

## Contribution to the Nolinae (Lepidoptera, Noctuidae) fauna of North Thailand (Plates 1-11)

by

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### Abstract

Present paper is the first comprehensive summary of the Nolinae (sensu stricto) fauna of Northern Thailand. It contains the records of 127 species occurring in this area, with the descriptions of 16 new genera and 46 new species, numerous new combinations, stati and synonyms. With 11 colour plates and 58 genitalia figures.

### Introduction

The interpretation and the taxonomic rank of the compact and monophyletic group called as Nolinae has been changed several times but was mainly treated as a subfamily of the family Arctiidae. It has been upgraded to a family rank firstly by HOLLOWAY (2003) in the Moths of Borneo series, lumping them into a common phyletic unit with several clades placed formerly into the family Noctuidae (e.g. Chloephorinae, Sarrothripinae and Eariadinae). This opinion was accepted by FIBIGER & LAFONTAINE (2005) in their comprehensive work on the taxonomy and systematics of the superfamily Noctuoidea.

The target objects of this study are all those species and generic rank taxa which belong to the subfamily Nolinae (s. str.). The studies were based principally on the huge Nolinae collections of the WITT Museum Munich (MWM), the Hungarian Natural History Museum Budapest (HNHM) and The Natural History Museum London (formerly British Museum, Natural History; BMNH). Almost all specimens studied from Thailand originate from the northern mountainous areas of the country, the few exceptional examples are found in the material of the BMNH.

The systematic part contains all records of the species from Thailand recognised in the material of the mentioned three museums. In the cases of the newly established genera, the descriptions of all newly discovered species are included, also those which have no records from Thailand (yet).

### Abbreviations

LGN – slide of Gyula M. LÁSZLÓ  
BMNH – British Museum Natural History, London  
HNHM – Hungarian Natural History Museum, Budapest  
LS London – Linnean Society London  
MNHP – Museum National d'Histoire Naturelle, Paris  
MWM – Museum WITT, Munich  
NHMW - Naturhistorisches Museum, Wien  
NRS – Naturhistoriska Riksmuseet, Stockholm  
RNH – Rijksmuseum van Natuurlijke Historie, Leiden  
UMOX – University Museum, Oxford  
ZFMK – Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn

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ZIN – Zoological Institute, Russian Academy of Sciences, St. Petersburg  
ZMHU – Zoologisches Museum der Humboldt-Universität, Berlin  
ZMUC – Zoological Museum, University of Copenhagen  
ZSM – Zoologische Sammlung des Bayerischen Staates (Zoologische Staatssammlung), München

## Systematic part

### *Alcanola* gen. nov.

Type species: *Melanographia tympanistis* HAMPSON, 1900

#### Species content:

*A. tympanistis* HAMPSON, 1900 **comb. nov.**  
*A. speideli* **spec. nov.**  
*A. obscurata* **spec. nov.**

Diagnosis. The external appearance of the species of the new genus resembles somewhat to certain species of the rather diverse (and supposedly polyphyletic) genus *Aquita* WALKER, 1863 (e.g. *A. acontioides* (WALKER, 1862)) and of the recently described *Porcellanola* LÁSZLÓ, RONKAY & WITT, 2006 by their shiny, „porcelain white” ground colour and brownish terminal area of the forewing. The differential features are the absence of the whitish suffusion in the apical area and the sharply defined, shiny blackish-bluish markings of the forewing. *Alcanola* has greyish brown ground colour on the outer two-thirds of the forewing without conspicuous crosslines or other drawings. An apomorphic feature of the new genus (unique within the whole family) is a special structure on the ♂ forewing. It appears as a dorsally convex hump within the cell, with sclerotised marginal ring and erected scale-tufts. The ventral side of this structure is connected to conspicuously inflated parts of the cellveins.

The genus comprises, according to the configuration of the ♂ genitalia, two distinct phyletic lineages, the *tympanistis* and the *obscurata* species-groups. The basic structure of the ♂ genitalia of both lineages of *Alcanola* displays closer relationship with *Meganola* Dyar, 1898, but obviously differs by the following features: in the *tympanistis* species-group the elongate, medially tapering valva is terminated in a large, thorn-like costal process and the well-developed harpe arising from the outer half of valva, while the valva of *Meganola* has no terminal spine, and the harpe is always located basally. The valval structure of the *obscurata* species-group is more similar to that of *Meganola*, the valva is medially only slightly tapering, apically broadly rounded, lacking the terminal costal process. The *obscurata* species-group differs from *Meganola* by the position of the robust harpe in the outer third of valva and the presence of sclerotized triangular costal lobe; these features indicate its common origin with the *tympanistis* species-group. The ♀ genitalia of *Alcanola* is rather unique within the whole subfamily having a pair of proximally elongated lobes on the eighth sternite which are the modified apophyses anteriores, and a pair of elongate, weakly sclerotized, ribbon-like signa.

### *Alcanola tympanistis* (HAMPSON, 1900) **comb. nov.**

(Pl. 1, figs 1-3; gen. fig. 1)

*Melanographia tympanistis* HAMPSON, 1900, *Catalogue of the Lepidoptera Phalaenae in the British Museum* 2: 49, text fig. 13.

Type-locality: [India] Sikkim. Holotype: ♂, in coll. BMNH.

#### Type material examined:

Holotype of *Melanographia tympanistis* HAMPSON, 1900: ♂, „TYPE” (red ring type label), „Sikkim, 1800 ft, June 1897, Dudgeon”, slide No. BM Noct 17721 (coll. BMNH).

#### Additional material examined:

Nepal. 1 ♂, Milke Danda, Gupha pass, 3000 m, 23.viii.2000, leg. T. CSÓVÁRI & M. HREBLAY, slide No. LGN 374 (W 7317); 3 ♂♂, 3 ♀♀, Tanahoun distr., Bimalnager village, 530 m, 11-12.iv.1995, leg. GY.M. LÁSZLÓ & G. RONKAY, slide Nos LGN 372, LGN 946 (W 7318) (♂♂), LGN 373 (♀); 2 ♂♂, same locality, but collected at 12.x.1994 by G. CSORBA & L. RONKAY (coll. HHNM and MWM). Myanmar. Prov. Shan: 1 ♂, Kalaw, 1400 m, 30.x.1999, leg. M. HREBLAY, slide No. LGN 1048 (W 7319). Prov. Mandalay: 1 ♀, 3 km SE of Kyause, 220 m, 29.x.1999, leg. M. HREBLAY, slide No. LGN 518 (W 7320) (coll. MWM). Cambodia. Prov. Mondolkiri: 1 ♀,

Seima Biodiversity Conservation Area, between Seima and O'Rang, 12°12'12N, 107°01'09E, 300 m, 30.i.2006, leg. G. CSORBA & G. RONKAY, slide No. 1047 (coll. HHNM).

Remarks. The species has not yet been recorded from Thailand.

***Alcanola speideli* spec. nov.**

(Pl. 1, fig. 4; gen. fig. 2)

**Holotype.** ♂, „India mer., Kerala, 6 km N Munnar, 1700m, Kodalar Tea Estate, 10°06'N/77°04'E, 14-15.4.1997, leg. SCHINTLM. & SINIAEV, Bergregenwald 14°C”, slide No. LGN 402 (W 7321) (coll. MWM).

**Diagnosis.** *Alcanola speideli* is a sister species of *A. tympanistis*, the differences between the two species are as follows: The new species has more whitish colouration on the whole forewing, while *A. tympanistis* has white colour only in the basal and ventral areas of the forewing. The wingspan of the new species is 17-20 mm, the length of forewing is 8-10 mm.

The ♂ genitalia of *A. speideli* differ from those of *A. tympanistis* by their somewhat shorter and less arched valva with more rounded apex and the somewhat shorter and straight, spine-like costal process (that of *A. tympanistis* is longer and slightly arched). The harpe of the new species is somewhat thicker; the base of the harpe is situated somewhat closer to the valval end than in *A. tympanistis*; in addition, the aedeagus of *A. speideli* is somewhat shorter with conspicuously shorter coecum penis. The ♀ is unknown.

Remarks. The species is known from the type-locality only.

***Alcanola obscurata* spec. nov.**

(Pl. 1, fig. 5; pl. 11, fig. 1; gen. fig. 3)

**Holotype.** ♂, „Thailand, Chiang Mai, 6 km SE of Pang Faen (1100m), 2001.07.09, leg: HENTSCHEL, PETRÁNYI”, slide No. LGN 945 (W 7296) (coll. MWM).

**Paratypes:** Thailand. Prov. Nan: 1 ♂, 5 km N of Ban Luang, 350m, between Pi Nai and Pi Tai, 100°27'E, 18°56'N, 4.xi.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 762 (W 7297). Prov. Chiang Mai: 1 ♂, Mae Suai, 500m, Charin Garden Resort, 99°35'E, 19°47'N, 2.xi.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 796 (W 7298) (coll. MWM); 1 ♂, 700 m, Samoeng/Hang Dong Rd. Km 15, 5.vi.-12.vi.1988, leg. A.M. COTTON & I.J. KITCHING BM 1988-312; 1 ♀, Doi Suthep, 1100 m, 22-23.viii.1990, leg. H. INOUE, slide No LGN 1322 (BM Arct. 6187) (coll. BMNH).

**Diagnosis.** *Alcanola obscurata* represents a distinct phyletic lineage within the genus, the new species is, however, hardly distinguishable from its congeners by the external features, the satisfactory identification requires the examination of the ♂ genitalia. There are only slight differences in the external appearance: the outer area of the forewing is somewhat darker and larger, the edge of the brown area in *A. obscurata* reaches the middle of the ventral margin and the crosslines are fully reduced. The ventral margin of *A. tympanistis* and *A. speideli* is white towards the tornus and the crosslines are recognisable. These characters are, however, clearly observable only in the freshly emerged specimens. Wingspan 17-20 mm, length of forewing 8-10 mm.

The differences between the ♂ genitalia of *A. obscurata* and the members of the *A. tympanistis* – *A. speideli* species-pair are surprisingly large, the differences are as follows: *A. obscurata* has much broader, tongue-shaped valva with broadly rounded apex and without costal process, while the valvae of *A. tympanistis* and *A. speideli* are strongly tapering, having well developed, acute, thorn-like costal process. The harpe of *A. obscurata* is finger-like, much shorter and broader than the thorn-like harpe of the related two species; in addition, the penicular lobes of *A. obscurata* are somewhat broader than in the taxa of the *A. tympanistis* group.

The ♀ genitalia of the new species lacks the elongated lobes from the eighth sternite which are typical of *A. tympanistis*, there are only short, apically rounded processes. The apophyses anteriores of the new species are shorter and simple, the ductus bursae is much longer and narrower, and the signa broader and longer than in *A. tympanistis*, with a short strongly sclerotized section in their distal third.

Distribution. Thailand.

### ***Barnanola* gen. nov.**

Type species: *Barnanola atra* spec. nov.

#### **Species content:**

*B. atra* spec. nov.

*B. sumatra* spec. nov.

*B. fibigeri* spec. nov.

*B. orbiculata* spec. nov.

Diagnosis. Relatively large species, wingspan 14-21 mm, length of forewing 7-9 mm. The taxa belonging to the new genus resemble the members of the genus *Alcanola* described above, by their whitish ventral suffusion on the dark brown forewing but the whitish ventral area is considerably shorter in *Barnanola* than in *Alcanola*, extending only to the middle of the ventral margin. The brownish coloration is much more extensive and darker in *Barnanola* than in *Alcanola*. The special sclerotised hump, being characteristic for *Alcanola*, is absent from *Barnanola*.

The configuration of the ♂ genitalia also indicates the relationship between the two genera, displaying conspicuous differences. *Barnanola* has, in comparison with *Alcanola*, much more elongated tegumen with long, narrow, undivided apical part, slightly arched and moderately tapering valva without costal sclerotization or process, short, slightly curved saccular process reaching only the middle of valva, and, last but not least, much weaker vinculum. In case of *Alcanola*, the tegumen is simple, the valva is either strongly tapered medially or tongue-shaped without tapering part but always with sclerotized costal margin and differently developed costal process, the elongated harpe exceeds the costa, and the vinculum is considerably stronger than in *Barnanola*. The aedeagus of *Barnanola* is very short and straight, with one well-developed cornutus in the vesica, while the aedeagus of *Alcanola* is longer, slightly arched, and the vesica lacks the cornuti.

The differences in the ♀ genitalia of the two genera are also clearly recognisable as *Barnanola* has simple eighth sternite with very short and fine but distinct apophyses posteriores, much shorter sclerotized part of ductus bursae and large, elongated, „baguette-like” double signa. In *Alcanola* the eighth sternite has a characteristic shape, the apophyses posteriores are strongly modified; and the signum is absent.

### ***Barnanola atra* spec. nov.**

(Pl. 1, figs 6-7; gen. fig. 4)

**Holotype.** ♂, „Djoenggo-Ardjoeno 1500m, 9.37., O.-Java, Kalis”, slide No. LGN 913 (coll. RNH, Leiden).

**Paratypes.** 1 ♂, with the same data as the holotype, slide No. LGN 914 (coll. RNH, Leiden); 3 ♂♂, Djoenggo Ardjoeno, E Java, 4500', May 1934, leg. J. P. A. KALIS (slide Nos LGN 1267 (BM Arct. 6087), LGN 1268 (BM Arct. 6088), LGN 1269 (BM Arct. 6089)) (coll. BMNH).

Diagnosis. The genus *Barnanola* comprises externally usually confusingly similar and closely related species, thus the proper identification requires the examination of the genitalia. The only exception is *B. orbiculata*, which is easily distinguished from its congeners by its large, rounded, bright white patch in the forewing median area and a greyish white reversed triangular spot in the tornal area; these prominent light spots are absent from the other species of the genus.

The ♂ genitalia of *B. atra*, *B. sumatra* and *B. fibigeri* are rather similar, but easily separable by the shape of the valva and the configuration of the saccular process. *B. atra* has, in comparison with the other two species, the most elongated valva with narrowest apical third, and the longest sacculus with the most arcuate saccular process. The valva of *B. sumatra* is somewhat shorter, less tapering, apically more arcuate, the sacculus is somewhat narrower with almost straight process, while the valva of *B. fibigeri* is conspicuously shorter, broader, apically not tapering and the sacculus is the shortest but broadest within the genus, with slightly arched process. The ♀ of *B. atra* is unknown.

Distribution. The species is known from Java.

***Barnanola sumatra spec. nov.***

(Pl. 1, fig. 8; gen. fig. 5)

**Holotype.** ♂, „Sumatra, Prapat HW2 9.9.1985, Dr. DIEHL leg.”, slide No. LGN 440 (coll. HNHM).

**Paratypes.** Indonesia. North-Sumatra: 1 ♂, 4 km S. Sidikalang, 2°41'51N, 98°18'18E, 1250 m, 16.ii.2002, leg. K. LARSEN & M. FIBIGER, slide No. LGN 941 (coll. FIBIGER). Thailand. 1 ♂, 7 km N of Ranong, Ch 9 TV relay stn., 350-500 m, 26-29.xi.1991, I.J. KITCHING & A.M. COTTON, BM 1992-9, slide No. LGN 1344 (BM Arct. 6217) (coll. BMNH).

**Diagnosis.** The diagnostic features of the ♂ genitalia of *B. sumatra* are as follows: the medium-long, distally less tapering and apically rather rounded valva and the slender, almost straight saccular process. The detailed comparison of the three species of the genus is given in the diagnosis of *B. atra*. The ♀ is unknown.

**Distribution.** The species has been found in Sumatra and in Thailand.

***Barnanola fibigeri spec. nov.***

(Pl. 1, fig. 9; gen. fig. 6)

**Holotype.** ♂, „Indonesia, North-Sumatra HW II. Near Prapat, 1050 m, 2°45'52N, 99°58'20E, 04.iii.2002. leg. M. FIBIGER”, slide No. LGN 942 (coll. FIBIGER).

**Diagnosis.** The diagnostic features of the ♂ genitalia of *B. fibigeri* are the remarkably short and broad, apically not tapering valva and the short but broad sacculus with slightly arched saccular process. The ♀ is unknown.

**Distribution.** The species is found only once in Sumatra.

***Barnanola orbiculata spec. nov.***

(Pl. 1, figs 10-11; pl. 11, fig. 2; gen. fig. 7)

**Holotype.** ♂, „Thailand, Changwat Mae Hong Song, 1 km S of Bahundanda, 1000 m, 6.ii.1998 leg. Márton HREBLAY & Csaba SZABÓKY”, slide No. LGN 146 (W 7322) (coll. MWM).

**Paratypes.** Thailand. Prov. Nan: 1 ♀, 5 km N of Bo Luang, 1000 m, 4.ii.2000, leg. M. HREBLAY & A. SZABÓ, slide No. LGN 363 (W 7323) (coll. MWM). Indonesia. Sumatra: 1 ♀, Prapat HW 3, 2.vii.1983, leg. E. DIEHL, slide No. LGN 435; 1 ♀, from the same site, 27.vii.1984; 1 ♀, from the same locality, 25.xi.1984, slide No. LGN 436; 1 ♀, Prapat HW 3, 19.v.-2.iv.1983; 1 ♀, 15 km S of Dolok Merangir, Dolok Ulu, 3.viii.1979, slide No. LGN 437, leg. E. DIEHL (coll. HNHM).

**Diagnosis.** The diagnostic external feature of *B. orbiculata* is the presence of a large, rounded, bright white patch in the forewing median area and a greyish-white reversed triangular spot in the tornal area. The genitalia of the species cannot be compared with those of its congeners, *B. atra*, *B. sumatra* and *B. fibigeri*, as *B. orbiculata* is known by ♀♀ only while the type-series of the other three species are all ♂♂. Thus, there is a chance that *B. orbiculata* represents the ♀ sex of one of the three other *Barnanola* species, despite of the rather large external differences. As the scale of the possible sexual dimorphism cannot be estimated from the material examined, *B. orbiculata* is treated tentatively as a distinct species; this question is to be revised when new *Barnanola* material will be available.

**Distribution.** The species is found in the northern part of Thailand and in Sumatra.

### ***Leucobaeta* gen. nov.**

Type species: *Zia hemiphea* HAMPSON, 1905

#### **Species content:**

*L. hemiphaea* (HAMPSON, 1905) **comb. nov.**

Diagnosis. The species of the presumably monotypical new genus is rather similar externally to those of *Leuconola* **gen. nov.** by the rather broad white(ish) basal area, and the dark brownish-grey outer two-thirds of the forewing, but are easily distinguishable by the considerably darker hindwing and the more uniformly dark brownish grey forewing terminal area of *Leucobaeta*, this part of the wing is greyish white in *Leuconola* with relatively large pale grey patches. *Leucobaeta* also resembles externally *Alcanola* and *Barnanola* but the white basal area is much broader in *Leucobaeta*, extending towards the inner quarter of the costal margin, while in *Alcanola* and *Barnanola* the basal area is much narrower and the white colour is restricted to the ventral part of the basal field.

The ♂ genitalia of *Leucobaeta* are unique within the whole Nolinae by their rather short and broad, apically truncate valva with short apical costal process; the related genera mentioned above have the usual basic structure of the valva with elongated, distally gradually tapering valvae and rounded apex. The tegumen of *Leucobaeta* is similar to that of *Barnanola*, but the elongated distal part is much broader in the former genus. The armature of the vesica of the generic complex also shows easily recognisable diagnostic features: *Leucobaeta* has two robust, but rather short cornuti; *Leuconola* and *Alcanola* have no cornutus in the vesica, while the vesica of *Barnanola* is armed with one large, elongated cornutus.

The ♀ genitalia of *Leucobaeta* also display rather characteristic feature: a large appendix bursae is present, such a structure is absent in the related genera.

### ***Leucobaeta hemiphea* (HAMPSON, 1905) comb. nov.**

(Pl. 1, figs 16-17; gen. fig. 8)

*Zia hemiphea* HAMPSON, 1905, *Annals and Magazine of Natural History* 7(15): 177. Type-locality: [Indonesia] Java, Arjuno. Holotype: ♀, in coll. BMNH.

*Zia leucobaeta* WILEMAN & WEST, 1928, *Entomologist* 61: 206. Type-locality: Philippines, Luzon, Rizal, Montalban. Holotype: ♂, in coll. BMNH; **syn. nov.**

#### **Type material examined:**

Holotype of *Zia hemiphea* HAMPSON, 1905: ♀, „TYPE” (red ring type label), „Arjuno 3000 ft. W. DOHERTY 96-252”, slide No. LGN 724 (BM Noct. 18204) (coll. BMNH).

Holotype of *Zia leucobaeta* WILEMAN & WEST, 1928: ♂, „TYPE” (red ring type label), „Montalban, Prov. Rizal, Luzon, 21.iv.1914, A. E. WILEMAN”, slide No. LGN 727 (BM Noct. 18207) (coll. BMNH).

#### **Additional material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 761; 2 ♂♂, 1100 m, 4 km SE of Pang Faen, 13.i.2004, leg. P. HENTSCHEL & A. SZABÓ, slide Nos LGN 1007 (W 7324), LGN 1008 (W 7325) (coll. G. RONKAY and MWM).

### ***Leuconola* gen. nov.**

Type species: *Leuconola herczigi* **spec. nov.**

#### **Species content:**

*L. herczigi* **spec. nov.**

*L. wilsonae* (HOLLOWAY, 2003) **comb. nov.**

Diagnosis. The new genus is supposedly related to *Leucobaeta* according to the external appearance of the species of the two genera: the forewing of the moths has broad whitish basal, and dark brownish-grey median and marginal areas. The external differences between the two genera are as follows: *Leuconola* has considerably lighter hindwing and much paler greyish white terminal area of forewing with relatively large pale grey patches, while *Leucobaeta* has much darker hindwing and almost uniformly dark brownish grey terminal area of forewing.

The configuration of the ♂ genitalia of the two genera is rather different: *Leuconola* has elongated, distally tapering valva with more or less sinuous margins, sclerotised costa with well-developed triangular costal process at basal section, elongated, sword-like saccular process, and the vesica lacks the cornuti; in *Leucobaeta*, the valva is rather short, not tapering, apically broadly truncate with straight margins, and with a short costal process apically, the saccular process is shorter and broader, more or less button-like, and the vesica is armed with two robust, relatively short cornuti.

The ♀ genitalia of the new genus are rather unique within the whole subfamily. *Leuconola* has conspicuously long eighth tergite, characteristic „M” shaped sclerotization at the ostium bursae, very short ductus bursae with strongly sclerotized lateral and weakly sclerotized dorsal and ventral walls, relatively small but characteristic, sclerotized cervix bursae, and the elongate-elliptical corpus bursae with a special, narrow, medium-long and tube-like appendage. The corpus bursae bears a pair of rather remote signa, the distal one is large and more or less crescent-like, while the proximal one is rather small, short and narrow finger-like (see the Fig. 9).

#### ***Leuconola herczigi* spec. nov.**

(Pl. 1, fig. 18; gen. fig. 9)

**Holotype.** ♂, „N. Thailand, Chiang Mai Prov, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. Herczig & G. Ronkay”, slide No. LGN 760 (W 7299) (coll. MWM).

Diagnosis. *Leuconola herczigi* is a close relative of *L. wilsonae* (HOLLOWAY, 2003) **comb. nov.**, described from Borneo, however the external appearance of the two species is conspicuously different. Comparing the two close relatives, the new species has much darker forewing pattern, consisting of a relatively thick and oblique dark grey median streak and pale greyish suffusion in the terminal area, without defined crosslines, while *L. wilsonae* has conspicuous bright white forewing with fine brownish crosslines and a prominent dark grey triangular spot in the medio-costal area. The differences in the ♂ genitalia of the two species are less conspicuous than their external appearance, supporting strongly their close relationship. The ♂ genitalia of *L. herczigi* differ from those of *L. wilsonae* by the considerably shorter and thicker uncus, broader tegumen, longer and medially more dilated valva with larger costal lobe and narrower apical part, and by the somewhat thicker saccular process. The vinculum is also different in the *Leuconola herczigi*-*L. wilsonae* species-pair as the new species has rather narrow, elongate apical process while the vinculum of *L. wilsonae* is simply V-shaped. Finally, the aedeagus of *L. herczigi* is considerably longer than in *L. wilsonae*, with more sclerotized and shorter basal part. The ♀ is unknown.

Distribution. Northern Thailand.

#### ***Leuconola wilsonae* comb. nov.**

(Pl. 11, figs 3-4; gen. fig. 10)

„*Nola*” *wilsonae* HOLLOWAY, 2003, *The Moths of Borneo* 18: 60, Plate 3, fig. 80. Type-locality: [Borneo] Sarawak, Gunong Mulu. Holotype: ♂, in coll. BMNH.

#### **Type material examined:**

Holotype of „*Nola*” *wilsonae* HOLLOWAY, 2003: ♂: „Sarawak, Gunong Mulu Nat. Park, R.G.S. Exped. 1977-8 (J.D. HOLLOWAY et al.), Site 22, April, W. Melinau Gorge, 150 m. 421578, wet kerangas”, slide No. BM Noct. 17544.

Paratype: 1 ♀, Brunei, 15 m, Telisai, Sandy Heath Forest and Gymnostoma 13.12.1979, leg. R. FAIRCLOUGH, slide No. LGN 1278 (BM Arct. 6089) (coll. BMNH).

Distribution. The species is known from Borneo.

Remarks. The ♀ genitalia of *L. wilsonae* have remained undescribed in the original description. The ♀ paratype has been dissected during this study and its genitalia are characterised in detail in the diagnosis of the new genus (see the Fig. 10).

### ***Dialithoptera gemmata* (HAMPSON, 1896)**

(Pl. 1, fig. 21, Pl. 2, fig. 1)

*Pisara gemmata* HAMPSON, 1896, *Fauna of British India, Moths* 4: 506, by original designation. Type-locality: [India] Sikkim. Holotype: ♂, in coll. BMNH.

#### **Material examined:**

Thailand, Prov. Chiang Mai: 4 specimens, between Chiang Dao & Kariang, 900 m, 98°48'E, 19°25'N, 08.xi.2002; 5 specimens, same site, 26.x.2002; 1 specimen, Mok Fa Garden Resort, 450 m, 98°48'E, 19°06'N, 1.xi.2002, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY and MWM).

### ***Dialithoptera margaritha* LÁSZLÓ, RONKAY & WITT, 2007**

(Pl. 1, figs 19-20)

*Dialithoptera margaritha* LÁSZLÓ, RONKAY & WITT, 2007, *Entomofauna* 28(2): 17-32. Type locality: N. Thailand, Prov. Mae Hong Son, Pa Pae. Holotype: ♂, in coll. HNHM.

#### **Type material examined:**

Holotype. ♂, „North Thailand, Prov. Mae Hong Son, 1250 m, between Pa Pae and Khun Sa, 98°39'E, 19°08'N, 31.x.2002, leg. B. HERCZIG ET G. RONKAY”, slide No. LGN 776 (coll. HNHM).  
Paratypes. Thailand. 1 ♀, with the same data as the holotype, slide No. LGN 906. Vietnam. 1 ♀, Mt. Fan-si-pan, Sa Pa, 2400 m, 22°15'N, 103°46'E, 8-29.v.1993, leg. SINJAEV & SIMONOV, slide No. LGN 362 (W 8323) (coll. HNHM and MWM).

### ***Casminola* gen. nov.**

Type species: *Poecilnola chionobasis* HAMPSON, 1901

#### **Species content:**

*C. chionobasis* (HAMPSON, 1901) **comb. nov.**  
*C. arminbecheri* **spec. nov.**  
*C. pulchella* (LEECH, 1889) **comb. nov.**  
*C. yoshimotoi* (INOUE, 2000) **comb. nov.**  
*C. splendida* **spec. nov.**  
*C. rubropicta* **spec. nov.**  
*C. seminigra* (HAMPSON, 1896) **comb. nov.**  
*C. johannstumpfi* **spec. nov.**  
*C. breviharpe* **spec. nov.**  
*C. spinosa* **spec. nov.**

Diagnosis. The species of the new genus is somewhat similar externally to the members of *Calonola* gen. nov., *Alcanola*, and certain species of *Aquita* (especially *A. acontioides*) due to the combination of the bright white ground colour and the blackish ornaments in the outer and costal areas of the forewing. The new genus represents a rather compact phyletic unit of the subfamily Nolinae, according to the apomorphic structures of the main genitalia.

The main external differences of the species of *Casminola*, in comparison with *Calonola*, *Alcanola* and *Aquita*, are the significantly smaller size (length of forewing: 5–8 mm, wingspan: 11–16 mm, the measures of *Aquita*, *Calonola*



and *Alcanola* always exceed 8 mm and 16 mm, respectively). The forewing markings of the new genus are similar to those of several Nolinae groups; the forewing has dark brownish-blackish outer area and narrow but always rather conspicuous pair of costal dashes or patches in most species.

The structure of the ♂ genitalia is unique and coherent throughout the genus: a simplified genital capsule in all characters, the typical features are the rather elongated, and the apically rounded valva, the well-developed, long and narrow, more or less straight, apically pointed and sometimes hooked harpe situated in the middle of the valva running parallel with the valval margins. The harpe of *Calonola* is much smaller, shorter, always strongly curved, originating much closer to the base of valva than in *Casminola*; the harpe of *Alcanola* is directed towards costal margin in right angle while the harpe of *Casminola* is always parallel with valval margins. The ♂ genitalia of *Aquila acontioides* differ from those of *Casminola* in several important characters, having much shorter and almost straight uncus (that of *Casminola* is always considerably longer and more curved), basally rather broad and apically tapering valva (the valval base is relatively narrow in *Casminola* and the valval margins are usually parallel, sometimes slightly broadened) and differently shaped harpe. The harpe of *A. acontioides* is an elongated, well-sclerotized and dentate basal crest with short, slightly arcuate apical process, while in *Casminola* the erect part of the harpe is much longer in most cases, and the sclerotized basal plate is missing.

The ♀ genitalia of the new genus are also easily distinguished from those of the related genera by the rather short eighth segment and the infundibular, relatively long, sclerotized ostium bursae. The eighth segment is longer in *Calonola*, *Alcanola* and *Aquila acontioides* and the ostium bursae is sclerotized but tubular in *Alcanola* and *Aquila acontioides* while it is membranous and very short in *Calonola*. The signum bursae of *Casminola* are either absent (*C. chionobasis*, *C. arminbecheri*, *C. pulchella*, *C. splendida*, *C. yoshimotoi*, and *C. rubropicta*) or forming a well-developed, characteristically curved, reversed U-shaped, scobinate and dentate bar (*C. seminigra* and *C. johannstumpfi*). *Alcanola* lacks the signa while the signa of *Aquila acontioides* and *Calonola* are represented by a pair of elongated, scobinate plates.

### ***Casminola chionobasis* (HAMPSON, 1901) comb. nov.**

(Pl. 2, figs 4-5)

*Poecilonola chionobasis* HAMPSON, 1901, *Annals and Magazine of Natural History* 7: 178. Type-locality: [India, Himachal Pradesh] Kangra valley. Holotype: ♂, in coll. BMNH.

#### **Type material examined:**

Holotype of *Poecilonola chionobasis* HAMPSON, 1901: ♂, „TYPE” (red ring type label), „Kangra valley, 4500 ft, June 1899, Dudgeon”, slide No. LGN 856 (BM Noct. 18489) (coll. BMNH).

#### **Additional material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, Mt. Doi Phahompok, 16 km NW of Fang, 2000 m, 18.xii.1998, leg. M. HREBLAY, slide No. LGN 360 (W 7310) (coll. MWM). Pakistan. Margalla Hills: 1 ♀, Islamabad, Pir Sohawa, 33°48'56"N, 73°08'01"E, 1300 m, 29.vii.1994, slide No. LGN 392 (coll. HNHM); 2 ♀♀, 20 km N of Islamabad, Pir Sohawa, 72°55'E, 33°50'N, 8.vii.1994, leg. B. HERCZIG, GY.M. LÁSZLÓ & G. RONKAY (coll. MWM).

### ***Casminola arminbecheri* spec. nov.**

(Pl. 2, fig. 6; gen fig. 11)

**Holotype.** ♂, „Thailand, Changwat Nan, 25 km N of Bo Luang, 1150 m, 11.xi.1999, leg. Márton HREBLAY”, slide No. LGN 358 (W 7311) (coll. MWM).

**Paratypes.** Thailand, Prov. Nan: 1 ♂, 4 km W of Pha Lak, 750 m, 100°34'E, 19°21'N, 5.xi.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 1232. Indonesia. Sumatra: 2 ♂♂, Prapat HW 2, 17.ix.1985, slide Nos LGN 439, LGN 444; 2 ♂♂, same site, but collected at 8.vi.1985, and 29.iii.1986, slide Nos LGN 443, LGN 445; 1 ♂, Medan vic., Tiga Dolok, 21.x.1989, slide No. LGN 1247, leg. DR. DIEHL (coll. HNHM, G. RONKAY and W. SPEIDEL).

**Diagnosis.** The new species shows close relationship with *C. chionobasis* and *C. yoshimotoi*, but is easily distinguishable from its relatives by its conspicuously narrower dark brown outer area of the forewing and the characteristically thinner, oblique, dash-like pair of spots at the costal margin. The costal spots of *C. chionobasis* are large, rounded

and usually fused; those of *C. yoshimotoi* are broader and more triangular.

The ♂ genitalia of the new species are easily separable from *C. chionobasis* by their broader and much longer, distally dilated valva, somewhat longer, apically more hooked harpe, considerably longer, more strongly curved uncus and somewhat longer vinculum. The aedeagus of *C. arminbecheri* is very similar in shape to that of *C. chionobasis* but the vesica lacks the cornuti field while *C. chionobasis* has a rather small, but well-defined cornuti field consisting of very short and fine cornuti. The differences between the ♂ genitalia of *C. arminbecheri* and *C. yoshimotoi* are comparatively smaller, but the valva of the new species is apically much more dilated and more broadly rounded, the uncus longer and medially more curved and the vinculum is conspicuously longer and more robust than in *C. yoshimotoi*. ♀ unknown.

Distribution. The known range of the species is disjunct: it has been recorded from Thailand and from Sumatra; the real distribution is supposedly much larger and continuous throughout the Malayan peninsula towards the north-westernmost large island of Indonesia.

***Casminola pulchella* (LEECH, 1889) comb. nov.**

(Pl. 11, fig. 5)

*Acontia pulchella* LEECH, 1889, *Proceedings of the Zoological Society London* **1889**: 524, pl. 53, fig. 10. Type-locality: [Japan] Ohoyama. Holotype: ♂, in coll. BMNH.

**Type material examined:**

Holotype of *Acontia pulchella* LEECH, 1889: ♂, „TYPE” (red ring type label), „Japan, H. PRYER coll.”; slide No. BM Arct. 1837 (coll. BMNH).

**Additional material examined:**

Korea. 1 ♀, Korea I.A.S., 2.viii.1986, slide No. LGN 390 (coll. HNHM).

Remarks. The species has not yet been recorded from Thailand.

***Casminola yoshimotoi* (INOUE, 2000) comb. nov.**

(Pl. 11, fig. 6)

*Rhynchopalpus yoshimotoi* INOUE, 2000, *Transactions of the Lepidopterological Society of Japan* **51**(4): 252, figs 2-3, 7-8. Type-locality: Taiwan, Hotso (= Lushan Spa), Nantou Hsien. Holotype: ♂, in coll. BMNH.

Distribution. The species was described from Taiwan and is presumably endemic to this island.

***Casminola splendida* spec. nov.**

(Pl. 11, figs 8-9; gen fig. 14)

**Holotype.** ♂, „Upper Burma: Hpimaw Fort, nr. Myitkyina 8000 ft., Capt. A. E. Swann. Brit. Mus. 1923-488.”, slide No. LGN 1329 (BM Arct. 6204) (coll. BMNH).

**Paratypes.** Burma [Myanmar]. 5 ♂♂, 1 ♀, with the same data as the holotype, slide Nos LGN 1348 (BM Arct. 6205) (♂), LGN 1330 (BM Arct. 6206) (♀) (coll. BMNH). Vietnam. Mt. Fan-si-pan, Sa-Pa: 1 ♀, 22°17'N, 103°44'E, 20-30.iv.1995, leg. V. SINJAEV & local collector, slide No. LGN 359 (W 7312); 1 ♀, 16-1800 m, 22°20'N, 103°40'E, 10.vi.-6.vii.1994, leg. A. SCHINTLMEISTER, slide No. LGN 1234 (W 7313) (coll. MWM).

Diagnosis. The new species resembles externally *C. pulchella* but is easily distinguishable from the latter taxon by its more shiny white forewing with much broader and more unicolorously brown terminal area, and the more

sharply defined and darker brownish costal patches. The postmedial line of *C. splendida* is similarly sinuous as in *C. spinosa* and *C. johannstumpfi*, but is considerably broader and more diffuse.

The ♂ genitalia of *C. splendida* differ conspicuously from those of *C. pulchella* by their much longer valvae, more basally located and apically less hooked harpe, and the presence of a large field of numerous fine cornuti in the vesica; from those of *C. spinosa* mainly by the armature of the vesica. The large field of cornuti consisting of a large number of fine, short and weak spinules is a prominent autapomorphy of *C. splendida*; in comparison, *C. pulchella* lacks the cornuti field, *C. spinosa* has a rather large and elongated cornuti field built up from some dozens of relatively large, long and strongly sclerotized cornuti, and *C. johannstumpfi* has a few, fine, but well-developed cornuti.

The ♀ genitalia of *C. splendida* display closer relationship with *C. pulchella*, according to their similarly sclerotized ductus bursae, large and swollen cervix bursae and the absence of the signum bursae. The new species has, however, longer, funnel-like sclerotization in the ostial section of ductus bursae, shorter ductus bursae and a more elongated corpus bursae.

Distribution. The species has been found in two small areas in Indochina, in northern Myanmar and the northernmost mountainous area of Vietnam.

### ***Casminola rubropicta* spec. nov.**

(Pl. 11, figs 11-12; gen fig. 16)

**Holotype.** ♀, „Vietnam, Lao Cai, prov. Sa Pa district, Cat-Cat village, Frontier Vietnam Base Camp, 22°19'36,4"N, 103°49'46,1"E, 1250m, 4-8.viii.1998, leg. A. KUN", slide No. LGN 1233 (coll. HNHM).

**Paratype.** Thailand. 1 ♀, Mae Hong Son, 1240m, Pai District, Doi Mae Ya, 18.vii.1990, I.J. KITCHING & A.M. COTTON BM. 1992-19, slide No. LGN 1343 (BM Arct. 6207) (coll. BMNH).

Diagnosis. *Casminola rubropicta* has a very particular external appearance within the genus with its pale brownish mixed red forewing ground colour and a single, very narrow, elongated blackish costal patch, while all other *Casminola* species have bright white forewings with a pair of broader and less elongated costal patches. The marginal area of the new species is much darker than in the other *Casminola* species, it is almost black, and the tornal area is marked by a triangular blackish patch, which is absent on all other *Casminola*.

The configuration of the ♀ genitalia of *C. rubropicta* supports its placement into *Casminola*, the shape of ovipositor, the funnel-like sclerotized ostium bursae, the rather large, swollen cervix bursae and the absence of signum bursae are typical features of the genus. The ovipositor and the 8th segment are almost identical in *C. rubropicta*, *C. chionobasis* and *C. splendida*, the main distinctive features of the three species are as follows: *C. rubropicta* has the shortest apophyses anteriores, and sclerotized funnel-like ostium bursae and the largest and swollen cervix bursae. The ostium bursae of *C. chionobasis* is only slightly longer than in *C. rubropicta*, while that of *C. splendida* is about twice as long as in the other two taxa. The shape of corpus bursae of the new species is similarly elongated as in *C. splendida*, while that of *C. chionobasis* is more globular. The ♂ is unknown.

Distribution. The species is found only twice, in Vietnam and in Thailand.

### ***Casminola seminigra* (HAMPSON, 1896) comb. nov.**

(Pl. 11, fig. 7)

*Pisara seminigra* HAMPSON, 1896, *Fauna of British India, Moths* 4: 505. Type-locality: Bhutan. Holotype: ♀ in BMNH.

#### **Type material examined:**

Holotype of *Pisara seminigra* HAMPSON, 1896: ♀, „TYPE" (red ring type label), „Bhutan, 95-37, 2.vii.94" (coll. BMNH).

#### **Additional material examined:**

Nepal. East-Nepal, Milke Danda: 1 ♂, Gursa, 2100 m, 22.viii.2000, slide No. LGN 186 (W 7314); 1 ♂, 2 ♀♀, Nesum, 1500 m, 21.viii.2000, leg. T. CSÖVÁRI & M. HREBLAY, slide No. LGN 187 (W 7315) (♀). Annapurna Himal: 1 ♂, 1 ♀, Geirigan village, 1340 m, 83°45'E, 28°20'N, 31.v.1996, slide No. LGN 353 (♂); 1 ♂, from the same site, 26.vii.1995, leg. Gy.M. LÁSZLÓ & G. RONKAY, slide No. LGN 1231. Syangja district: 1 ♂, 1 ♀, Kahule village, 1600 m, 26.vii.1995, leg. G. CSORBA, slide No. LGN 354 (♀) (coll. HNHM and MWM).

Distribution. The species is known from Nepal and Bhutan; it has no record from Thailand.

### ***Casminola johannstumpfi* spec. nov.**

(Pl. 2, fig. 2; gen fig. 12)

**Holotype.** ♂, „Nepal, Annapurna Himal, Geirigan village 1340 m, 83°45'E, 28°20'N, 26.vii.1995, leg. Gy.M. LÁSZLÓ & G. RONKAY”, slide No. LGN 355 (coll. G. RONKAY).

**Paratypes.** Nepal. Tanahoun district: 1 ♀, Baisakhe Ghat, 10 km W Dulegounda, 630 m, 10.x.1994, leg. CSORBA & RONKAY, slide No. LGN 356 (W 7378). Syangja district: 1 ♀, 2 km E Syangja, 1200 m, 22.vii.1995; 1 ♂, Saldanda village, Bhaincy Pani, 1100 m, 22.vii.1995, leg. G. CSORBA. Annapurna Himal: 1 ♀, 1 km S Bahundanda, 1000 m, 6.vi.1996, 84°25'E, 28°20'N, leg. M. HREBLAY & Cs. SZABÓKY, slide No. LGN 412 (W 7379) (coll. MWM). Indonesia. Sumatra: 1 ♂, Dolok Merangir, 26.xii.1984; leg. DR. DIEHL, slide No. LGN 438 (coll. HNHM). Thailand. 1 ♂, Chaiyaphum, 650 m, Phu Khieo WS, km 7, Sala Prom checkpoint, 4/9.xi.1991, I.J. KITCHING & A.M. COTTON, BM 1992-9, slide No. LGN 1327 (BM Arct. 6208) (coll. BMNH).

**Diagnosis.** *Casminola johannstumpfi* is closely related to *C. seminigra*. The forewing pattern of the two species are rather similar, the distinctive feature is as follows: the dark brown forewing marginal area of the new species is much narrower, covering the outer fifth of the wing, that of *C. seminigra* is much broader, usually the entire outer half of the wing is darkened and the dark area is fused with the outer costal spot.

The ♂ genitalia of *C. johannstumpfi* differ from that of *C. seminigra* by the shorter, narrower, slightly curved uncus, shorter, narrower, apically less dilated and rounded valva, much thinner, apically more tapering harpe and the much shorter fultura inferior having thinner arms. The uncus of *C. seminigra* is much thicker, somewhat flag-like, the valva is longer, broader, distally more dilated, the harpe is considerably thicker, less cuneate, and the fultura inferior is longer with stronger lateral arms. The aedeagus of the two related species are similar, but its apical end is obliquely truncate in *C. johannstumpfi*, while elongate-triangular in *C. seminigra*, and the cornuti in the vesica are somewhat finer in the new species.

In the ♀ genitalia, the signum bursae of *C. johannstumpfi* and *C. seminigra* differs conspicuously: that of the new species is rather short, slightly curved, with very fine scobination, while rather long, reversed U-shaped, strongly scobinated in *C. seminigra*; in addition the new species has, in comparison with that of *C. seminigra*, somewhat shorter, funnel-like sclerotized ostium bursae.

Distribution. The new species is found in certain areas of the Nepal Himalaya at lower altitudes, in northern Thailand and in Sumatra.

### ***Casminola breviarpe* spec. nov.**

(Pl. 2, fig. 3; gen fig. 13)

**Holotype.** ♂, „East-Nepal, Milke Danda, Nesum, 1500 m, 21.viii.2000, leg. CSÖVÁRI & HREBLAY”, slide No. LGN 357 (W 7380) (coll. MWM).

**Diagnosis.** The new species is externally very similar to *C. johannstumpfi*, but has somewhat shorter and narrower costal patches on the forewing. The ♂ genitalia of the two species display conspicuous differences: *C. breviarpe* has much shorter, more robust, almost straight uncus, much shorter and thicker harpe, and somewhat shorter valva. The uncus of *C. johannstumpfi* is comparatively longer, thinner and slightly curved, the valva is longer, and the harpe is much longer and thinner than in the related species. The aedeagus is similarly shaped in the two species but the vesica of the new species lacks the cornuti field while *C. johannstumpfi* has fine, but clearly visible

cornuti field. The ♀ is unknown.

Distribution. The species is known by its unique type specimen from Nepal, it has not been recorded from Thailand.

***Casminola spinosa spec. nov.***

(Pl. 11, fig. 10; gen fig. 15)

Holotype. ♂, „NW Thailand: 1460m, Chiang Mai, Doi Suthep-Pui NP, 26.iv-10.v.1989 A.M. Cotton, BM 1989-145”, slide No. LGN 1328 (BM Arct. 6209) (coll. BMNH).

Diagnosis: The forewing pattern of *C. spinosa* resembles *C. johannstumpfi*, but the ground colour is much more shining white, and the darker markings are sharply defined by a thin, but blackish line, which is absent in *C. johannstumpfi*. The new species is also similar to *C. splendida* by its shining white forewing ground colour, but is much smaller in size (the wingspan of *C. spinosa* is 14 mm, with the length of forewing 6 mm, those of *C. splendida* are 15-18 mm and 7-9 mm, respectively) and the forewing is conspicuously narrower.

The specific autapomorphy of the ♂ genitalia of *C. spinosa* is the long and narrow cornuti field of the vesica consisting of a large number (ca 80) of relatively long, strong, acute spines. The other species of the genus have either smaller cornuti field of smaller, weaker spinules or the cornuti field is fully absent. The configuration of the clasping apparatus of the *C. spinosa* is most similar to *C. johannstumpfi*, but the valvae are slightly longer and the harpe is situated closer to the valval base than in its close relative. The ♀ is unknown.

Distribution. The new species is known from the type-locality only.

***Porcellanola* LÁSZLÓ, RONKAY & WITT, 2006**

Type species: *Porcellanola minna* LÁSZLÓ, RONKAY & WITT, 2006

**Species content:**

*P. minna* LÁSZLÓ, RONKAY & WITT, 2006  
*P. chakri* LÁSZLÓ, RONKAY & WITT, 2006  
*P. lanna* LÁSZLÓ, RONKAY & WITT, 2006  
*P. sukhothai* LÁSZLÓ, RONKAY & WITT, 2006  
*P. thonburi spec. nov.*  
*P. thai* LÁSZLÓ, RONKAY & WITT, 2006  
*P. ayutthaya spec. nov.*  
*P. langtangi spec. nov.*  
*P. uthong spec. nov.*

Distribution. *Porcellanola langtangi* is the only known species of the genus *Porcellanola* found outside of the mountains of Northern Thailand, it was discovered in the Langtang Himal in Nepal. The presence of the genus in the Central Himalayan massif suggests that further, yet undiscovered members of the genus may occur in the chains between the eastern Himalayas and the northern mountain regions of Indochina.

***Porcellanola minna* LÁSZLÓ, RONKAY & WITT, 2006**

(Pl. 2, figs 7-8)

*Porcellanola minna* LÁSZLÓ, RONKAY & WITT, 2006, *Entomofauna* 27(21): 268. Type locality: N. Thailand, Prov. Nan, Pua. Holotype: ♂, in coll. MWM.

**Type material examined:**

Holotype. ♂, „Thailand, Changwat Nan, 30 km E of Pua, 1700 m, 13. XI. 1999, leg. Márton HREBLAY”, slide No. LGN 882 (W 8297) (coll. MWM).

Paratypes. Thailand. Prov. Nan: 1 ♂, from the same site as the holotype, 10.xi.1999, slide No. LGN 886 (W 8301). Prov. Chiang Mai: 1 ♂, 3 ♀♀, Mt. Doi Phahompok, 18 km NW of Fang, 2100 m, 15.xi.1999, slide Nos LGN 883, (W 8298) (♂), LGN 884 (W8299), LGN 885 (W 8300) (♀♀), leg. M. HREBLAY (coll. MWM).

### ***Porcellanola chakri* LÁSZLÓ, RONKAY & WITT, 2006**

(Pl. 2, figs 9-10)

*Porcellanola chakri* LÁSZLÓ, RONKAY & WITT, 2006, *Entomofauna* 27(21): 272. Type locality: N. Thailand, Prov. Chiang Mai, Fang. Holotype: ♂, in coll. HNHM.

#### **Type material examined:**

Holotype. ♂, „North Thailand, prov. Chiang Mai, 1600 m, between Fang and Nor Lae, 99°06'E, 20°02'N, 12. 11. 2002, leg. B. Herczig & G. Ronkay”, slide No. LGN 887 (coll. HNHM).

Paratypes. Thailand. Prov. Chiang Mai: 1 ♂, with the same data as the holotype; 1 ♂, same site, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 7.xi.2002, leg. B. HERCZIG & G. RONKAY. Prov. Mae Hong Song: 1 ♂, 1250 m, between Pa Pae and Khun Sa, 98°39'E, 19°08'N, leg. B. HERCZIG & G. RONKAY, slide No. LGN 880 (W 8303). Prov. Nan: 1 ♂, 30 km E of Pua, 1700 m, 10.xi.1999, leg. M. HREBLAY, slide No. LGN 196 (W 8309) (coll. HNHM and MWM).

### ***Porcellanola lanna* LÁSZLÓ, RONKAY & WITT, 2006**

(Pl. 2, figs 11-12)

*Porcellanola lanna* LÁSZLÓ, RONKAY & WITT, 2006, *Entomofauna* 27(21): 272. Type locality: N. Thailand, Prov. Chiang Mai, Doi Phahompok. Holotype: ♂, in coll. MWM.

#### **Type material examined:**

Holotype. ♂, „Thailand, Changwat Chiang Mai, Mt. Doi Phahompok, 18 km NW of Fang, 2100 m, 7.ii.2000, leg. Hreblay & Szabó”, slide No. LGN 881 (W 8302) (coll. MWM).

Paratypes. Thailand. Prov. Chiang Mai: 1 ♂, with the same data as the holotype, slide No. LGN 889 (W 8304); 1 ♂, 20 km NW of Mae Ai, 1650 m, 26.i.1999, leg. A. SZABÓ & Z. CZERE, slide No. LGN 163 (W 8305); 1 ♀, Mt. Doi Phahompok, 16 km NW of Fang, 2000 m, 24.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY, slide No. LGN 915 (W 8365); 2 ♀♀, 20 km NW of Fang, 2100 m, 24. I. 2004; 1 ♀, same site, 2150 m, 22. I. 2004, leg. A. SZABÓ (coll. MWM).

### ***Porcellanola sukhothai* LÁSZLÓ, RONKAY & WITT, 2006**

(Pl. 2, figs 13-14)

*Porcellanola sukhothai* LÁSZLÓ, RONKAY & WITT, 2006, *Entomofauna* 27(21): 273. Type locality: N. Thailand, Prov. Chiang Mai, Doi Phahompok. Holotype: ♂, in coll. MWM.

#### **Type material examined:**

Holotype. ♂, „Thailand, Changwat Chiang Mai, Mt. Doi Phahompok, 18 km NW of Fang, 2100 m, 15. XI. 1999, leg. Márton HREBLAY”, slide No. LGN 891 (W 8306) (coll. MWM).

Paratypes. Thailand. Prov. Nan: 2 ♂♂, 30 km E of Pua, 1700 m, 10.xi.1999, leg. M. HREBLAY, slide Nos: LGN 195 (W 8308), LGN 892 (W 8307) (coll. MWM).

***Porcellanola thonburi spec. nov.***

(Pl. 2, fig. 15; gen. fig. 17)

**Holotype.** ♂, „Thailand, Changwat Mae Hong Song, 1 km S of Bahudanda, 1000 m, 6. II. 1998, leg. Márton HREBLAY & Csaba SZABÓKY”, slide No LGN 1134 (W 7326) (coll. MWM).

**Diagnosis.** *Porcellanola thonburi* has a rather unique external appearance within the genus, according to its long and narrow, apically pointed forewing with orange-yellow ground colour and dark costal and marginal areas. Despite its unusual external appearance, the new species inevitably show the typical ♂ genital features of the genus *Porcellanola*; its closest relative is *P. sukhothai*. The distinctive character of the ♂ genitalia is the configuration of the aedeagus: the new species has very long, narrow, stick-like carina, while *P. sukhothai* has shorter, strongly dentate carinal plate. In addition, the valva of *P. thonburi* is somewhat shorter than in *P. sukhothai*. The ♀ is unknown.

**Distribution.** Northern Thailand.

***Porcellanola thai* LÁSZLÓ, RONKAY & WITT, 2006**

(Pl. 2, figs 16-17)

*Porcellanola thai* LÁSZLÓ, RONKAY & WITT, 2006, *Entomofauna* 27(21): 274. Type locality: N. Thailand, Prov. Mae Hong Son, Pa Pae. Holotype: ♂, in coll. HNHM.

**Type material examined:**

**Holotype.** ♂, „North Thailand, Prov. Mae Hong Son, 1250 m, between Pa Pae and Khun Sa, 98°39'E, 19°08'N, 31.x.2002, leg. B. HERCZIG et G. RONKAY”, slide No. LGN 888 (coll. HNHM).

**Paratypes.** Thailand. Prov Mae Hong Song: 3 ♂♂, 1 ♀, with the same data as the holotype, slide Nos: LGN 890 (♂), LGN 905 (♀). Prov. Chiang Mai: 3 ♂♂, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 12.xi.2002, leg. B. HERCZIG & G. RONKAY (coll. HNHM and MWM).

***Porcellanola ayutthaya spec. nov.***

(Pl. 2, figs 18-19; gen. fig. 18)

**Holotype.** ♂, „Thailand, Changwat Chiang Mai, 4 km SE of Pang Faen, 1100m, 26. I. 2004, leg.: Attila Szabó”, slide No. LGN 1039 (W 7288) (coll. MWM).

**Paratypes.** Thailand. Prov. Mae Hong Song: 1 ♀, 21 km NW of Pai, 1360 m, 7.ii.1998, slide No. LGN 462 (W 7289). Prov. Chiang Mai: 1 ♀, Mt. Doi Inthanon, 10 km E of Mae Chaem, 1160 m, 5.ii.1998, slide No. LGN 461 (W 7290); 2 ♂♂, 1600 m, between Fang and Nor Lae, 99°06'E, 20°02'N, 12.xi.2002, leg. B. HERCZIG & G. RONKAY, slide Nos LGN 1228, LGN 1229. Prov. Nan: 1 ♀, 30 km E of Pua, 1700 m, 27.ii.1998, slide No. LGN 832 (W 7291), leg. M. HREBLAY & Cs. SZABÓKY (coll. G. RONKAY and MWM); 1 ♂, Doi Phu Kha, Pua, 1680 m, 18.ii.1993, leg. W. SPEIDEL (coll. SPEIDEL); 1 ♂, Doi Suthep-Pui NP, 1380 m, 24.ii.1989, leg. A.M. COTTON & I.J. KITCHING BM 1989-57 (coll. BMNH).

**Diagnosis.** The new species is much smaller in size than *Porcellanola thai* LÁSZLÓ, RONKAY & WITT, 2006 (wingspan 14-16 mm; length of forewing 7-8 mm, while those of *P. ayutthaya* are 11-12 mm and 5-6 mm, respectively), having narrower and more acute forewing with mentionably less contrasting and differently shaped black and white markings. The genitalia of both sexes clearly show the relationship of the two species although the differences are easily recognisable. The new species has, in comparison with *P. thai*, slightly broader uncus, conspicuously narrower valva and somewhat longer fultura inferior, lacking the ventro-medial process. The harpe-ampulla complex is pincer-like in both species, but the apical processes of this complex are significantly shorter and almost straight in the new species while they are longer and more curved in *P. thai*; the ampullar process of *P. ayutthaya* is longer than the harpe, the situation is just the opposite in *P. thai*. The aedeagi of the two species are surprisingly similar but the whole apparatus of *P. ayutthaya* is somewhat shorter with less serrate dorso-lateral bar of the carina.

The ♀ genitalia of the two taxa are very similar, but the new species has somewhat shorter and less sclerotized, quadrangular ostium bursae and longer ductus bursae. The ostium bursae of *P. thai* is comparatively longer, more sclerotized and infundibular, and the ductus bursae is shorter than in *P. ayutthaya*.

Distribution. All known localities of the new species lie in northern Thailand.

### ***Porcellanola langtangi* spec. nov.**

(Pl. 2, figs 20-21; gen. fig. 19)

**Holotype.** ♂, „Nepal, Langtang, 1950m, 1,5 km NE Dhunche, 85°18'E, 28°06'N, 24.ix.1994, leg. G. CSORBA & L. RONKAY”, slide No. LGN 460 (coll. HNHM).

**Paratype.** 1 ♀, with the same data as the holotype, slide No. LGN 1227 (coll. HNHM).

Diagnosis: *Porcellanola langtangi* is an allopatric sister species of *P. ayutthaya*. The external appearance of the two taxa is very similar, the mentionable differences are the more oblique inner margin of the dark outer half of the forewing and the longer and broader dark costal patch of *P. langtangi*. The satisfactory separation of the two species requires the examination of their genitalia which display surprisingly large and prominent differences. Comparing the ♂ genitalia of the two species, *P. langtangi* has much broader valva (similar to that of *P. thai*), elongated-triangular fultura inferior with pointed distal apex (it is rather quadrangular in *P. ayutthaya*, with slightly concave distal margin); much longer, slightly curved and apically pointed harpe (it is a very short, apically rounded process in *P. ayutthaya*), considerably shorter and extremely thin, apically pointed, thread-like ampulla (it is a much thicker, slightly curved, distally tapering and apically rounded process in *P. ayutthaya*), shorter and broader vinculum and conspicuously narrower aedeagus with much shorter and less serrate dorso-lateral bar.

The synapomorphies of the ♀ genitalia of the two species are the similar configuration of the ovipositor and corpus bursae with the characteristic pair of finely scobinated ovoid signum-plates. The distinctive features of *P. langtangi* are the considerably longer and narrower ventral plate of the penultimate segment, the much narrower ostium bursae, and the somewhat longer and much slenderer ductus bursae, which is more sclerotised distally than the otherwise much broader but weaker ductus bursae of *P. ayutthaya*.

Distribution. The new species is found only once in the Langtang Himal in Central Nepal. The taxon is most probably an allopatric sibling species of *P. ayutthaya*, its occurrence in Thailand is, therefore, less probable.

### ***Porcellanola uthong* spec. nov.**

(Pl. 3, figs 1-2; gen. fig. 20)

**Holotype.** ♂, „North Thailand, Prov. Chiang Mai, 1800m, 4 km S of Kop Dong, 99°03'E, 19°52'N, 06.11.2002, leg. B. Herczig et G. Ronkay”, slide No. LGN 1073 (W 7292) (coll. MWM).

**Paratype.** Thailand. Prov. Mae Hong Son: ♂, between Pa Pae and Khun Sa, 1250 m, 98°39'E, 19°08'N, 31.x.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 1074 (W 7295) (coll. MWM).

Diagnosis. The new species belongs, despite the rather unique external appearance, to the *Porcellanola thai* species-group, this relationship is indicated by the structure of the ♂ genitalia. *Porcellanola uthong* differs externally from all other *Porcellanola* species by the ground colour of the forewing: it is the only known member of the genus having graphite-grey suffused forewings in contrast to the porcelain-white ground colour of the other species.

The ♂ genitalia of the new species display closer relationship with *P. sukhothai* LÁSZLÓ, RONKAY & WITT, 2006, the differences between the two species are as follows: the fultura inferior of *P. uthong* is much more complex, it is a larger, sclerotised, dorso-medially deeply incised plate with strong, robust, thorn-like medial process originating from the ventral edge and with a pair of short, medio-lateral crests. The fultura inferior of *P. sukhothai* is a more



simple and shorter, quadratic plate with a short ventro-medial fold only. The ampulla of *P. uthong* is bifurcate, with rather robust, claw-like distal and shorter proximal processes, the ampulla of *P. sukhothai* is a simple, claw-like process; the erect part of the harpe of *P. uthong* is a very fine prominence only.

Distribution. The new species occurs in northern Thailand.

### ***Calonola* gen. nov.**

Type species: *Zia ectrocta* HAMPSON, 1907

#### **Species content:**

*C. ectrocta* (HAMPSON, 1907) **comb. nov.**

*C. argyria* (HAMPSON, 1894) **comb. nov.**

Diagnosis. The external appearance of the members of the new genus resembles somewhat the overwhelming majority of the species of *Porcellanola* due to their shining white forewing ground colour with brownish terminal area and the characteristic triangular costal patch. The costal patch of *Calonola* is larger and darker than in *Porcellanola* and the terminal area has more sharply defined bordering lines. The diagnostic generic characters are found in the configuration of the ♂ genitalia. The copulatory organs of *Calonola* and *Porcellanola* differ conspicuously: the valva of *Calonola* is much more elongated, the harpe is usually smaller, originating much closer to the valval base than in *Porcellanola*, the fultura inferior is rather small, poorly sclerotized, while this structure of *Porcellanola* is always well-developed, sometimes with large arms. The vinculum of *Calonola* is rather quadrangular with a narrow, elongate medial process, that of *Porcellanola* is simply U- or V-shaped. The ♀ genitalia of the two genera are also easily distinguishable by the presence of a pair of elongated, scobinate signum-stripes of *Calonola*, while *Porcellanola* lacks the signa.

The structure of the ♂ genitalia of *Calonola* indicates its closer relationship with the genus *Barasa*, despite the rather dissimilar external appearance of their species; their shared features are the elongated, slightly curved valva and the usually small, arcuate, claw-like harpe. The main difference between the ♂ genitalia of *Calonola* and *Barasa* is the characteristic shape of the valva which is simple and undivided in *Calonola* while it is divided into two (ventral and costal) parts in *Barasa*. The ♀ genitalia of the two genera are also easily recognisable: *Barasa* lacks the signa while *Calonola* has two well-developed signum-stripes.

### ***Calonola ectrocta* (HAMPSON, 1907) comb. nov.**

(Pl. 1, figs 12-13; gen. fig. 21)

*Zia ectrocta* HAMPSON, 1907, *Annals and Magazine of Natural History* 7(19): 229. Type-locality: [Sri Lanka] Ceylon, Haputale. Holotype: ♂, in coll. BMNH.

#### **Type material examined:**

Holotype of *Zia ectrocta* HAMPSON, 1907: ♂, „TYPE” (red ring type label), „Ceylon, W-Haputale II.03. Mackwood 1904.4.”, slide No. LGN 722 (BM. Noct. 18202) (coll. BMNH); holotype of *Zia ectrocta* ab. *ectroctoides* Strand (manuscript name): ♂, „Maskeliya, Ceylon, May, de Moulray 1906. 181”, slide No. LGN 723 (BM Noct. 18203) (coll. BMNH).

#### **Additional material examined:**

Thailand. Prov. Chiang Rai: 1 ♂, 1 km SE of Khun-Kon Waterfall, 600 m, 15.xi.1998, leg. T. CSÖVÁRI & L. MIKUS, slide No. LGN 156 (W 7327). Prov. Nan: 1 ♀, 25 km N of Bo Luang, 1150 m, 3.ii.2000, leg. M. HREBLAY & A. SZABÓ, slide No. LGN 893 (W 7328) (coll. MWM). Prov. Chiang Mai: 1 specimen, between Fang and Nor Lae, 99°06'E, 20°02'N, 28.x.2002, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY).

***Calonola argyria* (HAMPSON, 1894) comb. nov.**

(Pl. 1, figs 14-15)

*Pisara argyria* HAMPSON, 1894, *Fauna of British India, Moths* 2: 145. Type-locality: [India] Sikkim. Holotype: ♂, in coll. BMNH.

**Type material examined:**

Holotype of *Pisara argyria* HAMPSON, 1894: ♂, „TYPE” (red ring type label), „Sikkim”, slide No. BM Arct. 1651 (coll. BMNH).

**Additional material examined:**

Thailand. Prov. Chiang Mai: 8 specimens, Mt. Doi Phahompok, 16 km NW of Fang, 2000 m, 24.ii.1998 leg. M. HREBLAY & Cs. SZABÓKY; 2 specimens, same site, 14.viii.1999; 1 specimen, same site, 6-7.viii.1999, leg. T. CSÓVÁRI & L. MIKUS; 2 specimens, same site, 10.i.1999; 1 specimen, same site, 12.ix.1999, leg. A. SZABÓ & Z. CZERE; 1 specimen, same site, 27.iii.1998, leg. T. CSÓVÁRI & P. STÉGER; 1 specimen, Mt. Doi Phahompok, 17 km NW of Fang, 2100 m, 15.viii.1999, leg. T. CSÓVÁRI & L. MIKUS; 4 specimens, Mt. Doi Phahompok, 18 km NW of Fang, 2100 m, 25.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY, slide No. LGN 165 (W 7329) (♂); 2 specimens, same site, 19-20.ix.1999; 2 specimens, same site, 18.i.1999, leg. A. SZABÓ & Z. CZERE; 2 specimens, Mt. Doi Phahompok, 19 km NW of Fang, 1900 m, 3.iv.1998 leg. T. CSÓVÁRI & P. STÉGER; 1 specimen, Mt. Doi Phahompok, 20 km NW of Fang, 2150 m, 28-29.i.2004; 5 specimens, same site, 22-25.i.2004, leg. A. SZABÓ; 6 specimens, Mt. Doi Inthanon, NP, 2300 m, 7-8.ix.1999; 1 specimen, same site, 6.i.1999, leg. A. SZABÓ & Z. CZERE; 1 specimen, same site, 16.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 1 specimen, same site, 19-20.xi.1998, leg. T. CSÓVÁRI & L. MIKUS; 1 specimen, 4 km S of Kop Dong, 99°03'E, 19°52'N, 1800 m, 11.xi.2002; 8 specimens, same site, 6.xi.2002, leg. B. HERCZIG & G. RONKAY; 3 specimens, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 21.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 4 specimens, same site, 27.i.1999; 3 specimens, same site, 8.i.1999, leg. A. SZABÓ & Z. CZERE; 1 specimen, 20 km NW of Mae Ai, 1650 m, 7.i.1999, leg. A. SZABÓ & Z. CZERE. Prov. Nan: 1 specimen, 30 km E of Pua, 1700 m, 24.xi.1998; 1 specimen, same site, 18.xi.1998, leg. T. CSÓVÁRI & L. MIKUS; 3 specimens, same site, 18.ii.1998; 1 specimen, same site, 20.ii.1998; 5 specimens, same site, 27.ii.1998; 1 specimen, same site, 1.iii.1998; 3 specimens, same site, 20.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 1 specimen, same site, 22-23.ix.1999, leg. A. SZABÓ & Z. CZERE; 2 specimens, same site, 10.xi.1999; 4 specimens, same site, 13.xi.1999, leg. M. HREBLAY; 2 specimens, same site, 20.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 1 specimen, 25 km N of Bo Luang, 1150 m, 19.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY (coll. G. RONKAY and MWM).

***Barasa acronyctoides* WALKER, 1862**

(Pl. 3, fig. 18)

*Barasa acronyctoides* WALKER, 1862, *Proceedings of the Linnean Society (Zoology)* 6: 192. Type-locality: Borneo, Sarawak. Type: in coll. UM, Oxford.

*Barasa cana* HAMPSON, 1893, *Illustrations of Typical Specimens of Lepidoptera Heterocera in the Collection of the British Museum* 9: 107. Type-locality: [Sri Lanka] Ceylon, Halina valley. Holotype: ♂, in coll. BMNH.

**Material examined:**

Thailand. Prov. Chiang Mai: 1 ♀, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY).

***Barasa lunisigna* (HAMPSON, 1898)**

(Pl. 3, fig. 21, Pl. 4, fig. 1)

*Nola lunisigna* HAMPSON, 1898, *Journal of the Bombay Natural History Society*, 11: 441. Type-locality: [India] [Meghalaya] Khasis. Holotype: ♂, in coll. BMNH.

**Type material examined:**

Holotype of *Nola lunisigna* HAMPSON, 1898: ♂, „TYPE” (red ring type label), „Khasis”, slide No. BM. Noct. 17729 (coll. BMNH).

**Additional material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY); 1 ♂, 4 km SE of Pang Faen, 1100 m, 31.i.2004; 1 ♂, same site, 26.i.2004, 3 ♂♂, same site, 27.i.2004, leg. A. SZABÓ, slide No. LGN 932 (W 7331); 1 ♀, same site, 13.i.2004, leg. P. HENTSCHEL & A. SZABÓ, slide No. LGN 931 (W 7330); 1

♂, same site, 6.ii.2000, leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ; 1 ♂, Mt. Doi Inthanon, NP, 2300 m, 17.x.2000, leg. local collector, slide No. LGN 519 (W 7332) (coll. MWM). Prov. Nan: 1 ♂, Doi Phuka NP, 1350 m, between Pua and Bo Luang, 101°05'E, 19°12'N, 3.xi.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 930 (coll. G. RONKAY); 1 ♂, 30 km E of Pua, 20.i.2004, leg. A. SZABÓ. Prov. Mae Hong Son: 1 ♀, 25 km NE of Pai, 1560 m, 2.iii.1998, leg. M. HREBLAY & Cs. SZABÓKY, slide No LGN 151 (W 7333); 1 ♂, 10 km NE of Pai, 1560 m, 3.xii.1998, leg. M. HREBLAY, I. SOÓS & Y. SHERPANI, slide No. LGN 956 (W 7334) (coll. MWM).

### ***Barasa subtilis* spec. nov.**

(Pl. 3, figs 19-20; gen. fig. 22)

**Holotype.** ♂, „N. Thailand, Prov. Nan, 5 km N of Ban Luang, 350m, between Pi Nai and Pi Tai 100°27'E, 18°56'N, 4.xi.2002, leg. B. HERCZIG & G. RONKAY”, slide No LGN 1025 (coll. G. RONKAY).

**Paratypes.** Thailand. Prov. Chiang Mai: 1 ♂, 4 km SE of Pang Faen, 1100 m, 27.i.2004, leg. A. SZABÓ, slide No. LGN 933 (W 7336); 1 ♂, 10 km NW of Fang, 550 m, 14.xi.1998, leg. T. CSÖVÁRI & L. MIKUS, slide No. LGN 903 (W 7335). Prov. Nan: 1 ♀, 5 km E of Bo Luang, 610 m, 23.xi.1998, leg. T. CSÖVÁRI & L. MIKUS, slide No. LGN 1042 (W 7337) (coll. MWM); 1 ♀, 20 km NE Nan, 21.ii.1993, leg. W. SPEIDEL (coll. SPEIDEL). Cambodia. 1 ♀, Mondolkiri Prov., Seima Biodiversity Conservation Area, between Seima and O'Rang, 12°12'12"N, 107°01'09"E, 300 m, 30.i.2006 leg. G. CSORBA & G. RONKAY, slide No. LGN 1046 (W 7338) (coll. MWM).

**Diagnosis.** The new species is externally rather similar to *B. lunisigna*, but is somewhat smaller in size (length of forewing of *B. subtilis* 9-10 mm, that of *B. lunisigna* 10-12 mm), and the forewing is darker with brownish-red suffusion in the marginal area, while the ground colour of the forewing of *B. lunisigna* is uniformly pale grey.

The configuration of the ♂ genitalia of *B. subtilis* differs conspicuously from that of *B. lunisigna*: the new species has rather broad and rounded distal ventral lobe of the valva with well-developed apical hump, somewhat shorter, thinner harpe, and much shorter, broader tegumen. The valva of *B. lunisigna* is rather narrow and very long, without apical process; the harpe is longer, thicker and the tegumen is narrower than in *B. subtilis*.

The ♀ genitalia of the two related species show also remarkable differences. The papillae anales of the new species are more elongated, the apophyses anteriores are much longer, the cervix bursae is much narrower and the corpus bursae is much larger in the new species than in *B. lunisigna*.

**Distribution.** The species was found in Thailand and Cambodia.

### ***Barasa alopha* HAMPSON, 1896**

(Pl. 4, figs 2-3)

*Barasa alopha* HAMPSON, 1896, *Fauna of British India, Moths*, 4: 525. Type-locality: [India] [Maharashtra] Bombay, Tanna; [Sri Lanka] Ceylon. Syntypes: in coll. BMNH.

*Zia grisea* HAMPSON, 1914, *Catalogue of the Amatidae and Arctiidae (Nolinae and Lithosiinae) in the Collection of the British Museum 1914*: 438, pl. 25, fig. 6. Type-locality: China, Hupeh, Lui-Shin-Tze. Holotype: ♀, in coll. BMNH; **syn. n.**

#### **Material examined:**

Thailand. Prov. Chiang Mai: 1 specimen, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002; 1 ♂, between Fang and Nor Lae, 99°06'E, 20°02'N, 12.xi.2002, leg. B. HERCZIG & G. RONKAY. Prov. Mae Hong Son: 1 ♀, 10 km NE of Pai, 1560 m, 3.xii.1998, leg. M. HREBLAY, I. SOÓS & Y. SHERPANI, slide No. LGN 168 (W 7339) (coll. MWM). Prov. Nan: 2 specimens, Doi Phuka N.P., between Pua and Bo Luang, 1350 m, 101°05'E, 19°12'N, 3.xi.2002, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY and MWM).

***Barasa costalis* HAMPSON, 1895**

(Pl. 4, figs 4-5)

*Barasa costalis* HAMPSON, 1895, *Transactions of the Entomological Society of London* **1895**: 305. Type locality: [India] Sikkim, Bhutan. Syntypes: in coll. BMNH, London.

**Material examined:**

Thailand. Prov. Chiang Mai: 1 specimen, 4 km SE of Pang Faen, 1100 m, 26.i.2004; 2 specimens, same site, 13.i.2004, slide No. LGN 957 (W 7340) (♂); 1 ♂, same site, 27.i.2004, leg. A. SZABÓ, slide No. LGN 958 (W 7341) (coll. MWM).

***Ezishnola* gen. nov.**

Type species: *Ezishnola fuscographa* **spec. nov.**

**Species content:**

*E. fuscographa* **spec. nov.**

Diagnosis. The species of this monotypical new genus resembles certain species of *Barasa* (e.g. *B. lunisigna* and *B. subtilis*) and *Suerkenola* (*S. longiventris*) by their pale grey forewing ground colour, but the species of the new genus lacks the strongly defined crosslines and the costal streak of forewing, which are characteristic for *Barasa* and *Suerkenola*.

The ♂ genitalia of the new genus is rather remote from any other genera of Nolinae having rather long, apically rounded, finger-like uncus covered apically densely with hairs, the basally narrow, distally much broader, apically rounded (somewhat ham-shaped) valva, and the characteristic harpe-ampulla complex. This complex consists of strong and straight, thorn-like ampulla and rather short, spine-like erect part of harpe, resembling slightly those of certain, externally dissimilar, species of *Porcellanola* (e.g. *P. thai*).

The ♀ genitalia of the new genus are also characteristic: they have a pair of long and broad, sclerotized signa bands. These signum stripes are somewhat similar to those of *Barnanola*, while the ovipositor, the ostium bursae and the tubular part of corpus bursae are rather simple, displaying no autapomorphic features.

***Ezishnola fuscographa* spec. nov.**

(Pl. 3, figs 3-4; gen. fig. 23)

**Holotype.** ♂, „Thailand, Changwat Nan, 30 km E of Pua, 1700m, 20.viii.1999, leg. T. CSÖVÁRI & L. MIKUS”, slide No. LGN 953 (W 7342) (coll. MWM).

**Paratypes.** Thailand. Prov. Nan: 1 ♀, 5 km E of Bo Luang, 610 m, 23.xi.1998, leg. T. CSÖVÁRI & L. MIKUS, slide No. LGN 971 (W 7343); 1 ♀, Mt. Doi Phukha, 30 km E of Pua, 1700 m, 20.viii.1999; 1 ♀, same site, 10.xi.1999, leg. M. HREBLAY & I. SOÓS; 1 ♀, Mt. Doi Phukha, 5 km E of Bo Luang, 610 m, 23.xi.1998, leg. T. CSÖVÁRI & L. MIKUS (coll. MWM). Prov. Chiang Mai: 1 ♂, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, slide No. LGN 954 (W 7344); 1 ♂, same site, 8.xi.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 1054; 1 ♂, Mt. Doi Inthanon, NP, 2300 m, 17.x.2000, leg. local collector, slide No. LGN 1265 (W 7345); 3 ♂♂, 3 ♀♀, 12 km NW of Chiang Dao, 750 m, 12.xi.1998; 1 ♀, 10 km NW of Fang, 550 m, 14.xi.1998, leg. T. CSÖVÁRI & L. MIKUS (coll. MWM and G. RONKAY). Uthai Thani District: 1 ♂, Khao Nang Rum, 400 m, 6-8.vi.1986, leg. M.G. ALLEN (coll. BMNH).

Diagnosis. *Ezishnola fuscographa* resembles slightly certain taxa of *Barasa* (especially *B. lunisigna* and *B. subtilis*) but the forewing is pale grey, lacking the blackish costal spot and the well-defined lower section of postmedial line which are characteristic for the mentioned *Barasa* species. The new species is easily distinguishable from the externally somewhat similar *Barasa costalis* and *Suerkenola longiventris* by its much smaller size and the absence of the conspicuous apical streak of the forewing, this latter feature is typical of *S. longiventris*.

The diagnostic features of the genitalia of the new species are given in the diagnosis of the genus.

Distribution. The new species is distributed in the northern areas of Thailand.

### ***Suerkenola* gen. nov.**

Type species: *Nola longiventris* POUJADE, 1886 **comb. nov.**

#### **Species content:**

*S. longiventris* (POUJADE, 1886) **comb. nov.**

Diagnosis. The genus is monotypical. The typical external features are the pale grey forewing ground colour (like in certain *Barasa* species, e.g. *B. costalis* and *B. lunisigna*) and the sharply defined, dark grey, slightly arched apical streak in the forewing termen.

The ♂ genitalia of *Suerkenola* are rather unique within the entire subfamily, displaying no closer relationship with the above-mentioned taxa. The diagnostic features are the presence of large, strongly sclerotized saccular lobe with characteristically dentate inner margin, the hump-like process of the harpe, and the well-developed, narrow, slightly curved ampullar process. The ♀ genitalia are characterisable by the large ostium bursae with a pair of strongly sclerotized medial plates.

### ***Suerkenola longiventris* (POUJADE, 1886) **comb. nov.****

(Pl. 3, figs 5-6; gen. fig. 24)

*Nola longiventris* POUJADE, 1886, *Bulletin de la Société Entomologique de France* 6(6): 151. Type-locality: [China, Sichuan] Tibet, Moupin. Holotype: ♂, in coll. MNHN Paris.

*Barasa suffida* SWINHOE, 1919, *Annals and Magazine of Natural History* (Series 9) 4: 120. Type locality: [India] [Meghalaya] Khasia Hills. Holotype: ♂, in coll. BMNH; **syn. n.**

#### **Material examined:**

Thailand. Prov. Nan: 2 specimens, 30 km E of Pua, 1700 m, 22-23.ix.1999, slide No. LGN 137 ♂ (W 7347); 3 specimens, same site, 14-15.ix.1999, leg. A. SZABÓ & Z. CZERE; 1 specimen, same site, 16.xi.1998, leg. T. CSÖVÁRI & L. MIKUS; 1 ♂, same site, 13.xi.1999, leg. M. HREBLAY & I. SOÓS, slide No. LGN 951 (W 7348); 2 specimens, 7 km W of Ban Bo Yuak, 1000 m, 25.xi.1998, leg. T. CSÖVÁRI & L. MIKUS; 2 specimens, Doi Phuka N.P., between Pua and Bo Luang, 1350 m, 101°05'E, 19°12'N, 3.xi.2002, leg. B. HERCZIG & G. RONKAY. Prov. Chiang Mai: 1 specimen, Mt. Doi Phahompok, 18 km NW of Fang, 2100 m, 7.xii.1998, leg. M. HREBLAY, I. SOÓS & Y. SHERPANI; 1 ♂, 16 km NW of Fang, 2000 m, 6-7.viii.1999; 1 specimen, 7 km W of Pa Pae, 1230 m, 27.xi.1998; 1 specimen, 12 km NW of Chiang Dao, 750 m, 12.xi.1998, leg. T. CSÖVÁRI & L. MIKUS; 1 specimen, 4 km S of Kop Dong, 1800 m, 99°03'E, 19°52'N, 6.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 specimen, 10 km W of Mae Ai, 1500 m, 26.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 1 ♀, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 13.ix.1999, leg. A. SZABÓ & Z. CZERE, slide No. LGN 171 (W 7346). Prov. Mae Hong Son: 4 specimens, between Pa Pae and Khun Sa, 1250 m, 98°39'E, 19°08'N, 31.x.2002, leg. B. HERCZIG & G. RONKAY (coll. MWM and G. RONKAY).

### ***Mokfanola* gen. nov.**

Type species: *Mokfanola crustacea* **spec. nov.**

#### **Species content:**

*M. crustacea* **spec. nov.**

Diagnosis. The new genus is known as monotypical. The type-species resembles strongly *Ezishnola fuscographa*

by its similarly pale grey forewing ground colour and the rather diffuse transverse lines, but the freshly hatched specimens are distinguishable by their darker grey spots in the median area, which are absent in *Ezishnola*. The identification of the worn specimens requires, however, the examination of the ♂ genitalia which show conspicuous differences. The configuration of the ♂ genitalia is unique within the subfamily Nolinae, being dissimilar to the other genera. The diagnostic features of the genus are the very strongly sclerotized, elongated-triangular valva with pointed apex, the presence of firmly attached (not easily removable) and strong setae covered densely the ventral margin and the sacculus, and the large and long, strongly sclerotized, claw-like process of costal margin, forming together with the valval apex a structure resembling crab's pincers. The fultura inferior of *Mokfanola* is also characteristic, appearing as an elongated, reversed V-shaped plate. Despite the unique ♂ genitalia, the ♀ genitalia is rather simple, displaying a few specific characters only like the strongly sclerotized, discoidal ostium bursae, the strongly bent ductus bursae and the conspicuously elongated, narrow, more or less stick-like, strongly sclerotized signum.

### ***Mokfanola crustacea* spec. nov.**

(Pl. 3, fig. 7, Pl. 11, fig. 13; gen. fig. 25)

**Holotype.** ♂, „North Thailand, Prov. Chiang Mai, 450m, Mok Fa Garden Resort, 98°48'E, 19°06'N, 01.11.2002, leg. B. HERCZIG & G. RONKAY", slide No. LGN 1059 (coll. G. RONKAY).

**Paratypes.** Thailand. 1 ♀, Prov. Mae Hong Son, between Pa Pae and Khun Sa, 1250 m, 98°39'E, 19°08'N, 31.x.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 1264 (W 7381). India. Assam: 1 ♂, Kaziranga, Wild Life Reserve, 27°08'N, 93°56'E, 200 m, 2-3.vii.1997, leg. V. SINIAEV, slide No. LGN 1266 (W 7349) (coll. MWM).

**Diagnosis.** The new species is very similar externally to *Ezishnola fuscographa*, the distinctive external and genital features are summarized in the diagnosis of the genus *Mokfanola*.

**Distribution.** The species has been found in northern Thailand and in north-east India (Assam).

### ***Sarbena lignifera* WALKER, 1862**

(Pl. 3, fig. 8)

*Sarbena lignifera* WALKER, 1862, *J. Proceedings of the Linnean Society (Zoology)* 6: 137. Type-locality: Borneo, Sarawak. Lectotype: ♂, designated (as type) by SWINHOE, 1900, *Catalogue of Eastern and Australian Lepidoptera Heterocera in the Collection of the Oxford University Museum* 2: 589.

#### **Material examined:**

Thailand. Prov. Nan: 1 ♂, 5 km N of Ban Luang, 350 m, between Pi Nai and Pi Tai, 100°27'E, 18°56'N, 4.xi.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 751. Prov. Chiang Mai: 1 ♂, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002 leg. B. HERCZIG & G. RONKAY, slide No. LGN 749; 1 ♂, 4 km SE of Pang Faen, 1100 m, 18.i.2004, leg. P. HENTSCHEL & A. SZABO, slide No. LGN 948 (W 7350) (coll. G. RONKAY and MWM).

### ***Sarbena ustipennis* (HAMPSON, 1895)**

(Pl. 3, fig. 9)

*Cyphotopsyche ustipennis* HAMPSON, 1895, *Trans. ent. Soc. Ld.* 1895: 297. Type-locality: Bhutan and Ceylon [Sri Lanka]. Lectotype: ♂, designated (as type) by HAMPSON, 1900, *Catalogue of the Lepidoptera Phalaenae in the British Museum* 2: 52.

#### **Material examined:**

Thailand. Prov. Nan: 1 ♂, 5 km N of Ban Luang, 350 m, between Pi Nai and Pi Tai, 100°27'E, 18°56'N, 4.xi.2002, leg. B. HERCZIG &

G. RONKAY, slide No. LGN 750 (coll. G. RONKAY). Prov. Chiang Mai: 1 ♂, 4 km SE of Pang Faen, 1100 m, 31.i.2004, leg. A. SZABÓ, slide No. LGN 947 (W 7351) (coll. MWM).

***Sarbena hollowayi* LÁSZLÓ, RONKAY & WITT, 2004**

(Pl. 3, fig. 10)

*Sarbena hollowayi* LÁSZLÓ, RONKAY & WITT, 2004, *Entomofauna* **25**(18): 285. Type locality: N. Vietnam, Prov. Nghe An, Que Phong, Ban Khom. Holotype: ♂, in coll. MWM.

**Material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, 4 km SE of Pang Faen, 1100 m, 27.i.2004, leg. A. SZABÓ, slide No. LGN 949 (W 7352) (coll. MWM).

***Evonima aperta* WALKER, 1865**

(Pl. 3, figs 11-12)

*Evonima aperta* WALKER, 1865, *List of the Specimens of Lepidopterous Insects in the Collection of the British Museum* **32**: 505. Type-locality: Java. Syntypes: two ♀♀, in coll. BMNH.

**Material examined:**

Thailand. Prov. Chiang Mai: 1 specimen, 4 km SE of Pang Faen, 1100 m, 18.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 1 specimen, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002 leg. B. HERCZIG & G. RONKAY (coll. MWM). Prov. Nan: 1 specimen, 4 km W of Pha Lak, 100°34'E, 19°21'N, 5.xi.2002, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY); 1 ♂, 1 ♀, Loei Province Phu Luang Wildlife Sanctuary, 8-14.x.1984, 700-900 m, leg. KARSHOLT, LOMHOLDT & NIELSEN, slide Nos LGN 396 (♂), LGN 395 (♀) (coll. ZMUC).

***Evonima xanthoplaga* (HAMPSON, 1911)**

(Pl. 3, figs 13-14)

*Roeselia xanthoplaga* HAMPSON, 1911, *Annals and Magazine of Natural History* **8**(8): 399. Type-locality: [India] Sikkim. Holotype: ♀, in coll. BMNH.

**Material examined:**

Thailand. Prov. Chiang Mai: 5 specimens, 4 km S of Kop Dong, 1800 m, 99°03'E, 19°52'N, 6.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 specimen, Mt. Doi Inthanon, NP, 2300 m, 16.i.2004, leg. A. SZABÓ (coll. G. RONKAY and MWM). Prov. Nan: 2 ♂♂, 30 km E of Pua, 1700 m, 10.xi.1999, leg. M. HREBLAY & I. SOÓS, slide Nos LGN 516 (W 7353), LGN 517 (W 7354) (coll. MWM).

***Evonima spec.***

(Pl. 3, fig. 15)

**Material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, 4 km SE of Pang Faen, 1100 m, 18.i.2004, leg. P. HENTSCHEL & A. SZABÓ, slide No. LGN 1009 (W 7355) (coll. MWM).

Remarks. The species is recorded by a rather worn single specimen. The examined specimen differs externally from all other congeners occurring in Thailand, but the proper identification would require the entire revision of the genus *Evonima*.

***Evonima ochritincta* (HAMPSON, 1901)**

(Pl. 3, fig. 16)

*Poecilnola ochritincta* HAMPSON, 1901, *Annals and Magazine of Natural History* 7: 178. Type-locality: [Sri Lanka] Ceylon, Puttalam. Holotype: in BMNH.

**Material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, 4 km SE of Pang Faen, 1100 m, 26-27.i.2004, leg. A. SZABÓ, slide No. LGN 1152 (coll. G. RONKAY).

***Evonima unicolor* spec. nov.**

(Pl. 3, fig. 17; gen. fig. 26)

**Holotype.** ♂, „N. Thailand, Prov. Nan, 5 km N of Ban Luang, 350 m, between Pi Nai and Pi Tai, 100°27'E, 18°56'N, 4.11.2002, leg. B. HERCZIG & G. RONKAY”, slide No. LGN 797 (W 7356) (coll. MWM).

**Diagnosis.** The new species differs from all other known species of *Evonima* by its unicolorously dark grey ground colour of forewing, lacking any conspicuous, colourful markings, only some darker grey spots in the terminal area are present. The other species of *Evonima* have yellowish-brown or dark brown forewings with extensive, often vivid pattern. The ♂ genitalia of the new species are typical for the genus, displaying only slight differences comparing with those of the other taxa. They can be distinguished from the related species (especially *E. aperta* and *E. xanthoplaga*) by their shortest and broadest apical part of tegumen and uncus, the ampullar process of *E. unicolor* is the shortest within the related taxa and its apical end is not surpassing the ventral margin of the valva like in the related species. The ♀ is unknown.

**Distribution.** The species is known from the type-locality only.

***Varganola* gen. nov.**

Type species: *Roeselia flavibasis* (HAMPSON, 1900) **comb. nov.**

**Species content:**

*V. flavibasis* (HAMPSON, 1900) **comb. nov.**

**Diagnosis.** The new genus is monotypical, its closest relative is *Meganola* DYAR, 1898. The external appearance of the species of the genus is rather unique, according to its brownish grey forewing with blackish longitudinal streaks along the veins, this forewing pattern resembles slightly the species of *Sarberna* WALKER, 1862. The diagnostic features of the ♂ genitalia are the very long, medially strongly tapering, apically broadened valva, the rather broad, ribbon-like harpe originating very close to the base of the valva, and the presence of a series of large, robust triangular cornuti in vesica. The valva of the species of *Meganola* is shorter and rather variable in shape, sometimes with strongly broadened basal part, the harpe is longer, usually thorn-shaped or claw-like and the vesica has much more simplified armature without cornuti or with a single, elongated cornutus. The ♀ genitalia of *Varganola* do not show apomorphic feature, their configuration displays the close relationship with *Meganola*.

***Varganola flavibasis* (HAMPSON, 1900) comb. nov.**

(Pl. 4, figs 6-7; gen. fig. 27)

*Roeselia flavibasis* HAMPSON, 1900, *Catalogue of the Lepidoptera Phalaenae in the British Museum* 2: 63, pl. 20, fig. 3. Type-locality: [Sri Lanka] Ceylon, Colombo. Holotype: ♂, in coll. BMNH.



Type material examined: holotype of *Roeselia flavibasis* HAMPSON, 1900: ♂, „TYPE” (red ring type label), „Ceylon”, slide No. LGN 718 (BM Noct. 18198) (coll. BMNH).

**Additional material examined:**

Thailand. Prov. Chiang Mai: 3 ♂♂, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, slide Nos LGN 752 (W 7357), LGN 753 (W 7358), LGN 980; 1 ♀, between Fang and Nor Lae, 99°06'E, 20°02'N, 28.x.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 981 (coll. G. RONKAY and MWM).

***Manoba lativittata* (MOORE, 1888)**

(Pl. 4, figs 8-9)

*Roeselia lativittata* MOORE, 1888, *Description of new Indian Lepidopteran Insects from the Collection of the late Mr. W. S. Atkinson 1888*: 286. Type-locality: [India] [Sikkim] Darjeeling. Holotype: ♂, in coll. ZMHU Berlin.

**Material examined:**

Thailand. Prov. Chiang Mai: 2 specimens, 4 km SE of Pang Faen, 1100 m, 13.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 1 specimen, same site, 4 km SE of Pang Faen, 1100 m, 27.i.2004, leg. A. SZABÓ; 7 specimens, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 12.xi.2002; 3 specimens, same site, 28.x.2002; 2 specimens, same site, 7.xi.2002; 2 specimens, 900 m, between Chiang Dao and Kariang, 98°48'E, 19°25'N, 8.xi.2002; 1 specimen, same site, 26.x.2002; 1 fem, Mok Fa Garden Resort, 450 m, 98°48'E, 19°06'N, 1.xi.2002, slide No. LGN 961, leg. B. HERCZIG & G. RONKAY; 1 specimen, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 27.i.1999; 2 specimens, 20 km NW of Mae Ai, 1650 m, 26.i.1999, slide No. LGN 1153 (W 7359) (♂); 1 ♂, same site, 7.i.1999; 1 ♂, same site, 9.ix.1999, slide No. LGN 959 (W 7360), leg. A. SZABÓ & Z. CZERE. Prov. Nan: 1 specimen, 1700 m, 30 km E of Pua, 20.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 1 specimen, 5 km N of Ban Luang, 350 m, between Pi Nai and Pi Tai, 100°27'E, 18°56'N, 4.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 ♂, 30 km E of Pua, 1700 m, 18.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 1 ♀, 5 km N of Bo Luang, 1000 m, 10.ii.2000, slide No. LGN 962 (W 7361); 1 ♂, 25 km N of Bo Luang, 1150 m, 3.ii.2000, leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ. Prov. Mae Hong Song: 7 specimens, between Pa Pae and Khun Sa, 1250 m, 98°39'E, 19°08'N, 31.x.2002, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY and MWM).

***Manoba gyulaipeteri* spec. nov.**

(Pl. 4, figs 10-11; gen. fig. 28)

**Holotype.** ♂, „North Thailand, Prov. Chiang Mai, 1600m, between Fang and Nor Lae, 99°06'E, 20°02'N, 7.xi.2002, leg. B. Herczig & G. Ronkay”, slide No. LGN 1090 (coll. G. RONKAY).

**Paratypes.** Thailand. Prov. Chiang Mai: 1 ♂, Doi Suthep-Pui NP, 1460 m, 4.ii.1989, leg. A.M. COTTON & I.J. KITCHING BM 1989-57 (coll. BMNH); 2 ♂♂, 4 km S of Kop Dong, 1800 m, 99°03'E, 19°52'N, 6.xi.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 1028 (W 7362); 1 ♂, Mt. Doi Phahompok, 16 km NW of Fang, 2000 m, 15.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY. Prov. Nan: 1 ♀, 30 km E of Pua, 1700 m, 20.i.2004, leg. P. HENTSCHEL & A. SZABÓ, slide No. LGN 1029 (W 7363); 1 ♂, from the same site, 25.i.1999, leg. A. SZABÓ & Z. CZERE. Prov. Mae Hong Song: 2 ♂♂, 21 km NW of Pai, 1360 m, 7.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY. Nepal. Ganesh Himal: 3 ♂♂, 1 ♀, above Nesim, 2720 m, 85°16'E, 28°08,5'N, 21.ix.1995, slide Nos LGN 22 (W 7364), LGN 255 (W 7365), (♂♂), LGN 23 (W 7366) (♀); 2 ♀♀, near Godlang, 2520 m, 85°17'E, 28°10'N, 13.ix.1995; 1 ♂, 7 km W Godlang, 2950 m, 85°17'E, 28°10'N, 14.ix.1995; 1 ♂, 2 km W Gholjong, 2420 m, 85°18'E, 28°11'N, 12.ix.1995, leg. B. HERCZIG & Gy.M. LÁSZLÓ; 1 ♂, 2 km W of Thangjet, 2300 m, 85°17'E, 28°10'N, 18.ix.1994, leg. M. HREBLAY & T. CSÖVÁRI; 1 ♂, Kamalang, 1850 m, 27.x.1995, 85°11'E, 28°06'N, leg. M. HREBLAY & L. BÓDI; 1 ♂, 2 km N of Dhunche, 2050 m, 15.ix.1995, leg. L. NÉMETH. Langtang Himal: 1 ♂, 1,5 km NE Dhunche, 85°18'E, 28°06'N, 24.ix.1994, leg. G. CSORBA & L. RONKAY. Mechi, Taplejung Area: 1 ♀, Kare Banjang, 2250 m, 87°56'E, 27°25'N, 2.xi.1996, leg. Gy.M. LÁSZLÓ & G. RONKAY, slide No. LGN 256 (W 7367) (coll. HNHM, G. RONKAY and MWM).

**Diagnosis.** The new species belongs to the *Manoba lativittata-tessellata* species group, its closest relative is *M. lativittata*. It can be distinguished easily from *M. lativittata* by their completely different forewing pattern: *M. gyulaipeteri* has the forewing basal (and partly the medial) area uniformly covered with dark greyish brown hair-scales, without lighter spots, the medial line closing this dark area is more or less straight, and the more or less uniformly

whitish grey medial and partly terminal area is much darker than in *M. lativittata*. The dark area of the forewing of *M. lativittata* is more blackish, reaching the terminal line of forewing, but contains a bright whitish elongate patch at the basal part of costal margin, a large rounded whitish patch at the tornus, and the marginal area has large whitish medio-costal and apical patches.

Despite the conspicuous external differences, the two species have very similar genitalia of both sexes. The slight differences between *M. gyulaipeteri* and *M. lativittata* are as follows: the new species has somewhat thicker and shorter harpe, and the carinal spine of aedeagus is slightly shorter and straight, this spine is somewhat longer and slightly curved in *M. lativittata*. The ♀ genitalia of the two species differ in the shape of signum bursae: the typical cup-like signum is somewhat more elongated in the new species than in *M. lativittata*.

Distribution. The new species is found in Northern Thailand and the central and eastern massifs of the Nepal Himalaya.

***Manoba tessellata* (HAMPSON, 1896)**

(Pl. 4, figs 12-13)

*Nola tessellata* HAMPSON, 1896, *Fauna of British India, Moths* 4: 504. Type-locality: [India] [Meghalaya] Khasis. Holotype: ♀, in coll. BMNH.

**Material examined:**

Thailand. Prov. Chiang Mai: 4 specimens, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 12.xi.2002; 5 specimens, same site, 28.x.2002, slide No. LGN 964 (♂); 2 specimens, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002 leg. B. HERCZIG & G. RONKAY; 1 ♀, Mt. Doi Phahompok, 18 km NW of Fang, 2100 m, 8.xi.1999, leg. M. HREBLAY & I. SOÓS, slide No. LGN 965 (W 7369); 2 specimens, Mt. Doi Phahompok, 20 km NW of Fang, 2150 m, 24.i.2004, leg. A. SZABÓ; 1 specimen, 16 km NW of Fang, 2000 m, 24.ii.1998; 1 ♀, 15 km SW of Wiang Haeng, 1400 m, 9.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 1 ♀, 20 km NW of Mae Ai, 1650 m, 26.i.1999; 1 ♂, Doi Inthanon, 2300 m, 7-8.ix.1999, slide No. LGN 960 (W 7368), leg. A. SZABÓ & Z. CZERE. Prov. Nan: 1 specimen, 5 km N of Bo Luang, 1000 m, 4.ii.2000, leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ; 1 ♂, 30 km E of Pua, 1700 m, 25.i.1999, leg. A. SZABÓ & Z. CZERE; 1 ♀, same site, 18.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY (coll. G. RONKAY & MWM).

***Manoba adriennae* spec. nov.**

(Pl. 4, figs 14-15; gen. fig. 29)

**Holotype.** ♂, „Thailand, Changwat Nan, 1700m, 30 km E of Pua, 20.i.2004, Leg. Péter HENTSCHEL & Attila SZABÓ”, slide No. LGN 963 (W 7370) (coll. MWM).

**Paratype.** 1 ♂, Thailand. Prov. Chiang Mai, Mt. Doi Phahompok, 20 km NW of Fang, 2100 m, 24.i.2004, leg. A. SZABÓ, slide No. LGN 1244 (W 7382) (coll. MWM).

Diagnosis. The new species is closely related to *M. tessellata*. The two species have similar forewing pattern, but are easily distinguishable by the following features: the forewing ground colour of *M. adriennae* is more brownish, the whitish spots are less prominent, the white part of the basal area is shorter and the hindwing is significantly darker than in *M. tessellata*.

The ♂ genitalia of the new species are in general very similar to those of *M. tessellata* but the valva is somewhat more elongate and apically narrower, the aedeagus is slightly longer, slenderer, and the lateral processes of the proximal tip of the aedeagus are much shorter. The differences in the ♀ genitalia are larger, as *M. adriennae* has somewhat longer apophyses anteriores and posteriores, conspicuously less elongate, more ovoid corpus bursae and considerably smaller and shorter claw-like signum bursae in comparison with those of *M. tessellata*.

Distribution. Northern Thailand.

***Manoba fasciatus* (HAMPSON, 1894)**

(Pl. 4, figs 16-17)

*Rhynchopalpus fasciatus* HAMPSON, 1894, *Fauna of British India, Moths* 2: 144. Type-locality: [India] [Nagaland] Naga Hills. Holotype: ♂, in coll. BMNH.

**Material examined:**

Thailand. Prov. Chiang Mai: 12 specimens, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 12.xi.2002, slide Nos LGN 996 (W 7372) (♂), LGN 1068 (♀); 10 specimens, from the same site, 28.x.2002 and 7.xi.2002, slide No. LGN 1066; 1 specimen, 4 km S of Kop Dong, 99°03'E, 19°52'N, 1800 m, 6.xi.2002 leg. B. HERCZIG & G. RONKAY; 1 specimen, 4 km SE of Pang Faen, 1100 m, 31.i.2004, leg.: A. SZABÓ; 1 ♂, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 27.i.1999, slide No. LGN 478 (W 7374); 1 ♂, 20 km NW of Mae Ai, 1650 m, 26.i.1999, leg. A. SZABÓ & Z. CZERE, slide No. LGN 477 (W 7373). Prov. Nan: 1 specimen, 1700 m, 30 km E of Pua, 20.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 1 ♂, 25 km N of Bo Luang, 1150 m, 3.ii.2000, slide No. LGN 995 (W 7371), leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ; 1 ♂, 30 km E of Pua, 1700 m, 25.i.1999 leg. A. SZABÓ & Z. CZERE. Prov. Mae Hong Son: 1 ♀, between Pa Pae and Khun Sa, 1250 m, 98°39'E, 19°08'N, 31.x.2002, slide No. LGN 997, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY and MWM).

***Manoba ronkaylaszloi* spec. nov.**

(Pl. 4, figs 18-19; gen. fig. 30)

**Holotype.** ♂, „N. Thailand, Chiang Mai Prov., between Chiang Dao and Kariang, 900m, 98°48'E, 19°25'N, 26.x.2002 leg. B. Herczig & G. Ronkay”, slide No. LGN 998 (W 7375) (coll. MWM).

**Paratypes.** Thailand. Prov. Chiang Mai: 1 ♂, with the same data as the holotype; 1 ♂, 4 km SE of Pang Faen, 1100 m, 6.ii.2000, leg. M. HREBLAY, slide No. LGN 1258 (W 7376). Prov. Nan: 1 ♂, 30 km E of Pua, 1700 m, 20.i.2004, leg. P. HENTSCHEL & A. SZABÓ. Vietnam. Prov. Tuyen Quang: 1 ♂, Na Hang Nature Reserve, 300 m, 105°5'E, 22°3'N, 22.ii.-5.iii.1997, leg. G. CSORBA, slide No. LGN 480 (W 7377) (coll. MWM).

**Diagnosis.** The new species is the sister species of *M. fasciatus*. The two species are easily distinguishable by their external appearance: the forewing ground colour of *M. ronkaylaszloi* is much paler whitish grey, without red-brownish shade in the basal area, and the median fascia is much broader and more diffuse, consisting of a dark grey filled area between antemedial and medial lines. The forewing ground colour of *M. fasciatus* is darker with characteristic red-brown hue in the basal part, and the median fascia is rather sharply defined, but considerably narrower than in *M. ronkaylaszloi*.

The ♂ genitalia display better the close relationship between the two species. *M. ronkaylaszloi* has, in comparison with *M. fasciatus*, somewhat longer and narrower valva and slightly shorter, basally broader, more pointed harpe, and the armature of the vesica is more complex, consisting of a larger number of spines which are considerably larger than in its sister taxon. The ♀ is unknown.

**Distribution.** The species is found in the northern part of Indochina, in North Thailand and North Vietnam.

***Manoba coxi* HOLLOWAY, 2003**

(Pl. 4, figs 20-21)

*Manoba coxi* HOLLOWAY, 2003, *The Moths of Borneo* 18: 41, pl. 2, fig. 74. Type-locality: Borneo, Sarawak. Holotype: ♂, in coll. BMNH.

**Type material examined:**

Holotype. ♂, „Sarawak: Gunong Mulu Nat. Park, R.G.S. Exped. 1977-8 (J.D. Holloway et al.), Site 27, April, G. Api, 1500 m, Pandanus Camp, 429541, scrub, Pandanus”, slide No. BM Noct. 17760 (coll. BMNH).

**Additional material examined:**

Thailand. Prov. Chiang Mai: 5 specimens, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 7.xi.2002, slide No. LGN 977

(♀); 4 specimens, same site, 12.xi.2002; 4 specimens, same site, 28.x.2002, slide No. LGN 1023 (W 7384) (♀); 2 specimens, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, slide No. LGN 976 (W 7383) (♂), leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY and MWM).

### ***Manoba melanota* (HAMPSON, 1900)**

(Pl. 5, figs 1-2)

*Nola melanota* HAMPSON, 1900, *Catalogue of the Lepidoptera Phalaenae in the British Museum* 2: 35, pl. 19, fig. 3. Type-locality: [India] Sikkim. Syntypes: one ♂ and ten ♀♀, in coll. BMNH.

*Rhynchopalpus erythromedia* INOUE, 1998, **syn. n.**, *Tinea* 15 (Supplement 1): 93, pl. 140, fig. 23-24, text fig. 890-891. Type-locality: Nepal, Changma, Remechhap, Janakpur. Holotype: ♂, in NSMT.

#### **Type material examined:**

Syntype of *Nola melanota*: ♂, „TYPE” (red ring type label), „Sikkim, 7000 August 1895, J.G. PILCHER.” „97-81” „Nola melanoton (sic!) ♂ Hmpsn”, slide No. BM Arct. 1799 (coll. BMNH).

#### **Additional material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 28.x.2002, slide No. LGN 988; 1 ♂, from the same site, 12.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 ♀, Doi Inthanon, NP, 2300 m, 7-8.ix.1999, slide No. LGN 1010 (W 7386); 1 ♀, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 13.ix.1999, slide No. LGN 989 (W 7387), leg. A. SZABÓ & Z. CZERE; 1 ♂, Mt. Doi Phahompok, 19 km NW of Fang, 1900 m, 3.iv.1998, slide No. LGN 1107 (W 7388); 1 ♀, 16 km NW of Fang, 2000 m, 27.iii.1998, leg. T. CSÓVÁRI & P. STÉGER. Prov. Nan: 1 ♂, 30 km E of Pua, 1700 m, 20-21.vi.1998, leg. I. SOÓS & A. SZABÓ, slide No. LGN 974 (W 7385); 1 ♂, from the same site, 10.xii.1998, leg. M. HREBLAY, I. SOÓS & Y. SHERPANI (coll. G. RONKAY and MWM).

### ***Manoba phaeochroa* (HAMPSON, 1900)**

(Pl. 5, fig. 3)

*Celama phaeochroa* HAMPSON, 1900, *Catalogue of the Lepidoptera Phalaenae in the British Museum* 2: 29, pl. 18, fig. 24. Type-locality: [India] Sikkim. Syntypes: four ♀♀, in coll. BMNH.

#### **Type material examined:**

Syntype ♀ of *Celama phaeochroa* HAMPSON, 1900: „TYPE” (red ring type label), „Sikkim, 7000 6. 1895, J.G. PILCHER.” „97-31” „Aradrapha phaeochroa ♀ Hmpsn”, slide No. BM Arct. 896 (coll. BMNH).

#### **Additional material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, 1 ♀, Doi Inthanon, NP, 2300 m, 14.xii.1998, leg. M. HREBLAY, I. SOÓS & Y. SHERPANI, slide No. LGN 1105 (W 7389) (♂), LGN 1106 (W 7390) (♀); 1 ♂, Doi Inthanon National Park, km 43.5 road (N of) Chom Thong – summit 5,5 km above checkpoint 2, 2050 m, lower montane forest, 15-21.xi.1998 leg/ex coll. DR. R. BRECHLIN, slide No. LGN 1118 (W 7391) (coll. MWM).

### ***Manoba melanomedia* (INOUE, 1991)**

(Pl. 5, fig. 4)

*Meganola melanomedia* INOUE, 1991, *Tyô to Ga* 42(2): 76, figs 1A, 1B, 2A, 3A. Type-locality: [Taiwan] Chiayi County (= Chiai Shien), Alishan. Holotype: ♂, in coll. NSMT.

#### **Material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, 4 km SE of Pang Faen, 1100 m, 31.i.2004, leg. A. SZABÓ, slide No. LGN 1026 (W 7392) (coll. MWM).

***Manoba lilliptiana* (INOUE, 1998)**

(Pl. 5, fig. 5)

*Rhynchopalpus lilliptiana* INOUE, 1998, *Tinea* 15 (Supplement 1): 93, pl. 140, fig. 22, text figs 888-889. Type-locality: Nepal, Chapauli, Sindhuli. Holotype: ♂, in coll. INOUE.

**Material examined:**

Thailand. Prov. Chiang Mai: 2 ♂♂, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 7.xi.2002, slide Nos LGN 1083, LGN 1004 (W 7394); 2 ♂♂, 1 ♀, from the same site, 12.xi.2002, slide Nos LGN 1082, LGN 1132 (W 7397) (♂♂), LGN 1133 (W 7398) (♀); 1 ♂, from the same locality, 28.x.2002, slide No. LGN 1088; 1 ♂, 4 km S of Kop Dong, 1800 m, 99°03'E, 19°52'N, 6.xi.2002, slide No. LGN 1002 (W 7393), leg. B. HERCZIG & G. RONKAY; 1 ♂, 6 km SE of Pang Faen, 1100 m, 29.i.1999, leg. A. SZABÓ & Z. CZERE, slide No. LGN 1108 (W 7395); 1 ♀, 4 km SE of Pang Faen, 1100 m, 18.i.2004, leg. P. HENTSCHEL & A. SZABÓ, slide No. LGN 1036 (W 7399). Prov. Nan: 1 ♀, 25 km N of Bo Luang, 1150 m, 14.i.1999, leg. A. SZABÓ & Z. CZERE, slide No. LGN 1124 (W 7396) (coll. G. RONKAY and MWM).

***Manoba subfuscataria* (INOUE, 1998)**

(Pl. 5, fig. 6)

*Rhynchopalpus subfuscataria* INOUE, 1998, *Tinea* 15 (Supplement 1): 93, pl. 140, figs 20-21, text figs 886-887. Type-locality: Nepal, Chapauli, Sindhuli. Holotype: ♂, in coll. INOUE.

**Material examined:**

Thailand. Prov. Nan: 1 ♂, 30 km E of Pua, 1700 m, 10.xii.1998, leg. M. HREBLAY, I. SOÓS & Y. SHERPANI, slide No. LGN 1127 (W 7400) (coll. MWM).

***Manoba chamberlaini* HOLLOWAY, 2003**

(Pl. 5, figs 7-8)

*Manoba chamberlaini* HOLLOWAY, 2003, *The Moths of Borneo* 18: 39, pl. 2, fig. 69. Type-locality: Borneo, Sarawak. Holotype: ♂, in coll. BMNH.

**Material examined:**

Thailand. Prov. Nan: 1 ♂, 4 km W of Pha Lak, 100°34'E, 19°21'N, 5.xi.2002, slide No. LGN 1003 (W 7401), leg. B. HERCZIG & G. RONKAY; 1 ♂, 30 km E of Pua, 1700 m, 12-13.i.1999, slide No. LGN 1032 (W 7403); 2 ♂♂, 1 ♀, from the same site, 25.i.1999, slide Nos LGN 1035 (W 7404) (♀), LGN 1103 (W 7408), LGN 1109 (W 7410) (♂♂), leg. A. SZABÓ & Z. CZERE; 1 ♀, from the same locality, 6.iv.1998, leg. T. CSÖVÁRI & P. STÉGER, slide No. LGN 1104 (W 7409); 1 ♂, from the same site, 18.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY, slide No. LGN 1128 (W 8369); 1 ♂, 5 km N of Bo Luang, 1000 m, 4.ii.2000, leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ, slide No. LGN 1120 (W 8366). Prov. Chiang Mai: 2 ♂♂, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 28.x.2002, slide Nos LGN 1089, LGN 990 (W 7402); 1 ♂, from the same locality, 12.xi.2002; 2 ♂♂, 1 ♀, from the same site, 7.xi.2002, slide Nos LGN 1005 (W 7407) (♀), LGN 1081, LGN 1087 (♂♂); 2 ♀♀, 4 km S of Kop Dong, 99°03'E, 19°52'N, 1800 m, 6.xi.2002, slide No. LGN 1034 (W 7405), LGN 1033 (W 7406), leg. B. HERCZIG & G. RONKAY; 1 ♀, 20 km NW of Mae Ai, 1650 m, 26.i.1999, slide No. LGN 1119 (W 7411), leg. A. SZABÓ & Z. CZERE. Prov. Mae Hong Song: 1 ♂, 1 ♀, 1 km S of Bahundanda, 1000 m, 6.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY, slide Nos LGN 1121 (W 8367) (♀), LGN 1122 (W 8368) (♂) (coll. G. RONKAY and MWM).

***Manoba tristicta* (HAMPSON, 1900)**

(Pl. 5, figs 9-10)

*Nola tristicta* HAMPSON, 1900, *Catalogue of the Lepidoptera Phalaenae in the British Museum* 2: 37, pl. 19, fig. 4. Type-locality: [India] Sikkim. Syntypes: two ♂♂ and three ♀♀, in coll. BMNH.

**Material examined:**

Thailand. Prov. Chiang Mai: 3 specimens, 4 km S of Kop Dong, 99°03'E, 19°52'N, 1800 m, 6.xi.2002; 3 specimens, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 12.xi.2002; 11 specimens, from the same site, 28.x.2002 and 7.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 specimen, 23 km NW of Sop Kha, 1 km E of Kop Dong, 1650 m, 5.viii.1999, leg. T. CSÓVÁRI & L. MIKUS; 3 specimens, from the same site, 14.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 2 specimens, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 8.i.1999, slide No. LGN 1125 (W 8459) (♂); 1 specimen, from the same locality, 27.i.1999, leg. A. SZABÓ & Z. CZERE; 1 specimen, 4 km SE of Pang Faen, 1100 m, 13.i.2004; 2 specimens, from the same site, 26.i.2004 and 31.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 1 specimen, Mt. Doi Phahompok, 20 km NW of Fang, 2450 m, 24.i.2004, leg. A. SZABÓ; 1 specimen, Mt. Doi Phahompok, 20 km NW of Fang, 2000 m, 15.i.2004, leg. P. HENTSCHEL & A. SZABÓ; Prov. Nan: 1 specimen, 30 km E of Pua, 1700 m, 20.ii.1998, leg. T. CSÓVÁRI & L. MIKUS; 3 specimens, from the same locality, 20-21.vi.1998, leg. I. SOÓS & A. SZABÓ; 1 specimen, from the same site, 27.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 1 specimen, from the same locality, 6.iv.1998, leg. T. CSÓVÁRI & P. STÉGER; 1 ♀, from the same site, 12-13.i.1999, leg. A. SZABÓ & Z. CZERE, slide No. LGN 1126 (W 8470); 2 specimens, from the same site, 20.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 1 specimen, 22 km N of Bo Luang, 1100 m, 18-19.vi.1998, leg. I. SOÓS & A. SZABÓ. Prov. Chiang Rai: 2 specimens, 1 km SE of Khun-Kon Waterfall, 600 m, 15.xi.1998, leg. T. CSÓVÁRI & L. MIKUS. Prov. Mae Hong Song: 1 specimen, 21 km NW of Pai, 1360 m, 7.ii.1998; 1 specimen, 1 km S of Bahundanda, 1000 m, 6.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY (coll. G. RONKAY and MWM).

### ***Inouenola* gen. nov.**

Type species: *Meganola diversalis* INOUE, 1991

#### **Species content:**

*I. diversalis* (INOUE, 1991) **comb. nov.**

*I. pallescens* (WILEMAN & WEST, 1929) **comb. nov.**

*I. grimalis* (HAMPSON, 1893) **comb. nov.**

Diagnosis. The type species of the new genus was originally described in the genus *Meganola*. The basic structure of the ♂ genitalia of *Inouenola* is, however, more similar to that of *Manoba*, displaying certain unique features. The ♂ genitalia of all *Manoba* species are rather similar, forming a very compact phyletic unit. The new genus differs conspicuously from *Manoba* in the following details: *Inouenola* has somewhat shorter and thicker, less curved uncus, shorter, more or less quadrangular or slightly tapering, apically truncate valva, more robust harpe with more elongated sacculus base, very long and narrow vinculum, and much longer aedeagus (resembling more to certain species of *Meganola*, especially the members of the *M. ascripta-cuneifera* group). The valva of *Manoba* is always gradually tapering and apically rounded or sometimes pointed; the harpe is thinner, situated more basally, the vinculum is always medium long and broad, usually V-shaped, and the aedeagus is considerably shorter.

In the ♀ genitalia, *Inouenola* has much longer and narrower ductus bursae, and extremely long and robust, dagger-like double signa bursae, this latter feature is unique within the whole subfamily.

### ***Inouenola diversalis* (INOUE, 1991) comb. nov.**

(Pl. 5, figs 11-12; gen. fig. 31)

*Meganola diversalis* INOUE, 1991, *Tyô to Ga* 42(2): 79, figs 1C, 1D, 2C, 3C. Type-locality: [Taiwan] Rushan-Unchen (= Lushan Spa), Nantou Shien (= Nantou County). Holotype: ♂, in coll. NSMT.

#### **Type material examined:**

Holotype ♂ of *Meganola diversalis* INOUE, 1991: „TYPE” (red ring type label), „Formosa Nantow: Rushan-Unchen 3-6.iv.1972 M. Owada” „Holotype Meganola diversalis Inoue (1991)” „slide 12226 (♂)” „Type status verified K. Buckmaster 1993”, „Inoue Coll 1992-71”, „Type photographed in colour” Slide No. BM Arct. 4408 (coll. BMNH).

#### **Additional material examined:**

Thailand. Prov. Chiang Mai: 1 specimen, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 12.xi.2002, (coll. G. RONKAY); 1 ♂, same site, 7.xi.2002, slide No. LGN 992 (W 8469) leg. B. HERCZIG & G. RONKAY (coll. MWM).

***Inouenola pallescens* (WILEMAN & WEST, 1929) comb. nov.**

(Pl. 5, fig. 13)

*Nola pallescens* WILEMAN & WEST, 1929, *Annals and Magazine of Natural History* **10**(3): 191. Type-locality: [Taiwan] Formosa, Kanshirei. Holotype: ♂, in coll. BMNH.

**Type material examined:**

Holotype ♂ of *Nola pallescens*: Formosa, Kanshirei, 17.iv.1906, A.E. WILEMAN, slide No. BM Arct. 721.

**Additional material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 1094 (coll. G. RONKAY).

***Inouenola grimalis* (HAMPSON, 1893) comb. nov.**

*Nola grimalis* HAMPSON, 1893, *Illustrated typical Specimens of the Lepidoptera Heterocera in the Collection of the British Museum* **9**: 15, 88, pl. 158, fig. 9. Type-locality: [Sri Lanka] Ceylon, Pundaloya. Lectotype: ♂, in coll. BMNH, here designated.

Lectotype of *Nola grimalis* HAMPSON, 1893, here designated: ♂, „TYPE” (red ring type label), „Pundaloya, Ceylon, March.”, „Coll. GREEN. 91.-26.”. Slide No. LGN 707 (BM Noct. 18187) (coll. BMNH).

Distribution. The species is known only from Ceylon; it has no record from Thailand.

***Toerpenola* gen. nov.**

Type species: *Nola laticincta* HAMPSON, 1896 comb. nov.

**Species content:**

*T. laticincta* (HAMPSON, 1896) comb. nov.

*T. siamica* spec. nov.

Diagnosis. The type species of the new genus has long been treated as *Nola*. The examination of the ♂ genitalia proved that *N. laticincta* has a closer relationship with the species of *Manoba*, but distinguished from them on a higher taxonomic level. The discovery of the rather similar sister species of *N. laticincta*, *T. siamica* in Thailand confirmed the early segregation of the lineage, supporting to establish a new genus for the two species.

The new genus differs from *Manoba* by the following features of the genitalia. In the ♂ genitalia, *Toerpenola* has more complex structure of valva having sinuous and more strongly sclerotized costal margin and slightly broadened apical half, much larger and heavily sclerotized sacculus with a characteristic saccular process, but the harpe is absent. In *Manoba*, the valva is tapering distally, its costal margin is more or less straight and less sclerotized, the saccular process is absent but the harpe is always present. In the ♀ genitalia, the new genus has considerably broader ovipositor with longer apophyses and much shorter ductus bursae, and the single signum of the bursa copulatrix is much finer than in *Manoba*.

***Toerpenola laticincta* (HAMPSON, 1896)**

*Nola laticincta* HAMPSON, 1896, *Fauna of British India, Moths* **4**: 502. Type-locality: Bhutan. Holotype: ♂, in coll. BMNH.

**Type material examined:**

Holotype ♂ of *Nola laticincta* HAMPSON, 1896: „TYPE” (red ring type label), „Bhutan. Dudgeon. 95-203. 2500 [feet], VIII. [18]95”,

slide No. BM Arct. 1801 (coll. BMNH).

Distribution. The species is known from the Himalaya Mts; it has no record from Thailand.

***Toerpenola siamica* spec. nov.**

(Pl. 5, figs 14-15; gen. fig. 32)

**Holotype.** ♂, „Thailand, Changwat Chiang Mai, 4 km SE of Pang Faen, 1100m, 31.i.2004, Leg.: Attila Szabó”, slide No. LGN 1021 (W 8458) (coll. MWM).

**Paratypes.** Thailand. Prov. Chiang Mai: 1 ♀, with the same data as the holotype, slide No. LGN 1020 (W 8468) (coll. MWM); 1 ♀, 7 km N of Ranong, 350-500 m, Ch9 TV relay stn, 26-29.xi.1991, leg. I.J. KITCHING & A.M. COTTON, BM 1992-9 (coll. BMNH). Cambodia. 1 ♀, Prov. Kampot, Bokor N.P. Hill Station, 1025 m, 10°37'37"N, 104°01'33"E, 19-21.i.2006, leg. G. CSORBA & G. RONKAY slide No. LGN 1243 (W 8457) (coll. MWM).

**Diagnosis.** The new species is closely related to *T. laticincta*. The two species are easily distinguished by their external features, the main differences are as follows: *T. siamica* is slightly smaller in size (wingspan and length of forewing of *T. siamica* are 13-16 and 7-9 mm, those of *T. laticincta* are 14-17 mm and 8-10 mm, respectively). The dark brown forewing median area is considerably broader in *T. siamica* than in *T. laticincta*; the white marginal area of the new species is more greyish, while that of *T. laticincta* is more yellowish-brownish suffused. The differences between the ♂ genitalia of the two species are surprisingly small, the only remarkable feature is the different configuration of the well developed saccular process: it is finger-like in *T. siamica* with broadly rounded apex, that of *T. laticincta* is apically pointed, rather claw-like. The aedeagus of the new species has a fine but strong carinal tooth, while *T. laticincta* lacks this carinal process.

The ♀ genitalia of the two species cannot be compared, as the ♀ of *T. laticincta* is yet unknown. The typical features of the ♀ genitalia of *T. siamica* are the relatively broad ovipositor with rather long apophyses, the broad, strongly sclerotized ostium bursae with two lateral rounded lobes fused partly with the ventral margin of the 8th segment, the very short, distally strongly and asymmetrically sclerotized ductus bursae, the relatively short, ovoid corpus bursae and the single, conspicuously small, fine, pin-like signum bursae.

***Nanola* gen. nov.**

Type species: *Nanola hluchyi* spec. nov.

**Species content:**

*N. hluchyi* spec. nov.

**Diagnosis.** The only known species of the new genus represents, according to its genital features, a transitional stage between the genera *Manoba* and *Meganola*. The narrow, elongate, apically broadly rounded, more or less tongue shaped valva resembles certain *Meganola* species (e.g. *M. nitida* and *M. mediofusca*), while the harpe of *Nanola* is similar in shape and position to that of *Manoba*, being rather simple, broad at base, slightly arcuate, apically pointed, but not claw- or spine-like and without dentate margins, which is characteristic for some *Meganola* species. The aedeagus of *Nanola* is rather simple, without carinal processes, and the vesica is without a cornuti field or long spines, but with a short but robust triangular tooth. The ♀ genitalia can be characterised by the rather long and wrinkled, strongly sclerotized, funnel-like ostium bursae, the very thick but relatively short ductus bursae with conspicuous, oblique sclerotization in the middle, and the rather simple, membranous corpus bursae; the signum is absent. The ♀ genitalia of the related genera *Manoba* and *Meganola* have simple ostium bursae and the signum bursae is always present.

***Nanola hluchyi* spec. nov.**

(Pl. 5, figs 16-17; gen. fig. 33)

**Holotype.** ♂, „Thailand, Changwat Nan, 5 km N of Bo Luang, 1000 m, 4.ii.2000, leg. Hreblay & Szabó”, slide No. LGN 966 (W



8467) (coll. MWM).

**Paratypes.** Thailand. Prov. Nan: 1 ♀ with the same data as the holotype, slide No. LGN 967 (W 8456) (coll. MWM); 1 ♂, Doi Phu Kha, Pua, 1680 m, 26.ii.1993, leg. W. SPEIDEL (coll. SPEIDEL). Vietnam. Prov. Tuyen Quang: 1 ♂, Na Hang Nature Reserve, 300 m, 105°5'E, 22°3'N, 22.ii.-05.iii.1997, leg. G. CSORBA; 1 ♂, Mt. Fan-si-pan, Cha Pa, 2400 m, 22°15'N, 103°46'E, 8-29.v.1993, leg. SINJAEV & SIMONOV, slide No. LGN 1185 (W 8466). Myanmar. 1 ♂, 21 km E Putao, Nan Sa Bon village, 550 m, 1-5.v.1998, leg. MURZIN & SINJAEV, slide No. LGN 1184 (W 8455). Taiwan. Prov. Taitung: 1 ♂, 7 km N of Tupan, 120°52'E, 22°29'N, 500 m, 16.xii.1997, leg. S. SIMONYI & A. SZABÓ, slide No. LGN 1256 (W 8465). Prov. Pingtung: 1 ♂, 10 km E of Mutan, 400 m, 7-8.iv.1997, leg. CSORBA & RONKAY, slide No. LGN 1183 (coll. HNHM and MWM). Khasis: 1 ♂, Nov. 1895, Nat. Coll., ROTHSCHILD Bequest B.M. 1939-1. (coll. BMNH).

**Diagnosis.** *N. hluchyi* is somewhat similar externally to *Manoba lativittata* by its whitish basal and apical areas of the forewing, but is easily distinguished by its more elongated forewing, with a larger dark blackish brown area and the smaller whitish spots. The forewing ground colour of the new species is somewhat paler, more brownish than the more blackish coloured *M. lativittata*, and the forewing pattern of this latter species is more contrasting than in *N. hluchyi*.

The diagnostic features of the genitalia of *N. hluchyi* are given in the diagnosis of the genus *Nanola*.

### ***Meganola semirufa* (HAMPSON, 1894) comb. nov.**

(Pl. 5, figs 19-20, Pl. 11, fig. 14)

*Pisara semirufa* HAMPSON, 1894, *Fauna of British India, Moths* 2: 146. Type-locality: [India] Sikkim. Holotype: ♀, in coll. BMNH.

#### **Material examined:**

Thailand. Prov. Chiang Mai: 2 ♂♂, 4 km S of Kop Dong, 99°03'E, 19°52'N, 1800 m, 6.xi.2002, slide No. LGN 987 (W 8454) (coll. MWM), leg. B. HERCZIG & G. RONKAY. Prov. Nan: 1 ♂, Doi Phuka N.P., between Pua and Bo Luang, 1350 m, 101°05'E, 19°12'N, 3.xi.2002 leg. B. HERCZIG & G. RONKAY (coll. HNHM). Vietnam. 1 ♂, Mt. Fan-si-pan, Sa-Pa, 1600-1800 m, 22°20'N, 103°40'E, 10.vi.-6.vii.1994, leg. SCHINTLMEISTER, slide No. LGN 1162 (W 8464) (coll. MWM).

### ***Meganola latiscrupta* LÁSZLÓ, RONKAY & WITT, 2005**

(Pl. 11, fig. 15)

*Meganola latiscrupta* LÁSZLÓ, RONKAY & WITT, 2005, *Entomofauna* 26(11): 219. Type locality: Vietnam, Bach-Ma. Holotype: ♂, in coll. MWM.

#### **Type material examined:**

Holotype. ♂, „Vietnam mer., BACH-MA Nat. Park, 1200 m, 16°10'N, 107°54'E, 26. 7.-6. 8. 1996, leg. V. SINIAEV & E. Afonin”, slide No. LGN 160 (W 8287) (coll. MWM).

Paratypes. Vietnam. 2 ♂♂, 1 ♀, with the same data as the holotype, slide No. LGN 161 (W 8288) (coll. MWM). China. Hainan: 1 ♀, Wuzhi Shan Mts, 18°53'N, 109°43'E, 1500 m, February-April 2001, local collector leg., slide No. LGN 770 (coll. HNHM).

#### **Additional material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, Mt. Doi Inthanon, NP, 2300 m, 17.x.2000, leg. local collector, slide No. LGN 1249 (W 8453) (coll. MWM).

### ***Meganola indistincta* (HAMPSON, 1894)**

(Pl. 5, fig. 21)

*Selca indistincta* HAMPSON, 1894, *Fauna of British India, Moths* 2: 147. Type-locality: [India] [Nagaland] Naga Hills. Holotype: ♂, in coll. BMNH.

**Material examined:**

Thailand. Prov. Chiang Mai: 6 ♂♂, between Fang and Nor Lae, 99°06'E, 20°02'N, 28.x.2002, slide No. LGN 985 (W 8463) (♂); 3 ♂♂, from the same site, 12.xi.2002, leg. B. HERCZIG & G. RONKAY. Prov. Mae Hong Song: 1 ♂, between Pa Pae and Khun Sa, 1250 m, 98°39'E, 19°08'N, leg. B. HERCZIG & G. RONKAY, slide No. LGN 1079 (coll. G. RONKAY and MWM).

***Meganola tarkabarka spec. nov.***

(Pl. 6, fig. 1; gen. fig. 34)

**Holotype.** ♂, „Thailand, Changwat Nan, 25 km N of Bo Luang, 1150m, 17.ii.1998, leg. Márton Hreblay & Csaba Szabóky”, slide No. LGN 614 (W 8452) (coll. MWM).

**Diagnosis.** The new species belongs to the *Meganola semirufa* – *M. indistincta* species group, being externally somewhat similar to *M. semirufa* due to its reddish-brown forewing. The specific features of *M. tarkabarka* are the presence of a dark grey costal patch and grey spots in the terminal area which are absent in *M. semirufa*, and the reduced transverse lines which are distinctly marked in *M. semirufa*.

The differences of the ♂ genitalia of the two species are easily recognisable. The new species has, in comparison with *M. semirufa*, longer and much narrower, apically pointed and hairless uncus, conspicuously shorter and narrower, tongue-shaped apical valval lobe, much shorter, more robust harpe and much shorter and thicker aedeagus. The uncus of *M. semirufa* is shorter, apically truncate, laterally covered with dense, relatively long hairs, the valval lobe is much larger, broadly rounded, the harpe is thinner but longer, and the aedeagus is longer, slenderer than in *M. tarkabarka*. The ♀ is unknown.

**Distribution.** The new species is known from the type-locality only.

***Meganola hollowayi spec. nov.***

(Pl. 6, fig. 2; gen. fig. 35)

**Holotype.** ♂, “N. Thailand, Chiang Mai Prov., between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. Herczig & G. Ronkay”, slide No. LGN 1052 (coll. G. RONKAY).

**Diagnosis.** *Meganola hollowayi* is externally slightly similar to *M. semirufa* but lacks the reddish colouration from the forewing. The new species resembles also *M. indistincta*, but has much paler forewing ground colour and weaker crosslines.

The configuration of the ♂ genitalia of *M. hollowayi* displays the close relationship of the new species with *M. indistincta*, the main differences between the two taxa are as follows: *M. hollowayi* has somewhat shorter, slightly broader uncus, with much longer lateral hair-cover, longer, apically tapering valval lobe, shorter harpe which is situated more closely to the base of valva, the aedeagus has much narrower, rather elongated proximal end, and more sclerotized, apically slightly lance-like distal end. The ♀ is unknown.

**Distribution.** The unique known specimen was collected in Northern Thailand.

***Meganola mediana spec. nov.***

(Pl. 6, figs 3-4; gen. fig. 36)

**Holotype.** ♂, „Thailand, Changwat Chiang Mai, Mt. Doi Phahompok 16 km NW of Fang, 2000m, 27.iii.1998, leg. Tibor Csóvári & Pál Stéger”, slide No. LGN 1098 (W 8462) (coll. MWM).

**Paratypes.** Thailand. Prov. Chiang Mai: 1 ♀, with the same data as the holotype, slide No. LGN 1099 (W 8451) (coll. MWM); 1 ♀, Chiang Dao, 1450 m, San Pakia RFD Watershed Station, 29.iv.-1.v.1994, leg. I.J. KITCHING et al., BMNH 1994-97, slide No. LGN 1347 (BM Arct. 6219) (coll. BMNH).

Diagnosis. *Meganola mediana* is most similar externally to *M. indistincta* but their external differences are rather large. The new species is larger in size (wingspan and length of forewing of *M. mediana* are 19-20 mm and 9-10 mm, those of *M. indistincta* are 14-15 mm and 7-8 mm, respectively), the forewing ground colour is paler and the median area is considerably more darkened than in *M. indistincta*. The hindwing of the new species is also mentionably darker, more unicolorous than in its close relative.

In the ♂ genitalia, the new species has much thicker, slightly shorter and much more hairy uncus, much broader apical valval lobe, conspicuously shorter, thinner, slightly but evenly curved harpe, being much closer to the base of the valva than in *M. indistincta*. The aedeagus of the new species is considerably longer than that of *M. indistincta*, having elongate-tapering proximal end.

The ♀ genitalia of the new species are typical of most *Meganola* species having a pair of strongly sclerotized, thorn-like signum bursae. The characteristic features of the new species are as follows: apophyses rather short, 8th segment very short, ostium bursae short and conspicuously funnel-like, ductus bursae relatively long and narrow, membranous, cervix bursae slightly swollen, corpus bursae large, ovoid, with well-developed membranous appendix bursae and with a pair of strongly sclerotized thorn-like signum bursae surrounded by fine scobination.

Distribution. Northern Thailand.

### ***Meganola galsworthyi* spec. nov.**

(Pl. 6, fig. 5; gen. fig. 37)

**Holotype.** ♂, „Thailand, Changwat Chiang Mai, 4 km SE of Pang Faen, 1100m, 13.i.2004, leg. Hentschel & Szabó”, slide No. LGN 1022 (W 8461) (coll. MWM).

**Paratype.** Thailand. Prov. Chiang Mai: ♂, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY).

Diagnosis. *Meganola galsworthyi* resembles externally certain *Nola* species (e.g. *N. atrocincta* INOUE, 1998, *N. ochrolopha* (HAMPSON, 1911) or *N. defreina* **spec. nov.**) having rather elongated, apically acute forewing with dark grey median area closed sharply by the postmedial line. Despite this external similarity, the new species belongs to the genus *Meganola*, according to the typical features of the ♂ genitalia, its closest relatives are the members of the *M. indistincta* – *M. semirufa* group. The ♂ genitalia of the new species differ from those of the related species (*M. indistincta*, *M. semirufa*, *M. hollowayi*, *M. mediana*, *M. tarkabarka*) by the shortest, thickest uncus covered with dense long hairs, and the longest, slightly curved, distally slightly dilated apical lobe of valva. The basal lobe of the valva is rather narrow-triangular, that of the related species are much broader or rounded; the harpe is right-angled medially, like in *M. indistincta* and *M. hollowayi*, but is somewhat shorter and thicker. The relatively short, simple aedeagus of the new species is very similar to that of *M. indistincta* by its broad-quadrangular proximal end, but the apical part is rounded, while the aedeagus of the related species is apically pointed. The ♀ is unknown.

Distribution. The new species has been recorded twice in Northern Thailand.

### ***Meganola honeyi* spec. nov.**

(Pl. 6, fig. 6; gen. fig. 38)

**Holotype.** ♂, „North Thailand, Prov. Chiang Mai, 1800m, 4 km S of Kop Dong, 99°03'E, 19°52'N, 06. 11. 2002, leg. B. HERCZIG et G. RONKAY”, slide No. LGN 1024 (coll. G. RONKAY).

Diagnosis. *Meganola honeyi* resembles externally *M. indistincta* by its pale grey forewing ground colour and darker grey wing pattern, but is smaller in size (wingspan and length of forewing 13 mm and 6 mm, those of *M. indistincta* 14-15 mm and 7-8 mm, respectively), the basal area of its forewing is whitish grey (that of *M. indistincta* is dark grey) with much narrower and paler median area in comparison with the related species. The ♂ genitalia also support the close relationship of *M. honeyi* and *M. indistincta* within the species group, according to the conspicuously narrow tegumen and uncus and the similar shape of valva. The differences between the two taxa are clearly recognisable, as the new species has much shorter uncus, apically and basally more dilated valva, and only slightly curved harpe,

and narrower and more elongated aedeagus. The harpe of *M. indistincta* is characteristically curved medially in a right angle and straight apically. The ♀ is unknown.

Distribution. Northern Thailand.

***Meganola benescripta* spec. nov.**

(Pl. 6, figs 7-8; gen. fig. 39)

**Holotype.** ♂, "N. Thailand, Chiang Mai Prov., between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY", slide No. LGN 1078 (coll. G. RONKAY).

**Paratype.** Thailand. Prov. Chiang Mai: ♀, with the same data as the holotype, slide No. LGN 1076 (W 8450) (coll. MWM).

**Diagnosis.** The new species has a unique external appearance within the genus *Meganola* by its graphite-grey forewing ground colour and the fine wing pattern consisting of sharply defined, but thin crosslines and a row of blackish dots in the terminal area. This forewing colouration and wing pattern appear mainly in the genus *Nola*, especially in the old sense *Pisara* species.

*Meganola benescripta* is a close relative of *M. geoffmartini*, these two species represent, according to the features of their ♂ genitalia, a distinct lineage, which is characterized by the conspicuous dentation on the outer margin of the proximal lobe of the bilobate valva, this feature is absent from the other known *Meganola* s.l. species. The new species differs from its sister species, *M. geoffmartini*, by its much longer, narrow, slightly arched, apically pointed uncus, shorter and basally somewhat broader distal and somewhat shorter, apically more pointed proximal lobe of the valva, more dense dentation of the outer edge of the valva consisting of smaller teeth. The harpe of *M. benescripta* is much shorter than that of *M. geoffmartini*, broader at base, than strongly tapering, curved medially, slightly dilated apically with rounded apex, while the harpe of the related species is more robust, rather claw-like, tapering and arched continuously towards the pointed apex. The aedeagus of *M. benescripta* is considerably longer and slightly narrower than that of *M. geoffmartini*, with more elongated and narrower, stick-like proximal end. The vesica of both species has extensive, fine scobination.

The ♀ genitalia of the new species is characterized by the relatively long apophyses posteriores and rather short apophyses anteriores, the very narrow and weakly sclerotized 8th segment, the simple, weak, quadrangular ostium bursae, the relatively short, but thick ductus bursae, the conspicuously large, globular cervix bursae with very thin ductus seminalis, and the elongate-ovoid corpus bursae with a relatively small, rounded triangular but strongly sclerotized signum.

Distribution. The species is known from the type locality only.

***Meganola geoffmartini* spec. nov.**

(Pl. 6, fig. 9; gen. fig. 40)

**Holotype.** ♂, "N. Thailand, Chiang Mai Prov., between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY", slide No. LGN 1077 (coll. G. RONKAY).

**Paratype.** Thailand. Prov. Chiang Mai: ♂, with the same data as the holotype, slide No. LGN 1053 (W 8460) (coll. MWM).

**Diagnosis.** *M. geoffmartini* is the sister species of the above described *M. benescripta*. The two species are similar in size (wingspan of both species 14-15 mm, length of forewing 7-8 mm) and the forewing ground colour is similarly graphite-grey, but the crosslines and the marginal spots are paler and more indistinct in *M. geoffmartini*. The ♂ genitalia of the two species differ conspicuously, the distinctive features are given in the diagnosis of *M. benescripta*. The ♀ is unknown.

Distribution. The new species occurs sympatrically with its sister species, *M. benescripta*, in Northern Thailand.

### ***Meganola scriptoides* HOLLOWAY, 2003**

(Pl. 6, figs 10-11)

„*Meganola scriptoides* HOLLOWAY, 2003, *The Moths of Borneo* 18: 27, pl.1, figs 21, 41. Type-locality: Borneo, Sarawak. Holotype: ♂, in coll. BMNH.

#### **Material examined:**

Thailand. Prov. Chiang Mai: 5 specimens, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 8.i.1999; 4 specimens, from the same site, 7-8.i.1999; 1 specimen, 6 km SE of Pang Faen, 1100 m, leg. A. SZABÓ & Z. CZERE; 1 specimen, from the same site, 18.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 9 specimens, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 28.x.2002; 8 specimen, from the same locality, 7.xi.2002; 1 specimen, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY; 1 specimen, Mt. Doi Phahompok, 16 km NW of Fang, 2000 m, 24.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 1 specimen, 19 km NW of Fang, 1900 m, 26.iii.1998, leg. T. CSÓVÁRI & P. STÉGER; 1 specimen, 7 km W of Pa Pae, 1230 m, 21.xi.1998, leg. T. CSÓVÁRI & L. MIKUS; 3 specimens, 15 km SW of Wiang Haeng, 1400 m, 4.xii.1998, leg. M. HREBLAY, I. SOÓS & Y. SHERPANI. Prov. Nan: 1 specimen, 30 km E of Pua, 1700 m, 10.xi.1999, leg. M. HREBLAY; 4 specimens from the same locality, 20. and 27.ii.1998; 1 specimen, from the same site, 21.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 1 specimen, 12 km NW of Chiang Dao, 750 m, 12.xi.1998, leg. T. CSÓVÁRI & L. MIKUS; 1 specimen, from the same site, 1.iii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 1 specimen, 25 km N of Bo Luang, 1150 m, 11.xi.1999, leg. A. SZABÓ & Z. CZERE; 1 specimen, 4 km W of Pha Lak, 820 m, 28.iii.1998, leg. T. CSÓVÁRI & P. STÉGER; 3 specimens, 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 779 (♂), LGN 778 (♀). Prov. Mae Hong Song: 1 specimen, 21 km NW of Pai, 1360 m, 7.ii.1998; 1 specimen, 1 km S of Bahundanda, 1000 m, 6.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 2 specimens, between Pa Pae and Khun Sa, 1250 m, 98°39'E, 19°08'N, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY & MWM).

### ***Meganola scripta* (MOORE, 1888)**

(Pl. 6, figs 12-13)

*Roeselia scripta* MOORE, 1888, *Proceedings of the Zoological Society London* 1888: 393. Type-locality: India [Himachal Pradesh], Dharmasala. Holotype: ♂, in coll. BMNH.

#### **Material examined:**

Thailand. Prov. Nan: 2 specimens, 30 km E of Pua, 1700 m, 20.ii.1998, leg. T. CSÓVÁRI & L. MIKUS; 1 specimen, from the same site, 10.xi.1999, leg. M. HREBLAY; 2 specimens, from the same locality, 20.i.2004, leg. P. HENTSCHEL & A. SZABÓ. Prov. Chiang Mai: 1 specimen, Mt. Doi Phahompok, 16 km NW of Fang, 2000 m, 6-7.viii.1999, leg. T. CSÓVÁRI & L. MIKUS; 1 specimen, Mt. Doi Phahompok, 18 km NW of Fang, 2100 m, 15.xi.1999, leg. M. HREBLAY; 2 specimens, Mt. Doi Phahompok, 20 km NW of Fang, 2450 m, 24.i.2004; 2 specimens, Mt. Doi Phahompok, 20 km NW of Fang, 2150 m, 22-25.i.2004, leg. A. SZABÓ; 2 specimens, Mt. Doi Phahompok, 20 km NW of Fang, 2000 m, 15.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 2 specimens, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 27.i.1999, leg. A. SZABÓ & Z. CZERE; 1 ♂, 4 km S of Kop Dong, 99°03'E, 19°52'N, 1800 m, 11.xi.2002, slide No. LGN 780; 1 specimen, from the same site, 6.xi.2002; 2 specimens, between Fang and Nor Lae, 99°06'E, 20°02'N, 28.x.2002; 2 specimen, from the same locality, 12.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 specimen, Mt. Doi Inthanon, NP, 2300 m, 16.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 1 specimen, 23 km NW of Sop Kha, 1 km E of Kop Dong, 1650 m, 14.i.2004, leg. P. HENTSCHEL & A. SZABÓ (coll. G. RONKAY & MWM).

### ***Meganola implicata* LÁSZLÓ, RONKAY & WITT, 2006**

(Pl. 6, figs 14-15)

*Meganola implicata* LÁSZLÓ, RONKAY & WITT, 2006, *Entomofauna* 28(2): 17-32. Type-locality: N. Thailand, Prov. Mae Hong Son, between Pa Pae and Khun Sa. Holotype: ♂, in coll. HNHM.

#### **Type material examined:**

Holotype. ♂, „North Thailand, Prov. Mae Hong Son, 1250 m, between Pa Pae and Khun Sa, 98°39'E, 19°08'N, 31.10.2002, leg. B. HERCZIG ET G. RONKAY”, slide No. LGN 777 (coll. HNHM).

Paratypes. Thailand. Prov. Mae Hong Son: 2 ♂♂, with the same data as the holotype. Prov. Nan: 1 ♀, 30 km E of Pua, 1700 m, 12-13.i.1999, leg. A. SZABÓ & Z. CZERE, slide No. LGN 814 (W 8316); 1 ♀, from the same site, 21.i.2004, leg. A. SZABÓ & P. HENTSCHEL. Prov. Chiang Mai: 1 ♀, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 12.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 ♂, Doi Inthanon, 2300 m, 16.i.2004; 1 ♂, 1 ♀, 23 km NW Sop Kha, 1650 m, 14.i.2004, leg. A. SZABÓ & P. HENTSCHEL (coll. HNHM and MWM).

***Meganola yakovlevi* spec. nov.**

(Pl. 6, fig. 16; gen. fig. 41)

**Holotype.** ♂, „Thailand, Changwat Chiang Mai, Mt. Doi Phahompok, 16 km NW of Fang, 2000m, 24.ii.1998 leg. Márton HREBLAY & Csaba Szabóky”, slide No. LGN 1030 (W 8399) (coll. MWM).

**Paratypes.** Thailand, Prov. Chiang Mai: 1 ♂, Mt. Doi Phahompok, 18 km NW of Fang, 2100 m, 9.i.1999, slide No. LGN 1102 (W 8409); 1 ♂, 20 km NW of Mae Ai, 1650 m, 7.i.1999, leg. A. SZABÓ & Z. CZERE; 8 ♂♂, Mt. Doi Phahompok, 20 km NW of Fang, 2100 m, 24.i.2004; 6 ♂♂, from the same site, 22-25.i.2004; 1 ♂, 4 km SE of Pang Faen, 1100 m, 26.i.2004, leg. A. SZABÓ. Vietnam, Fan-si-pan Mts: 2 ♂♂, Sa Pa, 1600 m, 22°17'N, 103°44'E, 20-30.x.1995, leg. SINJAEV & AFONIN, slide Nos LGN 823 (W 8398), LGN 877 (W 8408); 2 ♀♀, from the same locality, 1525 m, 28.X-3.xi.1994, leg. SINJAEV & local collector, slide Nos LGN 824 (W 8397), LGN 873 (W 8407); 2 ♂♂, 1 ♀, Sa Pa, 22°15'N, 103°45'E, 2400 m, 2-4.iii.1995, leg. DR. R. BRECHLIN, slide Nos LGN 874 (W 8396), LGN 875 (W 8406) (♂♂), LGN 876 (W 8395) (♀) (coll. MWM); 1 ♀, Sa Pa, Prov. Lao-Cai, 1650 m, lieux herb. Second., Á la lumière, 24.ix.1963, leg. T. Pócs (coll. HNHM).

**Diagnosis.** *Meganola yakovlevi* belongs to the *M. scripta*-*M. implicata* group, being externally similar to *M. scripta*, but is easily distinguishable by its considerably larger size (wingspan and length of forewing 19-25 and 9-12 mm, those of *M. scripta* 17-20 mm and 8-10 mm, respectively), paler, more whitish grey forewing ground colour, the absence of the conspicuous blackish apical and tornal spots (which are typical of *M. scripta*), and the more curved upper and the much more sinuous lower section of the postmedial line.

The specific differences are even more prominent in the configuration of the genitalia in both sexes. In the ♂ genitalia, the new species has slenderer uncus, being thicker only in the basal third, then tapering, forming a strong thorn-like apical part, a pair of fine, but well developed, finger-like, apically hairy subscaphial processes, a relatively large and more or less trapezoidal futura inferior, a slightly dilated distal valval lobe with almost parallel margins, a longer, more robust harpe, being directed caudally and a considerably longer vinculum. The uncus of *M. scripta* is rather broad in the basal two-third, only its apical third is thorn-like, the subscaphial processes are absent, the futura inferior is much smaller, cordiform, the distal lobe of valva is much broader, the proximal lobe of valva is remarkably longer, the harpe is much shorter, directed ventrally and the vinculum is significantly shorter than in *M. yakovlevi*. The elongate, relatively narrow aedeagus of the new species is slightly sinuous medially, that of *M. scripta* is continuously slightly arched; the characteristically elongated, rather thin carinal process is somewhat longer in the new species. The vesica of *M. yakovlevi* is armed with one rather short, but strong thorn-like cornutus, while *M. scripta* has a somewhat thinner but five times longer cornutus.

The ovipositor of the new species is more conical, the 8th segment is somewhat longer when comparing with those of *M. scripta*. The ostium bursae of *M. yakovlevi* is somewhat shorter and thicker, the lateral process is much shorter, rather hump-like, and the two signa are fused into an elongated and scobinated plate, forming a short, thick, arrow-like structure. The lateral process of the ductus bursae is characteristically very long in *M. scripta*, and the two triangular signa are not fused.

**Distribution.** The new species is distributed in the northern mountainous areas of Indochina (Northern Thailand and the Fan-si-pan region in North Vietnam).

***Meganola spec. prope flexuosa* (POUJADE, 1886)**

(Pl. 6, figs 17-18)

**Material examined:**

Thailand. Prov. Mae Hong Song: 1 ♂, 10 km NE of Pai, 1560 m, 28.i.1999, leg. A. SZABÓ & Z. CZERE, slide No. LGN 1100 (W 8405); 1 ♂, 1 km S of Bahundanda, 1000 m, 6.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY, slide No. LGN 1014 (W 8403). Prov. Chiang Mai: 1 ♂, 2 ♀♀, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 7.i.1999, leg. A. SZABÓ & Z. CZERE, slide Nos LGN 1130 (W 8404) (♂), LGN 1101 (W 8394), LGN 1015 (W 8392) (♀♀); 1 ♂, between Fang and Nor Lae, 99°06'E, 20°02'N, 28.x.2002, slide No. LGN 1131 (W 8391); 1 ♂, from the same site, 7.xi.2002 (LGN 1067), leg. B. HERCZIG & G. RONKAY; 1 ♂, 10 km E of Mae Chaem, 1160 m, 5.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY, slide No. LGN 1013 (W 8393). Prov. Nan: 1 ♂, 25 km N of Bo Luang, 1150 m, 17.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY, slide No. LGN 1113 (W 8402) (coll. G. RONKAY and MWM).

**Remarks.** The type of „*Nola flexuosa*”, described from Sichuan, has not been examined yet. The species collected in Thailand can be conspecific with *M. flexuosa* according to the original description. Inoue (1998) published a single ♀ specimen from Nepal as *Rynchopalpus flexuosa*, which is rather similar in wing pattern to the Thai specimens. Thus, the identification of the Thai specimens is still tentative, according to the limited and unconfirmed information, the satisfactory identification requires the examination of the type specimen preserved in MNHN, Paris.

***Meganola subnitida* LÁSZLÓ, RONKAY & WITT, 2007**

(Pl. 5, fig. 18)

*Meganola subnitida* LÁSZLÓ, RONKAY & WITT, 2007 *Entomofauna* 28(14): 160. Type-locality: Thailand, Prov. Nan, Doi Phuka. Holotype: ♂, in coll. MWM.

**Type material examined:**

Holotype. ♂, „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. Prov. Nan: 1 ♂, with the same data as the holotype. Prov. Chiang Mai: 1 ♂, between Chiang Dao and Kar-iang, 900 m, 98°48'E, 19°25'N, 26.x.2002, slide No. LGN 879, leg. B. Herczig & G. Ronkay; 3 ♂♂, 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 ♂♂, Pahang State, Cameron Highlands, Tanah Rata, 21.iii.–2.iv.1995, ex coll. G. Ronkay, slide Nos LGN 264, LGN 782, LGN 763 (W 8357), LGN 826 (W 8356) (coll. MWM and HHNM).

***Meganola ascripta* (HAMPSON, 1894)**

(Pl. 6, fig. 19; gen. fig. 42)

*Selca ascripta* HAMPSON, 1894, *Fauna of British India, Moths* 2: 144. Type-locality: [India] [Nagaland] Naga Hills. Holotype: ♂, in coll. BMNH.

**Material examined:**

Thailand. Prov. Nan: 2 ♂♂, Nan, 5 km N of Bo Luang, 1000 m, 12.xi.1999; 1 ♂, 25 km N of Bo Luang, 1150 m, 11.xi.1999, leg. M. Hreblay & I. Soós; 1 ♂, 30 km E of Pua, 1700 m, 27.ii.1998, leg. M. Hreblay & Cs. Szabóky; 1 ♂, Doi Phuka NP, between Pua and Bo Luang, 1350 m, 101°05'E, 19°12'N, 3.xi.2002, slide No. LGN 754, leg. B. Herczig & G. Ronkay. Prov. Chiang Mai: 1 ♂, 4 km S of Kop Dong, 99°03'E, 19°52'N, 1800 m, 11.xi.2002, slide No. LGN 755; 1 ♂, from the same site, 29-30.x.2002, slide No. LGN 775, leg. B. Herczig & G. Ronkay (coll. MWM and G. Ronkay). India. Assam, Khasis: 1 ♀, 5000 ft, Shillong 6.ix.1927, Fletcher coll., slide No. LGN 1325 (BM Arct. 6190) (coll. BMNH).

Description of the ♀ genitalia. *Meganola ascripta* has long been known only by the ♂ sex. The species was described based on the ♂ holotype, and the recent expeditions to Indochina had no success in collecting a ♀ specimen. Fortunately, during the detailed examination of the accessory material of the Nolidae collection of the BMNH, the authors found a beautiful ♀ specimen of *M. ascripta* collected in Khasis in 1927. Thus, the ♀ of the species is figured firstly in the present paper, and the ♀ genitalia is described here.

Ovipositor simple, conical, apophyses posteriores medium-long, slightly arched. 8th tergite rather short, ribbon-like, apophyses anteriores relatively short, straight. Ostium bursae rather thin, slightly cup-shaped; ductus bursae slender, medium-long, almost straight, strongly sclerotized. Cervix bursae well-developed but short, sac-like; corpus bursae relatively large, ovoidal, appendix bursae arisen at the proximal end of corpus bursae, rather membranous, relatively small, globular. Signum bursae large, strongly sclerotized, broadly triangular.

***Meganola tarka* spec. nov.**

(Pl. 11, figs 16-17; gen. fig. 46)

**Holotype.** ♂, „SE. Thailand: 300m, Chantaburi, Khao Soi Dao 9.viii.1987 Col. M.G. Allen, B.M. 1987-364”, slide No. LGN 1324 (BM Arct. 6189) (coll. BMNH).

**Paratypes.** Indonesia. SW Sulawesi (Celebes): 1 ♂, Pangean, near Maros, 2,000 ft. March 1938, J.P.A. Kalis, B.M. 1938-397, slide No. LGN 1326 (BM Arct. 6191); 3 ♂♂, Tjamba, near Maros, 1,500 ft. February 1938, J.P.A. Kalis, B.M. 1938-310. W Sulawesi (Celebes): 1 ♀, Lindoe Paloe, 3700', April 1937 J.P.A. Kalis, Rotschild Bequest B.M. 1939-1, slide No. LGN 1357 (BM Arct. 6201); 1 ♂, Paloe, G. Rangkoenau, 1,800' Dec. 1936, J.P.A. Kalis, Rotschild Bequest B.M. 1939-1. Sumatra: 1 ♂, Prapat, HW 3, III-IV.1982, leg. Dr. Diehl, slide No. LGN 1358 (coll. HHNM); 1 ♂, Huta Padang, 310 m, 99°11'E, 2°48'N, 15.iii.1993 leg. R. Brechlin, slide No. LGN 561 (W 7308). Malaysia. 1 ♀, Kuala Lumpur, Malay Peninsula C. Boden Kloss, Rotschild Bequest, B.M. 1939-1, slide No. LGN 1355 (BM Arct. 6202). Philippines. 1 ♀, Montalban, Luzon, 15. January 1914, A.E. Wileman, Rotschild Bequest B.M. 1939-1, slide No. LGN 1356 (BM Arct. 6203) (coll. BMNH). India. Assam: 1 ♂, Garampani, Nambor Reserve Forest, 26°00'N,

94°20'E 100 m, 21-29.xi.1997, leg. SINJAEV & MURZIN, slide No. LGN 153 (W 7309) (coll. MWM).

**Diagnosis.** The external appearance of the new species is rather unique within the subfamily, no similar species is known. The main external characters of *M. tarka* are as follows: the antenna is bipectinated in both sexes, the forewing ground colour is pale yellowish brown with whitish-yellow basal area and darker, more blackish median area. The scattered darker elements of the forewing pattern gives a strongly variegated appearance of the moths. The postmedial line is very fine, sharply defined, characteristically sinuous, the other crosslines are rather diffuse, shadow-like or deleted.

The genitalia structures indicate the close relationship between *M. tarka* and *M. ascripta*. The distinctive features in the ♂ genitalia are as follows: the new species has somewhat shorter uncus, with much broader basal part, straight and apically slightly dilated valva, and much thinner and shorter, apically pointed harpe with variably strong dentation on distal margin at its basal third. The uncus of *M. ascripta* is evenly arcuate, apically slightly tapering, and the harpe is much more robust, apically dilated, with fine dentation along the whole distal margin. The shape and structure of the fultura inferior, the vinculum and the aedeagus of the two species show no mentionable differences (see the Figs 42 and 46).

The ♀ genitalia of *M. tarka* and *M. ascripta* are also similar, with clearly recognisable specific differences. The new species has much broader, elongated, slightly arched intersegmental sclerotization between the papillae anales and the 8th tergite, and the signum is represented by a large, long sclerotized bar with two rather long, finger-like processes. The intersegmental sclerotization of the ovipositor of *M. ascripta* is much shorter, button-like, and the signum is triangular with a single process.

**Distribution.** A widely distributed species, its range extending from the Sundaland and the Philippines to northern Indochina.

### ***Meganola cuneifera* (WALKER, 1862)**

(Pl. 6, fig. 20)

*Melia cuneifera* WALKER, 1862, *Journal of the Proceedings of the Linnean Society of London (Zoology)* 6: 127. Type-locality: Borneo, Sarawak. Holotype: ♂, in coll. UM Oxford.

#### **Material examined:**

Thailand. Prov. Nan: 1 ♂, 5 km N of Ban Luang, 350 m, between Pi Nai and Pi Tai, 100°27'E, 18°56'N, 4.xi.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 771. Prov. Chiang Mai: 1 ♂, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 758 (coll. G. RONKAY).

### ***Meganola ruficostata* (HAMPSON, 1896)**

(Pl. 6, fig. 21, Pl. 7, fig. 1)

*Selca ruficostata* HAMPSON, 1896, *Fauna of British India, Moths* 4: 507. Type-locality: Bhutan. Holotype: ♀, in coll. BMNH.

#### **Material examined:**

Thailand. Prov. Chiang Mai: 12 specimens, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, slide Nos LGN 774, LGN 773, LGN 759 (♂♂), LGN 772 (♀), leg. B. HERCZIG & G. RONKAY. Prov. Mae Hong Son: 2 specimens, between Pa Pae and Khun Sa, 1250 m, 98°39'E, 19°08'N, 31.x.2002, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY and MWM).

### ***Meganola trianguloquelinea* (EECKE, 1920) comb. nov.**

(Pl. 11, figs 18-19; gen. fig. 47)

*Roeselia trianguloquelinea* EECKE, 1920, *Zoologische Mededeelingen Leiden* 5: 45, fig. 11. Type-locality: [Indonesia] Java, Bajor. Holotype: ♀, in coll. RNH Leiden.



**Type material examined:**

Holotype of *Roeselia trianguloquelinea* EECHE, 1920: ♀, „Java, Bajor”, slide No. LGN 859 (coll. RNH, Leiden).

**Additional material examined:**

Thailand. 1 ♂, Chantaburi Dist., 300 m, Khao Soi Dao NP, 23.xi.1987, M.G. ALLEN, BM 1988-162, slide No. LGN 1333 (BM Arct. 6210) (coll. BMNH); 1 ♀, Khao-Yai, 20-24.viii.1990, leg. K.T. PARK, slide No. LGN 1334 (coll. HNHM).

Description of the ♂ genitalia. Uncus rather short and broad, distally tapering and apically rounded, covered with dense, fine hairs. Subscaphium well-developed, ribbon-like, apically rounded, with a dense row of strong spines. Tegumen long, medial part with distinct, triangular lobe; fultura inferior relatively small, V-shaped; vinculum rather short, pointed. Valva long, slightly curved, medially tapering, apically broadly rounded; sacculus lobe well-developed, elongated, apically rounded, its dorsal margin covered by a row of gradually increasing, strongly sclerotized robust spines. Aedeagus medium-long, straight, apically pointed; vesica with a narrow, slightly arcuate, somewhat funnel-like and less sclerotized cornutus, and with a small cornuti field consisting of rather short, fine cornuti.

***Meganola calligrapha* LÁSZLÓ, RONKAY & WITT, 2005**

(Pl. 7, figs 2-3)

*Meganola calligrapha* LÁSZLÓ, RONKAY & WITT, 2005, *Entomofauna* 26(11): 208. Type locality: N. Thailand, Prov. Chiang Mai, between Chiang Dao and Kariang. Holotype: ♂, in coll. MWM.

**Type material examined:**

Holotype. ♂, „N. Thailand, Chiang Mai Prov., between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. Herczig & G. Ronkay”, slide No. LGN 757 (W 8277) (coll. MWM).

Paratypes. Thailand. Prov. Chiang Mai: 1 ♂, with the same data as the holotype, slide No. LGN 756; 1 ♂, from the same site, 8.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 ♂, Mt. Doi Phahompok, 16 km NW of Fang, 2000 m, 19.i.1999, leg. A. SZABÓ & Z. CZERE; 1 ♂, 7 km W of Pa Pae, 1230 m, 27.xi.1998, leg. T. CSÖVÁRI & L. MIKUS; 1 ♀, 15 km SW Wiang Haeng, 1400 m, 9.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY. Prov. Nan: 1 ♂, 22 km N of Bo Luang, 1120 m, 24.i.1999, leg. A. SZABÓ & Z. CZERE, slide No. LGN 607 (W 8278). Prov. Mae Hong Song: 1 ♂, 1 ♀, 10 km NE of Pai, 1560 m, 28.i.1999 leg. A. SZABÓ & Z. CZERE, slide No. LGN 608 (W 8279); 1 specimen, 10 km E of Mae Chaem, 1160 m, 5.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY (coll. G. RONKAY and MWM). Nepal. Annapurna Himal: 1 ♂, Sudame, 1250 m, 24-25.iii.1995, 83°45'E, 28°20'N, slide No. LGN 609 (W 8280); 1 ♀, Dhumre, Bhimal Nager, 500 m, 26-28.iii.1995, 84°26'E, 27°55'N, leg. M. HREBLAY & L. NÉMETH, slide No. LGN 610 (W 8281) (coll. MWM). Taiwan. Nantou County: 2 ♂♂, 3 km E of Tili, 555 m, 8-9.ii.1997, leg. S. SIMONYI & P. STÉGER, slide Nos LGN 612 (W 8282), LGN 805 (W 8283). Pingtung County: 1 ♂, Huang Lion Forest Recreation Area, 210 m, 6.iii.1996, leg. GY. FÁBIÁN & L. NÉMETH, slide No. LGN 605 (W 8284). Taoyuan County: 1 ♂, 16 km E of Fuhhsing, 900 m, 121°27'E, 24°50'N, 30.xi.-1.xii.1997, leg. S. SIMONYI & A. SZABÓ, slide No. LGN 806 (W 8285) (coll. MWM). Indonesia. Borneo: 8 specimens, Sarawak Gunong Mulu Nat. Park, G. Api, 900 m; 2 specimens, Gunong Mulu Nat. Park, Mulu, 1000 m (coll. BMNH).

***Meganola zolotuhini* spec. nov.**

(Pl. 7, figs 4-5; gen. fig. 43)

**Holotype:** ♂, „North Thailand, Prov. Chiang Mai, 1600m, between Fang and Nor Lae, 99°06'E, 20°02'N, 28.x.2002, leg. B. Herczig et G. Ronkay”, slide No. LGN 798 (W 8401) (coll. MWM).

**Paratypes.** Thailand. Prov. Chiang Mai: 1 ♂, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 7.xi.2002, slide No. LGN 799; 1 ♀, 4 km S of Kop Dong, 99°03'E, 19°52'N, 1800 m, 6.xi.2002, slide No. LGN 800, leg. B. HERCZIG & G. RONKAY; 1 ♂, Mt. Doi Inthanon, NP, 2300 m, 21.i.1999, slide No. LGN 1112 (W 8390); 1 ♂, 1 ♀, 20 km NW of Mae Ai, 1650 m, 26.i.1999, slide Nos LGN 1137 (W 8400) (♂), LGN 1123 (W 8379) (♀); 2 ♀♀, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 27.i.1999, leg. A. SZABÓ & Z. CZERE. Prov. Mae Hong Song: 2 ♀♀, 1 km S of Bahundanda, 1000 m, 6.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY. Prov. Nan: 1 ♂, 30 km E of Pua, 1700 m, 25.i.1999, leg. A. SZABÓ & Z. CZERE, slide No. LGN 807 (W 8389); 1 ♀, 5 km N of Bo Luang, 1000 m, 10.ii.2000, leg. M. HREBLAY, slide No. LGN 1031 (W 8378); 3 ♀♀, from the same site, 4.ii.2000, leg. M. HREBLAY & A. SZABÓ, slide Nos LGN 1111 (W 8388), LGN 1115 (W 8377). Vietnam. 2 ♂♂, Bach-Ma National Park, 1200 m, 16°10'N, 107°54'E, 26.vii.-6.viii.1996, leg.

V. SINJAEV & E. AFONIN, slide Nos LGN 811 (W 8387), LGN 812 (W 8376). Laos. 1 ♂, Phu Soai Dao, 101°09'E, 18°30'N, 6-8.viii.1996, leg. STEINKE & LEHMANN, slide No. LGN 810 (W 8386). Taiwan. Taitung County: 1 ♀, 3 km W of Hungyeh, 350 m, 120°52'E, 22°28'N, 5.vii.1997, slide No. LGN 816 (W 8375); 1 ♀, 7 km E of Taimali, 710 m, 4.vii.1997, 120°53'E, 22°35'N, leg. T. CSÓVÁRI & L. MIKUS; 3 ♂♂, 7 km N of Tupan, 120°52'E, 22°29'N, 500 m, 16.xii.1997, slide Nos LGN 803 (W 8385), LGN 818 (W 8374); 1 ♂, same site, 9-10.xii.1997, leg. S. SIMONYI & A. SZABÓ. Pingtung County: 7 ♂♂, on the Road No. 199, 500 m, 22°14'38"N, 120°51'51"E, 19.iv.1997, leg. L. PEREGOVITS & A. KUN, slide Nos LGN 819, LGN 801 (W 8384), LGN 802 (W 8373); 1 ♀, 10 km E of Mutan, 400 m, 5.vii.1997, leg. B. HERCZIG & S. KOVÁCS, slide No. LGN 804 (W 8383); 1 ♂, from the same locality, 7-8.iv.1997, leg. G. CSORBA & L. RONKAY; 1 ♂, from the same site, 12.vi.1997, leg. B. HERCZIG & L. RONKAY; 2 ♀♀, 10 km SE of Mutan, 470 m, 5.xii.1997, leg. GY. FÁBIÁN (coll. MWM, G. RONKAY and HNHM).

**Diagnosis.** The new species resembles externally *Meganola calligrapha* but easily distinguishable by its slightly darker, more brownish forewing ground colour, the absence of the darkened longitudinal band of the forewing (being typical of *M. calligrapha*) and the presence of a rather conspicuous, slightly elongate blackish patch in the lower third of the forewing in the ♂♂ which is absent from *M. calligrapha*.

The differences between the ♂ genitalia of the two species are rather large. The valva of *M. zolotuhini* is somewhat longer, the basal plate of the harpe is much more elongated, the erect part of the harpe is somewhat longer, narrower at base but thicker apically; in addition, the sacculus lacks the long, finger-like process which is present in *M. calligrapha*. The aedeagus of the new species is somewhat shorter, medially more curved than that of *M. calligrapha*; the apex of aedeagus is pointed in *M. zolotuhini*, while truncate in *M. calligrapha*. The armature of the vesica is also different: the new species has a single, basally rather broad, apically elongated and acute cornutus, while the cornutus of *M. calligrapha* is much shorter and more robust.

The ♀ genitalia of *M. zolotuhini* differ from those of *M. calligrapha* by the following features: apophyses anteriores are slightly longer, apically pointed, the lobes of the 8th sternite are slightly shorter and narrower, the funnel-like ostium narrower, less sclerotized, and the ductus bursae is much longer and entirely membraneous. The anterior apophyses of *M. calligrapha* are apically rounded, the funnel-like ostium is much broader, strongly sclerotized, and the ductus bursae is strongly sclerotized in its distal two-thirds. The corpus bursae of the new species is more elongated and the two signa are more remote from each other than in *M. calligrapha*.

**Distribution.** The new species is distributed in the northern mountainous areas of Thailand, Laos and Vietnam and the southern, more subtropical and rather low regions of Taiwan.

### ***Meganola postmediana spec. nov.***

(Pl. 7, fig. 6; gen. fig. 44)

**Holotype.** ♂, "N. Thailand, Chiang Mai Prov., between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. Herczig & G. Ronkay" slide No. LGN 986 (W 8372) (coll. MWM).

**Paratype.** 1 ♀, NE Thailand, 750 m, Chaiyaphum, Phu KhieoWS, km 14 on road to HQ, 6.xi.1991, leg. I.J. KITCHING & A.M. COTTON BM 1992-9, slide No. LGN 1294 (BM Arct. 6114) (coll. BMNH).

**Diagnosis.** The closest relative of the new species, despite the conspicuous external differences, is *M. ruficostata*. *Meganola postmediana* is somewhat smaller in size (wingspan and length of forewing 17 and 8 mm, those of *M. ruficostata* 18-25 mm and 9-12 mm, respectively), having dark grey costal area in the basal half of forewing, and the crosslines are more indistinct, broader and less sinuous. The forewing costal area of *M. ruficostata* is dark red-brown and crosslines are more sharply defined, much finer and more sinuous.

The ♂ genitalia of the two species show remarkable differences but the basic structure is the same, displaying their close relationship. Comparing their genitalia, *M. postmediana* has narrower, apically rounded uncus, longer, medially narrower, apically dilated and broadly rounded valva, much longer, slightly narrower and more arched harpe, without dentation on its caudal margin, the aedeagus is somewhat more arched, and the vesica is armed with a large, elongated cornutus. The uncus of *M. ruficostata* is more robust at base, apically acutely pointed, the valva is shorter, gradually tapering, apically narrowly rounded, the harpe has well-discernible dentation on its caudal margin, and the vesica lacks the cornutus.

In the ♀ genitalia, the ovipositor, the ostium and the ductus bursae are in general similar, the specific differences

can be found in the shape and size of the corpus bursae and the signa: the new species has much smaller corpus bursae and a pair of more robust, rather triangular signa. The proximal margin of the 8th sternite is also somewhat different in the two species: it is slightly wavy in *M. postmediana* while is straight in *M. ruficostata*.

Distribution. Northern Thailand.

***Meganola triangulalis* (LEECH, 1890)**

(Pl. 7, figs 8-9)

*Nola triangulalis* LEECH, 1890, *Proceedings of the Zoological Society of London* **1888**: 608, pl. 31, fig. 12. Type-locality: Japan, Satsuma. Holotype: ♂, in coll. BMNH.

**Material examined:**

Thailand. Prov. Nan: 1 specimen, 6 km N of Bo Luang, 1050 m, 19.viii.1999, leg. T. CSÖVÁRI & L. MIKUS; 1 specimen, 5 km N of Bo Luang, 1000 m, 10.ii.2000, leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ; 2 specimens, 25 km N of Bo Luang, 1150 m, 11.xi.1999, leg. A. SZABÓ & Z. CZERE; 1 specimen, from the same site, 3.ii.2000, leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ; 1 ♂, from the same locality, 17.xi.1998, leg. T. CSÖVÁRI & L. MIKUS, slide No. LGN 1057 (W 8371); 1 specimen, 30 km E of Pua, 1700 m, 20.i.2004, leg. P. HENTSCHEL & A. SZABÓ. Prov. Chiang Mai: 2 specimens, 7 km W of Pa Pae, 1230 m, 21. and 27.xi.1998, leg. T. CSÖVÁRI & L. MIKUS; 4 specimens, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002; 3 specimens, from the same locality, 8.xi.2002, leg. B. HERCZIG & G. RONKAY; 4 specimens, 4 km SE of Pang Faen, 1100 m, 13.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 4 specimens, from the same site, 31.i.2004, leg. A. SZABÓ. Prov. Mae Hong Song: 1 specimen, between Pa Pae and Khun Sa, 1250 m, 98°39'E, 19°08'N, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY and MWM).

***Meganola punctilineata* (WILEMAN & SOUTH, 1919)**

(Pl. 7, figs 10-11)

*Pisara punctilinea* WILEMAN & SOUTH, 1919, *Entomologist* **52**: 270. Type-locality: Philippines, Mindanao, Lanao, Kolambugan. Holotype: ♀, in coll. BMNH.

**Material examined:**

Thailand. Prov. Chiang Mai: 4 specimens, 4 km SE of Pang Faen, 1100 m, 13.i.2004, 26.i.2004 and 31.i.2004, slide No. LGN 999 (W 8370), leg. P. HENTSCHEL & A. SZABÓ; 1 ♀, from the same site, 27.i.2004, slide LGN 1000 (W 8381) leg. A. SZABÓ. Prov. Chiang Rai: 1 ♀, 1 km SE of Khun-Kon Waterfall, 600 m, 15.xi.1998, leg. T. CSÖVÁRI & L. MIKUS, slide No. LGN 501 (W 8380). Prov. Nan: 1 specimen, 5 km N of Ban Luang, 350 m, between Pi Nai and Pi Tai, 100°27'E, 18°56'N, 4.xi.2002, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY and MWM).

***Meganola tenebrosa* (HAMPSON, 1896)**

(Pl. 7, figs 12-13)

*Nola tenebrosa* HAMPSON, 1896, *Fauna of British India, Moths* **4**: 504. Type-locality: Bhutan. Holotype: ♀, in coll. BMNH.

**Material examined:**

Thailand. Prov. Nan: 1 ♂, 5 km N of Ban Luang, 350 m, between Pi Nai and Pi Tai, 100°27'E, 18°56'N, 4.xi.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 1058; 1 ♀, 25 km N of Bo Luang, 1150 m, 17.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY, slide No. LGN 1060 (W 8429). Prov. Chiang Mai: 1 ♂, Mok Fa Garden Resort, 450 m, 98°48'E, 19°06'N, 1.xi.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 1061 (W 8419) (coll. G. RONKAY and MWM).

***Meganola suffusata* (WILEMAN & WEST, 1929)**

(Pl. 7, figs 14-15)

*Nola suffusata* WILEMAN & WEST, 1929, *Annals and Magazine of Natural History* **10**(3): 189. Type-locality: [Taiwan] Formosa, Kan-shirei. Holotype: ♀, in coll. BMNH.

**Material examined:**

Thailand. Prov. Nan: 1 specimen, Doi Phuka NP, between Pua and Bo Luang, 1350 m, 101°05'E, 19°12'N, 3.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 ♀, 5 km N of Bo Luang, 1000 m, 4.ii.2000, leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ, slide No. LGN 495 (W 8418). Prov. Chiang Mai: 1 specimen, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY and MWM).

***Meganola major* (HAMPSON, 1891)**

(Pl. 7, figs 16-17)

*Nola major* HAMPSON, 1891, *Illustrated Typical Specimens of the Lepidoptera Heterocera in the Collection of the British Museum* **8**: 4, 48, pl. 139, fig. 13. Type-locality: India [Tamil Nadu], Nilgiri district. Syntypes: in coll. BMNH.

**Material examined:**

Thailand. Prov. Nan: 1 specimen, 30 km E of Pua, 1700 m, 1.iii.1998; 5 specimens, from the same site, 18., 20. and 27.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 1 specimen, 5 km E of Bo Luang, 610 m, 23.xi.1998, leg. T. CSÓVÁRI & L. MIKUS; 1 specimen, 22 km N of Bo Luang, 1120 m, 24.i.1999; 1 ♂, 25 km N of Bo Luang, 1150 m, 11.xi.1999, leg. A. SZABÓ & Z. CZERE. Prov. Mae Hong Song: 6 specimens, 25 km NE of Pai, 1560 m, 2.iii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 2 specimens, 10 km NE of Pai, 1560 m, 28.i.1999, leg. A. SZABÓ & Z. CZERE; 1 specimen, from the same locality, 3.xii.1998, leg. M. HREBLAY, I. SOÓS & Y. SHERPANI; 1 specimen, 21 km NW of Pai, 1360 m, 7.ii.1998; 1 specimen, 1 km S of Bahundanda, 1000 m, 6.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; Prov. Chiang Mai: 1 specimen, 23 km NW of Sop Kha, 1 km E of Kop Dong, 1650 m, 23.ii.1998; 2 spec. 15 km SW of Wiang Haeng, 1400 m, 3.iii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 1 specimen, 4 km W of Pa Pae, 1050 m, 28.xi.1998, leg. T. CSÓVÁRI & L. MIKUS; 1 specimen, 18 km NW of Fang, 2100 m, 25.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 1 specimen, Mt. Doi Phahompok, 20 km NW of Fang, 2450 m, 24.i.2004, leg. A. SZABÓ; 9 specimens, 6 km SE of Pang Faen, 1100 m, 16.ix.1999, leg. A. SZABÓ & Z. CZERE; 1 specimen, same site, 29.xi.1998, leg. T. CSÓVÁRI & L. MIKUS; 12 specimens, 4 km SE of Pang Faen, 1100 m, 13, 18., and 26.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 17 specimens, from the same site, 27. and 31.i.2004, leg. A. SZABÓ; 1 specimen, from the same locality, 14.xi.1999, leg. M. HREBLAY & I. SOÓS; 1 specimen, 12 km NW of Chiang Dao, 750 m, 12.xi.1998, leg. T. CSÓVÁRI & L. MIKUS; 4 specimens, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002 and 8.xi.2002; 1 specimen, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 7.xi.2002; 1 specimen, Mae Suai, 500 m, Charin Garden Resort, 99°35'E, 19°47'N, 2.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 specimen, Doi Inthanon, NP, 2300 m, 21.i.1999, leg. A. SZABÓ & Z. CZERE; 1 specimen, 2 km S of Kop Dong, 1800 m, 24.iii.1998, leg. T. CSÓVÁRI & P. STÉGER. Prov. Chiang Rai: 1 specimen, 1 km SE of Khun-Kon Waterfall, 600 m, 15.xi.1998, leg. T. CSÓVÁRI & L. MIKUS. Prov. Phayao: 1 specimen, 15 km W of Huai Fuang, 740 m, 9.viii.1999, leg. T. CSÓVÁRI & L. MIKUS (coll. G. RONKAY and MWM).

***Meganola argentescens* (HAMPSON, 1895)**

(Pl. 7, figs 18-19)

*Pisara argentescens* HAMPSON, 1895, *Catalogue of the Lepidoptera Phalaenae in the British Museum* **5**: 296. Type-locality: [India] Sikkim. Holotype: ♀, in coll. BMNH.

**Material examined:**

Thailand. Prov. Nan: 1 specimen, Doi Phuka NP, between Pua and Bo Luang, 1350 m, 101°05'E, 19°12'N, 3.xi.2002, leg. B. HERCZIG & G. RONKAY; 2 ♂♂, 30 km E of Pua, 1700 m, 20-21.vi.1998, leg. I. SOÓS & A. SZABÓ, slide Nos LGN 150 (W 8428), LGN 180 (W 8417). Prov. Chiang Mai: 1 specimen, between Fang and Nor Lae, 99°06'E, 20°02'N, 28.x.2002; 4 specimens, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY; Prov. Mae Hong Song: 2 specimens, between Pa Pae and Khun Sa, 1250 m, 98°39'E, 19°08'N, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY and MWM).

***Meganola brunellus* (HAMPSON, 1893)**

(Pl. 7, figs 20-21)

*Roeselia brunellus* HAMPSON, 1893, *Illustrated typical Specimens of the Lepidoptera Heterocera in the Collection of the British Museum* 9: 15, 89, pl. 158, fig. 31. Type-locality: [Sri Lanka] Ceylon, Pundaloya. Syntypes: in coll. BMNH.

*Meganola pseudohypena* INOUE, 1982, in INOUE *et al.*, *Moths of Japan* 1: 667, pl. 154, figs 26-27, pl. 351, fig. 1, pl. 353, fig. 9. Type-locality: Japan, Ishigaki Island, Mt. Banna. Holotype: ♀, in coll. NSM Tokyo.

*Celamoides corticella* EECHE, 1926, *Zoologische Mededeelingen, Leiden* 9: 39, pl. 2, fig. 10. Type-locality: [Indonesia] Sumatra, Fort de Kock. Syntypes: 9 specimens, in coll. RNH Leiden.

**Material examined:**

Thailand. Prov. Chiang Mai: 7 specimens, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 28.x.2002; 2 specimens, from the same site, 12.xi.2002; 2 specimens, 4 km S of Kop Dong, 99°03'E, 19°52'N, 1800 m, 6.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 specimen, 23 km NW of Sop Kha, 1 km E of Kop Dong, 1650 m, 14.i.2004, leg. P. HENTSCHEL & A. SZABÓ (coll. G. RONKAY and MWM).

**„*Meganola*” *igorkostjuki* spec. nov.**

(Pl. 7, fig. 7; gen. fig. 45)

**Holotype.** ♂, „North Thailand, Prov. Chiang Mai, 1100 m, 4 km SE of Pang Faen, 13.i.2004, leg. A. SZABÓ”, slide No. LGN 1062 (W 8382) (coll. MWM).

**Diagnosis.** The new species belongs to a remote phyletic line within *Meganola*, representing most probably a distinct genus. As the species is known only by the ♂ sex, the more detailed analysis of its taxonomic position is postponed until the discovery of the ♀.

The differences between “*Meganola*” *igorkostjuki* and the other *Meganola* species are rather conspicuous. The new species has a very characteristic and rather unique external appearance due to its very dark brown forewing ground colour, the prominent yellowish apical streak, the slightly arcuate (but not sinuous), rather broad, yellowish postmedial line and the distinctly marked black orbicular stigma.

The ♂ genitalia display numerous autapomorphic features, like the long and slender, slightly curved and acutely pointed uncus, the absence of subscaphial lobes, the very narrow, simple, apically rounded valva, the rather short, bifurcate, more or less V-shaped harpe and the large, long V-shaped vinculum. The aedeagus is simple, almost straight, the vesica is armed by a straight, relatively short, but strong cornutus. The ♀ is unknown.

**Distribution.** The new species is known from the type locality only.

***Nola ochrolopha* (HAMPSON, 1911)**

(Pl. 8, figs 1-2)

*Celama ochrolopha* HAMPSON, 1911, *Annals and Magazine of Natural History* 8(8): 397. Type-locality: [India] Sikkim. Holotype: ♀, in coll. BMNH.

**Material examined:**

Thailand. Prov. Chiang Mai: 2 specimens, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 7.i.1999, leg. A. SZABÓ & Z. CZERE; 1 ♂, from the same locality, 5.xii.1998, leg. M. HREBLAY, I. SOÓS & Y. SHERPANI, slide No. LGN 1071 (W 8426); 1 specimen, 23 km NW of Sop Kha, 1 km E of Kop Dong, 1650 m, 14.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 5 specimens, Mt. Doi Phahompok, 20 km NW of Fang, 2150 m, 22-25. and 28.i.2004, leg. A. SZABÓ; 2 specimens, 18 km NW of Fang, 2100 m, 18.i.1999 and 20.i.1999, leg. A. SZABÓ & Z. CZERE; 1 specimen, from the same locality, 5.xi.1999, leg. M. HREBLAY & I. SOÓS; 1 specimen, Mt. Doi Phahompok, 16 km NW of Fang, 2000 m, 10.i.1999, leg. A. SZABÓ & Z. CZERE; 1 specimen, from the same locality, 27.iii.1998, leg. T. CSÖVÁRI & P. STÉGER; 1 specimen, 20 km NW of Mae Ai, 1650 m, 26.i.1999, leg. A. SZABÓ & Z. CZERE; 6 specimens, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 28.x., 7.xi. and

12.xi.2002, leg. B. HERCZIG & G. RONKAY. Prov. Nan: 2 specimens, 30 km E of Pua, 1700 m, 22-23.i.1999 and 25.i.1999, slide No. LGN 1069 (W 8427); 1 ♂, 25 km N of Bo Luang, 1150 m, 14.i.1999, leg. A. SZABÓ & Z. CZERE, slide No. LGN 1070 (W 8416) (coll. G. RONKAY and MWM).

### ***Nola defreina* spec. nov.**

(Pl. 8, figs 3-4; gen. fig. 48)

**Holotype.** ♂, „Thailand, Prov. Nan, 30 km E of Pua, 1700 m, 20.i.2004, leg. P. Hentschel & A. Szabó”, slide No. LGN 1019 (W 8415) (coll. MWM).

**Paratypes.** Thailand. Prov. Mae Hong Song: 1 ♂, 1 km S of Bahundanda, 1000 m, 6.ii.1998; 1 ♂, 21 km NW of Pai, 1360 m, 7.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY. Prov. Chiang Mai: 1 ♂, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 7.i.1999, leg. A. SZABÓ & Z. CZERE, slide No. LGN 1018 (W 8414); 1 ♂, 15 km SW of Wiang Haeng, 1400 m, 9.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 1 ♀, Mt. Doi Phahompok, 16 km NW of Fang, 2000 m, 4.iv.1998, leg. T. CSÖVÁRI & P. STÉGER, slide No. LGN 1017 (W 8425); 1 ♂, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 12.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 ♂, from the same site, 18.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY. Prov. Nan: 1 ♂, 30 km E of Pua, 1700 m, 24.xi.1998, leg. T. CSÖVÁRI & L. MIKUS; 4 ♂♂, 1 ♀, from the same locality, 20.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 1 ♀, from the same locality, 5.ii.2000, leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ (coll. G. RONKAY & MWM). Khasis. 1 ♂, Oct. 1890, Nat. Coll., ROTHSCHILD Bequest B.M. 1939-1, 1 ♂, March 1894, Nat. Coll., ROTHSCHILD Bequest B.M. 1939-1 (coll. BMNH). Nepal. Annapurna Himal: 1 ♂, 2 km N Landrung, 1540 m, 83°49'E, 28°23'N, 8.iv.1995, leg. Gy. M. LÁSZLÓ & G. RONKAY (coll. MWM). China. Guangxi: 2 ♂♂, 2 ♀♀, Dayao Shan, Jingxiu, 100 km SE of Liuzhou, 23°45'N, 109°45'E, 1200 m, 15-30.iii.2005, leg. SINJAEV & his team (coll. MWM).

**Diagnosis.** The new species is somewhat similar to *Nola ochrolopha* by its pale greyish white forewing ground colour and the sharply defined medial line, but it is easily distinguished by its much narrower and more strongly curved dark medial suffusion, the less sharply defined subterminal line, and the more greyish, and less shining forewing. *Nola defreina* resembles also *Nola sindhulica* but the new species has somewhat paler greyish forewing ground colour, more distinct double medial line the inner line of which is rather pale and less sinuous, this inner line is sharper and conspicuously dentate in *N. sindhulica*.

The ♂ genitalia of the related species show also clearly recognisable differences. *N. defreina* has much deeply cleft valva compared to *N. sindhulica* and especially to *N. ochrolopha* (latter species has rather shallow medial incision in the valva), much shorter and more robust harpe than in *N. ochrolopha* (the shape of harpe of the new species is rather similar to that of *N. sindhulica*). The aedeagus of the new species is slightly slenderer than that of *N. sindhulica* but much shorter than in *N. ochrolopha*, having a small, but conspicuous carinal tooth which is absent in both related species. The vesica of *N. defreina* is armed by a short but rather robust, cornutus, which is angled medially in 90°; the cornutus of *N. ochrolopha* is conspicuously longer and thinner, medially strongly reclinate, while the cornutus of *N. sindhulica* is only slightly longer and medially less strongly bent than that of *N. defreina*.

The ♀ genitalia of *N. defreina* display also characteristic differences compared with that of *N. ochrolopha*: the 8th segment is shorter, the ostium and ductus bursae are narrower and less strongly sclerotized, the proximal section of ductus bursae has conspicuous, elongated sclerotization (a unique feature of the species within the genus *Nola*), and the presence of a pair of strongly sclerotized, more or less crater-shaped signa (*N. ochrolopha* has a single, rounded signum).

**Distribution.** The new species has a relatively long area in the eastern Himalayan region, extending from Central Nepal (Annapurna Himal) throughout Assam and northern Indochina to SE China (Guangxi).

### ***Nola sindhulica* INOUE, 1998**

(Pl. 8, fig. 5)

*Nola sindhulica* INOUE, 1998, *Tinea* 15 (Supplement 1): 91, pl. 140, fig. 15, text fig. 882. Type-locality: Nepal, Janakpur, Bijayachhap. Holotype: ♂, in coll. INOUE.

**Material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 7.i.1999, leg. A. SZABÓ & Z. CZERE, slide No. LGN 1072 (W 8424) (coll. MWM); 1 ♂, Doi Suthep-Pui NP. 4.ii.1989; 1 ♀, Doi Suthep-Pui NP. 29.xi.1989, leg. A.M. COTTON & I.J. KITCHING BM 1989-57 (coll. BMNH).

### ***Nola atrocincta* INOUE, 1998**

(Pl. 8, figs 6-7)

*Nola atrocincta* INOUE, 1998, *Tinea* 15 (Supplement 1): 91, pl. 140, fig. 14, text fig. 880. Type-locality: Nepal, Solukhumbu, Mningna. Holotype: ♂, in coll. NSMT.

#### **Material examined:**

Thailand. Prov. Chiang Mai: 2 specimens, Mt. Doi Phahompok, 16 km NW of Fang, 2000 m, 15.ii.1998; 1 specimen, from the same site, 24.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 1 ♂, Mt. Doi Phahompok, 20 km NW of Fang, 2150 m 28.i.2004, slide No. LGN 978 (W 8413); 2 specimens, from the same site, 22.i.2004, slide No. LGN 979 (W 8423) (♀), leg. A. SZABÓ; 1 specimen, Mt. Doi Phahompok, 20 km NW of Fang, 2000 m, 15.i.2004, leg. P. HENTSCHEL & A. SZABÓ. Prov. Nan: 1 ♀, 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 1254 (coll. G. RONKAY and MWM).

### ***Nola sikkima* (MOORE, 1888) stat. rev.**

*Roeselia sikkima* MOORE, 1888, *Description of new Indian Lepidopterous Insects from the Collection of the late Mr. W. S. Atkinson* 1888: 287. Type-locality: [India] [Sikkim] Darjeeling. Lectotype: ♀, in coll. BMNH, here designated.

Remarks. *Nola sikkima* (MOORE, 1888) has been treated by HAMPSON (1900) as a synonym of *Celama flexuosa* POUJADE, 1886. Though the type of *Celama flexuosa* has not been examined by the authors, INOUE (1996) supposedly examined it when transferred *flexuosa* to *Rhynchopalpus* HAMPSON, 1893. The examination of the ♀ genitalia of one of the syntypes of *N. sikkima* undoubtedly shows its correct placement in the genus *Nola* LEACH, 1830; it cannot be combined with *Rhynchopalpus* (which is a synonym of *Meganola* DYAR, 1898) or *Manoba* WALKER, 1863. Thus, *Nola sikkima* cannot be conspecific with *Meganola flexuosa*. On the other hand, the syntype series of *Nola sikkima* contains very probably two species: the dissected ♀ syntype deposited in the BMNH and the ♀ specimen of the two syntypes deposited in ZMHU are identical, representing *Nola sikkima*. The third syntype in ZMHU the abdomen of which is lost are supposedly not conspecific with the other syntypes and represent a new species, *N. wernerthomasi*. This latter new species is described below, but the third syntype of *N. sikkima* cannot be identified satisfactorily without the examination of its genitalia, therefore it is not added into the type-series. To clarify this rather confused situation, the designation of the lectotype of *N. sikkima* is essential.

Lectotype of *Roeselia sikkima* MOORE, 1888, here designated: ♀, „red ring type label”, „Darjeeling”, „Roeselia sikkima ♀ type Moore”, „Moore Coll. 94-106”. Slide No. BM Arct. 891 in coll. BMNH.

Remarks. The species has not yet been recorded from Thailand.

### ***Nola wernerthomasi* spec. nov.**

(Pl. 8, figs 8-9; gen. fig. 49)

**Holotype.** ♂, „Thailand, Changwat Chiang Mai, Mt. Doi Phahompok, 18 km NW of Fang, 2100m, 7.ii.2000, leg. Hreblay & Szabó”, slide No. LGN 1011 (W 8412) (coll. MWM).

**Paratypes.** Thailand. Prov. Chiang Mai: 1 ♂, Mt. Doi Phahompok, 18 km NW of Fang, 2100 m, 20.i.1999, slide LGN 1129 (W 8411), leg. A. SZABÓ & Z. CZERE; 3 ♀♀, 14 km NW of Fang, 2000 m, 14.ii.2000 leg. M. HREBLAY, slide Nos LGN 1012 (W 8421), LGN 1246 (W 8420), LGN 1248 (W 8439); 1 ♀, Mt. Doi Inthanon, NP, 2300 m, 7-8.ix.1999 leg. A. SZABÓ & Z. CZERE, slide No. LGN 1245 (W 8410). Prov. Nan: 1 ♂, 30 km E of Pua, 1700 m, 10.xi.1999, leg. M. HREBLAY, slide No. LGN 1075 (W 8422) (coll. MWM). Vietnam. Prov. Lao Cai: 3 ♂♂, 1 ♀, 3 km NW of Cat Cat, 2000 m, 1.xii.1997, leg. G. KÓSA, L. PEREGOVITS & L. RONKAY; 2 ♂♂, Fan-si-pan Mts, 14 km NW Sa Pa, 2000 m, 103°46,06'E, 22°20,9'N, 4-6.xii.1997, leg. L. PEREGOVITS & L. RONKAY; 2 ♂♂, Fan-si-pan Mts, 16 km NW Sa Pa, 16-17.iii.1998, leg. L. PEREGOVITS & T. VÁSÁRHELYI (coll. HNHM). Nepal. Ganesh Himal: 1 ♀, 2 km W Gholjong, 2420 m, 85°18'E, 28°11'N, 12.x.1995, leg. L. PEREGOVITS & L. RONKAY (coll. HNHM). Sikkim. 1 ♂, Sikkim, Kurseong, R.P. BRETANDEAU, 1894; 1 ♂, Sikkim, 7000, July 1895, J.G. PILCHER 97-31, slide No. BM Arct. 894; 2 ♂♂, with the

same data; 2 ♂♂, 1 ♀, same site, but collected in August 1895; 1 ♀, same site, but collected in May 1895, slide No. BM Arct. 895; 1 ♂, Sikkim, VIII.1909, F. MOLLER, 1910-140; 1 ♂, Khasis, Sept. 1895, Nat. Coll; 3 ♂♂, 2 ♀♀, Khasis, Nat. Coll. (coll. BMNH).

**Diagnosis.** The new species is closely related to *Nola sikkima* but clearly separable by its much darker, more distinctly marked forewing median area and more sharply defined medial and postmedial lines. As *Nola sikkima* is available only by ♀ specimens, only the ♀ genitalia of the two species can be compared. *N. wernerthomasi* has less elongate papillae anales, somewhat thicker and longer more strongly sclerotized ostium bursae, conspicuously shorter and thicker ductus bursae and considerably larger, more rounded and more strongly sclerotized signum bursae. The ♂ genitalia of the new species are characterized by their medium deeply cleft valvae with broadly rounded apex, the very slightly arcuate, medium-long, slightly tapering, apically rounded harpe, the rather elongate, apically pointed vinculum, and the relatively short, medium thick aedeagus armed with a medium-long, falcate, pointed, single cornutus.

**Distribution.** An eastern Himalayan species, all known localities lie in the southern side of the Himalayan main chain, from Central Nepal and Sikkim to the northern areas of Indochina (Northern Thailand, North Vietnam).

### ***Nola peguense* (HAMPSON, 1894)**

(Pl. 8, figs 10-11)

*Deltapterum peguense* HAMPSON, 1894, *Fauna of British India, Moths* 2: 138, fig. 93. Type-locality: [Myanmar] Burma, E. Pegu. Holotype: ♂, in coll. BMNH.

#### **Material examined:**

Thailand. Prov. Nan: 7 specimens, 30 km E of Pua, 1700 m, 10. and 13.xi.1999, slide No. LGN 968 (W 8448), leg. M. HREBLAY; 4 specimens, from the same locality, 1700 m, 12-13.i.1999, 22-23.i.1999 and 25.i.1999, slide No. LGN 969 (W 8437), leg. A. SZABÓ & Z. CZERE; 1 specimen, from the same site, 16.xi.1998, leg. T. CSÖVÁRI & L. MIKUS; 6 specimens, from the same locality, 18.ii.1998 and 27.ii.1998, slide No. LGN 1056 (W 8438), leg. M. HREBLAY & Cs. SZABÓKY; 7 specimens, from the same locality, 20-21.i.2004, leg. A. SZABÓ & P. HENTSCHEL; 2 specimens, Doi Phuka NP, between Pua and Bo Luang, 1350 m, 101°05'E, 19°12'N, 3.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 specimen, 25 km N of Bo Luang, 1150 m, 11.xi.1999, leg. A. SZABÓ & Z. CZERE; 2 ♂♂, 5 km N of Bo Luang, 1000 m, 4.ii.2000, leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ, slide Nos LGN 972 (W 8446), LGN 955 (W 8449). Prov. Chiang Mai: 1 specimen, Mt. Doi Phahompok, 16 km NW of Fang, 2000 m, 27.iii.1998, leg. T. CSÖVÁRI & P. STÉGER; 3 specimens, Mt. Doi Phahompok, 18 km NW of Fang, 2100 m, 15.xi.1999, leg. M. HREBLAY; 1 specimen, Mt. Doi Phahompok, 20 km NW of Fang, 2450 m, 24.i.2004, leg. A. SZABÓ; 15 specimens, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 12.xi.2002; 5 specimens, from the same locality, 28.x.2002 and 7.xi.2002, slide No. LGN 952 (♂), leg. B. HERCZIG & G. RONKAY; 5 specimens, 20 km NW of Mae Ai, 1650 m, 26.i.1999, slide No. (LGN 970 (W 8447), leg. A. SZABÓ & Z. CZERE; 2 specimens, 15 km SW of Wiang Haeng, 1400 m, 9.ii.1998, slide No. LGN 973 (W 8436) (♀), leg. M. HREBLAY & Cs. SZABÓKY. Prov. Mae Hong Song: 1 specimen, 21 km NW of Pai, 1360 m, 7.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY (coll. G. RONKAY and MWM).

### ***Nola pinratana* spec. nov.**

(Pl. 8, figs 12-13; gen. fig. 50)

**Holotype.** ♂, „North Thailand, Prov. Chiang Mai, 1600 m, between Fang and Nor Lae, 99°06'E, 20°02'N, 12.xi.2002, leg. B. HERCZIG & G. RONKAY” (coll. MWM).

**Paratypes.** Thailand. Prov. Chiang Mai: 1 ♀, 2 km S of Ban Kum, 1700 m, 13-14.vi.1998, leg. I. SOÓS & A. SZABÓ; 1 ♂, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 12.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 ♂, 15 km SW of Wiang Haeng, 1400 m, 9.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY, slide No. LGN 872 (W 8435); 2 ♂♂, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 7.i.1999; 1 ♀, from the same locality, 27.i.1999, slide No. LGN 1064 (W 8445), leg. A. SZABÓ & Z. CZERE. Prov. Nan: 1 ♀, 30 km E of Pua, 1700 m, 25.i.1999, leg. A. SZABÓ & Z. CZERE (coll. G. RONKAY and MWM).

**Diagnosis.** The new species cannot be confused with the other congeners. Its external appearance is rather unique having almost uniformly dark graphite greyish forewings with somewhat darker, small costal spots and diffuse, shadow-like crosslines. The configuration of the ♂ genitalia display closer relationship with *Nola wernerthomasi*, the main differences are as follows: the new species has slightly longer but more robust, medially curved, apically pointed harpe, much shorter aedeagus and slenderer, finer, more curved cornutus in the vesica.



The harpe of *N. wernerthomasi* is almost straight and apically rounded, the aedeagus is considerably longer, and the cornutus of the vesica is thicker, less falcate than in *N. pinratana*. The ♀ genitalia of the two species show similarly conspicuous differences: the new species has considerably longer 8th segment, much shorter sclerotized part of ostium bursae, and different shape of signum bursae which is elongate, crest-like in *N. pinratana*, and rounded in *N. wernerthomasi*.

Distribution. Northern Thailand.

### ***Nola duplicilinea* (HAMPSON, 1900)**

(Pl. 8, figs 14-15)

*Celama duplicilinea* HAMPSON, 1900, *Catalogue of the Lepidoptera Phalaenae in the British Museum* 2: 12, pl. 18, fig. 8. Type-locality: [India] Sikkim. Holotype: ♂, in coll. BMNH.

*Celamoides pseudastigma* EECKE, 1920, *Zoologische Mededeelingen Leiden* 5: 120, figs 8-9. Type-locality: [Indonesia] Java, Preanger; Malabar, Tjinjroean. Syntypes: one ♂ and eight ♀♀, in coll. RNH Leiden.

*Celama indefinita* ROEPKE, 1948, *Tijdschrift voor Entomologie* 89: 210, pl. 14, fig. 7. Type-locality: [Indonesia] Sumatra, Mt. Tangamus. Holotype: ♀, in coll. RNH Leiden.

#### **Material examined:**

Thailand. Prov. Nan: 9 specimens, 30 km E of Pua, 1700 m, 12-13. and 25.i.1999, slide No. LGN 1114 (W 8444), leg. A. SZABÓ & Z. CZERE; 3 specimens, from the same site, 2.ii.2000, leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ; 1 specimen, from the same locality, 20.ii.1998, leg. T. CSÖVÁRI & L. MIKUS; 5 specimens, from the same locality, 20-21.i.2004, slide No. LGN 1027 (W 8443) (♀), leg. A. SZABÓ & P. HENTSCHEL. Prov. Chiang Mai: 1 specimen, Mt. Doi Phahompok, 16 km NW of Fang, 2000 m, 4.iv.1998, leg. T. CSÖVÁRI & P. STÉGER; 1 specimen, from the same locality, 15.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 4 specimens, Mt. Doi Phahompok, 18 km NW of Fang, 2100 m, 9. and 20.i.1999, slide No. LGN 1110 (W 8433) (♂), leg. A. SZABÓ & Z. CZERE; 1 specimen, from the same locality, 25.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 1 specimen, from the same site, 7.ii.2000, leg. M. HREBLAY & A. SZABÓ; 6 specimens, Mt. Doi Phahompok, 20 km NW of Fang, 2450 m, 24.i.2004; 2 specimens, same site, 22-25.i.2004, leg. A. SZABÓ; 6 specimens, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 8.i.1999, slide No. LGN 1116 (W 8434) (♀); 3 specimens, from the same site, 7. and 27.i.1999, leg. A. SZABÓ & Z. CZERE; 4 specimens, same site, 21.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 3 specimens, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 28.x.2002; 5 specimens, from the same locality, 7.xi.2002 and 12.xi.2002, slide Nos LGN 1055, LGN 1080 (♂♂); 2 specimens, 4 km S of Kop Dong, 99°03'E, 19°52'N, 1800 m, 6.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 specimen, Mt. Doi Inthanon, 2300 m, 14.xii.1998, leg. M. HREBLAY, I. SOÓS & Y. SHERPANI; 1 specimen, from the same locality, 21.i.1999, leg. A. SZABÓ & Z. CZERE. Prov. Mae Hong Song: 1 specimen, 1 km S of Bahundanda, 1000 m, 6.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY (coll. G. RONKAY and MWM).

### ***Nola fraterna* (MOORE, 1888)**

(Pl. 8, figs 16-17)

*Roeselia fraterna* MOORE, 1888, *Proceedings of the Zoological Society of London* 1888: 393. Type-locality: [India] [Himachal Pradesh], Kangra. Holotype: ♀, in coll. BMNH.

#### **Material examined:**

Thailand. Prov. Chiang Mai: 7 specimens, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 7.xi.2002; 10 specimens, from the same site, 28.x.2002 and 12.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 specimen, 4 km SE of Pang Faen, 1100 m, 31.i.2004, leg. A. SZABÓ; 1 specimen, 20 km NW of Sop Kha, 2 km S of Kop Dong, 1800 m, 27.i.1999, leg. A. SZABÓ & Z. CZERE; 1 specimen, 15 km SW of Wiang Haeng, 1400 m, 9.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY. Prov. Nan: 1 specimen, 4 km W of Pha Lak, 100°34'E, 19°21'N, 5.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 specimen, 22 km N of Bo Luang, 1100 m, 18-19.vi.1998, leg. I. SOÓS & A. SZABÓ; 1 specimen, 5 km N of Bo Luang, 1000 m, 4.ii.2000, leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ. Prov. Mae Hong Song: 5 specimens, 21 km NW of Pai, 1360 m, 7.ii.1998; 2 specimens, 1 km S of Bahundanda, 1000 m, 6.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY (coll. G. RONKAY and MWM).

### ***Nola bifascialis* (WALKER, 1865)**

(Pl. 8, figs 18-19)

*Pisara bifascialis* WALKER, 1865, *List of the Specimens of Lepidopterous Insects in the Collection of the British Museum* 31: 244.

Type-locality: Borneo, Sarawak. Type(s): in coll. UM Oxford.

**Material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, 1 ♀, 4 km SE of Pang Faen, 1100 m, 31.i.2004, leg. A. SZABÓ, slide Nos LGN 1154 (W 8432) (♂), LGN 1155 (W 8442) (♀); 2 specimens, from the same site, 26.i.2004, leg. P. HENTSCHER & A. SZABÓ; 1 specimen, Mok Fa Garden Resort, 450 m, 98°48'E, 19°06'N, 1.xi.2002, leg. B. HERCZIG & G. RONKAY. Prov. Nan: 1 specimen, 5 km N of Ban Luang, 350 m, between Pi Nai and Pi Tai, 100°27'E, 18°56'N, 4.xi.2002, leg. B. HERCZIG & G. RONKAY (coll. MWM).

***Nola mesotherma*** (HAMPSON, 1909)

(Pl. 8, figs 20-21)

*Celama mesotherma* HAMPSON, 1909, *Annals and Magazine of Natural History* **8**(4): 349. Type-locality: [Sri Lanka] Ceylon. Holotype: ♀, in coll. BMNH.

**Material examined:**

Thailand. Prov. Chiang Mai: 1 ♀, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 1159 (W 8431) (coll. MWM).

***Nola nepalpumila*** INOUE, 1998

(Pl. 9, figs 1-2)

*Nola nepalpumila* INOUE, 1998, *Tinea* **15** (Supplement 1): 89, pl. 140, fig. 6, text fig. 877. Type-locality: India [Sikkim], W Bengal, Darjeeling. Holotype: ♂, in coll. NSMT.

**Material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, 1 ♀, between Fang and Nor Lae, 99°06'E, 20°02'N, 28.x.2002, slide Nos LGN 1086 (♂), LGN 1085 (♀); 2 specimens, from the same site, 12.xi.2002; 1 ♂, 4 km S of Kop Dong, 99°03'E, 19°52'N, 1800 m, 6.xi.2002, slide No. LGN 1038 (W 8430), leg. B. HERCZIG & G. RONKAY; 1 specimen, Doi Inthanon, NP, 2300 m, 14.xii.1998, leg. M. HREBLAY, I. SOÓS & Y. SHERPANI; 1 specimen, 20 km NW of Mae Ai, 1650 m, 19.xii.1998, leg. M. HREBLAY, I. SOÓS & Y. SHERPANI. Prov. Nan: 1 fem, 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 1037 (W 8441); 1 specimen, 30 km E of Pua, 1700 m, 20.ii.1998, leg. T. CSÓVÁRI & L. MIKUS; 1 specimen, from the same site, 8.iv.1998, leg. T. CSÓVÁRI & P. STÉGER; 2 specimens, from the same locality, 25.i.1999, leg. A. SZABÓ & Z. CZERE; 1 specimen, 25 km N of Bo Luang, 1150 m, 3.ii.2000, leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ (coll. G. RONKAY and MWM).

***Nola kiflisigna* spec. nov.**

(Pl. 9, fig. 3; gen. fig. 51)

**Holotype.** ♂, „N. Thailand, Prov. Chiang Mai, 900m, between Chiang Dao and Kariang, 98°48'E, 19°25'N, 08.11.2002 leg. B. HERCZIG & G. RONKAY”, slide No. LGN 1097 (coll. G. RONKAY).

**Diagnosis.** *Nola kiflisigna*, *N. ineffectalis* WALKER, 1864 and *N. tincta* WILEMAN & SOUTH, 1919, described from the Philippines, form a common, specialised phyletic line, according to their unique and characteristic signa: it is very narrow and long, ribbon-like situated crosswise to the main (longitudinal) axis.

The new species is closely related to *N. ineffectalis* WALKER, 1864 (see the Fig. 51) according to their similarly pale grey forewing ground colour with somewhat darker reversed triangular costal patch. The two taxa are, however easily distinguishable by the following features: the new species has considerably narrower, more elongate forewing with more greyish ground colour, more sharply defined costal patch and crosslines, while the forewing ground colour of *N. ineffectalis* is more brownish, with paler costal patch and crosslines.

The ♀ genitalia of *N. kiflisigna* differ from those of *N. ineffectalis* by their much shorter papillae anales, much longer, more strongly sclerotized 8th segment and much shorter apophyses posteriores; the ostium bursae of the new species is narrower than that of *N. ineffectalis*. Last but not least, the signum is slightly curved in *N. kiflisigna* while straight in *N. ineffectalis*. The ♂ is unknown.

Distribution. The new species is known from the type locality only.

### ***Nola canioralis* (WALKER, 1863)**

(Pl. 9, fig. 6)

*Necla canioralis* WALKER, 1863, *List of the Specimens of Lepidopterous Insects in the Collection of the British Museum* 27: 100. Type locality: Borneo, Sarawak. Holotype, ♀ in coll. BMNH.

#### **Material examined:**

Thailand. Prov. Chiang Mai: 1 ♀, 6 km SE of Pang Faen, 1100 m, 16.ix.1999 leg. A. SZABÓ & Z. CZERE, slide No. LGN 172 (W 14990) (coll. MWM).

### ***Nola opalina* (WALKER, 1862)**

(Pl. 9, fig. 5)

*Pisara opalina* WALKER, 1862, *Journal of the Proceedings of the Linnean Society of London (Zoology)* 6: 118, by monotypy. Type-locality: Borneo, Sarawak. Type(s) in coll. UM Oxford.

#### **Material examined:**

Thailand. Prov. Nan: 2 specimens, 4 km W of Pha Lak, 100°34'E, 19°21'N, 5.xi.2002, leg. B. HERCZIG & G. RONKAY; Prov. Chiang Mai: 2 specimens, 4 km SE of Pang Faen, 1100 m, 13.i.2004, leg. P. HENTSCHEL & A. SZABÓ; Prov. Mae Hong Song: 1 ♀, 21 km NW of Pai, 1360 m, 7.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY, slide No. LGN 1063 (W 8440) (coll. G. RONKAY and MWM).

Remarks. *Nola canioralis* and *N. opalina* are sister species, being externally very similar to each other. As only the ♀ holotype of *N. canioralis* has been dissected, and the genitalia of the types of *N. opalina* are unknown, only the ♀♀ of *N. canioralis* can be properly identified yet. The further revision of the species complex would be desirable.

### ***Nola ceylonica* HAMPSON, 1893**

(Pl. 9, figs 7-8)

*Nola ceylonica* HAMPSON, 1893, *Illustrations of Typical Specimens of Lepidoptera Heterocera in the Collection of the British Museum* 9: 15, 88, pl. 158, fig. 13. Type-locality: [Sri Lanka] Ceylon, Pundaloya. Holotype: ♂, in coll. BMNH.

*Nola kimurai* YAZAKI, 1995, *Japan Heterocerists' Journal* 182: 104. Type-locality: Japan, Okinawa Island.

#### **Material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 1084; 1 ♂, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 12.xi.2002, slide No. LGN 1141 (W 14992); 1 ♀, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, slide No. LGN 1150 (W 14994), leg. B. HERCZIG & G. RONKAY; 1 ♂, 4 km SE of Pang Faen, 1100 m, 31.i.2004, leg. A. SZABÓ, slide No. LGN 1149 (W 14993) (coll. G. RONKAY and MWM).

### ***Nola euryzonata* (HAMPSON, 1900)**

(Pl. 9, figs 9-10)

*Celama euryzonata* HAMPSON, 1900, *Catalogue of the Lepidoptera Phalaenae in the British Museum* 2: 16, pl. 18, fig. 11. Type-

locality: [Indonesia] Sumatra. Holotype: ♀, in coll. BMNH.

**Material examined:**

Thailand. Prov. Nan: 1 ♀, 25 km N of Bo Luang, 1150 m, 17.xi.1998, leg. T. CSÖVÁRI & L. MIKUS, slide No. LGN 1158 (W 14995) (coll. MWM).

***Nola spec. close to *Nola euryzonata****

(Pl. 9, fig. 11)

**Material examined:**

Thailand. Prov. Nan: 1 ♂, 750 m, 4 km W of Pha Lak, 100°34'E, 19°21'N, 5.xi.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 1092 (coll. G. RONKAY).

Remarks. The old sense „*Celama*” species (type: „*Celama*” *liparisalis* WALKER, 1865) are presently under revision. The preliminary results indicate that the species group is far more complex than the actual knowledge shows. The exact identification of the species, therefore, requires the full revision of the lineage.

***Nola lucidalis* (WALKER, 1865)**

(Pl. 9, figs 12-13)

*Pisara lucidalis* WALKER, 1865, *List of the Specimens of Lepidopterous Insects in the Collection of the British Museum* 31: 245. Type-locality: Borneo, Sarawak. Type: ♂, in coll. UM Oxford.

Thailand. Prov. Nan: 1 ♂, 750 m, 4 km W of Pha Lak, 100°34'E, 19°21'N, 5.xi.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 1156 (coll. G. RONKAY). 1 ♂, Chaiyaphum, 650 m, Ohu Khieo WS, km 7, Sala Prom checkpoint, 4/9.xi.1991, leg. I.J. KITCHING & A.M. COTTON BM 1992-9 (coll. BMNH).

***Nola erythrostigmata* HAMPSON, 1894**

(Pl. 9, figs 14-15)

*Nola erythrostigmata* HAMPSON, 1894, *Fauna of British India, Moths* 2: 140. Type-locality: [India] [Nagaland] Naga Hills. Holotype: ♂, in coll. BMNH.

**Material examined:**

Thailand. Prov. Chiang Mai: 4 specimens, 4 km SE of Pang Faen, 1100 m, 13.i.2004, 18.i.2004, and 26.i.2004, slide No. LGN 1144 (W 14999), leg. P. HENTSCHEL & A. SZABÓ; 3 specimen, from the same site, 27.i.2004 and 31.i.2004, leg. A. SZABÓ; 1 specimen, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY. Prov. Mae Hong Son: 1 specimen, 10 km NE of Pai, 1560 m, 28.i.1999, leg. A. SZABÓ & Z. CZERE; 3 specimens, 21 km NW of Pai, 1360 m, 7.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY, slide Nos LGN 1147 (W 14996) (♂), LGN 1145 (W 14997) (♀). Prov. Nan: 1 ♂, 5 km N of Bo Luang, 1000 m, 4.ii.2000, leg. M. HREBLAY & A. SZABÓ, slide No. LGN 1146 (W 14998) (coll. G. RONKAY and MWM).

***Nola spec. close to *Nola erythrostigmata* No. 1.***

(Pl. 9, fig. 16)

**Material examined:**

Thailand. Prov. Mae Hong Song: 1 ♂, 21 km NW of Pai, 1360 m, 7.ii.1998, slide No. LGN 1142 (W 15000); 1 ♀, 1 km S of Bahun-danda, 1000 m, 6.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY, slide No. LGN 1157 (W 15001) (coll. MWM).

***Nola spec. close to *Nola erythrostigmata* No. 2.***

(Pl. 9, fig. 17)

**Material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, 15 km SW Wiang Haeng, 1400 m, 9.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY, slide No. LGN 1143 (W 15002) (coll. MWM).

Remarks. During the study on the Thai Nolinae material two closely related species of *N. erythrostigmata* were distinguished which display certain external and/or genital differences. The exact identification of these two species requires the revision of the old sense „*Celama*” species group.

***Nola thyrophora* (HAMPSON, 1914)**

(Pl. 9, figs 18-19)

*Pisara thyrophora* HAMPSON, 1914, *Catalogue of the Amatidae and Arctiidae (Nolinae and Lithosiinae) in the Collection of the British Museum 1914*: 390, pl. 22, fig. 9. Type-locality: [Taiwan] Formosa, Kanshirei. Holotype: ♂, in coll. BMNH.

**Material examined:**

Thailand. Prov. Chiang Mai: 2 specimens, 4 km SE of Pang Faen, 1100 m, 31.i.2004, leg. A. SZABÓ; 2 specimens, from the same site, 26.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 1 specimen, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY. Prov. Mae Hong Song: 1 specimen, 1 km S of Bahundanda, 1000 m, 6.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY. Prov. Nan: 1 ♂, 1 ♀, 5 km N of Bo Luang, 1000 m, 4.ii.2000, leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ, slide Nos LGN 1117 (W 15003), LGN 1140 (W 15004) (coll. MWM).

***Nola endotherma* (HAMPSON, 1918)**

(Pl. 9, fig. 20)

*Celama endotherma* HAMPSON, 1918, *Novitates Zoologicae* 25: 95. Type-locality: [India] [Meghalaya] Khasis. Holotype: ♀, in coll. BMNH.

**Material examined:**

Thailand. Prov. Nan: 1 ♀, 30 km E of Pua, 1700 m, 20.i.2004, leg. P. HENTSCHEL & A. SZABÓ, slide No. LGN 993 (W 15005) (coll. MWM).

***Nola mediolineata spec. nov.***

(Pl. 9, fig. 21; gen. fig. 52)

**Holotype.** ♂, Thailand, Prov. Nan, 1700m, 30 km E of Pua, 20.i.2004, leg. P. Hentschel & A. Szabó, slide No. LGN 991 (W 7316) (coll. MWM).

**Paratypes.** Thailand. Prov. Nan: 1 ♂, Doi Phu Kha, Pua, 1680 m, 16-20.ii.1993, leg. W. SPEIDEL (coll. SPEIDEL). 1 ♀, Khao Yai NP, 900 m, 3.ii.1987, Col. M.G. ALLEN, BM 1996-300, slide No. LGN 1332 (BM Arct. 6211) (coll. BMNH). 1 ♂, Khao Yai, 20-24.viii.1990, leg. K.T. PARK, slide No. LGN 1337 (coll. HNHM).

Diagnosis. The new species resembles externally *Inouenola diversalis* but the similarity of the two species is only superficial, the two similar species belong to two different genera according to their genitalia features. *Nola mediolineata* has, in comparison with *I. diversalis*, much paler grey forewing ground colour, somewhat narrower, apically less pointed forewing and conspicuous, sharply defined, very slightly arched medial line. The antemedial line of *I. diversalis* is sharply defined, almost straight, and the medial line is absent.

The configuration of ♂ genitalia of the new species clearly show the generic features of *Nola*, characterized by

the following features: valva medially deeply incised, valval arms relatively broad, apically broadly rounded; harpe conspicuously short, robust, thorn-like, vinculum medium long, rather elongated, apically sharply pointed. Aedeagus short, medially slightly curved, vesica with a single, large cornutus.

The typical features of the ♀ genitalia are the conspicuously long apophyses, the very simple, membranous ostium bursae, the somewhat swollen, membranous distal-, and the strongly sclerotized, wrinkled proximal section of ductus bursae. The cervix bursae of the new species is well-developed, relatively broad at base; the corpus bursae is slightly ovoidal, and the signum is small, crescent-like.

Distribution. Northern Thailand.

### ***Nola serrativalva* spec. nov.**

(Pl. 10, fig. 1; gen. fig. 53)

**Holotype.** ♂, „N. Thailand, Chiang Mai Prov., between Chiang Dao and Kariang, 900m, 98°48'E, 19°25'N, 26.x.2002 leg. B. HERCZIG & G. RONKAY", slide No. LGN 1093 (coll. G. RONKAY).

**Diagnosis.** The new species, together with the next species, *N. picurka*, are the smallest known members of the entire subfamily: wingspan 8-9 mm, length of forewing 3-4 mm. The most typical external feature is the presence of a pair of characteristic, fine but distinct, elongate-rounded red-brownish spots along the costal margin of the forewing, these spots are more prominent than in *N. picurka*.

The configuration of the ♂ genitalia of *N. serrativalva* is rather unusual within the genus *Nola*: the valval shape is typical of the genus with the deep medial incision and narrow, apically rounded arms, but the ventral arm has a heavily sclerotized, sharply dentate crest along the whole length of the saccular margin of valva. The vinculum is broad, triangular, apically pointed, the aedeagus is medium-long, rather straight, the vesica is armed by a single, well-developed cornutus. The ♀ is unknown. The genitalia of *N. serrativalva* and *N. picurka* are rather dissimilar (see the Figs 53 and 54), a more detailed comparison is given under the diagnosis of the latter species.

Distribution. The species is known by its unique holotype only.

### ***Nola picurka* spec. nov.**

(Pl. 11, fig. 21; gen. fig. 54)

**Holotype.** ♂, „NW Thailand: 500m, Fang, Hortic. Res. Sta. 8-10.xi.1988, Coll. J.D. Bradley, Angoon Lewvanich & D.S. Fletcher", slide No. LGN 1354 (BM Arct. 6212) (coll. BMNH).

**Paratypes.** Thailand. 1 ♂, with the same data as the holotype; 1 ♂, Khao Yai NP, Park HQ, 720m, 2-4.xi.1988, Coll. J.D. BRADLEY, ANGOON LEWVANICH & D.S. FLETCHER, slide No. LGN 1351 (BM Arct. 6213); 1 ♂, Ramkhamhaeng NP, 27.x.1990, leg. J.D. BRADLEY & ANGOON LEWVANICH, Brit. Mus. 1990-221, slide No. LGN 1352 (BM Arct. 6214). Sabah. 1 ♂, Crocker Range NP, 5°45'N, 116°19'E, lower montane forest, 7-12.viii.1991, K.R. TUCK, OP. RALEIGH BM 1991-136, slide No. LGN 1353 (BM Arct. 6215) (coll. BMNH). Vietnam. Ca 90 ♂ specimens, Prov. Nghe An, Pu Huong Nature Reserve, 19°20'12N, 205°01'18E, 380 m, 6-8.x.2008, leg. G. CSORBA (coll. HNHM); Cambodia. Prov. Mondolkiri: 4 ♂♂, Seima Biodiversity Conservation Area, between Seima and O'Rang, 12°12'12N, 107°01'09E, 300 m, 30.i.2006, leg. G. CSORBA & G. RONKAY (coll. MWM).

**Diagnosis.** *Nola picurka* is similar in size and wingpattern to the previously described *N. serrativalva*, having somewhat paler forewing ground colour and less sharply defined elongate-rounded costal spots. Despite their rather similar external appearance, the ♂ genitalia of the two species display conspicuous differences. The most prominent difference is the presence or absence of the saccular crest, besides this key feature, there are several smaller ones which are as follows. *Nola picurka* has, in comparison with *N. serrativalva*, somewhat broader valval arms, and a bilobate harpe the proximal lobe of which is swollen, rounded, more or less ball-like with very fine scobination on its distal surface while the distal lobe is a short, but relatively robust and slightly curved hook. The new species has much longer and narrower vinculum, with a short, but distinct, slightly finger-like process, the aedeagus is somewhat longer, more slender, apically more pointed, and the vesica has no cornutus (*N. serrativalva* has a well-developed cornutus in the vesica). The ♀ is unknown.

Distribution. The new species occurs in the northern parts of Thailand, Vietnam and Cambodia.

***Nola fasciata* (WALKER, 1866)**

(Pl. 10, figs 2-3)

*Minnagara fasciata* WALKER, 1866, *List of the Specimens of Lepidopterous Insects in the Collection of the British Museum* 35: 1903. Type-locality: [Moluccas] Sula [Island]. Lectotype: ♀, designated by Swinhoe, (as type) 1892, *Catalogue east. and Australian Lepidoptera Heterocera* 1: 99, in coll. UM, Oxford.

*Nola nigrifascia* HAMPSON, 1891, *Illustrations of Typical Specimens of Lepidoptera Heterocera in the Collection of the British Museum* 8: 5, 48, pl. 139, fig. 15. Type-locality: India [Tamil Nadu], Nilgiri district. Holotype: ♂, in coll. BMNH.

**Material examined:**

Thailand. Prov. Nan: 3 specimens, 5 km E of Bo Luang, 610 m, 23.xi.1998, leg. T. CSÖVÁRI & L. MIKUS; 1 specimen, 25 km N of Bo Luang, 1150 m, 11.xi.1999, leg. A. SZABÓ & Z. CZERE; 2 specimens, 22 km N of Bo Luang, 1100 m, 29-30.vi.1998; 2 specimens, from the same site, 18-19.vi.1998, leg. I. SOÓS & A. SZABÓ; 2 specimens, 4 km W of Pha Lak, 100°34'E, 19°21'N, 5.xi.2002; 2 specimens, 5 km N of Ban Luang, 350 m, between Pi Nai and Pi Tai, 100°27'E, 18°56'N, 4.xi.2002; 1 specimen, Doi PhuKa NP, between Pua and Bo Luang, 1350 m, 101°05'E, 19°12'N, 3.xi.2002 leg. B. HERCZIG & G. RONKAY. Prov. Phayao: 1 specimen, 15 km SE of Chiang Muan, 640 m, 26.xi.1998, leg. T. CSÖVÁRI & L. MIKUS; 1 specimen, Phayao, 15 km W of Huai Fuang, 740 m, 9.viii.1999, leg. T. CSÖVÁRI & L. MIKUS. Prov. Chiang Mai: 1 specimen, 23 km NW of Sop Kha, 1 km E of Kop Dong, 1650 m, 13.xi.1998; 7 specimens, 12 km NW of Chiang Dao, 750 m, 12.xi.1998, leg. T. CSÖVÁRI & L. MIKUS; 6 specimens, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, slide No. LGN 1091; 10 specimens, from the same site, 8.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 specimen, 20 km NW of Mae Ai, 1650 m, 6.xii.1998, leg. M. HREBLAY, I. SOÓS & Y. SHERPANI; 2 specimens, 6 km SE of Pang Faen, 1100 m, 29.i.1999, leg. A. SZABÓ & Z. CZERE; 1 specimen, from the same locality, 21.viii.1999, leg. T. CSÖVÁRI & L. MIKUS; 4 specimens, 4 km SE of Pang Faen, 1100 m, 13.i.2004; 5 specimens, from the same site, 18.i.2004 and 26.i.2004, leg. P. HENTSCHEL & A. SZABÓ; 8 specimens, from the same locality, 27.i.2004 and 31.i.2004, leg. A. SZABÓ; 1 specimen, Mt. Doi Phahompok, 16 km NW of Fang, 2000 m, 15.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY; 1 specimen, Doi Inthanon, 2300 m, 23 km NW Sop Kha, 1650 m, 14.i.2004, leg. A. SZABÓ & P. HENTSCHEL. Prov. Chiang Rai: 2 specimens, 1 km SE of Khun-Kon Waterfall, 600 m, 15.xi.1998, leg. T. CSÖVÁRI & L. MIKUS. Prov. Mae Hong Song: 2 specimens, between Pa Pae and Khun Sa, 1250 m, 98°39'E, 19°08'N, leg. B. HERCZIG & G. RONKAY; 2 specimens, 10 km NE of Pai, 1560 m, 3.xii.1998, leg. M. HREBLAY, I. SOÓS & Y. SHERPANI; 1 specimen, 21 km NW of Pai, 1360 m, 7.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY (coll. G. RONKAY and MWM).

**„*Nola*” *quadrimaculata* species group (2 distinct species)**

(Pl. 10, figs 6-7)

**Material examined:**

Thailand. Prov. Chiang Mai: 1 ♂, 10 km NW of Fang, 550 m, 14.xi.1998, slide No. LGN 1136 (W 15007); 1 specimen, 12 km NW of Chiang Dao, 750 m, 12.xi.1998, leg. T. CSÖVÁRI & L. MIKUS; Prov. Nan: 1 fem, 5 km N of Ban Luang, 350 m, between Pi Nai and Pi Tai, 100°27'E, 18°56'N, 4.xi.2002, slide No. LGN 1151 (W 15008); 1 specimen, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, leg. B. HERCZIG & G. RONKAY; 1 ♂, 5 km N of Bo Luang, 1000 m, 4.ii.2000, leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ, slide No. LGN 1135 (W 15009); 1 specimen, 5 km E of Bo Luang, 610 m, 23.xi.1998, leg. T. CSÖVÁRI & L. MIKUS (coll. MWM).

Remarks. There are two species occurring in Thailand which belong to the *Nola quadrimaculata* species-group. The members of this group are externally almost indistinguishable, the exact identification requires the examination of the genitalia which display rather distinct specific features. As the species-group is currently under revision, the two Thai species are yet unidentified.

There are, however, some difficulties which make the revision of the group rather problematic. Unfortunately, the abdomen of the ♀ type of *N. internella* is lost and, the type of *N. quadrimaculata* HEYLAERTS has not been examined by the authors and HOLLOWAY (pers. comm.) as the type was not found in RMS, Leiden. Thus, the designation of the neotypes of the two taxa would be indispensable for the monographic treatment of the *N. internella* species-group. The revision of the species-group is intended to publish in a separate article.

**„Nola” infralba** INOUE, 1976

(Pl. 10, fig. 8)

*Nola infralba* INOUE, 1976 *Bulletin of the Faculty of Domestic Sciences, of Otsuma Woman's University* **12**: 165. Type-locality: Japan, Chiba Prefecture, Awa-gun, near Kamogawa-machi, Kami. Holotype: in coll. INOUE.

**Material examined:**

Thailand. Prov. Nan: 1 ♂, 1700 m, 30 km E of Pua, 20.i.2004, leg. P. HENTSCHEL & A. SZABÓ, slide No. LGN 1016 (W 15010) (coll. MWM).

***Tshodanola* gen. nov.**

Type species: *Tshodanola gabriella* spec. nov.

**Species content:**

*Tshodanola gabriella* spec. nov.

Diagnosis. The only known species of the new genus has a rather unusual external appearance, it differs from the taxa of all other Noline genera by the following features: the forewing ground colour is shining golden brown, the costal margin is decorated with a row of very prominent, elongated dark red-brown spots appearing as basal dots of the basal, antemedial, medial, postmedial and praeterterminal lines. The crosslines are slightly arcuate, antemedial and medial lines relatively broad and diffuse, dark grey, postmedial line rather narrow, pale yellowish brown, praeterterminal line interrupted, consisting of a row of conspicuous dark red-brown patches, terminal line continuous, pale grey.

The ♂ genitalia of the new genus indicate the close relationship between *Tshodanola* and *Nola*: the clasping apparatus is characterized by the medium deeply incised valvae with apically slightly dilated arms (a feature typical of *Nola*), and the short, robust, slightly arched, apically pointed harpe. The very narrow and rather elongated, acute vinculum of the new genus is characteristic for *Tshodanola*, such vinculum is unusual and very rare in *Nola*.

The main generic feature of the ♂ genitalia is the presence of a huge cornuti field in the vesica, consisting of numerous small, but elongated and acute cornuti; no such cornuti field with so large number of cornuti is known in *Nola*. The only exception is the „*Nola*” *marginata-shakishimana-umbrata* species complex, which represent most probably a distinct genus (see also the remarks under *N. marginata*), this group has a large cornuti field in the vesica, but the clasping apparatus completely different.

The ♀ genitalia of the new genus is characterized by the rather short papillae anales, the relatively long apophyses posteriores, the short, simple 8th segment with short apophyses anteriores, the simple, rounded ostium bursae, the sclerotized, gradually dilated ductus bursae, the relatively small cervix bursae, the elongated-ovoidal corpus bursae and by the small, but conspicuous, strongly sclerotized, spine-like signum.

***Tshodanola gabriella* spec. nov.**

(Pl. 10, figs 15-16; gen. fig. 57)

**Holotype.** ♂: „China, Guangxi, Dayao Shan, Jingxiu, 100 km SE of Liuzhou, 23°45'N, 109°45'E, 1200m, 15-30.iii.2005, leg. SINIAEV & his team”, slide No. LGN 1161 (W 15017) (coll. MWM).

**Paratypes.** China. Guangxi: 4 ♀♀, with the same data as the holotype, slide Nos LGN 1049 (W 15018), LGN 1050 (W 15019) (coll. MWM). Thailand. Prov. Nan: 1 ♀, Doi Phuka N.P., between Pua and Bo Luang, 1350 m, 101°05'E, 19°12'N, 3.xi.2002, leg. B. HERCZIG & G. RONKAY, slide No. LGN 781 (G. RONKAY). Vietnam. Prov. Lao Cai: 3 ♀♀, Fan-si-pan Mts, 1920 m, 4 km SW Cat Cat, 14.v.1998, leg. Frontier Vietnam (coll. HNHM); 1 ♀, Mt. Fan-si-pan, Sa Pa, Nebelwald, 2400 m, 22°15'N, 103°45'E, 2-4.iii.1995, leg. DR. R. BRECHLIN (coll. MWM).

Diagnosis. The diagnostic features of the new species are given above, under the diagnosis of the genus *Tshodanola*.



Distribution. The new species is distributed in the northern parts of Thailand and Vietnam and the neighbouring province in south-eastern China (Guangxi).

**„*Nola*” *shakishimana* INOUE, 2001**

(Pl. 10, fig. 19)

*Nola shakishimana* INOUE, 2001, *Japan Heterocerists' Journal* **212**: 226, figs 5-6, 18-20. Type-locality: Japan, Maesato, Ishigakijima. Holotype: ♀, in coll. BMNH.

**Material examined:**

Thailand. Prov. Mae Hong Song: 1 ♂, 21 km NW of Pai, 1360 m, 7.ii.1998, leg. M. HREBLAY & Cs. SZABÓKY, slide No. LGN 1065 (W 15023) (coll. MWM).

**„*Nola*” spec. close to *Nola marginata***

(Pl. 10, figs 17-18)

**Material examined:**

Thailand. Prov. Chiang Mai: 2 ♀♀, 4 km SE of Pang Faen, 1100 m, 31.i.2004, leg. A. SZABÓ, slide No. LGN 1160 (W 15020); 1 ♂, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002, slide No. LGN 1260; 1 ♂, 4 km S of Kop Dong, 1800 m, 99°03'E, 19°52'N, 6.xi.2002, slide No. LGN 1261, leg. B. HERCZIG & G. RONKAY. Prov. Nan: 1 ♂, 30 km E of Pua, 1700 m, 5.ii.2000, slide No. LGN 520 (W 15021), leg. M. HREBLAY, Y. SHERPANI & A. SZABÓ; 1 ♂, Doi Phuka NP, between Pua and Bo Luang, 1350 m, 101°05'E, 19°12'N, 3.xi.2002, leg. B. HERCZIG & G. RONKAY. Prov. Mae Hong Song: 1 ♂, between Pa Pae and Khun Sa, 1250 m, 98°39'E, 19°08'N, leg. B. HERCZIG & G. RONKAY, slide No. LGN 1259 (W 15022) (coll. G. RONKAY and MWM).

Remarks. The „*Nola*” *marginata-shakishimana-umbrata* species-complex is a rather distinct phyletic group displaying certain unique morphological features which differ significantly from the important generic features of *Nola*. The species of the complex is presently under revision; the results, containing the description of a new genus for the lineage, will be published in a separate paper.

**„*Nola*” *cretacea* (HAMPSON, 1901)**

(Pl. 10, figs 9-11)

*Celama cretacea* HAMPSON, 1901, *Annals and Magazine of Natural History* **7**: 177. Type-locality: [India][Maharashtra] [Mumbai] Bombay. Syntypes: four ♀♀, in coll. BMNH.

*Nola calcicola* HOLLOWAY, 2003, *The Moths of Borneo* **18**: 55, pl. 3, fig. 111. Type-locality: Borneo, Sarawak. Holotype: ♂, in coll. BMNH; **syn. n.**

**Type material examined:**

Syntype ♀ of *Celama cretacea* HAMPSON, 1901: „TYPE” (Red ring type label), „Bombay”, slide No. BM Arct. 1801 (coll. BMNH).

Holotype of *Nola calcicola* HOLLOWAY, 2003: „Borneo, Sarawak, Gunong Mulu National Park, R.G.S. exped., 1977-8 (G.D. Holloway et al.) Site 26, April, G. Api, Pinnacle, 1200 m, 428545, open scrub, slide No. BM Noct. 17097” (coll. BMNH).

**Additional material examined:**

Thailand. Prov. Chiang Mai: 1 ♀, between Fang and Nor Lae, 99°06'E, 20°02'N, 28.x.2002, slide No. LGN 1096; 1 ♀, 4 km W of Pha Lak, 100°34'E, 19°21'N, 5.xi.2002, slide No. LGN 1095, leg. B. HERCZIG & G. RONKAY; 1 ♂, 2 km S of Ban Kum, 1700 m, 23-24.vi.1998, leg. I. SOÓS & A. SZABÓ, slide No. LGN 1148 (W 15011); 1 ♀, 4 km SE of Pang Faen, 1100 m, 31.i.2004, leg. A. SZABÓ, slide No. LGN 1139 (W 15012). Prov. Nan: 1 ♂, 30 km E of Pua, 1700 m, 20.i.2004, leg. P. HENTSCHEL & A. SZABÓ, slide No. LGN 1138 (W 15013) (coll. G. RONKAY and MWM).

Remarks. The syntype series of *N. cretacea* consists of only ♀ specimens. HOLLOWAY (2003) failed to examine the ♀ syntypes of *N. cretacea* and described *N. calcicola* based on the ♂ holotype. The genitalia of all ♂ specimens of *N. cretacea* from Thailand and Nepal are matching well with those of the holotype of *N. calcicola*. Thus, the species described from Borneo represent the ♂ sex of the more widespread *N. cretacea*, and is synonymised here with *N. cretacea*.

### ***Neonola mesosticta* HAMPSON, 1900**

(Pl. 10, figs 4-5)

*Neonola mesosticta* HAMPSON, 1900, *Catalogue of the Lepidoptera Phalaenae in the British Museum* 2: 4, fig. 2. Type-locality: [Borneo] [Laut Island] Pulo Laut. Holotype: ♂, in coll. BMNH.

#### **Material examined:**

Thailand. Prov. Chiang Mai: 1 specimen, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002; 1 specimen, between Fang and Nor Lae, 99°06'E, 20°02'N, 28.x.2002, leg. B. HERCZIG & G. RONKAY. Prov. Nan: 1 ♂, 30 km E of Pua, 1700 m, 20.i.2004, leg. P. HENTSCHEL & A. SZABÓ, slide No. LGN 994 (W 15006) (coll. G. RONKAY and MWM).

### ***Spininola* gen. nov.**

Type species: *Nola loxoscia* HAMPSON, 1900

#### **Species content:**

*S. loxoscia* (HAMPSON, 1900) **comb. nov.**

*S. vesicularis* (ECKE, 1926) **comb. nov.**

*S. trilinea* (MARUMO, 1923) **comb. nov.**

*S. denticulata* (MOORE, 1888) **comb. nov.**

*S. fuscibasalis* (HAMPSON, 1896) **comb. nov.**

*S. armata* **spec. nov.**

Diagnosis. The new genus represents a rather compact phyletic unit being closely related to *Nola*. The external appearance of the species of *Spininola* can be rather variable, no common diagnostic feature is found. The separation of the new genus is based on the configuration of the ♂ genitalia. The new genus is characterized by the following features of the ♂ genitalia: *Spininola* has a fine, usually rather short uncus, while the species of *Nola* always lack the uncus. The valvae of *Spininola* are very deeply incised medially, the dorsal arm of the valva is narrow at basal third, then dilated distally and rounded apically. The ventral arm of the valva has slightly curved ventral and more or less straight dorsal margin, the sacculus is narrow but strongly sclerotized. The apex (and sometimes the dorsal margin of the ventral arm) of the valva is armed with strong, long and acute, easily removable spines of different numbers; *Nola* lacks such spines from the valvae. The harpe of *Spininola* is conspicuously long, elongated and more or less S-shaped, it is slender but strongly sclerotized and apically pointed; the harpe of *Nola* is always shorter and differently shaped. The vinculum of the new genus is simple, shortly triangular and apically pointed; the aedeagus is medium-long, simple, slightly arched, the vesica is without cornuti, but sometimes with a scobinated section.

The ♀ genitalia of the new genus have relatively short, conical papillae anales, long apophyses posteriores, very short 8th tergite and rather broad 8th sternite, with strongly sclerotized lobes at the base of the rather short and thin apophyses anteriores. Ostium bursae relatively broad, more or less cup-shaped; sclerotized part of ductus bursae short; ductus bursae relatively long and narrow, cervix bursae weakly developed. Corpus bursae ovoid, signum bursae consists of a longitudinal, scobinate band and a pair of rather long, strong, finger-like process with pointed apices.

### ***Spininola loxoscia* (HAMPSON, 1900)**

(Pl. 10, figs 12-13; gen. fig. 55)

*Nola loxoscia* HAMPSON, 1900, *Catalogue of the Lepidoptera Phalaenae in the British Museum* 2: 33, pl. 18, fig. 33. Type-locality:

[India] Sikkim. Holotype: ♂, in coll. BMNH.

**Material examined:**

Thailand. Prov. Nan: 2 specimens, Doi Phuka NP, between Pua and Bo Luang, 1350 m, 101°05'E, 19°12'N, 3.xi.2002, leg. B. HERCZIG & G. RONKAY; 1 ♂, 25 km N of Bo Luang, 1150 m, 11.xi.1999, leg. A. SZABÓ & Z. CZERE. Prov. Chiang Mai: 1 ♂, Mt. Doi Inthanon, NP, 2300 m, 16.i.2004, leg. P. HENTSCHEL & A. SZABÓ, slide No. LGN 1001 (W 15014) (coll. MWM).

***Spininola armata* spec. nov.**

(Pl. 10, fig. 14; gen. fig. 56)

**Holotype.** ♂, Thailand, Changwat Chiang Mai, 4 km SE of Pang Faen, 1100m, 31.i.2004., Leg.: Attila Szabó, slide No. LGN 982 (W 15015) (coll. MWM).

**Paratypes.** Thailand, Prov. Nan: 3 ♂♂, 25 km N of Bo Luang, 1150 m, 03.ii.2000 leg. M. HREBLAY & A. SZABÓ, slide No. LGN 1257 (W 15016). Prov. Chiang Mai: 1 ♂, 4 km S of Kop Dong, 1800 m, 99°03'E, 19°52'N, 6.xi.2002, leg. B. HERCZIG & G. RONKAY (coll. MWM). 1 ♂, Prov. Chiang Mai, 1600 m, between Fang and Nor Lae, 99°06'E, 20°02'N, 12.XI.2002 leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY).

**Diagnosis.** The new species is similar externally to *Spininola vesiculalis* described from Sumatra by its greyish forewing ground colour and the fine darker grey streaks and spots on the forewing, but easily distinguishable by the following features: *S. armata* has more greyish forewing ground colour, while *S. vesiculalis* is rather brownish grey. In the ♂ genitalia, the new species have much shorter uncus, somewhat shorter and more slender dorsal arm of valva, slightly shorter and much broader ventral arm of valva, and conspicuously shorter, somewhat thinner harpe compared with those of *S. vesiculalis*. The shape of the aedeagus of the two species is rather similar: medium-long and narrow, medially slightly curved, but *S. armata* has a scobinated section in the vesica which is absent in *S. vesiculalis*. The ♀ is unknown.

**Distribution.** Northern Thailand.

***Njalkanola* gen. nov.**

Type species: *Celamoides bimaculata* ECKE, 1920

**Species content:**

*Njalkanola bimaculata* (ECKE, 1920)

**Diagnosis.** The only known species of the new genus has numerous apomorphic features in the genitalia of both sexes. The ♂ genitalia display the relationship with *Nola* by the absence of uncus and the bilobate valva, all other features and the general structure of the copulatory organ are diagnostic for *Njalkanola*. The valva is shallowly incised, the dorsal arm of valva is very broad, weakly sclerotized, tapering apically, with short and rounded apical process; the ventral arm of the valva is narrower and more strongly sclerotized than the dorsal one, having an elongated, digitiform apical process. A very characteristic feature of *Njalkanola* is the extraordinarily long, thin, almost straight, apically curved and pointed harpe, this structure is unique within the whole subfamily. The acutely pointed apex of the aedeagus and the rather extensive scobination of the vesica are also distinctive features of the genus.

In the ♀ genitalia, *Njalkanola* has very narrow, elongated papillae anales with very long, basally rather thick apophyses posteriores, relatively long 8th segment with medium-long apophyses anteriores. The most characteristic feature of the new genus is the extremely long, strongly sclerotized and partly scobinate, wrinkled and folded ductus bursae surrounded by a rather thick, mucous membrane. The corpus bursae of *Njalkanola* is conspicuously small, rounded, without signum.

***Njalkanola bimaculata* (EECKE, 1920) comb. nov.**

(Pl. 10, figs 20-21; gen. fig. 58)

*Celamoides bimaculata* EECKE, 1920, *Zoologische Mededeelingen Leiden* 5: 121, fig. 10. Type-locality: [Indonesia] Java, Preanger. Syntypes: one ♂ and three ♀♀, in coll. RNH Leiden.

**Material examined:**

Thailand. Prov. Chiang Mai: 2 specimens, between Fang and Nor Lae, 1600 m, 99°06'E, 20°02'N, 7.xi.2002; 5 specimens, from the same site, 28.x.2002, slide No. LGN 983 (W 15024) (♂); 2 specimens, from the same site, 12.xi.2002, slide No. LGN 984 (W 15025) (♀); 8 specimens, between Chiang Dao and Kariang, 900 m, 98°48'E, 19°25'N, 26.x.2002; 1 specimen, from the same site, 8.xi.2002; 1 specimen, 4 km S of Kop Dong, 99°03'E, 19°52'N, 1800 m, 6.xi.2002, leg. B. HERCZIG & G. RONKAY. Prov. Mae Hong Song: 1 specimen, between Pa Pae and Khun Sa, 1250 m, 98°39'E, 19°08'N, 31.x.2002, leg. B. HERCZIG & G. RONKAY. Prov. Nan: 1 specimen, Doi Phuka NP, between Pua and Bo Luang, 1350 m, 101°05'E, 19°12'N, 3.xi.2002, leg. B. HERCZIG & G. RONKAY (coll. G. RONKAY and MWM).

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