

**New *Stenoloba* Staudinger, 1892 species from Taiwan and  
Vietnam (Lepidoptera: Noctuidae, Bryophilinae)**

L. RONKAY

*Department of Zoology, Hungarian Natural History Museum  
H-1088 Budapest, Baross u. 13, Hungary  
e-mail: ronkay@zoo.zoo.nhmus.hu*

RONKAY, L. (2001): New *Stenoloba* Staudinger, 1892 species from Taiwan and Vietnam (Lepidoptera: Noctuidae, Bryophilinae). – *Annales historico-naturales Musei nationalis hungarici* **93**: 219–229.

**Abstract** – Descriptions of four new *Stenoloba* species, *S. pulla* sp. n. (Taiwan), *S. yenminia* sp. n. (Taiwan), *S. benedeki* sp. n. (Vietnam) and *S. lanceola* sp. n. (Vietnam) are given. With 17 figures.

**Key words** – Noctuidae, *Stenoloba*, new species, Southeast Asia, Taiwan, Vietnam.

INTRODUCTION

The revision of the genus *Stenoloba* STAUDINGER, 1892 has recently been published by KONONENKO & RONKAY (2000, 2001). Results of this revisional work clearly demonstrate the surprisingly high number of species of this bryophiline genus in Taiwan and in northern Indochina. The continuation of these investigations, based on new expedition materials collected in Taiwan and in northern Vietnam and on the material of various museums and private collections in Taiwan, led to the discovery of four additional new species occurring in these two countries. Thus, the number of the known species of the genus is increased over fifty (51), and discovery of further new species in these regions is highly predictable.

It is worth to mention that Taiwan appears as a prominent centre of speciation of the genus: this rather small area harbours, by our present knowledge, eleven *Stenoloba* species. Eight of them are endemic to Taiwan, while further two widespread species are represented here by endemic subspecies (*S. assimilis taiwana* KONONENKO et RONKAY, 2000 and *S. manleyi formosana* KONONENKO et RONKAY, 2000), and only a single species, *S. rufosagitta* KONONENKO et RONKAY, 2001, is known from both this island and the Asian mainland (northern Vietnam).

*Abbreviations* – HNHM = Hungarian Natural History Museum, Budapest; TFRI = Taiwan Forestry Research Institute, Taipei.

## SYSTEMATIC PART

### *Stenoloba pulla* sp. n.

(Figs 1–2, 7–8)

*Holotype* – Male, “Taiwan, Prov. Ilan, Fu-Shan Botanical Garden, 700 m, 24°54'N, 121°45'E, 30.VIII.1995, leg. W.T. Jou”; slide No. RL11TFRI (coll. TFRI Taipei)

*Paratypes* – Taiwan. Prov. Ilan: 4 males, 5 females, Ming Chyr Forest Recreation Area, 24°39'N, 121°28'E, 1150 m, 11–12.IX.1999, leg. G. CSORBA & B. HERCZIG; 1 female, from the same site but from 5–6.X.1996, leg. FÁBIÁN & NEMES; 1 male, Fu-Shan Botanical Garden, 24°54'02"N, 121°45'27"E, 24–25.VIII.2000, leg. L. RONKAY. Prov. Nantou: 3 males, 4 females, Meifeng, 24°05'N, 121°10'E, 2250 m, 17–18.IX.1999 and 25.IX.1999, leg. G. CSORBA & B. HERCZIG. Prov. Hualien: 3 males, 2 females, Juisui, 23°30'N, 121°18'E, 1200 m, 20–21.IX.1999, leg. G. CSORBA & B. HERCZIG. Prov. Taoyuan: 1 male, 14 km E Fuhsing, 800 m, 4.X.1995, 121°23'E, 24°50' N, leg. Csővári & STÉGER. The paratypes are deposited in collections of TFRI Taipei, HNHM Budapest, A. BECHER, Gy. FÁBIÁN, P. GYULAI, B. HERCZIG, G. RONKAY & J. STUMPF.

Slide Nos 7109, 7110 RONKAY (males), 7108, 7136 RONKAY (females).

*Diagnosis* – The new species belongs to the *Stenoloba manleyi* species-group, representing the allopatric sister species of the Vietnamese *S. bachmana* KONONENKO et RONKAY, 2000. The two species are easily distinguished by their external and genital features as *S. pulla* has much darker wings than its sister species, and the forewing pattern is much more diffuse, less distinct and conspicuous than in *S. bachmana*.

The male genitalia of the two species are of similar type, but those of *S. pulla* (Fig. 7) are much broader at basal (saccular) half, with almost parallel costal and ventral margins, the cucullus is rather angular, with longer, narrower field of sclerotized setae, the valvae are more asymmetrical, right valva larger, broader, the aedeagus is shorter, much more thickened at middle and the cornutus is stronger, more than two times longer than those of *S. bachmana* (Fig. 9).

The female genitalia of the two sister species are more similar but the rate of the antrum and the ductus bursae is different in the two taxa, as the antrum is somewhat shorter, the ductus is longer in *S. pulla* (Fig. 8), their rate is about 1.25:1 while the antrum is significantly longer, almost twice as long in *S. bachmana* (Fig. 10).

The new species resembles also the dark forms of *S. manleyi formosana* KONONENKO et RONKAY, 2000, and *S. lichenosa* KONONENKO et RONKAY, 2001, occurring sympatrically with *S. pulla* in Taiwan. The most conspicuous difference between them is the much narrower reniform stigma of *S. pulla*, marked with a

rather sharp, blackish lunule in a paler patch while the reniform stigma is always a large, dark macule in the other two taxa. The male genitalia of the three taxa are rather dissimilar (see Fig. 7 and KONONENKO & RONKAY 2000, 2001), the female genitalia of *S. pulla* differ from those of *S. manleyi formosana* by their narrower antrum and the much larger, stronger sclerotized plate of the corpus bursae.

*Description* – External appearance. Wingspan: 27–31 mm, length of forewing 12–15 mm. Head and thorax whitish-ochreous, mixed with brownish scales; palpi dark grey laterally, pale yellowish-grey ventrally; thoracic crest high, built up from ash-grey and greenish scales. Ground colour of forewing dark grey-brown or fumes brown, basal area, costal part of median field and outer half of marginal field with variably intense whitish-greenish suffusion. Wing pattern usually rather dif-



**Figs 1–6.** 1 = *Stenoloba pulla* sp. n., paratype male, Taiwan; 2 = *S. pulla* sp. n., paratype female, Taiwan; 3 = *S. yenminia* sp. n., holotype male, Taiwan; 4 = *S. benedeki* sp. n., holotype male, Vietnam; 5 = *S. benedeki* sp. n., paratype female, Vietnam; 6 = *S. lanceola* sp. n., holotype male, Vietnam



fuse, basal dot small, blackish; subbasal line blackish; antemedial line double, oblique, slightly waved, blackish grey, often filled with paler greenish-grey. Median fascia diffuse, narrow, sometimes obsolete; postmedial line double, less sinuous, inner line stronger, blackish, outer line paler, often interrupted, filling of postmedial regularly paler than ground colour. Median area strongly tapering below cell towards apex; claviform stigma absent; orbicular stigma more or less rounded, incompletely encircled with blackish brown, filled often with greenish grey. Reniform stigma rather large, represented by its prominent, blackish, lunulate inner margin, sometimes also by smaller outer dot or darker filling of lower half, upper part most often defined with greenish patch. Subterminal line diffuse, sinuous, ochreous-greenish; terminal line a row of dark brown spots; cilia as ground colour. Hindwing unicolorous, dark greyish-brown, only slightly darker in outer area; discal spot usually hardly traceable; cilia ochreous with brown inner line. Underside of forewing uniformly dark brown, with two greyish patches at costal margin; hindwing paler, ochreous-greyish, irrorated with dark brown scales, dark markings rather strong, consisting of distinct discal lunule, two diffuse, broad crosslines and darker terminal area.

Male genitalia (Fig. 7). Uncus rather long, slender, flattened, apically setose, tegumen high, narrow. Juxta broad, subdeltoidal, with strong median fold and rather wide apical extension. Vinculum short, more or less U-shaped, its tip curved dorsally. Valvae asymmetrical, right valva broader with straight costal margin. Both valvae rather short with broad saccular half, distal half similarly broad, with almost parallel costal and ventral margins. Cucullus rather rectangular, apical area covered with a field of strong setae. Sacculus long, broad, sclerotized; with heavily sclerotized dorso-apical margin and small, triangular apical extension. Aedeagus relatively short, thick, especially at middle, carina with short dorsal and eversible, longer ventral sclerotized plates. Vesica broadly tubular, recurved ventro-laterally, distal half inflated, with large, lateral, verrucose field, a small, subconical subterminal diverticulum and a long, strong, scaphoidal cornutus with small apical peak.

Female genitalia (Fig. 8). Ovipositor weak, short, gonapophyses short, fine. Antrum long, flattened, quadrangular, ventral plate with stronger, sand-clock-shaped, sclerotization, dorsal plate weakly sclerotized. Ductus bursae almost as long as antrum, flattened, sclerotized; apical part of cervix bursae hyaline, other parts of cervix and dorso-lateral surface (on left side) of posterior half of corpus bursae heavily sclerotized, forming large, folded, sclerotized plate.

*Bionomics and distribution* – *Stenoloba pulla* was found in rich, mixed deciduous forests, in medium-high and higher altitudes of Taiwan (between 700–2300 m a.s.l.). The species is presumably univoltine, the imagines are on wing from the mid-August to the beginning of October and are attracted to light.

*Etymology* – The name is derived from the Latin “pullus”, meaning “dark”.

### ***Stenoloba yenminia* sp. n.**

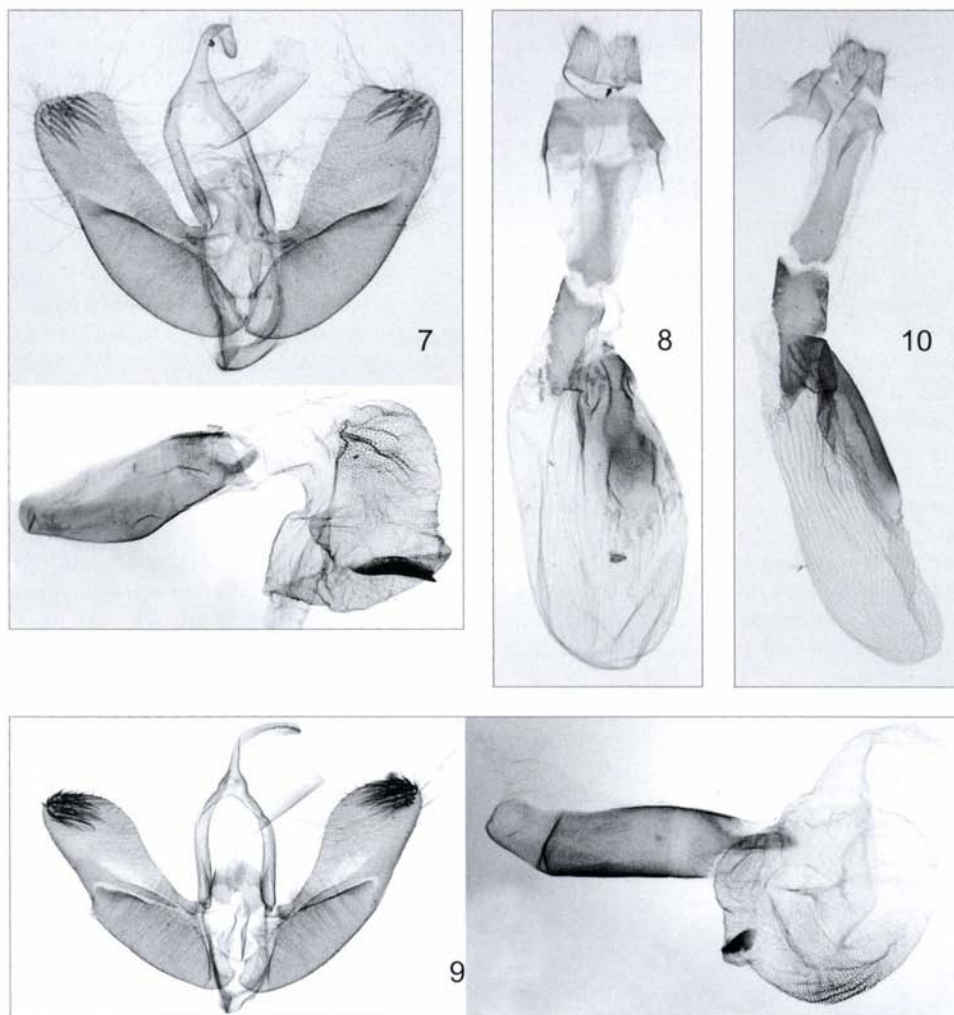
(Figs 3, 11)

*Holotype* – Male, “Taiwan, Prov. Ilan, Fu-Shan Botanical Garden, 700 m, 27.VII.1995, leg. J.J. Hsiao”; slide No. 7079 RONKAY (coll. TFRI Taipei).

*Paratypes* – Two males, with the same data as the holotype (coll. TFRI Taipei).  
Slide No. RL9TFRI (male).

**Diagnosis** – The new species is similar externally, as far as the external characters are recognizable by the three worn specimens of the type series, to *S. oculata* DRAUDT, 1950 and *S. rufosagitta* KONONENKO et ROKKAY, 2001, but easily separable from all known *Stenoloba* species by its distinctive male genitalia.

The male genital capsula of the new species (Fig. 11) differs from that of its supposedly closest relative, *S. oculata* (see KONONENKO & ROKKAY 2000, Fig.



**Figs 7–10.** 7 = *Stenoloba pulla* sp. n., male genitalia, paratype; 8 = *S. pulla* sp. n., female genitalia, paratype; 9 = *S. bachmana* KONONENKO et ROKKAY, 2000, male genitalia, holotype; 10 = *S. bachmana* KONONENKO et ROKKAY, 2000, female genitalia, paratype

44) by its longer, larger, rather triangular uncus, longer, narrower, sclerotized tegumen, long, narrowly V-shaped vinculum, longer and much narrower valvae with well-developed, triangular costal extension, pointed, densely hairy cucullus without sclerotized peak or setae, etc. The aedeagus of *S. yenminia* is longer, more tubular, than that of *S. oculata*, tapering distally, the vesica is broadly tubular, recurved, helicoid, coiling into one and half coils, almost completely membranous, only very weakly scobinate, with a weak, long sclerotized subterminal bar in inner curve of the second coil.

The male genitalia of *S. yenminia* differ conspicuously from those of *S. rufosagitta* (see KONONENKO & RONKAY 2001, Figs 32–33) by their much narrower, sclerotized tegumen, long, V-shaped vinculum, longer, narrower valva with large costal lobe but without apical process, absence of saccular extension and the much longer, narrowly tubular, helicoid vesica, without any armature (the vesica of *S. rufosagitta* is armed with two fields of short but strong cornuti).

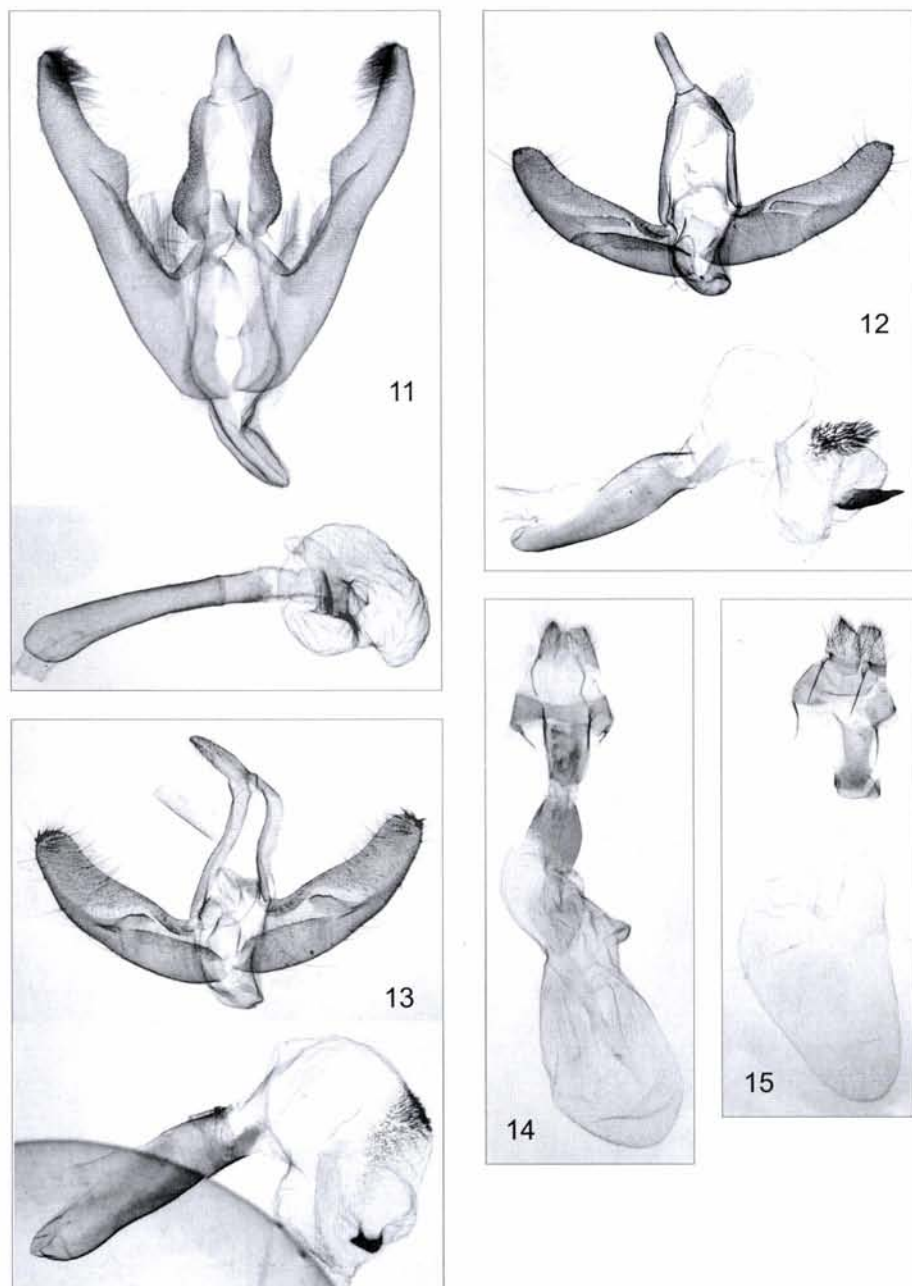
*Description* – External appearance. Wingspan: 26–27 mm, length of forewing 12–13 mm. Forewing ground colour dark greyish brown with distinct whitish patch at tornus. Reniform stigma elliptical, encircled with fine blackish line; postmedial line double, fine, strongly arched around reniform. Subterminal line pale, diffuse, indistinct; terminal line dotted; cilia brown. Hindwing unicolorous, dark brown; discal spot not traceable; cilia also brownish. Underside of forewing uniformly dark brown; hindwing ochreous-greyish, irrorated strongly with dark brown scales, discal spot present, small, crosslines diffuse, wide, marginal area also darkened.

Male genitalia (Fig. 11). Uncus relatively large, flattened, broadly triangular with apex pointed. Tegumen narrow, rather long, sclerotized, with well-developed penicular lobes. Vinculum long, sclerotized, V-shaped; juxta deltoidal, long, rather narrow. Valva long, narrow, sclerotized, with well-developed, triangular costal extension at medial third. Saccus long, somewhat broader than most parts of valva, with densely setose plate at place of clavus and with smoothly sclerotized apical plate. Medial third of valva with sclerotized medial crest ("ampulla"), cucullus narrow, triangular with finely pointed apical lobe ventrally, covered densely with short hairs. Aedeagus long, tubular, broad basally, tapering distally, carina with finely sclerotized, pointed dorsal and ventral plates. Vesica broadly tubular, helicoid with one and half coils, recurved around carina. Its walls membranous with very fine scobination only, inner curve of the second coil with weak, long, finely sclerotized bar.

*Bionomics and distribution* – The life history of the species is poorly known, the three known specimens were collected in two subsequent nights with light trap at one of the LTER (= "Long Term Ecological Studies") sites of the Fu-Shan Botanical Garden.

*Etymology* – The new species is dedicated to Mrs YEN-MIN KUO, collection manager of the Lepidoptera collection of the TFRI, Taipei.





**Figs 11–15.** Genitalia: 11 = *Stenoloba yenminia* sp. n., male, holotype; 12 = *S. benedeki* sp. n., male, holotype; 13 = *S. benedeki* sp. n., female, paratype; 14 = *S. olivacea* (WILEMAN, 1914), male, Taiwan; 15 = *S. futii* KONONENKO et RONKAY, 2000, female, paratype

***Stenoloba benedeki* sp. n.**

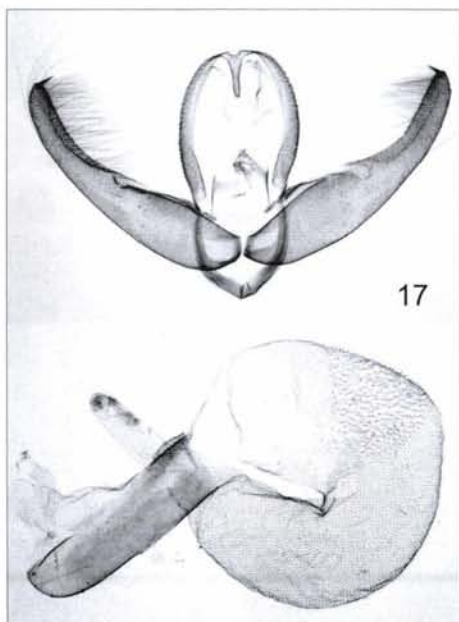
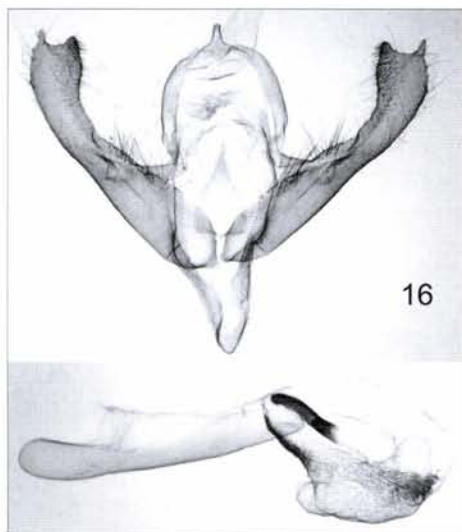
(Figs 4–5, 12, 14)

*Holotype* – Male, “N. VIETNAM, Mt. Fan-si-pan, W-side, Chapa, 22°20'N, 103°40'E, 1600–1800 m, Apr. 1995, leg. Sinjaev et Sammler, ex coll. Schintlmeister”, “MUSEUM WITT”; slide No. 7127 RONKAY (coll. HNHM Budapest).

*Paratypes* – 5 males, 2 females, with the same data as the holotype (coll. HNHM and G. RONKAY).

Slide No. 7128 RONKAY (female).

*Diagnosis* – The new species belongs to the *S. olivacea* species-group, resembling externally mostly *S. olivacea* (WILEMAN, 1914) and *S. futii* KONONENKO et RONKAY, 2000, but is easily separable from all relatives by its external as well as genital features. *Stenoloba benedeki* is significantly smaller than *S. olivacea* but larger than *S. futii*, its forewing ground colour is somewhat darker olive-greenish with much finer, less distinct, less conspicuous dark pattern, the lower part of the median area is less darkened than those of the related two species and the hindwing is suffused with greyish, not whitish as in *S. olivacea* and *S. futii*.



**Figs 16–17.** Genitalia: 16 = *Stenoloba lanceola* sp. n., male, holotype; 17 = *S. futii* KONONENKO et RONKAY, 2000, male, paratype



The male genitalia of the new species (Fig. 12) differ from those of *S. olivacea* (see Fig. 13 and KONONENKO & RONKAY 2000, Fig. 17) by their longer, significantly narrower uncus, more elongated, narrower valva, longer, narrower sclerotized bar of harpe-ampulla complex, thinner, more arcuate aedeagus, less inflated vesica with longer, stronger terminal cornutus and by the smaller medial cornuti field consisting of somewhat longer, stronger spiculi. Comparing the male genitalia of *S. benedeki* and *S. futii* (see Fig. 17 and KONONENKO & RONKAY, 2000, Fig. 49), the new species has much longer uncus, broader tegumen, distally broader, apically less tapering valva, longer sacculus, larger, stronger bar of harpe-ampulla complex and the vesica has terminal cornutus which is missing in *S. futii*.

The female genitalia of *S. benedeki* (Fig. 14) differ from those of *S. olivacea* and *S. futii* (see Fig. 15 and KONONENKO & RONKAY 2000, Figs 64–67) by their longer, broader, distally much more sclerotized ductus bursae and the subconical, partly smoothly sclerotized, partly folded cervix bursae. In addition, the antrum of the new species is smaller, more quadrangular than that of *S. olivacea*.

*Description* – External appearance. Wingspan: 26–31 mm, length of forewing 13–15 mm. Body slender, head and thorax brown, collar, parts of tegulae and thoracic tufts pale greenish, marked with some blackish and white scales. Abdomen slender, dorsal crest well-developed, consisting of two large blackish-brown tufts. Forewing elongate, costa less arcuate, apex finely pointed. Ground colour pale, rather unicolorous mossy green, with fine golden-greenish shining; costal area irrorated with blackish grey scales. Basal dash a sharply defined, rounded spot; lower half of basal line also blackish, defined with white lines. Other elements of wing pattern less conspicuous, although costal patches of crosslines often rather strong, dark. Antemedial and postmedial lines distinct but relatively pale, dark grey, former double, waved, filled with ground colour, latter strongly sinuous, defined with whitish scales on both sides. Median fascia diffuse, interrupted; lower part of medial area strongly constricted, its outer part covered with dark grey scales between median fascia and postmedial line. Orbicular and claviform stigmata missing; reniform represented by its fine, lunulate inner line and a smaller outer streak, defined with a whitish-greyish patch between reniform stigma and postmedial line. Subterminal diffuse, brownish grey, partly interrupted; terminal line fine, whitish, followed by a row of dark spots between veins; cilia brownish-greenish, darker than ground colour. Hindwing large, rounded, whitish, suffused strongly with darker grey. Discal spot large, lunulate; transverse line diffuse, sinuous; marginal suffusion broad, veins also darkened. Terminal line dark brown; cilia white with interrupted brown medial line. Underside of wings whitish; forewing largely suffused with dark brown-grey, discal spot and transverse line present but diffuse; hindwing rather sparsely irrorated with dark grey, discal spot and sinuous transverse line conspicuous, dark brown.

Male genitalia (Fig. 12). Uncus long, rather slender, with parallel margins. Tegumen high, relatively narrow; vinculum short; subdeltoidal. Valva simple, elongate, evenly tapering distally towards apex; apex rounded, with a few short spines at apical margin. Sacculus elongate, relatively broad; rudiment of clasper-harpe complex forming long, narrow, sclerotized, dorsally finely dentate plate. Aedeagus short, rather thick, distally finely arcuate; carina with sclerotized, short, relatively wide ventro-lateral plate. Vesica large, inflated, everted forward, recurved ventrally; distal half with three diverticula, one of them armed with large, thorn-like terminal cornutus, medial part with rather small cornuti field consisting of fine spiculi.

Female genitalia (Fig. 14). Ovipositor weak, with relatively large papillae anales; apophyses posteriores and anteriores short, equal in length. Antrum sclerotized, flattened, medium-long, more or less quadrangular; ductus bursae rather long, flattened, posterior part strongly sclerotized, anterior part membranous. Cervix bursae large, subconical, partly smoothly sclerotized and cristate-folded; corpus bursae elliptical-sacculiform, membranous, finely scobinate.

*Bionomics and distribution* – The species was found at the rather disturbed lower region of the montane forest zone of the Fan-si-pan Mts. The moths were collected at light. The majority of the specimens are freshly emerged, thus, *S. benedeki* is supposedly an univoltine spring species, similarly to the other taxa of the species group.

*Etymology* – The new species is dedicated to Mr BALÁZS BENEDEK, a talented young lepidopterist, member of the staff of the Lepidoptera section of the HNHM Budapest.

### ***Stenoloba lanceola* sp. n.**

(Figs 6, 16)

*Holotype* – Male, “N. VIETNAM, Mt. Fan-si-pan, W-side, Chapa, 22°20'N, 103°40'E, 1600–1800 m, Apr. 1995, leg. Sinjaev et Sammler, ex coll. Schintlmeister”, “MUSEUM WITT”, slide No. 7129 RONKAY; deposited in coll. HNHM Budapest.

*Diagnosis* – The new species belongs to a distinct, yet monotypical species-group within the genus *Stenoloba*. The head structure, including the prominent frons, and the genitalia show clearly the closer relationships of *S. lanceola* with the members of this genus, in spite of its curious external appearance, resembling mostly certain *Selepa* MOORE, 1858 species. The male genitalia (Fig. 16) differ conspicuously from those of the other *Stenoloba* species by the special combination of the features (see the description of the male copulatory organ), appearing separately in different species groups of the genus; the strong, crest-like terminal cornutus with open, crater-like apex is unique within *Stenoloba*.

*Description* – External appearance. Wingspan 28 mm, length of forewing 13 mm. Male. Body slender, head and thorax brownish, collar and tegulae milky whitish. Antenna filiform, plapi pale greyish. Abdomen slender, dorsal crest well-developed, consisting of dark tufts. Forewing rather narrow, lanceolate, costa arcuate, apex pointed, outer margin angled inwards below vein m3. Ground colour dark brown, large basal patch and outer half of median area milky white with a few ochreous shade; basal third of costal area broadly mossy greenish; apical area suffused with white and plumbeous grey. Elements of wing pattern indistinct, marked usually by edges of differently coloured parts of wings: antemedial and postmedial lines obsolete; lower half of median fascia defined by a few blackish scales. Subterminal line fine, whitish, interrupted and strongly sinuous. Orbicular stigma represented by a blackish dot, claviform stigma missing. Reniform stigma rather prominent, whitish with large blackish patch in lower two-third. Terminal line a row of darker brown spots followed by very fine ochreous line; cilia as ground colour. Hindwing short, rounded, dark greyish brown, veins and diffuse discal spot somewhat darker. Terminal line dark brown; cilia whitish with brownish inner line. Underside of wings whitish grey, forewing almost completely suffused with

brown-grey, discal spot large but diffuse; hindwing strongly irrorated with dark brownish grey, discal spot rounded, small, rather prominent; veins dark brownish. Female unknown.

Male genitalia (Fig. 16). Uncus very short, fine, tegumen medium-high, rather narrow. Juxta broadly subtriangular-pentagonal; vinculum long, strong, V-shaped. Valva long, saccular part broad, medial third constricted, apical part dilated, forming rather quadrangular, setose cucullus. Valval apex a small, triangular extension, ventral end a fine, short, acute process. Sacculus elongate, narrow, clavus represented by densely setose surface; harpe fully reduced. Aedeagus tubular, as long as valva, carina unspecialized. Vesica long, tubular, everted forward, recurved ventro-laterally. Basal third narrow, rather straight, membranous, medial third curved, scobinate, with two pocket-like lateral diverticula. Medial and distal thirds with long, narrow ventral field covered densely with short, fine spiculi; distal end with strong, long, crest-like terminal cornutus having open, crater-like apical end.

*Bionomics and distribution* – The species is known by its unique holotype specimen which was collected at the same region as the preceding species; no additional information is known about its life history.

*Etymology* – The name refers to the lanceolate shape of the forewing.

\* \* \*

*Acknowledgements* – The author would like to express his gratitude to Dr J. T. CHAO, Dr S. H. YEN, Mrs Y. M. KUO, Mr Y. Y. LIEN, Dr S. S. LU (Taipei), Mr H. R. TZUOO (Puli) and Mr C. M. FU (Taiping) for their kind help during his studies in Taiwan. He is also indebted to Mr B. BENEDEK (Budapest), Dr G. CSORBA (Budapest), Mr GY. FÁBIÁN (Budapest), Dr B. HERCZIG (Baj) and Mr G. RONKAY (Budapest), for the kind loan of their *Stenoloba* material.

The research was supported by the Hungarian Scientific Research Fund (OTKA grant No. 16465).

Results of the joint project of the Hungarian Natural History Museum and the Taiwan Forestry Research Institute, entitled "Biodiversity studies on the Macrolepidoptera fauna of Taiwan".

## REFERENCES

- DRAUDT, M. (1950): Beiträge zur Kenntnis der Agrotiden-Fauna Chinas. Aus den Ausbeuten Dr. H. Höne's. – *Mitteilungen der münchener entomologischen Gesellschafts* **40**: 1–174.
- KONONENKO, V. S. & RONKAY, L. (2000): A revision of the genus *Stenoloba* Staudinger, 1892 (Lepidoptera, Noctuidae, Bryophilinae) with description of 25 new species and 3 new subspecies from East Asia (I). – *Insecta Koreana* **17** (3): 137–174.
- KONONENKO, V. S. & RONKAY, L. (2001): A revision of the genus *Stenoloba* Staudinger, 1892 (Lepidoptera, Noctuidae, Bryophilinae) with description of 25 new species and 3 new subspecies from East Asia (II). – *Insecta Koreana* **18**: [in press]



