, the ductus bursae is considerably shorter, the cervix bursae is proportionally larger and the corpus bursae has fine, ribbon-like signum. The dorsal and ventral plates of ostium bursae are almost equal, elliptical-discoidal in *S. taiwana*, the ventral plate has conical medial prominence projecting ventrally, the ductus bursae is considerably longer than those of *S. apocrypha* and *S. formosa* and the signum is absent.

*Description* – Male. Wingspan 32 mm, length of forewing 13 mm. Head, thorax and forewing violaceous ash-grey, lateral side of palpi, collar at base and thorax marked with dark grey and/or whitish streaks of groups of scales. Abdomen lighter greyish with grey-brown hairs, first tuft of dorsal crest dark brown. Basal and marginal fields of forewing irrorated with light brown and whitish grey scales, wing pattern rather indistinct. Ante- and postmedial lines simple, strongly sinuous, defined by narrow, whitish grey zone. Median area narrow, more or less oblique, irrorated by brown-grey, darkest part of wing. Orbicular stigma strongly flattened, narrow, whitish with darker centre and fine, blackish, incomplete outline. Reniform stigma less visible, narrow, conjoined with orbicular by darker brownish patch, encircled finely with grey. Dark streak below cell less strong, running from base of orbicular to postmedial line close to lower edge of cell. Marginal area more or less striolate, subterminal line pale grey-brown defined by white streaks and dark brownish arrow-heads producing characteristically variegated pattern. Terminal line ochreous-white, marked by fine dark grey arches; cilia as ground colour, spotted with white. Hindwing slightly transparent whitish, with a few darker scales at inner angle. Veins partly covered by brown, especially in marginal area. Discal spot clearly visible, narrow, arcuate, transverse line represented by slightly stronger spots on

veins. Terminal line dark brown, cilia whitish with brownish medial line. Underside of wings whitish, costal and apical areas of forewing covered with brown; discal spots present, diffuse, traces of transverse line also visible. Female. Similar in size and forewing pattern but generally darker in colouration, brownish suffusion stronger on both wings, hindwing almost entirely covered by brown scales.

Male genitalia (Fig. 19): uncus medium-long, strong, curved at base, apex hooked. Tegumen narrow; penicular lobes narrow, weak; fultura inferior calyculate with deep apical (dorsal) incision; vinculum long, strong, V-shaped. Valva elongate, distally tapering; medially slightly dilated, cucullus triangular, with apex pointed; corona rather weak, short. Sacculus short, rather weak, clavus reduced. Harpe strong, flattened, triangular, apically pointed, finely curved, weakly setose; pollex-like costal extension short, triangular, pointed. Aedeagus short, cylindrical, carina with very strong, heavily sclerotized, serrate dorsal plate. Vesica long, tubular, fully recurved, basal part membranous, medial and distal parts covered with fine, spiniform cornuti; terminal cornutus small, short, acute.

Female genitalia (Fig. 18): ovipositor relatively short, weakly sclerotized, papillae anales elongate, densely setose, gonapophyses long, slender. Ostium bursae sclerotized, large, rounded-elliptical; ductus bursae long, tubular, flattened, sclerotized, proximal part tapering towards cervix bursae, with stronger lateral crest at junction to corpus bursae, distal third with strong horizontal folds. Bursa bilobate, more or less horseshoe-shaped; cervix bursae relatively long, curved, broadly tubular, its walls membranous, with stronger apical (terminal) sclerotization. Corpus bursae large, elliptical-sacculiform, weakly membranous, with two fine, long signum-stripes.

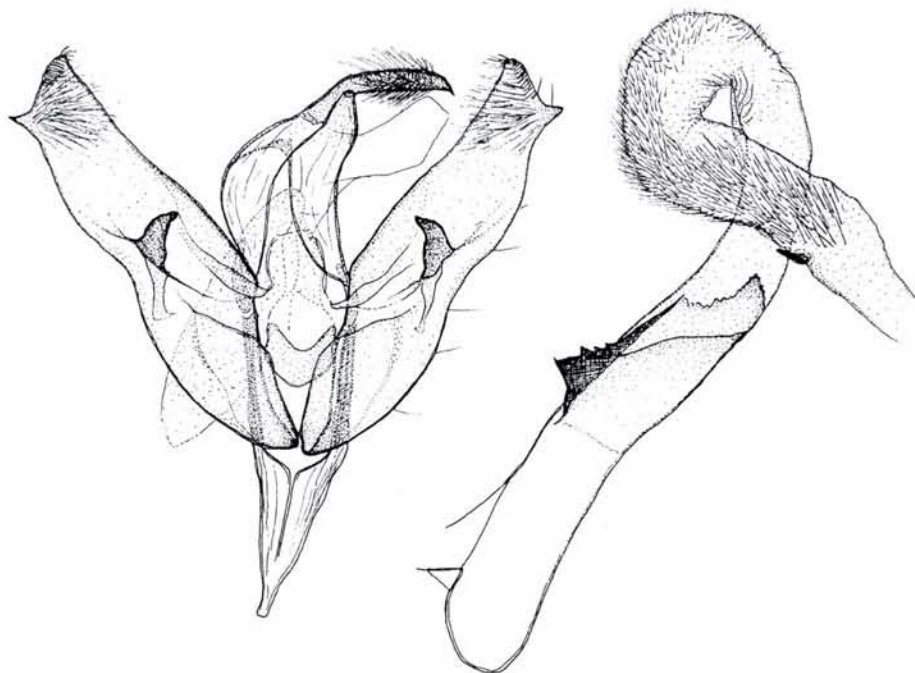


Fig. 19. Male genitalia of *Speidelia apocrypha* sp. n., paratype, China



*Bionomics and distribution* – A winter species, the few known specimens were collected between the beginning of November-end of March. Its range extends from south-east China to northern Thailand.

### ***Speidelia formosa* sp. n.**

(Figs 10–12, 20–21)

*Holotype* – male, “Taiwan, Prov. Tai-tung, 2 km N Liyusan, 1760 m, 23.X.1996, leg. Gy. FÁBIÁN & F. NEMES” (coll. HNHN Budapest).

*Paratypes* – Prov. Taitung: 3 males, 2 km N of Tüpan, 500 m, 24.X.1995, 120°52'E, 22°29'N, leg. T. CSÖVÁRI & P. STÉGER; 9 males, 7 females, Hsiangyang, 2320 m, 19–20.X.1996, 25–26.X.1996, 2.XI.1996, leg. GY. FÁBIÁN and F. NEMES. Prov. Taichung: 1 male, 1 female, Tachen, 1890 m, 29.X.1996, leg. GY. FÁBIÁN & F. NEMES; 1 male, 1 female, An-ma-Shan, Hooping, 2000 m, 31.X.1996, leg. GY. FÁBIÁN & F. NEMES. Prov. Hualien: 3 males, 3 females, Kuanyuan, 2380 m, 12.X.1996, 27.X.1996, leg. GY. FÁBIÁN & F. NEMES. Prov. Miaoli: 1 male, 20 km E of Tungshih, 1335 m, 18.X.1995, 121°03'E, 24°19'N, leg. T. CSÖVÁRI & P. STÉGER; 1 male, 49 km E of Tungshih, 2490 m, 11.XI.1996, 121°03'E, 24°19'N, leg. T. CSÖVÁRI & CS. SZABÓKY. Prov. Nantou: 2 males, Meimu, 2000 m, 28.X.1996, leg. GY. FÁBIÁN & F. NEMES; 2 males, 3 females, 1 km W of Tatachia peak, 2520 m, 13.X.1995, 22.X.1995, 120°53'E, 23°33'N, leg. T. CSÖVÁRI & P. STÉGER; 1 female, from the same site, 3.XI.1996, 120°53'E, 23°33'N, leg. T. CSÖVÁRI & CS. SZABÓKY; 4 males, 1 female, 3 km SW of Tsuifeng, 2100 m, 26–27.X.1995, 31.X.1996, 121°10'E, 24°06'N, leg. T. CSÖVÁRI & P. STÉGER; 1 male, from the same site, 9.XI.1996, 121°10'E, 24°06'N, leg. T. CSÖVÁRI & CS. SZABÓKY; 1 male, Tayuling, 2550 m, 7–8.X.1996, leg. GY. FÁBIÁN & F. NEMES; 1 male, 15 km N of Puli, 500 m, 14–15.X.1996, leg. GY. FÁBIÁN & F. NEMES; 5 specimens, Wuling, 1.X.1992, leg. Y.C. CHANG; 3 specimens, Piluchi, 14.IX.1986, 15.X.1987, leg. Y. C. CHANG. Prov. Taoyuan: 1 male, 600 m, 7 km E Fuhsing, 121°23'E, 24°49'N, 28–29.XI.1997, leg. S. SIMONYI & A. SZABÓ. An additional specimen is illustrated by B.S. CHANG (1991) under the name “*Lophoterges taiwana* Wileman” (coll. NMNS, Taichung). One male, Taiwan, Shihtyutuo, 26.XI.1983, J. WUO; 1 male, Dongpuu lodge, Chia county, 28. IX. 1990, L. P. SHYM (NMNS); 1 male, Shyrshan, Chia county, 20. X. 1990, S. H. LIN; 1 male, Meifeng, Nantou county, 22. IX. 1984, B. S. CHANG; 1 female, Henglong, Nantou county, 1. X. 1983, B. S. CHANG; 1 male, Shangbaling, Hualien county, 20. XI. 1981, B. S. CHANG; 3 males, Ssuleng, Taoyuan county, B. S. CHANG.

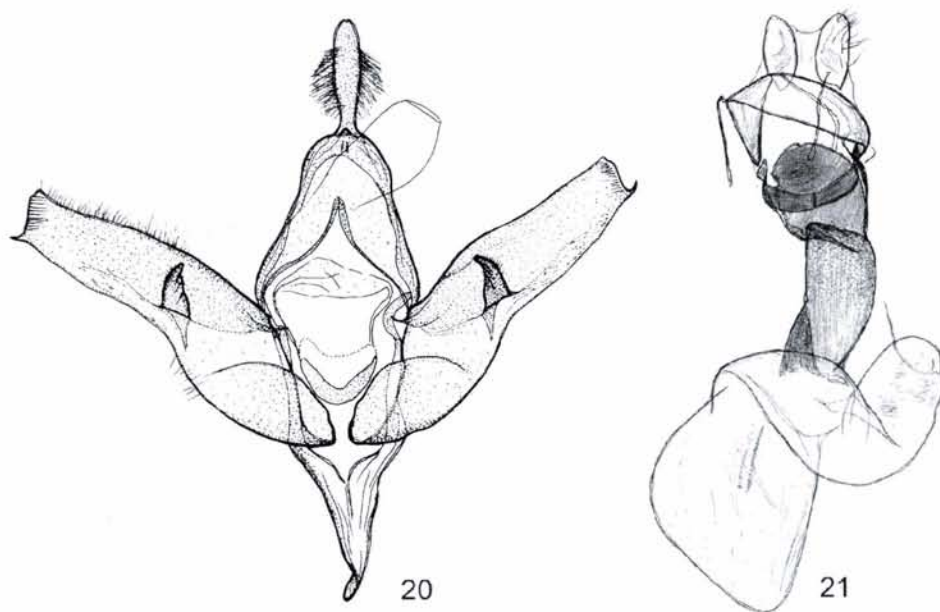
The paratypes are deposited in coll. HNHN, NMSM, TFRI Taipei, GY. FÁBIÁN, P. GYULAI, B. HERCZIG, M. HREBLAY, G. RONKAY, S. SIMONYI and S. SUGI.

Slide Nos RL5837, RL6766, RL6767, RL6771, RL6772, SS4105 (males), RL2829, RL6770 (females).

*Diagnosis* – The comparison of *S. formosa* and *S. apocrypha* is given in detail in the diagnosis of *S. apocrypha*. *S. formosa* differs from *S. taiwana* and *S. semialba* by its much paler forewing ground colour with more conspicuous outlines of the stigmata and the dark streaks defining the subterminal line. The hindwing of *S. formosa* is slightly paler than that of *S. taiwana* while the hindwing of *S. semialba* is much cleaner than those of *S. formosa* and *S. taiwana*, it is pure white, without dark covering of veins. The genitalia of *S. formosa* differ rather

strongly from those of *S. taiwana* and *S. semialba* in both sexes as the whole male clasping apparatus is considerably smaller with weaker, less elongate, more arcuate valva, finer, spine-like pollex-like extension, thicker, broadly triangular, apically pointed harpe; the aedeagus is also much shorter with considerably larger, serrate corsal plate of carina, the vesica is also shorter, finely twisted, only partly recurved and the terminal cornutus is shorter, weaker. The most conspicuous difference of the female genitalia between *S. formosa* and *S. taiwana* can be found in the shape of the cervix bursae which is twisted in *S. formosa*, its tip projecting caudally while it is arcuate, not twisted in *S. taiwana*. In addition, the dorsal plate of the ostium bursae of *S. formosa* is more rounded-discoidal, and the ductus bursae is shorter, proximally more tapering than in case of *S. apocrypha*.

*Description* – wingspan 31–36 mm, length of forewing 14–16,5 mm. Male. Head and thorax ash-grey, mixed with brownish and a few whitish hairs. Lateral sides of palpi, frons, collar and tegulae marked with dark grey-brown. Antennae of both sexes filiform, collar producing large, peaked hood. Abdomen somewhat paler, more brownish, second segment with dark brown dorsal tuft. Forewing elongate, narrow, with apex finely pointed. Ground colour shining, pale ash-grey with fine bluish-violaceous shade and variably strong, dark greyish-brown irroration; scaling finely reticulate. Dark pattern rather indistinct, ante- and postmedial crosslines pale, fine, strongly sinuous, dark



Figs 20–21. Genitalia of *Speidelia formosa* sp. n., paratypes, Taiwan: 20 = male, 21 = female

grey-brown, defined with some whitish scales, median fascia broad, diffuse, dark shadow. Subterminal line interrupted, strongly waved, white(ish), defined by strong, narrow, blackish arrowheads; veins covered with blackish in marginal area. Streak of submedian fold long, fine, black, orbicular and reniform stigmata present, encircled finely with blackish, filled with light grey and a few whitish scales. Orbicular elongate, strongly flattened, reniform more or less drop-shaped, lower part strongly dilated, extending far towards base of cell. Terminal line fine, black, marked with blackish spots, cilia whitish with dark grey inner half. Hindwing slightly transparent, whitish; veins, discal spot and narrow marginal suffusion darker brown. Terminal line dark brown, cilia whitish, with brown inner line. Underside of wings whitish, forewing suffused with dark grey-brown, discal spots and parts of transverse lines usually visible. Female similar, larger in size, forewings somewhat broader, dark suffusion of hindwing significantly stronger.

Male genitalia (Fig. 20): uncus medium-long, strong, medially slightly dilated, apically finely hooked. Tegumen narrow, rather low; penicular lobes narrow, weak; fultura inferior cup-shaped, with deep apical (dorsal) incision; vinculum long, strong, V-shaped. Valva elongate, distally tapering; finely arcuate. Cucullus short, triangular, with apex pointed, corona rather weak, dorsal surface of cucullus finely setose. Sacculus short, less sclerotized, clavus reduced. Harpe strong, flattened, triangular, distally slightly curved, apically tapering, finely setose. Pollex-like costal extension short, spine-like with apex acute. Aedeagus short, cylindrical, carina with very strong, heavily sclerotized, serrate dorsal plate. Vesica long, tubular, partly recurved, slightly twisted at basal third. Basal part membranous, medial and distal parts somewhat broadened, outer curve of distal two-third covered with fine, spiniform cornuti, their size increasing towards terminal part; terminal cornutus small, wide-based, with short, acute process.

Female genitalia (Fig. 21): ovipositor rather short, weak, papillae anales elongate, setose, gonapophyses long, slender. Ostium bursae heavily sclerotized, large, dorsal plate more or less discoidal, ventral plate lyriform, half-ring-like. Ductus bursae long, tubular, flattened, sclerotized, proximal part tapering towards cervix bursae, distal third with strong horizontal folds. Bursa bilobate, cervix bursae shorter than corpus bursae, slightly twisted, turned caudally, apical part with stronger sclerotization. Corpus bursae elliptical-saccate, membranous, with two fine signum-stripes.

*Bionomics and distribution* – Endemic to Taiwan.

*Remarks* – This species and its male genitalia are illustrated by CHANG (1991, p. 162: 109; gen. fig.: p. 332: 109) as “*Lophoterges taiwana* (Wileman)”.

\* \* \*

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# *Catalogue of Palaearctic Diptera*

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