

The Lasiocampidae (Lepidoptera) of the Philippines

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Abstract: 61 species of Lasiocampidae are noted from the Philippines and summarized in a concise checklist (see p. 136). The distribution of each species is figured in maps and the genitalia of most of them are figured in photographs. As listed below, 18 species together with 6 subspecies are described as new and figured in colour plates as are all known species, 1 new genus is erected: *Trabala danao* sp. nov., *Paralebeda lagua* sp. nov., *Paralebeda achillesi* sp. nov., *Paralebeda achillesi mindoroensis* ssp. nov., *Paralebeda pluto* sp. nov., *Lebeda prueti bondora* ssp. nov., *Eleganteda* gen. nov. *cassandra* sp. nov. (type species), *Eleganteda cassandra arimasi* ssp. nov., *Metanastria trefa* sp. nov., *Metanastria pika* sp. nov., *Metanastria marmorata* sp. nov., *Metanastria minor* sp. nov., *Metanastria jani* sp. nov., *Kunugia pippae* sp. nov., *Kunugia pippae tagubodica* ssp. nov., *Kunugia hollowayi* sp. nov., *Kunugia imeldae* sp. nov., *Kunugia fae* sp. nov., *Kunugia mervillei* sp. nov., *Kunugia mervillei noeli* ssp. nov., *Kunugia mervillei bulagaw* ssp. nov., *Kunugia dendrolimoides* sp. nov., *Odonestis apo* sp. nov., *Arguda dodongi* sp. nov. The following taxonomical changes are established: *Trabala ganesha veni* (OWADA & KISHIDA, 1986), comb. nov., stat. nov., *Gastropacha prionophora* TAMS, 1935, stat. nov., *Gastropacha prionophora marptis* TAMS, 1935, ssp. comb. nov., *Gastropacha wilemani* TAMS, 1935 stat. nov., *Odonestis leopoldi* TAMS, 1935, stat. nov., *Arguda rectilinea indonesiana* DE LAJONQUIÈRE, 1979, stat. rev. Additionally, all literature references concerning the lappet-moths from the archipelago is also cited and critically discussed. Some prime collecting-localities are figured with colour plates.

Die Lasiocampiden der Philippinen (Lepidoptera)

Zusammenfassung: 61 Lasiocampidae-Arten werden für die Philippinen nachgewiesen und zusammenfassend in einer kurzen Liste dargestellt (S. 136). Die Verbreitung aller Arten wird in Karten dargestellt, die Genitalstrukturen der meisten in Schwarzweißphotografien. Alle Arten werden auf Farbtafeln zur Abbildung gebracht. Wie der Aufstellung im Abstract zu entnehmen ist, werden davon eine neue Gattung, 18 Arten und 6 Subspecies neu beschrieben. 3 Neukombinationen werden vorgenommen. Alle aus der Literatur bekannten Daten über Lasiocampidae der philippinischen Inselwelt werden zitiert, kritisch diskutiert und kommentiert. Einige besonders artenreiche Sammelbiotope gelangen auf Farbtafeln zur Abbildung.

Introduction

The family Lasiocampidae contains moths of moderate size, for the Philippines 17–75 mm fwl., world-wide in distribution, with an obvious tendency to form endemic taxa on isolated oceanic islands or archipelagoes.

The antennae of the Lasiocampidae are mostly bipectinate to the apex, especially in ♂♂. In the ♂♂ the antennae also are more broadly pectinate than in the ♀♀ and in some genera the pectinations gradually narrow from the base outward to the apex. The ocelli are absent, the eyes are usually laterally large. The haustellum is vestigial or absent. The labial palpi are also shortened in many genera but in some (*Arguda*, *Radhica*, *Takanea*) are large and prominent. The wings are heavily scaled, fw. are usually larger than the hw. while the veins are strong. Wing venation varies in different ways within closely related groups of genera and species and was discussed by HOLLOWAY (1987: 11–13). For the hw. the frenulum is absent, and the humeral angle is broadly expanded and supported by from one to several accessory veins. These additional humeral veins in the hind wings are typical for most Lasiocampidae and for all Philippine species. The abdomen is long and elegant in ♂♂ and large and massive in ♀♀ and exceeds the hw.; in the ♀♀ of some genera (*Trabala*, *Crinocraspeda*, *Bhima*, some *Euthrix*, etc.) there is a terminal tuft of specialised scales destined to cover the eggs at the time of oviposition.

From 5 different morphological types of Lasiocampidae larvae, only two (so far as it is currently known) are native to the Philippines. One of them is the *Trabala*-type with cylindrical larvae with verrucae (only *Trabala*) or without any verrucae (*Euthrix*) and some tufts of hairs all over the body. The second is the *Pinara*-type, probably typical for all other genera of the Archipelago and characterized by flattened caterpillars with more or less large lateral lappets, with a considerable amount of secondary hairs on all parts of the head and body. Usually there are no verrucae on the body (except *Streblote*), but 1 or 2 transverse thoracic saddles are typical for most species of this group. These saddles are usually aposematic (i.e., covered by contrastingly coloured hairs) and are exposed only when the larva is disturbed.

All species of the Philippines spin cocoons before pupation amongst leaves, on tree branches or on the ground. Most species are polyphagous but for most of them the spectrum of the different foodplants is unknown.

No comprehensive (neither typologic nor phylogenetic) suprageneric classification has yet been published for the family. The currently used version in modern literature is also insufficient. In our opinion, only one subfamily occurs on the Philippines: the Pinarinae KIRBY, 1892, with the following tribes: Selenepherini TUTT, 1902, Trabalini TUTT, 1902, Pinarini KIRBY, 1892, Gastropachini TUTT, 1902, and Odonestidini TUTT, 1902. For some genera probably a new tribe has to be erected; in any case their systematic position is still vague.

Not much work has been devoted to the study of the Heterocera and specifically Lasiocampidae of these islands. The first lasiocampid species described from the Philippines was *Ticera castanea* SWINHOE, 1892. SEMPER (1896–1902, Lasiocampidae part: 1898) noted from the archipelago seven species (here and later in the introduction the original authors' combinations are given): *Ticera castanea* SWINHOE, *Suana concolor* WALKER, *Metanastria latipennis* WALKER, *M. aconyta* CRAMER, *M. hyrtaca* CRAMER, *Arguâa bheroba* MOORE and *Trabala vishnu* LEFEBVRE, the last four of them evidently erroneously. TAMS (1935) listed for these islands the following Lasiocampidae taxa: *Systrastrena minor lanaoensis* TAMS, *Gastropacha pardale philippinensis* TAMS, *Gastropacha xenapates marptis* TAMS, *Odonestis vita brachyschalida* TAMS and *Odonestis vita leopoldi* TAMS. At present, practically all are considered as separate species. Shortly thereafter, ROEPKE revised the *Trabala* in the Far East (ROEPKE 1951, 1955) and outlined for the archipelago the following species: *Trabala mahatma* ROEPKE, *T. subadra* ROEPKE, *T. sudara* ROEPKE, *T. rama* ROEPKE, *T. durga* ROEPKE, *T. mahadeva* ROEPKE and *T. sugata* ROEPKE. That list was corrected by OWADA & KISHIDA (1986, 1987), when they synonymized *T. sudara* and *T. mahadeva* with *T. durga* ROEPKE and added to the list *T. irrorata* MOORE, *T. veni* OWADA & KISHIDA and *T. inouei* OWADA & KISHIDA, with description of a new subspecies, *T. rama sugiorum* OWADA & KISHIDA. However, *Trabala inouei* OWADA & KISHIDA is a synonym of a little-known *sugata* ROEPKE (after ZOLOTUHIN 1998). Further, W. ROEPKE described *Alompra ferruginea cerastes* from the archipelago in 1953, DE LAJONQUIÈRE established *Cyclophragma magellani* in 1978, KISHIDA delineated *Lebeda gigantea* in 1992 and HOLLOWAY (1987) noted two "as yet undescribed species" of *Metanastria* and *Paralebeda* in his monography on Borneo. Thus, 19 species have been known from the Philippines prior to this publication.

This list deals mainly with the material kept in the Museum of Thomas WITT, Munich (München, CMWM), later to be included in Zoologische

Staatssammlung, München, and the collection of Colin G. TREADAWAY, Limbach (CCGT, assigned to the Senckenberg-Museum, Frankfurt am Main), and consists of specimens from Mindanao, Luzon, Palawan, Mindoro, Leyte, Negros, Samar and other islands, collected mainly during expeditions of A. SCHINTLMEISTER, K. ČERNÝ, V. SINJAEV, A. SIMONOV, R. BRECHLIN and of long standing trips and the many expeditions of C. G. TREADAWAY (from 1953 until today) with colleagues, yielding a total of 61 species. Specimens located in other collections are so noted. The holotypes of all new taxa are either in CMWM or in CCGT and will eventually become deposited in the public museums listed above.

Abbreviations and conventions in general see NÄSSIG & TREADAWAY (1998, in this issue); additional abbreviations:

DMP	Distribution map of the species in the Philippines
GU	Genitalia slide number (Zol = ZOLOTUHIN fec., MWM = in coll. CMWM, Tr = in coll. CCGT)
MNHNP	Muséum national d'Histoire naturelle, Paris, France
MNK	Museum für Naturkunde, Karlsruhe, Germany
NSMT	National Science Museum (Natural History), Tokyo, Japan
USNM	United States National Museum, Washington D.C., USA

Concise check-list of the Lasiocampidae of the Philippines

Subfamilie Pinarinae KIRBY, 1892

Tribe Selenepherini TUTT, 1902

Euthrix MEIGEN, 1830

Euthrix laeta austrina (DE LAJONQUIÈRE, 1978)

Tribe Trabalini TUTT, 1902

Trabala WALKER, 1856

Trabala viridana JOICEY & TALBOT, 1917

Trabala krishna ROEPKE, 1951

Trabala rama ROEPKE, 1951

Trabala durga ROEPKE, 1951

Trabala sudara ROEPKE, 1951

Trabala danao sp. nov.

Trabala sugata ROEPKE, 1955

Trabala ganesha veni OWADA & KISHIDA, 1986

Trabala mahatma ROEPKE, 1951

Trabala irrorata MOORE, 1884

Trabala subadra ROEPKE, 1951

Trabala pallida (WALKER, 1855)

Trabala bouraq HOLLOWAY, 1987

Tribe Gastropachini NEUMOEGEN & DYAR, 1893

Gastropacha OCHSENHEIMER, 1810

Gastropacha prionophora marptis TAMS, 1935

Gastropacha philippinensis TAMS, 1935

Gastropacha leopoldi TAMS, 1935

Tribe Pinarini KIRBY, 1892

Streblote HÜBNER, [1820]

Streblote castanea (SWINHOE, 1892)

Paralebeda AURIVILLIUS, 1894

Paralebeda crinodes uniformis HOLLOWAY, 1976

Paralebeda lucifuga (SWINHOE, 1892)

Paralebeda lagua sp. nov.

Paralebeda achillesi sp. nov.

Paralebeda achillesi mindoroensis ssp. nov.

Paralebeda pluto sp. nov.

Lebeda WALKER, 1855

Lebeda gigantea KISHIDA, 1992

Lebeda metaspila (WALKER, 1865)

Lebeda intermedia HOLLOWAY, 1987

Lebeda prueti bondora ssp. nov.

Eleganteda gen. nov.

Eleganteda cassandra sp. nov.

Eleganteda cassandra arimasi ssp. nov.

Metanastris HÜBNER, [1820]

Metanastris hyrtaca (CRAMER, 1779)

Metanastris gemella DE LAJONQUIÈRE, 1979

Metanastris trefa sp. nov.

Metanastris pika sp. nov.

Metanastris marmorata sp. nov.

Metanastris minor sp. nov.

Metanastris jani sp. nov.

Kunugia NAGANO, 1917

Kunugia gynandra (SWINHOE, 1893)

Kunugia basinigra (ROEPKE, 1953)

Kunugia magellani (DE LAJONQUIÈRE, 1978)

Kunugia quadrilineata HOLLOWAY, 1987

Kunugia pippae sp. nov.

Kunugia pippae tagubodica ssp. nov.

Kunugia hollowayi sp. nov.

Kunugia latipennis (WALKER, 1855)

Kunugia imeldae sp. nov.

Kunugia fae sp. nov.

Kunugia mervillei sp. nov.

Kunugia mervillei noeli ssp. nov.

Kunugia mervillei bulagaw ssp. nov.

Kunugia dendrolimoides sp. nov.

Dendrolimus GERMAR, 1812

Dendrolimus sp. *prope punctata* (WALKER, 1855)

Suana WALKER, 1855

Suana concolor (WALKER, 1855)

Tribe Odonestidini TUTT, 1902

Odonestis GERMAR, 1812

Odonestis vita brachyschalida TAMS, 1935

Odonestis erectilinea (SWINHOE, 1904)

Odonestis apo sp. nov.

Odonestis leopoldi TAMS, 1935

Takanea NAGANO, 1917

Takanea diehli DE LAJONQUIÈRE, 1978

Syrastrena MOORE, 1884

Syrastrena lanaoensis TAMS, 1935

Arguda MOORE, 1879

Arguda rectilinea indonesiana DE LAJONQUIÈRE, 1979

Arguda rosemariae HOLLOWAY, 1987

Arguda sandrae ZWICK, 1998

Arguda dodongi sp. nov.

Radhica MOORE, 1879

Radhica himerta (SWINHOE, 1893)

Tribal placement uncertain

Alompra MOORE, 1872

Alompra ferruginea cerastes TAMS, 1953

Alompra roepkei pella TAMS, 1953

An annotated check-list of the species

Subfamily Pinarinae KIRBY, 1892

Tribe Selenepherini TUTT, 1902

Genus *Euthrix* MEIGEN, 1830

Euthrix laeta (WALKER, 1855)

Amydona laeta WALKER, 1855, List. Spec. lepid. Insects Colln. Brit. Mus. 6: 1416.
L.t.: India (Assam, Sylhet). Syntypes: BMNH.

Euthrix laeta austrina (DE LAJONQUIÈRE, 1978)

(Plate 9: A) (Genitalia plate VII, Fig. 1)

Philudoria laeta austrina DE LAJONQUIÈRE, 1978, Annls. Soc. entomol. France 14 (3): 306, pl. 1 N, Fig. 11, 32. L.t.: Sumatra, Lebong Tandal [sic, recte Lebong Tandai!]. Holotype: ♂, BMNH.

Material studied: **Palawan**: 2 ♂♂, Taytay, Matibongbong, 16. ix. 1996 (GU Zol/Tr 97.10); **Balabac**: 1 ♂, Busay, 9. vi. 1997, leg. TREADAWAY; CCGT.

Distribution: Balabac, Palawan; widely distributed throughout Sundaland, Thailand, Vietnam, India, Pakistan, China, Taiwan, Japan, Russian Far East. (DMP: Fig. 1.)

Comments: First observation for the Philippines. All three specimens are of the dark violet-red form.

Tribe Trabalini TUTT, 1902

Genus *Trabala* WALKER, 1856

(Note. Possible ♀♀ for all species are depicted but not known for absolute certainty for most species.)

Trabala viridana JOICEY & TALBOT, 1917

(Plate 9: D, E, F) (Genitalia plate I, Fig. 3)

Trabala viridana JOICEY & TALBOT, 1917, Ann. Mag. Nat. Hist. Mus. (8) 20: 8, pl. 3, Fig. 11. L.t.: N. Dutch New Guinea, Wandamman Mts. Holotype: ♂, BMNH.

Material studied: **Luzon**: 1 ♂ N-Luzon, Banaue, 1000 m, 5. vi. 1988; 1 ♂, dto., 3600 ft., 5. xi. 1990; CCGT. **Mindanao**: 1 ♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 1700 m, 15. viii.-15. ix. 1993, leg. V. SINJAEV (GU Zol 075 = MWM Het 3953); CMWM. **Palawan**: 2 ♂♂, Taytay, Matibongbong, 16. ix. 1996; 2 ♂♂, Napsan, Salakot Falls, 330 m, 26. iii. 1996, 8. viii. 1996; 1 ♂ Olanguan, 500 ft., 9. vii. 1988; 1 ♂, Languan, 8. ix. 1984; 1 ♂, Napsan, Mt. Salakot, 700 m, 20. ii. 1996; 1 ♂, Salakot, 350 m, 20. iii. 1996; CCGT.

Probable ♀♀: **Luzon**: 1 ♀, Ifugao, Banaue, 1000 m, 5. vi. 1988; CCGT. **Mindanao**: 1 ♀, Bukidnon, Mt. Kitanglad-Süd, Intavas, 1700 m, 15. viii.-15. ix. 1993, leg. v. SINJAEV; CMWM.

Distribution: Luzon, Mindanao, Palawan, Sumatra, Borneo, West Malaysia, Vietnam, Thailand; West Irian. (DMP: Fig. 2.)

Comments: Noted from the Philippines for the first time.

Trabala krishna ROEPKE, 1951

(Plate 9: B, C)

Trabala krishna ROEPKE, 1951, Meded. Landbouwhoogesch. Wageningen 50: 117–118, pl. 3, Fig. 6; pl. 7, Fig. 4; pl. 11, Fig. 6; pl. 12, Fig. 6. L.t.: C-Sumatra, Djambi. Holotype: ♀, Institute for Plant Diseases, Buitenzorg [Bogor].

Material studied: **Palawan**: 1 ♂, Mt. Salakot, 350 m, 19. iii. 1996; 1 ♂, Irawan, 50 m, 22. ii. 1996; 1 ♂, Napsan, Salakot Falls, 330 m, 8. viii. 1996; CCGT. 1 ♂, 200 m, Calabayong Bar., Tanabag, Tanabag river, Sekundärwald, 18.–21. xii. 1991, leg. ČERNÝ; CMWM.

Probable ♀: **Palawan**: 1 ♀, nr. Brooke's Point, 26. iv. 1990; CCGT.

Distribution: Palawan; Borneo, Sumatra, Java, West Malaysia; Thailand, Burma. (DMP: Fig. 3.)

Comments: First observation for the Philippines.

Trabala rama ROEPKE, 1951

(Plate 9: G, H, J) (Genitalia plate I, Fig. 2, 4)

Trabala rama ROEPKE, 1951, Meded. Landbouwhoogesch. Wageningen 50 (7): 127, pl. 4, Fig. 8; pl. 14, figs. 6, 8, 10. L.t.: Philippines, Mindanao, Surigao. Holotype: ♂, USNM[?].

Material studied: **Luzon**: 3 ♂♂, Ifugao, Banaue vic., 20 km N Lagawe, 15°54'N, 121°06'E, 22. ix.–16. x. 1988, 1200 m, leg. ČERNÝ & SCHINTLMEISTER (1 ♂ GU Zol 072 = MWM Het 3950); 1 ♂, Luzon, Nueva Vizcaya, Dalton-Paß, Santa Fe, 800 m, Sekundärbusch, 21. ix.–17. x. 1988, 15°07'N, 120°36'E, leg. ČERNÝ & SCHINTLMEISTER; CMWM. 3 ♂♂, Ifugao, Banaue, 1000 m, 2. xi. 1988, 9. i. 1989, 15. iii. 1991; CCGT. **Mindanao**: 1 ♂, Bukidnon, Mt. Kitanglad, St. Vincente, 750 m, 15. viii.–15. ix. 1993, leg. SINJAEV (GU Zol 076 = MWM Het 3954); 2 ♂♂, Bukidnon, 45 km NW Maramag, Mt. Binansilang, 1200 m, Bergurwald, 2. x. 1988, 7°55'N, 124°40'E, leg. ČERNÝ & SCHINTLMEISTER; 2 ♂♂, Bukidnon, 40 km NW Maramag, Dalongdong, 800 m, Talakag, Waldrand, 1.–3. x. 1988, 7°53'N, 124°40'E, leg. ČERNÝ & SCHINTLMEISTER; 2 ♂♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. viii.–15. ix. 1993, leg. V. SINJAEV; CMWM.

Probable ♀: **Luzon**: 1 ♀, Ifugao, Banaue, 1000 m, 2. xi. 1988; CCGT.

Distribution (DMP: Fig. 1): Luzon, Mindanao.

Comments: For the population from northern Luzon the name *Trabala rama sugiorum* OWADA & KISHIDA, 1987¹ was proposed because of the differing shape of the teguminal appendages.

Trabala durga ROEPKE, 1951

(Plate 10: C, D)

Trabala durga ROEPKE, 1951, Meded. Landbouwhoogesch. Wageningen 50 (7): 127, pl. 4, fig. 2; pl. 14, figs. 4, 5, 11. L.t.: Philippines, Mindanao, Surigao. Holotype: ♂, USNM[?].

= *Trabala mahadeva* ROEPKE, 1951, Meded. Landbouwhoogesch. Wageningen 50 (7): 127, pl. 4, fig. 3; pl. 14, figs. 7, 9, 12. L.t.: Philippines, Mindanao, Surigao. Holotype: ♂, USNM[?].

Material studied: **Mindanao**: 1 ♂, Bukidnon, 400 ft., Mt. Bayabason, 4. iii. 1994 (GU Zol/ TR 010); 1 ♂, Sindangan, Zamboango del Norte, 26. iv. 1988; 3 ♂♂, S-Cotabato, Mt. Matutum, 3.-19. ii. 1996; 1 ♂, S-Cotabato, Mt. Matutum, 14. vi. 1996 (GU Zol/Tr 97.31); 1 ♂, S-Cotabato, Mt. Busa, 26. xi. 1996 (GU Zol/Tr 97.32); CCGT. **Bohol**: 1 ♂, Bilar, 200 m, 3. viii. 1990 (GU Zol/Tr 009); CCGT. **Leyte**: 4 ♂♂, 600 m, Hilusig, Mt. Balocaue, 2× 7. i. 1986, 2× 26. ii. 1987; 1 ♂, dto., 700 m, 31. viii. 1986; CCGT.

Probable ♀: **Mindanao**: 1 ♀, S-Cotabato, Mt. Matutum, 17. i. 1996; CCGT.

Distribution (DMP: Fig. 4): Mindanao, Bohol, Leyte.

Comments: Two taxa, *sudara* ROEPKE, 1951, and *mahadeva* ROEPKE, 1951, were considered to be synonyms of *durga* ROEPKE, 1951, by OWADA & KISHIDA (1986) because of the similar variability of the tegumen shape ("uncus" by OWADA & KISHIDA). At the same time, at least three phenotypic forms with practically identical ♂ genitalia structures can be separated for *durga* sensu OWADA & KISHIDA. For these "forms" the following names are valid: *durga* (= *mahadeva*) for a more yellow small species with short and broad wings with narrow, more straight medias and spotted brownish-grey externa; *sudara* for a more green small species with short and broad wings with broad slightly curved medias and black toothed externa; *danao* sp. nov. for a very large dark green species with elongated narrow wings with broad yellowish-brown, practically straight externa, large black discal spot and toothed black externa. The genitalia structures are of the same basic form in all these species.

Trabala rama sugiorum OWADA & KISHIDA, 1987, Tinea 12 (Suppl.): 294-295, figs. 6-7, 11-12. L.t.: N. Luzon, Banaway [= Banaue]. Holotype: ♂, National Science Museum (Nat. Hist.), Tokyo.

***Trabala sudara* ROEPKE, 1951**

(Plate 10: A, B) (Genitalia plate I, Fig. 1)

Trabaia sudara ROEPKE, 1951, Meded. Landbouwhoogesch. Wageningen 50 (7): 125, pl. 4, fig. 9; pl. 8, fig. 5. L.t.: Philippines, Mindanao, Lanao plains, Kolambugan. Holotype: ♂, BMNH.

Material studied: **Mindanao**: 1 ♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 1700 m, 15. VIII.-15. IX. 1993, leg. V. SINJAEV (GU Zol 071 = MWM Het 3949); 1 ♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. VIII.-15. IX. 1993, leg. SINJAEV (GU Zol 077 = MWM Het 3955); 1 ♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 1650 m, Primärurwald, 8°07'N, 124°55'E, 5. VIII. 1993, leg. A. SCHINTLMEISTER & V. SINJAEV; 1 ♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2750 m, Primärurwald, 8°07'N, 124°55'E, 3. VIII. 1993, leg. A. SCHINTLMEISTER & V. SINJAEV; CMWM. 2 ♂♂, Cotabato, 1600 m, Mt. Apo, 9. III. 1994 (GU Zol/Tr 002); 14 ♂♂, S-Cotabato, Mt. Matutum, 5 × 1.-20. I. 1996, 5 × 2.-23. II. 1996, 3 × 12.-19. VI. 1996, 1 × 9. X. 1996; 1 ♂, Davao Norte, Mt. Tagubod, 5000 ft.; 2 ♂♂, S-Cotabato, Mt. Busa, 15. X. 1996, 26. XI. 1996; 2 ♂♂, Bukidnon, Mt. Kitanglad, 6000 ft., 4.-10. XI. 1996; CCGT.

Probable ♀: **Mindanao**: 1 ♀, S-Cotabato, Mt. Matutum, 30. I. 1996; CCGT.

Distribution (DMP: Fig. 3): Mindanao.

Comments: See *Trabala durga* ROEPKE, 1951.

***Trabala danao* sp. nov.**

(Plate 10: K, L, M) (Genitalia plate III, Figs. 1, 2)

Holotype: ♂, Mindanao, Bukidnon, Mt. Kitanglad-Süd, Intavas, 1700 m, 15. VIII.-15. IX. 1993, leg. V. SINJAEV; CMWM.

Paratypes: **Mindanao**: 17 ♂♂, same data as HT (1 × GU Zol 074 = MWM Het 3952); 3 ♂♂, Bukidnon, 15 km NW Maramag, Mt. Bagongsilan, Mt. Kalatungan, 1450 m, 30. XII. 1991, Sekundärwald, leg. K. ČERNÝ (GU Zol 073 = MWM Het 3951); 4 ♂♂, Danao del Sur, Mt. Apo, SE-Route via Kapatagan, 2600 m, 9. VII. 1996, mountain rain forest, leg. R. BRECHLIN; 2 ♂♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 1650 m, Primärurwald, 8°07'N, 124°55'E, 5. VIII. 1993, leg. A. SCHINTLMEISTER & V. SINJAEV; CMWM. 2 ♂♂, 1600 m, Bukidnon, Mt. Kitanglad, Intavas, 2. XI. 1994 (GU Zol/Tr 008); 1 ♂, same data, 3. XI. 1996 (GU Zol/Tr 024/97); CCGT. **Negros**: 22 ♂♂, Mt. Canlaon, 9. VII. 1995, 25. VII. 1995, 26. VII. 1995, 28. VII. 1995, 6. XI. 1995, 8. XI. 1995, 10. II. 1997, 2 × 6. VIII. 1997, 2 × 9. VIII. 1997, 10. VIII. 1997, 12. VIII. 1997, 2 × 21. IX. 1997, 24. IX. 1997, 2 × 27. IX. 1997, 2 × 22. X. 1997, 26. X. 1997, 26. I. 1998; 4 ♂♂, Bais, Tindug Bato, 29. X. 1997, 1. XI. 1997, 3. XI. 1997, 1. XII. 1997; CCGT.

Probable ♀♀ (no paratypes): **Negros**: 3 ♀♀, Mt. Canlaon, 20. VIII. 1995, 15. VI. 1995, 9. XI. 1995; CCGT. **Mindanao**: 2 ♀♀, Danao del Sur, Mt. Apo, SE-Route via Kapatagan, 2600 m, 9. VII. 1996, mountain rain forest, leg. R. BRECHLIN; CMWM.

Distribution (DMP: Fig. 5): Mindanao, Negros.

A large species from the complex *durga/sudara* and the largest species of the *Trabala* from the Philippines. Wings bright green with dark green-brown slightly curved toothed postmedial fascia and black external teeth. Postmedia on the hw. strongly curved. No white line or spots on the wings. Discal spot small but obvious, in the form of a black point.

The ♂ genitalia are characteristic as figured.

There are some ♀♀ at our disposal which can be associated with the ♂♂ but only supposedly. They are not included in the type series of *danao* but one is illustrated (plate 10, M) under this name as a probable ♀.

Comments: See *Trabala durga*.

Trabala sugata ROEPKE, 1955

(Plate 9: K, L, M, Plate 11: F) (Genitalia plate II, Fig. 1, plate III, Fig. 3)

Trabala sugata ROEPKE, 1955, Z. Lepid. 3 (2/3): 150, pl. 6, fig. 4. L.t.: Philippines, [SC-Luzon], Mt. Maquiling. Holotype: ♂, coll. "College of Agriculture, Laguna, Philippines"[?].

= *Trabala inouei* OWADA & KISHIDA, 1987, Tinea 12, Suppl.: 291-293, figs. 1-5.

L.t.: northern Luzon, Ifugao Prov., Banaue. Holotype: ♂, NSMT[?].

Material studied: **Luzon**: 1 ♂, Quezon Forest Nat. Park, 250 m, leg. ČERNÝ & SCHINTLMEISTER (GU Zol 041 = MWM Het 3857); CMWM. 1 ♂, Banaue, 3600 ft., 29. XI. 1990; 3 ♂♂, Mt. Isarog, 2× 10. II. 1983, II. 1983; CCGT. **Mindoro**: 1 ♂, Mt. Halcon, 12. III. 1997; 1 ♂, Mt. Sinai, 23. I. 1996 (GU Zol/Tr 97.14); CCGT. **Leyte**: 9 ♂♂, 600 m, Hilusig, Mt. Balocaue, 26. II. 1987, 5× 6.-9. I. 1986, 2× 18. II. 1987, 6. IX. 1986; 2 ♂♂, Mt. Balocaue, Mahaplag, 700 m, 31. VIII. 1984; CCGT. **Mindanao**: 14 ♂♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. VIII.-15. IX. 1993, leg. V. SINJAEV; 2 ♂♂, Bukidnon, 15 km NW Maramag, Mt. Bagongsilan, Mt. Kalatungan, 1450 m, 30. XII. 1988, leg. K. ČERNÝ; CMWM.

Probable ♀♀: **Luzon**: 1 ♀, Camarines Sur, Mt. Isarog, 7. I. 1983; CCGT. **Mindoro**: 2 ♀♀, Mt. Sinai, 6. III. 1996, 24. III. 1996; 1 ♀, Mt. Halcon, 1200 m., 18. IX. 1996; CCGT.

Distribution (Fig. 6): Luzon, Mindoro, Leyte, Mindanao.

Trabala ganesha ROEPKE, 1951

Trabala ganesha ROEPKE, 1951, Meded. Landbouwhooges. Wageningen 50 (7): 119-120, pl. 1, fig. 10; pl. 3, fig. 3, pl. 9, figs. 11, 12. L.t.: W.-Java, Perbawatee. Holotype: ♂, coll. Agric. Univ. Wageningen.

Trabala ganesha veni OWADA & KISHIDA, 1986 stat. nov.

(Plate 10: E, F)

Trabala veni OWADA & KISHIDA, 1986, Bull. Soc. Sci. Mus. Tokyo, Ser. A, 12 (3): 132, figs. 2, 12, 19. L.t.: Philippines, north Palawan, Matangao. Holotype: ♂, NSMT[?].

Material studied: **Palawan**: 1 ♂, Irawan, 18. i. 1988; 1 ♂, Languan, 8. ix. 1984 (GU Zol/Tr 001); 1 ♂, Mt. Salakot, 26. vii. 1984; 6 ♂♂, Napsan, Salakot Falls, 330 m, 3 × 20.–23. iii. 1996, 2 × 8. viii. 1996, 30. ix. 1996; CCGT.

Probable ♀: **Palawan**: 1 ♀, Mt. Salakot, 350 m, 26. vii. 1984; CCGT.

Distribution: Palawan (ssp. *veni*), Java, Sumatra, Borneo, West Malaysia (ssp. *ganesha*). (DMP: Fig. 5.)

Comments: As was pointed out by OWADA & KISHIDA (1986: 132), *veni* is closely related to *Trabala ganesha* and differs only by the small deviation in the form of the fw. medias and tegumenal projections. Hence, it is practically impossible to separate, with certainty, both these taxa one from another and the noted pointed peculiarities in pattern and ♂ genitalia structures are within the variability of *ganesha*. Moreover, the ♀ listed above can be determined only as *ganesha* (Plate 10: F). Unfortunately, *veni* seems to be a rare taxon and it is very difficult to define precisely its status. Therefore it is considered here as a Palawan subspecies of *ganesha*, thus establishing a new subspecific combination as given above.

Trabala mahatma ROEPKE, 1951

(Plate 11: A, B, C) (Genitalia plate II, Fig. 3)

Trabala mahatma ROEPKE, 1951, Meded. Landbouwhoogesch. Wageningen 50 (7): 124–125, pl. 4, fig. 8; pl. 14, figs. 1–3, 13. L.t.: Philippines, Mindanao, Kolambagan. Holotype: ♂, BMNH.

Material studied: **Mindoro**: 1 ♂, Mdo. occid., 10 km E San Jose, Paciol, 100 m, 28. i.–4. ii. 1988, leg. ČERNÝ & SCHINTLMEISTER (GU Zol 042 = MWM Het 3858); CMWM. **Negros**: 1 ♂, Mt. Pag-ba, 18. ix. 1996 (GU Zol/Tr 22); 4 ♂♂, Mt. Canlaon, 7. vii. 1995, 8. vii. 1995, 25. vii. 1995, 6. xi. 1995 (GU Zol/Tr 21); CCGT. **Mindanao**: 2 ♂♂, S-Cotabato, Mt. Matutum, 8. i. 1996, 16. i. 1996 (GU Zol/Tr 37); 2 ♂♂, S-Cotabato, Mt. Busa, 14. x. 1996, 15. x. 1996 (GU Zol/Tr 23); 1 ♂, Bukidnon, Impalutao, 19. xi. 1995 (GU Zol/Tr 30); 1 ♂, Davao Norte, Mt. Tagubod, 1500 m, 12. viii. 1996; CCGT.

Probable ♀: **Mindanao**: 1 ♀, Davao Norte, Mt. Tagubod, 1900 m, 7. x. 1996; CCGT.

Distribution (Fig. 7): Mindoro, Negros, Mindanao.

Comments: The species was hitherto known from the type series and also two more ♂♂ that were listed by OWADA & KISHIDA (1986) from Mindanao (Gasy, Maitum, S-Cotabato and Davao); it seems to be very rare. Very characteristic species with a modification of the genitalia structures not typical for *Trabala*-♂♂.

***Trabala irrorata* MOORE, 1884**

(Plate 10: G, H, J)

Trabala irrorata MOORE, 1884, Trans entom. Soc. London. 1884: 375. L.t.: Java. Holotype: ♂, BMNH.

Material studied: **Negros**: 2 ♂♂, Mt. Canlaon, 30. iii. 1995, 25. vii. 1995; CCGT. **Cebu**: 1 ♂, Minglanilla, Mt. Luay, 600 m, 26. vii. 1984; 1 ♂, Bagacay, 8. viii. 1979; CCGT. **Leyte**: 11 ♂♂, 600 m, Hilusig, Mt. Balocaue, 3× 6.-18. v. 1987, 2× 15.-25. vii. 1985, 2× 5. i. and 11. v. 1986, 3× 30. vii.-25. viii. 1988, 11. iii. 1986; 1 ♂, Hilusig, Mt. Balocaue, 700 m, 30. ix. 1990; 3 ♂♂, Mahaplag, Mt. Balocaue, 700 m, 29. viii.-6. ix. 1984; CCGT. **Homonhon**: 1 ♂, Magellanes, 3. iv. 1988; CCGT. **Mindanao**: 1 ♂, S-Cotabato, 30. iii. 1994; 1 ♂, S-Cotabato, Mt. Busa, 27. xi. 1996; 1 ♂, S-Cotabato, Mt. Matutum, 2. ii. 1996; 1 ♂, Davao Norte, Mt. Tagubod, 6000 ft., 7. x. 1996; 6 ♂♂, Bukidnon, Impalutao, 700 m, 5. vi. 1995, 3× 6.-25. vii. 1995, 17. viii. 1995, 9. xi. 1995; CCGT. **Palawan**: 2 ♂♂, Olanguan, 6.-9. vii. 1988, 500 ft.; 2 ♂♂, Mt. Salakot, 21.-26. i. 1995; CCGT.

Probable ♀♀: **Negros**: 1 ♀, nr. Mt. Canlaon, 10. v. 1995; 2 ♀♀, Mt. Canlaon, 10. v. 1995, 10. xi. 1995; CCGT. **Leyte**: 1 ♀, Mahaplag, Mt. Balocaue, 600 m, 11. iii. 1986; CCGT. **Mindanao**: 1 ♀, S-Cotabato, Mt. Busa, 30. iii. 1994; CCGT.

Distribution: Negros, Cebu, Leyte, Samar, Homonhon, Mindanao, Palawan, Java. (DMP: Fig. 8.)

Comments: Initially this species was noted by OWADA & KISHIDA (1986) as occurring in the Philippines only on Mindanao (Gasy, Maitum, S-Cotabato).

***Trabala subadra* ROEPKE, 1951**

(Plate 11: D, E) (Genitalia plate II, Fig. 2, plate III, Fig. 4)

Trabala subadra ROEPKE, 1951, Meded. Landbouwhooges. Wageningen 50 (7): 125, pl. 4, fig. 7; pl. 8, fig. 6. L.t.: Philippines, Luzon, Benguet, Panai, Haight's Place. Holotype: ♂, BMNH.

Material studied: **Luzon**: 11 ♂♂, Ifugao, Mt. Polis, 1900 m, 6× 4.-6. v. 1988 (GU Zol/Tr 003), 4× 7.-13. vii. 1996, 12. viii. 1996; CCGT. 5 ♂♂, Ifugao, Mt. Polis, 16 km SSE Bontoc, 17°02'N, 121°01'E, Nebelurwald, primär, 1900 m, 9.-13. ii. 1988, leg. ČERNÝ & SCHINTLMEISTER; 1 ♂, Ifugao, Banaue vic., 20 km N Lagawe, Sekundärwald/Reisfelder, 1200 m, 22. ix.-16. x. 1988, 16°54'N, 121°06'E, leg. ČERNÝ & SCHINTLMEISTER; 3 ♂♂, Ifugao, Banaue, 1100 m, 5. x. 1994, 10. v. 1995, 5. xi. 1995; 9 ♂♂, Mts. Prov., Mt. Amuyao, 22 km SE Bontoc, 17°00'N, 121°09'E, Nebelurwald, primär, 2450-2700 m, 5× 15.-17. ii. 1988 (GU Zol 044 = MWM Het 3860 of ii. 1988); Nebelurwald, Pinuskultur, 1900 m, 4× 25. ix. 1988 (GU Zol 043 = MWM Het 3859 of ix. 1988), leg. ČERNÝ & SCHINTLMEISTER; 1 ♂, Mts. Prov., Mt. Data, 50 km SW Bontoc, 16°52'N, 120°50'E, Nebelurwald, Pinuskultur, 2250 m, 13. x. 1988, leg. ČERNÝ & SCHINTLMEISTER; CMWM.

Possible ♀: **Luzon**: 1 ♀, Ifugao, Banaue, 1100 m, 11. v. 1995; CCGT.

Distribution (DMP: Fig. 8): Luzon.

Comments: Seems to be a common species for Luzon; 37 ♂♂ and 2 ♀♀ were also listed for Luzon (Baguio, Benguet, Mountain Prov.) by OWADA & KISHIDA (1986).

Trabala pallida (WALKER, 1855)

(Plate 11: G, H, J)

Amydona pallida WALKER, 1855, List Spec. lepid. Insects Colln. Br. Mus. 6: 1417. L.t.: Java. Holotype: ♀, BMNH.

Material studied: **Palawan**: 2 ♂♂, Olanguan, 9. vii. 1988, 9./10. vii. 1988, 150 m (GU Zol/Tr 006); CCGT.

Possible ♀♀: **Palawan**: 1 ♀, Puerta Princesa, Jacana, 1. vii. 1973, leg. RADDATZ; 1 ♀, Olanguan, 150 m, 9. vii. 1988; CCGT.

Distribution: Palawan; Java, West Malaysia, Thailand, Burma, Vietnam, southern China. (DMP: Fig. 7.)

Trabala bouraq HOLLOWAY, 1987

(Plate 11: K, L, M)

Trabala bouraq HOLLOWAY, 1987, Moths of Borneo 3: 55, pl. 1; fig. 67. L.t.: Borneo, Brunei, Bukit Pagon. Holotype: ♂, BMNH.

Material studied: **Negros**: 1 ♂, Mt. Canlaon, 14. vi. 1995 (GU Zol 97-25); CCGT. **Palawan**: 2 ♂♂, Mt. Salakot, 350 m, 21. i. 1995, 19. iii. 1996 (GU Zol 97-27); CCGT.

Possible ♀: **Balabac**: 1 ♀, Indalawan, 29. viii. 1993; CCGT.

Distribution: Negros, Palawan, Balabac[?]; Borneo. (DMP: Fig. 6.)

The species was known before only from one ♂ taken in upper montane forest in Brunei. The specimens from the Philippines are similar in wing pattern, but paler than the holotype. In ♂ genitalia, the specimen from Palawan is practically identical to the holotype. However, the ♂ from Negros differs from it by the shape of the tergal appendices. Probably it forms a separate subspecies native to Negros, but the status of that population can only be defined more precisely after additional material for comparison will be obtained.

Tribe Gastropachini NEUMOESEN & DYAR, 1893

Genus *Gastropacha* OCHSENHEIMER, 1810

Gastropacha prionophora TAMS, 1935, stat. nov.

Gastropacha xenapates prionophora TAMS, 1935, Mem. Mus. Royal Hist. Nat. Belgique 4 (12). L.t.: North Celebes. Holotype: ♂, BMNH.

***Gastropacha prionophora marptis* TAMS, 1935, stat. nov.**

(Plate 4: D, E) (Genitalia plate IV, Fig. 1)

Gastropacha xenapates marptis TAMS, 1935, Mem. Mus. Royal Hist. Nat. Belgique 4 (12): 54, text fig. 7. L.t.: Philippines, Luzon, subprov. Benguet, Palali. Holotype: ♂, BMNH.

Material studied: **Luzon**: 1 ♂, Quezon, 14°01'N, 122°11'E, Flachlandurwald, 250 m, leg. ČERNÝ & SCHINTLMEISTER; 1 ♂, Ifugao Banaue vic., 20 km N Lagawe, 15°54'N, 121°06'E, 22. ix.–16. x. 1988, 1200 m, leg. ČERNÝ & SCHINTLMEISTER; CMWM. 1 ♂, Banaue, 3600 ft., 18. xi. 1988; CCGT. **Negros**: 1 ♀, Mt. Canlaon, 7. ix. 1996; CCGT. **Panay**: 1 ♂, Sibalom, second. forest, 50 m, 9. xii. 1991, ČERNÝ leg.; CMWM. **Samar**: 1 ♂, Bagacay, 1000 ft., 11. iv. 1980; CCGT. **Leyte**: 1 ♂, Mt. Balocaue, Mahaplag, 600 m, 2. ix. 1986; 1 ♂, Mt. Hilusig, Balocaue, 600 m, 20. ii. 1987; CCGT. **Mindanao**: 2 ♂♂, Bukidnon, 45 km NW Maramag, Mt. Binansilang, 1200 m, Bergurwald, 2. x. 1988, 7°55'N, 124°40'E, leg. ČERNÝ & SCHINTLMEISTER (GU Zol 156 = MWM Het 4010); 1 ♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 1700 m, 15. viii.–15. ix. 1993, leg. V. SINJAEV; CMWM. 1 ♂, Cotabato, Mt. Apo, 1600 m, 12. iii. 1994; 2 ♂♂, N-Cotabato, Mt. Apo, 26. ii., 9. iii. 1994; CCGT.

Distribution (Fig. 9): Luzon, Negros, Panay, Samar, Leyte, Mindanao.

Comments: Both taxa under consideration, *prionophora* and *marptis*, were described as different subspecies of *Gastropacha xenapates* TAMS, 1935 from North Celebes and Luzon, respectively. The further analysis of the type specimens (in BMNH) and of additional material from different localities of Celebes and the Philippines have shown that both taxa are conspecific and that both are separate from *Gastropacha xenapates* and more closely related to *Gastropacha wilemani* TAMS, 1935, stat. nov., from Taiwan. Therefore the new status, *Gastropacha prionophora* stat. nov. as species, and the new subspecific combination *Gastropacha prionophora marptis* are established here.

***Gastropacha philippinensis* TAMS, 1935**

(Plate 4: A, B, C) (Genitalia plate VI, Fig. 1)

Gastropacha pardale philippinensis TAMS, 1935, Mem. Mus. Royal Hist. Nat. Belgique 4 (12): 51, pl. 3, fig. 9. L.t.: Philippines, Luzon, subprov. Benguet, Palali. Holotype: ♂, BMNH.

Material studied: **Luzon**: 1 ♂ [HT], Palali, subprov. Benguet, Luzon, 2000 ft., 23. xii. 1912, A. E. WILEMAN; 3 ♂♂ [PT], same data, 20. iii. & viii. 1912, A. E. WILEMAN; BMNH. 1 ♂, 1 ♀, Ifugao Banaue vic., 20 km N Lagawe, 15°54'N, 121°06'E, 22. ix.–16. x. 1988, 1200 m; 1 ♂, 1 ♀, Luzon, Quezon, 14°01'N, 122°11'E, Flachlandurwald, 250 m; 3 ♂♂, Mts. Prov. Talubin, 7 km SE Bontoc, 12°02'N, 121°03'E, 1200 m, 14.–17. ii. 1988 (GU Zol 151 = MWM Het 4005); all leg. ČERNÝ & SCHINTLMEISTER, CMWM. 8 ♂♂, Banaue, 2× 18. iii. 1988, 1× 15. vii.

1988, 1× 11. v. 1990, 3700 ft., 1× 31. iii. 1988, 3600 ft., 1× 18. xi. 1988, 2× 3600/3700 ft., 26. iii. 1989, 4. vi. 1988; CCGT. **Mindoro**: 1 ♂, 10 km E San Jose, Paclolo, 12°22'N, 121°06'E, 28. i.-4. ii. 1988, leg. ČERNÝ & SCHINTLMMEISTER; CMWM. 1 ♀, 1 ♂, N-Mindoro, Mt. Halcon, 16. iv. 1996, 10. v. 1996; CCGT. **Negros**: 19 ♂♂, 1 ♀ Mambucal, 11. ix. 1985, 16. ix. 1992, 11.-20. ix. 1992 (7×), 9. xi. 1992, 6. x. 1992, 22. x. 1995, 20. ix. 1992, 6. x. 1992, 22. x. 1992 (♀), 9. xi. 1992; 3 ♂♂, 3 ♀♀ Negros, near Mambucal, 14. ix. 1992 (♀), 6.-22. x. 1995 (♀♀), 16. ix. 1995, 2× 10.-19. x. 1995; 2 ♂♂, NW of Valencia, 9°16'N, 123°13'E, Camp Look Out, 18. vii. 1985, ca 500 m, leg. SETTELE; 2 ♂♂, Mt. Canlaon, 6. i. 1990, 7. xi. 1992; CCGT. **Marinduque**: 1 ♀, near Binunga, 12. vii. 1985; CCGT. **Leyte**: 1 ♂, Visca, nr. Baybay, 50 m, 5. v. 1994; 1 ♂, Visca, 50 m, Secondary Forest, 1. vii. 1994, leg. SCHÜTZ; CCGT. **Mindanao**: 1 ♂, Bukidnon, 15 km NW Maramag, Mt. Bagongsilan, Mt. Kalatungan, 1450 m, 30. xii. 1991, Sekundärwald, leg. K. ČERNÝ; CMWM. 1 ♀, Bukidnon, Impalutao, 22. x. 1995; 1 ♂, Surigao del Sur, Mt. Bislig, 1. i. 1996; CCGT.

Distribution: Luzon, Mindoro, Negros, Marinduque, Leyte, Mindanao; Sulawesi. (DMP: Fig. 10.)

Comments: Dark and light coloured specimens of both sexes are typical for the same location.

Gastropacha leopoldi TAMS, 1935

(Plate 4: F, G) (Genitalia plate V, Fig. 2, plate X, Fig. 4)

Gastropacha pardale leopoldi TAMS, 1935, Mem. Mus. Royal Hist. Nat. Belgique 4 (12): 51, pl. 3, figs. 5, 6. L.t.: Borneo, Balikpapan. Holotype: ♂, BMNH.

Material studied: **Palawan**: 3 ♂♂, 200 m, Calabayong, Bar. Tanabag, Tanabag river, Sekundärwald, 18.-21. xii. 1991, leg. K. ČERNÝ (GU Zol 152 = MWM Het 4006; GU Zol 184 = MWM Het 4038); 1 ♂, 20 km NEE Roxas, S. Vicente, 10°21'N, 119°10'E, 200 m, sek. Urwald, 13.-16. xii. 1991, K. ČERNÝ leg.; CMWM. 1 ♂, Napsan, Salakot Falls, 330 m, 8. viii. 1996; 2 ♂♂, Irawan, 50 m, 14. viii. 1996; CCGT. **Sulu Archipelago**: 1 ♀, Sibutu Is., Cavan Cavan, 5 m, 28. vi. 1988; CCGT.

Distribution: Palawan, Sibutu; Borneo, Sumatra. (DMP: Fig. 10.)

Tribe Pinarini KIRBY, 1892

Genus *Streblote* HÜBNER, [1820]

Streblote castanea (SWINHOE, 1892)

(Plate 4: H, J, K, L)

Ticera castanea SWINHOE, 1892, Cat. east. & Austr. Lepid. Heterocera Coll. Oxf. Univ. Mus. 1: 269, text fig. L.t.: Philippine islands. Holotype (by original designation, see Text-Fig. 1) evidently in Hope Department of the Oxford University Museum, Oxford, U.K.

Material studied: 5 ♂♂, "Philippines"; BMNH. **Luzon:** 2 ♂♂, 10 ♀♀, [Luzon?] ?"Manila, Philippines"; 5 ♂♂, [Luzon], Manila, Santa Ana, 16. vii. 1912, A. E. WILEMAN; BMNH. 4 ♂♂, 3 ♀♀, [Luzon], Manille, LORQUIN; 1 ♂, "Luzon"; MNHNP 2 ♂♂, 4 ♀♀, Ifugao, Banaue, 16°55'N, 121°05'E, 1100 m, 8. iv. 1988 (♀), 14. vi. 1988 (♀), 17. v. 1990, 23. vii. 1990 (♀), 30. vii. 1990, 18. vi. 1991 (♀); 1 ♀, Manila, 1. xii. 1955, e. l., TREADAWAY; CCGT. **Mindoro:** 1 ♂, "Mindoro"; MNHNP 2 ♂♂, 2 ♀♀, Mt. Halcon, 16. iii. 1994 (♀), 6. iv. 1996, 2. v. 1996 (♀), 7. iv. 1997; CCGT. **Negros:** 1 ♂, 1 ♀, Mt. Kanlaon, W-Route via Mambucal, 19. vii. 1996, 600 m (♂), 15. vii. 1996, 820 m (♀), Primärurwald, leg. R. BRECHLIN; CMWM. 1 ♂, 2 ♀♀, Mt. Canlaon, 23. ii. 1985, 8. i. 1993 (♂), 10. iv. 1994; 1 ♂, 6 ♀♀, Mambucal, 14. viii. 1988, 2 × 9. xi. 1985, 1. x. 1985, 1. ii. 1990, 13. x. 1992, 15. x. 1992 (♂); 1 ♀, Mambucal, 11. x. 1987; CCGT. **Panay:** 13 ♂♂, 11 ♀, "Panay", iv. 1909, E. WAHR; BMNH. 1 ♂, Santa Barbara, 19. viii. 1983; CCGT. **Cebu:** 1 ♀, Cebu City, 3. xi. 1955; CCGT. **Samar:** 1 ♂, Antiago Valley, I. I. MOUNSAY; BMNH. **Palawan:** 2 ♀♀, Langan, 19. iii. 1977; 3 ♀♀, Puerto Princesa, 9., 10., 19. ii. 1977; 1 ♀, Irawan, xi. 1976; CCGT.

Distribution (Fig. 11): Luzon, Mindoro, Negros, Panay, Cebu, Samar, Palawan.

1251. *Ticera castanea*, n. sp.

♂ Of a uniform dark bright chestnut red colour, palpi and frons greyish yellow, two similar coloured bands across fore-part of thorax and one in the centre, from which a similar band runs down each side of the thorax. Fore-wings with two greyish yellow, indistinct sinuous transverse bands best indicated on costa and hinder margin, the first before the middle, the second just beyond, both apparently very oblique, the first marked on the costa about the centre and the second near the apex. Underside, wings duller coloured, body grayish yellow.

Expanse of wings $1\frac{5}{16}$ — $1\frac{7}{16}$ inches.

a. Philippine Islands (type).

b. Philippine Islands.

Text-Fig. 1: Original description of *Ticera castanea* SWINHOE, 1892 (copied from SWINHOE 1892).

Comments: Two ♂♂ (and no ♀♀) were mentioned by SWINHOE in the original description, one with the remark "(type)" (see Text-Fig. 1), which in 1892 made a perfectly valid type designation. One of them is now at the Hope Department of the Oxford University Museum and labelled: "Philippinen" and "Type Lep. No 672". This specimen is most likely the holotype of *Ticera castanea* SWINHOE (by original designation). At the same time in the collection of the BMNH the following "types" are also kept:

♀ "Type" of *Ticera castanea* SWINHOE, Philippines;

- ♂ “Co-type” of *Ticera castanea*, 4726, Philippines;
- ♀ “Neoallotype”, Phil. Isl.

From all these specimens, the ♀♀ cannot be considered as types because they were not mentioned in the original description. The ♂ has to be established to be the paratype.

The ♂♂ of the species occur in two colour forms: black-brown and red-brown. The ♀♀ are also very variable in colour, size and wing pattern. The postdiscal whitish band on the hw. varies in width from almost non existent to occupying a greater part of the wing.

Genus *Paralebeda* AURIVILLIUS, 1894

Note. The observations for this genus are based upon the ♂♂ only. Although we have many ♀♀ at our disposal we cannot reliably discern to which species each belongs. Therefore we have listed data concerning ♀♀ in most cases under “probable ♀♀”. This problem can only be solved by rearing.

Paralebeda crinodes (FELDER, [1874]²)

Opsirhina crinodes FELDER, “1868” [1874], Reise Novara, Lep. 2: 7, pl. 84, fig. 3. L.t.: erroneously said to be from “Guyana” Proposed by HOLLOWAY (1987: 22) to be Java or Bali. Holotype: ♂, BMNH.

Paralebeda crinodes uniformis HOLLOWAY, 1976

(Plate 5: E)

Paralebeda uniformis HOLLOWAY, 1976. Moths of Borneo with special reference to Mt. Kinabalu: 89, fig. 692, pl. 29 fig. 354. L.t.: Borneo, Sabah, Kinabalu National Park, Headquarters, Power Station. Holotype: ♂, BMNH.

Material studied: **Luzon**: 3 ♂♂, Ifugao, Banaue vic., 20 km. N Lagawe, Sekundärwald/Reisfelder, 16°54'N, 121°06'E, 22. ix.-16. x. 1988, 1200 m, leg. ČERNÝ & SCHINTLMEISTER; 1 ♂, Quezon, Tanawan, 14 km S Réal, 14°34'N, 121°33'E, 500 m, 23. i. 1989, leg. ČERNÝ & SCHINTLMEISTER; 1 ♂, Quezon, Quezon Forest Nat. Park, 14°01'N, 122°11'E, Flachlandurwald, 250 m, leg. ČERNÝ & SCHINTLMEISTER; 1 ♂, Süd-Luzon, Mt. Isarog, 6000 ft., XI-XII.1979, ex coll. BEHOUNEK; CMWM. 13 ♂♂, Banaue, 3600 ft., 5. iii. 1988, 28. iii. 1988, 2. v. 1988, 5× 13.-14. vi. 1988, 7. viii. 1988, 15. viii. 1988, 2× 22.-23. iii. 1989, 29. iv. 1991; 4 ♂♂, S-Luzon, Camarines Sur, Mt. Isarog, v. 1981, 2× ii. 1983, i. 1984; CCGT. **Mindoro**: 3 ♂♂, Mt. Sinai, 11. iii. 19996, 21. xi. 1995, 3. ii. 1996; CCGT. **Negros**: 15 ♂♂, Mt. Kanlaon, W-Route via Mambucal, 17.-8. vii. 1996, 1010 m, Primärurwald, leg. R. BRECHLIN; CMWM. 1 ♂, Mambucal, 24. ii. 1988; 2 ♂♂, Mt. Canlaon, 14.-16. x. 1990; 1 ♂, Mt. Canlaon, 6. i. 1995; CCGT. **Panay**: 1 ♂, Antique, Mt. Balay, 10. vi. 1995; 2 ♂♂, Aklan, Mt. Malindog, 25., 26. vi. 1997; CCGT. **Leyte**: 2 ♂♂, 600 m,

² The date [31. December 1874] for this taxon is from FLETCHER (1979: xi-xii). It is not clear who of the two FELDER brothers, Cajetan or Rudolph [= Rudolf], was the author; SPITZKA (1877) lists Rudolph, while FLETCHER wrote Cajetan.

Hilusig, Mt. Balocaue, 24. II., 22. V. 1987; 2 ♂♂, Bato, 450 m, 16.–17. V. 1994, coll. SCHÜTZ; 2 ♂♂, 20 km east of Ormoc, 700 m, 4., 6. VII. 1994, coll. SCHÜTZ; 1 ♂, Visca, 18. II. 1994, coll. SCHÜTZ; CCGT. **Mindanao**: 1 ♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. VIII.–15. IX. 1993, leg. V. SINJAEV; CMWM. **Busuanga**: 1 ♂, 50 m, 14. IV. 1996; CCGT. **Palawan**: 3 ♂♂, Napsan, Salakot Falls, 300 m, 23.–25. III. 1996, 8. VIII. 1996; 1 ♂, Mt. Salakot, 330 m, 18. III. 1996; CCGT.

Distribution: Luzon, Mindoro, Negros, Panay, Leyte, Mindanao, Busuanga, Palawan; Borneo. (DMP: Fig. 12.)

Comments: Some variation in colour from light to dark brown.

Paralebeda lucifuga (SWINHOE, 1892)

(Plate 6: B)

Metanastria lucifuga SWINHOE, 1892, Cat. East. & Austr. Lep. Het. 1: 264, t. 6, Fig. 5. Type-locality: Java. Type material not examined, location not known.

Material studied: **Palawan**: 1 ♂, Mt. Gantung, Fuß, 200 m, 9°01'N, 147°57'E, Zypressenwald, Sekundärveg., 19.–21. I. 1988, leg. ČERNÝ & SCHINTLMEISTER; CMWM. **Balabac**: 1 ♂, Indalawan, 8. VIII. 1994; CCGT.

Distribution: Palawan, Balabac; Borneo, W-Malaysia, Java, Sumatra, S-Thailand. (DMP: Fig. 13.)

Comments: First observation for the Philippines. We have seen a third specimen (from Palawan) in CAZS.

Paralebeda lagua sp. nov.

(Plate 5: F, G) (Genitalia plate X, Fig. 3)

Holotype: ♂, Mindanao, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. VIII.–15. IX. 1993, leg. V. SINJAEV; CMWM.

Paratypes: **Luzon**: 3 ♂♂, Quezon Forest Nat. Park, 250 m, leg. ČERNÝ & SCHINTLMEISTER (GU Zol 125 = MWM Het 3979); 1 ♂, Ifugao, 14 km SE Lagawe, Bolog, 16°41'N, 121°10'E, Sekundärveg., 500 m, 7. II. 1988, leg. ČERNÝ & SCHINTLMEISTER; CMWM. **Mindanao**: 3 ♂♂, same data as HT (GU Zol 122 = MWM Het 3975); 1 ♂, Bukidnon, Mt. Kitanglad-Süd, San Vicente, 750 m, 15. VIII.–15. IX. 1993, leg. V. SINJAEV; 1 ♂, Bukidnon, 40 km NW Maramag, Dalongdong, 800 m, Talakag, Waldrand, 1.–3. X. 1988, 7°53'N, 124°40'E, leg. ČERNÝ & SCHINTLMEISTER; 11 ♂♂, Prov. Davao del Sur, Mt. Apo, SE Route via Kapatagan, 1570 m, 10.–12. VII. 1996, leg. R. BRECHLIN; 1 ♂, Misamis Prov., Malasag Mt., 300 m, 8.–15. II. 1996, leg. GUNDOROV; CMWM. 2 ♂♂, S-Cotabato, Mt. Matutum, 24. I. 1996; CCGT. **Palawan**: 1 ♂, S. Vicente, 20 km NEE Roxas 10°21'N, 119°10'E, Mittelgebirgsurwald, 400 m, 12.–17. I. 1988, leg. ČERNÝ & SCHINTLMEISTER; CMWM.

Probable ♀, no paratype: **Luzon**: 1 ♀, Ifugao Prov., Mt.-Polis-Paß, 20 km N Banaue, 2000 m, 3.–18. VIII. 1996, leg. R. BRECHLIN, CMWM.

Distribution (DMP: Fig. 13): Luzon, Mindanao, Palawan.

A medium-sized species: exp. 61–63 mm, lfw. 25–29 mm. Body dark cream-rose, abdomen slightly darker. Background of the fw. dark brownish-rose, apical angle dark brown with indistinct silver-blue touch, anal angle light sandy-rose. The inner border of fw. medial loop with small but distinct projection and is limited by a pinkish line, the outer border concave. Clear brown tornal spot is also typical. Hw. dark yellow-brown with indistinct transversal dark brown band.

Male genitalia of the *plagifera*-type: tegumen narrow, well sclerotized, valvae short rounded, distal processes of vinculum slender long; aedeagus with short foundation and long spur.

Preimaginal instars and biology are unknown.

Diagnosis: Cannot be confused with other species in external characters although the genitalia are very similar on those of other species of *plagifera*-group.

***Paralebeda achillesi* sp. nov.**

(Plate 5: H, J) (Genitalia plate XIII, Fig. 3)

Holotype: ♂, Negros, Mambucal, 29. x. 1992; CCGT.

Paratypes: **Luzon:** 1 ♂, Ifugao, 14 km SE Lagawe, Bolog, 16°41'N, 121°10'E, Sekundärveg., 500 m, 7. ii. 1988, leg. ČERNÝ & SCHINTLMEISTER; 3 ♂♂, Quezon, Quezon Forest Nat. Park, 14°01'N, 122°11'E, Flachlandurwald 250 m, leg. ČERNÝ & SCHINTLMEISTER (GU Zol 125 = MWM Het 3979); 1 ♂, Ifugao Prov., Mt.-Polis-Paß, 20 km N Banaue, 2000 m, 3.–18. viii. 1996, leg. R. BRECHLIN; CMWM. 1 ♂, Kiangnan, 750 m, 16. v. 1985; 7 ♂♂, Ifugao, Banaue, 1100 m, 3 × 14. vii. 1988, 3 × 15. vii. 1988, 22. xii. 1988; 2 ♂♂, Ifugao, Mayoyao, 800 m, 16.+ 17. vi. 1988, leg. SETTELE; 1 ♂, S-Luzon, Mt. Isarog, 1. ii. 1983; CCGT. 1 ♂, Mountain Prov., Ifugao, Banaue, 1100 m, 1. vi. 1957, ZMUC. **Negros:** 30 ♂♂, Mambucal, 25. i. 1990, 19. x. 1991, 16. ix. 1992, 4 × 18. ix. 1992, 2 × 21. ix. 1992, 4 × 26. ix. 1992, 29. ix. 1992, 30. ix. 1992, 3. x. 1992, 2 × 4. x. 1992, 6. x. 1992, 7. x. 1992, 19. x. 1992, 3 × 22. x. 1992, 23. x. 1992, 2 × 25. x. 1992, 28. ix. 1992, 2 × 29. ix. 1992; 25 ♂♂, Mt. Canlaon, 13. ix. 1990, 20. ix. 1990, 24. ix. 1990, 26. ix. 1990, 28. x. 1990, 28. ix. 1992, 30. ix. 1992, 2 × 4. x. 1992, 7. x. 1992, 19. x. 1992, 26. x. 1992, 28. x. 1992, 26. v. 1993, 6. i. 1995, 7. i. 1995, 20. viii. 1995; CCGT. **Marinduque:** 2 ♂♂, nr. Boac, 10. iii. 1981, 20. x. 1981; CCGT. **Mindanao:** 6 ♂♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. viii.–15. ix. 1993, leg. V. SINJAEV (GU Zol 127 = MWM Het 3981); 1 ♂, Bukidnon, Dalongdong, 40 km NW Maramag, Talakar, Urwaldrand, 800 m, 7°53'N, 124°40'E, leg. ČERNÝ & SCHINTLMEISTER; 1 ♂, Misamis Prov., Malasag Mt., 300 m, 10.–22. ii. 1996, leg. GUNDOROV; CMWM. 5 ♂♂, S-Cotabato, Mt. Busa, 2 × 12. vi. 1997, 13. vi. 1997, 15. vi. 1997, 18. vi. 1997; CCGT. **Palawan:** 1 ♂, S. Vicente, 20 km NNE Roxas, 10°21'N 119°10'E, Mittelgebirgsurwald, 400 m, 12.–17. i. 1988, leg. ČERNÝ & SCHINTLMEISTER; CMWM.

Probable ♀♀ (no paratypes): **Mindanao**: 2 ♀♀, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. VIII.–15. IX. 1993, leg. V. SINJAEV; CMWM.

Distribution (DMP: Fig. 14): Luzon, Negros, Marinduque, Mindanao, Palawan. A separate subspecies on Mindoro (see below).

A species from middle to small size: exp. 48–64 mm, lfw. 18–24 mm. Body yellowish-brown. Background of the fw. rose-brown or sandy-brown, apical angle with smooth dark-brown shade. The apical silver-blue touch is distinct. The lower part of the fw. medial loop of the same colouration with the background, the upper one enlarged, dark brown with 2–3 contrasting white veins; the loop is limited finely by brown lines and its borders are almost parallel without any projections. Clear black-brown tornal spot is present. Hw. slightly lighter than the fw.

Male genitalia of the *femorata*-type: tegumen narrow weakly sclerotized, valvae short rounded, distal processes of vinculum short, broad basally with triangular tops. Aedeagus characteristic tubular with elongated slightly curved base, finely toothed basal part of vesica without any obvious apical spur.

Preimaginal instars and biology are unknown.

Diagnosis: This species is similar to *Paralebeda plagifera* in external characters but the ♂ genitalia are diagnostic.

Etymology: Named after Thomas ACHILLES for his outstanding contribution to our knowledge of Philippine moths through his assiduous collecting in the Philippines and in particular in N-Luzon during the 1980ies.

The new species has two subspecies; *Paralebeda achillesi achillesi* is widespread on the Philippines, while there is a separate subspecies on Mindoro:

***Paralebeda achillesi mindoroensis* ssp. nov.**

(Plate 5: D, K) (Genitalia plate X, Fig. 2)

Holotype: ♂, N-Mindoro, Mt. Sinai, 15. III. 1996; CCGT.

Paratypes: **Mindoro**: 3 ♂♂, Mt. Sinai, 11. III. 1996, 12. III. 1996, 3. X. 1996; 8 ♂♂, Mt. Halcon, 16. III. 1997, 14. IV. 1996, 14. V. 1997, 21. VI. 1996 (GU Zol/Tr 41), 22. VI. 1997, 20. II. 1998, 27. II. 1998, 28. II. 1998; CCGT.

Probable ♀ (no paratype): **Mindoro**: 1 ♀, Mt. Halcon, 16. IV. 1996; CCGT.

Distribution (Fig. 14): This subspecies is known only from Mt. Sinai and Mt. Halcon, N. Mindoro.

This subspecies distinctly differs from the nominotypical *achillesi* by shorter and broader wings with a more contrasting pattern. Brown anal spot

larger, obvious. Silver-blue scales cover a larger zone of the apical angle and veins of the medial loop are emphasized with these scales. Genitalia as in the nominotypical subspecies.

***Paralebeda pluto* sp. nov.**

(Plate 5: A, B, C. Plate 6: C) (Genitalia plate V, Fig. 1)

Holotype: ♂, N-Luzon, Mts. Prov., Mt. Amuyao, 22 km SE Bontoc, 17°00'N, 121°09'E, 1600 m, 25. IX. 1988, leg. ČERNÝ & SCHINTLMEISTER; CMWM.

Paratypes: Luzon: 2 ♂♂, subprov. Benguet, Sapiangao, 5800 ft., 14. & 16. XII. 1912, A. E. WILEMAN; 1 ♂, subprov. Benguet, Hights Place, Panai, 7000 ft., 13. XI. 1912, A. E. WILEMAN, 3 ♂♂, subprov. Benguet, Baguio, 5000 ft., 18. III. 1912, 22. V. 1912, 3. VI. 1912, A. E. WILEMAN; BMNH. 12 ♂♂, Ifugao, Mt. Polis, 16 km SSE Bontoc 17°02'N, 121°01'E, Nebelurwald, primär, 1900 m, 9.-13. II. 1988, leg. ČERNÝ & SCHINTLMEISTER (GU Zol 126 = MWM Het 3980); CMWM. 24 ♂♂, Ifugao, Mt. Polis, 2× 4. V. 1988, 3× 5. V. 1988, 4× 6. V. 1988, 6× 1900 m/2. VIII. 1988, 1× 1900 m/3. VIII. 1988, 4× 1900 m/9. VIII. 1996, 2× 1900 m/11. VIII. 1996, 2× 1900 m/12. VIII. 1996; CCGT. 7 ♂♂, 3 ♀♀, Luzon, Ifugao Prov., Mt.-Polis-Paß, 20 km N Banaue, 2000 m, 21.-23. VII. 1996, leg. R. BRECHLIN; 88 ♂♂, dto., 3.-18. VIII. 1996, leg. R. BRECHLIN; 7 ♂♂, Mts. Prov. Mt. Amuyao, 22 km SE Bontoc, 17°00'N, 121°09'E, 1600 m, 25. IX. 1988, leg. ČERNÝ & SCHINTLMEISTER (GU Zol 128 = MWM Het 3982); 1 ♂, Mts. Prov., Chatol, 1600 m, 15 km SE Bontoc, 17°02'N, 121°03'E, Nebelurwald, 24. IX., 14. X. 1988, leg. ČERNÝ & SCHINTLMEISTER; CMWM. 6 ♂♂, Ifugao, Banaue, 1100 m, 16. III., 31. III. 1988, 2× 4. I. 1989, 18. II. 1991, 4. X. 1994; 1 ♀, Ifugao, Tinok, 1600 m, 24. IV. 1985; 1 ♂, Ifugao, Gumhang, 1450 m, 22. IV. 1985; 1 ♂, Ifugao, Kiangang, 800 m, 9. IV. 1985, leg. SETTELE; CCGT.

Distribution (DMP: Fig. 15): Luzon.

One of the smaller *Paralebeda* species: exp. 47-54 mm, lfw. 23-26 mm, with short and broad wings. Body dark yellow-brown. Fw. dark yellowish-brown, apical silver-blue touch is not present but grey dentated externa developed in majority of specimens. No dark touches are present, wings are of a monotonous colour. The fw. medial loop of the same colouration with the background, finely limited by brown scales, and its inner border is almost straight. The tornal spot is very small or reduced completely. The hw. are slightly lighter than the fw. The individual variability shows up in the darker or lighter background and in the width of the fw. medial loop.

Male genitalia of the *femorata*-type: tegumen narrow weakly sclerotized, valvae short flattened laterally with small marginal projections, distal processes of vinculum short, broad basally with triangular tops. Aedeagus tubular with elongated straight base, some large teeth on the basal part of vesica and short but distinct apical spur.

♀: Exp. 72–81 mm, lfw. 34–39 mm. Colour of medial loop of uniform dark-brown, darker than wing's background. Upper part of medial loop touching costa, loop top bilobate. Ternal spot small. ♀ genitalia not studied.

Preimaginal instars and biology are unknown.

Diagnosis: Cannot be confused with other species with respect to external characteristics. The ♂ genitalia constructions are also diagnostic.

Comments: This species was noted by HOLLOWAY (1987: 22): "There is an yet undescribed species from Luzon with uniform, rather bronzy brown, deep fw. and the merest fine tracery of the medial loop; the build is more slender than in other taxa."

Genus *Lebeda* WALKER, 1855

Lebeda gigantea KISHIDA, 1992

(Plate 1: A, B)

Lebeda gigantea KISHIDA, 1992, Tyô to Ga 43 (2): 144–146, fig. d. L.t.: Philippines, Mindanao, Davao, Apo Range, Mt. Talamo. Holotype: ♂, NSMT[?].

Material studied: **Mindanao**: 1 ♂, Davao Norte, Mt. Malambu, Leatu Talumays, 7°40'N, 125°15'E, Bergurwald, 1400 m, leg. ČERNÝ & SCHINTLMEISTER; 1 ♀, Prov. Davao del Sur, Mt. Apo, SE Route via Kapataagan, 1570 m, 10.–12. vii. 1996, leg. R. BRECHLIN; 2 ♂♂, Bukidnon, 15 km NW Maramag, Mt. Kalatungan, second. forest, Mt. Bagong Silang, 1250 m, 29. xii. 1991, ČERNÝ leg.; 2 ♂♂, Bukidnon, 45 km NW Maramag, Mt. Binansilang, 1200 m, Bergurwald, 2. x. 1988, 7°55'N, 124°40'E, leg. ČERNÝ & SCHINTLMEISTER; 4 ♂♂, Bukidnon, Mt. Kitanglad-Süd, St. Vicente, 750 m, 15. viii.–15. ix. 1993, leg. SINJAEV; 1 ♂, Bukidnon, Mt. Kitanglad, S-Seite, Intavas, Sek.-Wald, 1200 m, viii. 1993, 8°07'N, 124°55'E, leg. SINJAEV & SCHINTLMEISTER; 1 ♂, Bukidnon, 40 km NW Maramag, Dalongdong, 800 m, 7°53'N, 124°40'E, leg. SINJAEV & SCHINTLMEISTER; CMWM. 2 ♂♂, Bukidnon, Mt. Kitanglad, 25. vii. 1990, leg. TREADAWAY; 5 ♂♂, Mt. Matutum, S. Cotabato, 3× 3.–17. ii. 1996, 21. i. 1996, 15. iii. 1996, 2 ♀♀, dto., 5.–15. ii. 1996; 2 ♂♂, S. Cotabato, Mt. Busa, 6. ix. 1997; CCGT.

Distribution (DMP: Fig. 15): Mindanao.

Lebeda metaspila (WALKER, 1865)

(Plate 6: A)

Megasoma metaspila WALKER, 1865, List. Lep. Heterocera Brit. Mus. 32: 567 L.t.: Celebes, Mak (WALLACE). Holotype: ♀, BMNH.

Material studied: **Mindanao**: 2 ♂♂, Bukidnon, Mt. Kitanglad, 1200 m, 1.–7. ii. 1996, leg. S. GUNDOROV; 1 ♂, Misamig, Malasag Mt., 300 m, 8.–15. ii. 1996, leg. S. GUNDOROV; CMWM.

Distribution: Mindanao; Sulawesi, Java, Thailand, Sumatra. (DMP: Fig. 16.)

Comments: First observation for the Philippines.

Lebeda intermedia HOLLOWAY, 1987

(Plate 12: A, B)

Lebeda intermedia HOLLOWAY, 1987, Moths of Borneo 3: 21–22, pl. 9, fig. 10. Lt.: Borneo, Kuching. Holotype: ♂, BMNH.

Material studied: **Palawan**: 1 ♂, 1 ♀, Brooke's Point, 17. viii. 1961, Noona Dan Exp. 1961/1962; 7 ♂♂, 10 ♀♀, same data, but viii. 1961; ZMUC.

Distribution: Palawan; Borneo, Sumatra, Peninsular Malaysia. (DMP: Fig. 16.)

Comments: First observation from the Philippines.

Lebeda prueti HOLLOWAY, 1987

Lebeda prueti HOLLOWAY, 1987, Moths of Borneo 3: 21, pl. 9; fig. 9. Lt.: NO Borneo, Sabah, Tawau distr. Holotype: ♂, BMNH.

Lebeda prueti bondora ssp. nov.

(Plate 1: J)

Holotype: ♀, N-Samar, Bondo, 14. iv. 1994; CCGT.

The only ♀ with a very characteristic appearance: head and thorax greyish-brown, abdomen reddish-brown; fw. with sandy grey-brown ground colour with a darker external and medial margin; the transversal lines are light cream; discal spot reduced but discal zone is slightly darker. Black anal spots are also typical. Hw. dark reddish-brown with cream-brown transversal line. Exp. 98 mm, lfw. 48 mm.

Comments: As pointed out elsewhere (ZOLOTUHN 1998), the *Lebeda*-complex is not yet revised and more material is needed to define the status of some Sundaland taxa. At the same time, *Lebeda prueti* is one of the species for which the taxonomic status seems to be clear. The new subspecies differs notably from the nominotypical form by darker but less contrasting colouration, a different shape of the medial lines on fw. as well as weak development of the dark colouration in the discal zone of the fw.

Distribution (DMP: Fig. 16): Samar; the nominotypical subspecies, at this time, is also known from Sumatra as well as Borneo (ZOLOTUHN & WITT 1998, in press).

Genus *Eleganteda* gen. nov.

Type-species: *Eleganteda cassandra* sp. nov., hereby designated.

Lasiocampidae of medium size with long body and broad wings with rounded or slightly concave outer margin. Wing pattern distinct consisting of transversal fasciae. Antennae bipectinate in both sexes. In fw. venation r2 on the short branch with r3, r4 free, r5 and m1 as well as m2 and m3 are closely together. Humeral veins of the hw. are weak.

Male genitalia as in species account. Only one species included so far.

Comments: In external characters *Eleganteda* cannot be confused with *Metanastria* but is similar to some *Lebeda* species.³ From these *Eleganteda* can be differentiated by more broad wings with rounded outer margin, by more elegant body and by the peculiarities of the ♂ genitalia. The typical feature is also the shape of the costal margin of the hw. which is atypical for *Metanastria* or *Lebeda* and resembles only those of *Radhica* or some *Odonestis*.

Eleganteda cassandra sp. nov.

(Plate 3: A, B, C)

Holotype: ♂, C-Leyte, Hilusig, Mt. Balocaue, 600 m, 25. VIII. 1988; CCGT.

Paratypes: Samar: 2 ♂♂, Bagacay, 300 m, 6. VIII. 1979, 12. IV. 1982; 4 ♂♂, Bagacay, 350 m, 11. VIII. 1979, 1. VI. 1980, 12. IV. 1982, 24. III. 1996; 1 ♂, nr. Hinabangan, Arizona, 24. III. 1996, leg. TREADAWAY; 3 ♂♂, nr. Hinabangan, Arizona, 1200 ft., 25. VI. 1997, leg. TREADAWAY; CCGT. Leyte: 1 ♀, Hilusig, Mt. Balocaue, 600 m, 21. I. 1988; 48 ♂♂, C-Leyte, Hilusig, Mt. Balocaue, 600 m, 21. II. 1982, 26. II. 1984, 2× 31. VIII. 1984, 1. IX. 1984, 23. IX. 1984, 3. I. 1986, 4. I. 1986, 8. I. 1986, 9. I. 1986, 3× 10. I. 1986, 1. II. 1986, 3. V. 1986, 9. V. 1986, 11. V. 1986, 30. VIII. 1986, 2× 2. IX. 1986, 2× 4. IX. 1986, 2× 8. IX. 1986, 10. IX. 1986, 12. IX. 1986, 13. XII. 1986, 17. II. 1987, 3× 23. II. 1987, 25. II. 1987, 5× 26. II. 1987, 27. II. 1987, 18. V. 1987, 22. VII. 1987, 2× 22. IX. 1987, 23. IX. 1987, 2× 25. VIII. 1988, 26. II. 1989; 3 ♂♂, Bato, Primary Forest, 16. V. 1994 (coll. SCHÜTZ); CCGT.

Distribution (DMP: Fig. 17): Samar, Leyte. A separate subspecies on Mindanao, see below.

Large species with broad wings. The ground colour dark brownish-grey with lighter transversal bands on the wings. Fw. with four transversal narrow almost parallel brown fasciae, black-spotted externa and small semi-lunar discal spot; dark medial field, typical for *Metanastria* species, ab-

It is possible that the species that was noted by SEMPER (1896–1902, Lasiocampidae pages published 1898: 453) for the Philippines (Bohol) as "*Metanastria aconyta*" belongs to the new genus.

sent. Hw. reddish-brown with two smooth lighter transversal bands. Exp. ♂♂ 54–66 mm, lfw. 29–33 mm (holotype: 66 and 33 mm, respectively).

♂ genitalia: Very similar to those of *Metanastria*. Tegumen narrow; socii distinct, short, well sclerotized. Vinculum broad flattened. Valvae finger-shaped, adhered in foundation with juxta. Distal processes of vinculum (“cubile”) present in 2 well sclerotized flattened lobes. There is a short conical spur on the distal edge of every lobe. Saccus rudimentary. Aedeagus with broad basis and weak-shaped elongated tip, covered dorsally with 2 parallel rows of thorns. Vesica without cornuti.

♀ considerably larger, with more elongated wings of the same colouration and pattern. The transversal lines of the fw. are more straight than in ♂♂. Flagellum with short appendages. Exp. 102–114 mm, lfw. 54–55 mm.

♀ genitalia: Vaginal plates small; antrum and ductus short membranous, bursa copulatrix without signi.

Biology and preimaginal instars are still unknown.

The new species has two subspecies; one known from the East Visayan islands, the second one from Mindanao:

Eleganteda cassandra arimasi ssp. nov.

(Plate 3: D) (Genitalia plate IV, Fig. 2)

Holotype: ♂, Mindanao, N-Davao Prov., Mt. Tagubod, 1400 m, 17. VIII. 1996; CCGT.

Paratypes: **Mindanao:** 3 ♂♂, 1 ♀, Davao del Sur, Mt. Apo, 10.–12. VII. 1996, leg. R. BRECHLIN; 6 ♂♂, Davao del Sur, Mt. Apo, SE-route via Kapatagan 10.–12. VII. 1996, 1570 m, Primärurwald, leg. R. BRECHLIN; 1 ♂, Mt. Apo, Westflanke, 1200 m, Sekundärwald, 28.–30. VII. 1993, leg. R. BRECHLIN; CMWM. 6 ♂♂, Davao del Norte, Mt. Tagubod, 10. VIII. 1996, 4× 7. x. 1996, 8. x. 1996; CCGT. 3 ♂♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. VIII.–15. IX. 1993, leg. V. SINJAEV (GU Zol 144 = MWM Het 3998); 1 ♂, 40 km NW Maramag, Dalongdong, 800 m, Talakag, Waldrand, 1.–3. x. 1988, 7°53'N, 124°40'E, leg. ČERNÝ & SCHINTLMEISTER (GU Zol 133 = MWM Het 3987); 1 ♂, Misamis Prov., Malasag Mt., 300 m, 8.–15. II. 1996, leg. GUNDOROV; CMWM. 25 ♂♂, S-Cotabato, Mt. Matutum, 3. II. 1996, 4. II. 1996, 2× 5. II. 1996, 6. II. 1996, 7. II. 1996, 8. II. 1996, 2× 9. II. 1996, 3× 10. II. 1996, 11. II. 1996, 2× 12. II. 1996, 2× 13. II. 1996, 2× 15. II. 1996, 16. II. 1996, 10. IV. 1996, 1. VII. 1996, 2× 6. x. 1996, 9. x. 1996; 2 ♂♂, Cotabato, Mt. Apo, 160 m, 26. II. 1994, 8. III. 1994; 2 ♂♂, S-Cotabato, Mt. Busa, 2. III. 1997, 12. VI. 1997; 3 ♂♂, Bukidnon, Mt. Kitanglad, Intavas, 1300 m, 26. VII. 1990, 26. XI. 1997, 27. XI. 1997; CCGT.

Distribution (DMP: Fig. 17): So far as known the distribution of this subspecies is limited to the mountains of Central and Eastern Mindanao.

Exp. 46–60 mm, lfw. 26–33 mm. The new subspecies *arimasi* differs strikingly from the nominotypical form by the much darker brown ground colour of wings as well as the body, the grey instead of the yellow markings (typical for ssp. *cassandra*); for many specimens a blackish-brown elongated discal stripe is characteristic. The discal spot is white, rounded and larger than in nominotypical subspecies. Male genitalia very similar to the nominotypical subspecies.

Etymology: This subspecies is named after Peter ARIMAS who has over several years provided us with highly interesting Lasiocampidae.

Genus *Metanastria* HÜBNER, [1820]

Metanastria hyrtaca (CRAMER, 1779)

(Plate 6: F)

Phalaena hyrtaca CRAMER, 1779, Uitlandsche Kapellen (Papillons Exot.) 3: 97, pl. 249 F. L.t.: India. Type material probably lost, not examined.

Material studied: **Negros:** 1 ♂, Mt. Canlaon, 10. iv. 1995; 1 ♂, Mt. Mambucal, 10. x. 1991; CCGT. **Mindanao:** 1 ♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. viii.–15. ix. 1993, leg. V. SINJAEV; CMWM. 1 ♂, Bukidnon, Mt. Kitanglad, 15. i. 1996; 4 ♂♂, Bukidnon, Impalutao, 3× 19. xi. 1995; 1× 750 m, 17. viii. 1995; 1 ♂, S-Cotabato, Mt. Busa, 27. ii. 1997; CCGT.

Distribution: Negros, Mindanao; Sundaland, Thailand, China, Taiwan, India, Nepal, Pakistan. (DMP: Fig. 18.)

Metanastria gemella DE LAJONQUIÈRE, 1979

(Plate 6: D) (Genitalia plate IX, Fig. 3)

Metanastria gemella DE LAJONQUIÈRE, 1979, Anns Soc. ent France (N.S.) 15: 686–688, pl. 1, D, E, figs. 4–6, 8. L.t.: North-eastern Sumatra. Holotype: ♂, MNK.

Material studied: **Luzon:** 1 ♂, Ifugao, Banaue, 1200 m, 30. xi. 1988, leg. ACHILLES; CCGT. **Mindoro:** 1 ♂, occid., 10 km E San Jose, Paololo, 12°22'N, 121°08'E, 100 m, Kalk, 28. i.–4. ii. 1988, leg. ČERNÝ & SCHINTLMEISTER (GU Zol 185 = MWM Het 4039); CMWM. 4 ♂♂, Mt. Halcon, 20. x. 1997, 20. ii. 1998, 25. ii. 1998, 26. ii. 1998; CCGT. **Sibuyan:** 1 ♂, Romblon Group, Sibuyan Is., Jao Asan, 150 m, 18. i. 1983; CCGT. **Negros:** 2 ♂♂, Mambucal, 28. x. 1992, 20. vi. 1996; 2 ♂♂, Mt. Canlaon, 3./4. i. 1998; CCGT. 2 ♂♂, occ., Mt. Kanlaon, W-Route via Mambucal, 17.–18. vii. 1996, 1010 m, Primärurwald, leg. R. BRECHLIN; 2 ♂♂, 3 ♀♀, Mt. Kanlaon, W-Route via Mambucal, x. 1996, 600 m, Primärurwald, leg. R. BRECHLIN; 1 ♂, dto. 19. vii. 1996; CMWM. **Tawitawi:** 2 ♂♂, Sulu Arch., Tawitawi Is., Tarawakan, 11. xi. 1961; ZMUC. **Palawan:** 4 ♂♂, Irawan, 50 m, 9. ix. 1990, 14. viii. 1996, 2× 6. iv. 1997; 1 ♂, Salakot Falls, 300 m, 19. iii. 1996; 1 ♂, Olanguan, 150 m, 10. vii. 1988; CCGT. 1 ♂, Irawan, 20. x. 1993, ex coll. SCHINTLMEISTER, CMWM. **Balabac:** 2 ♂♂, Balabac Town, 11. vi. 1997, leg. TREADAWAY; 1 ♂, Busay, 12. vi. 1997, leg. PETERSEN; CCGT.

Distribution: Luzon, Mindoro, Sibuyan, Negros, Tawitawi, Palawan, Balabac; Sundaland; another subspecies occurs in Thailand, Vietnam, India, Pakistan, China, Taiwan. (DMP: Fig. 19.)

Metanastria trefa sp. nov.

(Plate 6: K, L, M) (Genitalia plate XII, Fig. 1)

Holotype: ♂, Philippinen, Mindanao, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. VIII.–15. IX. 1993, leg. V. SINJAEV; CMWM.

Paratypes: **Mindanao:** 11 ♂♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. VIII.–15. IX. 1993, leg. V. SINJAEV (GU Zol C3 = MWM Het 4306); 1 ♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 1650 m, 5. VIII. 1993, leg. A. SCHINTLMEISTER & V. SINJAEV; CMWM. 6 ♂♂, Bukidnon, Mt. Kitanglad, above Intavas, 1× 2000 m, 1. XI. 1994, 1× 1600 m, 2. XI. 1994, 3× 1800 m, 2. XI. 1994, 1× 1450 m, 3. XI. 1994; CCGT. 3 ♂♂, Danao del Sur, Mt. Apo, SE-Route via Kapatagan, 2600 m, Bergregenwald, 9. VII. 1996, leg. R. BRECHLIN; 1 ♀, Danao del Sur, Mt. Apo, SE-Route via Kapatagan, 2230 m, Bergregenwald, 8. VII. 1996, leg. R. BRECHLIN; 14 ♂♂, 1 ♀, Danao del Sur, Mt. Apo, SE-Route via Kapatagan, 1570 m, 10.–12. VII. 1996, primary forest, leg. R. BRECHLIN; CMWM.

Distribution (DMP: Fig. 19): Mindanao.

♂: Exp. 40–48 mm, lfw. 19–23 mm. Wings rounded, short. Fw. yellow-brown with distinct dark-brown shining pattern from 2 transversal, yellow bordered, anastomosing bands, forming X-shape or)(-shape figure. Discal spot distinct white, triangular. External fascia sandy-yellow toothed with dark-grey outer border. Hw. rosy-brown without pattern.

♂ genitalia: Tegumen and socii weak. Vinculum broad flattened, almost regular rectangular. Valvae short finger-shaped. Distal processes of vinculum (“cubile”) presented in 2 weakly sclerotized flattened plates with finely toothed outer margin. Saccus rudimentary. Aedeagus with broad basis and short mace-shaped tip, covered dorsally and ventrally by rows of irregular thorns. Vesica with slightly sclerotized foundation without cornuti.

♀: Exp. 62–64 mm, lfw. 29–31 mm. Fw. rounded, with two pairs of transversal, yellow bordered lines, of which the second one is rounded towards the inner margin. The area between both pairs of lines bright yellow-brown, ground colour dark-brown.

Comments: Unmistakable.

***Metanastria pika* sp. nov.**

(Plate 6: J) (Genitalia plate XII, Fig. 2)

Holotype: ♂, Philippinen, Mindanao, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. VIII.–15. IX. 1993, leg. V. SINJAEV (CMWM).

Paratypes: Mindanao: 3 ♂♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. VIII.–15. IX. 1993, leg. V. SINJAEV (GU Zol D3 = MWM Het 4305); CMWM.

Distribution (DMP: Fig. 20): Mindanao.

♂ Exp. 47–49 mm, lfw. 22–24 mm. Similar to *Metanastria trefa*, but fw. almost monotonously pale rose-cream with 2 indistinct yellowish transversal medial fasciae and vague whitish discal spot. External fascia present only as a few grey spots parallel to outer margin. Hw. pink-brown, slightly darker on external field.

♂ genitalia: Very similar those of *Metanastria trefa*, but slender, vinculum with distinct medial narrowing. Distal processes of vinculum thinner, aedeagus without rows of irregular thorns on its tip.

Comments: Unmistakable.

Colour plates

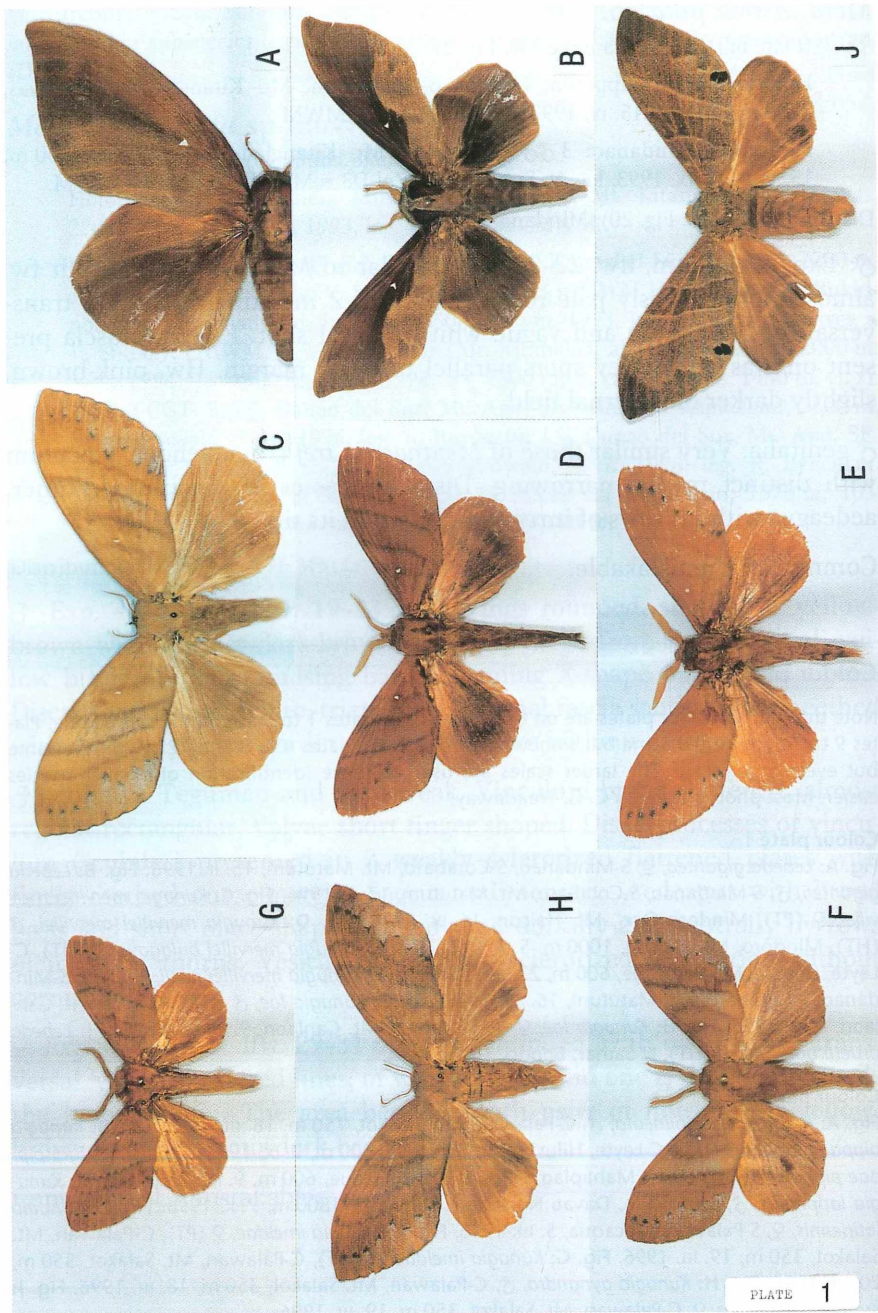
Note that not all colour plates are on the same scale. Plates 1 to 3 are on the same scale, Plates 9 to 11 are on the same but somewhat larger scale. Plates 4 to 8 and 12 are on the same but even larger scale. The larger scales are used to make identification of smaller species easier. Most photographs by C. G. Treadaway.

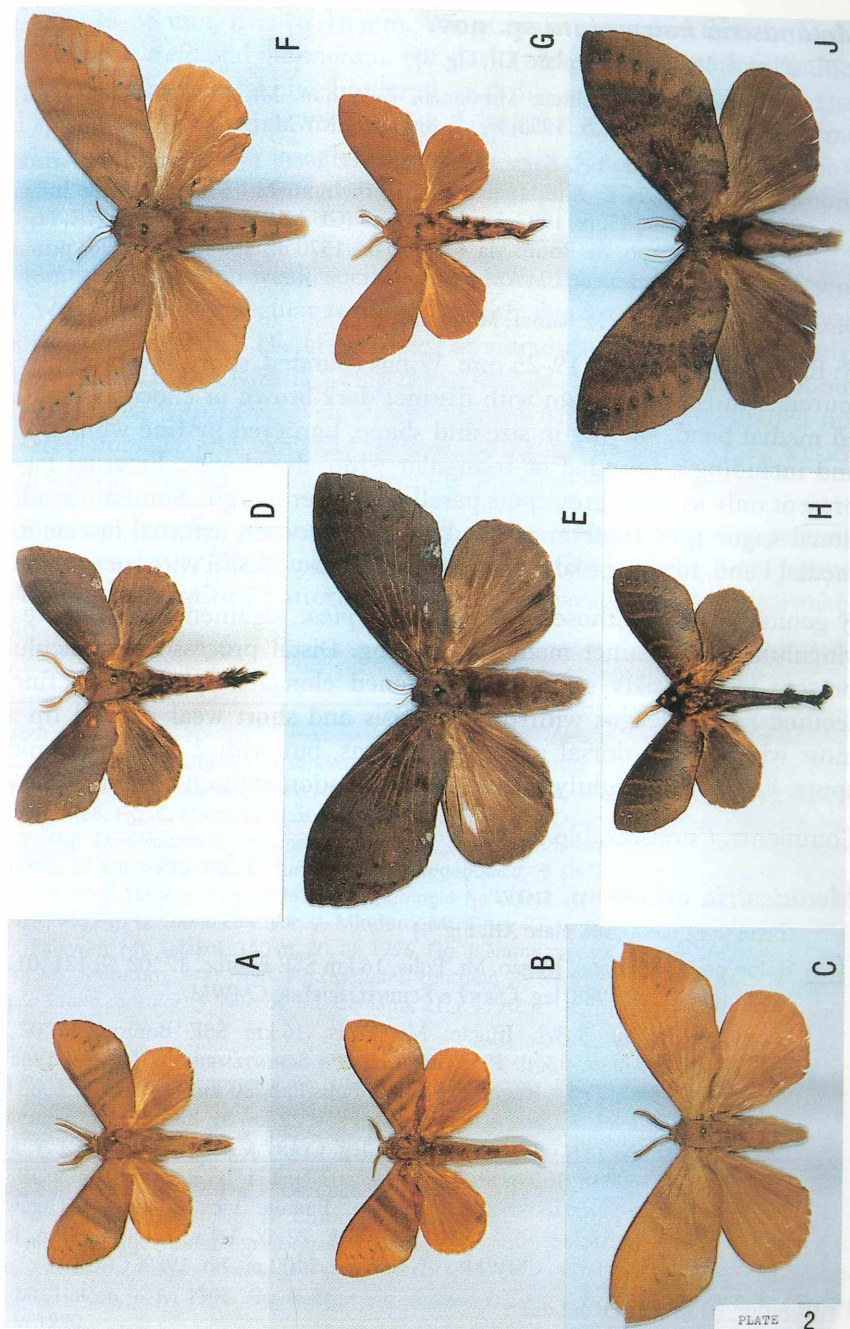
Colour plate 1

Fig. A: *Lebeda gigantea*, ♀, S-Mindanao, S-Cotabato, Mt. Matutum, 15. II. 1996. Fig. B: *Lebeda gigantea*, ♂, S-Mindanao, S-Cotabato, Mt. Matutum, 17. II. 1996. Fig. C: *Kunugia mervillei mervillei*, ♀ (PT), Mindoro Occ., Mt. Halcon, 16. IX. 1996. Fig. D: *Kunugia mervillei mervillei*, ♂ (HT), Mindoro, Mt. Halcon, 1000 m, 5. X. 1993. Fig. E: *Kunugia mervillei bulagaw*, ♂ (HT), C-Leyte, Hilusig, Mt. Balocaue, 600 m, 23. II. 1987. Fig. F: *Kunugia mervillei noeli*, ♂ (HT), S-Mindanao, S-Cotabato, Mt. Matutum, 16. XII. 1996. Fig. G: *Kunugia fae*, ♂ (HT), Negros, Mt. Canlaon, 8. XI. 1995. Fig. H: *Kunugia fae*, ♀ (PT), Negros, Mt. Canlaon, 9. VII. 1991. Fig. J: *Lebeda prueti bondora*, ♀ (HT), N-Samar, Bondo, 14. IV. 1994.

Colour plate 2

Fig. A: *Kunugia quadrilineata*, ♂, C-Palawan, Mt. Salakot, 750 m, 18. III. 1996. Fig. B: *Kunugia pippae pippae*, ♂ (HT), C-Leyte, Hilusig, Mt. Balocaue, 600 m, 2. IX. 1986. Fig. C: *Kunugia pippae pippae*, ♀ (PT), Leyte, Mahaplag, Hilusig, Mt. Balocaue, 600 m, 9. IX. 1986. Fig. D: *Kunugia latipennis*, ♂, Mindanao, Davao Norte, Mt. Tagubod, 1800 m, 7. X. 1996. Fig. E: *Kunugia latipennis*, ♀, S-Palawan, Macaqua, 5. III. 1996. Fig. F: *Kunugia imelda*, ♀ (PT), C-Palawan, Mt. Salakot, 350 m, 19. III. 1996. Fig. G: *Kunugia imelda*, ♂ (HT), C-Palawan, Mt. Salakot, 350 m, 20. III. 1996. Fig. H: *Kunugia gynandra*, ♂, C-Palawan, Mt. Salakot, 350 m, 18. III. 1996. Fig. J: *Kunugia gynandra*, ♀, C-Palawan, Mt. Salakot, 350 m, 19. III. 1996.





***Metanastridia marmorata* sp. nov.**

(Plate 6: H) (Genitalia plate XII, Fig. 3)

Holotype: ♂, Philippinen, Mindanao, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. VIII.-15. IX. 1993, leg. V. SINJAEV; CMWM.

Paratypes: Samar: 1 ♂, Bagacay, 250 m, 1. VI. 1980; 1 ♂, Hinabangan, Arizona, 24. VI. 1997; CCGT. Mindanao: 4 ♂♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. VIII.-15. IX. 1993, leg. V. SINJAEV (GU MWM Het 4309); 5 ♂♂, Danao del Sur, Mt. Apo, SE-Route via Kapatagan, 1570 m, 10.-12. VII. 1996, primary forest, leg. R. BRECHLIN; CMWM.

Distribution (DMP: Fig. 21): Samar, Mindanao.

♂: Exp. 44-50 mm, lfw. 19-25 mm. Wings rounded, short. Fw. brightly coloured, whitish-rose-cream with distinct dark-brown or chocolate-coloured medial band, varying in size and shape, bordered by fine whitish line and including a rounded or triangular white discal spot. External fascia present only as a few grey spots parallel to outer margin. Sometimes additional vague grey transversal band present between external fasciae and medial band, forming marmor-pattern. Hw. rosy-brown without pattern.

♂ genitalia: Similar those of *Metanastridia pika*: tegumen and socii weak, vinculum with distinct medial narrowing. Distal processes of vinculum present in 2 weakly sclerotized flattened elongated plates with finely toothed tip. Aedeagus with tubular basis and short weak-shaped tip almost without any dorsal or ventral thorns, but with 2 indistinct apical spurs. Vesica with slightly sclerotized foundation without cornuti.

Comments: Unmistakable.

***Metanastridia minor* sp. nov.**

(Plate 6: E) (Genitalia plate XII, Fig. 4)

Holotype: ♂, N-Luzon, Ifugao, Mt. Polis, 16 km SSE Bontoc, 17°02'N, 121°01'E, 1900 m, 9.-13. II. 1988, leg. ČERNÝ & SCHINTLMEISTER; CMWM.

Paratypes: Luzon: 3 ♂♂, Ifugao, Mt. Polis, 16 km SSE Bontoc, 17°02'N, 121°01'E, 1900 m, 9.-13. II. 1988, leg. ČERNÝ & SCHINTLMEISTER (GU Zol 134a = MWM Het 4308); 7 ♂♂, Ifugao Prov., Mt.-Polis-Paß, 20 km N Banaue, 2000 m, 21.-23. VII. 1996, leg. R. BRECHLIN; 1 ♂, Mt. Prov. 22 km SE Bontoc, Mt. Amuyao, 1900 m, 17°00'N, 121°09'E, 25. IX. 1988, leg. ČERNÝ & SCHINTLMEISTER; 1 ♂, Mt. Prov., Chatol, 1600 m, 15 km SE Bontoc, 17°02'N, 121°03'E, 24. IX., 14. X. 1988, leg. ČERNÝ & SCHINTLMEISTER; 1 ♂, Ifugao, Banaue vic., 20 km. N Lagawe, Sekundarwald/Reisfelder, 16°54'N, 121°06'E, 22. IX.-16. X. 1988, 1200 m, leg. ČERNÝ & SCHINTLMEISTER; CMWM. 1 ♂, Banaue, 1100 m, 4. I. 1989; CCGT.

Distribution (DMP: Fig. 18): Luzon.

♂: Exp. 35–38 mm, lfw. 16–18 mm. Wings more elongated than in *Metanastria pika*, *trefa* and *marmorata*. Fw. dark reddish-brown with indistinct dark-brown transversal blue bordered, slightly curved medial band. Discal spot small but distinct brown-white, rounded. External fascia as some dark-grey spots almost parallel to outer margin. One basal and one post medial yellowish transversal band present. Hw. dark rosy-brown without pattern.

♂ genitalia: Tegumen weak, socii membranous distinct. Vinculum flattened, ventrally almost regular rectangular with slender lateral arms. Valvae shortly finger-shaped. Distal processes of vinculum present in 2 sclerotized elongated plates with tapering inner margin. Saccus distinctly rounded. Aedeagus with tubular basis, long medial neck and mace-shaped tip, covered dorsally and ventrally by rows of strong irregular spurs. Vesica with slightly sclerotized caudal part of foundation without cornuti.

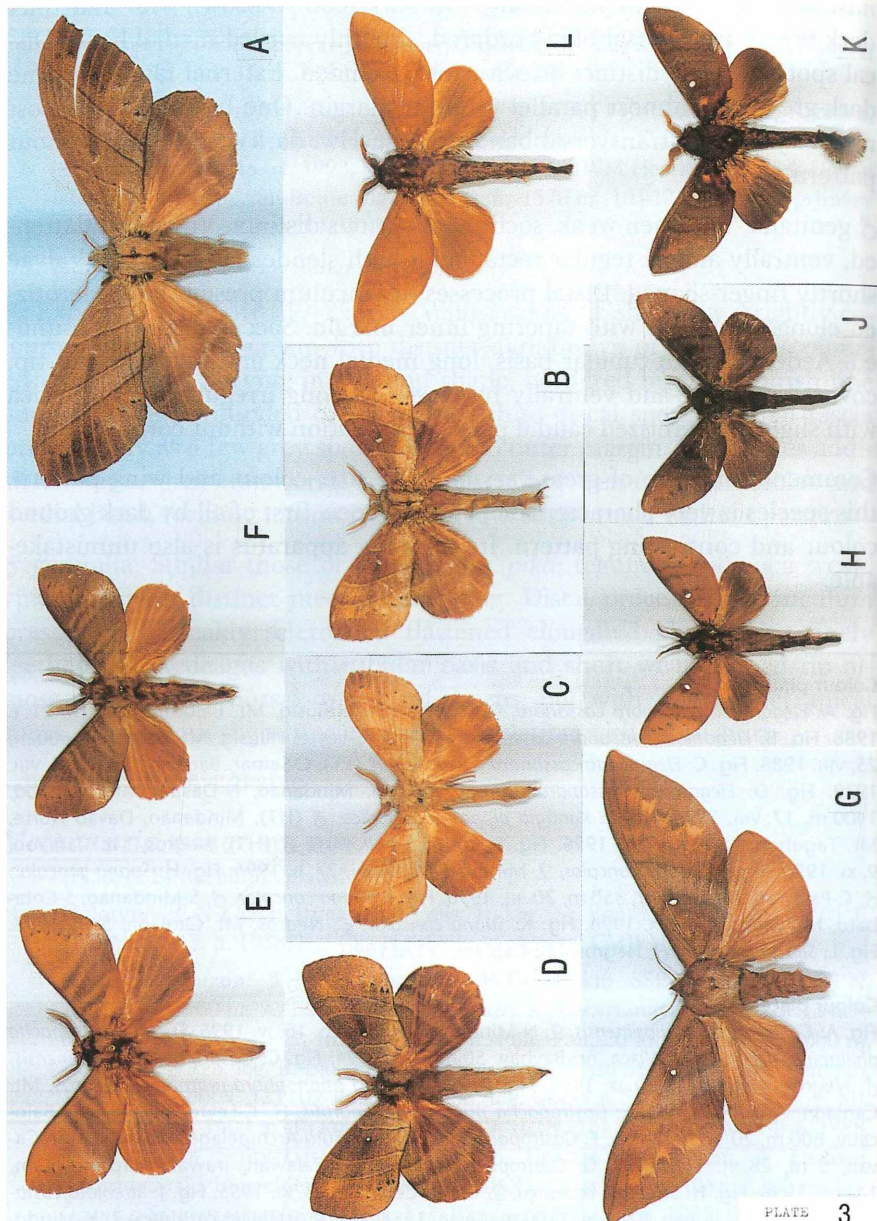
Comments: In spite of great variability in size, colour and wing pattern, this species is very characteristic in appearance, first of all by dark ground colour and contrasting pattern. Its genitalia apparatus is also unmistakable.

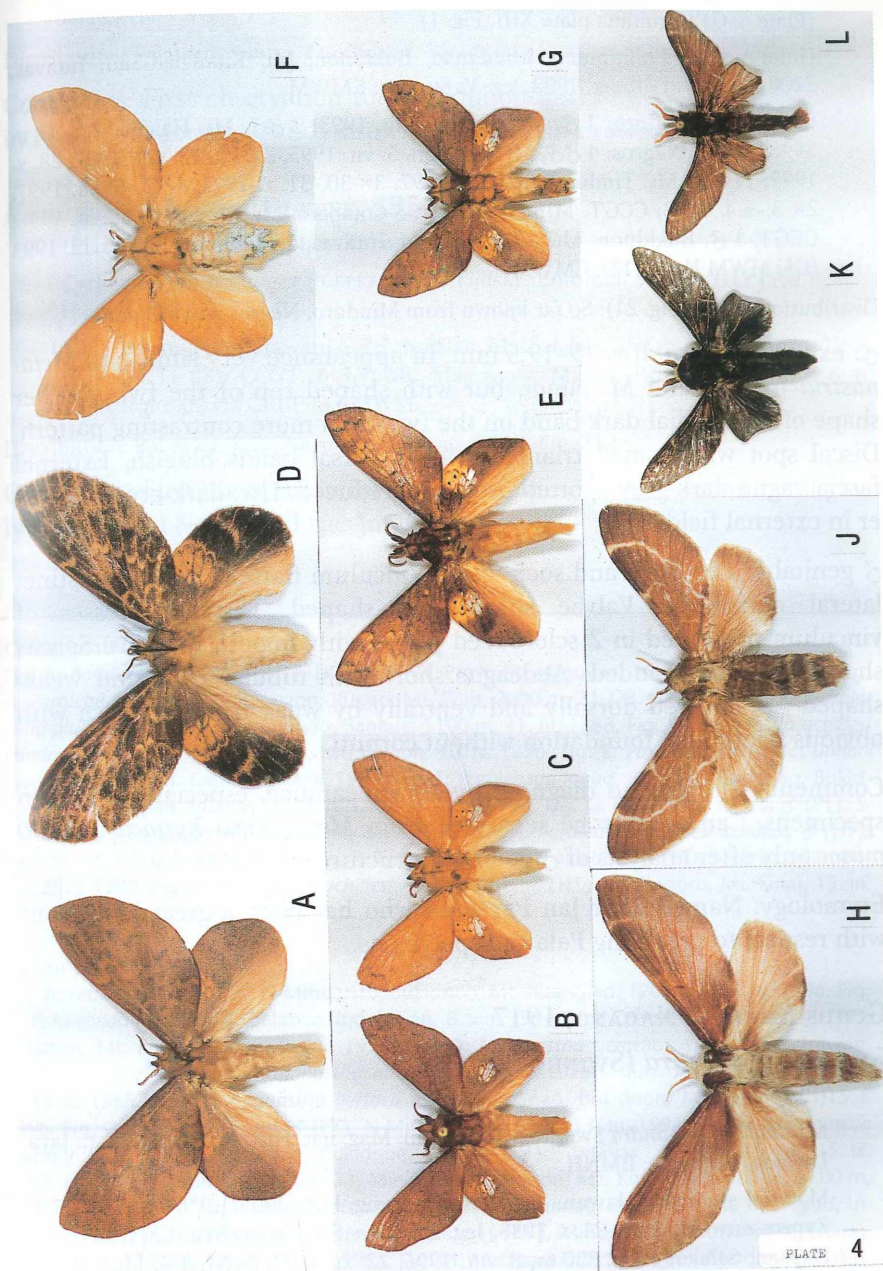
Colour plate 3

Fig. A: *Eleganteda cassandra cassandra*, ♀ (PT), C-Leyte, Hilusig, Mt. Balocaue, 600 m, 21. i. 1988. Fig. B: *Eleganteda cassandra cassandra*, ♂ (HT), C-Leyte, Hilusig, Mt. Balocaue, 600 m, 25. viii. 1988. Fig. C: *Eleganteda cassandra cassandra*, ♂ (PT), C-Samar, Bagacay, 300 m, 6. viii. 1979. Fig. D: *Eleganteda cassandra arimasi*, ♂ (HT), Mindanao, N-Davao, Mt. Tagubod, 1400 m, 17. viii. 1996. Fig. E: *Kunugia pippae tagubodica*, ♂ (HT), Mindanao, Davao Norte, Mt. Tagubod, 1800 m, 7. x. 1996. Fig. F: *Kunugia hollowayi*, ♂ (HT), Negros, Mt. Canlaon, xi. 1995. Fig. G: *Suana concolor*, ♀, Mindoro, Mt. Sinai, 27. ii. 1996. Fig. H: *Suana concolor*, ♂, C-Palawan, Mt. Salakot, 350 m, 20. iii. 1996. Fig. J: *Suana concolor*, ♂, S-Mindanao, S-Cotabato, Mt. Matutum, 4. x. 1996. Fig. K: *Suana concolor*, ♂, Negros, Mt. Canlaon, 5. ix. 1987. Fig. L: *Suana concolor*, ♂, Negros, Mt. Canlaon, 21. i. 1990.

Colour plate 4

Fig. A: *Gastropacha philippinensis*, ♀, N-Mindoro, Mt. Halcon, 16. iv. 1996. Fig. B: *Gastropacha philippinensis*, ♂, Leyte, Visca, nr. Baybay, 50 m, 5. v. 1994. Fig. C: *Gastropacha philippinensis*, ♂, Negros, Mambucal, 20. ix. 1992. Fig. D: *Gastropacha prionophora marptis*, ♀, Negros, Mt. Canlaon, 7. ix. 1996. Fig. E: *Gastropacha prionophora marptis*, ♂, C-Leyte, Hilusig, Mt. Balocaue, 600 m, 20. ii. 1987. Fig. F: *Gastropacha ?leopoldi*, ♀, Sulu Archipelago, Sibutu, Cavan Cavan, 5 m, 28. vi. 1988. Fig. G: *Gastropacha leopoldi*, ♂, Palawan, Irawan, Napsan, 50 m, 14. viii. 1996. Fig. H: *Streblota castanea*, ♀, Cebu, Cebu City, 3. xi. 1955. Fig. J: *Streblota castanea*, ♀, N-Luzon, Ifugao, Banaue, 1100 m, 14. vi. 1988. Fig. K: *Streblota castanea*, ♂, N-Mindoro, Mt. Halcon, 6. iv. 1996. Fig. L: *Streblota castanea*, ♂, N-Luzon, Ifugao, Banaue, 1100 m, 17. v. 1990.





***Metanastria jani* sp. nov.**

(Plate 6: G) (Genitalia plate XIII, Fig. 1)

Holotype: ♂, Philippinen, Mindanao, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. VIII.–15. IX. 1993, leg. V. SINJAEV; CMWM.

Paratypes: **Mindoro**: 1 ♂, Mt. Sinai, 13. III. 1993; 3 ♂♂, Mt. Halcon, 20.–25. II. 1998; CCGT. **Negros**: 4 ♂♂, Mt. Canlaon, 5. VII. 1995, 2× 12./13. VIII. 1997, 28. X. 1997; 11 ♂♂, Mt. Tindug Bato, 2. X. 1997, 3× 30./31. X. 1997, 4× 3.–5. XII. 1997, 2× 3.–5. I. 1998; CCGT. **Mindanao**: 1 ♂, S-Cotabato, Mt. Matutum, 25. III. 1996; CCGT. 1 ♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 1700 m, 15. VIII.–15. IX. 1993 (GU MWM Het 4312); CMWM.

Distribution (DMP: Fig. 21): So far known from Mindoro, Negros and Mindanao.

♂: exp. 39–40 mm, lfw. 19–19.5 mm. In appearance very similar to *Metanastria hyrtaca* and *M. minor*, but with shaped top of the fw., another shape of the medial dark band on the fw. and a more contrasting pattern. Discal spot white small triangular. Transversal bands blueish. External fascia vague dark-grey spotted or almost reduced. Hw. dark-brown, darker in external field.

♂ genitalia: Tegumen and socii weak. Vinculum flattened with indistinct lateral narrowing. Valvae short finger-shaped. Distal processes of vinculum presented in 2 sclerotized plates with smooth margins. Saccus short distinctly rounded. Aedeagus short with tubular basis and weak-shaped tip, covered dorsally and ventrally by weak fringes. Vesica with obvious sclerotized foundation without cornuti.

Comments: Difficult to diagnose by its appearance, especially for worn specimens. Can reliably be separated from *Metanastria hyrtaca* and *M. minor* only after analysis of ♂ genitalia structures.

Etymology: Named after Jan PETERSEN who has been a great help to us with respect to providing Palawan specimens.

Genus *Kunugia* NAGANO, 1917***Kunugia gynandra* (SWINHOE, 1893)**

(Plate 2: H, J)

Metanastria gynandra SWINHOE, 1893, Ann. Mag. nat. Hist. (6) 12: 212. L.t.: Java, Lawang. Holotype: BMNH.

Material studied: **Palawan**: 3 ♂♂, Mt. Gantung, Fuß, 200 m, 9°01'N, 117°57'E, Zypressenwald, 19. I.–21. I. 1988, leg. ČERNÝ & SCHINTLMMEISTER; CMWM. 2 ♂♂, Napsan, Salakot Falls, 330 m, 8. VIII. 1996, 22. XI. 1997; 5 ♂♂, 1 ♀, Mt. Salakot,

330 m, 4× 18./19. iii. 1996, 16. vi. 1996; CCGT. Sulu Archipelago: 1 ♀, Sibutu Isl., Cavan-Cavan, 1. vi. 1988; CCGT.

Distribution: Palawan, Sibutu; Sundaland, Vietnam, Thailand. (DMP: Fig. 20.)

Comments: First observation for the Philippines. Both ♂♂ and ♀♀ occur in two colour forms – sandy-brown and blackish-brown.

Kunugia basinigra (ROEPKE, 1953)

(Plate 7: A) (Genitalia plate X, Fig. 1)

Cyclophragma basinigra ROEPKE, 1953, Tijdschr. Entomol. 96: 95. L.t.: Java. Holotype: ♂, BMNH.

Material studied: Palawan: 6 ♂♂, Napsan, Mt. Salakot, 350 m, 20. ii.–19. iii. 1996 (GU Zol/Tr 48); CCGT. 6 ♂♂, Mt. Magcasaw, Mainit, Brooke's Point, 3.–6. x. 1996, leg. BAL, via CRBP in CMWM.

Distribution: Palawan; Java, Borneo, Sumatra. (DMP: Fig. 21.)

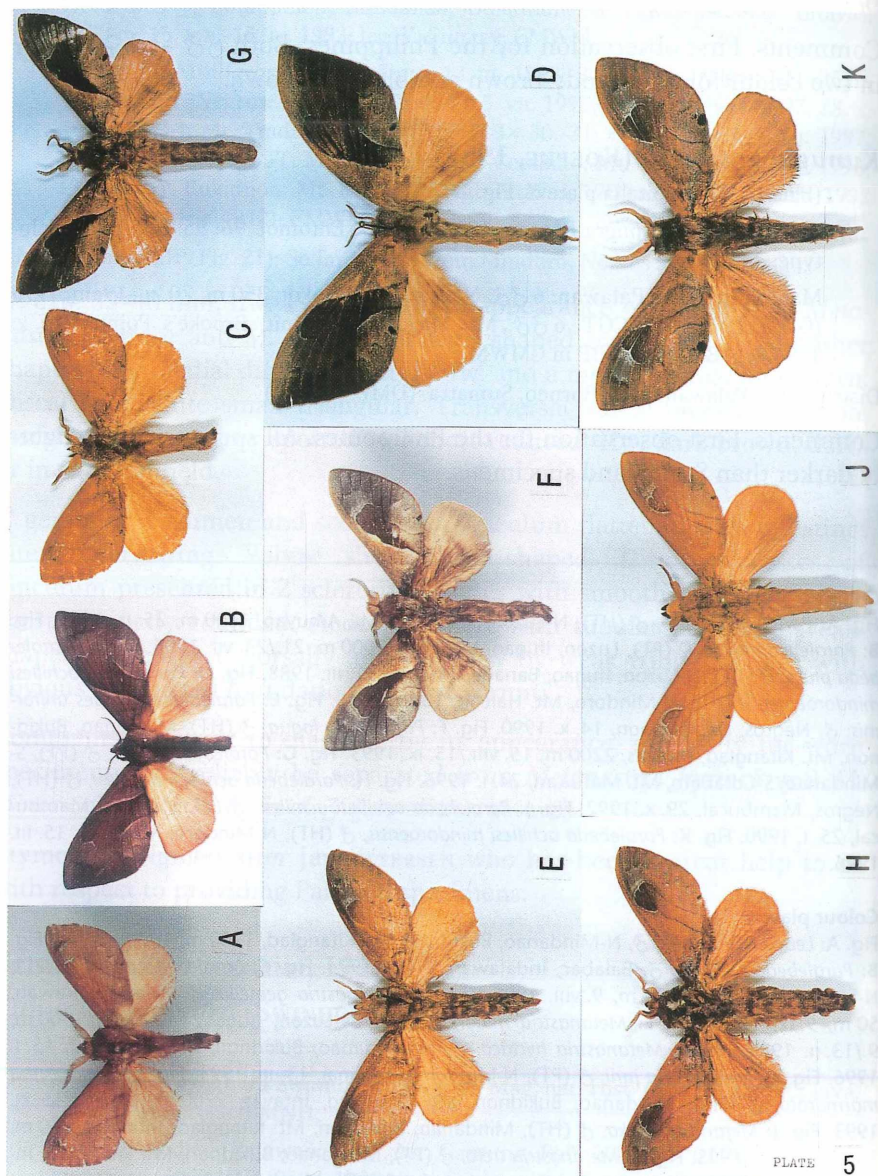
Comments: First observation for the Philippines. All specimens are slightly darker than Sundaland specimens.

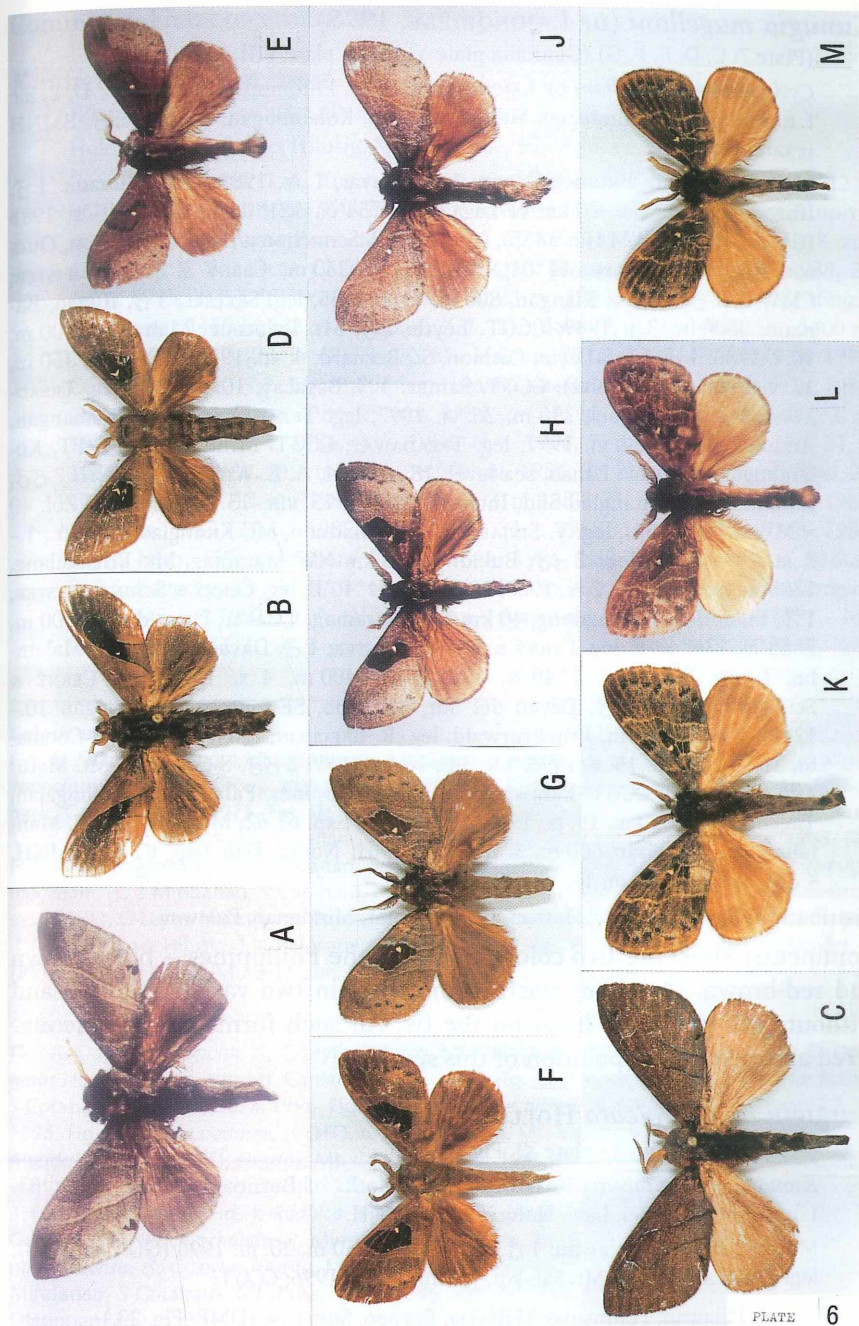
Colour plate 5

Fig. A: *Paralebeda pluto*, ♂ (HT), N-Luzon, Mt. Prov., Mt. Amuyao, 1600 m, 25. ix. 1988. Fig. B: *Paralebeda pluto*, ♀ (PT), Luzon, Ifugao, Mt. Polis, 2000 m, 21./23. vii. 1996. Fig. C: *Paralebeda pluto*, ♂ (PT), N-Luzon, Ifugao, Banaue, 1100 m, 31. iii. 1988. Fig. D: *Paralebeda achillesi mindoroensis*, ♀ (PT), N-Mindoro, Mt. Halcon, 16. iv. 1996. Fig. E: *Paralebeda crinodes uniformis*, ♂, Negros, Mt. Canlaon, 14. x. 1990. Fig. F: *Paralebeda lagua*, ♂ (HT), Mindanao, Bukidnon, Mt. Kitanglad, Intavas, 2200 m, 15. viii./15. ix. 1993. Fig. G: *Paralebeda lagua*, ♂ (PT), S-Mindanao, S-Cotabato, Mt. Matutum, 24. i. 1996. Fig. H: *Paralebeda achillesi achillesi*, ♂ (HT), Negros, Mambucal, 29. x. 1992. Fig. J: *Paralebeda achillesi achillesi*, ♂ (PT), Negros, Mambucal, 25. i. 1990. Fig. K: *Paralebeda achillesi mindoroensis*, ♂ (HT), N-Mindoro, Mt. Sinai, 15. iii. 1996.

Colour plate 6

Fig. A: *Lebeda metaspila*, ♂, N-Mindanao, Bukidnon, Mt. Kitanglad, 1200 m, 1./7. ii. 1996. Fig. B: *Paralebeda lucifuga*, ♂, Balabac, Indalawan, 8. viii. 1994. Fig. C: *Paralebeda pluto*, ♂ (PT), N-Luzon, Mt. Polis, 1900 m, 9. viii. 1996. Fig. D: *Metanastria gemella*, ♂, Palawan, Irawan, 50 m, 9. ix. 1990. Fig. E: *Metanastria minor*, ♂ (HT), N-Luzon, Ifugao, Mt. Polis, 1900 m, 9./13. ii. 1988. Fig. F: *Metanastria hyrtaca*, ♂, N-Mindanao, Bukidnon, Mt. Kitanglad, 15. i. 1996. Fig. G: *Metanastria jani*, ♂ (PT), N-Mindoro, Mt. Sinai, 13. iii. 1993. Fig. H: *Metanastria marmorata*, ♂ (HT), Mindanao, Bukidnon, Mt. Kitanglad, Intavas, 2200 m, 15. viii./15. ix. 1993. Fig. J: *Metanastria pika*, ♂ (HT), Mindanao, Bukidnon, Mt. Kitanglad, Intavas, 2200 m, 15. viii./15. ix. 1993. Fig. K: *Metanastria trefa*, ♂ (PT), Mindanao, Bukidnon, Mt. Kitanglad, Intavas, 2000 m, 1. xi. 1994. Fig. L: *Metanastria trefa*, ♂ (HT), Mindanao, Bukidnon, Mt. Kitanglad, Intavas, 2200 m, 15. viii./15. ix. 1993. Fig. M: *Metanastria trefa*, ♂ (PT), Mindanao, Bukidnon, Mt. Kitanglad, Intavas, 1600 m, 2. xi. 1994.





***Kunugia magellani* (DE LAJONQUIÈRE, 1978)**

(Plate 7: C, D, E, F, G) (Genitalia plate V, Fig. 3, plate VIII, Fig. 3)

Cyclophragma magellani DE LAJONQUIÈRE, 1978, Entomops 47: 262, figs. D, 2, 2a. L.t.: Philippines, Mindanao, Subprov. Lanao, Kolambugan. Holotype: ♂, BMNH (examined).

Material studied: **Batanes Group**: 1 ♂, Itbayat, 1. iv. 1989, CCGT. **Luzon**: 1 ♂, Ifugao, Banaue vic., 20 km N Lagawe, 16°54'N, 121°06'E, 22. ix.-16. x. 1988 (GU Zol. 39 = MWM Het 3855), leg. ČERNÝ & SCHINTLMEISTER; 1 ♂, Quezon, Quezon Forest Nat. Park, 14°01'N, 122°11'E, 250 m, ČERNÝ & SCHINTLMEISTER; CMWM. 1 ♂, Ifugao, Kiangang, 800 m, 9. iv. 1985, leg. SETTELE; 1 ♂, Ifugao, Banaue, 3600 ft., 3. i. 1989; CCGT. **Leyte**: 1 ♂, Mt. Balocaue, Mahaplag, 600 m, 10. i. 1986; 1 ♂, 1 ♀ S-Leyte, Catmon, St. Bernard, 4. xii. 1975; 1 ♂, Bato, 450 m, 17. v. 1994 (coll. SCHÜTZ); CCGT. **Samar**: 1 ♂, Bagacay, 10. ii. 1990, leg. TREADAWAY; 1 ♂, San Rafael, 390 m, 26. vi. 1997, leg. TREADAWAY; 1 ♂, Hinabangan, Arizona, 400 m, 24. vi. 1997, leg. TREADAWAY; CCGT. **Mindanao**: 1 ♂, PT, Kolambugan, subprov. Lanao, sea level, 18. v. 1914, A. E. WILEMAN; BMNH. 7 ♂♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. viii.-15. ix. 1993 (GU Zol. 40 = MWM Het 3856), leg. V. SINJAEV; 5 ♂♂, Bukidnon, Mt. Kitanglad, 6000 ft., 1.-2. xi. 1994, DAUC leg.; 2 ♂♂, Bukidnon, 45 km NW Maramag, Mt. Binanailang, 1200 m, Bergurwald, 2. x. 1988, 7°55'N, 124°40'E, leg. ČERNÝ & SCHINTLMEISTER; 1 ♂, Bukidnon, Dalongdong, 40 km NW Maramag, Talakar, Urwaldrand, 800 m, 7°53'N, 124°40'E, leg. ČERNÝ & SCHINTLMEISTER; 1 ♂, Davao Norte, Mt. Malamibu, Leatu Talumays, 7°40'N, 124°15'E, 1400 m, 4. x. 1988, leg. ČERNÝ & SCHINTLMEISTER; 6 ♂♂, Davao del Sur, Mt. Apo, SE-route via Kapatagan 10.-12. vii. 1996, 1570 m, Primärurwald, leg. R. BRECHLIN; CMWM. 5 ♂♂, S-Cotabato, Mt. Busa, 12., 15. x. 1996, 13., 14., 16. vi. 1997; 2 ♂♂, S-Cotabato, Mt. Matutum, 2. ii. 1996; CCGT. **Palawan**: 1 ♂, PT, Philippines, Palawan, Mantalingajan, Tagabung, 1150 m, 19. ix. 1961, Noona Dan Exp. 61-62; MNHNP. 2 ♂♂, Mantalingajan, Pinigisan 600 m, 3. & 23. ix. 1961, Noona Dan Exp. 61-62; BMNH. 4 ♂♂, Salakot, 335 m, 16. vi. 1997; CCGT.

Distribution (Fig. 22): Itbayat, Luzon, Leyte, Samar, Mindanao, Palawan.

Comments: There are two colour forms on the Philippines – black-brown and red-brown. Moreover, each form comes in two variants – with and without light-grey anal band on the fw. All such forms can be encountered amongst any population of this species.

***Kunugia quadrilineata* HOLLOWAY, 1987**

(Plate 2: A) (Genitalia plate XI, Fig. 3)

Kunugia quadrilineata HOLLOWAY, 1987, Moths of Borneo 3: 35, pl. 4, fig. 31. L.t.: Borneo, Brunei, Labi. Holotype: ♂, BMNH.

Material studied: **Palawan**: 1 ♂, Mt. Salakot, 350 m, 20. iii. 1996 (GU Zol/Tr 43), leg. TREADAWAY; 1 ♂, Mt. Salakot, 750 m, 18. iii. 1996; CCGT.

Distribution: Palawan; Peninsular Malaysia, Borneo, Sumatra. (DMP: Fig. 23.)

Comments: First observation for the Philippines.

Kunugia pippae sp. nov.

(Plate 2: B, C) (Genitalia plate IX, Fig. 2; plate XI, Fig. 2)

Holotype: ♂, C-Leyte, Hilusig, Mt. Balocaue, 600 m, 2. ix. 1986; CCGT.

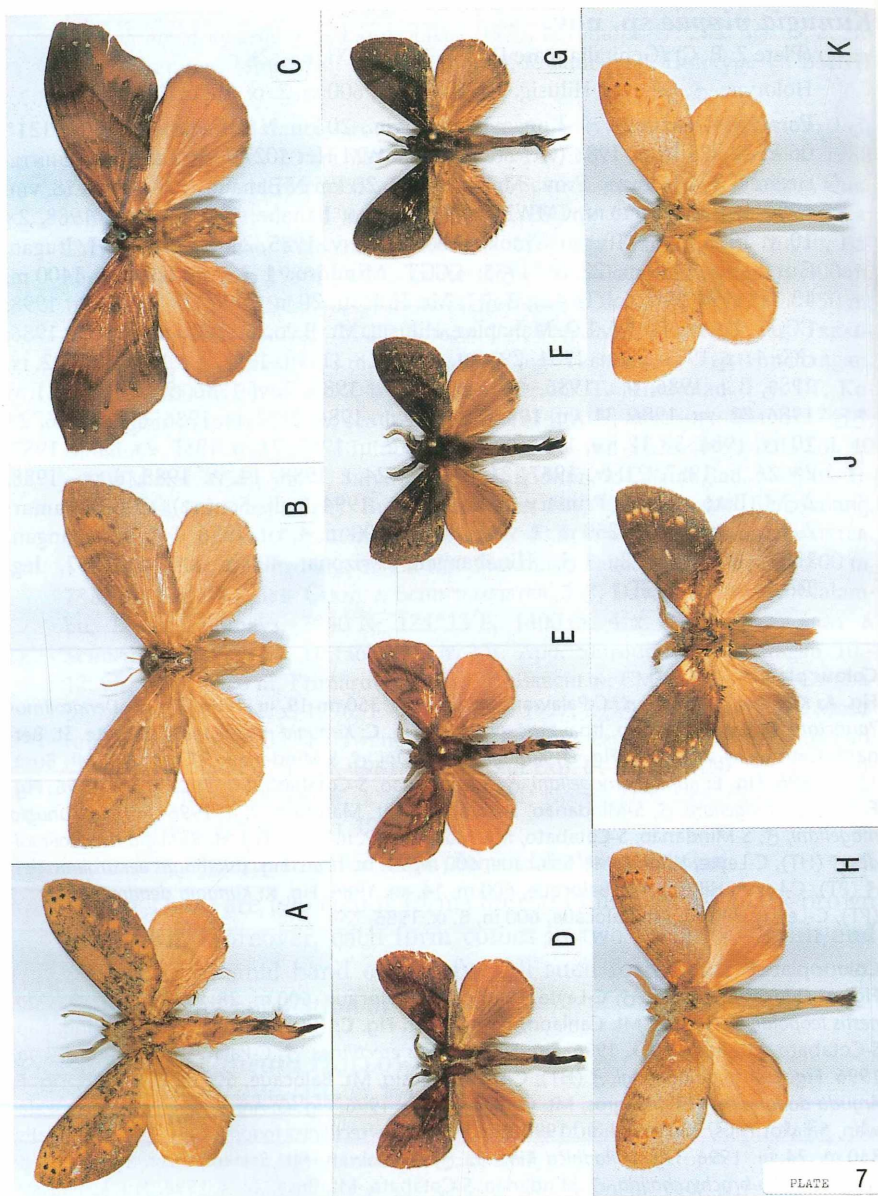
Paratypes: Luzon: 1 ♂, Ifugao Banaue vic., 20 km N Lagawe, 16°54'N, 121°06'E, 22. ix.-16. x. 1988 (GU Zol. 173 = MWM Het 4027), leg. ČERNÝ & SCHINTLMEISTER; 3 ♂♂, Ifugao Prov., Mt.-Polis-Paß, 20 km N Banaue, 2000 m, 3.-18. viii. 1996, leg. R. BRECHLIN; CMWM. 3 ♂♂, Ifugao, Banaue, 1100 m, 3. vi. 1988, 2× 10. v. 1995; 2 ♂♂, Ifugao, Tinok, 1600 m, 23. iv. 1985, 24. iv. 1985; 1 ♂, Ifugao, Gumhang, 1450 m, 22. iv. 1985; CCGT. Mindoro: 1 ♂, Mt. Halcon, 1400 m, 13. ix. 1996 (GU Zol/Tr 42); 3 ♂♂, Mt. Halcon, 20. ii. 1996, 2× 27./28. ii. 1998; CCGT. Leyte: 40 ♂♂, 1 ♀, Mahaplag, Hilusig, Mt. Balocaue, 600 m, ♀: 9. ix. 1986; ♂♂: 4. ix. 1981, 23. ii. 1984, 29. viii. 1984, 2× 31. vii. 1984, 2× 1. ix. 1984, 2. ix. 1984, 3. i. 1986, 9. i. 1986, 4. v. 1986, 6. v. 1986, 7. v. 1986, 9. v. 1986, 21. v. 1986, 22. vii. 1986, 31. vii. 1986, 2× 30. viii. 1986, 2× 2. ix. 1986, 6. ix. 1986, 2× 10. ix. 1986, 3× 12. xii. 1986, 12. i. 1987, 2. ii. 1987, 21. ii. 1987, 2× 25. ii. 1987, 2× 26. ii. 1987, 21. iv. 1987, 21. i. 1988, 24. i. 1988, 14. vi. 1988, 6. vii. 1988; 2 ♂♂, Bato, 450 m, Primary Forest, 16. v. 1994 (coll. SCHÜTZ); CCGT. Samar: 2 ♂♂, Bagacay, 1× 250 m, 1. vi. 1980, 1× 200 m, 4. xii. 1986; 1 ♂, Hinabangan, 150 m, 7. v. 1992; 1 ♂, Hinabangan, Arizona, 400 m, 25. vi. 1997, leg. TREADAWAY; CCGT.

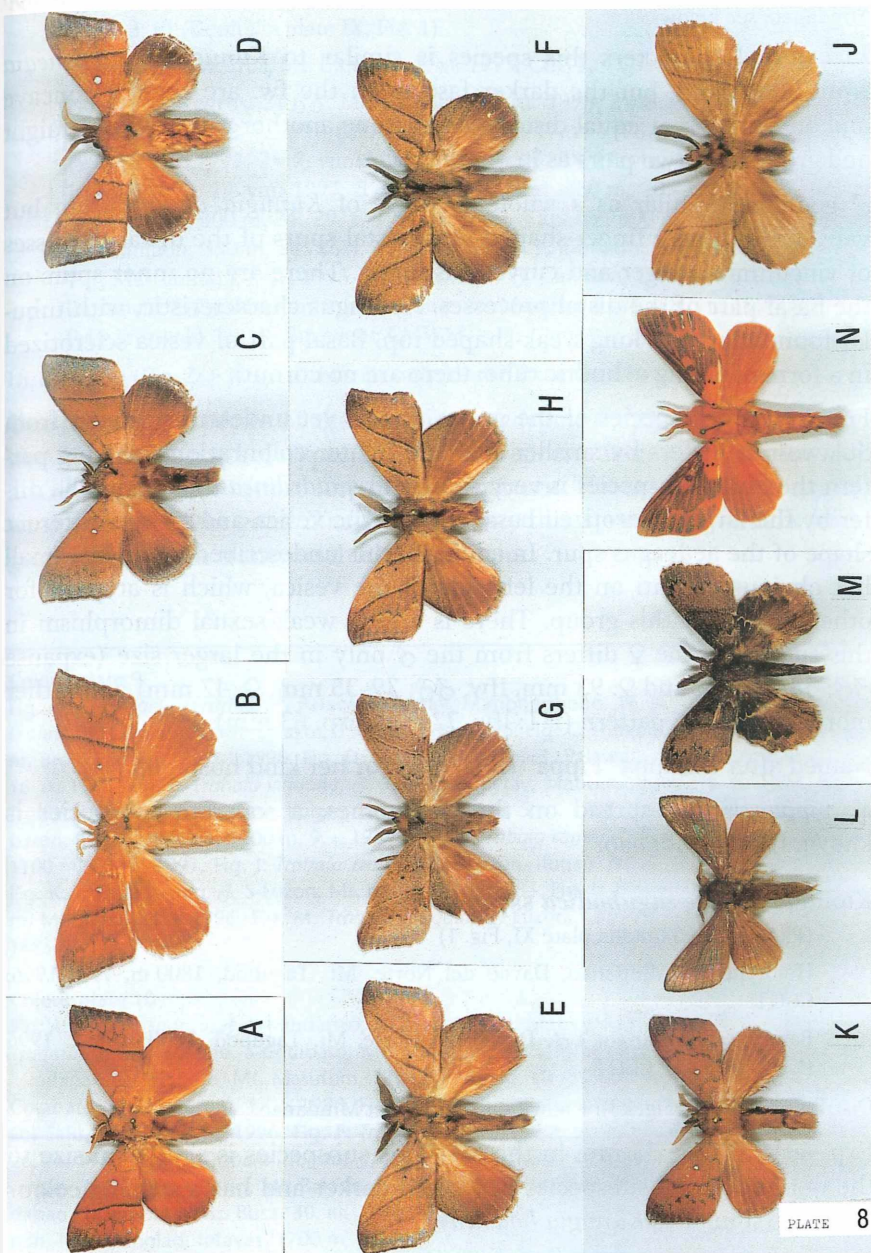
Colour plate 7

Fig. A: *Kunugia basinigra*, ♂, C-Palawan, Mt. Salakot, 350 m, 19. iii. 1996. Fig. B: *Dendrolimus ?punctata*, ♀, Batanes Group, Itbayat, 4. iv. 1989. Fig. C: *Kunugia magellani*, ♀, S-Leyte, St. Bernard, Catmon, 4. xii. 1975. Fig. D: *Kunugia magellani*, ♂, S-Mindanao, S-Cotabato, Mt. Busa, 15. x. 1996. Fig. E: *Kunugia magellani*, ♂, S-Mindanao, S-Cotabato, Mt. Busa, 12. x. 1996. Fig. F: *Kunugia magellani*, ♂, S-Mindanao, S-Cotabato, Mt. Matutum, 2. ii. 1996. Fig. G: *Kunugia magellani*, ♂, S-Mindanao, S-Cotabato, Mt. Matutum, 2. ii. 1996. Fig. H: *Kunugia dendrolimoides* ♂ (HT), C-Leyte, Hilusig, Mt. Balocaue, 600 m, 11. ix. 1986. Fig. J: *Kunugia dendrolimoides*, ♂ (PT), C-Leyte, Hilusig, Mt. Balocaue, 600 m, 14. xii. 1986. Fig. K: *Kunugia dendrolimoides*, ♂ (PT), C-Leyte, Hilusig, Mt. Balocaue, 600 m, 8. ix. 1986.

Colour plate 8

Fig. A: *Odonestis leopoldi*, ♂, C-Leyte, Hilusig, Mt. Balocaue, 600 m, 28. v. 1988. Fig. B: *Odonestis leopoldi*, ♀, Negros, Mt. Canlaon, 17. iii. 1991. Fig. C: *Odonestis apo*, ♂ (HT), Mindanao, S-Cotabato, Mt. Busa, 20. x. 1996. Fig. D: *Odonestis erectilinea*, ♂, C-Palawan, Solomon, 17. iii. 1996. Fig. E: *Arguda dodongi*, ♂ (HT), C-Leyte, Hilusig, Mt. Balocaue, 600 m, 3. i. 1986. Fig. F: *Arguda dodongi*, ♂ (PT), Negros, Mt. Canlaon, 15. v. 1996. Fig. G: *Arguda rosemariae*, ♂, Palawan, Salakot Falls, 330 m, 24. iii. 1996. Fig. H: *Arguda rectilinea indonesiana*, ♂, Salakot Falls, 330 m, 24. iii. 1996. Fig. J: *Radhica himerta*, ♂, C-Palawan, Mt. Salakot, 21. i. 1995. Fig. K: *Odonestis vita brachyschalida*, ♂, Mindanao, S-Cotabato, Mt. Busa, 22. x. 1996. Fig. L: *Syrastrena lanaoensis*, ♂, C-Leyte, Hilusig, Mt. Balocaue, 600 m, 26. ii. 1987. Fig. M: *Takanea diehli*, ♂, Mindanao, S-Cotabato, Mt. Busa, 11. x. 1996. Fig. N: *Alompra roepkei pella*, ♂, C-Palawan, Olanguan, 160 m, 9. vii. 1988.





Distribution (DMP: Fig. 23): Luzon, Mindoro, Leyte, Samar. A separate subspecies on Mindanao, see below.

In external characters this species is similar to *Kunugia quadrilineata* from Sundaland, but the darker fasciae on the fw. are slightly concave and are situated at equal distances from one another rather than straight and grouped in two pairs as in *quadrilineata*.

♂ genitalia: Similar as a whole to those of *Kunugia quadrilineata* but valvae with longer finger-shaped tops, distal spurs of the distal processes of vinculum stronger and curved distinctly. There are no inner spurs on the basal part of the distal processes. Aedeagus characteristic, with tubular foundation and long weak-shaped top. Basal part of vesica sclerotized in a form of a long cylindric tube; there are no cornuti.

From the third species of the group, the as yet undescribed taxon from Sulawesi, it differs by smaller size and lighter colouration (in wing pattern the Sulawesi species is very similar to *quadrilineata*); ♂ genitalia differ by the larger sclerotized basal zone of the vesica and by the different shape of the aedeagus spur. In addition, this undescribed taxon has small but obvious cornuti on the left side of the vesica, which is atypical for other species of this group. There is a very weak sexual dimorphism in this species as the ♀ differs from the ♂ only in the larger size (expanse ♂♂: 58–70 mm and ♀: 93 mm, lfw. ♂♂: 29–35 mm, ♀: 47 mm) and rather more vague wing pattern (HT: lfw. 32 mm, exp. 63 mm).

Named after Philippa “Pippa” HOLLOWAY for her kind hospitality.

K. pippae is widespread on the Philippines; a separate subspecies is known from Mindanao:

***Kunugia pippae tagubodica* ssp. nov.**

(Plate 3: E) (Genitalia plate XI, Fig. 1)

Holotype: ♂, Mindanao, Davao del Norte, Mt. Tagubod, 1800 m, 7. x. 1996; CCGT.

Paratype: Mindanao: 1 ♂, Davao del Norte, Mt. Tagubod, 1800 m, 8. x. 1996 (Gu Zol/Tr 44); CCGT.

Distribution (DMP: Fig. 23): Known only from east Mindanao.

Exp. 63 mm, lfw. 33 mm in the HT. This subspecies is similar in size to the nominotypical subspecies but much darker and has a striking colour contrast (similar to *Kunugia hollowayi*).

♂ genitalia as in the nominotypical subspecies.

Kunugia hollowayi sp. nov.

(Plate 3: F) (Genitalia plate IX, Fig. 1)

Holotype: ♂, Negros, Mt. Canlaon, 9. xi. 1995; CCGT.

Paratypes: Negros: 21 ♂♂, Mt. Canlaon, 17. xi. 1995, 2× 6. xi. 1995, 8. xi. 1995, 9. xi. 1995, 2× 12. v. 1996 (GU Zol/Tr 97.47), 17. v. 1996, 19. v. 1996, 2× 28. ii. 1997, 4. viii. 1997, 2× 7. viii. 1997, 9. viii. 1997, 3× 11. viii. 1997, 12. viii. 1997, 14. viii. 1997, 19. viii. 1997; 5 ♂♂, Mt. Canlaon, 250 m, 20.–27 ix. 1997; 2 ♂♂, Mt. Canlaon, 300 m, 24./29. x. 1997; 1 ♂, Mt. Canlaon, 500 m, 3. xii. 1997; 2 ♂♂, Mt. Canlaon, 330 m, 24./26. i. 1998; CCGT. 1 ♂, Canlaon, 1. iv. 1995, leg. SATO.; 1 ♂, Mt. Canlaon, i.–iv. 1995, leg. R. SATO; 1 ♂, Canlaon, 17.–18. vii. 1996, leg. R. BRECHLIN; 7 ♂♂, Mt. Kanlaon, W-Route via Mambucal, 17.–18. vii. 1996, 1010 m, Primärurwald, leg. R. BRECHLIN; CMWM.

Distribution (Fig. 23): Negros; thus far only known from the Mt. Canlaon area.

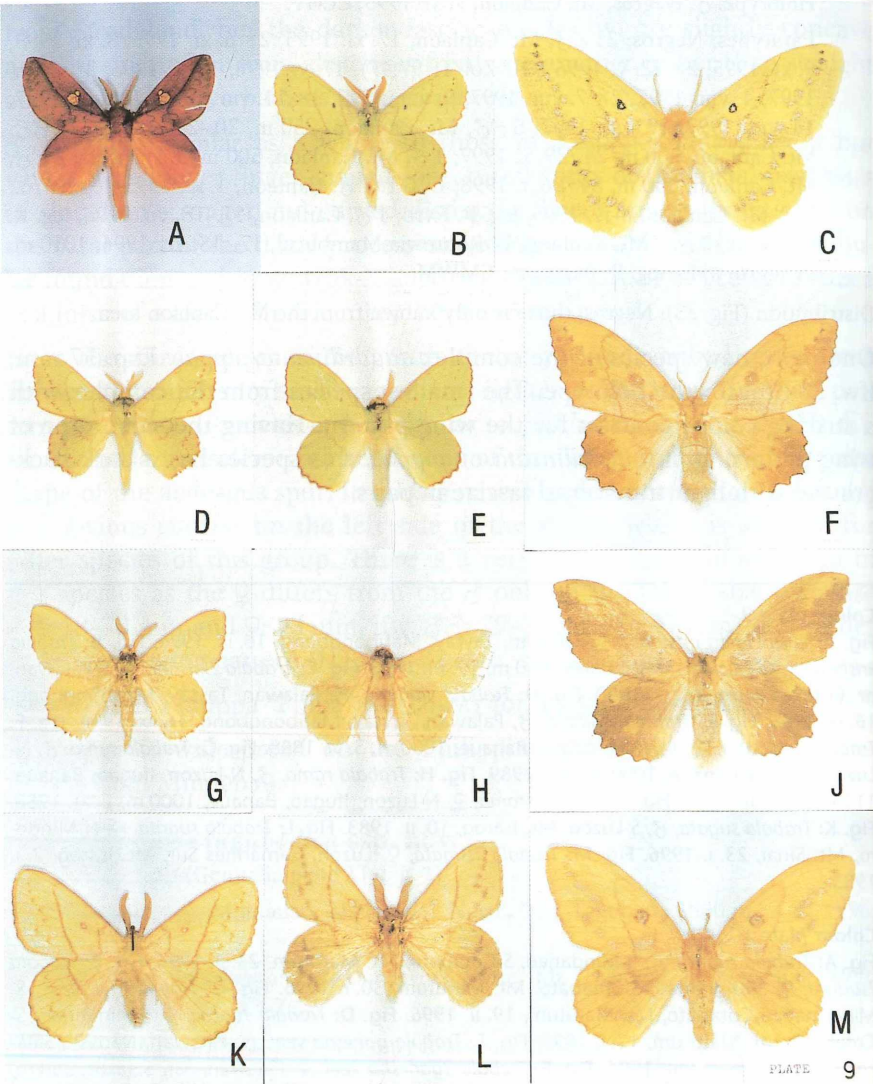
One more new species of the complex *quadrilineata/pippae*. Exp. 57 mm, lfw. 28 mm for the holotype. The smallest species from the complex with a striking colour contrast for the wing pattern. Having the same type of wing pattern as in *quadrilineata* or *pippae*, this species has a dark background with light transversal fasciae in pairs.

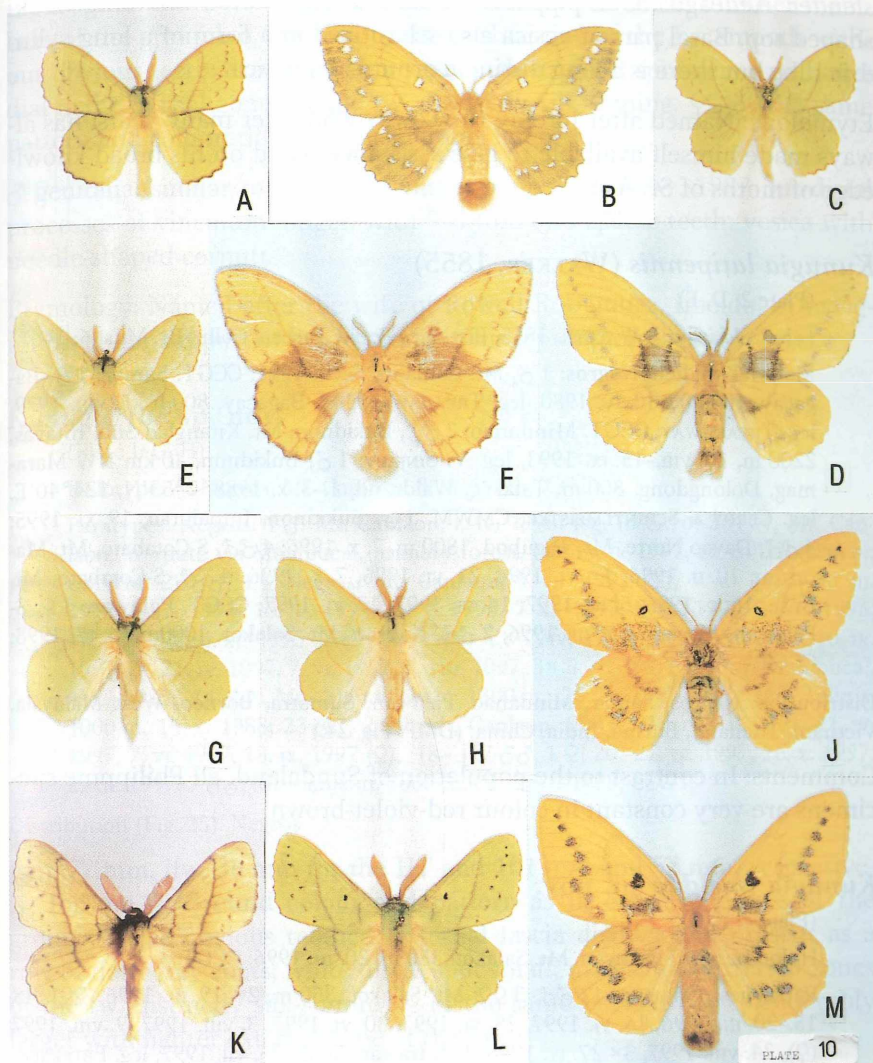
Colour plate 9

Fig. A: *Eutrix laeta austrina*, ♂, Palawan, Taytay, Matibongbong, 16. ix. 1996. Fig. B: *Trabala krishna*, ♂, C-Palawan, Mt. Salakot, 350 m, 19. iii. 1996. Fig. C: *Trabala ?krishna*, ♀, S-Palawan, nr. Brookes Point, 26. iv. 1990. Fig. D: *Trabala viridana*, ♂, Palawan, Taytay, Matibongbong, 16. ix. 1996. Fig. E: *Trabala viridana*, ♂, Palawan, Taytay, Matibongbong, 16. ix. 1996. Fig. F: *Trabala ?viridana*, ♀, N-Luzon, Ifugao, Banaue, 1000 m, 5. vi. 1988. Fig. G: *Trabala rama*, ♂, N-Luzon, Ifugao, Banaue, 1000 m, 9. i. 1989. Fig. H: *Trabala rama*, ♂, N-Luzon, Ifugao, Banaue, 1100 m, 15. iii. 1991. Fig. J: *Trabala ?rama*, ♀, N-Luzon, Ifugao, Banaue, 1000 m, 2. xi. 1988. Fig. K: *Trabala sugata*, ♂, S-Luzon, Mt. Isarog, 10. ii. 1983. Fig. L: *Trabala sugata*, ♂, N-Mindoro, Mt. Sinai, 23. i. 1996. Fig. M: *Trabala ?sugata*, ♀, Luzon, Camarines Sur, Mt. Isarog, 2. i. 1983.

Colour plate 10

Fig. A: *Trabala sudara*, ♂, S-Mindanao, S-Cotabato, Mt. Matutum, 23. ii. 1996. Fig. B: *Trabala ?sudara*, ♀, S-Mindanao, S-Cotabato, Mt. Matutum, 30. i. 1996. Fig. C: *Trabala durga*, ♂, S-Mindanao, S-Cotabato, Mt. Matutum, 19. ii. 1996. Fig. D: *Trabala ?durga*, ♀, S-Mindanao, S-Cotabato, Mt. Matutum, 17. i. 1996. Fig. E: *Trabala ganesha veni*, ♂, Palawan, Napsan, Salakot Falls, 330 m, 8. viii. 1996. Fig. F: *Trabala ?ganesha veni*, ♀, Palawan, Mt. Salakot, 350 m, 26. vii. 1984. Fig. G: *Trabala irrorata*, ♂, Negros, Mt. Canlaon, 25. vii. 1995. Fig. H: *Trabala irrorata*, ♂, C-Leyte, Hilusig, Mt. Balocau, 700 m, 30. ix. 1990. Fig. J: *Trabala ?irrorata*, ♀, Mindanao, S-Cotabato, Mt. Busa, 30. iii. 1994. Fig. K: *Trabala danao*, ♂ (HT), Mindanao, Bukidnon, Mt. Kitanglad, Intavas, 1700 m, 15. viii./15. ix. 1993. Fig. L: *Trabala danao*, ♂ (PT), Mindanao, Bukidnon, Mt. Kitanglad, nr. Intavas, 1600 m, 2. xi. 1994. Fig. M: *Trabala ?danao*, ♀, Negros, Mt. Canlaon, 20. viii. 1995.





♂ genitalia similar to those of *Kunugia pippae*, but finger-shaped tops of valvae longer and distal spurs of the distal processes of vinculum more slender. Aedeagus as in *pippae* with tubular foundation and long weak-shaped top. Basal part of vesica also sclerotized in a form of a long cylindric tube but there is a long distinct cornutus on vesica.

Etymology: Named after Jeremy HOLLOWAY who, over many years, has always made himself available to give assistance based on his broad knowledge of moths of SE Asia.

Kunugia latipennis (WALKER, 1855)

(Plate 2: D, E)

Lebeda latipennis WALKER, 1855, List Spec. lepid. Insects Colln. Br. Mus. 6: 1467.

Material studied: **Negros**: 1 ♂, Mt. Canlaon, 9. vii. 1991; CCGT. **Samar**: 1 ♂, Bagacay, 1000 ft., 10. iv. 1980, leg. TREADAWAY; 1 ♂, Bagacay, 800 ft., 5. viii. 1979, leg. TREADAWAY; CCGT. **Mindanao**: 2 ♂♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 2200 m, 15. viii.-15. ix. 1993, leg. V. SINJAEV; 1 ♂, Bukidnon, 40 km NW Maragamag, Dolongdong, 800 m, Talakag, Waldrand, 1.-3. x. 1988. 7°53'N, 124°40'E. leg. ČERNÝ & SCHINTLMUSTER; CMWM. 1 ♂, Bukidnon, Impalutao, 19. xi. 1995; 3 ♂♂, Davao Norte, Mt. Tagubod, 1800 m, 7. x. 1996; 4 ♂♂, S-Cotabato, Mt. Matutum, 10. ii. 1996, 17. vi. 1996, 21. vi. 1996, 7. x. 1996; 4 ♂♂, S-Cotabato, Mt. Busa, 16. x. 1996, 5. iii. 1997, 14. vi. 1997, 17. vi. 1997; CCGT. **Palawan**: 1 ♀, S-Palawan, Macaqua, 5. iii. 1996; 2 ♂♂, Napsan, Mt. Salakot, 1000 m, 6. iv. 1998; CCGT.

Distribution: Negros, Samar, Mindanao, Palawan; Sumatra, Borneo, West Malaysia, Vietnam, Thailand, Burma, India, China. (DMP: Fig. 24.)

Comments: In contrast to the population of Sundaland, all Philippine specimens are very constant in colour red-violet-brown.

Kunugia imeldae sp. nov.

(Plate 2: F, G)

Holotype: ♂, C-Palawan, Mt. Salakot, 350 m, 20. iii. 1996; CCGT.

Paratypes: **Palawan**: 12 ♂♂, 3 ♀♀, Mt. Salakot, 350 m, 2 × 19. iii. 1996 (♀♀), 4 × 15.-20. iii. 1996, 16. vi. 1997, 28. vi. 1997, 30. vi. 1997, 3. viii. 1997, 9. viii. 1997 (♀), 24. viii. 1997, 3 × 27. iv. 1998; 1 ♂, Irawan, 50 m, 25. vii. 1997, leg. PETERSEN; 11 ♂♂, Napsan, Salakot Falls, 330 m, 5 × 8. viii. 1996, 2 × 22. xi. 1997, 4 × 27. ii. 1998, leg. PETERSEN; 2 ♂♂, Matalangas, 25. vii. 1984 (dissected ZOL.), 30. vii. 1984, CCGT. 1 ♂, Mt. Salakot, 2100 ft., ii. 1995; CMWM.

Distribution (DMP: Fig. 25): Palawan.

Exp. 68 mm, lfw. 35 mm for the HT and 106 and 56 mm for the ♀♀, respectively. ♂♂ are the smallest *Kunugia* of that group, with the lfw. ranging from 28 mm to 39 mm. Ground colour and pattern as in other members of the group but the dark transversal fasciae of the fw. smooth without obvious teeth; external fascia vague; white discal spot very small; medial and external zones of the fw. distinctly silk-shining. ♀♀ of the same pattern and colouration but considerably larger.

♂ genitalia: similar to those of *Kunugia ferox* HOLLOWAY, 1987 but distal processes of vinculum longer, with 5–6 thin and sparse teeth; vesica with needle-shaped cornuti.

Etymology: Named after the wife of Rowell RODRIGUEZ, Imelda, in recognition of her support of her husband in his lepidopterological studies.

Kunugia fae sp. nov.

(Plate I: G, H)

Holotype: ♂, Negros, Mt. Canlaon, 8. xi. 1995; CCGT.

Paratypes: Negros: 1 ♂, Mt. Canlaon, i.–iv. 1995, leg. R. SATO; 26 ♂♂, Mt. Canlaon, W route via Mambucal, primary forest, 600 m, ii. 1997, ex coll. BRECHLIN; CMWM. 22 ♂♂, 1 ♀ Negros, Mt. Canlaon, 9. vii. 1991 (♀), 9. ix. 1985, 30. iii. 1995, 1. iv. 1995, 10. iv. 1995, 18. x. 1995, 7. xi. 1995, 9. xi. 1995, 14. v. 1996, 17. ix. 1996, 6. xi. 1995 (GU Zol/Tr 46), 2× 7. iv. 1997, 2× 11. iv. 1997, 10. iv. 1997, 2× 21. iv. 1997, 7. vi. 1997, 7. viii. 1997, 3× 5. ix. 1997; 1 ♂, nr. Mambucal, 4. x. 1985; 14 ♂♂, Mt. Mandalagan, 1800 m, 28. ii. 1997; 1 ♂, Mt. Talinis, 1000 m, 15. x. 1988; 23 ♂♂, 2 ♀♀, Mt. Canlaon, 900 ft., 10. iv. 1997, 2× 21. iv. 1997, 7. vi. 1997, 18. ix. 1997 (♀), 18× [17 ♂♂, 1 ♀] 20.–27. ix. 1997, 26. x. 1997, 2. xii. 1997; 7 ♂♂, Mt. Canlaon, 1000 ft., 22.–27. i. 1998; CCGT.

Distribution (Fig. 25): Negros.

Exp. 72 mm, lfw. 36 mm for the HT and 101 mm and 52 mm, respectively, for the ♀. Ground colour and pattern as in other members of the group; fasciae obvious toothed; external fascia distinct and present as a row of dark grey spots; white discal spot small; medial and external zones of the fw. distinctly silk-shining. ♀ of the same pattern but considerably larger with lighter external zone of the hw.

♂ genitalia: similar to those of *Kunugia imeldae* but distal processes of vinculum shorter, with 5–6 massive irregulate teeth; aedeagus with short top; vesica without cornuti but often with long tender setae.

Named after the second author's grandchild, Fae.

***Kunugia mervillei* sp. nov.**

(Plate 1: C, D)

Holotype: ♂, Mindoro, Mt. Halcon, 1000 m, 5. x. 1993; CCGT.

Paratypes: Mindoro: 17 ♂♂, 2 ♀♀, Mt. Halcon, 16. ix. 1996 (♀), 28. ii. 1998 (♀), 3× 25. ix. 1997, 5× 14.–26. x. 1997, 13. ii. 1997, 3× 20. ii. 1998, 5× 25.–28. ii. 1998; 15 ♂♂, 2 ♀♀, Mt. Halcon, 1000 m, 1. i. 1994 (♀), 16. iii. 1994 (♀), 1. x. 1993, 14. iii. 1994, 20. vi. 1994, 4. iii. 1996, 8. ix. 1996, 25. ii. 1997, 28. ii. 1997, 3× 14. iii. 1997, 16. iii. 1997, 17. iii. 1997, 3× 25. ix. 1997; 8 ♂♂, Mt. Sinai, 17. iii. 1996, 2× 20. iii. 1996, 26. iii. 1996, 2× 27. iii. 1996, 28. iii. 1996, 5. ii. 1997; CCGT.

Distribution (DMP: Fig. 26): Mindoro for the nominotypical subspecies; two further subspecies see below.

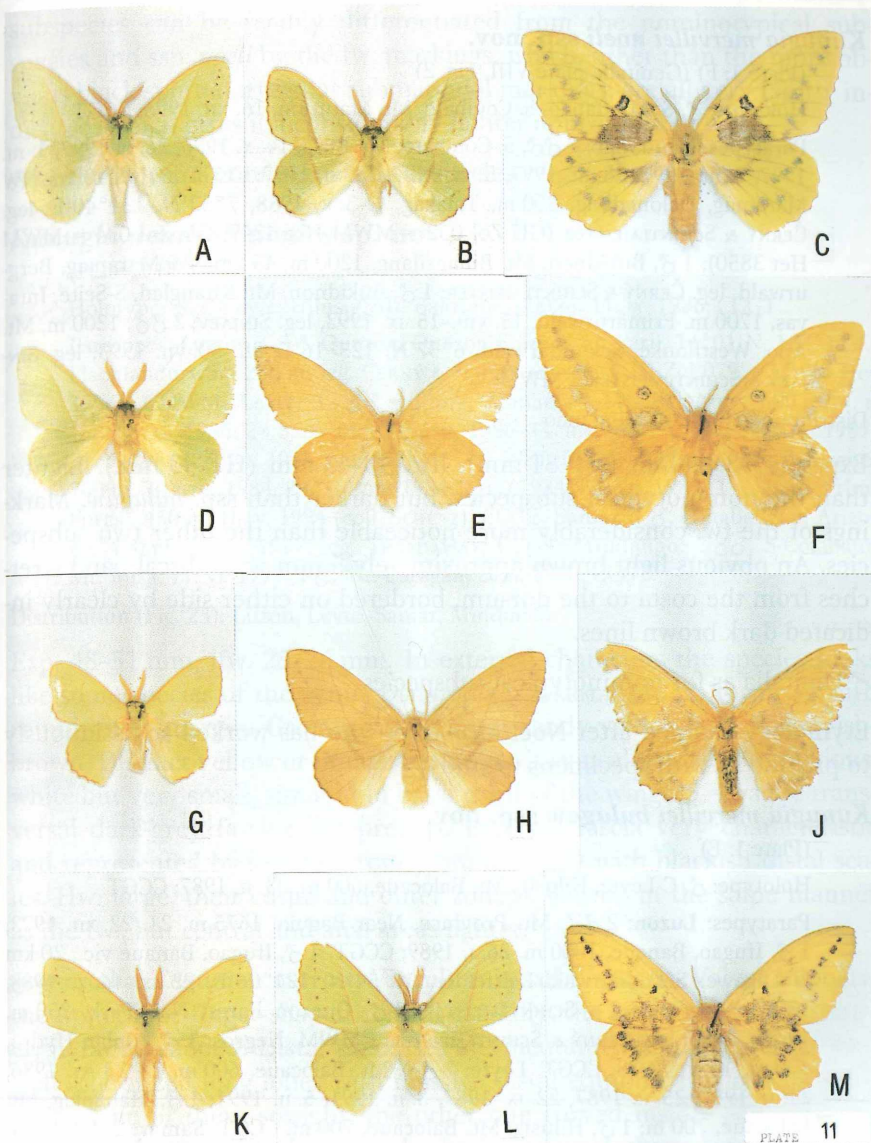
Exp. 93 mm, lfw. 46 mm for the holotype and 121 mm and 63 mm for the ♀♀, respectively. Males are the biggest and darkest *Kunugia* of that group. The pattern as in other members of the group but the postmedial fascia of the fw. straight wave without obvious teeth and antemedial fascia concave; external fascia distinct and present as a row of small dark grey spots; white discal spot small; medial and external zones of the fw. with a distinct silky shine, sometimes medial zone without shine. ♀♀ of the same pattern and colouration but larger. The form of the medial fasciae is characteristic.

♂ genitalia: very similar to those of *Kunugia fae* but the teeth of the distal processes of vinculum smaller and irregular.

Etymology: Named after Merville VILLAN who is an inspiration for Ben VILLAN in his entomological work.

Colour plate 11

Fig. A: *Trabala mahatma*, ♂, S-Mindanao, S-Cotabato, Mt. Matutum, 8. i. 1996. Fig. B: *Trabala mahatma*, ♂, Negros, Mt. Pag-ba, 18. ix. 1996. Fig. C: *Trabala ?mahatma*, ♀, Mindanao, Davao Norte, Mt. Tagubod, 1900 m, 7. x. 1996. Fig. D: *Trabala subadra*, ♂, N-Luzon, Ifugao, Mt. Polis, 1900 m, 12. viii. 1996. Fig. E: *Trabala ?subadra*, ♀, N-Luzon, Ifugao, Banaue, 1100 m, 11. v. 1995. Fig. F: *Trabala ?sugata*, ♀, Mindoro, Mt. Sinai, 6. iii. 1996. Fig. G: *Trabala pallida*, ♂, N-Palawan, Olanguan, 150 m, 9. vii. 1988. Fig. H: *Trabala ?pallida*, ♀, Palawan, Puerto Princesa, Jacana, 1. vii. 1973. Fig. J: *Trabala ?pallida*, ♀, N-Palawan, Olanguan, 150 m, 9. vii. 1988. Fig. K: *Trabala bouraq*, ♂, C-Palawan, Mt. Salakot, 350 m, 21. i. 1995. Fig. L: *Trabala bouraq*, ♂, C-Palawan, Mt. Salakot, 350 m, 19. iii. 1996. Fig. M: *Trabala ?bouraq*, ♀, Balabac, Indalan, 29. viii. 1993.



Kunugia mervillei has three subspecies; the nominotypical is restricted to Mindoro, the two other ssp. see below:

***Kunugia mervillei noeli* ssp. nov.**

(Plate 1: F) (Genitalia plate VIII, Fig. 2)

Holotype: ♂, S. Mindanao, S. Cotabato, Mt. Matutum, 16. xii. 1996; CCGT.

Paratypes: **Mindanao:** 7 ♂♂, S. Cotabato, Mt. Busa, 14. x. 1996, 26. ii. 1997, 1. iii. 1997, 3. iii. 1997, 28. iii. 1997, 5. vi. 1997, 18. vi. 1997; CCGT. 6 ♂♂, 40 km NW Maramag, Dalongdong, 800 m, Talakag, 1.–3. x. 1988, 7°53'N, 134°40'E. leg. ČERNÝ & SCHINTLMEISTER (GU Zol 052 = MWM Het 4249, GU Zol 034 = MWM Het 3850); 1 ♂, Bukidnon, Mt. Binansilang, 1200 m, 45 km NW Maramag, Bergurwald, leg. ČERNÝ & SCHINTLMEISTER; 1 ♂, Bukidnon, Mt. Kitanglad, S-Seite, Intavas, 1700 m, Primärurwald, 15. viii.–15. ix. 1993, leg. SINJAEV; 2 ♂♂, 1200 m, Mt. Apo, Westflanke, Sekundärwald, 6°57'N, 125°16'E, 28.–30. vii. 1993, leg. SINJAEV & SCHINTLMEISTER; CMWM.

Distribution (Fig. 26): Mindanao.

Exp. ♂♂ 78–85 mm (HT 81 mm), lfw. 40–43 mm (HT 43 mm). Lighter than the nominotypical subspecies, but darker than ssp. *bulagaw*. Markings of the fw. considerably more noticeable than the other two subspecies. An obvious light brown approximately 5 mm wide discal band stretches from the costa to the dorsum, bordered on either side by clearly indicated dark brown lines.

♂ genitalia as for nominotypical subspecies.

Etymology: Named after Noel MOHAGAN who has worked so assiduously to provide us with specimens to study.

***Kunugia mervillei bulagaw* ssp. nov.**

(Plate 1: E)

Holotype: ♂, C-Leyte, Hilusig, Mt. Balocaue, 600 m, 23. ii. 1987; CCGT.

Paratypes: **Luzon:** 2 ♂♂, Mt. Province, Near Baguio, 1675 m, 21./22. xii. 1973, 1 ♂, Ifugao, Banaue, 1000 m, 26. i. 1989; CCGT. 1 ♂, Ifugao, Banaue vic., 20 km N Lagawe, Sekundärwald/Reisfelder, 16°54'N, 121°06'E, 22. ix.–16. x. 1988, 1200 m, leg. ČERNÝ & SCHINTLMEISTER; 1 ♂, Quezon Forest Nat. Park, 250 m, 19. vii. 1993, leg. ČERNÝ & SCHINTLMEISTER; CMWM. **Negros:** 1 ♂, Amlan Hydro, 400 m, 10. vi. 1978; CCGT. **Leyte:** 7 ♂♂, Mt. Balocaue, 600 m, 2× 23. xi. 1986, 21. ii. 1987, 25. ii. 1987, 22. ix. 1987, 3. ii. 1991, 5. ii. 1991; 1 ♂, Mahaplag, Mt. Balocaue, 700 m; 1 ♂, Hilusig, Mt. Balocaue, 700 m; CCGT. **Samar:** 2 ♂♂, Baga-cay, 300 m, 12. iv. 1980; CCGT.

Distribution (Fig. 26): Luzon, Negros, Leyte, Samar.

Exp. ♂♂ 69–92 mm (HT 91 mm), lfw. 35–45 mm (HT 45 mm). Slightly smaller but considerably lighter than the nominotypical subspecies. This subspecies can be readily differentiated from the nominotypical subspecies and ssp. *noeli* by the fw. markings, which, other than the more obvious black spotted irregular submarginal markings, are all very faintly indicated, which gives it a considerably lighter appearance.

♂ genitalia as for nominotypical subspecies.

Kunugia dendrolimoides sp. nov.

(Plate 7: H, J, K)

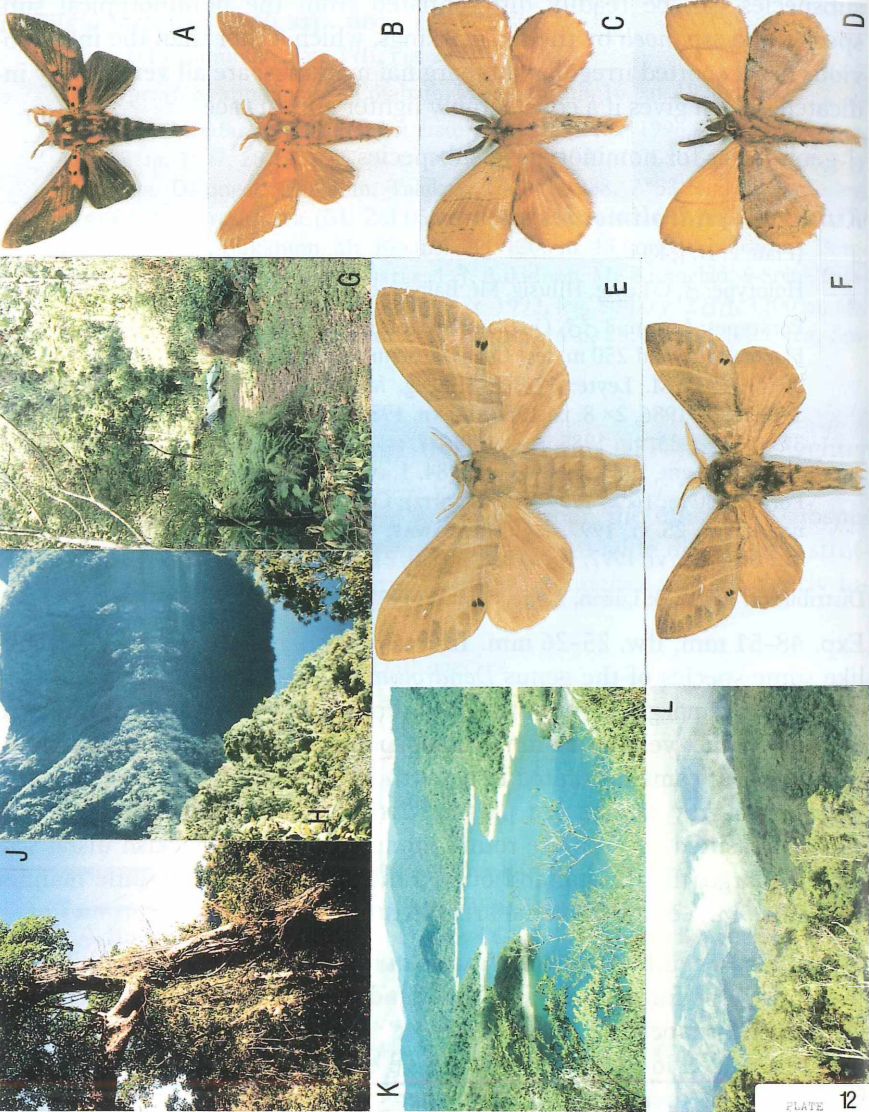
Holotype: ♂, C-Leyte, Hilusig, Mt. Balocaue, 600 m, 11. ix. 1986; CCGT.

Paratypes: Luzon: 3 ♂♂, Quezon, Quezon Forest Nat. Park, 14°01'N, 122°11'E, Flachlandurwald 250 m, leg. ČERNÝ & SCHINTLMEISTER (GU Zol 079 = MWM Het 3956); CMWM. Leyte: 12 ♂♂, Hilusig, Mahaplag, Mt. Balocaue, 600 m, 7 i. 1986, 6. ix. 1986, 2× 8. ix. 1986, 14. xii. 1986, 14. ii. 1987, 23. ii. 1987, 1. v. 1987, 31. v. 1988, 25. vii. 1985, 6. ix. 1986, 7. ix. 1987; 5 ♂♂, Mahaplag, Mt. Balocaue, 700 m, 30. viii. 1984, 2× 31. viii. 1984, 1. ix. 1984, 25. vii. 1985; 1 ♂, Bato, Prim. Forest, 450 m, 16. v. 1994 (coll. SCHÜTZ); CCGT. Samar: 1 ♂, Hinabangan, Arizona, 400 m, 25. vi. 1997, leg. TREADAWAY; CCGT. Mindanao: 2 ♂♂, S-Cotabato, Mt. Busa, 11. vi. 1997; 1 ♂, Mt. Caragan, 21. i. 1998; CCGT.

Distribution (Fig. 25): Luzon, Leyte, Samar, Mindanao.

Exp. 48–51 mm, lfw. 25–26 mm. In external characters the species looks like some species of the genus *Dendrolimus* GERMAR, 1812. Fw. long with round outer margin. Ground colour from sandy-yellow to dark greyish-brown. Distinct yellow or orange basal spot is typical. Discal spot obvious, white but very small, situated in basal third of the wings. 3–4 vague transversal dark-grey fasciae are present. External fascia very characteristic and represented by separate round orange spots with blackish distal scales. Hw. large, their costal and outer zones coloured in the same manner as the fw., but central and anal areas lighter.

♂ genitalia: Tegumen narrow. Vinculum broad flattened. Valvae bilobate, the upper lobe finger-shaped conical caudally, the lower one much shorter, pyramid-shaped. Distal processes of vinculum ("cubile") present as 2 well sclerotized long lobes with massive distal equipment consisting of 2 spurs. One of them straight, the other one curved inside. Saccus short, round. Aedeagus with short tubular basis and weak-shaped elongated tip. Vesica without cornuti.



Genus *Dendrolimus* GERMAR, 1812

Dendrolimus sp. *prope punctata* (WALKER, 1855)

(Plate 7: B)

Oeona punctata WALKER, 1855, List Lepid. Ins. Colln. Br. Mus. 6: 1418. L.t.: China, Kuantung, Hong Kong. Type material not examined.

Material studied: **Batanes Group**: 1 ♀, Itbayat, 4. iv. 1989; CCGT.

(DMP: Fig. 25.)

Only one ♀ in poor conditions is at our disposal. Correct determination of this specimen is therefore most difficult. Supposedly it is *Dendrolimus punctata* reliably known from Taiwan, north of the Batanes Islands.

Genus *Suana* WALKER, 1855

Suana concolor (WALKER, 1855)

(Plate 3: G, H, J, K, L) (Genitalia plate VIII, Fig. 1)

Lebeda concolor WALKER, List Specimens lepid. Insects Colln. Br. Mus. 6: 1463. L.t.: Java & Silhet. Type material not examined.

Material studied: **Luzon**: 1 ♂, Quezon, Tanawan, 14 km S Real, 14°34'N, 121°33'E, 23. i. 1988., leg. ČERNÝ & SCHINTLMEISTER; 2 ♂♂, Ifugao Banaue vic., 20 km N Lagawe, 16°54'N, 121°06'E, 22. ix.–16. x. 1988, 1200 m, leg. ČERNÝ & SCHINTLMEISTER; 1 ♂, Benguet, 15 km S Baguio, 1600 m, 12. x. 1988, 16°22'N, 120°36'E, leg. ČERNÝ & SCHINTLMEISTER; CMWM. 1 ♂, Banaue, 30. iii. 1988; 8 ♂♂, Ifugao, Banaue, 3600 ft., 26. iv. 1991, 2 × 5. vi. 1988, 16. iii. 1988, 20. ix. 1988, 14. vi. 1988, viii. 1987, 5. v. 1988 (leg. TREADAWAY); 1 ♂, Ifugao, 700 m, Mayoyao, 18. vi. 1988; 1 ♂, Ifugao, Kiangnan, 750 m, 8. vi. 1985; CCGT. **Mindoro**: 3 ♂♂, 10 km E San Jose, Paclolo, 12°22'N, 121°08'E, 100 m, 28. i.–4. ii. 1989, leg. ČERNÝ & SCHINTLMEISTER; CMWM. 1 ♂, 1 ♀, Mt. Sinai, 27. ii. 1996; 2 ♂♂, Mt. Halcon, 1 × 800 m, 22. iii. 1993, 1 × 15. iii. 1993; CCGT. **Panay**: 2 ♂♂, Antique, Mt. Madja-as, 17. v. 1993, 13. v. 1993; CCGT. **Negros**: 9 ♂♂, Mambucal, 7. x. 1985, x. 1985, 2 × 10. x. 1985, xi. 1985, 29. ix. 1992, 13. x., 22. x. 1992, 7. xi. 1992; 14 ♂♂, Mt. Canlaon, 16. vi. 1991, 19. v. 1993, 6. v. 1991, iv. 1985, 21. i. 1990, 13. x. 1990, 10. v. 1995, 5. ix. 1987, 30. ix. 1985, xi. 1987, 24. viii. 1987, 14. x., 10. x., 6. x. 1990; 1 ♂, Amlan, 4000 ft., 24. xi. 1976; CCGT. **Cebu**: 2 ♂♂, Libo, Sibonga,

Colour plate 12

Fig. A: *Alompra ferruginea cerastes*, ♂, S-Mindanao, S-Cotabato, Mt. Matutum, 14. vi. 1997
Fig. B: *Alompra ferruginea cerastes*, ♂, S-Mindanao, S-Cotabato, Mt. Matutum, 18. vi. 1997
Fig. C: *Radhica himerta*, ♂, C-Palawan, Salakot, 335 m, 16. vi. 1997. Fig. D: *Radhica himerta*, ♂ (underside), same specimen. Fig. E: *Lebeda intermedia*, ♀, S-Palawan, Brookes Point, 17. viii. 1961. Fig. F: *Lebeda intermedia*, ♂, S-Palawan, Brookes Point, 17. viii. 1961. — Typical collecting areas: Fig. G: S-Negros, nr. Amlan (camp). Fig. H: Mindanao, S-Cotabato, Lake Maugham. Fig. J: Sulu Archipelago, Sibutu Is, Cavan Cavan (remnant of primary forest). Fig. K: C-Luzon, Sierra Madre range, Angat Dam. Fig. L: N-Luzon, Ifugao, nr. Mt. Polis.

600 m, 27. xii. 1987; 1 ♂, Mt. Luay, Minglanilla, 7. vii. 1985; CCGT. **Leyte**: 3 ♂♂, Mt. Balocaue, Mahaplag, 700 m, 29. viii. 1984, 2× 24. ii. 1987; CCGT. **Samar**: 3 ♂♂, Bagacay, 200 m, 1× 5. xii., 2× 6. xii. 1986, leg. TREADAWAY, CCGT. **Bohol**: 1 ♂, Bilar, 27. iii. 1993; CCGT. **Mindanao**: 6 ♂♂, Bukidnon, 45 km NW Maramag, Mt. Binansilang, 1200 m, 2. x. 1988, 7°55'N, 124°40'E. leg. ČERNÝ & SCHINTLMMEISTER; 1 ♂, Bukidnon, 15 km NW Maramag, Mt. Bagongsilan, Mt. Kalatungan, 1450 m, 30. xii. 1988, leg. K. ČERNÝ; 19 ♂♂, Bukidnon, Mt. Kitanglad-Süd, Intavas, 1700 m, 15. viii.-15. ix. 1993, leg. V. SINJAEV; 6 ♂♂, Bukidnon, 40 km NW Maramag, Dalongdong, Talakag, 800 m, 7°53'N, 123°54'E, 31. xii. 1991-2. i. 1992, leg. K. ČERNÝ; 1 ♂, Davao Norte, Mt. Malambu, Leatu Talumays, 7°40'N, 125° 15'E, 1400 m, 4. x. 1988, leg. ČERNÝ & SCHINTLMMEISTER; CMWM. 1 ♂, Bukidnon, San Vicente, 2800 ft., 28. ii. 1989, leg. TREADAWAY; 1 ♂, Bukidnon, Intavas, 4600 ft., 25. vii. 1990; 1 ♂, 4 ♀♀, N Cotabato, Mt. Apo, 2 ♀♀ 1. iii. 1994, 8. iii. 1994, 2 ♀♀ 10. iii. 1994; 1 ♂, S. Cotabato, Mt. Matutum, 4. x. 1996; CCGT. **Sulu Archipelago**: 1 ♂, Tawitawi Gr., Sibutu Is., Cavan Cavan, 13. ii. 1990, leg. TREADAWAY; CCGT. **Balabac**: 1 ♂, Indalawan, 30. iv. 1995; CCGT. **Palawan**: 1 ♂, 8 km NE Puerta Princesa, 3. vii. 1988, leg. TREADAWAY; 1 ♂, Irawan, 1. xii. 1986; 1 ♂, Mt. Salakot, 350 m, 20. iii. 1996; 1 ♀, near Brooke's Point, Mt. Tamlang, xi. 1983; 1 ♀, Languan, near Puerto Princesa, 28. x. 1980; 1 ♂, Olanguan, 500 ft., 11. vii. 1988; CCGT. 1 ♂, S. Vicente, 12.-17. i. 1988 (GU Zol 87 = MWM Het 3891), leg. ČERNÝ & SCHINTLMMEISTER; CMWM.

Distribution on the Philippines: Luzon, Mindoro, Panay, Negros, Cebu, Leyte, Samar, Bohol, Mindanao, Sibutu, Balabac, Palawan. (DMP: Fig. 27.)

Comments: Extremely variable in size (18–37 mm lfw. for ♂♂ and 43–67 mm for ♀♀). The colour can be anywhere from light sandy-brown to pinkish-brown to almost black. The white discal spot may or may not be present and its size can vary from a small pin-point to an obvious round patch. Similarly the basal orange spot shows the same variation from non-existent to a substantial one. The same characters are typical for most other populations of *Suana concolor* all over its range.

Tribe Odonestidini TUTT, 1902

Genus *Odonestis* GERMAR, 1812

Odonestis vita MOORE, 1859

Odonestis vita MOORE, 1859, in: Horsfield & MOORE, Cat. Lep. Ins. Mus. Nat. Hist. East-India House 2: 424. L.t.: Sundaland. Type material not examined.

Odonestis vita brachyschalida TAMS, 1935

(Plate 8: K)

Odonestis vita brachyschalida TAMS, 1935, Mém. Mus. r. Hist. Nat. Belgique 4 (12): 59, pl. 6, figs. 19, 20; pl. 9, figs. 5, 6; text fig. 10. L.t.: Philippines, Mindanao, subprov. Lanao, Kolumbugan. Type material not examined.

Material studied: **Mindanao**: 1 ♂, Kolambugan, Lanao, 27. v. 1914 (BMNH). 1 ♂, Bukidnon, Mt. Kitanglad, 19. v. 1995; 1 ♂, S-Cotabato, Mt. Matutum, 9. x. 1996; 7 ♂♂, S-Cotabato, Mt. Busa, 2× 18.–22. x. 1996, 28. xi. 1996, 14. vi. 1997, 5. iii. 1997, 2× 26. viii. 1997; CCGT. **Palawan**: 1 ♂, Taytay, Matibongbong, 16. ix. 1996; CCGT.

Distribution: Mindanao, Palawan; other subspecies are widely distributed from Sundaland to Southern India and Southern China. (DMP: Fig. 28.)

Odonestis erectilinea (SWINHOE, 1904)

(Plate 8: D)

Arguda erectilinea SWINHOE, 1904, Trans. entomol. Soc. London 1904: 152. L.t.: Borneo, Singapore. Type material not examined.

Material studied: **Palawan**: 3 ♂♂, Languan, 2× 17.–19. ix. 1984, 9. vii. 1988; 4 ♂♂, Mt. Salakot, 330 m, 16. vi. 1995, 3× 19. iii. 1996; 1 ♂, Mt. Salakot, 750 m, 18. iii. 1996, leg. TREADAWAY; 3 ♂♂, Napsan, Salakot Falls, 330 m, 8. viii. 1996, leg. PETERSEN; 2 ♂♂, Solomon, 17. iii. 1996; CCGT.

Distribution: Palawan; Sundaland (incl. Nias); Vietnam, Thailand. (DMP: Fig. 29.)

Odonestis apo sp. nov.

(Plate 8: C) (Genitalia plate XIII, Fig. 2)

Holotype: ♂, Mindanao, S-Cotabato, Mt. Busa, 20. x. 1996; CCGT.

Paratypes: **Luzon**: 1 ♂, Ifugao, Mt.-Polis-Paß, 20 km N Banaue, 2000 m, Bergurwald, 3.–18. viii. 1996, leg. R. BRECHLIN; CMWM. **Mindanao**: 1 ♂, S-Cotabato, Mt. Apo, 25. ii. 1994; 5 ♂♂, S-Cotabato, Mt. Busa, 17. x. 1996, 12. vi. 1997, 2× 14. vi. 1997, 19. vi. 1997; 2 ♂♂, S-Cotabato, Mt. Matutum, 25. vi. 1996, 20. ii. 1996 (GU Zol/Tr 97-09); CCGT. 2 ♂♂, 1200 m, Mt. Apo, Westflanke, Sekundärwald, 6° 57'N, 125° 16'E, 28.–30. vii. 1993, leg. SINJAEV & SCHINTLMEISTER; 7 ♂♂, Prov. Davao del Sur, Mt. Apo, SE Route via Kapatagan, 570 m, 10.–12. vii. 1996, leg. R. BRECHLIN; 1 ♂, Davao del Sur, Mt. Apo, SE-Route via Kapatagan, 2230 m, 8. vii. 1996, leg. R. BRECHLIN; CMWM.

Distribution (Fig. 29): So far only known from Luzon and Mindanao.

♂ In external characters very similar on *Odonestis erectilinea* but darker with more red-vine ground colour. Outer margin of the fw. with numerous silvery blue scales; hw. much darker and almost monotonously coloured without distinct pattern. Fw. with obvious white discal spot (either round or comma-shaped) and transversal dark brown whitish outlined medial lines. Antemedial line weakly curved outside and postmedial one almost straight. Shape of the wings as in *Odonestis erectilinea*.

In ♂ genitalia, the new species is very characteristic: the 8th sternite is modified (this feature is typical for all *Odonestis* as a whole), short, asymmetric and strongly divided distally. Tegumen broad, vinculum band-shaped

with a long, slender saccus rounded cranial. Valvae consist of 2 branches – stiletto-shaped upper and membranous pillow-shaped lower one. The aedeagus is short with distinct weak-shaped apical spur. Vesica with one large zone of small needle-shaped cornuti, all of the same size, and central sclerotized plate.

Odonestis leopoldi TAMS, 1935, stat. nov.

(Plate 8: A, B)

Odonestis vita leopoldi TAMS, 1935, Mem. Mus. Royal Hist. Nat. Belgique **4** (12): 60, pl. 6, figs. 21–28; pl. 9, fig 7; pl. 10, figs. 1–3; text fig. 11. Lt.: Philippines, Maou, Samar. Type material not examined.

Material studied: **Luzon**: 1 ♂, PT, “Philippines, Montalban”, 14. vi. 1914, A. E. WILEMAN; 1 ♂, PT, Luzon, subprov. Rizal, Manila, sea level, 5. xi. 1913, A. E. WILEMAN; 1 ♂, PT, Klondyke, 6. iv. 1912, A. E. WILEMAN; BMNH. 3 ♂♂, 2 ♀♀, Banaue, 3600 ft., 5. iii. 1988 (♀), 6. iii. 1988, 1. xi. 1988, 27. ix. 1988, 17. i. 1996 (♀); 1 ♂, 1 ♀, Ifugao, Kiangnan, 750 m, 16. iii. 1985, 21. vi. 1985, leg. SETTELE; CCGT. 1 ♂, Quezon, Tanawan, 14 km S Real, 14°34'N, 121°33'E, 600 m, 23. i. 1988, leg. ČERNÝ & SCHINTLMMEISTER (CMWM). **Mindoro**: 1 ♂, Mt. Sinai, 21. i. 1996; CCGT. **Negros**: 1 ♂, near Mambucal, 13. ix. 1995; 4 ♂♂, Mambucal, 14.–25. x. 1992; 2 ♂♂, 1 ♀, Negros, Mt. Canlaon, 7. iii. 1991 (♀), 17. iii. 1991, 15. iv. 1985; 1 ♂, Amlan Hydro, 11. vi. 1978; CCGT. **Samar**: 1 ♂, Mano, 12. iii. 1996; 1 ♂, 1 km S Bagacay, 1200 ft, 22. iii. 1996, CCGT. **Leyte**: 1 ♂, Hilusig, 600 m, Mt. Balocauca, 28. v. 1988; CCGT. **Mindanao**: 1 ♂, Bukidnon, Mt. Kitanglad-Süd, St. Vincente, 750 m, 15. viii.–15. ix. 1993, leg. V. SINJAEV; CMWM. 1 ♂, S-Cotabato, Mt. Matutum, 6. ii. 1996; 1 ♂, S-Cotabato, Mt. Busa, 15. vi. 1997; 1 ♂, Davao del Norte, Mt. Tagubod, 6000 ft., 9. i. 1997; CCGT.

Distribution (DMP: Fig. 30): Luzon, Mindoro, Negros, Samar, Leyte, Mindanao.

Comments: *Odonestis leopoldi* is assigned here the rank of a separate species because of the very characteristic ♂ genitalia structure not typical for any another *Odonestis*-species.

Genus *Takanea* NAGANO, 1917

Takanea diehli DE LAJONQUIÈRE, 1978

(Plate 8: M)

Takanea diehli DE LAJONQUIÈRE, Atalanta **9** (3): 234. Lt.: N-Sumatra, Stabat; Holotype: ♂, Zoologische Landessammlungen Karlsruhe, Germany.

Material studied: **Luzon**: 1 ♂, Quirino Prov., Maddela, Asaclar, 30. xi. 1988; CCGT. **Mindoro**: 2 ♂♂, Mt. Halcon, 18. x. 1997; CCGT. **Negros**: 1 ♂, [Mt.] Canlaon, 1. iv. 1995, leg. SATO; CMWM. 16 ♂♂, 1 ♀, Mt. Canlaon, 16. iv. 1996, 15×7.–14. viii. 1997, 23. i. 1998 (♀); CCGT. **Mindanao**: 1 ♂ Bukidnon, 45 km NW Maramag, Mt. Binansilang, 1200 m, Bergurwald, 2. x. 1988, 7°55'N, 134°40'E, leg. ČERNÝ & SCHINTLMMEISTER; 1 ♂, 40 km NW Miramag, Dalongdong, 800 m, Ta-

lakag, 1.–3. x. 1988, 7°53'N, 134°40'E, leg. ČERNÝ & SCHINTLMEISTER; CMWM. 2 ♂♂, S-Cotabato, Mt. Busa, 11. x. 1996, 15. vi. 1997; CCGT.

Distribution: Luzon, Mindoro, Negros, Mindanao; Sumatra, Borneo, Peninsula Malaysia. (DMP: Fig. 29.)

Comments: First observation for the Philippines.

Genus *Syrastrena* MOORE, 1884

Syrastrena lanaoensis TAMS, 1935

(Plate 8: L)

Syrastrena minor lanaoensis TAMS, 1935. Mem. Mus. Royal Hist. Nat. Belgique 4 (12): 51, pl. 4, fig. 11. L.t.: Philippines, Mindanao, subprov. Lanao. Holotype: ♂, Kolambugan, subprov. Lanao, Mindanao, sea level, 15. v. 1914, A. E. WILEMAN (gen. slide 963); BMNH (examined).

Material studied: **Luzon**: 2 ♂♂, Quezon, Quezon Forest Nat. Park, 14°01'N, 122°11'E, Flachlandurwald, 250 m, leg. ČERNÝ & SCHINTLMEISTER; CMWM. **Negros**: 10 ♂♂, Mt. Canlaon, 8× 12.–16. v. 1996, 1× 3300 ft, 30. iv. 1995, 1× 5500 ft., 30. ix. 1992; CCGT. **Leyte**: 1 ♂, Hilusig, 600 m, Mt. Balocaue, 26. ii. 1987; CCGT. **Mindanao**: 1 ♂, Kolambuzau, viii.–ix. [19]22; BMNH. 1 ♂, S-Cotabato, Mt. Busa, 14. vi. 1997; CCGT. **Palawan**: 1 ♂, S. Vicente, 20 km NEE Roxas, 10°21'N, 119°10'E, Mittelgebirgsurwald, 400 m, 12. i.–17. i. 1988, leg. ČERNÝ & SCHINTLMEISTER; CMWM.

Distribution: Luzon, Negros, Leyte, Mindanao, Palawan; also known from Sumatra, Borneo, West Malaysia and Vietnam. (DMP: Fig. 31.)

Genus *Arguda* MOORE, 1879

Arguda rectilinea HAMPSON, [1893]

Arguda rectilinea HAMPSON, 1892 [1893], Fauna Brit. India, Moths 1: 414. L.t.: Birmanie, Baulin.

Arguda rectilinea indonesiana DE LAJONQUIÈRE, 1979, stat. rev.

(Plate 8: H) (Genitalia plate VII, Fig. 3)

Arguda rectilinea indonesiana DE LAJONQUIÈRE, 1979, Bull. Soc. entomol. France 84: 196, pl. II L, M; figs. 15, 16. L.t.: NO Sumatra, Aek Tarum, 250 km S Dolok Merangir.

Material studied: **Palawan**: 2 ♂♂, 20 km NEE Roxas, S. Vicente, 10°21'N, 119°10'E, 200 m, 13.–16. xii. 1991, K. ČERNÝ leg. (GU Zol 83 = MWM Het 3958, GU Zol 97.03 = MWM Het 4237); CMWM. 2 ♂♂, Salakot, 335 m, 16. vi. 1997, leg. TREADAWAY; 1 ♂, Salakot Falls, 330 m, 24. iii. 1996 (GU Zol/Tr 97.05), leg. PETERSEN; 6 ♂♂, Salakot Falls, 350 m, 2× 9. viii. 1997, 4× 24. viii. 1997; CCGT. 1 ♂, Irawan (outskirts of Puerto Princesa City), 15. iii. 1996, leg. A. ZWICK; CAZS.

Distribution (DMP: Fig. 32): Palawan; the species is known also from Borneo, Sumatra, Peninsular Malaysia and from Burma, Vietnam, and southern China.

Despite the fact that ssp. *indonesiana* was synonymized with the nominotypical subspecies by HOLLOWAY (1987: 38), the authors consider it as a separate taxon (syn. rev.) with following characteristic features: Ground colour is light brownish-violet. In the fw. the fasciae are strong almost parallel, brown with distinct whitish basal border; both are slightly curved in radial zone, the external is obviously yellowish toothed. Discal spot small dark brown. The hw. red-brown with violet brown costal margin. Exp. 42 mm, lfw. 21 mm.

♂ genitalia: As illustrated, vinculum narrow with some small rounded caudal processes; aedeagus tubular with an obvious spur slightly enlarged distally, one apical and two massive lateral patches of needle-shaped cornuti on vesica are distinct.

Comments: In external characters this taxon is very similar to the nominotypical subspecies but differs by smaller size, by lighter colouration, curved antemedian and by the presence of the yellowish border of the fw. fasciae. In the ♂ genitalia, this subspecies is characterized by a different shape of the vinculum, covered by more numerous small projections (only two of them are distinctly present in *Arguda rectilinea rectilinea*).

♀, preimaginal instars and biology are still unknown.

Arguda rosemariae HOLLOWAY, 1987

(Plate 8: G) (Genitalia plate VIII, Fig. 4)

Arguda rosemariae HOLLOWAY, 1987, Moths of Borneo 3: 39, pl. 5; fig. 36. L.t.: Borneo, Brunei, Kilanas Stn. Holotype: ♂, BMNH.

Material studied: Palawan: 1 ♂, Salakot Falls, 330 m, 24. III. 1996, leg. PETERSEN; 1 ♂, Napsan, 23. III. 1996 (GU Zol/Tr 04/97); CCGT.

Distribution: Palawan; Borneo, Sumatra. (DMP: Fig. 31.)

Comments: A first record from the Philippines.

Arguda sandrae ZWICK, 1998

Arguda sandrae ZWICK, 1998, Nachr. entomol. Ver. Apollo, Frankfurt am Main, Suppl. 17: 442; Holotype: ♂, Palawan, Irawan (outskirts of Puerto Princesa City), 15. III. 1996, leg. A. ZWICK (CAZS, will later be deposited in a museum).

Distribution (Fig. 31): Palawan; so far only known from the type locality.

Comments: The species is described in a separate paper in this volume.

Arguda dodongi sp. nov.

(Plate 8: E, F) (Genitalia plate VII, Fig. 2)

Holotype: ♂, C-Leyte, Hilusig, Mt. Balocaue, 600 m, 3. i. 1986; CCGT.

Paratypes: Luzon: 3 ♂♂, Ifugao, Banaue vic., 20 km N Lagawe, 16°54'N, 121°06'E, 22. ix.–16. x. 1988, leg. ČERNÝ & SCHINTLMEISTER; CMWM. 1 ♂, Ifugao, Banaue, 3600 ft., 29. ii. 1985, leg. SETTELE; 1 ♂, Santa Fe, 21. ix. 1988 (GU Zol/Tr 97/01); CCGT. Negros: 7 ♂♂, Mt. Kanlaon, W-route via Mambucal, Primärwald, 820 m, 15. vii. 1996, leg. R. BRECHLIN; 11 ♂♂, same data, 1010 m, 17.–18. vii. 1996; CMWM. 19 ♂♂, 1 ♀, Mt. Canlaon, 15. vi. 1997, 5× 6.–8. viii. 1997, 9× 9.–15. viii. 1997, 3× 21.–27. ix. 1997, 4. i. 1998 (♀), 26. i. 1998; 1 ♂, Mt. Talinis, Valencia, 6. xi. 1983 (GU Zol/Tr 013); 1 ♂, Mt. Canlaon, 15. v. 1996 (GU Zol/Tr 97/06); CCGT. Leyte: 2 ♂♂, Mahaplag, Mt. Balocaue, 600 m, 6. i. 1986, 14. xii. 1986 (GU Zol/Tr 97/02); CCGT.

Distribution (Fig. 33): Luzon, Negros, Leyte.

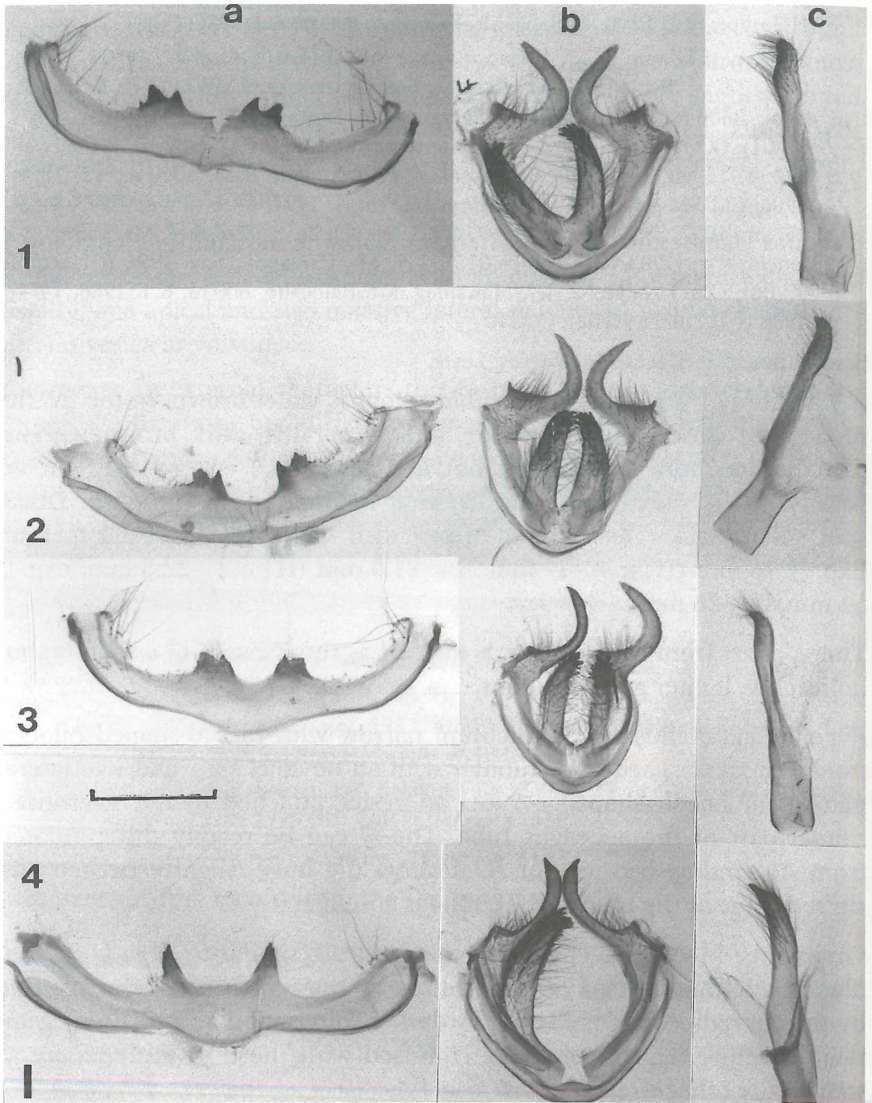
♂♂ and only 1 ♀ are known. Ground colour is violet-brown. In the fw. the fasciae are close together, strong, almost parallel, dark brown without light border; both are straight but the postmedial is obviously curved basally in the radial zone, the external is faint, spotted greyish. Discal spot small black. The hw. red-brown with violet brown costal margin. Exp. ♂ 46 mm (HT), 42–47 mm, lfw. 21.5 mm (HT), 21–22.5 mm; exp. ♀ 54 mm, lfw. 28 mm.

The ♀, apart from being larger, is marked as the ♂ but is of a slightly, but noticeably, lighter ground colour.

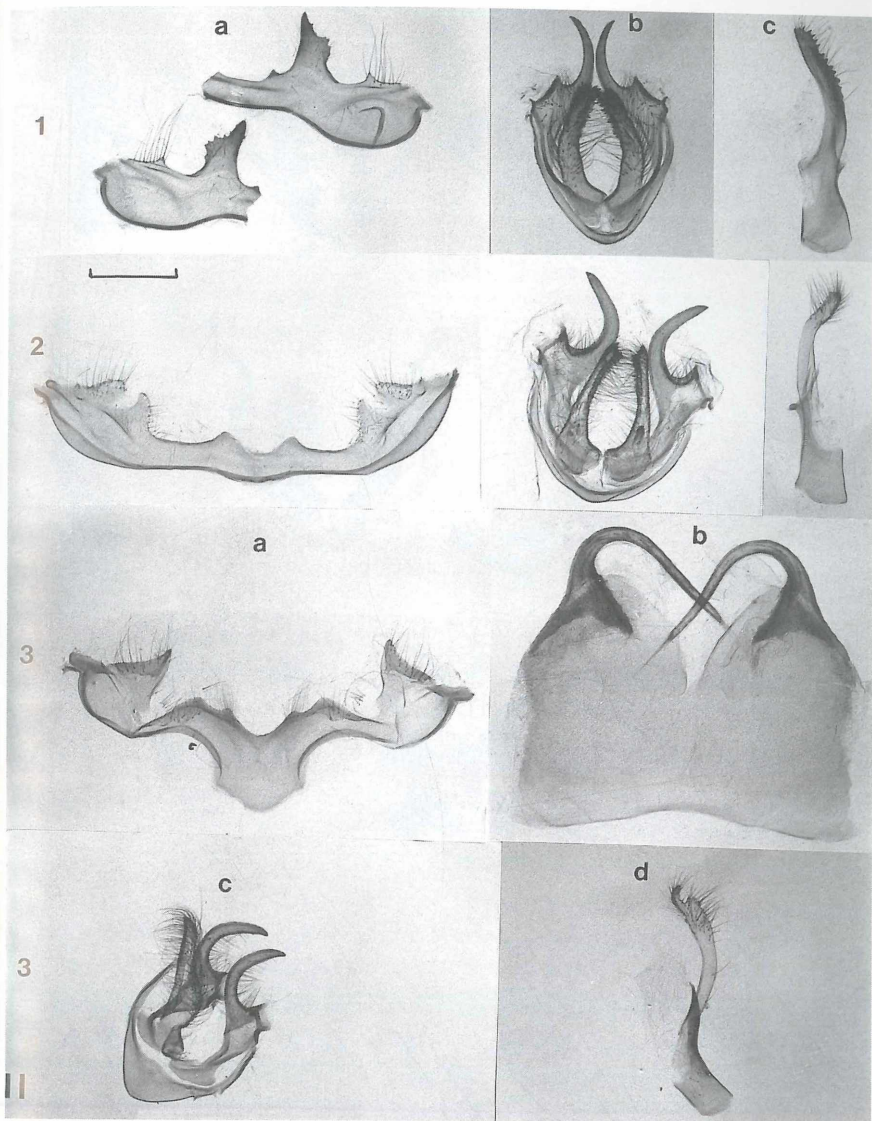
♂ genitalia: as illustrated, vinculum narrow with forked-shaped bilobed caudal processes; aedeagus tubular with an obvious spur and two lateral patches of needle-shaped cornuti on vesica attached to the sclerotized caudal part of the aedeagus tube. The ♂ can be readily differentiated from *A. sandrae* because for *A. dodongi* the huge, slightly twisted and curved spine at the base of the cubile is absent.

Comments: In external characters the species is similar to *Arguda insulindiana* DE LAJONQUIÈRE, 1977 but differs by the reduction of the externa, by the curved postmedial band, by darker colouration and by the ♂ genitalia structure which cannot be confused with those of *insulindiana* as well as any other *Arguda*.

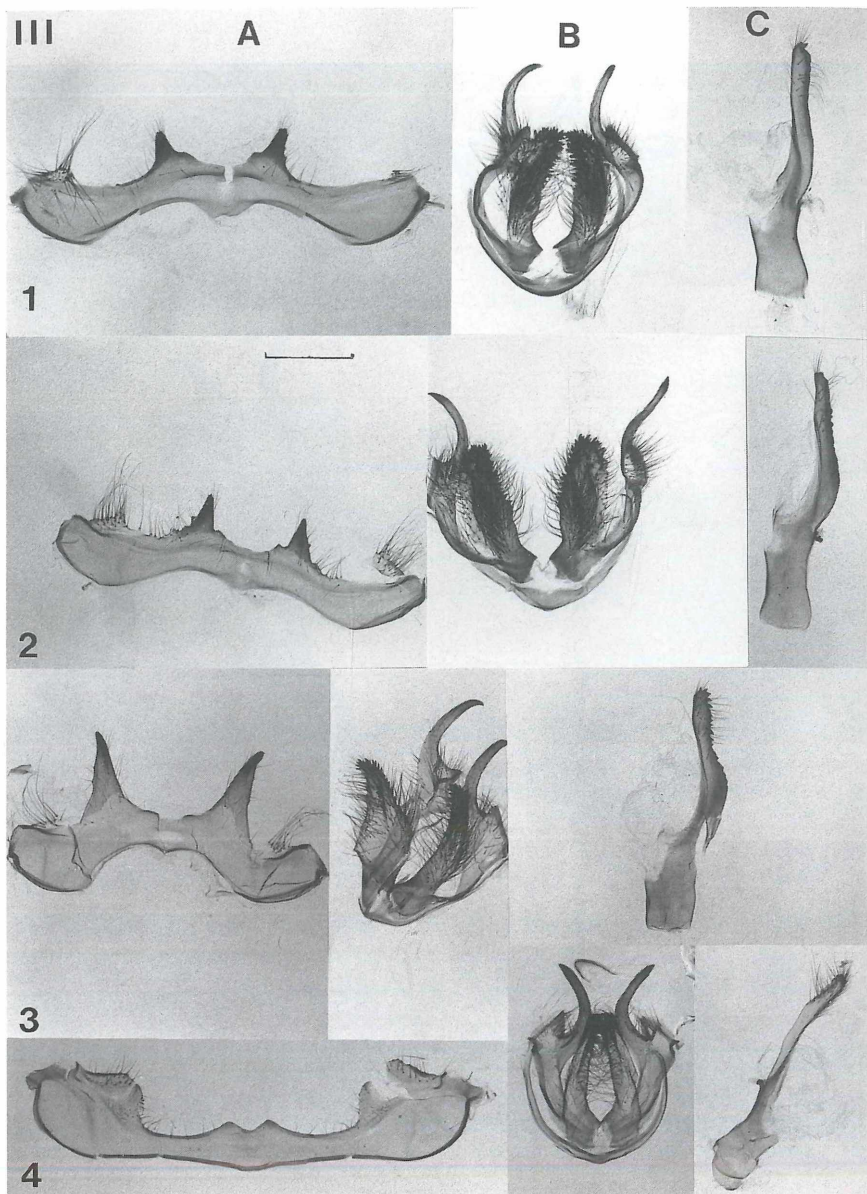
Preimaginal instars and biology are still unknown.



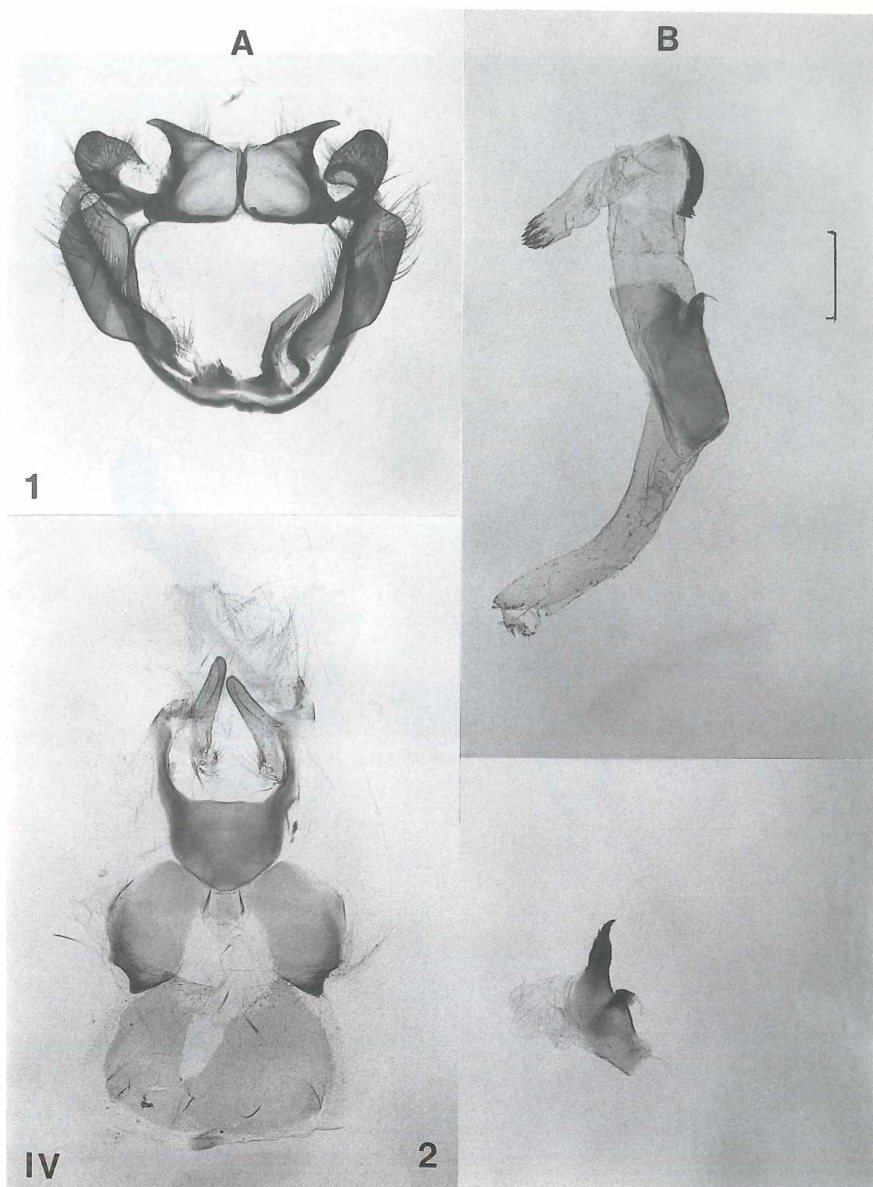
Genitalia Plate I, Fig. 1: ♂ genitalia of *Trabala sudara*, GU Zol 077 = MWM Het 3955 (Mindanao). Fig. 2: *Trabala rama*, GU Zol 076 = MWM Het 3954 (Mindanao). Fig. 3: *Trabala viridana*, GU Zol 075 = MWM Het 3953 (Mindanao). Fig. 4: *Trabala rama*, GU Zol 072 = MWM Het 3950 (Luzon). a: tegumen, b: genitalia, c: aedeagus. — All genitalia photographs by W. A. Nässig. Scale = 1 mm.



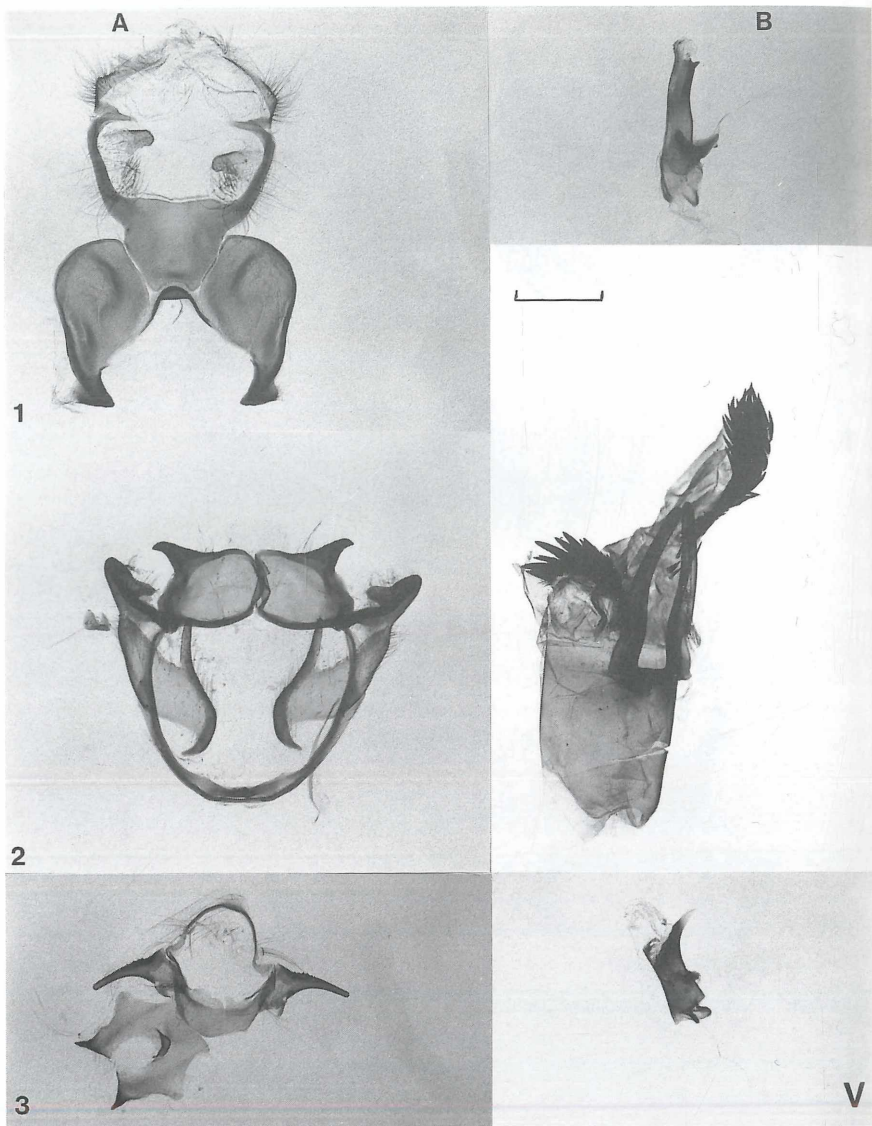
Genitalia Plate II, Fig. 1: ♂ genitalia of *Trabala sugata*, GU Zol 041 = MWM Het 3857 (Luzon). Fig. 2: *Trabala subadra*, GU Zol 044 = MWM Het 3860 (Luzon). a: tegumen, b: genitalia, c: aedeagus. Fig. 3: *Trabala mahatma*, GU Zol 042 = MWM Het 3858 (Mindoro). a: tegumen, b, c: genitalia, d: aedeagus. — Scale = 1 mm.



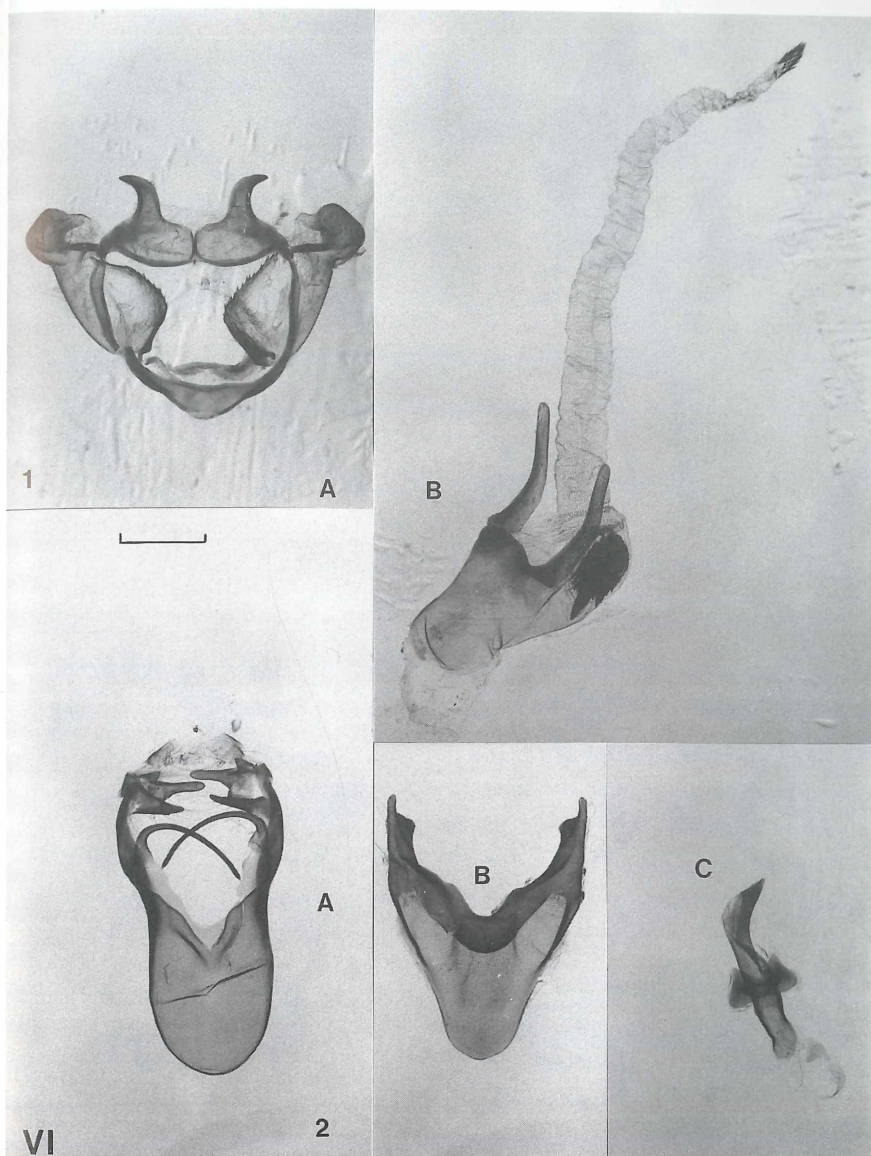
Genitalia Plate III, Fig. 1: ♂ genitalia of *Trabala danao*, GU Zol 073 = MWM Het 3951 (Mindanao). **Fig. 2:** *Trabala danao*, GU Zol/Tr 24/97 (Mindanao). **Fig. 3:** *Trabala sugata*, GU Zol/Tr 14/97 (Mindoro). **Fig. 4:** *Trabala subadra*, GU Zol 043 = MWM Het 3859 (Luzon). — A: tegumen, B: genitalia, C: aedeagus. Scale = 1 mm.



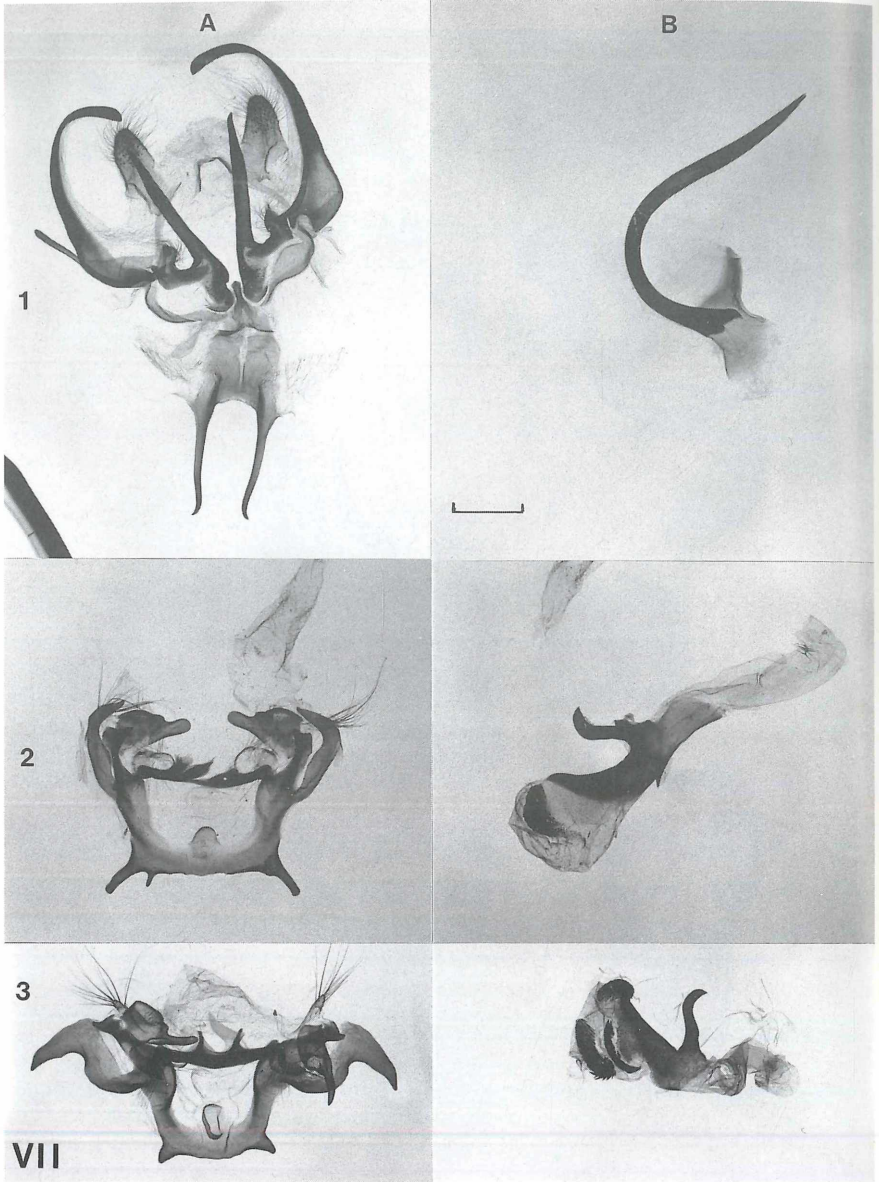
Genitalia Plate IV, Fig. 1: ♂ genitalia of *Gastropacha prionophora marptis*, GU Zol 156 = MWM Het 4010 (Mindoro). Fig. 2: *Eleganteda cassandra arimasi*, GU Zol 144 = MWM Het 3998 (Mindanao). — A: genitalia, B: aedeagus. Scale = 1 mm.



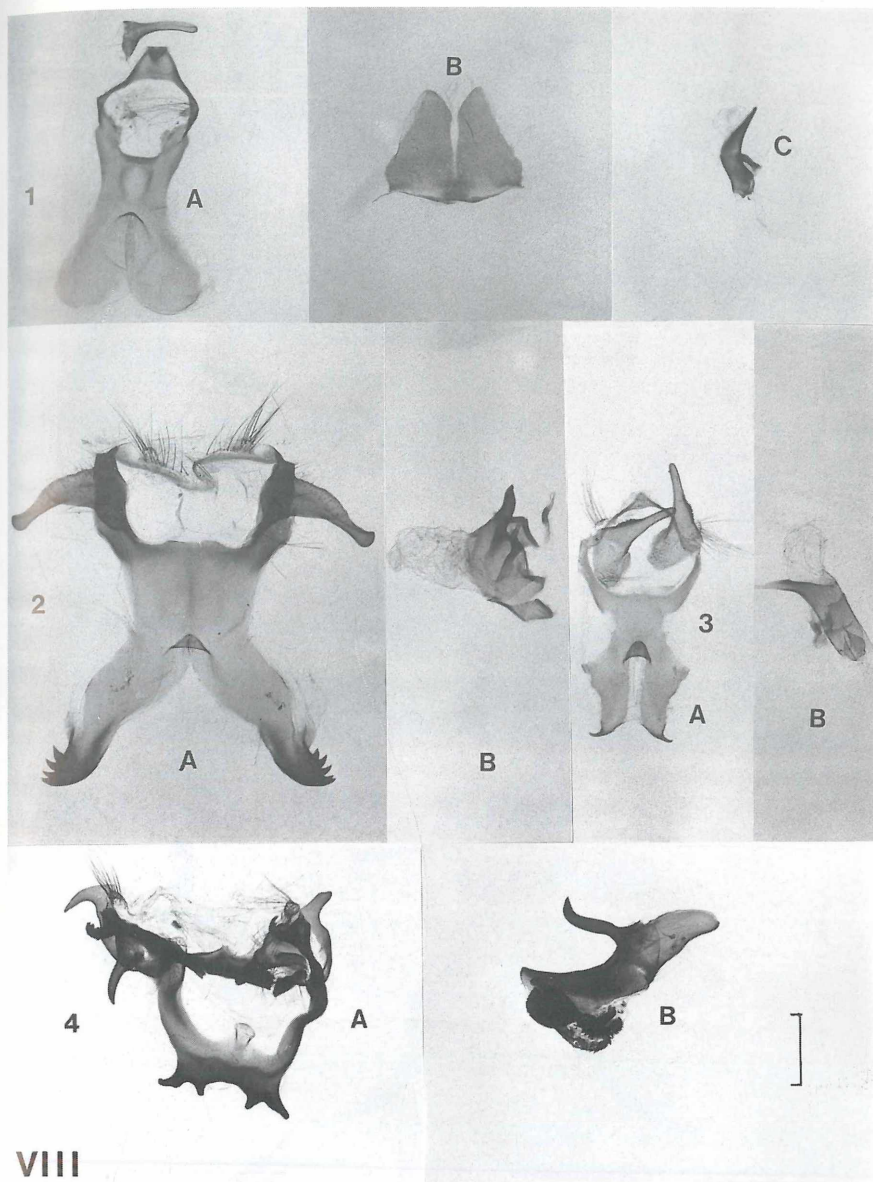
Genitalia Plate V, Fig. 1: ♂ genitalia of *Paralebeda pluto*, GU Zol 128 = MWM Het 3982 (Luzon). Fig. 2: *Gastropacha leopoldi* ssp., GU Zol 152 = MWM Het 4006 (Palawan). Fig. 3: *Kunugia magellani*, GU Zol 040 = MWM Het 3856 (Mindanao). A: genitalia, B: aedeagus. Scale = 1 mm.



Genitalia Plate VI, Fig. 1: ♂ genitalia of *Gastropacha philippinensis*, GU Zol 151 = MWM Het 4005; A: genitalia, B: aedeagus (Luzon). Fig. 2: *Alompra roepkei pella*, GU Zol 68 = MWM Het 3884; A, B: genitalia, C: aedeagus (Palawan). — Scale = 1 mm.

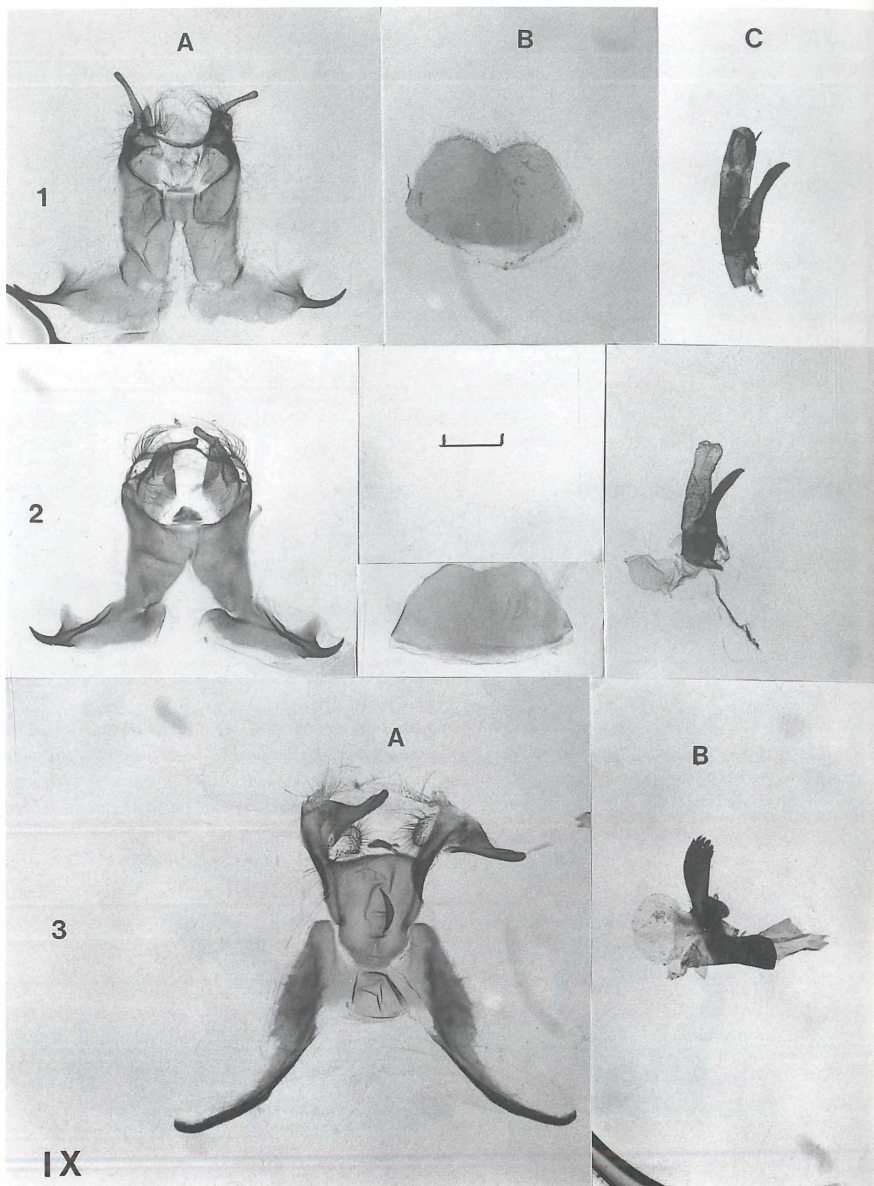


Genitalia Plate VII, Fig. 1: ♂ genitalia of *Euthrix laeta austrina*, GU Zol/Tr 10/97 (Palawan). Fig. 2: *Arguda dodongi*, GU Zol/Tr 02/97 (Leyte). Fig. 3: *Arguda rectilinea indonesiana*, GU Zol/Tr 05/97 (Palawan). — A: genitalia, B: aedeagus. Scale = 1 mm.

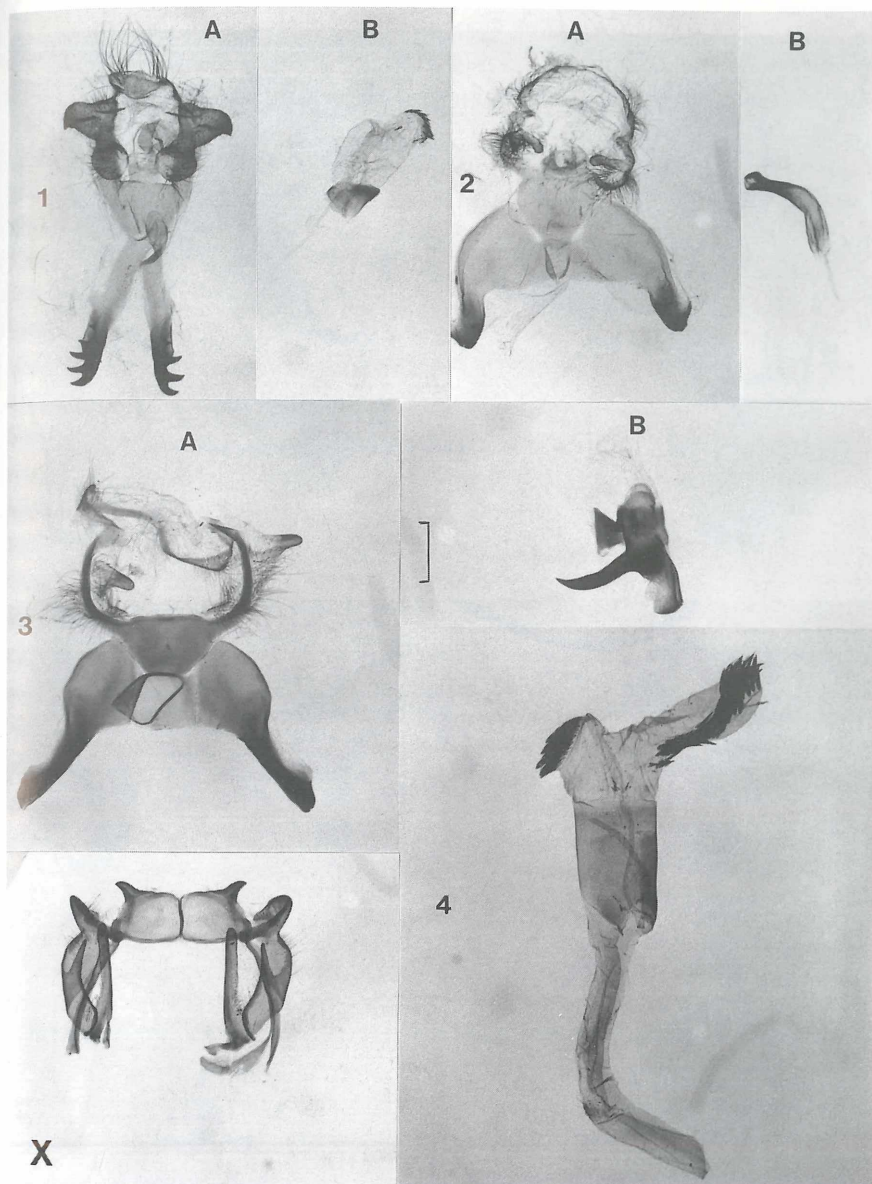


VIII

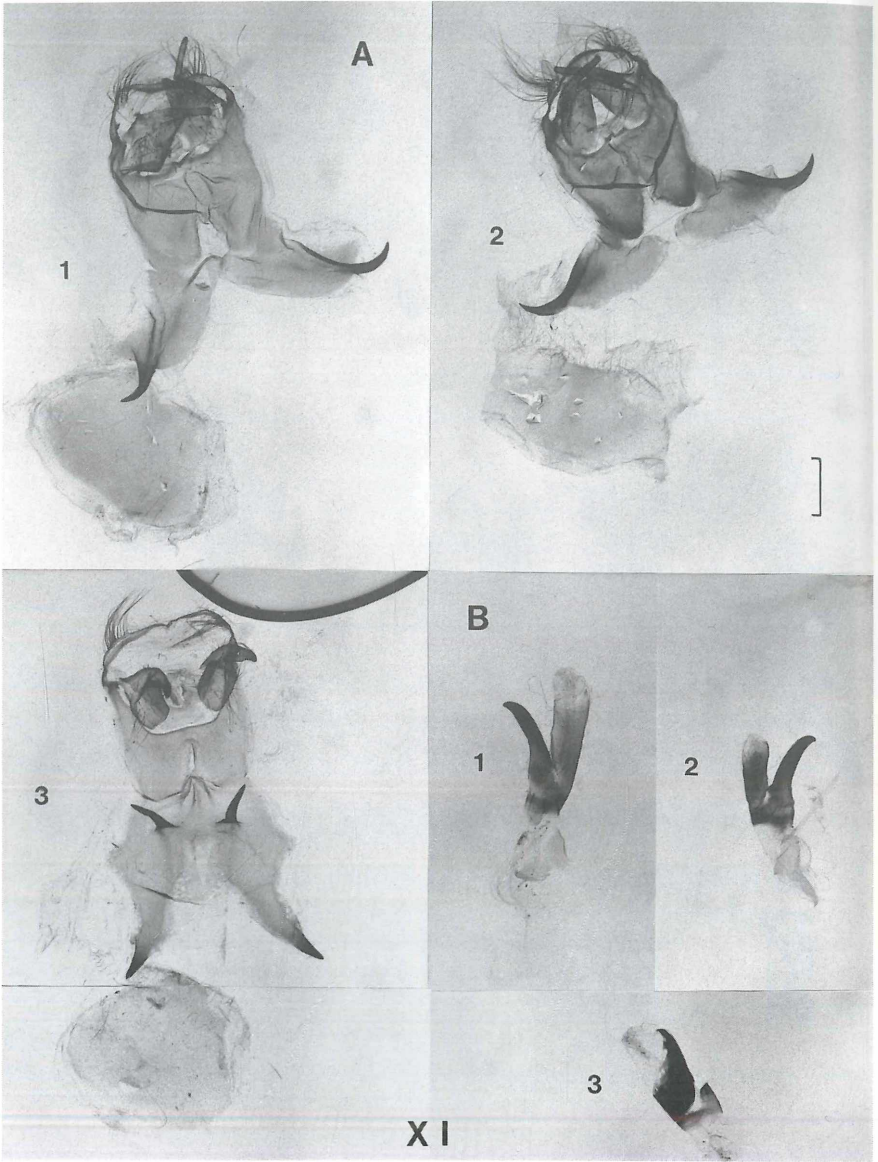
Genitalia Plate VIII, Fig. 1: ♂ genitalia of *Suana concolor*, GU Zol 087 = MWM Het 3891; A, B: genitalia, C: aedeagus (Palawan). **Fig. 2:** *Kunugia mervillei noeli*, GU Zol 034 = MWM Het 3850 (Mindanao). **Fig. 3:** *Kunugia magellani*, GU Zol 039 = MWM Het 3855 (Luzon). **Fig. 4:** *Arguda rosemariae*, GU Zol/Tr 04/97 (Palawan). A: genitalia, B: aedeagus. — Scale = 1 mm.



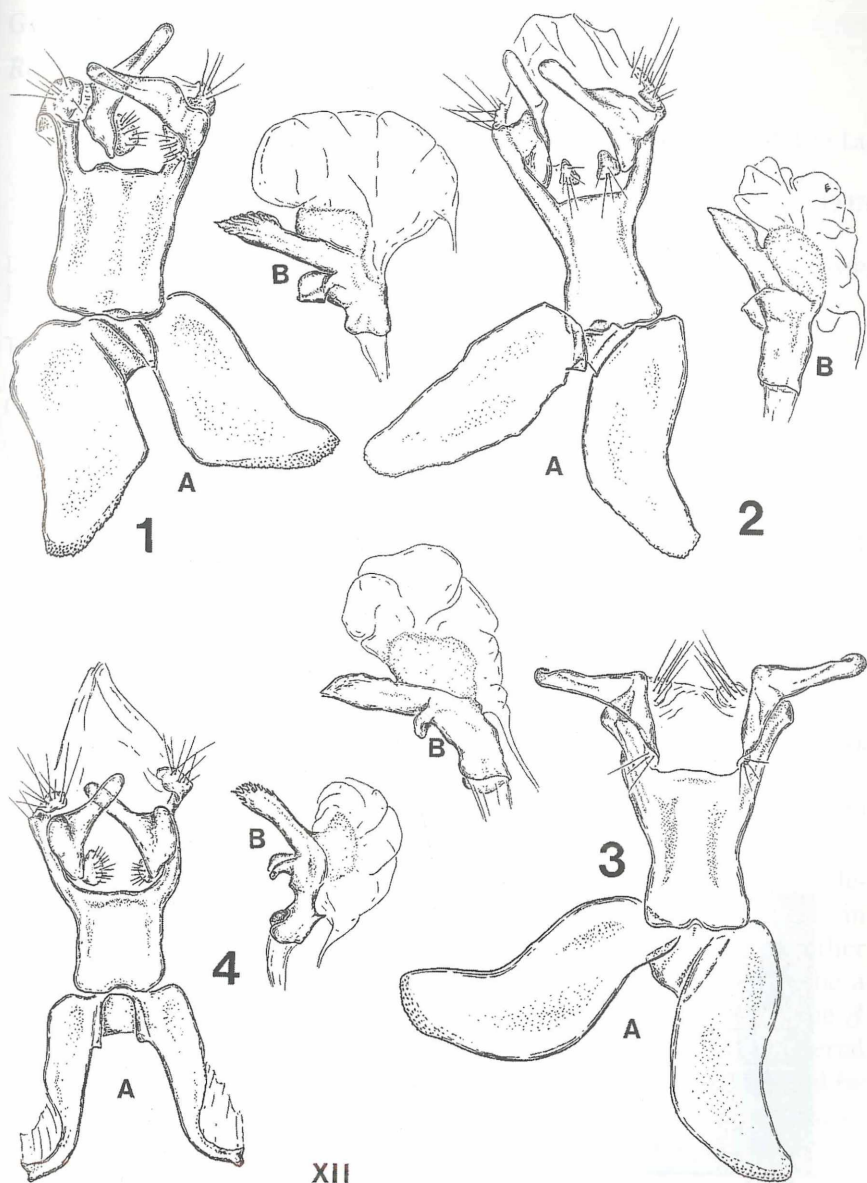
Genitalia Plate IX, Fig. 1: ♂ genitalia of *Kunugia hollowayi*, GU Zol/Tr 97.47 (Negros). Fig. 2: *Kunugia pippae pippae*, GU Zol 173 = MWM Het 4027 (Luzon). A, B: genitalia, C: aedeagus. Fig. 3: *Metanastria gemella*, GU Zol 185 = MWM Het 4039; A: genitalia, B: aedeagus (Mindoro). — Scale = 1 mm.



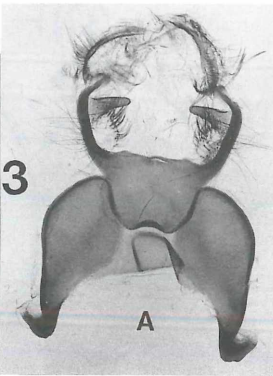
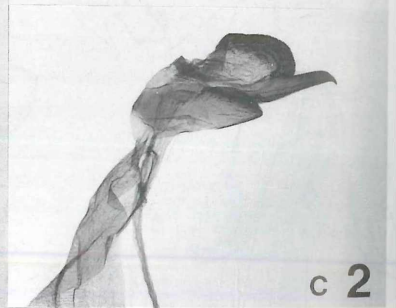
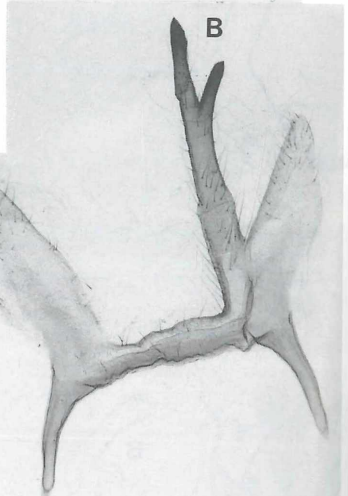
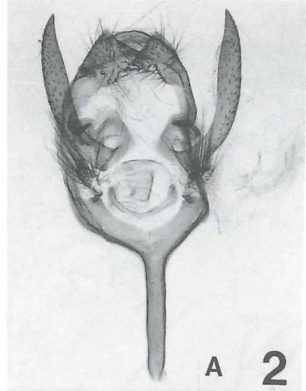
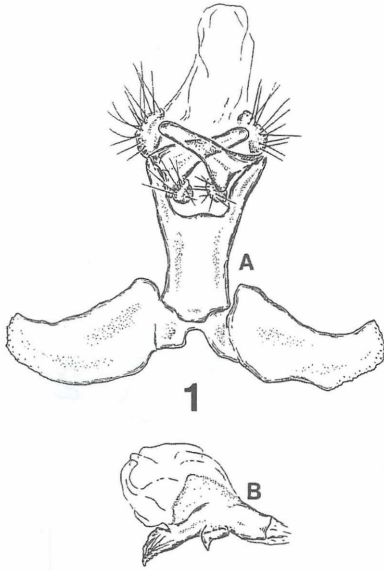
Genitalia Plate X, Fig. 1: ♂ genitalia of *Kunugia basinigra*, GU Zol/Tr 048 (Palawan). **Fig. 2:** *Paralebeda achillesi mindoroensis*, GU Zol/Tr 041 (Mindoro). **Fig. 3:** *Paralebeda lagua*, GU Zol 122 = MWM Het 3975 (Mindanao). **Fig. 4:** *Gastropacha leopoldi*, GU Zol 184 = MWM Het 4038 (Palawan). — A: genitalia, B: aedeagus. Scale = 1 mm.



Genitalia Plate XI, Fig. 1: ♂ genitalia of *Kunugia pippae tagubodica*, GU Zol/Tr 044 (Mindanao). Fig. 2: *Kunugia pippae pippae*, GU Zol/Tr 042 (Mindoro). Fig. 3: *Kunugia quadrilineata*, GU Zol/Tr 43 (Palawan). — A: genitalia, B: aedeagus. Scale = 1 mm.



Genitalia plate XII, Fig. 1: ♂ genitalia of *Metanastria trefa*, GU Zol C3 = MWM Het 4306 (Mindanao, Bukidnon). Fig. 2: *Metanastria pika*, GU Zol D3 = MWM Het 4305 (Mindanao). Fig. 3: *Metanastria marmorata*, GU MWM Het 4309 (Mindanao). Fig. 4: *Metanastria minor*, GU Zol 134a = MWM Het 4308 (Luzon). — A: genitalia, B: aedeagus.



XIII

c 2

Genitalia plate XIII, Fig. 1: ♂ genitalia of *Metanastria jani*, GU MWM Het 4312 (Mindanao). A: genitalia, B: aedeagus. Fig. 2: *Odonestis apo*, GU Zol/Tr 97.09 = MWM Het 4312 (Mindanao). A, B: genitalia, C: aedeagus. Fig. 3: *Paralebeda achillesi achillesi*, GU Zol 125 = MWM Het 3979 (Luzon). A: genitalia, B: aedeagus.

Genus *Radhica* MOORE, 1879

Radhica himerta (SWINHOE, 1893)

(Plate 8: J, Plate 12: C)

Metanastria himerta SWINHOE, 1893, Ann. Mag. nat. Hist. (6) 12: 212. L.t.: Lawang, Java. 3 ♂ syntypes, BMNH (examined).

Material studied: **Palawan**: 2 ♂♂, Mt. Salakot, 335 m, 21. i. 1995, 16. vi. 1997; CCGT.

Distribution: Palawan; Java, Sumatra, Borneo, Peninsular Malaysia; Thailand. (DMP: Fig. 33.)

Tribal position uncertain

Genus *Alompra* MOORE, 1872

The systematic position of this genus is uncertain.

Alompra ferruginea MOORE, 1872

Alompra ferruginea MOORE, 1872, Proc. zool. Soc. London 1872: 580, pl. 33, fig. 8. L.t.: India, Darjeeling. Holotype: ♂, BMNH (examined).

Alompra ferruginea cerastes TAMS, 1953

(Plate 12: E, F)

Alompra ferruginea cerastes TAMS, 1953, Tijdschr. Plant. 59: 166, Fig. 12. L.t.: Philippines, Mindanao, Surigao. Holotype: ♂, USNM.

Material studied: **Mindanao**: 3 ♂♂, S-Cotabato, Mt. Matutum, 12., 14., 18. vi. 1997; CCGT.

Distribution: Mindanao; other subspecies widely distributed in Sundaland, southern China, India, Nepal. (DMP: Fig. 34.)

Comments: The ♂ holotype of *cerastes*, as specified in the original description, was deposited in the USNM. In the ♂ genitalia and especially in the form of sternite VIII of the abdomen it significantly differs from other subspecies of this widely distributed, but rare species. It seems to be a rare and extremely local subspecies, known so far only from the type ♂ and these three specimens. It is possible that when additional material from the Philippines becomes available, the status of this taxon could be reconsidered. It is interesting to note that the ♂ is very variable in colouration, from a very dark brown background with a few red spots to a brick red background with a few brighter red spots.

Alompra roepkei TAMS, 1953

Alompra roepkei roepkei TAMS, 1953, Tijdschr. Plant. 59: 166, figs. 3, 6, 8, 13. L.t.: Assam. Holotype: ♂, BMNH (examined).

Alompra roepkei pella TAMS, 1953

(Plate 8: N) (Genitalia plate VI, Fig. 2)

Alompra roepkei pella TAMS, 1953, Tijdschr. Plant. 59: 166, figs. 15, 16. L.t.: Upper Palembang Distr., Sumatra. Type material not examined.

Material studied: **Palawan**: 3 ♂♂, Irawan, 50 m, 8. iv. 1997, 2× 6. iv. 1997, leg. PETERSEN; 1 ♂, Mt. Gantung, 12. iv. 1997; 1 ♂, Solomon, 60 m, 16. vi. 1997, leg. TREADAWAY; 3 ♂♂, Olanguan, 160 m, 9. vii. 1988, 8./9. vii. 1988, 10./11. vii. 1988, leg. SETTELE & TREADAWAY; 1 ♂, Languan, 6. ix. 1984; 1 ♂, Mt. Salakot, 350 m, 19. iii. 1996; 1 ♂, Napsan, Salakot Falls, 330 m, 8. vii. 1996, leg. PETERSEN; CCGT. 4 ♂♂, Mt. Salakot, 330 m, 17.-19. iii. 1996; CAZS. 1 ♂, Tanubag, 200 m, 18.-21. xii. 1991 (GU Zol 68 = MWM Het 3884), leg. ČERNÝ; CMWM.

Distribution: Palawan (DMP: Fig. 34); Sumatra.

Comment: The species occurs together with *Alompra ferruginea* in the northwestern Himalaya, northern Vietnam, northern Thailand, and on peninsular Malaysia, but everywhere it is commoner.

Distribution of the lasiocampid species by islands and by faunal regions

The distribution of the species of Lasiocampidae in the Philippines by island and by zoogeographical regions (based on VANE-WRIGHT's concept of 1990) is given in Table 1. Similar to butterflies (TREADAWAY 1995), Mindanao (33), Palawan (30), Luzon (22) and Negros (21) islands yield the highest number of species. This order is duplicated by the faunal regions with Mindanao (36), Palawan (30) and Luzon (23), closely followed by the West Visayan region (21). However, such a summary can only give a directional indication of the distribution of Lasiocampidae per island as it is obviously heavily dependent on the intensity and frequency of collecting on each island. As long as there are forests existing, it can be expected that future observations and collecting will yield not only numerous new island distributions but also new species either to the Philippines or to science. As the species counts for Leyte (15), Samar (13) and Mindoro (13) are lower than one would expect these islands, in particular, should be rich areas for further studies.

It is of interest to note that 29 out of 61 Lasiocampidae species occurring in the Philippines are endemic which translates to 47.5 % (Table 2). This is less than in Saturniidae (70 %, see NÄSSIG & TREADAWAY 1998, in this issue) but more than in Sphingidae (20.5 %, see HOGENES & TREADAWAY 1998, in this issue).

Species	Bal	Pal	Bus	Mdo	Luz	Bat	Mar	Sib	Pan	Neg	Ceb	Boh	Ley	Sam	Mno	Taw	Stu
<i>Sirebore castanea</i>		E		E	E				E	E	E			E			
<i>Paralebada crinodes</i>		W	W	W	W				W	W			W		W		
<i>Paralebada lucifuga</i>	W	W															
<i>Paralebada lagua</i>		E			E										E		
<i>Paralebada achillesi</i>		E		E*	E		E			E					E		
<i>Paralebada pluvo</i>					E												
<i>Lebeda gigantea</i>															E		
<i>Lebeda metaspila</i>															W		
<i>Lebeda intermedia</i>		W															
<i>Lebeda prueti</i>														W*			
<i>Elegantieda cassandra</i>													E	E	E*		
<i>Metanastiria hyrtacea</i>										W					W		
<i>Metanastiria gemella</i>	W	W		W				W		W						W	
<i>Metanastiria trefu</i>															E		
<i>Metanastiria pika</i>															E		
<i>Metanastiria marmorata</i>														E	E		
<i>Metanastiria minor</i>					E												
<i>Metanastiria jani</i>				E						E					E		
<i>Kunugia gynandra</i>		W															W
<i>Kunugia basinigra</i>		W															
<i>Kunugia magellani</i>		E			E	E							E	E	E		
<i>Kunugia quadrilineata</i>		W															
<i>Kunugia pippae</i>				E	E								E	E	E*		
<i>Kunugia hollowayi</i>										E							

[illegible]

Table 2: Breakdown of species and endemic species per island, zoogeographical subregion and region (after VANE-WRIGHT 1990). Abbreviations of the islands see in TREADAWAY (1998, in this issue).

	Palawan Region			Min- doro Region	Luzon Region			West Visayan Region					East Visayan/Mindanao Region					Sulu Archip. Region		
	Pal		Bus	Mdo	Luz	Bat	Mar	Sib	Pan	Neg	Ceb	East Visayan Subregion			Minda- nao Sr.		Taw	Stu		
	Bal											Boh	Ley	Sam	Mno					
no. of species per island	4	30	1	13	22	2	2	1	4	21	3	2	15	13	33	1	3			
% of total species (n = 61)	6.6	49.2	1.6	21.3	36.1	3.3	3.3	1.6	6.6	34.4	4.9	3.3	24.6	21.3	54.1	1.6	4.9			
no. of species per subregion	19																		33	
% of total species (n = 61)	31.2																		54.1	
no. of species per region	30	13			23			21					36					4		
% of total species (n = 61)	49.2	21.3			37.7			34.4					59.0					6.6		
no. of endemic species per island	0	6	0	8	15	1	1	0	1	10	1	1	9	8	20	0	0			
% of total Phil. endemic species (n = 29)	0	20.7	0	27.6	51.7	3.5	3.5	0	3.5	34.5	3.5	3.5	31.0	27.6	70.0	0	0			
no. of endemic species per region	6	8			15			10					22					0		
% of total Phil. endemic species (n = 29)	20.7	27.6			51.7			34.5					75.9					0		

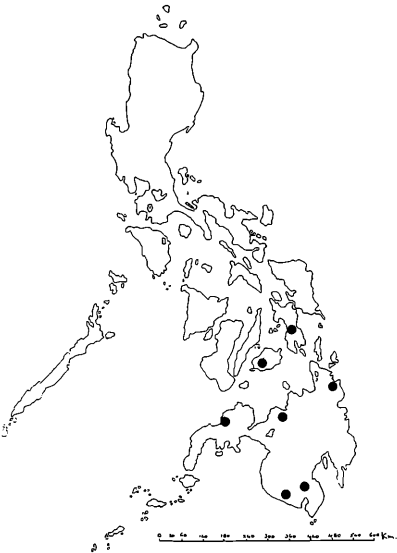
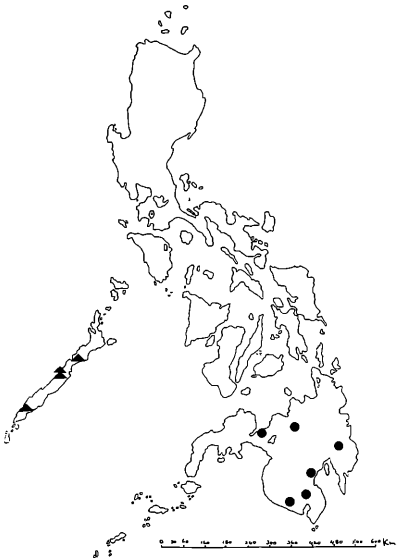
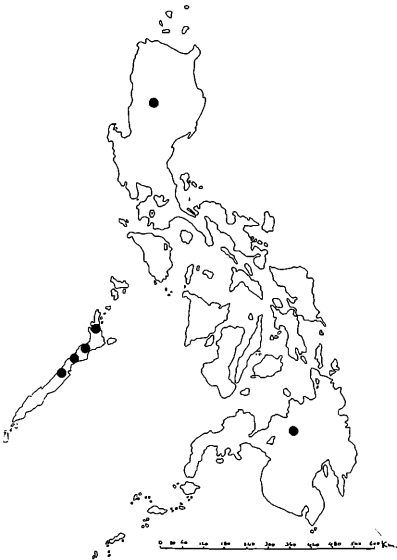
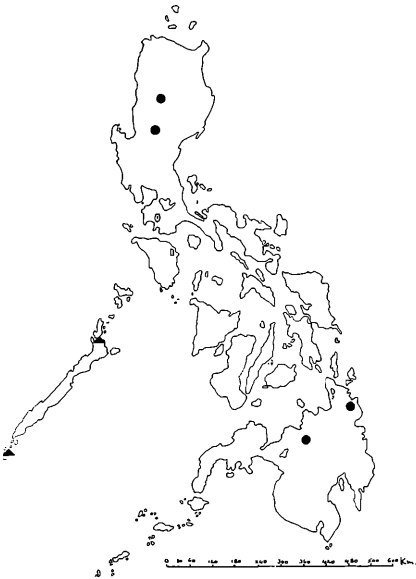


Fig. 5
● *Trabala danao*
▲ *Trabala ganeshi veni*

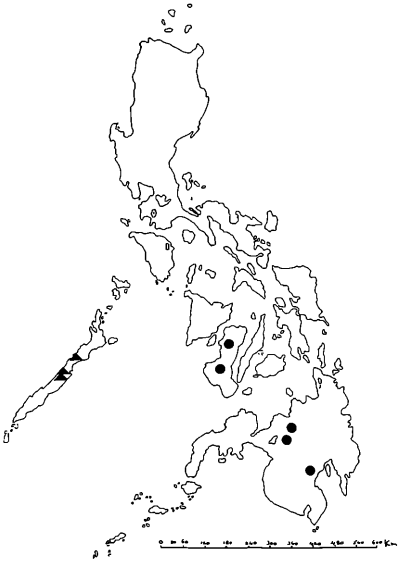


Fig. 6
● *Trabala dirata*
▲ *Trabala tajumul*

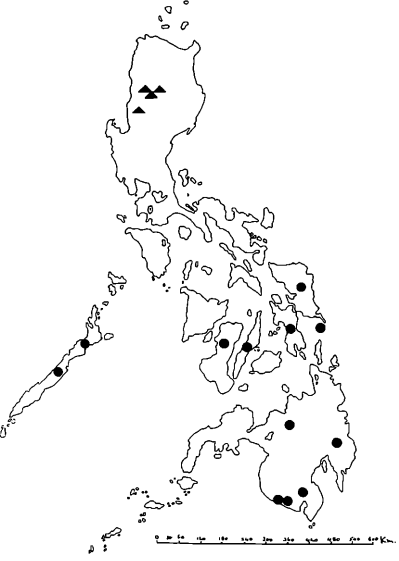
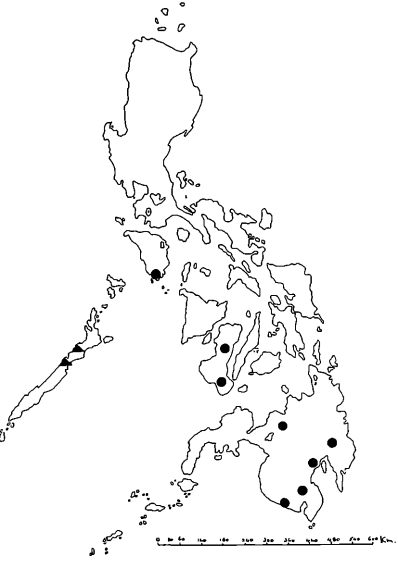
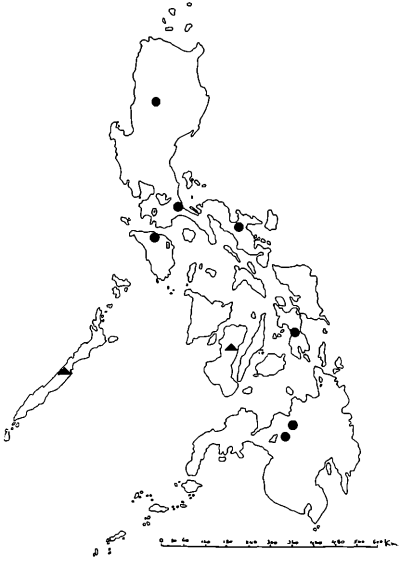


Fig. 10
● *Leontopacha philippinensis*
▲ *Leontopacha wepoldi*

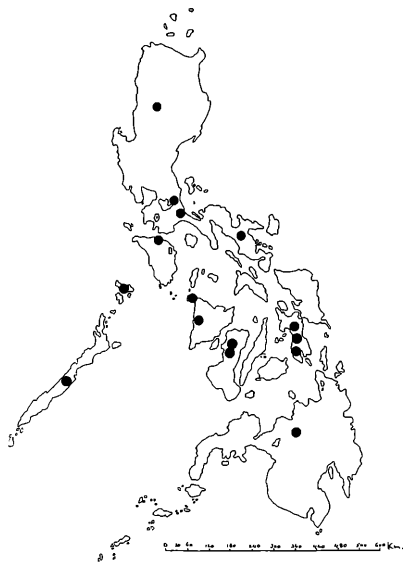
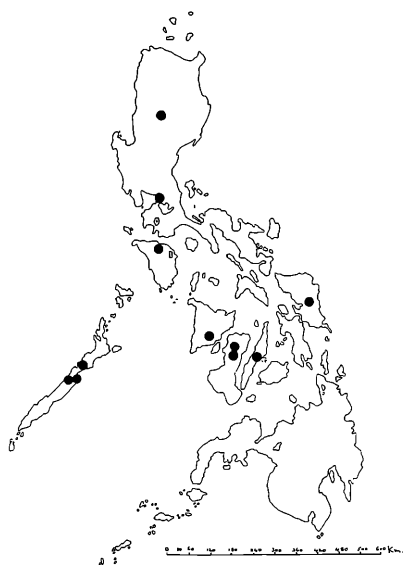
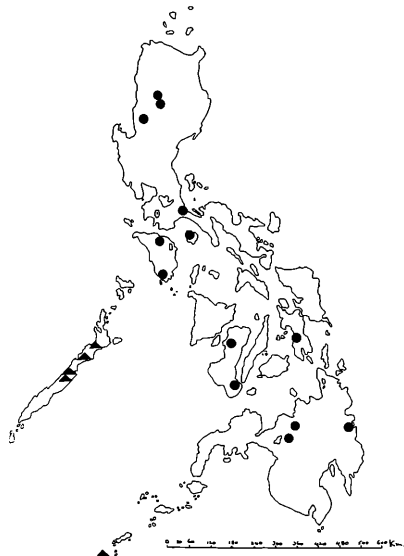
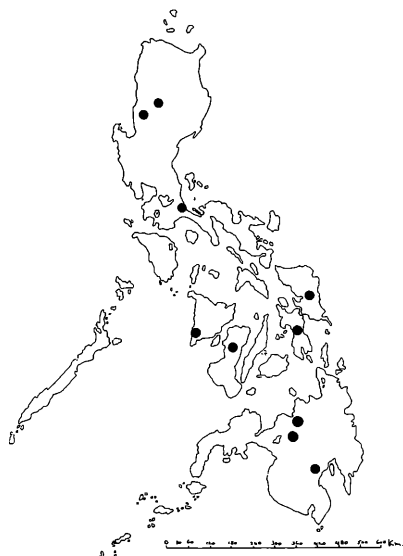


Fig. 13
▲ *Paralebda lucifuga*
● *Paralebda legua*

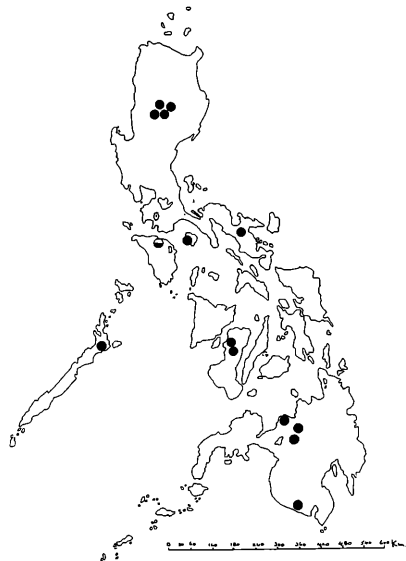
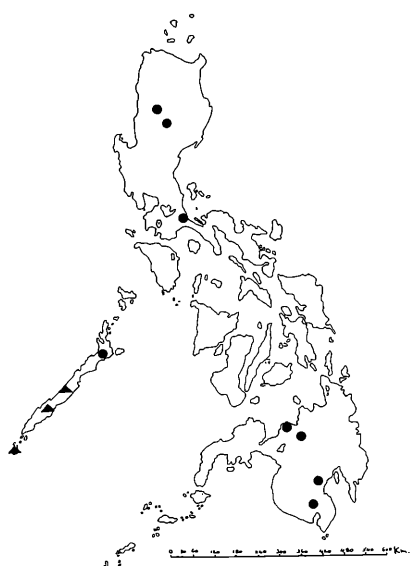


Fig. 15
▲ *Paralebda pluto*
● *Lebeda gigantea*

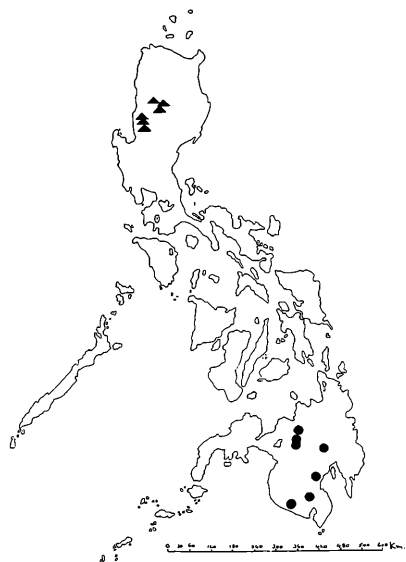
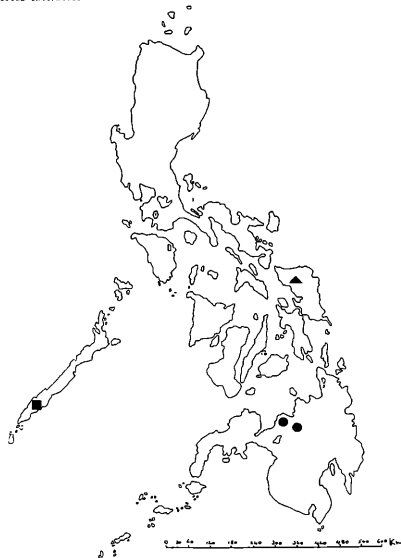


Fig. 16
● *Lebeda metaspila*
▲ *Lebeda nruetii bonifera*
■ *Lebeda intermedia*



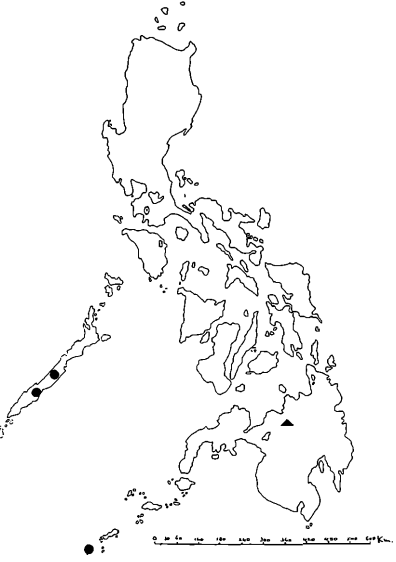
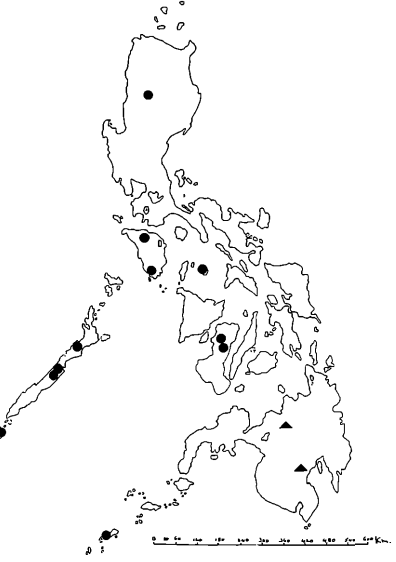
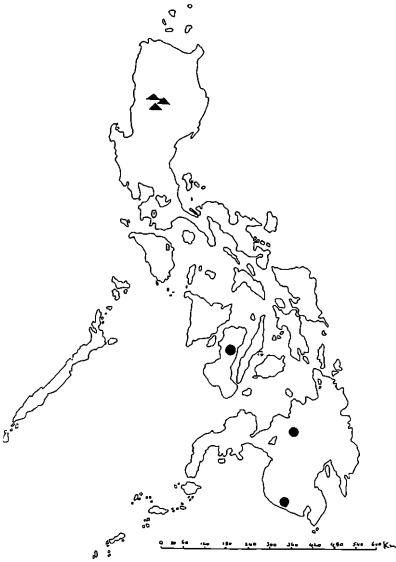
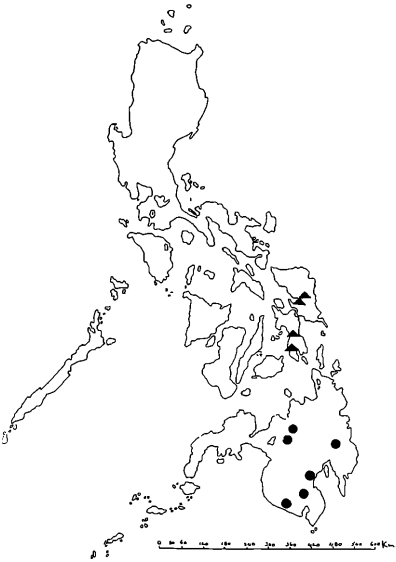
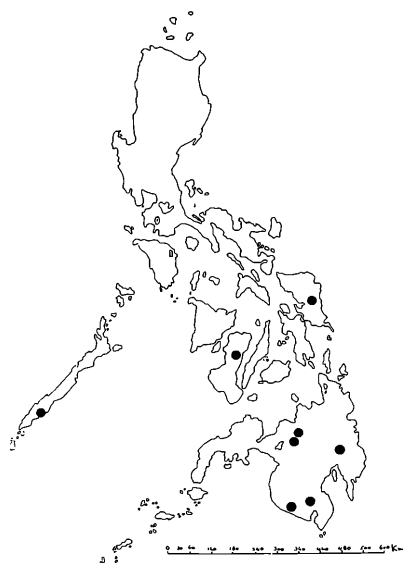
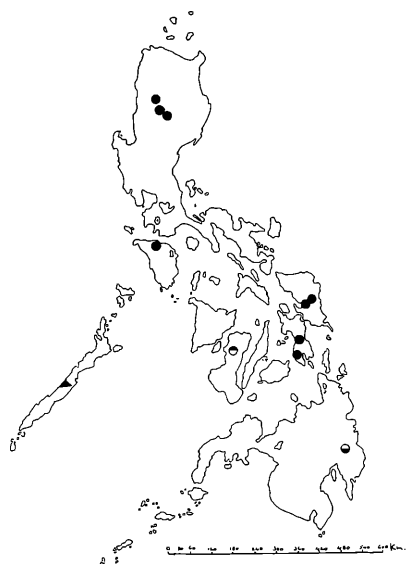
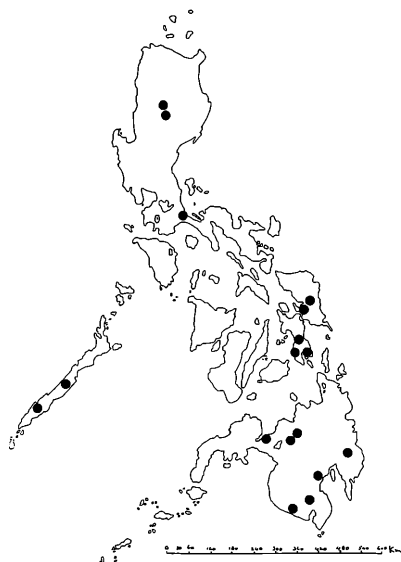
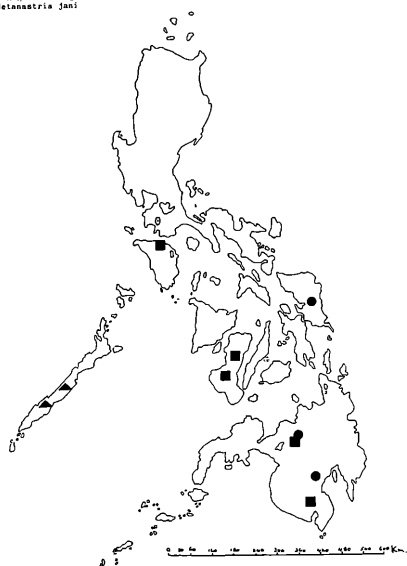


Fig. 21
 ● *Heterosternus maculatus*
 ▲ *Funaria basileica*
 ■ *Heterosternus jani*



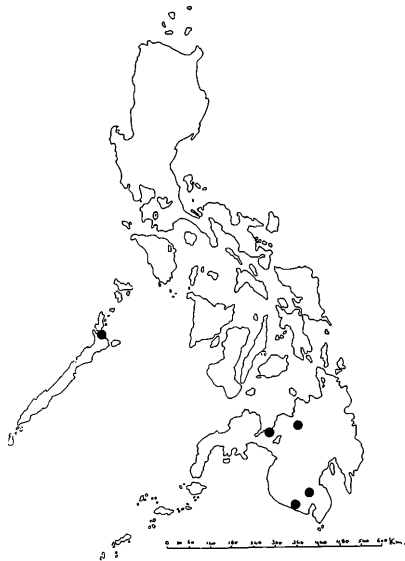
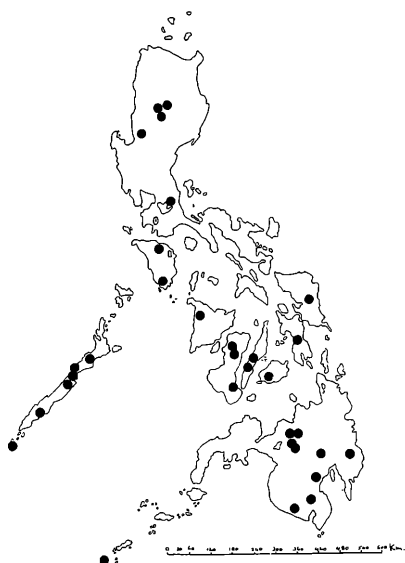
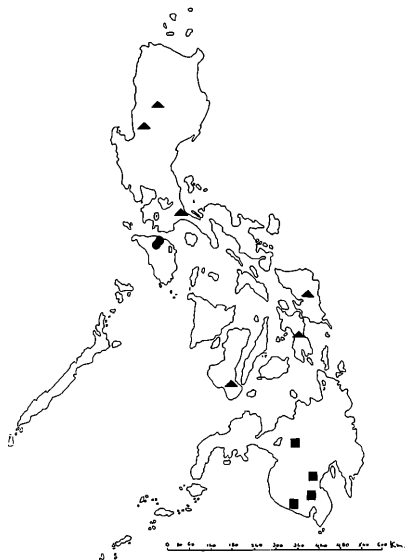
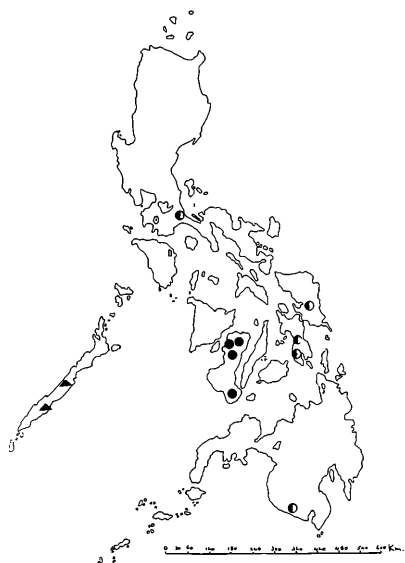


Fig. 20
● *Conostictus orectilinea*
▲ *Conostictus apo*
■ *Tukanaea diehli*

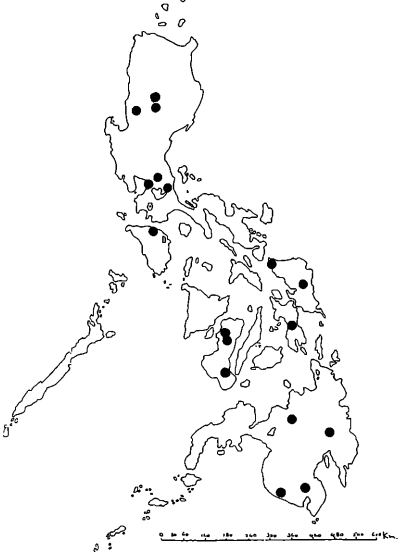
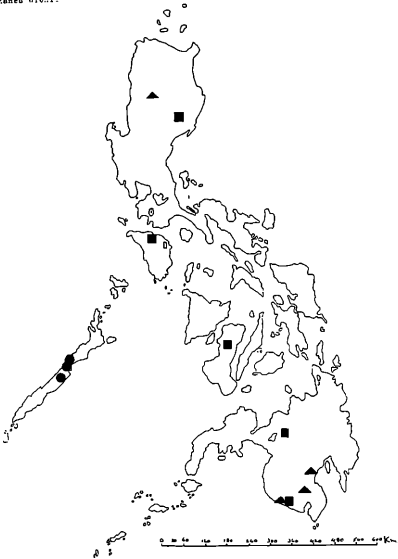
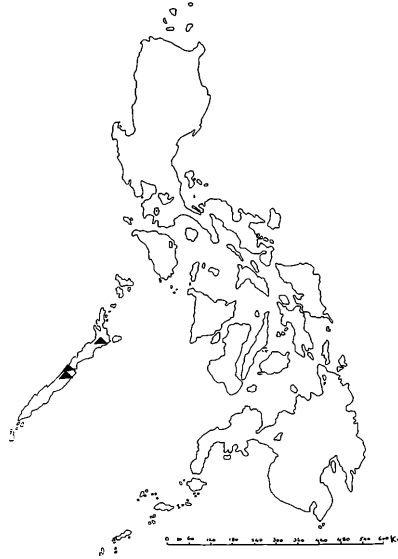
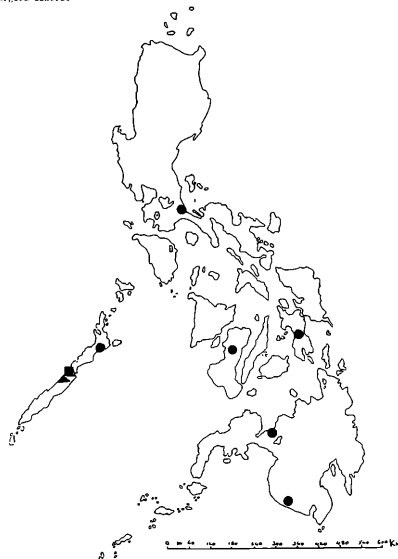
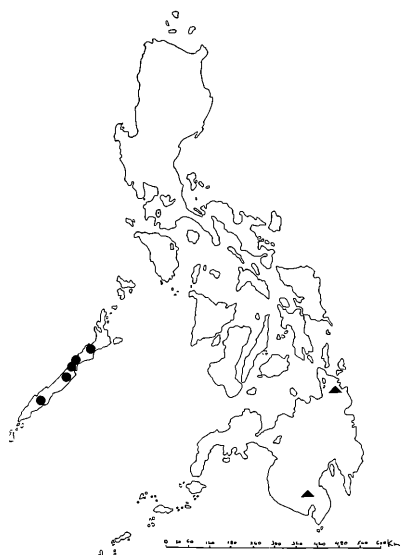
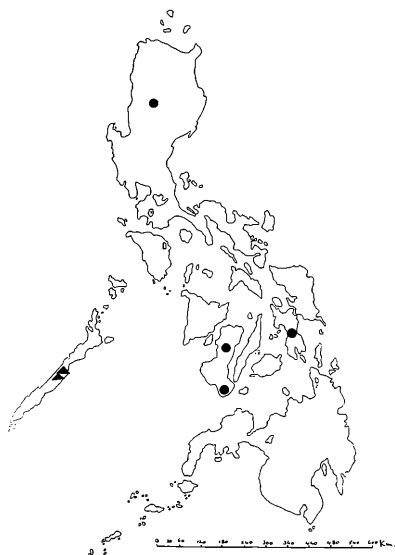


Fig. 21
● *Syrastrena lanceocincta*
▲ *Arguda rosemariae*
■ *Arguda sandree*





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