Entomofauna

ZEITSCHRIFT FÜR ENTOMOLOGIE

Band 32, Heft 3: 29-92 ISSN 0250-4413 Ansfelden, 3. Jänner 2011

A Review of the subfamily Arctiinae (Lepidoptera: Arctiidae) from the Philippines

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Abstract

The subfamily Arctiinae of the tigermoths (Arctiidae) from the Philippines is revised. 49 species are discussed. *Lemyra praetexta* sp. n., *Spilosoma trikenzana* sp. n., *Spilosoma mollis* sp. n., *Spilosoma brechlini* sp. n., *Spilosoma harlequina* sp. n., *Spilosoma victorina* sp. n., *Spilosoma ummeroides* sp. n., *Spilosoma mahaplaga* sp. n., *Spilosoma virgulae* sp. n., *Spilosoma caloscopium* sp. n., *Spilosoma fidelia* sp. n., *Spilosoma daltonica* sp. n., *Baroa peniculata* sp. n. and *Baroa oryza* sp. n. are described as new species. *Baroa siamica maramaga* ssp. n. is described as a new subspecies. *Spilosoma vandepolli* ROTHSCHILD, *Spilosoma grogane* HOLLOWAY, *Spilosoma hypogopa* HAMPSON and *Spilosoma accensa* SWINHOE are recorded for the first time from the Philippines.

Zusammenfassung

Die Unterfamilie Arctiinae der Bärenspinner (Arctiidae) aus den Philippinen werden revidiert. 49 Arten werden behandelt. *Lemyra praetexta* sp. n., *Spilosoma trikenzana* sp. n., *Spilosoma mollis* sp. n., *Spilosoma brechlini* sp. n., *Spilosoma harlequina* sp. n., *Spilosoma victorina* sp. n., *Spilosoma ummeroides* sp. n., *Spilosoma mahaplaga* sp. n., *Spilosoma virgulae* sp. n., *Spilosoma caloscopium* sp. n., *Spilosoma fidelia* sp. n., *Spilosoma daltonica* sp. n., *Baroa peniculata* sp. n. und *Baroa oryza* sp. n. werden als neue Arten beschrieben. *Baroa siamica maramaga* ssp. n. wird als neue Unterart beschrieben. *Spilosoma vandepolli* ROTHSCHILD, *Spilosoma grogane* HOLLOWAY, *Spilosoma hypogopa* HAMPSON und *Spilosoma accensa* SWINHOE werden das erste Mal aus den Philippinen nachgewiesen.

Introduction

The tiger moths of the Philippines were first investigated by SEMPER (1899), SCHULTZE, 1908-1910 and later by WILEMAN (1915-1928). Other authors reported only single exquisite finds or mentioned Philippine taxa when reviewing other areas or extensive groups (WALKER, 1854-1866, BUTLER, 1875, SWINHOE, 1892-1917, HAMPSON, 1907**,** ROTHSCHILD, 1910-1914, INOUE, 1984, HOLLOWAY, 1988, JORDAN, 1939, KISHIDA, 1987**,** THOMAS, 1990-1993, ČERNÝ, 1995, DE VOS, 2007, DUBATOLOV & KISHIDA, 2006 and DUBATOLOV, HAYNES & KISHIDA 2009). The examination of my own material collected in 1988-1990, the materials of my friends, partners and some European museums, especially Museum Thomas WITT, Munich (MWM) and Natural History Museum London (BMNH), showed that a considerable lack of knowledge exists in all groups of the tiger moths (Arctiidae) of the Philippines. In 1990, the extensive genus *Cyana* was reviewed and in 1999 the *Nyctemera*-group. The contact to the scientist and collector Jan LOURENS, Lucena City, was the immediate impulse for a take up of the research in 2009. In his extensive collection, I found important additional information to the distribution of Arctiidae on nearly all large islands. The results of our shared expedition to Samar and Mindanao brought new information especially on the lowland forests. The material collected by R. BRECHLIN, Pasewalk, (MWM), W. MEY, Berlin, R. MÜLLER, St. Gallen (CKC), J. SETTELE, Leipzig, A. SCHINTLMEISTER, Dresden (CKC; MWM), V. SINIAEV, Moscow (MWM), and C.G. TREADAWAY Limbach-Wagenschwend was also of essential importance. But, at present time I have seen not enough material from the montanous region of Palawan and from the west part of Mindanao. Also the highest elevations of the mountains in all islands are known only insufficiently.

Abbreviations

BMNH	British Museum Natural History (Natural History Museum), London
CCGT	coll. C.G. TREADAWAY, Limbach-Wagenschwend
CJLL	coll. Jan LOURENS, Lucena City

CKC coll. Karel ČERNY, Innsbruck

MWM Museum Thomas WITT, München (Munich)

SMFL Senckenberg-Museum, Frankfurt am Main

Systematic section

Utetheisa HÜBNER

Type species: *ornatrix* LINNE, North America.

A distinct group of similar species distributed especially in the subtropics and tropics of all continents. There are black dots and usually red patches on the ground colour of the forewing. The species are often best distinguished by their male genitala. The host-plants are mainly some Boraginaceae and Fabaceae. Two species were recorded on the Philippines.

***Utetheisa lotrix* (CRAMER, 1779)** Pl. 1, fig. 1, 2

Geometra lotrix CRAMER, 1779, Uitlaudsche Kapellen. 2, pp. 149, pl. 109, Figs E, F.

Utetheisa lotrix CRAMER: BUTLER, 1877, Transactions of the Entomological Society London 1877: 361.

Utetheisa lotrix CRAMER: HAMPSON, 1901, Catalogue of the Lepidoptera Phalaenae in the British Museum 3: 484.

Utetheisa lotrix CRAMER: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 260, pl. 24 g.

Utetheisa lotrix, CRAMER: JORDAN, 1939, Novitates Zoologicae XLI: 287.

Utetheisa indica ROEPKE, 1941, Tijdschrift voor Entomologie 84: 1-9.

Utetheisa lotrix CRAMER: HOLLOWAY, 1988: Moths of Borneo 6: 57, pl. 4, figs 91.

Type locality: India.

General distribution: Ceylon, China and Japan to New Guinea and Australia.

Distribution on the Philippines**:** Probably all large islands. Recorded from Palawan, Luzon, Cebu, Mindoro, Panay and Mindanao.

Variability: The species is very variable in size, wing markings and coloration. Occasionally the dots are extended or reduced, in one female the red colour is replaced by yellow.

Habitat and bionomics: The imagines fly by day and especially the females are attracted to light during the night. The larva of *U. lotrix stigmata* ROTHSCHILD was recorded as feeding on *Crotalaria retusa*, *C. mucronata*, *Desmodium* spp., *Vigna marina*, *V. sinensis* and other Fabaceae and furthermore on *Dahlia* (Asteraceae).

Adults recorded in: I, II, III, VII, IX, X from the sea level to about 1200 m.

Similar species: *Utetheisa pulchelloides* ssp. *vaga* JORDAN, differences see there.

Genitalia: See JORDAN, 1939 and HOLLOWAY, 1988.

Note: Reported by JORDAN, 1939.

***Utetheisa pulchelloides* HAMPSON„1907**

Utetheisa pulchelloides HAMPSON 1907, Annals and Magazine of Natural History (7) 19: 239.

Utetheisa lotrix CRAMER sensu ROEPKE, 1941: HOLLOWAY, 1976.

General distribution: Islands of the Indian Ocean, Indo-Australian and Pacific tropics, Australia, migrant to Vanuatu, New Caledonia, Norfolk I. and New Zealand.

***Utetheisa pulchelloides* ssp. *vaga* JORDAN, 1939** Pl. 1, fig. 3, 6

Utetheisa pulchelloides ssp. *vaga* JORDAN, 1939, Novitates Zoologicae 41: 284-285.

Utetheisa pulchella LINNÉ: HAMPSON, 1901, Catalogue of the Lepidoptera Phalaenae in the British Museum 3:483, fig.217 (partim).

Utetheisa lotrix CRAMER: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 260 (partim).

Utetheisa pulchelloides, HAMPSON: HOLLOWAY, 1988: Moths of Borneo 6: 56, pl. 4, figs 92, 94, 95.

Type locality: Australia.

General distribution: From Ceylon, Formosa and Japan to Australia and New Zealand.

Distribution on the Philippines: Probably all large islands but on the Philippines only rarely observed. Recorded from Palawan, Luzon, Negros and Sulu.

Variability: The species is variable in size. Occasionally the dots are extended or reduced.

Habitat and bionomics: The species lives especially in the secondary habitats (bush, riversides, coasts etc.), but the imagines can be observed nearly everywhere because of the exceptional flight activity. The males and females are attracted to the light, but occasionally they are observed during the day, too. The caterpillar lives especially on *Messerschmidia*, but the species has also been recorded from other Boraginaceae such as *Bothriospermum*, *Heliotropium*, *Echium* and *Myosotis*.

Adults recorded in: V, VII, X, XI from the sea level to 1400 m.

Similar species: Males and females of *Utetheisa lotrix* CRAMER. The male of *U. lotrix* CRAMER has weakly bipectinate antennae whereas in *U. pulchelloides vaga* JORDAN they are moderately bipectinate. The males of *U. lotrix* and *U. pulchelloides* differ considerably by the structure of genitalia. The differences are well visible in cleaned genitalia without preparation (see JORDAN, 1939). The differences of the wing markings are not stable.

Genitalia: See JORDAN, 1939 and HOLLOWAY, 1988.

Note: Reported by JORDAN, 1939.

Argina HÜBNER

Type species: *cribraria* CLERCK (= *astrea* DRURY).

The small genus is typical with its wing pattern and the lobed process on the hindwings of the males. The genus is distributed from the Sundaland and the Philippines to India and in related forms in Africa. The known host-plants are various species of Fabaceae. Two species occur in the Philippines.

Argina astrea (DRURY, 1773) Pl. 1, fig. 4, 5

Phalaena (Noctua) astrea DRURY, 1773, Illustrations of Natural History of Exotic Insects 2; Index, 11, pl. 6, fig. 3.

Phalaena cribraria CLERCK, 1764, Icones Insectorum rariorum 2: pl 54, fig. 4 (praeocc.).

Bombyx pylotis FABRICIUS, 1775, Systema entomologiae sistens insectorum classes: 585.

Deiopea dulcis WALKER, 1854, List of the specimens of Lepidopterous Insects in the Collection of the British Museum 2: 569.

Argina cribraria CLERCK: HAMPSON, 1894, The Moths of India 2: 51.

Argina cribraria CLERCK: SEITZ, 1914, Macrolepidoptera of the World 10: 264, pl. 26d.

Argina astrea DRURY: HOLLOWAY, 1988: Moths of Borneo 6: 52, pl. 4, figs 89, 90.

Argina astrea DRURY: KISHIDA, 1992, Tinea 13 (Suppl. 2): 72, pl. 17: 5.

Type locality: India.

General distribution: Indo-Australian tropics and into the Pacific to Palau, Guam and Tahiti, related forms in Africa.

Distribution on the Philippines: Probably all large islands (confirmed on Luzon, Panay, Mindoro, Bohol, Negros and Mindanao).

Variability: The species considerably varies in size, wing markings and coloration. The forewing length varies in males from 15 to 19 mm, in females from 16 to 20 mm. The coloration ocasionally is darkened, the markings extended.

Habitat and bionomics: The species seems to prefer secondary habitats from the lowlands to the montane region. The imagines fly during the nightfall and in the evening and are attracted to the light. The life history was described by ROBINSON (1975: 105). The host-plants are species of *Crotolaria*, the caterpillars were reared on unripe peases.

Adults recorded in: I, II, III, IV, VII, XII from the lowlands up to about 1950 m.

Similar species: *Argina pulchra* SWINHOE, which is larger and the forewing coloration is rather beige, whereas it is golden yellow in *A. astrea* DRURY.

Genitalia: See HOLLOWAY, 1988.

Note: Reported by SEMPER, 1899.

***Argina pulchra* SWINHOE, 1892** Pl. 1, fig. 7, 8

Argina pulchra SWINHOE 1892, Catalogue of Eastern & Australian Lepidoptera Heterocera in the Collection of the Oxford University Museum I: 117, Pl. III, Fig. 5.

Argina callargus REICH, 1932, Internationale Entomologische Zeitschrift 26: 234.

Type locality: Philippines.

General distribution: The species is known from the Philippines only.

Distribution on the Philippines: Luzon, Bohol, Panay.

Adults recorded in: I, II, IV, VIII, XII at 550 up to 1950 m.

Variability: The marking and coloration of the examined specimens are fairly constant; the forewing length varies from 24 to 27 mm in both sexes.

Habitat and bionomics: The imagines occur in the primary and secondary habitats in the montane region and are attracted to the light.

Similar species: *Argina argus* KOLLAR from India, China and Taiwan to the Sundaland, which has darker forewing ground colour. The hindwing is red in *A. argus* whereas in *A. pulchra* it is yellow.

Paraeuchaetes GROTE

Type species: *cadaverosa* GROTE.

A neotropical genus of yellow species with immaculate wings, all of which show complex modification of the uncus/tegumen in the male genitalia. Only one introduced species occurs in the Philippines.

***Pareuchaetes pseudoinsulata* REGO-BARROS, 1956** Pl.7, fig. 5, 6

Pareuchaetes pseudoinsulata REGO-BARROS, 1956, Revista Brasileira de Entomologia 6: 79.

Paraeuchaetes pseudoinsulata REGO BARROS: HOLLOWAY, 1988: Moths of Borneo, 6: 63, pl. 4.

Type locality: Venezuela.

General distribution: Venezuela, Trinidad; introduced and established in Sri Lanka, Thailand, Borneo, Guam and on the Philippines.

Distribution on the Philippines: Luzon, Marinduque, Mindoro, Panay, Leyte, Mindanao, Palawan.

Adults recorded in: I, II, III, IV, V, VII, X, XII.

Variability: The species is fairly constant in size and coloration.

Habitat and bionomics: The imagines are attracted to light in the secondary biotopes in the lowlands. The species is probably specialized to *Chromolaena odorata* (Asteraceae) and close relatives in the *Eupatorium* complex.

Similar species: There is no similar species on the Philippines.

Genitalia: See HOLLOWAY, 1988.

Note: Reported by HOLLOWAY, 1988.

Lemyra WALKER

Type species: *Lemyra extensa* WALKER, Sulawesi

An extensive genus distributed from Kashmir, China and Japan to Australia. The similarity of the males with the genus *Spilarctia* is fallacious. The male genitalia are much smaller in *Lemyra* and the females resemble the females of the family Lymantriidae. Most of the species occur in the wet mountains of Himalaya and south China. There are four species in the Philippines. The biology of few species is known. The larvae mainly seem to live on trees.

Lemyra philippinica THOMAS, 1990 Pl. 1, fig. 9, 12

Lemyra philippinica THOMAS, 1990, Nachrichten des entomologischen Vereins Apollo, Supplementum 9: 49.

Type locality: N. Luzon (Banaway).

General distribution: Known from the Philippines only.

Distribution on the Philippines: Luzon, Panay, Leyte, Cebu, Mindanao.

Adults recorded in: III, IV, V, VI, VII, XII.

Variability: The forewing length varies in males from 15 to 19 mm, in females from 20 to 24 mm. The forewing markings are occasionally reduced, consisting of one oblique band and some scattered dots only. In some males the wing markings are extended and confluent, especially at the apex. The number and strength of dark spots on the hindwings vary considerably.

Genitalia: See THOMAS, 1990.

Habitat and bionomics: The species is common in the primary and secondary habitats from the lowlands up to an altitude of about 2000 m. The imagines are attracted to the light.

Similar species: *L. maculifascia* WALKER. The wing markings are lighter in *L. philippinica*, there is no dot on tegula, the postmedian band is not complete. There are considerable differences in the male genitalia.

Lemyra barliga THOMAS, 1990 Pl. 1, fig. 10, 11

Lemyra barliga THOMAS, 1990, Nachrichten des entomologischen Vereins Apollo, Supplementum 9: 31-32, Abb. 30, 64, 65.

Type locality: N. Luzon (Barlig).

General distribution: Philippines.

Distribution on the Philippines: North Luzon.

Variability: The species varies inconsiderably in size and the wing markings. The forewing length varies in males from 16 to 20 mm. The forewing markings are fairly invariable, the hindwing is occasionally without dark markings. The female is much larger with a forewing length of about 27 mm.

Similar species: There is no similar species on the Philippines.

Genitalia: See THOMAS, 1990.

Adults recorded in: I, XI.

Habitat: The species occurs in the primary mountain forests from 1550 to 1900 m. Most of specimens were found on the border between primary forest and secondary habitats.

***Lemyra praetexta* sp. n.** Pl. 1, fig. 13

Material. Holotype: 1 ♂ Philippines, Palawan, Mantalingajan, Tagembung, 1150 m, 19. XI. 1961, Noona Dan Exp. 61 - 62, caught by Mercury-light 18^{30}- 06^{00}; Zool. Museum DK Copenhagen.

Male: Ground colour of the head and tegulae yellow; palpi brown; antennae dorsally white, ventrally black, bipectinate with black setae; thorax beige becoming brown on the metathorax; legs beige; abdomen beige with lateral series of black spots on spiracless.

Forewing length 14 mm, the basal part greyish brown with a triangular beige spot between radius and media and a round second one between media and inner margin. The border between the basal part and the outer field irregular, expanding at costa, media and near the inner margin. The outer third of the wing beige, fringes beige.

Hindwing beige; near the cell two small, dark dusted, rounded spots.

The underside is paler, the markings do not differ from the upperside.

Distribution: Known from the mountains of Palawan only.

Male genitalia (Pl. 8, fig. 1, 2): Valva with a short dorsal projection in the middle. Phallus vesica with a group of spines.

Similar species: The only known specimen cannot be confused with any other *Lemyra* species.

Etymology: The name describes the markings on the forewing. The dark basal part is widely bordered (praetextus) with light.

***Lemyra maculifascia* (WALKER, 1855)** Pl. 1, fig. 14, 15

Spilosoma maculifascia WALKER 1855, List of the specimens of Lepidopterous Insects in the Collection of the British Museum 3: 676.

Spilosoma conspurcatum WALKER, 1856, List of the specimens of Lepidopterous Insects in the Collection of the British Museum 7: 1698.

Lymantria parva WALKER, 1865, List of the specimens of Lepidopterous Insects in the Collection of the British Museum 32: 368.

Maenas parvula HULSTEART, 1924: Annals and Magazine of Natural History (9) 13:134.

Maenas malayensis HAMPSON, 1901, Catalogue of the Lepidoptera Phalaenae in the British Museum 3: 249.

Lemyra maculifascia WALKER: THOMAS, 1990, Nachrichten des entomologischen Vereins Apollo, Frankfurt, Supplementum 9: 51-52, Abb. 29.

Type locality: Java.

General distribution: From the Sundaland and the Philippines to New Guinea and Australia.

Distribution on the Philippines: Probably all large islands (confirmed on Luzon, Marinduque, Panay, Samar, Leyte, Mindanao and Palawan).

Variability: The forewing length varies in males from 14 to 16 mm, in females from 19 to 22 mm. The forewing markings are occasionally reduced, consisting of small dots.

Adults recorded in: II, III, IV, V, VII, VIII, X, XI, XII.

Habitat and bionomics: Observed in secondary habitats (bush, clearings in primary forest, plantations) from the sea level to an altitude of about 1200 m. The imagines of both sexes are attracted to light during the night.

The larva lives on *Convolvulus* (Convolvulaceae), *Dioscorea* (Dioscoreaceae) and *Erythrina* (Fabaceae).

Similar species: *Lemyra philippinica* THOMAS (differences see there).

Note: Reported by THOMAS, 1990.

Aloa WALKER, 1855

Type species: *Phalaena lactinea* CRAMER (Java)

Large and medium sized species, distributed from Himalaya and Japan to Australia. The forewings are usually snow white with red costa and sometimes with dark markings. The hindwings are snow white with black spots in the marginal area. Two species occur in the Philippines.

Aloa lactinea (CRAMER, 1777) Pl. 2, fig. 1, 2

Phalaena lactinea CRAMER, 1777, Uitlaudsche Kapellen 2: 58, 149, pl. 133, fig. D.

Bombyx sanguinolenta FABRICIUS, 1793, Entomologica systematica emendate et aucta, Vol. III, pars. 1: 473.

Aloa lactinea CRAMER: WALKER, 1855, List of the specimens of Lepidopterous Insects in the Collection of the British Museum 3: 702.

Rhodogastria lactinea CRAMER: KIRBY, 1892, A Synonymic Catalogue of Lepidoptera Heterocera (Moths) 1892: 223.

Aloa frederici KIRBY, 1892, A Synonymic Catalogue of Lepidoptera Heterocera (Moths) 1892: 223.

Creatonotus lactinea CRAMER: HAMPSON, 1894, The Moths of India 2: 27.

Amsacta lactinea CRAMER: HAMPSON, 1901, Catalogue of the Lepidoptera Phalenae in the British Museum 3: 328-329, fig. 147.

Amsacta lactinea CRAMER: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 251.

Type locality: Batavia (Java).

General distribution: From India and Japan over China, Formosa and the Philippines to the Sundaland.

Distribution on the Philippines: Probably on all large islands (confirmed from Luzon, Mindoro and Mindanao).

Variability: The species is constant in size and coloration. The number and strength of the black spots on the hindwing vary considerably between none and three in the edge and one in the cell.

Adults recorded in: I, II, VII, IX, X.

Habitat and bionomics: The species occurs in the primary and secondary habitats from the lowlands to the montane region. The imagines are attracted to light.

Similar species: *Amsacta cardinalis* BUTLER, see there.

Note: Reported by SEMPER, 1899.

***Aloa cardinalis* (BUTLER, 1875)** Pl. 2, fig. 3, 4

Areas cardinalis BUTLER, 1875, Cistula Entomologica II: 22.

Amsacta cardinalis BUTLER: HAMPSON, 1901, Catalogue of the Lepidoptera Phalaenae in the British Museum 3: 327.

Amsacta cardinalis BUTLER: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 252, pl. 24 a.

Type locality: Philippines.

General distribution: Philippines, Sulawesi, Tokan-Besi-Islands, Timor, Dammer, Letti-Moa, Tenimber, Bali.

Distribution on the Philippines: Luzon, Marinduque, Panay, Bohol, Camotes, Cebu, Samar, Negros, Camiguin de Mindanao, Mindanao, Jolo-Islands.

Adults recorded in: I, V, VI, VII, IX.

Habitat and bionomics: The species was obserwed in the secondary habitats in the lowlands. The imagines are attracted to light. Larva is black with white spiracles and brown head. The hair is black, the larva is only brown on the back of the head. The host-plant is *Carowatti* and other plants.

Similar species: *Aloa lactinea* CRAMER which is smaller, has no black dots on the forewing and the abdomen is golden yellow, whereas in *A. cardinalis* BUTLER the forewing are spotted with black and the abdomen is red with a dorsal series of black dots.

Taxonomical note: The conspecifity of the isolated populations within the discontinuous distribution should be examined.

Creatonotos HÜBNER

Type species: *interrupta* LINNE (= *gangis* LINNE).

Definitive features are in the male abdomen, notably a massive form of coremata on sternit 8. The larvae are polyphagous. On the Philippines were recorded 2 or 3 species.

***Creatonotos gangis* (LINNE, 1763)** Pl. 2, fig. 5, 6

Phalaena gangis LINNÉ, 1763, Amoenitates Academicae 6: 410.

Noctua interrupta LINNÉ, 1767, Systema Naturae I (2): 840.

Bombyx francisca FABRICIUS, 1787, Mantissa insectorum 2: 131.

Creatonotus continuatus MOORE, 1877, The Annals and Magazine of Natural History (4) 20: 344.

Creatonotus gangis LINNÉ: HAMPSON, 1901, Catalogue of the Lepidoptera Phalaenae in the British Museum 3: 333-334.

Creatonotus gangis LINNÉ: SEITZ, 1910, Macrolepidoptera of the World 2: 90, pl. 17a.

Creatonotos gangis LINNÉ: STRAND, 1919, Lepidopterorum Catalogus 22: 245-246.

Creatonotos gangis LINNÉ: KÔDA, 1988, Tyo to Ga 39 (1): 39, fig. 113 E, F.

Type locality: not stated.

General distribution: India and China to Australia.

Distribution on the Philippines: Probably on all large islands (confirmed on Luzon, Mindoro, Panay and Mindanao.

Adults recorded in: I, II, VI, IX, X, XII.

Variability: The imagines are fairly invariable in wing markings and coloration.

Similar species: There is no similar species on the Philippines.

Genitalia: See DUBATOLOV & HOLLOWAY 2007.

Habitat and bionomics: The species lives in the secondary habitats from the lowlands to the montane region. The imagines are attracted to light.

Note: Reported by SEMPER, 1899.

***Creatonotos wilemani* ROTHSCHILD, 1933** Pl. 2, fig. 8, 9

Creatonotus wilemani ROTHSCHILD, 1933, The Annals and Magazine of Natural History (10) 11: 183.

Phissama transiens WALKER: SEMPER 1899, Die Schmetterlinge der Philippinischen Inseln II: 487-488.

Creatonotos philippinensis NAKAMURA, 1976, Tyo to Ga 27 (3): 111-116.

Creatonotus wilemani ROTHSCHILD: DUBATOLOV & HOLLOWAY 2007: Bonner zoologische Beiträge 55 (2): 119.

Type locality: Philippines, type not fixed (Luzon, Mindanao).

General distribution: Philippines.

Distribution on the Philippines: Palawan, Luzon, Marinduque, Mindoro, Panay, Negros, Cebu, Samar, Leyte, Mindanao.

Variability: The coloration and the wing markings of the imagines are fairly constant.

Adults recorded in: I, II, III, V, VII, IX, XII.

Habitat and bionomics: The very common and wide distributed species occurs in the primary and secondary habitats from the lowlands to the montane region. The imagines are attracted to the light.

Similar species: *C. transiens* WALKER which differs being in female paler and having black spots in the margin of the hindwing, in male having white fringes on the hindwing and in both sexes having four black spots in the end of cell.

Genitalia: See DUBATOLOV & HOLLOWAY 2007.

***Creatonotos transiens* (WALKER, 1855)** Pl. 2, fig. 7**,** 10

Spilosoma transiens WALKER, 1855, List of the specimens of Lepidopterous Insects in the Collection of the British Museum 3: 675.

Amphissa vacillans WALKER, 1855, Ibid. 3: 685.

Aloa isabellina WALKER, 1855, Ibid. 3: 705.

Creatonotus transiens WALKER: HAMPSON, 1901, Catalogue of the Lepidoptera Phalenae in the British Museum 3:334, fig. 150.

Phisama transiens WALKER: SEITZ, 1910, Macrolepidoptera of the World 2: 90, pl. 17a.

Creatonotos transiens WALKER: NAKAMURA, 1976: Tyo to Ga 27 (3): 111 - 116.

Creatonotos transiens WALKER: KÔDA, 1988, Tyo to Ga 39 (1): 39, fig 82, 93, 113 G, H.

Creatonotos transiens WALKER: HOLLOWAY, 1988: Moths of Borneo 6: 52, pl. 3, figs 88, 107, 110.

Creatonotos transiens WALKER: DUBATOLOV & HOLLOWAY 2007: Bonner zoologische Beiträge 55 (2): 113-121.

Type locality: Assam, India.

General distribution: Japan, China, India through South East Asia to Sundaland and possibly the Philippines.

Distribution on the Philippines: NAKAMURA (1976) included the island of Palawan in his distribution map to the area of *C. transiens orientalis* NAKAMURA without having materials from that island. He mentioned additionaly one female of *C. transiens koni* MIYAKE, collected 1963 in Laguna, Luzon and suggested that the occurence of this specimen on Luzon is either a result of migration or an indication, that there are two subspecies of *C. transiens* distributed in the same region. In fact, the distribution of *C. transiens koni* MIYAKE on Luzon is not excluded, as *C. wilemani* ROTHSCHILD occuring in the same region is a distinct species. HOLLOWAY (1988) also reported this species from the Philippines. DUBATOLOV & HOLLOWAY (2007) think that the records from the Philippines are suspicious. The occurence would be possible according to the zoogeographical situation of Palawan, but there is no evidence based on observation, whereas *C. wilemani* ROTHSCHILD really was recorded on Palawan.

Similar species: *Creatonotos wilemani* ROTHSCHILD, see there.

Genitalia: See DUBATOLOV & HOLLOWAY 2007.

Habitat and bionomics: The species is common in all kinds of secondary habitats. The imagines are attracted to the light.

Heliozona HAMPSON

Type species: *lianga* SEMPER.

Proboscis fully developed; palpi porrect to just beyond the frons; antennae of male shortly bipectinate, the terminal part serrate, antennae of female serrate; abdomen dorsally clothed with rough hair basally; forewing with vein CuA1 from near angle of cell; M2, M3 from angle, M1 from upper angle; R2-5 stalked, R1 free. Hindwing with veins CuA1 and M2 from near angle of cell, RS and M1 from upper angle, Sc+R1 from middle of cell. The single species was described from Mindanao.

***Heliozona lianga* SEMPER, 1899** Pl. 2, fig. 11

Satara lianga SEMPER, 1899, Die Schmetterlinge der Philippinischen Inseln II: 490.

Heliozona lianga SEMPER: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 236, pl. 19 a.

Type locality: E. Mindanao.

General distribution: Known from the Philippines only.

Distribution on the Philippines: Mindanao. I have seen no recent material of this apparent species.

Tinoliodes WILEMAN

Type species: *benguetana* WILEMAN

The genus is characterized by the distal branching of the veins Rs and M1 in the hindwings and a slight subapical concavity in the hindwing costal margin. The forewing pattern is characterized by a transversal band of pale patches in the medial area. In the male genitalia the uncus is flanked by a pair of slender socii. The valvae are sinuous. Apart from the typical species on the Philippines there is *T. dehanna* PAGENSTECHER on the Sundaland and the Peninsular Malaysia.

***Tinoliodes benguetensis* WILEMAN, 1915** Pl. 2, fig. 12

Tinoliodes benguetensis WILEMAN, 1915, Entomologist 48: 110.

Tinoliodes benguetana WILEMAN, HOLLOWAY, 1988, Moths of Borneo 6: 60, **syn. nov.**

Type locality: N.Luzon (Palali: Benguet).

General distribution: Philippines.

Distribution on the Philippines: Luzon, Mindanao. The species recently was observed in the lowland forests of Mindanao only.

Adults recorded in: IV, VI, XII.

Habitat and bionomics: The males fly to the light in the early evening.

Variability: The wingspan varies from 44 to 48 mm, the wing markings are invariable.

Aethalida WALKER

Type species: *Aethalida distinguenda* WALKER (Sulawesi).

A small genus with few species in central Indonesia, Philippines and Borneo. The males have the forewings dark brown to black with cream-coloured patches, especially on the costal border. The hindwing is costally edged with yellow or red. The females are larger with the forewings more marked with pale. The antennae are filiform in both sexes. The valvae are finger-like rounded at apex. The phallus vesica without large cornuti. Two species occur on the Philippines.

Aethalida dora (SEMPER, 1899) Pl. 3, fig. 1

Pangora dora SEMPER, 1899, Die Schmetterlinge der Philippinischen Inseln: 490, pl. 5, f. 7.

Pericallia dora SEMPER: HAMPSON 1901, Catalogue of the Lepidoptera Phalaenae in the British Museum 3: 363.

Pericallia dora SEMPER: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 256, pl. 26 d.

Type locality: E. Mindanao.

General distribution: The species is known from the Philippines only.

Distribution on the Philippines: Mindanao.

Adults recorded in: IV, V, VII, VIII, IX, X, XI, XII.

Variability: The observed males correspond well with the described specimen. The number and size of the pale spots on the forewing and the hindwing vary inconspicuously.

Habitat and bionomics: The species occurs rather rare on the clearings in the primary forest from 200 to 1300 m altitude.

The males are attracted to the light in the early evening (usually the first moth observed by the lamp).

Aethalida whiteheadi (ROTHSCHILD, 1910) Pl. 3, fig. 2

Pericallia whiteheadi ROTHSCHILD: Novitates Zooogicae 17: 170.

Pericallia whiteheadi ROTHSCHILD: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 256, pl. 19 i.

Aethalida dora HOLLOWAY 1988: Moths of Borneo 6: 51 (partim.)

Type locality: N. Luzon (Cape Engano).

General distribution: The species is known from the Philippines only.

Distribution on the Philippines: Luzon and Palawan. There are no recent records from Luzon.

Adults recorded in: III, IX, XII.

Habitat and bionomics: The imagines occur on the clearings in the primary and secondary forests from 100 to 950 m. The males are attracted to the light in the early evening.

Note: The known specimens from Palawan are fairly constant in the wing markings and conspicuously different from *A. dora* ROTHSCHILD from Mindanao. Actually, there is, except the very similar genitalia, no evidence for the conspecifity of *A. dora* ROTHSCHILD and *A. whiteheadi* SEMPER suggested by HOLLOWAY (1988).

Nannoarctia KÔDA, 1988

Type species: *Aloa integra* WALKER, 1855.

Small species distributed from the Philippines and Lombok to India and China. There are dark markings which may be predominant on the pale forewings. The hindwings are white or yellow with dark markings. One species occurs on the Philippines.

***Nannoarctia integra* (WALKER, 1855)** Pl. 3, fig. 3, 4

Aloa integra WALKER, 1855, List of the specimens of Lepidopterous Insects in the Collection of the British Museum 3: 707.

Pericallia integra WALKER: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 256, pl.19.

Type locality: Philippines.

General distribution: Known from the Philippines only.

Distribution on the Philippines: Luzon.

Adults recorded in: IV, V, VIII, IX.

Note: The species is recently observed only rarely. Probably, it is specialised to the disturbed areas, currently recorded in an altitude of 950 m.

Spilosoma CURTIS

Type species: *menthastri* [DENIS & SCHIFFERMÜLLER], Europe.

An extensive genus with a number of distinctive groups distributed especially in the palearctic and oriental regions and in related groups in Africa. The dark larvae have dense tufts of plumose hair on verrucae. A lot of different host-plants, especially of the family Cichoriaceae, have been recorded for the genus. Many endemic species occur in the Philippines. Some species on Palawan belong to the Sundian fauna, two species on Mindanao are related to the species of New Guinea.

***Spilosoma strigatula* (WALKER, 1855)** Pl. 3. fig. 5, 8

Arctia strigatula WALKER, 1855, List of the specimens of Lepidopterous Insects in the Collection of the British Museum 3: 613.

Chelonia cervina WALLGREN, 1864, Wiener entomologische Monatschrift IV: 162.

Diacrisia strigatula WALKER: HAMPSON, 1901, Catalogue of the Lepidoptera Phalenae in the British Museum 3: 262, 306.

Diacrisia strigatula WALKER: ROTHSCHILD, 1910, Novitates Zoologicae 17: 146.

Diacrisia strigatula WALKER: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 248, pl.22.

Spilosoma strigatula WALKER: HOLLOWAY, 1988: Moths of Borneo 6: 45, pl. 3, fig. 86.

Spillarctia strigatula WALKER: KISHIDA, 1995, Moths of Nepal 4: 43, pl. 107:17.

Type locality: Myanmar (= Burma).

General distribution: From China and Sundaland to the Philippines.

Distribution on the Philippines: Luzon, Mindoro and Palawan.

Adults recorded in: I, II, XII.

Variability: The imagines are variable in ground colour of the forewing which varies between beige and buff and in the markings of the wings. Some specimens have nearly no markings, many males are expressively drawed. In males the wingspan varies from 36 to 40 mm.

Habitat and bionomics: The imagines are attracted to the light. The larva lives polyphagously on different plants and can be reared with *Taraxacum officinale* (CERNY & PINRATANA, 2009).

Genitalia (Pl. 9, fig. 1, 2): See HOLLOWAY, 1988.

Note 1: The conspecifity with the typical population should be examined by rearing experiments or with the molecular biological methods. The genitalia are very similar but there are two to four elongate, inconspicuous fields of spines on the phallus vesica only.

Note 2: Reported by SEMPER, 1899.

***Spilosoma mollis* sp. n.** Pl. 3, fig. 7

Material. Holotype: ♂ Philippines, Mindanao-Bukidnon, 40km NW Maramag, Dalongdong, 1200 m, Waldrand 1.X.-3.X.1988, leg.Černý & Schintlmeister, MWM. Paratypes: 2♂♂ like holotype, CKC; 2♂♂ Philippines, Mindanao, Bukidnon prov., 60 km S Talakag, Dominorog, 1271 m, 23.-24. III.2009, 7°56, 144´N, 124°38,5´E, leg. K. Černý & J. Lourens, CKC, 1 ♂ Mindanao, Mt. Matutum, S. Cotabato i. 1997, via Sato, ex coll. A. Schintlmeister, MWM; 1 ♂ Mindanao, Bukidnon, Mt. Kitanglad, S-Seite, Intavas, Primärurwald, 1700 m, 15. VIII. - 15. IX. 1993, leg. Siniaev, MWM; 1 ♂ the same but CKC; 1 ♂ Philippines**,** Mindanao, Mts. Oriental, 22 km NE von Clavaria, Bgry Mat-I, 1050 m, 08°39,988´N, 124°59,686´E, 2. March 2009, prim. Forest, J.H.Lourens & K.Knoblich leg., CJLL.

Male: Head black with black palpi; antennae pale, bipectinate; frons, vertex, tegulae, thorax and patagia brown; legs blackish brown, medially suffused with red; abdomen brown, dorsally and laterally with series of black dots; wingspan 37 mm.

The forewings brown with black fasciae interrupted on the veins which show the ground colour of the wing. An oblique subbasal fascia sharp bent on the median vein and running rectangular to the inner margin; one black dot in the cell; a postmedial band running rectangular from the costal margin to the end of cell and then oblique to the middle of the inner margin; a short oblique series of dark spots from apex to m 1; a series of submarginal spots in the medial field and three black spots at the base of fringes; the underside brown, suffused with orange, the costal area dark, a black lunular spot in cell and an oblique submarginal band corresponding with its position at the upper side.

The hindwings red with a black spot in cell and a black submarginal band consisting of four partly conjoined patches, the underside pale grey suffused with pink, the markings corresponding with the upper side.

Female: Not known.

Male genitalia (Pl. 9, fig. 3, 4): There is only one inconspicuous lateral process on the valva apex, the apical sclerotisation with thorn of the phallus is lacking, a fact typical for the *S. strigatula* group. Phallus vesica with two elongate fields of stout spines.

Variability: The wingspan varies from 37 to 39 mm. In one male the forewing markings are more conspicuous and the series of dark spots is prolonged to m1. The submarginal band on the hindwing is less interrupted in that male. In one male from Misamis Oriental the ground colour of the forewing is apparently dark brown.

Similar species: *S. trikenzana* sp. n. living sympatrically which has the ground colour brighter brown whereas it is rather paler in *Sp. mollis* sp. n., suffused with black. The antennae have the same colour as body in *S. trikenzana* sp. n. but they are always paler in *S. mollis* sp. n. The phallus is considerably smaller in *S. mollis* sp. n. with reduced terminal sclerotisation without thorn and with two groups of spines at vesica only. The dorsal process on the valva is shorter in *S. mollis* sp. n.

Distribution: Currently the species is known from the province Bukidnon on Mindanao only.

Etymology: The name describes the phallus which is less sclerotised than in the relative species (mollis = weak).

***Spilosoma trikenzana* sp. n.** Pl. 3, fig. 6, 9

Material. Holotype: ♂ Philippines, Mindanao, S Mt. Kitanglad, 1700 m, 15.8.-15.9.1993, leg Siniaev, MWM. Paratypes: 2 ♂♂, 3 ♀♀ Philippinen, Mindanao-Bukidnon, 40km NW Maramag, Dalongdong, 1200 m,Talakag, Waldrand, 1.X.-3.X.1988, leg.Černý & Schintlmeister, CKC; 2 ♀♀ Mindanao-Bukidnon, 40km-NW-Maramag, Dalongdong, 1200 m, Talakag, Waldrand 31.XII.1991 - 1. I. 1992, leg.Černý, CKC; 2 ♂♂ Philippinen/Mindanao (prov.Bukidnon), Mt. Dalongdong, 40km NW Maramag, 1200 m, 15.-16.I.1999, ex coll. Dr. Roland Brechlin, MWM; 4 ♂♂ Philippinen, Mindanao, Bukidnon, Mt. Kitanglad Süd, Intawas, 2200 m, 15.8.-15.9.1993, leg Siniaev, CKC; 1♂ Philippinen, Mindanao, Bukidnon, Mt. Kitanglad, 8°07´N, 124°55´E, IV. 1997 ex coll. R. Sato, MWM; 1 ♂ Philippinen, Mindanao, Bukidnon, Mt. Kitanglad Süd, St. Vicente, 750 m, 15.8.-15.9.1993, leg Siniaev, MWM; 1 ♂ Philippinen, Insel Mindanao N, Bukidnon prov., Kitanglad Mt., 1200 m, 1.-7. Februar 1996, leg. S. Gundorov, MWM; 4 ♂♂ Philippinen, Mindanao Island, Misamis prov, Melasag Mt., 300 m, 10.-22.2.1996, leg. S. Gundorov, MWM; 1 ♂ the Philippines**,** Mindanao, 22 km NE von Clavaria, Bgry Mat-I,

1050 m, 08°39,988´N, 124°59,686´E, 20/21. March 2009, prim. Forest, J.H.Lourens & K. Černý leg., CKC; 3 ♂♂ the Philippines**,** Mindanao, East slope Mt. Apo, Baracatan, 07°00,513´N, 125°22,498´E, 1050 m 4/5. May 2008, JH.Lourens leg., CJLL; 1 ♂ the Philippines**,** Mindanao, Surigao del Sur, Lianga, 8 km W of Diatagon, 08°42´N, 126°05´E, 200 m, 3.-7. Juli 2005, JH.Lourens leg., CKC; 1♂ Philippines**,** Mindanao, Davao oriental, ft. of Mt. Hamiguitan, Osmena, 95 m, 607°40,588´N, 126°07,69´E, 3. May 2008, JH.Lourens leg., CJLL.

Male: Head black with black palpi; antennae pale, bipectinate; frons, vertex, tegulae, thorax and patagia brown; legs blackish brown, femora paler; abdomen brown, dorsally and laterally with series of black dots.

Wingspan 40 mm; forewing length 20 mm, the ground colour pale brown, markings like in the *S. strigatula*-group, hindwings with pink fringes, a lunular black spot in cell and three black spots in the submarginal area.

The underside paler with conspicuous spots in the end of cell of the forewing and the hindwing with some inconspicuous black points near apex.

Female: Not known.

Male genitalia (Pl. 9, fig. 5, 6): Phallus has the apical sclerotisation with thorn typical for the *S. strigatula* group, there is one conspicuous lateral process on the valva apex. Three rounded fields of spines on the phallus vesica.

Variability: The ground colour of the forewing varies between pale brown and dark brown and is sometimes slightly suffused with black. The wing marking can be reduced. Some males are strongly marked. The wingspan varies in males from 39 to 42 mm.

Similar species: *Spilosoma strigatula* WALKER which is in the average smaller and has the ground colour of the forewings paler. Phallus is larger in *S. trikenzana* sp. n. with more conspicuous groups of spines at vesica. Valva is larger in *S. trikenzana* sp. n. with the dorsal process extended proximally and the ventral one reduced, whereas in *S. strigatula* the dorsal process and the ventral one are similar.

Spilosoma mollis sp. n., see there.

Habitat and bionomics: The species occurs in the secondary habitats and is occasionally common. The imagines are attracted to the light.

Etymology: *Spilosoma trikenzana* sp. n. has three groups of spines, each one looking as a kenzan at the phallus vesica.

***Spilosoma venata* (WILEMAN, 1915)** Pl. 3, fig. 12, 13

Diacrisia venata WILEMAN, 1915, Entomologist 48: 110.

Diacrisia whiteheadi ROTHSCHILD: Novitates Zooogicae 17: 151.

Diacrisia whiteheadi ROTHSCHILD: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 251.

Type locality: N. Luzon (Haight´s Place).

General distribution: Known from North Luzon only.

Distribution on the Philippines: North Luzon.

Adults recorded in: I, II, VIII, IX, X, XI.

Variability: The forewing length varies in males from 21 to 27 mm, in females from 31 to 34 mm. The forewing marking is occasionally reduced, in the females it may be missing.

Habitat and bionomics: The imagines were observed in the rain forests of north Luzon at an altitude from 950 to 2700 m. At the altitude of about 2000 m the species is often common. The males and females are attracted to the light.

***Spilosoma brechlini* sp. n.** Pl. 3, fig. 10, 11

Holotype: 1 ♂ Philippinen / Negros, (Prov. Negros Occidental), Mt. Kanlaon, 600 m, W - Route via Mambucal, VII. 1997, coll. Dr. R. Brechlin, MWM. Paratypes: 6 ♂♂, 1 ♀ the same, CKC; 8 ♂♂ the same, MWM.

Male: Ground colour of the head is reddish ochreous with brown antennae; thorax reddish ochreous with a black spot on each patagium; legs reddish ochreous, tibia and tarsus brown; abdomen dorsally reddish ochreous, ventrally paler with dorsally and laterally series of black spots.

Forewing length 24 mm. The forewing colour is ochreous with an oblique postmedian series of black spots from inner margin to the top of cell. The antemedian series reduced to a black spot at costa and an additional black spot near of the inner margin.

Hindwing pale ochreous, semihyaline.

The colour of the underside is pale ochreous without markings.

Male genitalia (Pl. 10, fig. 1, 2): Valva suddenly getting narrow to the proximal process, phallus straight with a terminal scobinated sclerotisation, vesica with extensive scobinations but with no spines or thorns.

Female: Very similar to the male but larger (forewing length 26 mm). In the single known female the costal spot is lacking.

Variability: In one male the additional black spot is lacking, in another one it is doubled. In two males the black spot at costa is lacking. The forewing length varies in male from 21 to 23 mm.

Distribution: Currently this species is known from Mt. Kanlaon on the island of Negros (Philippines) only.

Similar species: *S. venata* WILEMAN from north Luzon, which is larger. The forewings are white venated and there are black dots on the forewings in *S. venata* WILEMAN. The head and body are striated with beige in *S. venata* WILEMAN, whereas it is unicoloured in *S. brechlini* sp. n.

Etymology: This species is dedicated to Dr. Roland BRECHLIN, Pasewalk, a prominent scientist and a good friend, who collected the first known specimens.

***Spilosoma coccinea* (HAMPSON, 1907)** Pl. 4, fig. 1, 3

Diacrisia coccinea HAMPSON, 1907, Annals and Magazine of Natural History: 237.

Diacrisia coccinea HAMPSON: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 245, pl. 19 d.

Type locality: Luzon (Benguet).

General distribution: Philippines.

Distribution on the Philippines: North Luzon.

Adults recorded in: I, II, IV, XI.

Variability: In one female the black dots on the inner margin are reduced. In that female there is an oblong dark patch on the caudal part of the hindwing.

Similar species: The male is very dark with semihyaline hindwings and can be confused with no other species. The female is very similar to *S. balthasarae* ČERNÝ, but the forewing is narrower and tegulae and patagia are of cream colour edged with red, the last ones with a black dot. In *S. balthasarae* ČERNÝ the tegulae and patagia are unicoloured beige.

Habitat and bionomics: The imagines were observed in the primary and secondary forests of the montane region from 1600 to 1950 m.

***Spilosoma ardens* KISHIDA, 1987** Pl. 4, fig. 6, 7

Spilosoma ardens KISHIDA, 1987, Gekkan-Mushi 191: 19 – 20.

Type locality: Luzon (Barlig).

General distribution: Currently the species is known from the Philippines only.

Distribution on the Philippines: North Luzon (prov. Ifugao, Nueva Vizcaya and Mountain Prov.)

Female: Very similar to the male, slightly larger.

Variability: The species is fairly constant in size. The dark spots in the white bands and on the hindwings are occasionally more conspicuous, in some males they are missing.

Adults recorded in: I, II, III, IV, IX, X.

Habitat and bionomics: The species was observed in secondary habitats at an altitude from 350 to 1800 m. The males fly to light in the early evening.

***Spilosoma balthasarae* ČERNÝ, 1995** Pl. 4, fig. 2, 5

Spilosoma balthasarae ČERNÝ, 1995, Nachrichten des entomologischen Vereins Apollo, Supplementum 14: 171-174, figs. 19, 20, 49, 50.

Type locality: Mindanao (Mt. Apo).

General distribution: Philippines.

Distribution on the Philippines: Mindanao, Panay.

Variability: The wingspan varies from 16 to 19 mm in males and from 21 to 23 mm in females. The reared specimens are smaller. The dark wing markings are sometimes reduced.

Similar species: The female is similar to *S. coccinea* HAMPSON, differences see there.

Genitalia: See ČERNÝ, 1995.

Adults recorded in: II, III, IV, V, VII, VIII.

Habitat: The species was observed in the primary mountain forests and in the secondary habitats from the lowlands to about 1500 m.

Bionomics: The males and females fly to the light in the early evening. The rearing is easy with different plants like *Taraxacum officinale*.

***Spilosoma subcarnea* WALKER, 1855**

Spilosoma subcarnea WALKER, 1855, List of the specimens of Lepidopterous Insects in the Collection of the British Museum 3: 675.

Diacrisia subcarnea WALKER, HAMPSON, 1901, Catalogue of the Lepidoptera Phalaenae in the British Museum 3: 315-316.

Note: Most probably a misidentification of *S. metarhoda* WALKER.

***Spilosoma metarhoda* WALKER, 1856** Pl. 4, fig. 8, 10

Spilosoma metarhoda WALKER, 1856, List of the specimens of Lepidopterous Insects in the Collection of the British Museum 7: 1695.

Diacrisia metarhoda WALKER: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 249, pl. 19 e.Type locality: Luzon (Manila).

General distribution: Philippines.

Distribution on the Philippines: Luzon, Mindoro, Panay, Cebu, Camotes, Mindanao.

Adults recorded in: II, III, V, VIII.

Variability: The intensity of the dark markings is very variable. In some males the black spots are reduced, occasionally they are lacking.

Habitat and bionomics: The species is occasionally common from the lowlands up to about 600 m, especially in the secondary habitats. The imagines of both sexes are attracted to light. The females fly in the early evening, the males in the late night.

***Spilosoma harlequina* sp. n.** Pl. 4, fig. 11

Material. Holotype: 1 ♂ Philippinen, Mindanao (Prov. Davao del Sur, Mt. Apo, SW route via Kapatagan, 2600 m, 9. Juli 1996, Mountain rain forest, leg. Dr. R. Brechlin, MWM. Paratype: 1 ♂ like holotype, CKC.

Male: Head black with black palpi, vertex pale yellow, antennae bipectinatae, black; tegulae and patagia black, edged with white. Thorax dorsally black, ventrally ochreous, legs haired with ochreous, the terminal part proximally black, caudally yellow. Abdomen is yellow with a series of wide dorsal black spots and less conspicuous lateral series.

Wingspan 47 mm. The forewing ground colour is brown but the costal area and most veins are creamy white. A slightly bent subbasal black band wide in the costal area becoming narrow caudally, interrupted by the pale veins; a black spot in the medial area of costa and an oblique medial series of black spots running from the media to the middle part of the inner margin; a black spot at costa near margin and an oblique postmedian black band from apex to near of tornus becoming caudally wider and interrupted by the

pale veins; an inconspicuous series of subapical spots; fringes between veins black, on the veins creamy white; the underside ochreous with the black markings corresponding with the upperside.

Hindwings yellow with a black spot in cell, a black field near the caudal margin and a submarginal irregular band becoming wider near tornus.

Male genitalia (Pl. 10, fig. 3, 4): Valva widest in the middle with a rectangular process, becoming gradually narrow to the proximal point; uncus wide, short; phallus bent with a proximal oblong bulge with about ten short spines; vesica with scobinations but without any spines.

Female: Not known.

Distribution: Currently this species is known from Mt. Apo on the island of Mindanao (Philippines) only.

Similar species: *S. dinawa* BETHUNE-BAKER from New Guinea which has very similar markings on the wings but the hindwings are yellowish red whereas they are yellow in *S. harlequina* sp. n. Thorax is darker in *S. harlequina* sp. n.

S. victorina sp. n., differences see there.

Etymology: This species is very colourful like the Harlequine - puppet.

Note: This and the next species give an interesting evidence on the relationship of Mindanao with the zoogeographic region of New Guinea.

***Spilosoma victorina* sp. n.** Pl. 4, fig. 12

Material. Holotype: ♂ Mindanao, Bukidnon, Mt. Kitanglad, S-Seite, Intavas, Primärurwald, 1700 m, 15. VIII. - 15. IX. 1993, Urwald, leg. Siniaev, MWM.

Male: Similar to *S. harlequina* sp. n., but the wings are significantly narrower, the ground colour of the forewing is dark brown without creamy white spots, the veins are not paler and the black spots are larger and compact whereas they are structured and divided by the pale veins in *S. harlequina* sp. n. The submarginal black band on the hindwing is wider and more conspicuous and the underside is more contrasting in *S. victorina* sp. n. The wingspan is 41 mm only.

Male genitalia (Pl. 10, fig. 5, 6): Valva becoming suddenly narrow in the middle, a lateral process in the middle, the terminal part long, even; phallus bent with a rounded proximal scobinated bulge, the largest warts are short thorns; vesica extensive scobinated with a field of short, little sclerotised spines.

Female: Not known.

Distribution: Currently this species is known from Mt. Kitanglad on the island of Mindanao (Philippines) only.

Etymology: This species is dedicated to my friend Victor SINIAEV who collected the holotype.

***Spilosoma vandepolli* (ROTHSCHILD, 1910)** Pl. 4, fig. 4, 9

Diacrisia vandepolli ROTHSCHILD, 1910, Novitates Zoologicae 17: 155.

General distribution: Sundaland, Thailand and Philippines.

Distribution on the Philippines: Known from Mindanao and Negros only. The species occurs rather rare on the deforested biotopes.

Variability: The wingspan varies from 46 to 50 mm in females. The females from the Philippines differ slightly from the typical population having dark striations in the submarginal area of the forewing and extended black markings on the hindwings. They are similar to the female from Borneo figured by HOLLOWAY (1988).

Similar species: *Spilosoma ummeroides* sp. n., which has the forewing wider and the postmedian band reduced to few spots at costa and inner margin.

Adults recorded in: IV, VIII, X, XII.

Genitalia: See HOLLOWAY, 1988.

Habitat: The species was observed in the secondary habitats from 700 to 1250 m. The females fly in the early evening to the light.

Note: Til now I was able to find a few females only. I examined no single male from the Philippines, but the determination according to the female genitalia is significant.

***Spilosoma hosei* (ROTHSCHILD, 1910)** Pl. 5, fig. 1

Diacrisia hosei ROTHSCHILD, 1910: Novitates Zooogicae, 17: 137.

Diacrisia hosei ROTHSCHILD: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 244, pl. 21 b.

Type locality: Borneo (Mt. Mulu).

General distribution: Borneo, Philippines.

Distribution on the Philippines: Palawan.

Adults recorded in: III, XII.

Variability: The forewing length varies in males from 16 to 18 mm, the dark markings on the hindwing are reduced in some specimens.

Genitalia: See HOLLOWAY, 1988.

Habitat and bionomics: The species is widely distributed in the lowland forests of Palawan to about 950 m and the males are attracted to light during the night.

Note: Reprted by THOMAS, 1993.

***Spilosoma ummeroides* sp. n.** Pl. 5, fig. 2, Pl. 7, fig. 7

Material. Holotype: ♂ Philippinen, NE Palawan, foot Mt. Ilian, 300 m, 1 km W of Bagong Bayan, 10°26´N, 119° 23´E, 8. March 2006 J. Lourens leg., MWM. Paratype: 1♂ Philippinen, Palawan, Calabayong, Tanabag, Tanabag river valley, 200 m, sec. Forest, 18. - 21. XII.1991, CKC.

Male: Head and tegulae cream-coloured, cheek and palpi black, antennae black with white terminal part, fine pectinated; thorax cream-coloured with a yellow sternal suffusion, legs laterally cream-coloured, medially grey with grey tarsi; abdomen yellow with a dorsal series of black spots and black lateral spots on spiracles.

The forewing is 16 mm long, cream-coloured; the antemedian band medially excurved, consisting of a black spot at costa and a double spot near inner margin, the medial part only indicated as shadow; the postmedian band similar but more excurvesd in the radial area; four black spots along the costa, the third one at the postmedian band; the underside cream coloured, slightly suffused with red basally, with black costa and a V-like spot in the end of cell.

The hindwing yellow, basally suffused with red, the fringes cream coloured with a black spot in cell and three additional ones in the end of the submarginal band; the underside cream-coloured with a black spot in cell and an additional one in the end of the submarginal band.

Variability: The paratype has the markings more apparent and the forewings distally slightly suffused with brown.

Male genitalia (Pl. 8, fig. 3, 4): Phallus straight, more sclerotised terminally. Phallus vesica with a small field of inconspicuous spines. Uncus wide, valva apically forked.

Distribution: Known from the lowland of Palawan only.

Similar species: The species is very similar to *Spilosoma ummera* SWINHOE from Thailand. At present, the determination is only possible by dissection of the genitalia which are in *S. ummera* SWINHOE much larger, phallus vesica with a field of spines and a basal sclerotisation with a group of sclerotised thorns on the surface. The forkation in the terminal part of valva is in *S. ummeroides* sp. n. wide and deep whereas in *S. ummera* SWINHOE it is very shallow, the terminal part of valva built with the process one ridge.

S. vandepolli ROTHSCHILD, see there.

***Spilosoma kareli* THOMAS, 1993** Pl. 5, fig. 3, 6, 9

Spilosoma kareli THOMAS, 1993: Nachrichten des entomologischen Vereins Apollo, N.F. 13 (3a): 291.

Type locality: Mindanao (Bukidnon: Dalongdong).

Female: Not known.

Variability: The forewing length is 15-17 mm in males. The forewing markings are often reduced, especially the marginal ones. On the hindwing the postmedian band is often missing. In other males the dark coloration on the hindwing is extended and occasionally the hindwing is completely black except the fringes and some veins.

Genitalia: See THOMAS, 1993.

Note: Two small males collected by J. LOURENS in the lowland forest of Mindanao have a black dot on patagia and an apparent black streak on the inner margin of the forewing. The genitalia are smaller but there are no significant differences in the structure. The systematic position of this lowland form can only be evaluated by examination of additional specimens.

General distribution: Known from the Philippines only.

Distribution on the Philippines: Mindanao.

Adults recorded in: III, VII, X, XII.

Habitat and bionomics: The species is distributed at 1000 to 1300 m.

***Spilosoma mahaplaga* sp. n.** Pl. 5, fig. 4

Material. Holotype: ♂ Philippines, Leyte, Hilusig, W of Mahaplag, Mt. Balokawe, 600 m, 10°43´N, 124° 55´E, 19.-20. May 2005 J. Lourens leg, MWM.

Male: Head and tegulae greyish brown, palpi black, antennae black, fine pectinated, thorax greyish brown, patagia black edged with greyish brown, chest yellow with two black blots proximally, legs black with some greyish brown hair, abdomen yellow with a dorsal series of black spots and black lateral spots on spiracles.

The forewing length is 27 mm. The ground colour is dirty greyish brown with pale veins, costa black, a small radial colon near base; the antemedian series of black spots consisting of a wide spot at costa, a small one at subcosta and an another one near the inner margin; one wide spot at costa in the middle of the wing, another one in the end of cell and an oblique series of inconspicuous spots from the medial area to the middle of the inner margin; a waved series of submarginal black spots in which the spots near apex are the most conspicuous ones; fringes greyish brown; the underside marked like the upperside, becoming yellow basally.

Hindwings bright yellow with a black spot in cell and a submarginal series of black spots, fringes paler, the underside like the upperside.

Male genitalia (Pl. 11, fig. 1, 2**)**: Phallus straight, more sclerotised terminally with a single proximal thorn on an elongate sclerotised area. Phallus vesica with a basal lobe, a small field of inconspicuous spines and basal and terminal scobinations. Uncus wide, valva apically paddle-like extended with a detached short costal projection.

Similar species: The male is similar to *Spilosoma vandepolli* SWINHOE but the forewing is wider and not so dark. There are good differences in genitalia.

The male differs from *S. virgulae* sp. n. in having black tops of antennae, darker thorax and the submarginal fascia on the forewing. The postmedian fascia is more oblique in *S. virgulae* sp. n.

Etymology: The name is derived from the name of the typical locality Mahaplag on the island of Leyte.

***Spilosoma virgulae* sp. n.** Pl. 5, fig. 5, 8

Material. Holotype: ♂ Philippines, Leyte, Mt. Balocan, II. 1987, Hilusig, Mahaplag, ex CCGT in SMFL. Paratypes: 3 ♂♂ like holotype, CKC; 3 ♂♂ Philippines, Leyte, Hilusig, W of Mahaplag, Mt. Balokawe, 600 m, 10°43´N, 124°55´E, 29.-30. March 2005, J. Lourens leg, CKC; 1 ♂ Philippines, Leyte, Mt. Balokawe, Mahaplag, 1.Sept.1984, 700 m, ex coll. Treadaway, CKC; ♂ Philippines, Leyte, Mt. Bolog, 1140 m, 10 km E of Mahaplag, Juni 1997, leg. Bal, ex coll. R. Brechlin, MWM; 1 ♂ Philippines, Leyte, Mt. Balocaue, near Mahaplag, 700 m, VII. 1999, leg local collectors, MWM, 1 ♂ Philippines, Leyte, 12 km NE of Ormoc, Lake Danao, 650 m, 11°04´N, 124°42´E, 29.-30. June 2006, J. Lourens leg, CKC; 2 ♂♂ Philippines, SW Leyte, 20 km N of Maasin, Hinapu Dacu, 600 m, 10°16´N, 124°55´E, 6.-7. Oct. 2005, J. Lourens leg, CJLL; 1 ♂ the same but CKC. Additional material (no paratypes): 2 ♂♂ Philippines, C. Samar, 4 km SE Bachakay, 287 m, 13.-14.III.2009, 11°48,025´N, 125°14,61´E, leg. Karel Černý & J.Lourens, CKC; 2 ♂♂ the same but leg JK Lourens & K. Černý, CJLL; 1♂ the same but 21-22 Oct 2006 leg J. Lourens, CKC.

Male: Head black with black palpi; antennae dark brown with white proximal part, bipectinate; frons, vertex, tegulae, thorax and patagia beige, on patagium a rounded black patch; legs beige with fuscous tibia and tarsi; abdomen yellow, dorsally and laterally with series of black dots.

The forewings beige with black markings: one spot at costa and a colon at inner margin in the antemedian band; a postmedian colon at costa; an oblique band opened at the inner margin by an conspicuous colon, running to the medial field and completed by a colon caudally of the apex; an inconspicuous double dot at costa near of apex. The fringes are beige.

The hindwings are pale yellow with two big and two small black dots in the edge and another one in the cell, the fringes pale yellow.

The underside pale yellow, marked with black. The ground colour on the basal part of the forewing and on the hindwing is more intensive, becoming orange.

Male genitalia (Pl. 11, fig. 3, 4): Phallus nearly straight, on the basal sclerotisation of vesica a group of short strong thorns; a dense group of spines on the other side of the vesica base. Valva terminally trilobed.

Variability: The wing markings vary inconspicuously in the type series. The forewing length varies from 15 to 18 mm.

Two specimens from Samar (no paratypes) are similar to *S. mahaplaga* sp. n., but they have white tops of antennae, beige thorax, the postmedian band is more oblique and the submarginal band is reduced. They differ from the nominate subspecies in having the markings on the wings more apparent and the forewings distally slightly suffused with brown. The other specimens from this place agree well with the typical series. There are no significant differences in genitalia in comparison to the type. The systematic position of that population is not yet fixed.

Distribution: Currently the species is known from Leyte and Samar.

Etymology: The name is derived from the characteristic double spot near of apex of the forewing, which remembers the quotation mark (= signa virgulae).

***Spilosoma caloscopium* sp. n.** Pl. 5, fig. 7, 10

Material. Holotype: Philippines, prov. Negros Orient, NW Valencia, Camp Look Out, 9° 16´N 123° 13´E, 500 m, 18. - 20. VII. 1985, J. SETTELE leg, MWM. Paratypes: 1♂ like holotype, CKC; 1♂ Philippines, prov. Negros Orient, Valencia, Malangwa River, Liptong, 9° 15´N 123° 15´E, 200 m, 13. VII. 1985, J. Settele leg, MWM; 1♂ Philippinen / Negros (Prov. Negros Occidental) Mt. Mandalagan, 800 m, Near Don Salvador Benedicto, Dezember 1997, leg. Bal, coll. Dr. Roland Brechlin, MWM; 1♂, 1♀ Philippinen / Negros, (Prov. Negros Occidental), Mt. Kanlaon, 820 m, W - Route via Mambucal, 15. Juli 1996, prim. forest, leg / ex coll. Dr. R. Brechlin, CKC; 1♂ the same, but 600 m, III. 1997 coll. Dr. R. Brechlin CKC; 1♂, 1♀ Philippinen / Negros, (Prov. Negros Occidental), Mt. Kanlaon, 600 m, W - Route via Mambucal, Dezember 1996, 10°22´N, 123°12´E ex coll. Dr. R. Brechlin MWM; 1♂ Philippinen, Negros (Prov. Negros occ.) Mt. Kanlaon, W-route, via Mambucal, X.1996, Primärwald, 600 m, leg. R. Brechlin, MWM; 1♂ Philippinen / Negros, 1010 m (Prov. Negros Occidental), Mt. Kanlaon, W - Route via Mambucal, 17.-18. VII.1996, Primärwald, leg. Dr. R. Brechlin, CKC; 1♀ the same but 3.-18.VIII.1996, CKC; 2 ♂♂ the same but MWM; 1♂ the Philippines, Negros Occ. 14 km W of San José, Dumaguate Twin Lakes, ft. Mt. Guinsayawan, 900 m, 9° 21,66´N 123° 10,795´E, swampy hill forest edge, 23/24. June 2009, JH Lourens leg, CJLL; 1♀ Philippinen / Negros, (Prov. Negros Occidental), Mt. Canlaon, 600-800 m, W - Route via Mambucal, VI. 1998 leg. Dr. R. Brechlin, MWM; 2 ♂♂ Philippines, South Cebu Island, Mt. Libo Sibunga, 2.30. November 2003, coll. Ramel Cabale, ex coll. K. Nakao, CKC; 1♂ Philippines, Panay I, 1995, CKC; 1♂ Philippines, Panay, Iloilo, E. of Mt. Baloy, Bgy Supanga, 570 m, 32 km W Calinog, 11°09,460´N, 122°21,279´E, 30.-31. Aug.2008, leg. J. Lourens, CKC; 1♀ Philippines, Panay, Mt. Baloy, VI. 1998, ex coll. Dr. R. Brechlin, CKC, 6 ♂♂ Philippinen, Insel Panay, Mt. Malindong, Aklan, 600-800 m, 10.X. 1996, leg. einheim. Sammler, coll. Dr. R. Brechlin, MWM; 2 ♂♂ the same but CKC; 1♂, 1♀ Philippinen, Luzon, Prov. Ifugao, Mt.Polis-Paß, 29 km N Banawe, Bergurwald, 3.-18. 8. 1996, 2000 m, leg. Dr. R. Brechlin, CKC.

Male: Head black with black palpi; antennae dark brown, bipectinate; vertex, tegulae and patagia beige, thorax dorsally black and ventrally ochreous, apically darkened to coffee-brown; legs coffee-brown; abdomen yellow, dorsally and laterally with series of black dots.

The forewings beige with black markings; an elongate antemedian spot connected at costa with the base, a similar postmedian spot at costa followed by two dots; two dots at costa near apex; an antemedian double spot at the inner margin and an obligue band from half of the inner margin to the medial field completed by a colon distally of apex; an inconspicuous colon towards tornus, fringes beige.

The hindwing pale yellow with three black dots in the edge, the fringes pale yellow.

The underside pale yellow, inconspicuously marked with black. The ground colour is on the basal part of the forewing and on the hindwing more intensive, becoming almost orange.

Male genitalia (Pl 11, fig. 5, 6): Phallus straight, on the basal part of vesica a small hemispheric sclerotisation with four thorns arranged crown-like along the border. Short valva with a short lateral process, originating in the narrow, slightly bent proximal part.

Female: Like the male but bigger. Antennae filiform.

Variability: The forewing length varies in males from 17 to 21 mm, in females from 27 to 29 mm. The expressivity of the wing marking varies considerably. In one male from

Liptong it is reduced, especially the oblique dark band on the forewing. The males from Panay are more conspicuously marked on the forewing, but the dark spots on the hindwing are reduced.

Distribution: Currently the species is known from the mountain regions of Negros, from Panay and Luzon.

Similar species: *Spilosoma virgulae* sp. n., which differs in having usually less conspicuous markings on the forewing and longer setae and white top on the male antennae.

Etymology: The name is derived from the name of the typical locality (Look out = caloscopium).

***Spilosoma fidelia* sp. n.** Pl. 5, fig. 11

Material. Holotype: 1♀ Philippinen, N. Luzon, Ifugao, Banawe vic., 20 km N Lagawe, Sekundärwald/Reisfelder, 16°54´N, 121° 06´E, 22. 9. - 16. 10. 1988, MWM. Paratype: 1♀ like holotype, CKC; 1♀ NW Luzon, Apayao Pagudpud Adams Bgy. Pantiang Hanaga riv., 18°31,278´N, 120°54,642`E, 340 m, 21. IV. 2007, J. Lourens leg., CJLL.

Female: Head and tegulae yellowish grey, palpi black, antennae black, finely pectinated, thorax yellowish grey with dark bands on patagia, throat yellow, legs grey with dark shadows, abdomen yellow with a dorsal series of black spots, black lateral spots on spiracles and a white ventral part. Between the yellow dorsal and the white ventral part there is a series of four black angular spots.

Forewing length is 25 mm; the ground colour dirty grey, darkened in the hind part, with a pure grey field among the costa, cubitus and the cell; a black dot near the base; at costa a black spot between the cell and the base and another one near cell; a stroke-like dot on discocellular; on the anal vein two black dots; the first one near base, the second one at the end of the inconspicuous postmedian band; the submarginal band consisting of some blurred dark spots; fringes grey; the underside grey with a rounded black spot on discocellular and darkened fields among the veins in the central part of the wing.

The hindwing is dark grey with dark veins in the cell and light fringes, underside dark grey with light veins and edge.

Distribution and bionomics: Currently the species is known from the mountain regions of north Luzon only. The females are attracted to the light, the male is not known.

Similar species: The female of *Amsactoides solitarius* WILEMAN from Taiwan and Vietnam differs in having the ventral part of the abdomen yellow, the black dots on the dorsal part of the abdomen elongate, nearly ringlet-like, the forewing uniform grey with very conspicuous black dots and the underside uniform grey. There is no similar species known from the Philippines.

Etymology: The species got the name of my friend, Mrs. Fidelia PIOG, Banawe, who collected the two first known females.

***Spilosoma philippina* ssp. *philippina* DUBATOLOV & KISHIDA, 2006** Pl. 7, fig. 1, 3

Spilosoma philippina DUBATOLOV & KISHIDA, 2006: Atalanta, Würzburg. 37 (3/4): 395.

Type locality: Philippines: Negros, Mt. Canlaon.

Geographical range: Philippines.

Distribution on the Philippines: Negros.

Variability: The wingspan varies from 47 to 51 mm in males. The wing markings are usually like in the holotype. In one male the black dots near of inner margin are confluent.

Distribution: Currently this species is known from Mt. Kanlaon on the island of Negros (Philippines) only.

Similar species: *S. hypogopa* HAMPSON which is smaller and has nearly no markings on the hindwings.

Spilosoma philippina ssp. *mindanaoica* DUBATOLOV & KISHIDA which is in the average slightly larger, has often the oblique transversal band on the forewing more developed and more dots in the submarginal area.

S. groganae HOLLOWAY which has the oblique transversal band consisting of fine black spots fully developed whereas in *S. philippina* DUBATOLOV & KISHIDA it consists of larger spots which are visible as a shadow only.

Spilosoma daltonica sp. n., see there.

Genitalia: See DUBATOLOV & KISHIDA, 2006.

***Spilosoma philippina* ssp. *mindanaoica* DUBATOLOV & KISHIDA, 2006** Pl. 7, fig. 2

Spilosoma philippina ssp. *mindanaoica* DUBATOLOV & KISHIDA, 2006: Atalanta, Würzburg 37 (3/4): 395-396.

Type locality: Philippines: Mindanao, Mt. Busa.

Geographical range: Philippines.

Distribution on the Philippines: Mindanao, Leyte, Samar.

Variability: The wingspan varies in males from 48 to 52 mm in Mindanao, in Samar and Leyte from 44 to 46 mm. The largest specimens live in the mountains. In most specimens the wing markings are as described by DUBATOLOV & KISHIDA but often occur specimens in the mountains of Mindanao with full developed wing markings which do not differ in genitalia.

Similar species: The nominate subspecies, see there.

Genitalia: See DUBATOLOV & KISHIDA, 2006.

Habitat and bionomics: Observed in the secondary habitats from the lowlands to about 1300 m.

Adults recorded in: III, IV, V, VI, VIII, X, XI.

Note: The genitalia are rather invariable in this subspecies.

***Spilosoma daltonica* sp. n.** Pl. 7, fig. 4

Material. Holotype: 1 ♂ Philippinen, N.Luzon-Ifugao, Banawe, 20km N Lagawe, 16°54'N; 121°05'E; sec.Veg., 1200 m, 22.IX.-16.X.1988, leg.Černý & Schintlmeister, MWM. Paratype: 1 ♂ Philippinen, N.Luzon Ifugao, 14-km SE Lagawe, Bolog, 16°41'N; 121°10'E; sec.Veg., 500 m, 7.II.1988, leg. Černý & Schintlmeister, CKC. 1 ♂ Philippinen, Luzon, Nueva Vizcaya, Dalton Pass, Santa Fe, 800 m, 16°07'N, 120°36'E; sec.Veg 21.IX.-17.X.1988, leg.Černý & Schintlmeister, CKC.

Male: Frons black, head with antennae cream-coloured, palpi black with a bush of beige hair basally, tegulae and patagia cream-coloured, thorax dorsally cream-coloured with a wide dorsal black strip and a wisp of yellow hair between the eye and the forewing base, legs black, the first pair with red femora and tibiae; abdomen pale yellow with dorsal and lateral series of black spots.

The forewing length 23 mm, the base, veins and fringes cream coloured, the outer part of wing slightly suffused with brown; an antemedian band bent in cell, consisting of black spots, the greatest two towards inner margin; a black spot at subcosta in the middle of the wing, a postmedian band consisting of black spots running from ¾ of costa outwards, bent over the cell and running oblique to the inner margin; two submarginal black spots in the radial area. The underside with the same markings like the upperside, basally suffused with red.

The hindwings pale yellow with an inconspicuous black spot in the discocellular and another two in the submarginal area, the underside paler.

Male genitalia (Pl. 8, fig. 5, 6): The proximal sclerotised area on the phallus with a thorn. On the phallus vesica two fields of spines, in the male from the Dalton Pass one field only. Valva with a leteral process in the middle.

Female: The probable female has a forewing length of 29 mm, the ground colour of the forewing is beige with the antemedian and the postmedian stripes reduced each one to two black spots near the inner margin and an additional black spot in the submarginal area near apex.

Variability: In the single specimen from Dalton Pass the wing markings are reduced.

Similar species: *Spilosoma philippina* DUBATOLOV & KISHIDA which is larger and has the postmedian oblique band reduced whereas it is well developed in *S. daltonica* sp. n.

Etymology: This species receives the name of one of the typical collecting places.

***Spilosoma grogane* HOLLOWAY, 1976** Pl. 6, fig. 1, 2

Spilosoma grogane HOLLOWAY, 1976: 4, 1982: 216.

Type locality: Borneo.

General distribution: Borneo, Palawan.

Distribution on the Philippines: Palawan.

Adults recorded in: III, IX, X, XI, XII.

Genitalia: See HOLLOWAY, 1988.

Habitat and bionomics: The imagines were observed in the primary forests from 600 to 950 m.

Note: Reported from the Philippines for the first time.

***Spilosoma hypogopa* (HAMPSON, 1907)** Pl. 6, fig. 3, 4

Diacrisia hypogopa HAMPSON, 1907, Annals and Magazine of Natural History (7), 19: 235.

Spilosoma hypogopa HAMPSON: HOLLOWAY, 1976: 4.

Spilosoma hypogopa HAMPSON: HOLLOWAY, 1988: Moths of Borneo 6: 46-47, pl. 3, fig. 84, 143.

Type locality: Singapore.

Geographical range: Borneo, Sumatra, Peninsular Malaysia, Singapore.

Distribution on the Philippines: Palawan.

Variability: The known males do not differ significantly from the typical population. In one male, the two black spots on the inner margin are conjoined.

Similar species: *S. philippina* DUBATOLOV & KISHIDA, see there.

Genitalia: See HOLLOWAY, 1988.

Habitat and bionomics: Lowland forest and secondary habitats.

Adults recorded in: IV, XI.

Note: The species is reported from the Philippines for the first time.

***Spilosoma accensa* (SWINHOE, 1903)** Pl. 6, fig. 5, 6

Pericallia accensa SWINHOE, 1903: Annals and Magazine of Natural History (7) XII: 193.

Diacrisia accensa ROTHSCHILD: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 246, pl. 23 f.

Type locality: Sumatra (Dili).

General distribution: Sumatra, Peninsular Malaysia, Palawan.

Distribution on the Philippines: Palawan.

Adults recorded in: IX, XI.

Habitat and bionomics: The imagines were observed in the primary forests of the montane region from 600 to 900 m.

Note 1: The occurrence on Palawan is not surprising because there is now evidence of distribution of this species in North Borneo.

Note 2: Reported from the Philippines for the first time.

Areas Walker

Type species: *orientalis* WALKER, ssp. of *galactina* HOEVEN.

The genus is probably related to *Spilosoma* CURTIS (*S. ericsoni* group).

There is only one species in this genus distributed from India and China to Sundaland and the Philippines. The dark haired larvae feed on different plants, especially of the family Cichoriaceae.

***Areas galactina* (HOEVEN, 1840)**

Chelonia galactina HOEVEN, 1840, Tijdschr. Nat. Gesch. Phys. 7: 280, pl. 6: 5.

Areas orientalis WALKER, 1855, List of the specimens of Lepidopterous Insects in the Collection of the British Museum 3: 658.

Areas galactina HOEVEN: HOLLOWAY, 1988: The Moths of Borneo 6: 50, pl. 3, figs 106, 108, 111.

Type locality: Java.

Geographical range: N. India, Nepal and China to Sundaland and the Philippines.

***Areas galactina* ssp. *owadai* DUBATOLOV, HAYNES & KISHIDA, 2009** Pl. 6, fig. 7, 8

Areas galactina ssp. *owadai* DUBATOLOV, HAYNES & KISHIDA, 2009, Tinea 20(5): 327.

Type locality: Philippines: Luzon, Sagada.

General distribution: Philippines.

Distribution on the Philippines: Palawan, Luzon, Mindoro, Panay, Leyte, Negros.

Adults recorded in: III, IV, V, VI, VII, VIII, IX, XII from 500 to 1550 m.

Genitalia: See HOLLOWAY, 1988.

Variability: The subspecies varies inconspicuously in size, wing markings and the hindwing coloration. The forewing length varies in males from 32 to 35 mm, in females from 40 to 42 mm. The number of black spots on the hindwing is increased very often to three in the margin and one on discocellular, occasionally the spots in the margin are medially followed by crescent spots. In most males the hair in the distal area of the hindwing is red but occasionally it is yellow.

Amerila WALKER

Type species: *astreus* DRURY

An old world tropical genus with a specific forewing marginal area, reduced hindwings and modified scales along the rather produced tornus. The filiform, finely ciliate antennae have 80 segments. The imagines produce stinking foam behind head when excited. The species of this genus live in the Old World tropics. On the Philippines one species was recorded.

***Amerila astreus* (DRURY, 1773)** Pl. 5, fig. 12, 13

Sphinx astreus DRURY, 1773, Ilustrations of Natural History 2: index 49, pl. 28, fig. 4.

Phalaena melanthus CRAMER, 1780, Uitlandsche Kapellen 3: 286.

Amerila astreus DRURY: MEYRICK, 1886, Proceedings of the Linnaean Society of New South Wales (2) 1: 764.

Rhodogastria astreus DRURY: HAMPSON, 1894, The Moths of India 2: 38, fig. 18.

Rhodogastria astreus DRURY: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 261, pl. 25 f.

Amerila astreus DRURY: KÔDA, 1987, Tyo to Ga 38 (3): 170, f. 5.

Amerila astreus DRURY: HOLLOWAY, 1988: Moths of Borneo 6: 61, pl. 4, figs 101, 104.

Amerila astrea DRURY: KISHIDA, 1992, Tinea 13 (Suppl. 2): 72, pl. 17:12.

Amerila astreus DRURY: FANG, 2000, Fauna Sinica, Insecta 19, Lep., Arctiidae: 305-306, fig. 213, pl. 14: 4.

Type locality: India.

General distribution: Indian subregion to S. China, Sundaland and the Philippines, Moluccas and New Guinea.

Distribution on the Philippines: Probably all large islands (confirmed on Babuyanes, Luzon, Marinduque, Samar, Cebu, Bohol, Camotes, Camiguin de Mindanao and Mindanao.

Variability: The species is fairly constant in size, wing markings and coloration.

Genitalia: See HOLLOWAY, 1988.

Adults recorded in: II, III, V, VI, VII, VIII, IX, XII.

Habitat and bionomics: *A. astreus* DRURY is distributed and occasionally common in the primary and secondary habitats from the lowlands to the montane region. The imagines are attracted to light.

Note: Reported by HOLLOWAY, 1988.

Baroa MOORE

Type species: *punctivaga* WALKER, Java.

Small genus distributed from India to the Philippines and Sulawesi. The heterogenous genus is determined by forewing venation and genitalia. Some of the arctiid characters as tymbal organ and a swollen base to vein Sc in the hindwing are missing. Therefore the position in the family Arctiidae is doubtful. There are four species in the Philippines.

Baroa siamica HAMPSON, 1911 Pl. 7, fig. 8

Baroa siamica HAMPSON, 1911, Annals and Magazine of Natural History (8), 8: 411.

Baroa soricina SWINHOE: ROTHSCHILD, 1914: in SEITZ, Macrolepidoptera of the World 10: 259, pl. 24 e.

Baroa soricina javanica KALIS, 1934, Entomologische Rundschau 51: 209.

Baroa javanica ROTHSCHILD, 1935, Novitates Zoologicae, 39: 250.

Baroa siamica HAMPSON: HOLLOWAY, 1988: The Moths of Borneo 6: 59.

Type locality: Thailand: Muok Lek.

General distribution: Thailand, Sundaland, Philippines.

Distribution on the Philippines: Luzon.

Variability: The single female from Luzon is very similar to the nominate subspecies.

Habitat and bionomics: The imagines occur very local in the submontane and montane region, especially in the primary forests from 600 to 1450 m.

Adults recorded in: VI, IX, X, XII.

Similar species: The female can be confused with both sexes of *Baroa oryza* sp. n. (see *B. oryza* sp. n.)

Genitalia: See HOLLOWAY, 1988.

Note: Reported by HOLLOWAY, 1988.

***Baroa siamica maramaga* ssp. n.** Pl. 7, fig. 9, 10, Pl. 12, fig. 1, 2

Material. Holotype: 1♂ Philippines, Mindanao, Bukidnon, 15km NW Maramag, Mt. Malambu, Mt. Bagong Silang, 30.XII.1991, 1450 m, prim. forest, leg. Černý, MWM. Paratypes: 23♀♀, 18♂♂ like holotype, CKC.

The population of Mindanao consists of very large specimens (forewing length in male 16 - 18 mm, in female 15 - 18 mm). The wing coloration is fairly uniform. There are only small differences in shape of uncus and valvae. The phallus is smaller in the population of Mindanao. I suppose the population has a subspecific character.

Note: The Bornean population reported by HOLLOWAY, 1988 is similar in size but the wing venation is les conspicuous.

***Baroa oryza* sp. n.** Pl. 7, fig. 11, 12

Material. Holotype: 1♂ Philippines, Mindanao, Bukidnon, 15km NW Maramag, Mt. Malambu, Mt. Bagong Silang, 30.XII.1991, 1450 m, prim. forest, leg. Černý, MWM. Paratypes: 6♀♀, 3♂♂ like holotype, CKC.

Male: Palpi chrome yellow with black tips and a black sattle-like part near base; antennae brown with yellow base, ciliate with paired setae; head, thorax and patagia chrome yellow, tegulae chrome yellow with a small black dot, legs fuscous; abdomen drab above and beneath.

Forewing length 17 mm, the ground colour ochreous with chrome yellow veins and ochreous fringes. Underside grey brown with ochreous terminal parts of the veins. Hindwings dark brown with ochreous fringes, the underside fuscous. In the anal part there is a pouch containing inside a buff hair brush.

Male genitalia (Pl. 12, fig. 3, 4): The genitalia are very similar to that of *B. siamica* HAMPSON but saccus is rounded whereas it is pointed in *B. oryza* sp. n.

Female: The female differs in having filiform antennae and no pouch with hair brush on the hindwing.

Female genitalia: Very similar to that of *B. siamica* Hampson, but bursa copulatrix is significantly smaller and more triangular in *B. oryza* sp. n.

Variability: The wing markings and colour are considerably uniform. The size of males varies inconspicuously with the forewing length from 16 to 17 mm, the forewing length in the females varies from 15 to 19 mm.

Distribution: Currently the species is known from the mountains of central Mindanao only.

Habitat and bionomics: The imagines were observed in the primary mountain forest. They were attracted to the light in the early evening.

Similar species: The species is similar to the female of *Baroa siamica* WALKER living sympatrically. The species differs in the body and wing coloration, which is in *B. oryza* sp. n. yellow whereas in *B. siamica* WALKER it is brown. The hindwings in the male of *B. oryza* sp. n. are more rounded, the anal fold is less expressed.

Etymology: The forewing has the colour of rice (= oryza) straw.

***Baroa punctibasalis* WILEMAN & WEST, 1928** Pl. 7, fig. 13, 16

Baroa punctibasalis WILEMAN & WEST 1928: Annals and Magazine of Natural History: 223.

Type locality: Luzon (Rizal).

General distribution: Known from the Philippines only.

Distribution on the Philippines: At present, the species is known from Luzon (prov. Rizal und Benguet), Samar and Palawan.

Adults recorded in: II, VIII.

Variability: The females from Palawan and Luzon correspond with the description, another one from Samar is much larger (forewing length = 19 mm) and darker. The latter population is maybe subspecifically different.

Habitat and bionomics: The females from Palawan and Luzon inhabit secondary forest habitats in the lowlands at about 120 m and were attracted to the light during the night.

Similar species: This species is near to *B. punctivaga* WALKER from the Sundaland, but differs in the colour being paler and in having spots in the basal third of the forewing only.

***Baroa peniculata* sp. n.** Pl. 7, fig. 14, 15, Pl. 12, fig. 5, 6

Material. Holotype: 1 ♂ Philippinen, N.Luzon-Ifugao, Mt. Polis, 16km SSE Bontoc, 17°02'N; 121°01'E; primär Nebelurwald, 1900 m, 23.IX.1988, leg.Černý & Schintlmeister, MWM. Paratypes: 6♂♂, 3♀♀ the same, but CKC; 2♂♂ the same, but CAH; 2♂♂ the same but MWM; 1♂ Philippinen, N.Luzon-Mts. Prov., Mt.Amuyao, 22km SE Bontoc, 17°00'N; 121°09'E; primär Nebelurwald, 2450-2700 m, 15.II.-16.II.1988, leg.Černý & Schintlmeister, CKC; 5 ♂♂, 6♀♀ Philippinen, N.Luzon-Mts.Prov., Chatol, 1600 m, 15km SE Bontoc, 17°02'N, 121°03'E, Nebelurwald, 24.IX., 14.X.1988, leg.Černý & Schintlmeister, CKC; 2♂♂ the same but 22.1.2006 leg. J. Lourens, CKC; 1♂, 1♀ Philippinen, Luzon, Mts.Prov., Chatol, 2100 m, 16.-18.XI. 1997 leg. Mey, Ebert, Nuß, CKC; 1♂ Philippinen, N.Luzon-Ifugao, Banawe, 20 km N Lagawe, 16°54'N; 121°05'E; sec.Veg., 1200 m, 22.IX.-16.X.1988, leg.Černý & Schintlmeister, CKC; 1♂ Philippinen, Luzon, Mts. Prov., Mt. Polis - Pass, 22. VII. 1993, 16 km SSE Bontoc, 1650 m, 17°02´N / 121° 02´E, Bergwald, leg. Schintlmeister & Siniaev, CKC; 1♀ Mt. Data, 2000 m, Mountain province, March 20., 2009, leg. Kenichiro Nakao, CKC.

Male: Head and palpi black, antennae black, finely ciliated; tegulae black, edged with yellow; throat yellow, dorsal part of thorax black, the base of patagia black, the long terminal part yellow; ventral part of thorax and legs dark grey, abdomen black with a conspicuous blue gloss.

The forewing length is 17 mm. The ground colour is dark grey, weakened on the veins, fringes dark grey; underside dark grey with some white hair on juxta.

The hindwing is black with black cilia, the underside dark grey.

Male genitalia: Valva weak, phallus bottle-like.

Female: Like the male, antennae filiform, not ciliated.

Variability: The imagines are fairly uniform. The forewing length varies in males from 15 to 18 mm (ø = 16,5 mm) in females from 16 to 19 mm (ø = 17,8 mm).

Adults recorded in: I, II, IV, VI, VIII, IX, XI.

Distribution: Currently the species is known from the high montane region of north Luzon only.

Habitat and bionomics: The species was observed in the primary forests over 1200 m. The males are attracted to light but some specimens were observed flying in the afternoon.

Similar species: *Baroa peniculata* sp. n. cannot be confused with any other species.

Etymology: The name is derived from the brush-like form of the yellow patagia-tips (brush = peniculus).

Acknowledgements

The author is grateful to Mr. M. R. HONEY, the Natural History Museum London, for his help with the review of types, to T. WITT and W. SPEIDEL for their help in reviewing additional material in the collection WITT, Munich, to W. SPEIDEL for his support by the installation of plates and corrections of text, to Mr. W. MEY, Berlin, W. A. NÄSSIG, Frankfurt, Museum Senkenberg and O. KARSHOLT, Museum Kopenhagen for the loan of specimens from the public collections and to R. MÜLLER, St. Gallen, J. SETTELE, Leipzig and C. G. TREADAWAY Limbach-Wagenschwend for their support with the materials from their private collections. My special thank deserves Mr. J. LOURENS, Lucena City for his help with his enormous private collection and for the logistic support of the last trip to Mindanao. S. HEIM, Innsbruck, helped me with the layout of the genitalia-figures.

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Plate 1

1. *Utetheisa lotrix* CRAMER, ♂. SW Panay Isl., Sibalom, 50 m, sec. Vegetation, 9.- 10. XII. 1991 leg. K. Černý, CKC.

2. *Utetheisa lotrix* CRAMER, ♀. SW Panay Isl., Sibalom, 50 m, sec. Vegetation, 9.- 10. XII. 1991 leg. K. Černý, CKC.

3. *Utetheisa pulchelloides* HAMPSON, ♂. Negros oriental, Dumaguete City, 0-10 m, 10.VII. 1985, J. Settele leg. CKC.

4. *Argina astrea* DRURY**,** ♂. Mindanao, Bukidnon, 15km NW Maramag, Mt. Kalatungan, Mt. Bagong Silang, 29. XII. 1991, 1250 m, sec. forest, leg. Černý, CKC

5. *Argina astrea* DRURY, ♀. Mindanao, Bukidnon, 15km NW Maramag, Mt. Kalatungan, Mt. Bagong Silang, 29. XII. 1991, 1250 m, sec. forest, leg. Černý, CKC

6. *Utetheisa pulchelloides* HAMPSON, ♀. Negros oriental, Dumaguete City, 0-10 m, 10.VII. 1985, J. Settele leg. CKC

7. *Argina pulchra* SWINHOE**,** ♂. N.Luzon-Mts., Prov., Talubin, 7km SE Bontoc, sec.Veg., 1200 m, 14.II.-17.II.1988, leg. Černý & Schintlmeister, CKC

8. *Argina pulchra* SWINHOE, ♀. N.Luzon-Ifugao, Mt. Polis, 16km SSE Bontoc, primär Nebelurwald, 1900 m, 9.II.-13.II.1988, leg. Černý & Schintlmeister, CKC

9. *Lemyra philippinica* THOMAS, ♂**.** Mindanao-Bukidnon, 40km NW Maramag, Dalongdong, 1200 m, Waldrand 1.X.-3.X.1988, leg. Černý & Schintlmeister, CKC

10. *Lemyra barliga* THOMAS (paratype), ♂. N.Luzon-Mts.Prov., Chatol, 1600 m, 15km SE Bontoc, Nebelurwald, 24.IX., 14.X.1988, leg. Černý & Schintlmeister, CKC

11. *Lemyra barliga* THOMAS (paratype), ♀. N. Luzon, CAR border Abra/Calinga, E. of Malibcong, Basiwag, 17°33´N; 120° 59´E, 1600 m, 17.-18. Nov. 2006, leg. JL Lourens, CKC

12. *Lemyra philippinica* THOMAS, ♀. N.Luzon-Ifugao, Banawe, 20km N Lagawe, sec. veg., 1200 m, 22.IX.-16.X.1988, CKC

13. *Lemyra praetexta* **sp. n.** (holotype)**,** ♂**.** Palawan, Mantalingajan, Tagembung, 1150 m, 19. XI. 1961, Noona Dan Exp. 61 - 62, caught by Mercury-light 18^{30}_06^{00}; Zool. Museum DK Copenhagen.

14. *Lemyra maculifascia* WALKER**,** ♂**.** N.Luzon-Ifugao, 14 km SE Lagawe, Bolog, sec.Veg., 500 m, 7.II.1988, leg. Černý & Schintlmeister, CKC

15. *Lemyra maculifascia* WALKER**,** ♀**.** N.Luzon-Ifugao, 14 km SE Lagawe, Bolog, 16°41´N, 121° 10´E, sec.veg., 500 m, 7.II.1988, leg. Černý & Schintlmeister, CKC.

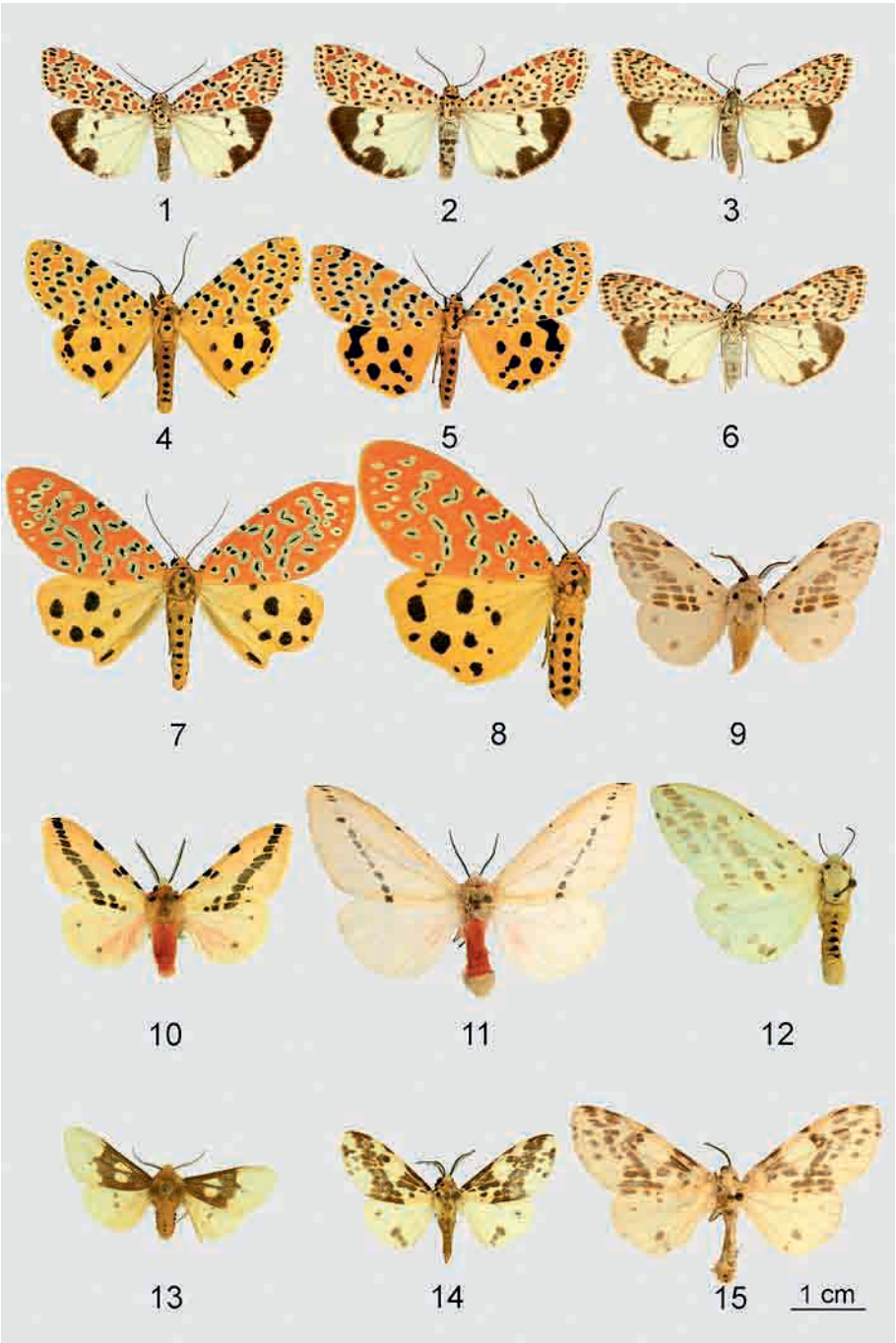


Plate 2

1. *Amsacta lactinea* CRAMER, ♂. N.Luzon-Ifugao, 14 km SE Lagawe, Bolog, sec. veg., 500 m, 7.II.1988, leg. Černý & Schintlmeister, CKC.

2. *Amsacta lactinea* CRAMER, ♀. Philippinen, Luzon, Nueva Vizcaya, Dalton Pass, Santa Fe, 800 m, 16°07'N, 120°36'E; sec.veg. 21.IX.-17.X.1988, leg. Černý & Schintlmeister, CKC.

3. *Amsacta cardinalis* BUTLER, ♂. Cebu, 5km N Cebu City, Sec. Busch, 400 m, 8.X.-10.X.1988, leg. Černý & Schintlmeister, CKC.

4. *Amsacta cardinalis* BUTLER, ♀. Philippines Negros, Mt. Canlaon, IX.-X. 1990, C. Garzon, CKC.

5. *Creatonotos gangis* LINNÉ, ♂. Mindanao-Bukidnon, 40km NW Maramag, Dalongdong, 800 m, Talakag, Waldrand 1.X.-3.X.1988, leg. Černý & Schintlmeister, CKC.

6. *Creatonotos gangis* LINNE, ♀. N.Luzon-Ifugao, Banawe, 20km N Lagawe, sec. veg., 1200 m, 22.IX.-16.X.1988, leg. Černý & Schintlmeister, CKC.

7. *Creatonotos transiens* WALKER, ♂. Malaysia-Sabah, Mt. Kinabalu bei Kundasan, 06,00296°N; 116,544491°E; Kulturland am Rand von Sekundärbergregenwald, 1547 m, 15.8.2004, leg. M. Hoffmann, CKC.

8. *Creatonotos wilemani* ROTHSCHILD, ♂. Philippinen, Luzon, Rizal, 45km SE Manila, 300 m, 14°28'N; 121°19'E; Sekundärbusch, 24.I.1988, leg. Černý & Schintlmeister, CKC.

9. *Creatonotos wilemani* ROTHSCHILD, ♀. prov. Negros Orient, Valencia, Malangwa River, Liptong, 9° 15´N 123° 15´E, 200 m, 13. VII. 1985, J. Settele leg, CKC.

10. *Creatonotos transiens* WALKER, ♀. Malaysia-Sabah, Mt. Kinabalu bei Kundasan, 06,00296°N; 116,544491°E; Kulturland am Rand von Sekundärbergregenwald, 1547 m, 15.8.2004, leg. M. Hoffmann, CKC.

11. *Heliozona lianga* SEMPER, ♂. Manila, MWM.

12. *Tinoliodes benguetensis* WILEMAN, ♂. Philippines, Mindanao, Surigao del Sur, 4 km E Homburquer, Gata, 170 m, 17.-18. III.2009, 8°42,944´N, 126°9,402´E, leg. K. Černý & J. Lourens, CKC.

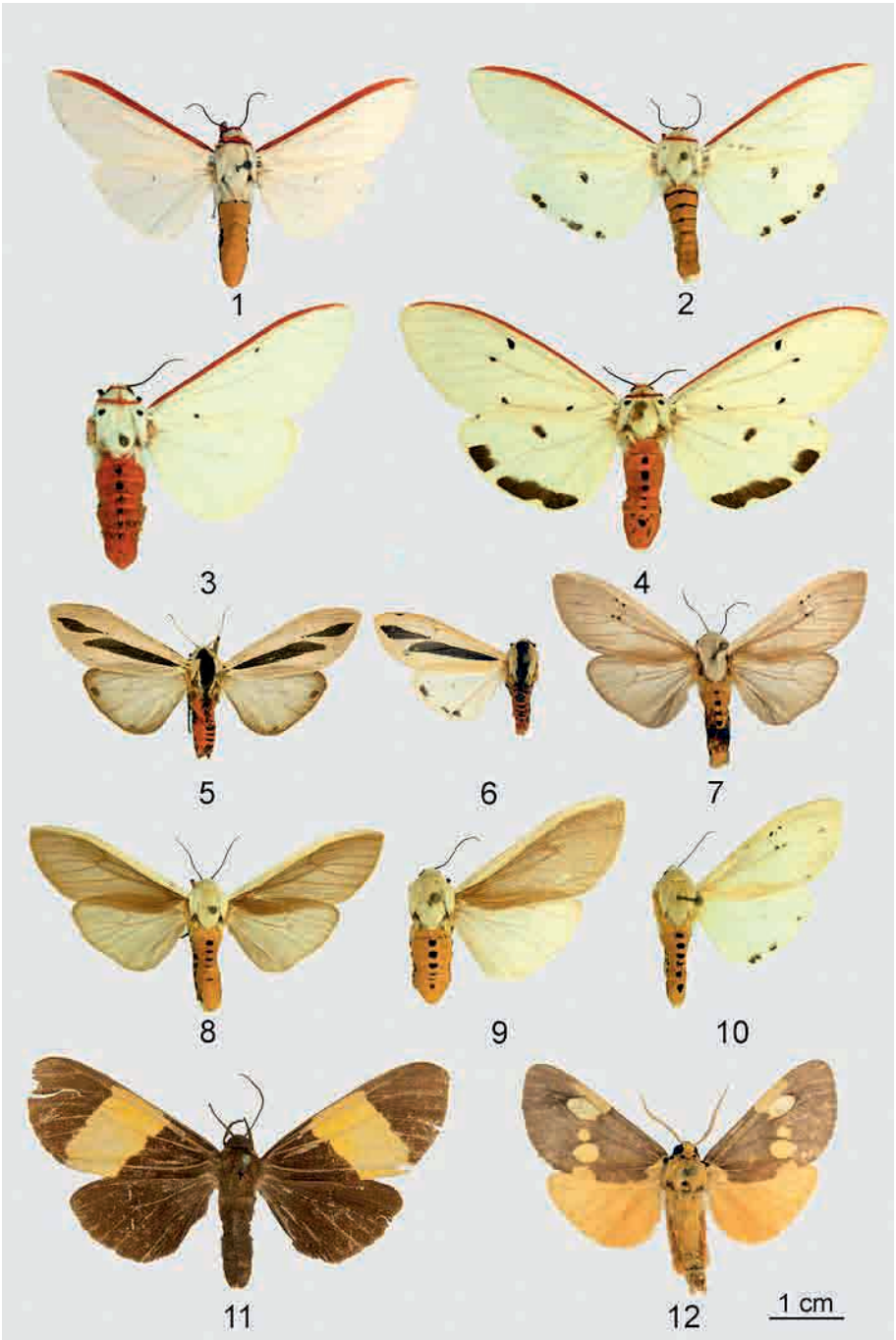


Plate 3

1. Aethalida dora SEMPER, ♂. Mindanao-Bukidnon, 40km-NW-Maramag, Dalongdong, 1200 m, Talakag, Waldrand, 31.XII.1991 - 1. I. 1992, leg. Černý, CKC.

2. Aethalida whiteheadi ROTHSCHILD, ♂. Süd Palawan, Mt.Gantung, 200 m, Zypressenwald/Sekundärveg, 19.I.-21.I.1988, leg.Černý & Schintlmeister, CKC.

3. Pangora integra WALKER, ♂. Phillipine Is., 48-60, Holotype, BMNH (E) # 805603

4. Pangora integra WALKER, ♀. Manila, prov. Rizal, Luzon, sea level, 29. VII.1912, A.E. Wileman, BMNH.

5. Spilosoma strigatula WALKER, ♂. SW Panay Isl., Sibalom, 50 m, sec. Vegetation, 9.- 10. XII. 1991 leg. K. Černý, CKC.

6. Spilosoma trikenzana sp. n., ♂. Philippinen, Mindanao, S. Mt. Kitanglad, 1700 m, 15.8.-15.IX.1993, leg. Siniaev, MWM (holotype).

7. Spilosoma mollis sp. n., ♂. Philippines, Mindanao-Bukidnon, 40km NW Maramag, Dalongdong, 1200 m, Talakag, Waldrand 1.X.-3.X.1988, leg. Černý & Schintlmeister, MWM.

8. Spilosoma strigatula WALKER, ♀. N.Luzon-Ifugao, Banawe, 20km N Lagawe, sec.Veg., 1200 m, 8.2., 11.-12.2.1988, leg. Černý & Schintlmeister, CKC.

9. Spilosoma trikenzana sp. n., ♀. Philippines, Mindanao, Bukidnon prov., 60 km S Talakag, Dominorog, 1271 m, 23.-24. III.2009, 7°56, 144´N, 124°38,5´E, leg. K. Cerný & J. Lourens, CKC.

10. Spilosoma brechlini sp. n., ♀. Philippinen / Negros, (Prov. Negros Occidental), Mt. Kanlaon, 600 m, W - Route via Mambucal, VII. 1997 coll. Dr. R. Brechlin, CKC.

11. Spilosoma brechlini sp. n., ♂. Philippinen / Negros, (Prov. Negros Occidental), Mt. Kanlaon, 600 m, W - Route via Mambucal, VII. 1997 coll. Dr. R. Brechlin, MWM.

12. Spilosoma venata WILEMAN, ♀. N.Luzon-Mts., Prov., Chatol, 1600 m, 15km SE Bontoc, Nebelurwald, 24.IX., 14.X.1988, leg. Černý & Schintlmeister, CKC.

13. Spilosoma venata WILEMAN, ♂. N.Luzon-Mts., Prov., Mt. Amuyao, 22km SE Bontoc, primär Nebelurwald, 2450-2700 m, 15.II.-16.II.1988, leg. Černý & Schintlmeister, CKC.

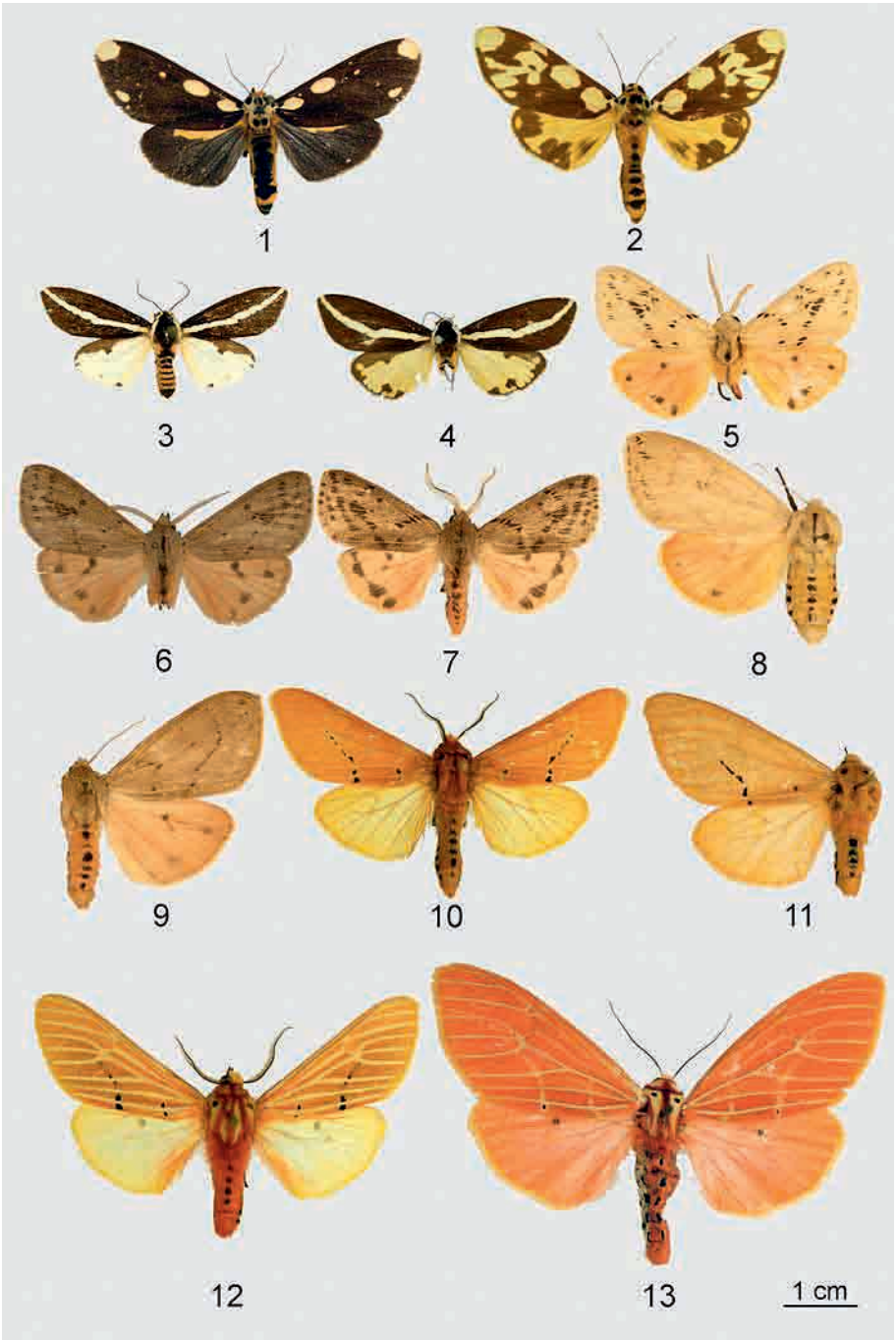


Plate 4

1. *Spilosoma coccinea* HAMPSON, ♀. Luzon, Mts. Prov., Chatol, 23. - 24. VII. 1993, 15 km SE Bontoc, 1650 m, Urwald, leg. Schintlmeister & Siniaev, CKC.

2. *Spilosoma balthasarae* ČERNÝ, ♀. Philippinen / Mindanao, Mt. Apo, W- Flanke, 1200 m, sekundärwald, 28.-30.VII. 1993, 6°57´N; 125°18´E, leg. Schintlmeister & Siniaev, CKC.

3. *Spilosoma coccinea* HAMPSON, ♂. N. Luzon, CAR border Abra/Calinga, E. of Malibcong, Basiwag, 17°33´N; 120° 59´E, 1600 m, 16.-17.I. 2007, leg. JL Lourens, CKC.

4. *Spilosoma vandepolli* ROTHSCHILD, ♂. SW Thailand, Phathalung, 30 km W Phathalung, 7°35,08´N, 99°49, 263É, 10. XII. 2007 leg. K. Černý, CKC.

5. *Spilosoma balthasarae* ČERNÝ, ♂. Philippinen / Mindanao, Mt. Apo, W- Flanke, 1200 m, sekundärwald, 28.-30.VII. 1993, 6°57´N; 125°18´E, leg. Schintlmeister & Siniaev (paratype), CKC.

6. *Spilosoma ardens* KISHIDA, ♂. N.Luzon-Ifugao, Banawe, 20km N Lagawe, sec. Veg., 1200 m, 22.IX.-16.X.1988, CKC.

7. *Spilosoma ardens* KISHIDA, ♀. Philippinen, Luzon, Mtn. Prov., Chatol, 2100 m, 16.-18.XI.97 leg Mey, Ebert, Nuss, CKC.

8. *Spilosoma metarhoda* WALKER, ♂. Mindoro occ., 20km NE Sablayan, Amnay, Urwaldrand/sec.Veg., 150 m, 27.I.1988, leg.Černý & Schintlmeister, CKC.

9. *Spilosoma vandepolli* ROTHSCHILD, ♀. Philippinen / Negros (Prov. Negros Occidental) Mt. Mandalagan, 800 m, Near Don Salvador Benedicto, Dezember 1997, leg. Bal, coll. Dr. Roland Brechlin, MWM.

10. *Spilosoma metarhoda* WALKER, ♀. N.Luzon-Ifugao, 14 km SE Lagawe, Bolog, sec.Veg., 500 m, 7.II.1988, leg.Černý & Schintlmeister, CKC.

11. *Spilosoma harlequina* sp. n., ♂. Philippinen, Mindanao (Prov. Davao del Sur, Mt. Apo, SW route via Kapatagan, 2600 m, 9. Juli 1996, Mountain rain forest, leg. Dr. Roland Brechlin, CKC.

12. *Spilosoma victorina* sp. n., ♂. Mindanao, Bukidnon, Mt. Kitanglad, S-Seite, Intavas, Primärurwald, 1700 m, 15. VIII. - 15. IX. 1993, Urwald, leg. Siniaev (holotype), NTWM.

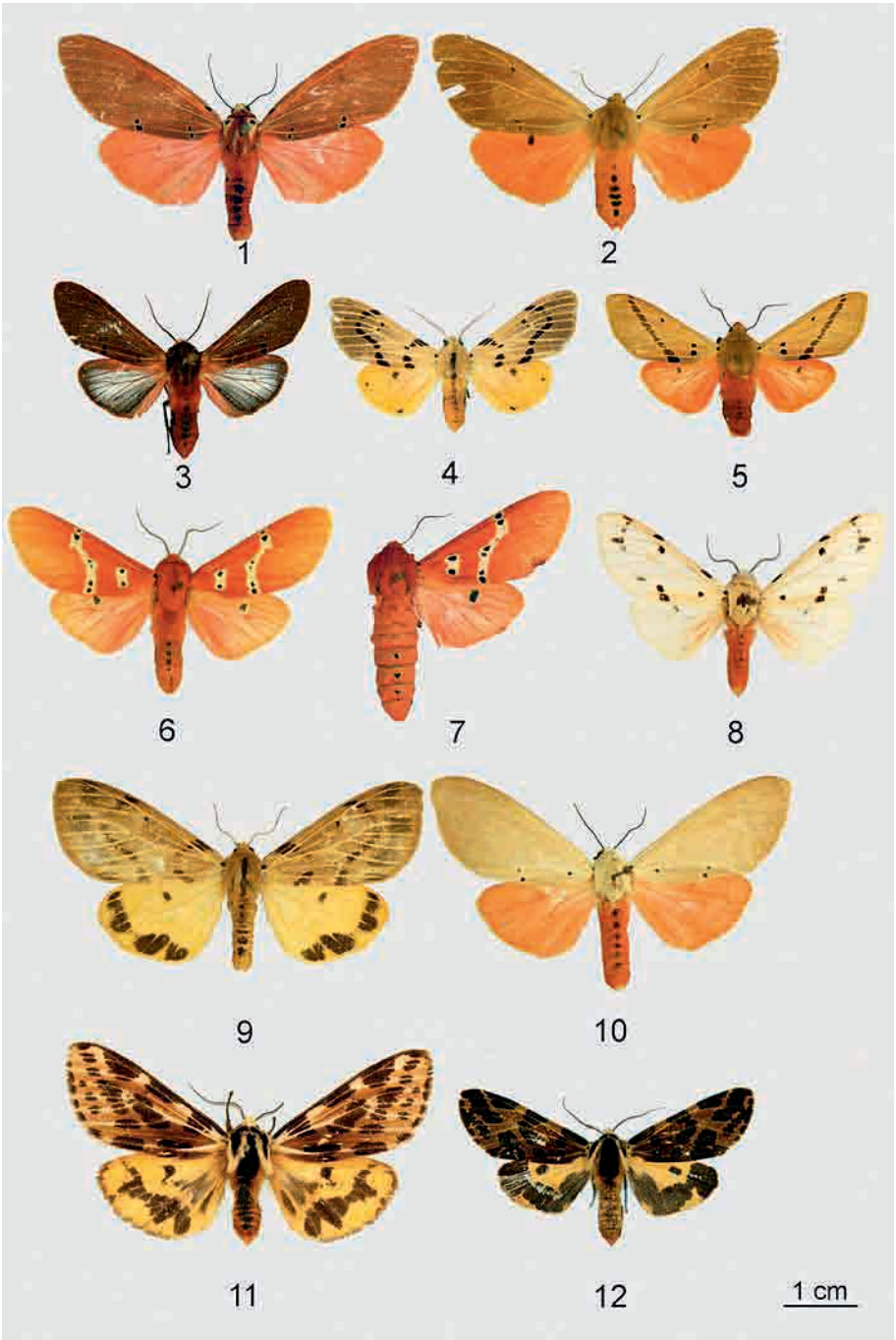


Plate 5

1. *Spilosoma hosei* ROTHSCHILD, ♂. Nord Palawan, S.Vicente, 20km NWW Roxas, 10°21'N; 119°10'E; Mittelgebirgsurwald, 200 m, 14.-17.XII.1991 leg. Černý, CKC.

2. *Spilosoma ummeroides* sp. n., ♂. Philippinen, NE Palawan, foot Mt. Ilian, 300 m, 1 km W of Bagong Bayan, 10°26´N, 119° 23´E, 8. March 2006 J. Lourens leg., MWM.

3. *Spilosoma kareli* THOMAS, ♂. Mindanao, Bukidnon, 15km NW Maramag, Mt. Malambu, Mt. Bagong Silang, 29. XII. 1991, 1250 m, sec. forest, leg. Černý, CKC (paratype), CKC.

4. *Spilosoma mahaplaga* sp. n., ♂. Philippines, Leyte, Hilusig, W of Mahaplag, Mt. Balokawe, 600 m, 10°43´N, 124° 55´E, 19.-20. May 2005 J. Lourens leg., MWM.

5. *Spilosoma virgulae* sp. n., (holotype) ♂. Philippines, Leyte, Mt. Balocan, Hilusig, Mahaplag, ex coll. Treadaway

6. *Spilosoma kareli* THOMAS, ♂. Philippines, Mindanao, E slope Mt. Apo, Baracatan, 7°00,513´N; 125°22,498´E, 1050 m, 4./5. May 2008, JH Lourens leg, CKC.

7. *Spilosoma caloscopium* sp. n., (paratype) ♂. Philippinen, Insel Panay, Mt. Malindong, Aklan, 600-800 m, 10.X. 1996, leg. einheim. Sammler, coll. Dr. R. Brechlin, CKC.

8. *Spilosoma virgulae* sp. n., ♂. Philippines, C. Samar, 4 km SE Bachakay, 287 m, 13.-14.III.2009, 11°48,025´N, 125°14,61´E, leg. Karel Černý & J.Lourens, CKC.

9. *Spilosoma kareli* THOMAS, ♂. Philippines, SE Mindanao, Davao oriental, Aliwagwag, Primary forest, 90 m, 7°43,667´N; 126°17,304´E, 60 m, 30. 4.-1.5.2008, JH Lourens leg, CKC.

10. *Spilosoma caloscopium* sp. n., (paratype) ♀. Philippines, Negros, prov. Negros occidental, Mt. Kanlaon, 820 m, W. Route via Mambucal, 15. Juli 1996, prim. forest, leg./ ex coll. R. Brechlin, CKC.

11. *Spilosoma fidelia* sp. n., ♀. (holotype), N.Luzon-Ifugao, Banawe, 20km N Lagawe, sec.Veg., 1200 m, 22.IX.-16.X.1988, leg.Černý & Schintlmeister, CKC.

12. *Amerila astreus* DRURY, ♂. Philippinen, Luzon, Mts.Prov., Chatol, 2100 m, 16.-18.XI. 1997 leg. Mey, Ebert, Nuß, CKC.

13. *Amerila astreus* DRURY, ♀. Philippinen, Luzon, Ifugao, Mt. Polis, 2100 m, 13. XI. 1997 leg. Mey, Ebert, Nuß, CKC.

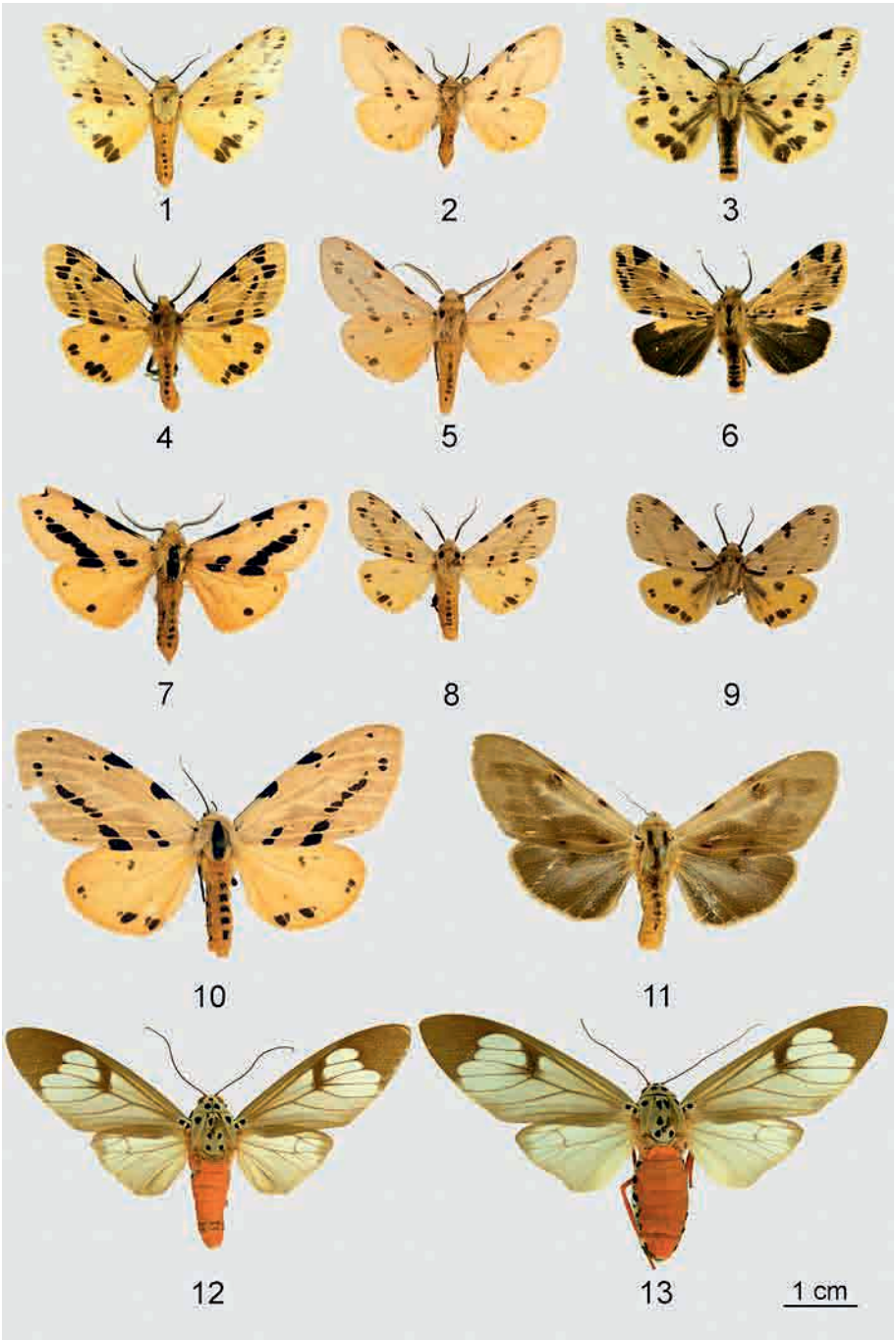


Plate 6

1. *Spilosoma grogane* HOLLOWAY, ♂. Philippinen, C Palawan, NE of Napasan, 7 km N of Salakot Falls, 950 m, 9°51´N, 118°37´E, 14.-15.March 2006 J. Lourens leg., CKC.

2. *Spilosoma grogane* HOLLOWAY, ♀. C. Palawan, Sta Lucia, 25.X. 1995, ex coll. A. Schintlmeister, CKC.

3. *Spilosoma hypogopa* SNELLEN, ♂. Nord Palawan, S.Vicente, 20km NWW Roxas, Mittelgebirgsurwald, 200 m, 12.-17.I.1988, leg.Černý & Schintlmeister, CKC.

4. *Spilosoma hypogopa* SNELLEN, ♂**.** Nord Palawan, S.Vicente, 20km NWW Roxas, Mittelgebirgsurwald, 200 m, 12.-17.I.1988, leg.Černý & Schintlmeister, CKC.

5. *Spilosoma accensa* SWINHOE, ♂. Philippinen, C Palawan, 600-900 m, Mt. Magcasaw, Mainit, Brook´s Point, 3.-6.XI. 1996, leg. Bal, ex coll. R. Brechlin, CKC.

6. *Spilosoma accensa* SWINHOE, ♀. Philippinen, C Palawan, 600-900 m, Mt. Magcasaw, Mainit, Brook´s Point, 3.-6.XI. 1996, leg. Bal, ex coll. R. Brechlin, CKC.

7. *Areas galactina owadai* DUBATOLOV & HAYNES & KISHIDA, ♂. N.Luzon-Ifugao, Banawe, 20km N Lagawe, sec. veg., 1200 m, 22.IX.-16.X.1988 leg. Černý & Schintlmeister, CKC.

8. *Areas galactina owadai* DUBATOLOV & HAYNES & KISHIDA, ♀. Philippinen / Negros, (Prov. Negros Occidental), Mt. Kanlaon, 600-800 m, W - Route via Mambucal, VI. 1998 coll. Dr. R. Brechlin, CKC.

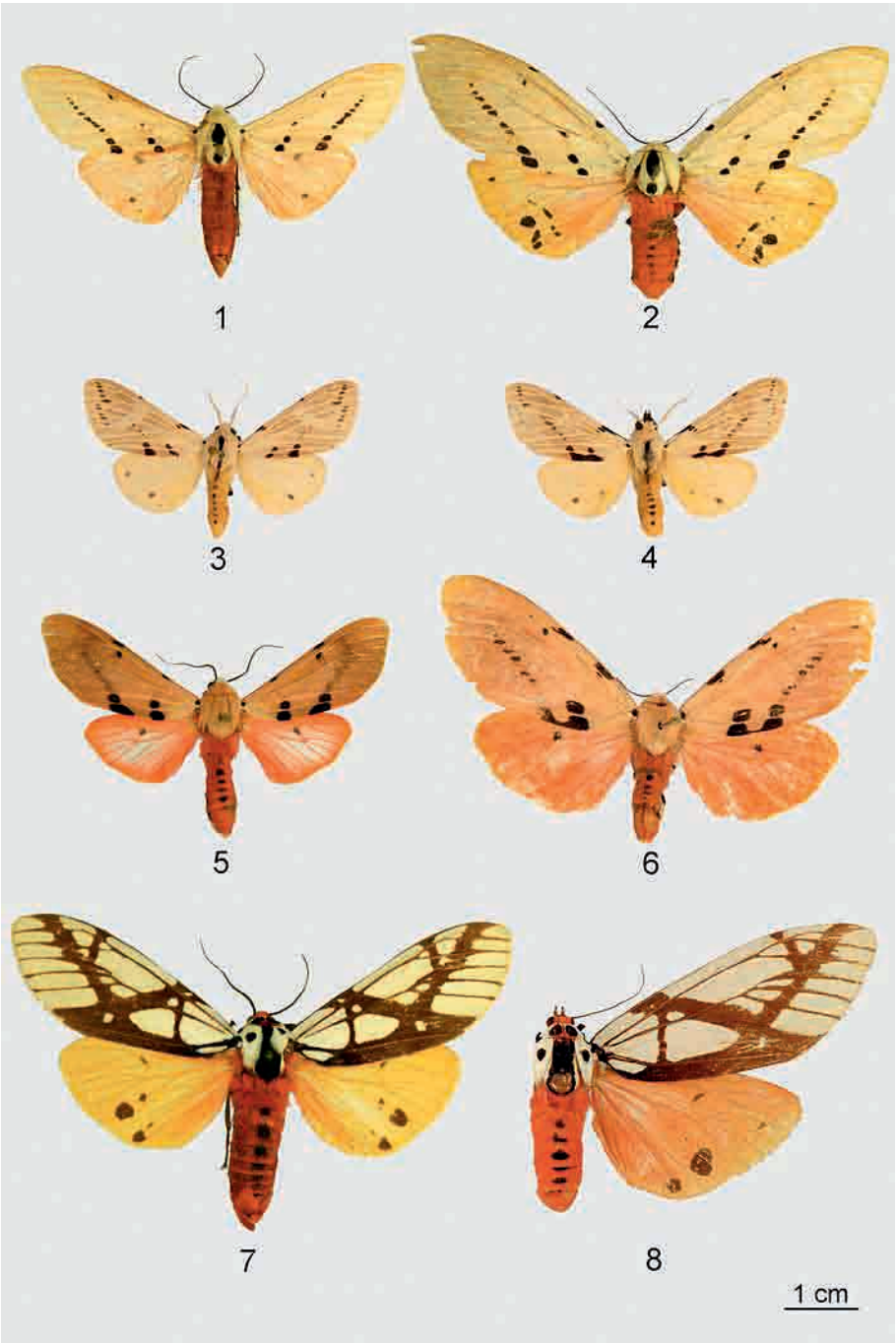


Plate 7

1. *Spilosoma philippina philippina* DUBATOLOV & KISHIDA, ♂. Philippinen / Negros, (Prov. Negros Occidental), Mt. Kanlaon, 820 m, W - Route via Mambucal, 15. Juli 1996, Prim. forest, leg / ex coll. Dr. R. Brechlin, CKC.

2. *Spilosoma philippina mindanaoica* DUBATOLOV & KISHIDA, ♂. Philippines, Mindanao, E slope Mt. Apo, Baracatan, 7°00,513´N; 125°22,498´E, 1050 m, 4./5. May 2008, JH Lourens leg, CKC.

3. *Spilosoma philippina philippina* DUBATOLOV & KISHIDA, ♀. Philippinen / Negros, (Prov. Negros Occidental), Mt. Kanlaon, 820 m, W - Route via Mambucal, 15. Juli 1996, Prim. forest, leg / ex coll. Dr. R. Brechlin, CKC.

4. *Spilosoma daltonica* sp. n., ♂. N.Luzon-Ifugao, 14 km SE Lagawe, Bolog, 16°41´N, 121° 10´E, sec.veg., 500 m, 7.II.1988, leg. Černý & Schintlmeister, CKC.

5. *Pareuchaetes pseudoinsulata* REGO-BARROS, ♂. Mindoro occ., 20km NE Sablayan, Amnay, Urwaldrand/sec.Veg., 150 m, 27.I.1988, leg. Černý & Schintlmeister, CKC.

6. *Pareuchaetes pseudoinsulata* REGO-BARROS, ♀. SW Panay Isl., Sibalom, 50 m, sec. Vegetation, 9.- 10. XII. 1991 leg. K. Černý, CKC.

7. *Spilosoma ummeroides* sp. n., ♂. Philippinen, Palawan, Calabayong, Tanabag, Tanabag river valley, 200 m, sec. Forest, 18. - 21. XII.1991, CKC.

8. *Baroa siamica* HAMPSON, ♀. Philippinen, N. Luzon, Ifugao, Banawe vic., 20 km N Lagawe, Sekundärwald/Reisfelder, 16°54´N Breite, 121° 06´E Länge, 22. 9. - 16. 10. 1988, leg.Černý & Schintlmeister, CKC.

9. *Baroa siamica maramaga* ssp. n., ♂. Mindanao, Bukidnon, 15km NW Maramag, Mt. Malambu, Mt. Bagong Silang, 30. XII. 1991, 1450 m, prim. forest, leg. Černý, CKC.

10. *Baroa siamica maramaga* ssp. n., ♀ Mindanao, Bukidnon, 15km NW Maramag, Mt. Malambu, Mt. Bagong Silang, 30. XII. 1991, 1450 m, prim. forest, leg. Černý, CKC.

11. *Baroa oryza* sp. n., (holotype) ♂. Mindanao, Bukidnon, 15km NW Maramag, Mt. Malambu, Mt. Bagong Silang, 30. XII. 1991, 1450 m, prim. forest, leg. Černý, CKC.

12. *Baroa oryza* sp. n., (paratype) ♀. Mindanao, Bukidnon, 15km NW Maramag, Mt. Malambu, Mt. Bagong Silang, 30. XII. 1991, 1450 m, prim. forest, leg. Černý, CKC.

13. *Baroa punctibasalis* WILEMAN & WEST, ♀. Philippines, W. Samar, Hinabangan, 1000 m, 9. II. 1984 leg. Treadaway, CKC.

14. *Baroa peniculata* sp. n., (holotype) ♂. N.Luzon-Ifugao, Mt. Polis, 16km SSE Bontoc, primär Nebelurwald, 1900 m, 23.IX.1988, leg. Černý & Schintlmeister, MWM.

15. *Baroa peniculata* sp. n., (paratype) ♀. N.Luzon-Mts.Prov., Chatol, 1600 m, 15km SE Bontoc, Nebelurwald, 24.IX., 14.X.1988, leg. Černý & Schintlmeister, CKC.

16. *Baroa punctibasalis* WILEMAN & WEST, ♀. N.Luzon-Benguet, 15km S Baguio, 16°22'N; 120°36'E; Sekundärbusch, Flußtal, 1000 m, 12.X.1988, leg. Černý & Schintlmeister, CKC.

Plate 8 (Male genitalia)

1.-2. *Lemyra praetexta* sp. n.
3.-4. *Spilosoma ummeroides* sp. n.
5.-6. *Spilosoma daltonica* sp. n.

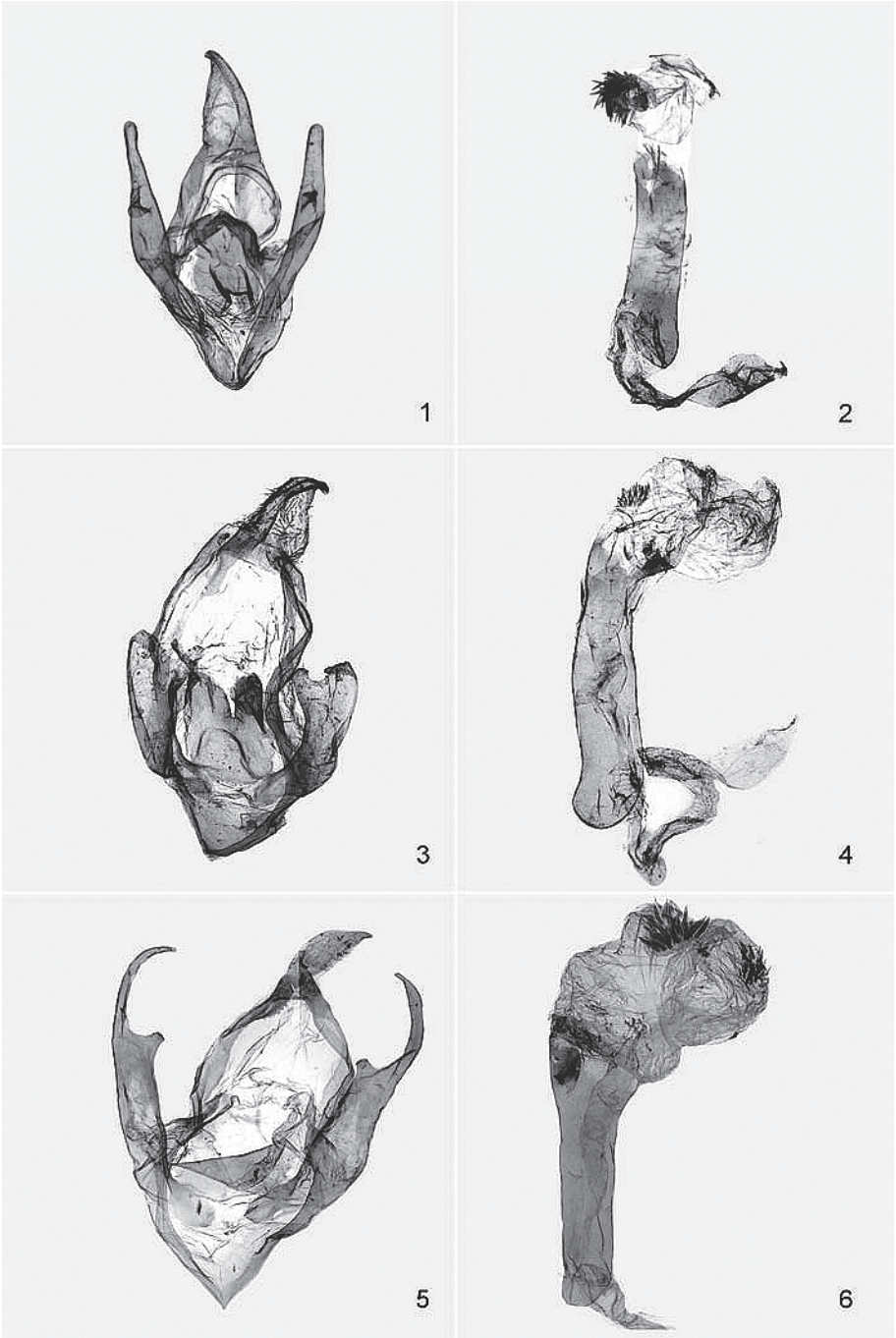


Plate 9 (Male genitalia)

1.-2. *Spilosoma strigatula* (WALKER, 1855)

2. *Spilosoma mollis* sp. n.

3. *Spilosoma trikenzana* sp. n.

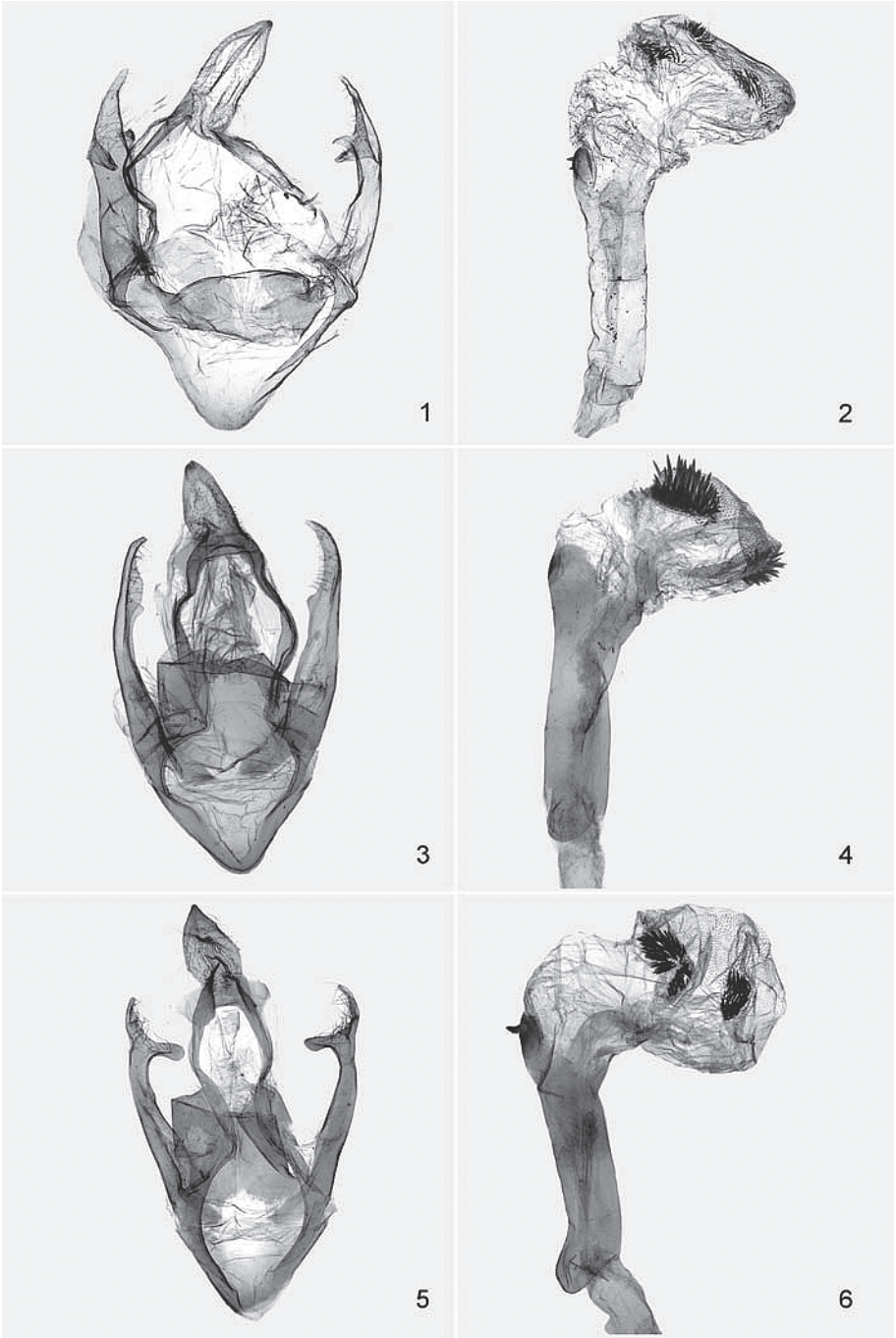


Plate 10 (Male genitalia)

1.-2. *Spilosoma brechlini* sp. n.
3.-4. *Spilosoma harlequina* sp. n.
5.-6. *Spilosoma victorina* sp. n.

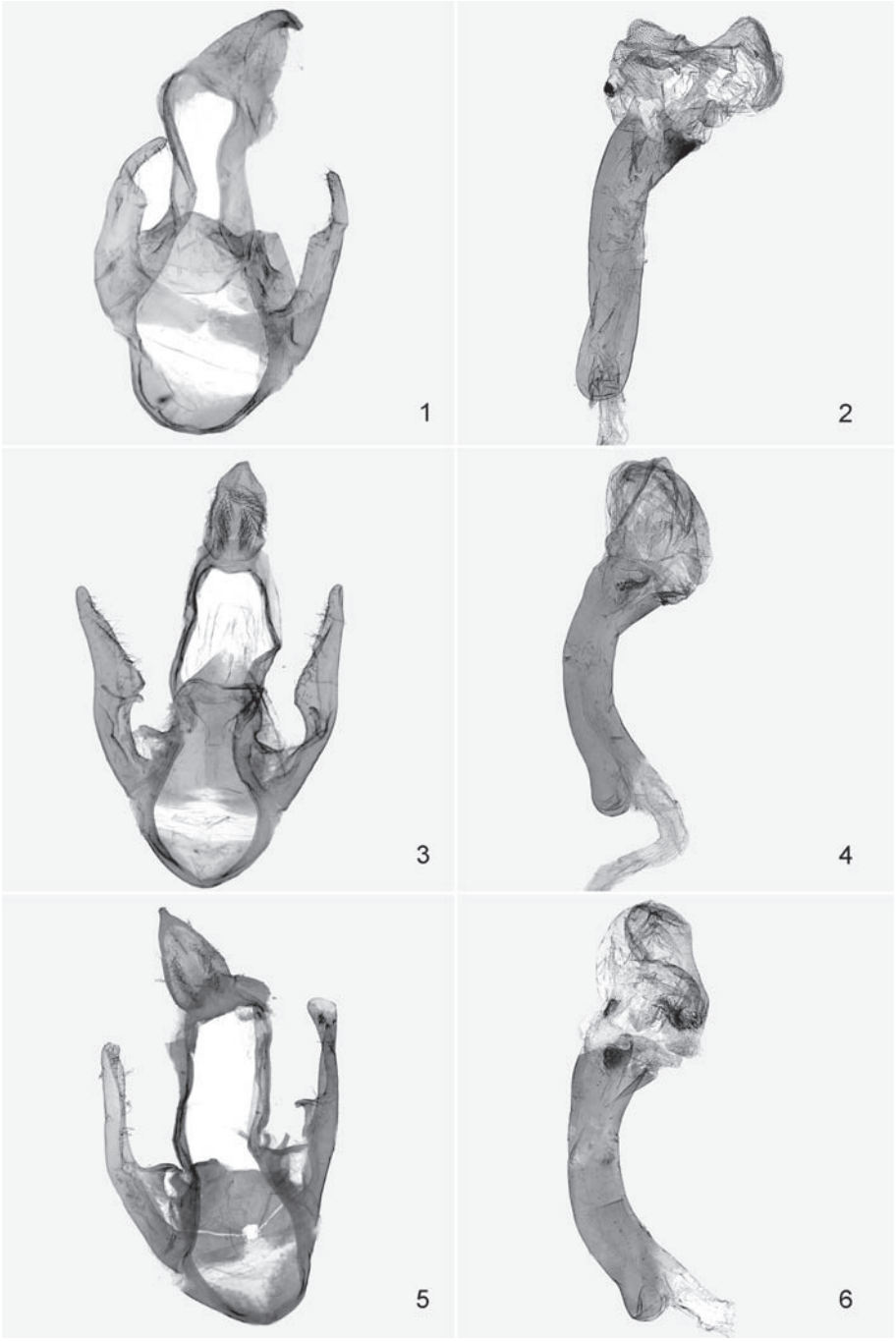


Plate 11 (Male genitalia)

1.-2. *Spilosoma mahaplaga* sp. n.
3.-4. *Spilosoma virgulae* sp. n.
5.-6. *Spilosoma caloscopium* sp. n.

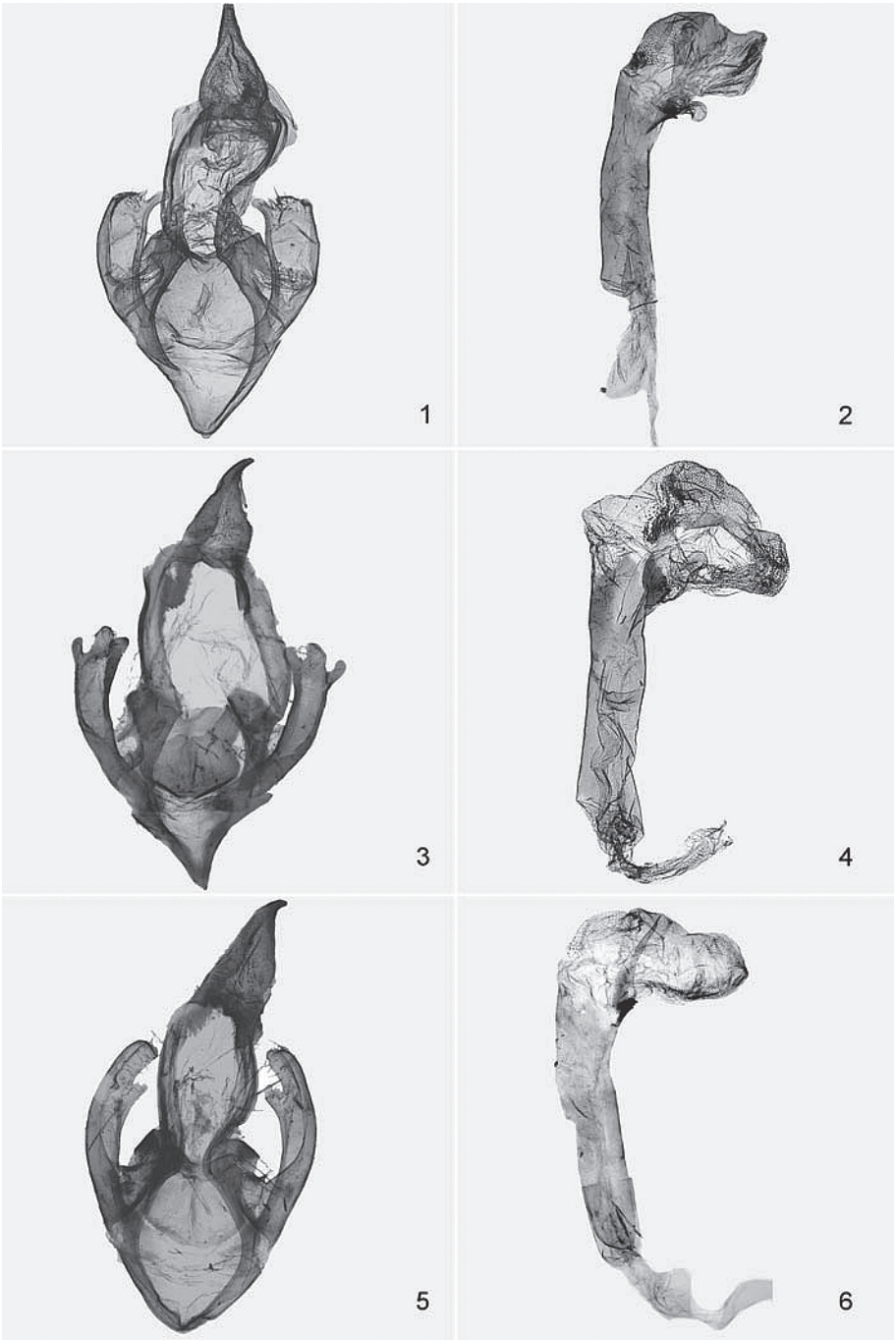
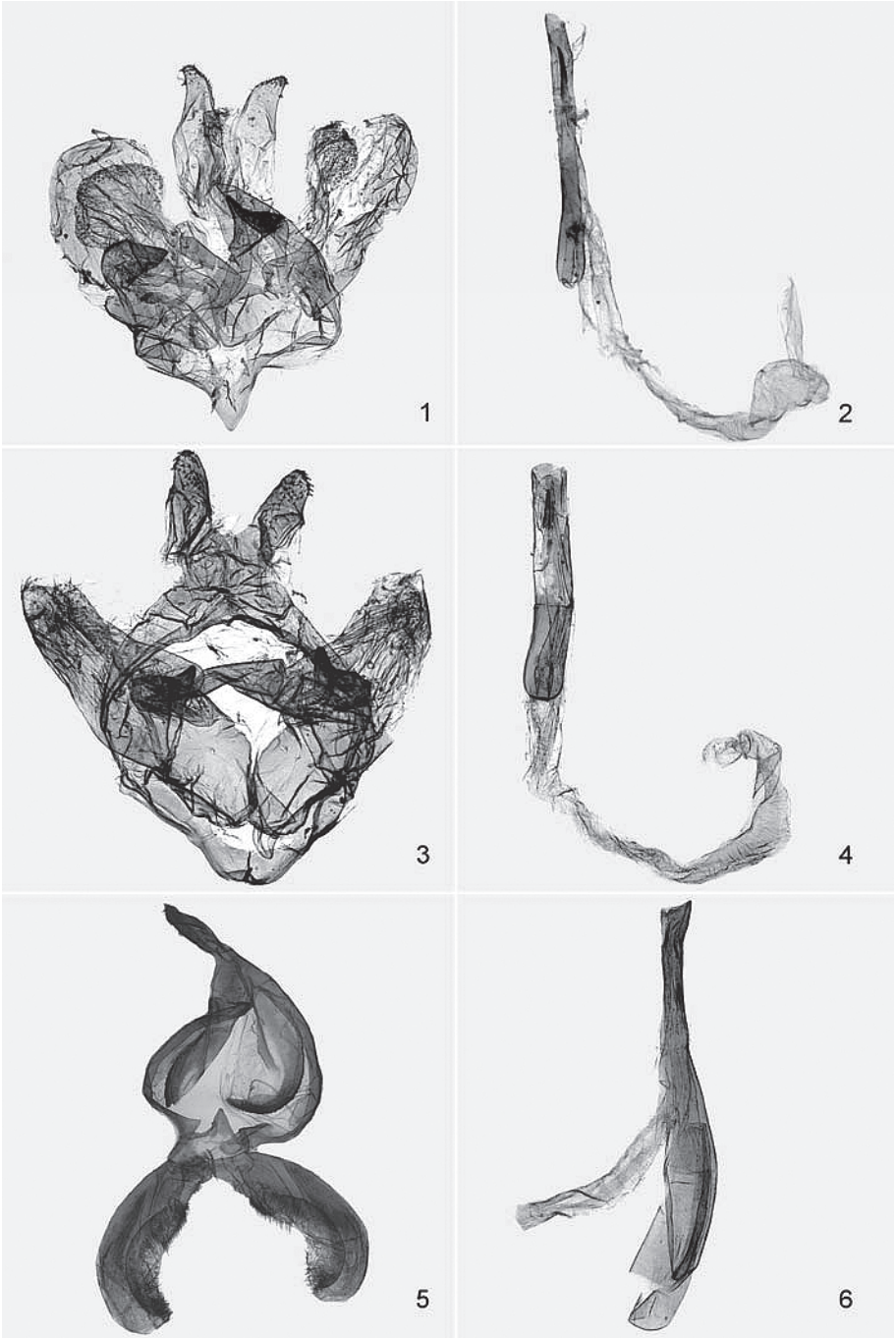


Plate 12 (Male genitalia)

1. *Baroa siamica maramaga* ssp. n.
2. *Baroa oryza* sp. n.
3. *Baroa peniculata* sp. n.



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Druck, Eigentümer, Herausgeber, Verleger und für den Inhalt verantwortlich:
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