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New species of the *Meganola nitida* (HAMPSON, 1894) species-group (Lepidoptera, Nolidae)

Investigations on Asian Nolidae V[1]

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Abstract

The present paper contains the taxonomic review of the *Meganola nitida* (s.l.) species group. Descriptions of the male and female genitalia of *Meganola nitida* (HAMPSON, 1894) are given; two new species closely related to *M. nitida* from Nepal, North Vietnam, Taiwan and Malaysia (*Meganola subnitida* and *M. mediofusca* spp.n.), and a sister species of *Meganola nitidoides* HOLLOWAY, 2003 from Sumatra (*M. simulata* sp.n.), are described. With 22 figures.

Key words: Nolidae, *Meganola*, *nitida*-group, new species.

[1] This is the fifth paper dealing with taxonomical problems of the family Nolidae (Lepidoptera). (4th paper: Entomofauna **28** (2) / 2007: 17-29).

Zusammenfassung

Der vorliegende Artikel enthält die taxonomische Analyse der *Meganola nitida* (s.l.)-Artengruppe. Beschreibungen der männlichen und der weiblichen Genitalien von *Meganola nitida* (HAMPSON, 1894) erfolgen; zwei neue, eng mit *M. nitida* verwandte Arten aus Nepal, Nord-Vietnam, Taiwan und Malaysia (*Meganola subnitida* sp.n. und *M. mediofusca* sp. n.) und eine Schwesterart von *Meganola nitidoides* HOLLOWAY, 2003 aus Sumatra (*M. simulata* sp.n.) werden beschrieben. Mit 22 Abbildungen.

Introduction

The "*nitida*-group" is a rather characteristic phyletic unit within the genus *Meganola* DYAR, 1898. The diagnostic external feature of the group is the white or silvery-whitish ground colour of forewing with sharply defined black crosslines and dark grey or black median area. Although the external features are very similar in all species, the structure of the male genitalia divides the species group into two different phyletic lineages: The "*M. nitida*-line" (with *M. nitida*, *M. subnitida* sp.n. and *M. mediofusca* sp.n.) has more simple clasping apparatus without saccular process and ampullar plate, simple, weakly sclerotized costal margin, and well-developed dentate, claw-like harpe, and the vesica of the species belonging to this line is armed with 6-16 fine, long cornuti. The male genitalia of the "*nitidoides*-line" (with *M. nitidoides* and *M. simulata* sp.n.) have long, rather broad saccular lobe, with rounded process, well-developed ampullar plate and strongly sclerotized costal margin with Y-shaped sclerotization, but the short, thin process of harpe is considerably weaker than in the *M. nitida*-line and the vesica is armed by a single, large cornutus (see the Figs 14-18).

In the collections of the Museum Witt, Munich and Hungarian Natural History Museum, Budapest, a series of a small, rather *M. nitida*-like species was found from Thailand and Malaysia. Although the wing pattern of this species appears to be almost identical with *M. nitida*, remarkable differences were found in the male genitalia. The new species (*M. subnitida* sp.n.) is probably an allopatric sister-species of *M. nitida* in the Malayan Peninsula and South Indochina.

In the above mentioned collections a further undescribed relative of *M. nitida* was also found from North Vietnam and Taiwan. Interestingly, the new species (*M. mediofusca* sp. n.) differs externally conspicuously from *M. nitida* and *M. subnitida* sp.n. but the structure of their genitalia show the close relationship between the three species. This new, sympatric sister species of *M. nitida* has already been recorded from Nepal (INOUE, 1998), but under the name "*M. nitida*".

A very probably allopatric sister species of *M. nitidoides* was discovered by chance in the materials of the Museum Witt, Munich, the Heterocera Sumatrana Society, Göttingen, and Michael Fibiger, Sorø, collected in Sumatra. The specimens from Sumatra are hardly distinguishable from the specimens of *M. nitidoides* described from Borneo, but the male genitalia display striking differences.

An unfortunate difficulty has been realized during the taxonomic investigation of the species group. The genitalia slide (or formerly the abdomen?) of the type specimen of *M.*

nitida has been exchanged, as a strange male (probably Nolid) genitalia is found under the number of the slide of the female type. Thus, for the taxonomic comparison of the related species, the descriptions of the male and female genitalia of *M. nitida* presented in this article, are based on conspecific specimens from E. Nepal and Sikkim.

Abbreviations

BMNH = The Natural History Museum, London;

HNHM = Hungarian Natural History Museum, Budapest;

HSS = Heterocera Sumatrana Society, Göttingen;

MWM = Museum Witt, Munich;

LGN = Nolidae genital slide of Gyula M. László;

W = slide of the Witt Museum, Munich.

Systematic part

Meganola nitida (HAMPSON, 1894) (Figs 1-4, 14, 19)

Selca nitida HAMPSON, 1894, Fauna of British India, Moths **2**: 147. Type-locality: [India] Manipur; [Myanmar] E Pegu. Holotype, in BMNH.

Type material examined: holotype female of *Selca nitida* HAMPSON, 1894, labelled as "red ring type label"; with handwriting: "Máo Manipur, 5700 ft. Doherty"; with handwriting: "Selca nitida Hmpsn. Type female"; "Collectio H. J. Elwes"; "Rothschild Bequest B.M. 1939-I"; "Arctiidae genitalia slide No. 1846".

Additional material examined: Nepal. 1 male, Ganesh Himal, 2720 m, above Nesim, 85°16'E, 28°08,5'N, 21. IX. 1995, leg. B. Herczig & Gy. M. László, slide No. LGN 14; 2 females, Ganesh Himal, 1700 m, 3 km W Gogne, 85°12'E, 28°05,5'N, 23. IX. 1995, leg. B. Herczig & Gy. M. László, slide Nos. LGN 15 (W 8350), LGN 921; 1 male, Mechi, Taplejung area, Nesum village, 1550 m, 87°29'E, 27°17'N, 21. X. 1996, leg. Gy. M. László & G. Ronkay, slide No. LGN 920 (W 8349); Sikkim. 1 male, 1 female, Darjeeling, slide Nos LGN 922 (W 8351), LGN 923 (W 8352) (coll. MWM and HNHM).

Description: Male genitalia (Fig. 14): Uncus simple, medium-long, apically pointed. Tegumen rather narrow, elongate; fultura inferior short, quadrangular, with two short, narrow, proximal processi. Vinculum short, rounded. Valva relatively long, broad at base, medially tapering, apically broadly rounded; costal margin slightly sclerotized, evenly arcuate. Sacculus relatively broad, rather short, without processi; harpe well-developed, robust, claw-like, with fine dentation on the distal margin. Aedeagus medium-long, relatively narrow, vesica armed with 5 to 10 relatively long, straight, acute spines.

Female genitalia (Fig. 19): papillae anales rather short, broad, apophyses posteriores relatively long. 8th tergite rather short, ribbon-like, with parallel and almost straight

proximal and distal margins; apophyses anteriores rather short. Ostium bursae broad, sclerotized, funnel-like; ductus bursae relatively long, strongly sclerotized, broadened medially, rhomboidal in shape; cervix bursae membranous, relatively short. Tubular part of corpus bursae short, bursa rounded, signum absent or represented by a finely scobinated plate at fundus bursae; appendix bursae relatively small, rather weakly membranous, projecting laterally.

Bionomics and distribution: *M. nitida* occurs – according to our recent knowledge – from the main chains of the Nepal Himalayas to the Naga Hills. The species inhabits the monsoonic forests of medium high elevation (about 1500 m a.s.l.). The imagines are on the wing in the autumnal period. Data on the biology (larva and foodplant) of *M. nitida* are given by HAMPSON, according to HOLLOWAY (2003).

***Meganola subnitida* sp. n.** (Figs 5-7, 15)

Holotype: male, "N. THAILAND, Prov. Nan, Doi Phuka NP, between Pua and Bo Luang, 1350 m, 101°05'E, 19°12'N, 3. XI. 2002, leg. B. Herczig & G. Ronkay" slide No. LGN 925 (W 8353), coll. MWM. Paratypes: Thailand. 1 male, with the same data as the holotype; 1 male, Prov. Chiang Mai, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26. X. 2002, slide No. LGN 879, leg. B. Herczig & G. Ronkay; 3 males, Prov. Chiang Mai, 20 km NW of Mae Ai, 1650 m, 9. IX. 1999, leg. A. Szabó & Z. Czere, slide Nos LGN 878 (W 8355), LGN 924 (W 8354); Malaysia. 5 males, Pahang State, Cameron Highlands, Tanah Rata, 21. III. – 2. IV. 1995, slide Nos LGN 264, LGN 782, LGN 763 (W 8357), LGN 826 (W 8356) (coll. MWM and HNHM).

Diagnosis: The new species resembles strongly *M. nitida*, the only external distinctive feature is its considerably smaller size (wingspan of *M. nitida* (male) 20-22 mm, length of forewing 10-11 mm, in *M. subnitida* 17-19 mm and 8-9 mm, respectively). The two species are easily separable in the male genitalia, the distinctive characters are as follows: the harpe of *M. subnitida* is considerably less robust, with somewhat thinner claw-like process, dentated only in dorsal margin, while that of *M. nitida* is rather thick, large, with dentation on the distal margin. The base of the harpe is somewhat shorter in *M. subnitida* and the process of the harpe is situated closer to the sacculus than in case of *M. nitida*. The new species has a conspicuously shorter and narrower aedeagus than *M. nitida*, the cornuti of vesica of *M. subnitida* are much shorter and thinner than in *M. nitida*.

Description: Wingspan (male) 17-19 mm, length of forewing (male) 8-9 mm. Head relatively large, palpi whitish-brown, well developed, frons and vertex bright white; male antenna bipectinated. Collar black, with a group of bright white hair scales medially; tegulae bright white. Thorax covered with dark brown, abdomen with greyish brown hair scales. Forewing relatively broad and short, costal and outer margins evenly arcuate, ventral margin straight, apex rounded. Ground colour of forewing shining silvery white, median area filled with pale brownish grey, subterminal area with pale yellowish brown hair scales. Costal margin with black triangular basal, blackish-blue quadrangular medial and small, black triangular terminal spots. Basal and subbasal lines absent; antemedial line rather fine, slightly wavy. Medial line rather fine, black, interrupted, represented only in the lower part of wing. Postmedial line wavy, rather

broad, sharply defined with black scales. Praeterminal line absent; subterminal line strongly wavy, dark brownish grey, sharply defined. Terminal line narrow, dark brownish grey. Cilia pale brownish white, chequered with darker brown. Hindwing pale brownish grey, without crosslines and discal spot; cilia rather long, pale greyish brown. Underside of wings plumbeous grey, traces of transverse lines visible. Female unknown.

Male genitalia (Fig. 15): Uncus simple, medium-long, apically pointed. Tegumen rather narrow, elongate; fultura inferior short, quadrangular, with two short, narrow, proximal processi. Vinculum short, rounded. Valva relatively long, broad at base, medially tapering, apically broadly rounded; costal margin slightly sclerotized, evenly arcuate. Sacculus relatively broad and short, without processi; harpe well-developed, claw-like, with fine dentation on dorsal margin. Aedeagus relatively short, narrow, vesica armed with 6-8 straight, relatively short and fine, acute spines.

Female genitalia: unknown.

Bionomics and distribution: *M. subnitida* is a supposed vicariant of *M. nitida*, occuring from the Northern Thai mountains towards the Malayan Peninsula. The specimens of the type series were collected at medium-high altitude (900-1650 m) in deciduous forests. The species is probably univoltine, although the northern population is on the wing in the late autumn, and the southern one flies in the early spring. The larval stages and foodplant are unknown.

Meganola mediofusca **sp.n.** (Figs 8-10, 16, 20)

Holotype: male, "TAIWAN, Prov. Ilan, 1200 m, Ming Chyr Forest Recreation Area, 4-5. VI. 1997, leg. B. Herczig & L. Ronkay"; slide No. LGN 926 (coll. HNHM). Paratypes: Taiwan. 5 males, with same data as the holotype, slide Nos LGN 794, LGN 825 (W 8358); 1 female, same site, 1160 m, 29. V. 1997, leg. Gy. M. László & G. László, slide No. LGN 793 (W 8359); 1 male, same site, 8-9. VII. 1997; 4 males, same site, 24-26. VI. 1997, leg. S. T. Kovács; 1 male, Prov. Taipei, Pi Hu, 410 m, 22. VI. 1997, leg. B. Herczig & L. Ronkay; 1 female, same site, 450 m, 23. VI. 1997, leg. S. T. Kovács; 1 male, Prov. Pingtung, 10 km E Mutan, 400 m, 12. VI. 1997, leg. B. Herczig & L. Ronkay; 1 male, same site, 470 m, 3-4. VII. 1996, leg. G. Csorba & L. Németh; Vietnam. 9 males, Tam Dao, 60 km NW Hanoi, 1200 m, 21°34'N, 105°20'E, 1.-5. V. 1993, leg. Sinjaev & Simonov, slide Nos LGN 827 (W 8360), LGN 792 (W 8361); 1 male, Fan-si-pan Mts, Sa Pa, 2400 m, 22°15'N, 103°46'E, 8-29. V. 1993 leg. Sinjaev & Simonov (coll. MWM and HNHM).

Diagnosis: *Meganola mediofusca* differs externally from its close relatives, *M. nitida* and *M. subnitida*, by different forewing ground colour which is clear white in *M. mediofusca* and silvery white in the related species. The crosslines of *M. mediofusca* are much less sharply defined and much narrower than in *M. nitida* and *M. subnitida*. The rather conspicuous median area of the new species is much darker in its full length, covered with dark brown scales, while that of the related species is dark blackish brown only in the upper third of the wing, the lower part is much paler. The genitalia of the three related species display considerable differences in both sexes, too. In the male genitalia, the harpe is very similar to *M. subnitida*, but differs from *M. nitida* by the following features: the harpe of *M. mediofusca* is less robust, with somewhat thinner claw-like process, dentated only in the dorsal margin, while it is thicker, larger, with

dentation on the distal margin in *M. nitida*. The base of harpe is somewhat shorter in *M. mediofusca* and the process of harpe is situated closer to the sacculus, than in *M. nitida*. The aedeagus of the new species – similarly to *M. subnitida* – is conspicuously shorter and narrower than in *M. nitida*, the vesica has the most numerous cornuti in the group: the number of cornuti is 12 to 16 in *M. mediofusca*, while *M. nitida* and *M. subnitida* have only 5-10 and 6-8 cornuti, respectively. The cornuti of the new species are the shortest in the species group, rather hair-like, arranged into two groups, while *M. nitida* and *M. subnitida* has much longer, thorn-like cornuti, arranged into a common group. There are remarkable differences between *M. mediofusca* and *M. nitida* in the structure of the female genitalia, too: the ductus bursae of the new species is twice as long as in *M. nitida*; the medio-lateral rhomboidal extension of ductus bursae is much narrower in *M. mediofusca* than in *M. nitida*. Moreover, *M. mediofusca* has a pair of well-developed, thorn-like signa, while the signum of *M. nitida* is absent, or it is represented only by a scobinated plate.

D e s c r i p t i o n : Wingspan (male) 18-21 mm, length of forewing 9-10 mm, wingspan (female) 25 mm, length of forewing 12 mm. Head relatively large, palpi whitish-brown, well-developed, frons and vertex bright white; male antenna bipectinated, female antenna filiform. Collar, tegulae and thorax covered with bright white, abdomen with greyish brown hair scales. Forewing relatively broad and short, costal and outer margins evenly arcuate, ventral margin straight, apex broadly rounded. Ground colour of forewing clear white, median area filled with dark brown, subterminal area with pale brown scales. Costal margin with black quadrangular or triangular spot in the basal and blackish-brown quadrangular spots in the medial and terminal area. Basal and subbasal lines absent; antemedial line rather narrow, slightly wavy. Medial line poorly visible, interrupted, black, represented only in lower part of wing. Postmedial line strongly wavy, rather narrow, interrupted, shadow-like. Praeterminal line absent; subterminal line rather narrow, interrupted, strongly wavy, pale brownish grey, sometimes poorly visible. Terminal line very narrow, pale brown, consisting of short sections between the veins. Cilia pale brownish grey, chequered with darker greyish brown. Hindwing pale brownish grey, without crosslines and discal spot; cilia rather long, pale greyish brown. Underside of wings plumbeous grey, traces of transverse lines poorly visible.

Male genitalia (Fig. 16): Uncus simple, medium-long, apically pointed. Tegumen, rather narrow, elongate; fultura inferior short, quadrangular, with two short, narrow, proximal processi. Vinculum short, rounded. Valva relatively long, broad at base, medially tapering, apically broadly rounded; costal margin slightly sclerotized, evenly arcuate. Sacculus relatively broad, rather short, without processi; harpe well-developed, claw-like, with fine dentation on dorsal margin. Aedeagus relatively short, narrow, vesica armed with 12 to 16 straight, rather short, fine, hair-like spines arranged into two groups.

Female genitalia (Fig. 20): Papillae anales rather short, broad, apophyses posteriores relatively long. 8th tergite rather short, ribbon-like, with parallel and almost straight proximal and distal margins; apophyses anteriores rather short. Ostium bursae broad, sclerotized, funnel-like; ductus bursae rather long, strongly sclerotized, broadened medially, of an elongate rhomboidal shape; cervix bursae membranous, relatively short. Tubular part of corpus bursae short, bursa rounded, signum double, thorn like, distal one rather small, situated in the middle of bursa, proximal one well-developed, situated on

the bottom of bursa; appendix bursae relatively small, rather weakly membranous, projected laterally.

Bionomics and distribution: *M. mediofusca* occurs in the monsoonic forests of SE. Asia. The known specimens were collected in medium high mountains (most of the specimens were collected about 1100 to 1200 m a.s.l.) of the SE. Himalayas (Nepal), of Vietnam (Fansipan Mts) and of Taiwan. The new species has – in contrast to its relatives – summer adults. The early stages and foodplant are unknown.

Meganola nitidoides HOLLOWAY, 2003 (Figs 11, 17, 21)

"*Meganola*" *nitidoides* HOLLOWAY, 2003, The Moths of Borneo **18**: 27. Type locality: Borneo, Sarawak. Holotype in BMNH.

Type material examined: Holotype. Male, "Sarawak, Gunong Mulu Nat. Park, R.G.S. Wped. 1977-8 (J.D. HOLLOWAY et al.), Site 14, February, Camp 2,5, Mulu, 1000m. 413461, lower montane forest.". Paratypes. 1 male, Sarawak, Site 26, April, G. Api Pinnacles, 1200m, 428545, open scrub, slide No. BM Noctuidae 17040; 1 female, Brunei, Retak, L.P. 238, 1465 m, 22. IV. 1981, leg. T.W. Harman, slide No. BM Noctuidae 17653.

Meganola simulata sp.n. (Figs 12-13, 18, 22)

Holotype: male, "INDONESIEN, W. Sumatra, 7 km E Panti, 0°12'N, 100°01E, 1000m, Primärurwald, 16.IX.1991, leg. Graul ex coll. A. Schintlmeister"; slide No. LGN 927 (W 8362) (coll. MWM). Paratypes: 7 males, with the same data as the holotype, slide Nos LGN 916 (W 8363), LGN 917 (W 8364); 1 male, N Sumatra, Dairi, 1600 m, 16.VII.1980, slide No. LGN 431; 1 female, N Sumatra, Prapat, HW2, 14.X.1985, leg. Dr. Diehl, slide No. LGN 430; 3 females, Indonesia, Sumatra North, Mt. Sibayak, 6 km NW Brastagi, 1650 m, 03°14'N, 98°29'E, 2.III.2002, leg. M. Fibiger (coll. MWM, HNHM, HSS and M. Fibiger).

Diagnosis: The new species is closely related to *Meganola nitidoides* HOLLOWAY, 2003, the two species cannot be separated satisfactorily by their external appearance. The differences between the two species are fairly expressed in the structure of the male and female genitalia. The distinctive characters of the male genitalia are as follows: the valva of the new species is somewhat broader than in *M. nitidoides*, the costal sclerotization is considerably shorter, Y-shaped, while it is much longer in *M. nitidoides* and almost reaches the tip of valva, forming a right angle. The saccular lobe of *M. simulata* is somewhat bigger, broadly rounded, while that of *M. nitidoides* is narrower, finger-like. The large single cornutus of the new species is thinner, almost straight, curved slightly only in the outer third, while it is more robust, strongly hooked in *M. nitidoides*. In the female genitalia, the medial incision of ostium bursae is less deep in *M. simulata*, rounded V-shaped, while that of *M. nitidoides* is deeper, U-shaped. The sclerotized ductus bursae of *M. simulata* is much longer and somewhat narrower than in the related species.

Description: wingspan (male) 20-24 mm, length of forewing 10-11 mm, wingspan (female) 27 mm, length of forewing 13 mm. Head relatively large, palpi dark grey, well developed, frons and vertex yellowish white. Male antenna bipectinated,

female antenna filiform. Collar yellowish white, upper half of tegulae black, lower half bright white. Thorax and abdomen covered with yellowish white hair-scales. Forewing relatively narrow, costal and outer margins evenly arcuate, ventral margin straight, apex rounded. Ground colour of forewing silvery white with slight pale brown shine. Elements of wing pattern darker in the costal area, costa marked with narrow, black stripe in basal area, large black quadrangular spot in medial area and small, triangular spot in terminal area. Basal and subbasal lines absent; antemedial line narrow, sharply defined, curved rectangularly at middle, upper and lower section almost straight. Medial line rather fine, black, slightly wavy, interrupted before costa; postmedial line wavy, almost parallel with medial line, rather broad, sharply defined with black hair scales. Praeterminal line dark brownish grey, slightly wavy, medially angled inwards. Subterminal line absent; terminal line rather broad, dark brownish grey. Cilia greyish white, chequered with darker brown. Hindwing without crosslines and discal spot, upper half pale greyish brown, lower half greyish white; cilia rather long, pale greyish brown. Underside of wings greyish brown, traces of transverse lines poorly visible.

Male genitalia (Fig. 18): Uncus simple, relatively long, apically slightly curved, acute. Tegumen relatively long, narrow, fultura inferior more or less quadrangular, shield-like. Vinculum short, broadly rounded. Valva relatively broad, rounded. Costal margin almost straight, strongly sclerotized, forming an Y shape towards tip of valva. Ampullar plate rather large, broad at base, tapering, apically curved towards ventral margin. Sacculus rather broad at base, relatively long, with well developed, quadrangular saccular lobe at middle of ventral margin. Harpe rather simple, narrow, short, apically rounded. Aedeagus rather long, narrow, vesica with long, relatively thick, almost straight single cornutus.

Female genitalia (Fig. 22): papillae anales short, apophyses posteriores relatively long. 8th tergite relatively long, quadrangular, with more or less straight, parallel margins. Apophyses anteriores rather short. Ostium bursae well developed, infundibular, distal margin arcuate, medially somewhat incised, forming a short V. Ductus bursae rather long, relatively thick, strongly sclerotized. Cervix bursae twisted, relatively broad, sclerotized. Tubular part of corpus bursae rather narrow in distal third, broadened proximally; corpus bursae ovoid, with a pair of triangular signa.

Bionomics and distribution: *Meganola simulata* is probably a vicariant sister species of the Bornean *M. nitidoides* in Sumatra. The specimens of the type series were collected at light in medium-high mountains of Sumatra (between 1000-1600 m a.s.l.), in primary tropical rainforest habitats. The foodplant and the larval stages are unknown.

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References

HAMPSON, G.F. (1900): Catalogue of the Lepidoptera Phalaenae in the British Museum **2**, 589 pp. – London, British Museum Trustees.

HOLLOWAY, J.D. (2003): The Moths of Borneo, Nolidae, part 18. – Southdene Sdn. Bhd., Kuala Lumpur, 279 pp + 10 colour plates.

INOUE, H. (1998): Nolinae. – In: HARUTA T. (ed.), Moths of Nepal, Part V. *Tinea* **15** (suppl. 1): 89-95.

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Plate 1 (Adults)

Fig. 1: *Meganola nitida* (HAMPSON, 1894) Type female, Slide No.: BMNH Arctiidae 1846

Fig. 2: *Meganola nitida* (HAMPSON, 1894) Type female, Slide No.: BMNH Arctiidae 1846, labels

Fig. 3: *Meganola nitida* (HAMPSON, 1894) male, Slide No.: LGN 920

Fig. 4: *Meganola nitida* (HAMPSON, 1894) female, Slide No.: LGN 921

Fig. 5: *Meganola subnitida* sp.n. Holotype male, Slide No.: LGN 925

Fig. 6: *Meganola subnitida* sp.n. Paratype male, Thailand

Fig. 7: *Meganola subnitida* sp.n. Paratype male, Malaysia

Fig. 8: *Meganola mediofusca* sp.n. Holotype male, Slide No.: LGN 926

Fig. 9: *Meganola mediofusca* sp.n. Paratype male, Slide No.: LGN 794

Fig. 10: *Meganola mediofusca* sp.n. Paratype female, Slide No.: LGN 794

Fig. 11: *Meganola nitidoides* HOLLOWAY, 2003 Paratype male, Borneo

Fig. 12: *Meganola simulata* sp.n. Holotype male, Slide No.: LGN 927

Fig. 13: *Meganola simulata* sp.n. Paratype female

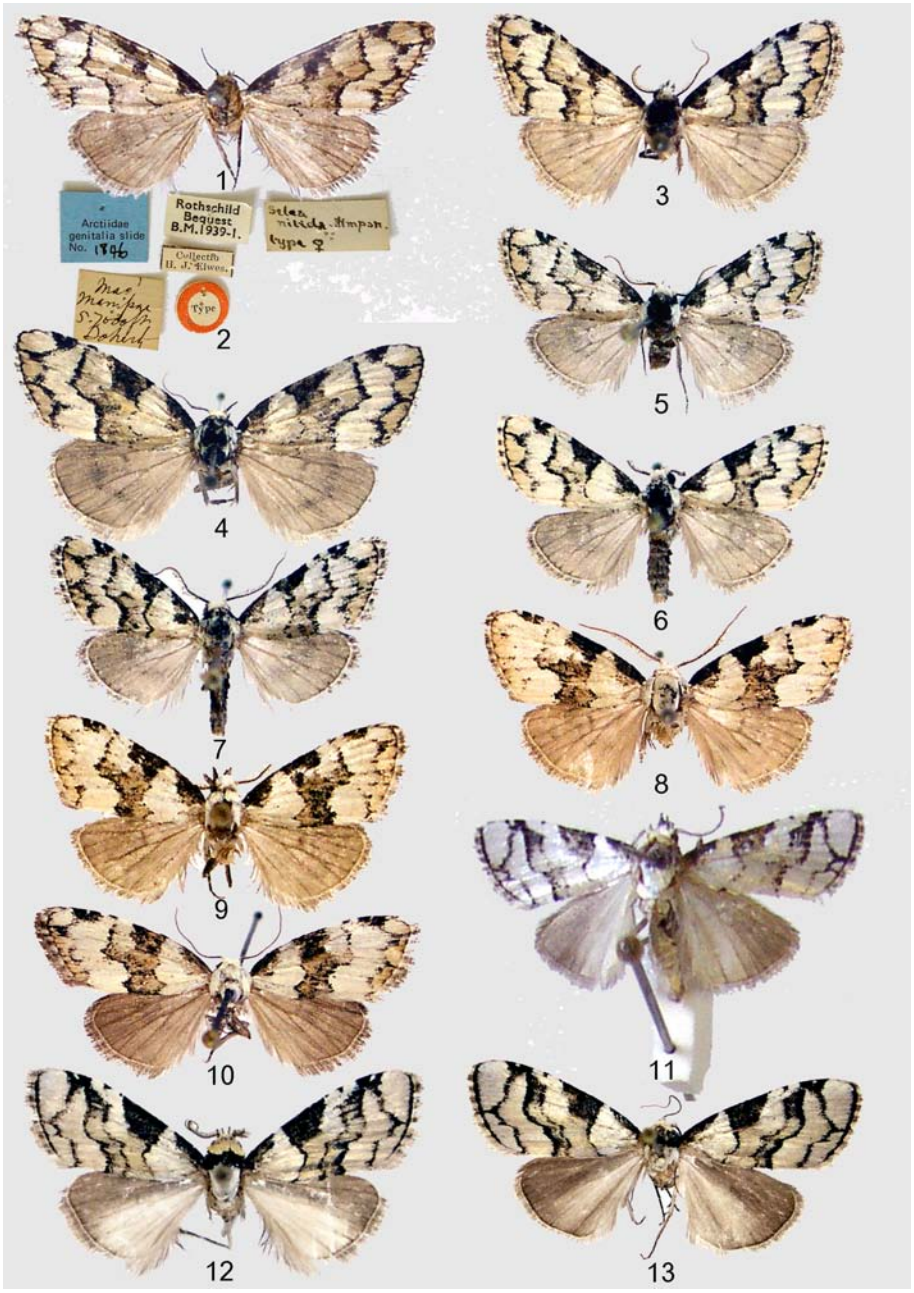


Plate 2 (male genitalia)

Fig. 14: *Meganola nitida* (HAMPSON, 1894), Slide No.: LGN 14

Fig. 15: *Meganola subnitida* sp.n. Paratype, Slide No.: LGN 264

Fig. 16: *Meganola mediofusca* sp.n. Holotype, Slide No.: LGN 926

Fig. 17: *Meganola nitidoides* HOLLOWAY, 2003 Paratype, Slide No.: BMNH Noctuidae 17040

Fig. 18: *Meganola simulata* sp.n. Holotype, Slide No.: LGN 927

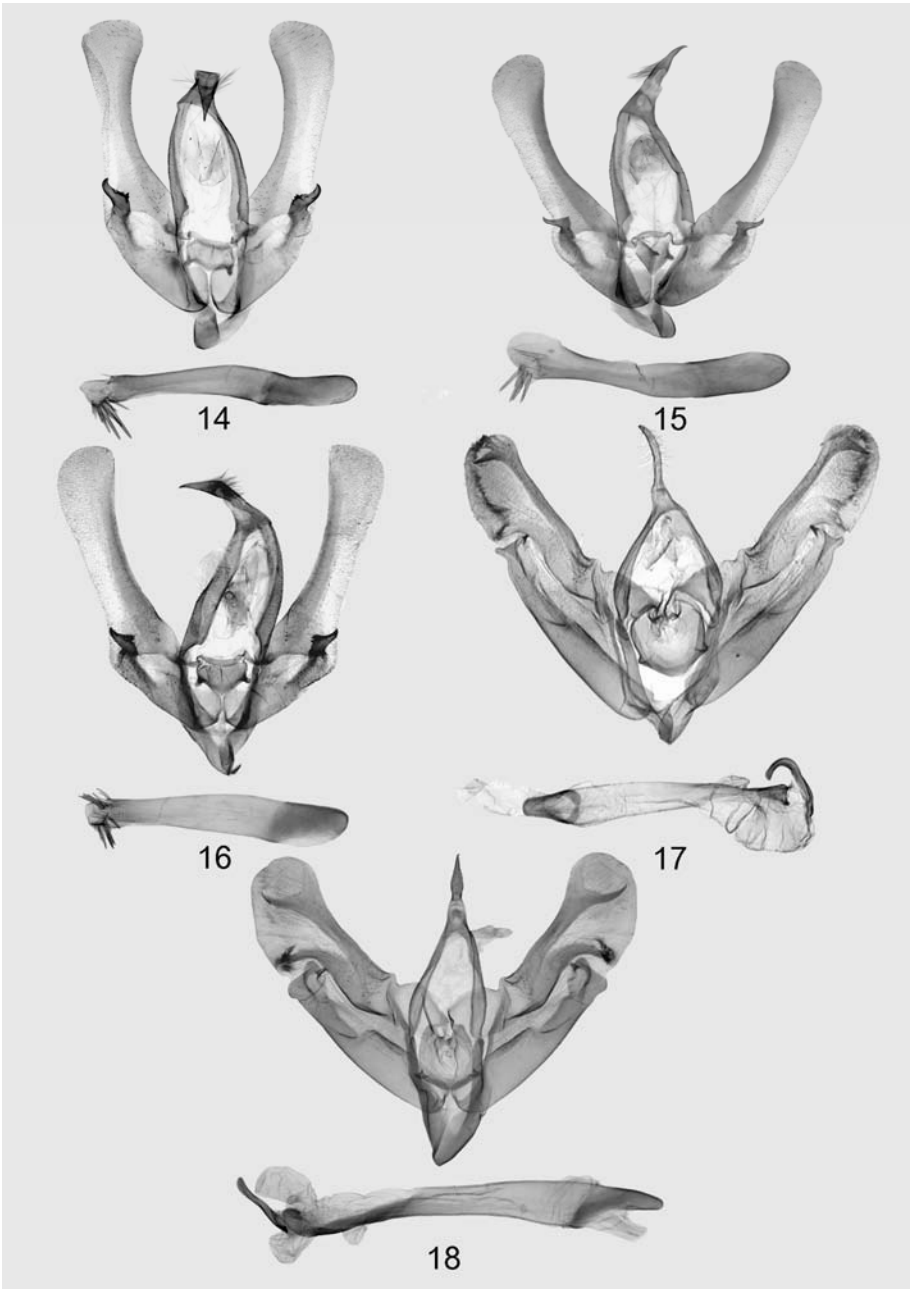
Plate 3 (female genitalia)

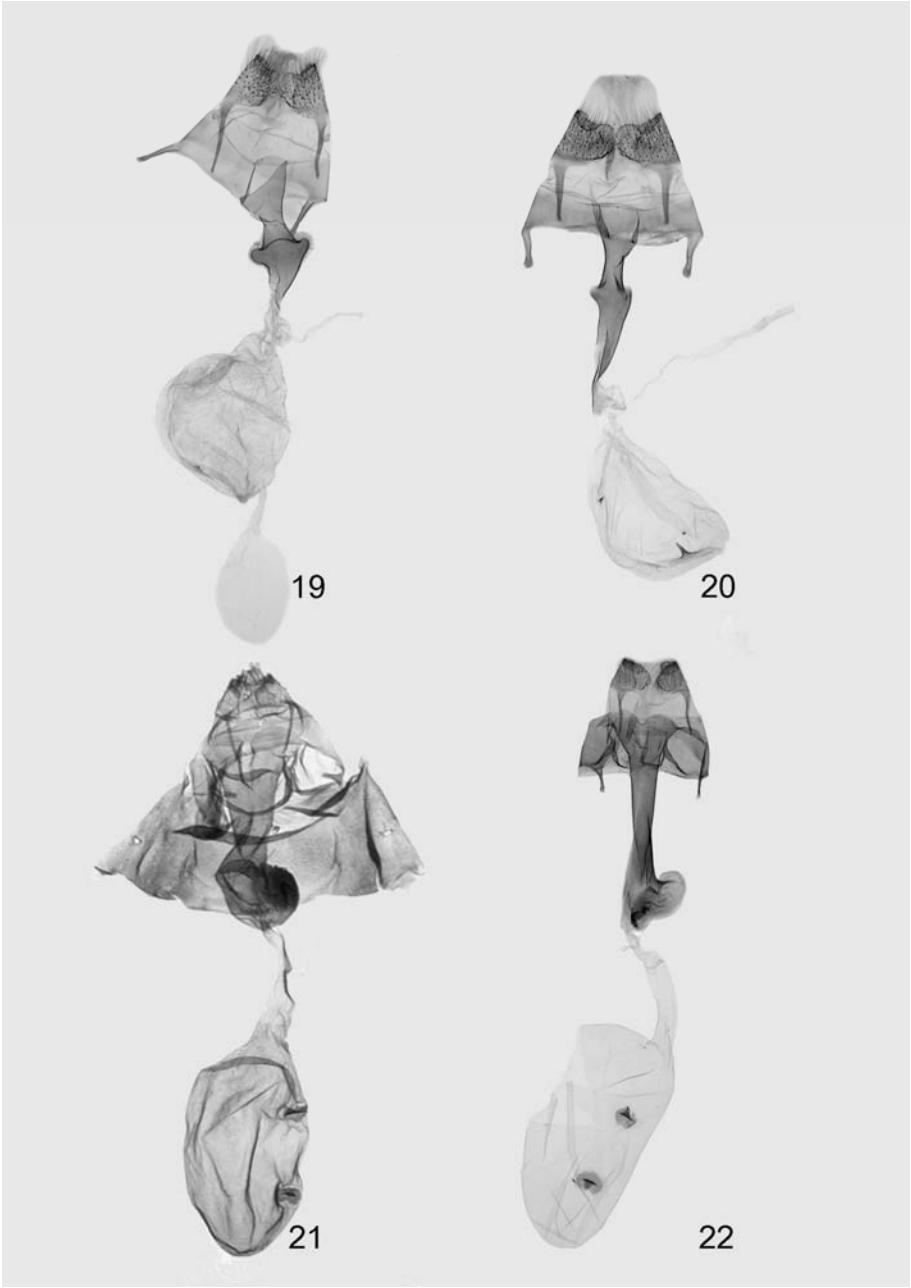
Fig. 19: *Meganola nitida* (HAMPSON, 1894) Slide No.: LGN 923

Fig. 20: *Meganola mediofusca* sp.n. Paratype, Slide No.: LGN 793

Fig. 21: *Meganola nitidoides* HOLLOWAY, 2003 Paratype, Slide No.: BMNH Noctuidae 17653

Fig. 22: *Meganola simulata* sp.n. Paratype, Slide No.: LGN 430 (female genitalia)





Literaturbesprechung

SCHINTLMEISTER, A. & PINRATANA, A. - 2007. Moths of Thailand, volume 5. Notodontidae. Brothers of St. Gabriel, Bangkok, Thailand. ISBN 978-974-88149-4-0. 4 +320 Seiten, davon 45 Farbtafeln.

Sämtliche 285 Zahnspinner-Arten Thailands werden im Text behandelt und die Imagines gut erkennbar farbig abgebildet. Zusätzlich werden bei schwierigen Gattungen und schwer zu unterscheidenden Arten auch die männlichen Genitalien, in Ausnahmefällen auch die weiblichen Genitalien abgebildet. Die Bearbeitung stellt einen hervorragenden Beitrag zur Kenntnis der Notodontidae-Fauna Südostasiens dar und ist die erste zusammenfassende Bearbeitung der Zahnspinner Thailands. In der "Introduction" finden sich Angaben zur Biologie und zur Geschichte der Erforschung der Notodontidae Thailands, im Kapitel "Material and Acknowledgements" sind die ausgewerteten Sammlungen aufgezählt. Ausführlich und mit Beispielen von Verbreitungsbildern besprochen werden die faunistischen Elemente, die in Thailand zu finden sind. Eine Checkliste sämtlicher Gattungen und Arten mit deren Synoymen ist beigegeben. Bedeutend ist die Anzahl der taxonomischen Veränderungen: 2 neue Subgenera, 35 neue Arten und 13 neue Subspezies werden beschrieben. Eine Kuriosität ist sicher die neu beschriebene *Niganda richaaardi*, einer der ganz seltenen Fälle, bei denen eine offensichtliche absichtliche Schreibung (kein Misspelling!) mit drei "a" hintereinander vorliegt. Ferner werden 15 Neukombinationen vorgenommen, 13 jüngere Gattungssynonyme und 15 jüngere Artsynonyme festgestellt. Schließlich werden 11 Statusveränderungen durchgeführt. Bei den Neubeschreibungen der Arten und Unterarten stört, dass der Verbleib der Paratypen nicht genannt ist. Ferner wurde zum Beispiel bei *Harpyia longipennis roseata* ssp.n. (Seite 113) nicht einmal die Anzahl der Paratypen genau genannt, sondern nur mit "…and further specimens from N. Thailand" angegeben. Derartige Angaben bergen bei der verkürzten Wiedergabe der Fundortetiketten ohne Nennen des Sammlers und der unzureichenden Bezettelung von Typenexemplaren in fremden Sammlungen durch den Erstautor die Gefahr, dass Tiere als echte Paratypen nicht zu verifizieren sind. Eine Charakterisierung der supragenerischen Einheiten erfolgt leider in den meisten Fällen nicht. Die Handhabung des Bandes ist erschwert durch das Fehlen eines alphabetischen Indexes mit Seitenzahlen.

Thomas J. WITT & Wolfgang SPEIDEL

LIU Youqiao & WU Chunsheng, 2006: Lepidoptera Lasiocampidae. Fauna Sinica, Insecta **47**. xii+385 S., 8 Tafeln. Hardcover. Science Press Beijing, China. ISBN 7-03-016877-1.

Die Monographie ist gegliedert in einen allgemeinen und einen systematischen Teil. Der allgemeine Teil, der historische Aspekte der Erforschung, taxonomische Position, Morphologie (Ei, Larve, Puppe, adulte Tiere), Nahrungspflanzen, Biologie, geographische Verbreitung und natürliche Feinde schildert, ist leider nur in chinesischer Sprache enthalten. Der systematische Teil hat jedoch eine ausführliche und gut verständliche englische Zusammenfassung, die auch sämtliche Bestimmungsschlüssel sowie die kurzen Diagnosen der Arten mit ihrer Verbreitung enthält. Auch die Beschreibungen der beiden neuen Unterarten sind in englischer Sprache enthalten, so dass der systematische Teil des Bandes auch für den nicht Chinesisch sprechenden Leser voll nutzbar ist. Es werden insgesamt 219 chinesische Arten behandelt, die sich auf 39 Gattungen verteilen. Die Darstellung ist übersichtlich und beginnt mit einem Schlüssel zu den Familien der Bombycoidea. Danach folgt ein Schlüssel zu den Gattungen der Lasiocampidae und unter jeder Gattung gibt es einen Schlüssel zu den Arten und Unterarten. Bei jedem Taxon werden die Originalbeschreibung, die Synonyme (falls vorhanden) und die Überführungen in andere Gattungen zitiert. Die männlichen und

weiblichen Genitalien der meisten Arten und Unterarten werden abgebildet und auch die Imagines der meisten Arten werden auf den Farbtafeln gut kenntlich abgebildet. Das Buch stellt eine wertvolle Hilfe bei der Bestimmung chinesischer Lasiocampidae dar und ist jedem zu empfehlen, der sich mit dieser Familie näher befassen will.

Thomas J. WITT

PARENZAN, P. & PORCELLI, F. - 2006. I macrolepidotteri italiani, Italian Macrolepidoptera. Fauna Lepidopterorum Italiae (Macrolepidoptera). Phytophaga **15** (2005-2006): 1-395; Elektronische Variante 1051 S. + 13 S. Nachtrag. Palermo.

Mehr als 60 Jahre nach der Publikation der "Fauna Lepidopterorum Italiae" von MARIANI war es sicherlich an der Zeit, das Wissen über die Verbreitung der Macrolepidopteren in Italien in aktualisierter Form zu veröffentlichen. Die vorliegende Publikation basiert auf 30 Jahren Forschung und gezielter Zusammentragung bibliographischer Meldungen und neuer Sammeldaten. Die Vorarbeiten erlaubten es, die heute vollständigsten Informationen über italienische Macrolepidoptera zusammenzustellen. Insgesamt werden 2388 Arten in taxonomischer Anordnung und fortlaufend numeriert aufgezählt. Diese Anordnung erleichtert die Übersicht sehr. Die gedruckte Variante enthält aus Kostengründen im Wesentlichen nur eine Liste der Arten und die Angabe der Regionen, in denen sie gefunden wurden. Wesentlich umfangreicher ist die elektronische Version, die zahlreiche Neumeldungen für bestimmte Regionen enthält sowie genaue Angaben, in welchen Zeitintervallen die einzelnen Arten in bestimmten Regionen beobachtet wurden. Das Vorkommen in den einzelnen Regionen wird in 50jährigen Intervallen (vor 1901) und in 25jährigen Intervallen (nach 1901) angegeben. Diese Angaben erlauben es, das Verschwinden oder neue Auftauchen bestimmter Arten in den einzelnen Regionen genau zu verfolgen. Die Literaturzitate sind ebenfalls mit Nummern versehen und mit diesen Nummern sind auch die Zitate im Text gekennzeichnet. Über 3500 Literaturzitate, die Publikationen von 1713 bis 31. Dezember 2005 umfassen, wurden ausgewertet. Der elektronische Text ist wegen der vielen Zahlen von verschiedener Bedeutung (Zeitintervalle und Literaturquellen) nicht ganz einfach zu handhaben, aber jede einzelne Meldung läßt sich ganz exakt verifizieren. Daher hat das Buch einen sehr hohen dokumentarischen Wert und es wäre wünschenswert, wenn auch die Microlepidoptera ähnlich ausführlich behandelt werden könnten.

Thomas J. WITT

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