

New and little known Platygastriidae from Indonesia and Malaysia (Hymenoptera: Platygastroidea)

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Key words: Hymenoptera; Platygastroidea; Platygastriidae; Platygastriinae; Sceliotrachelinae; *Amblyaspis*; *Euxestonotus*; *Gastrotrypes*; *Indomerella* gen. nov.; *Leptacis*; *Platygaster*; *Prosynopeas*; *Sacespalus*; *Synopeas*; *Cylindrotacis* subgen. nov.; Oriental; Indonesia; Malaysia; keys; new genus; new subgenus; new species.

The following 42 taxa are described as new to science: *Amblyaspis yasiriana* spec. nov., *Euxestonotus thorkildmunki* spec. nov., *Gastrotrypes malaysianus* spec. nov., *Indomerella vanachterbergi* gen. nov. & spec. nov., *Leptacis acarinata* spec. nov., *L. apiculata* spec. nov., *L. bicolor* spec. nov., *L. Cylindrotacis bipartita* subgen. nov. & spec. nov., *L. breviciliata* spec. nov., *L. caudata* spec. nov., *L. dupondi* spec. nov., *L. duponti* spec. nov., *L. mymaroides* spec. nov., *L. obtusiceps* spec. nov., *L. pilosella* spec. nov., *L. sagittata* spec. nov., *L. silvatica* spec. nov., *L. spatulata* spec. nov., *L. tegulata* spec. nov., *L. tenuissimus* spec. nov., *L. transoceanica* spec. nov., *L. yasirae* spec. nov., *L. vertexialis* spec. nov., *Platygaster achterbergi* spec. nov., *P. baliensis* spec. nov., *P. crassiclava* spec. nov., *P. luteipes* spec. nov., *P. sparsipilosa* spec. nov., *P. vriesi* spec. nov., *Prosynopeas indonesianus* spec. nov., *Sacespalus manii* spec. nov., *S. rufiscapus* spec. nov., *Synopeas achterbergi* spec. nov., *S. ciliaris* spec. nov., *S. flavispinus* spec. nov., *S. halmaherensis* spec. nov., *S. infuscatus* spec. nov., *S. lombokensis* spec. nov., *S. longulus* spec. nov., *S. nigricoxa* spec. nov., *S. praemorsus* spec. nov., and *S. quasimodo* spec. nov. *Platygaster intermedius* Ushakumari, 2004, is transferred to *Synopeas*. The hitherto unknown male of *Gastrotrypes caudatus* Brues, 1922 is described. New records are given of some already known species. Keys are provided for Oriental species of *Leptacis*, *Platygaster*, and *Synopeas*.

Introduction

The platygastriid fauna of Indonesia and Malaysia is very poorly known. Buhl (2001, 2002a) described some species of Platygastriinae - parasitoids of gall midges - from Malaysia (Borneo), but until now the entire Indonesian archipelago remains uninvestigated. Due to a generous loan of about 500 specimens Nationaal Natuurhistorisch Museum, Leiden, courtesy C. van Achterberg, I am here able to describe 42 species new to science (among them a new genus and a new subgenus is represented) as well as report eight further, already known species from Indonesia. Except for the species of the new genus, *Indomerella* gen. nov. which belongs in the subfamily Sceliotrachelinae, all species mentioned belong to the subfamily Platygastriinae. An interesting biogeographical fact is revealed: Several of these Oriental species are virtually almost identical to Afrotropical or Neotropical species. A majority of specimens representing a minority of species (especially some common *Leptacis* spp.) in the material were not described, being too poorly characterised or too similar to already described Indian species with inaccessible types and inadequate original descriptions.

Terminology: Standard abbreviations used are A1-A10 = antennal segments 1-10, OOL = distance between lateral ocellus and eye, LOL = distance between lateral and anterior ocelli, and T1-T6 = tergites 1-6.

The material is preserved in the Nationaal Natuurhistorisch Museum, Leiden, The Netherlands, with duplicates of Indonesian series in Zoological Museum Bogor at Cibinong (Java, Indonesia). The present paper was finished before the publication of Ushakumari, R. & Narendran, T.C., 2007: A taxonomic revision of *Leptacis* Foerster (Hymenoptera: Platygasteridae) of India. – Rec. zool. Surv. India 107: 7-32. In this paper, 13 species new to science are described. However, nine of them should in fact be transferred to *Synopeas*. None of the new species described in Ushakumari & Narendran's paper are conspecific with new species described in the present paper.

Systematics

Platygasteridae Haliday, 1833

Genus *Amblyaspis* Förster, 1856

Note. — About 55 very similar species are described worldwide, hitherto five are known from the Oriental region.

Amblyaspis yasiriana spec. nov. (figs 1-4)

Material. — Holotype, ♀, "Indonesia, S Halmahera, 20 km S Payahe, Sagutora, 115 m, 18.ii.-18.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir". Paratypes: 1 ♀, "Indonesia, N. Sulawesi, Dumoga-Bone N.P., 220 m, 1-9.xi.1985, Malaise trap, C. v. Achterberg"; 1 ♀, "Indonesia, Sulawesi, near Mamasa, Penannang, 1850 m, 10-22.iv.1991, Malaise trap, C. v. Achterberg".

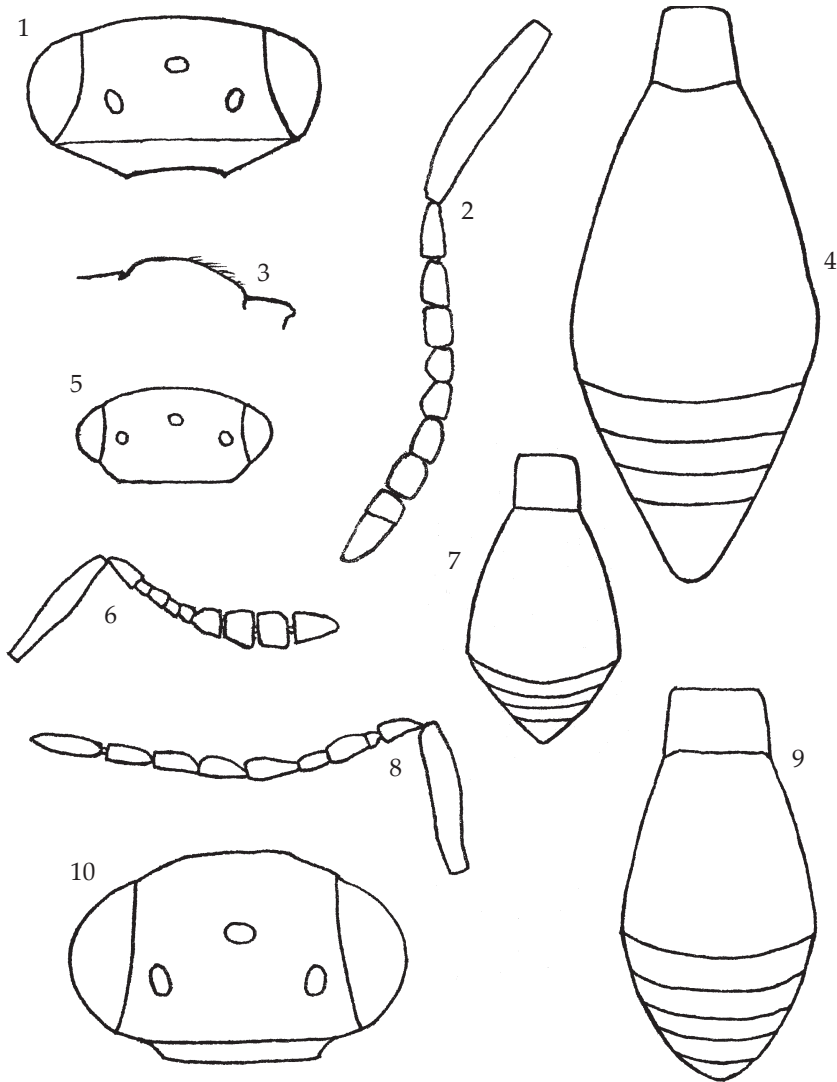
Diagnosis. — Hyperoccipital carina present; OOL 1.5 times ocellar diameter; female A7-A10 combined distinctly shorter than A2-A6 combined; notauli almost complete.

Description. — ♀. Length 1.3-1.4 mm. Black, A1 and legs light brownish yellow, A2-A10 and coxae medium brown.

Head from above (fig. 1) 2.0 times as wide as long, as wide as mesosoma, almost uniformly smoothly reticulate (not transversely so); hyperoccipital carina weak but distinct. OOL about 1.5 times as long as longer diameter of lateral ocellus; OOL:LOL = 6:7. Head in frontal view slightly more than 1.1 times as wide as high. Antenna (fig. 2) with A1 0.9 times as long as height of head.

Mesosoma nearly 1.4 times as long as wide, very slightly higher than wide. Sides of pronotum finely reticulate as head, smooth in lower half and along hind margin. Mesoscutum with only a few scattered setae, sculptured almost as head except outer half of lateral lobes which are smooth medially; notauli rather shallow but distinct, fading out anteriorly just before reaching margin of disc; mid lobe posteriorly distinctly and narrowly prolonged to base of scutellum. Scuto-scutellar grooves almost triangular, each with about 5 rather fine setae. Mesopleuron smooth. Scutellum (fig. 3) moderately setose, disc about as wide as long. Metapleuron smooth and bare, with pilosity only along margins (not anteriorly). Propodeal carinae dark, parallel, narrow area between them smooth.

Fore wing fully 0.8 times as long as body, 2.6 times as long as wide, with faint brownish tint and fine and dense microtrichia; marginal cilia one-sixth the width of wing. Hindwing 7.6 times as long as wide; marginal cilia 0.6 times width of wing.



Figs 1-4. *Amblyaspis yasiriana* spec. nov., female – 1, head in dorsal view; 2, antenna; 3, scutellum in lateral view; 4, metasoma in dorsal view. Figs 5-7. *Euxestonotus thorkildmunki* spec. nov., female – 5, head in dorsal view; 6, antenna; 7, metasoma in dorsal view. Figs 8-9. *Gastrotrypes caudatus* Brues, 1922, male – 8, antenna; 9, metasoma in dorsal view. Fig. 10. *Gastrotrypes malaysianus* spec. nov., female, head in dorsal view.

Metasoma (fig. 4) a little more than 1.1 times as long as head and mesosoma combined, slightly narrower than these. T1 smooth, with two well separated longitudinal carinae medially. T2 smooth, with smooth and bare basal foveae. T3-T6 combined fully half as long as T2, with superficial reticulation, each with a (more or less medially interrupted) transverse row of superficially implanted setae.

Discussion. — Two other described Oriental *Amblyaspis*-species have notauli: *A. dalhousianus* (Mukerjee, 1978) is 1.8 mm long and has ♀ A7-A10 combined relatively longer than in *A. yasiriana*; *A. thoracica* Buhl, 2001 lacks hyperoccipital carina, it has OOL not longer than ocellar diameter, notauli complete, Fore wing 3.0 times as long as wide, and T3-T6 shorter than in *A. yasiriana*. Cf. Mani & Sharma (1982) and Buhl (2001).

Etymology. — Named after one of the collectors.

Genus *Euxestonotus* Fouts, 1925

Note. — Worldwide 41 species are described, hitherto only one Oriental species is known.

Euxestonotus thorkildmunki spec. nov. (figs 5-7)

Material. — Holotype, ♀, "Indonesia, Lombok, Batu Kok, near Hulu Kalimuntur, 500 m, 13-26.iii.1991, Malaise trap, C. v. Achterberg".

Diagnosis. — Head twice as wide as long; female A9 slightly transverse; fore wing with dense microtrichia; marginal cilia of hindwing 0.75 times width of wing; T1 very slightly transverse; female metasoma twice as long as wide.

Description. — ♀. Length 0.75 mm. Black; A1-A6, fore femur and tibia, mid and hind tibiae, and all tarsi light brown, rest of antennae and legs as well as tegula darker brown; mandibles reddish brown.

Head from above (fig. 5) 2.0 times as wide as long, almost 1.2 times as wide as mesosoma; occiput finely transversely striated, evenly rounded; vertex and frons smooth. OOL about equal to diameter of lateral ocellus. Head in frontal view 1.3 times as wide as high. Antenna (fig. 6) with A1 hardly longer than distance between inner orbits, 0.9 times as long as height of head.

Mesosoma 1.5 times as long as wide, hardly 1.1 times as high as wide. Sides of pronotum smooth, with a small spot of reticulation at upper anterior corner. Mesoscutum sparsely and evenly setose, antero-laterally weakly reticulate-coriaceous, rest smooth; notauli weak, anteriorly fading out in sculpture; mid lobe broadly convex over base of scutellum. Mesopleuron smooth. Scutellum smooth, denser setose than mesoscutum. Metapleuron completely pilose. Propodeal carinae dark, close together, slightly diverging.

Fore wing 0.9 times as long as body, 2.6 times as long as wide, almost clear, with fine and dense microtrichia; marginal cilia 0.14 width of wing. Hindwing 8.0 times as long as wide; marginal cilia 0.75 times width of wing.

Metasoma (fig. 7) 0.9 times as long as head and mesosoma combined, hardly as wide as mesosoma. T1 unevenly crenulated. T2 basally with four longitudinal carinae reaching 1/6 length of tergite and with some shorter wrinkles. T3-T6 smooth, with some superficially implanted setae, forming a transverse row on T5.

Discussion. — Characterised by small size and shape of antennae. Differs also from the similar *E. acuticornis* Buhl, 1995 and *E. clavicornis* Buhl, 1995 in sculpture of head and T2, cf. Buhl (1995).

Etymology. — Named after the Danish specialist of Braconidae Mr Thorkild Munk who arranged my loan of the material.

Genus *Gastrotrypes* Brues, 1922

Note.— Hitherto two species known, both wide-spread (Neotropical and Palaearctic regions). Below they are also recorded from the Oriental region.

Gastrotrypes caudatus Brues, 1922 (figs 8-9)

Material.— 1 ♀, 1 ♂, "Indonesia, Sula Isl., Mangole, near Buya, 500 m, 2-22.iii.1995, Schacht trap, C. v. Achterberg & Y. Yasir"; 2 ♀♀, "Indonesia, Mangole, Buluhaya, 90 m, 6-23.iii.1995, Malaise trap, C. v. Achterberg & Y. Yasir"; 1 ♀, "Indonesia, S Halmahera, between Payahe and Gita Woda, 25 m, 17.ii.-17.iii.1995, C. v. Achterberg, R. de Vries & Y. Yasir"; 1 ♀, "Indonesia, Lombok, Suranadi N.R., near Mataram, 185 m, 9-29.iii.1991, Malaise trap, C. v. Achterberg".

Description.— ♂. Generally very similar to ♀ with same collection data. Length 1.0 mm. Antenna (fig. 8) with dense flagellar pubescence 0.6 width of segments. Fore- and hindwing with dense and rather long microtrichia. Metasoma (fig. 9) 0.8 times as long as head and mesosoma combined, 1.1 times as long as mesosoma; T3-T6 each with a transverse row of large and very deep punctures, T7 small and smooth; T3-T7 bare.

Discussion.— The males of species of the genus *Gastrotrypes* are reported here for the first time. The most surprising difference between the sexes is the much denser microtrichia on the wings of the male; they are almost bare in ♀. The species is hitherto known from the Neotropical and the Palaearctic regions.

Gastrotrypes malaysianus spec. nov. (figs 10-13)

Material.— Holotype, ♀, "Malaysia, SE. Sabah, near Danum Valley Field C., 150 m, 2-23.viii.1987, Malaise trap, C. v. Achterberg & D. Kennedy".

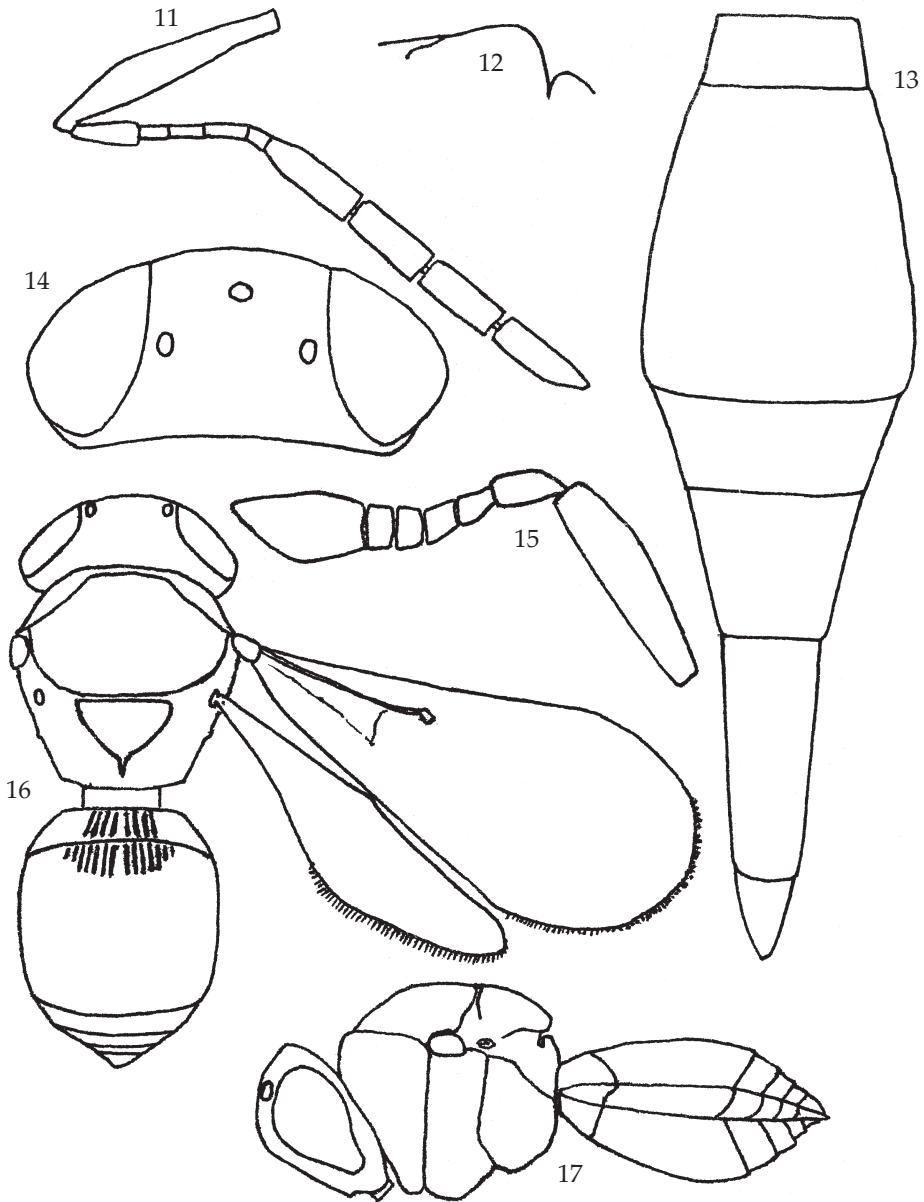
Diagnosis.— An aberrant species with head and mesosoma as in typical *Gastrotrypes*, but metasoma is 6-segmented.

Description.— ♀. Length 2.0 mm. Shiny black; A1-A5 and legs brownish yellow, A6-A10 and T6 dark brown.

Head from above (fig. 10) 1.8 times as wide as long, almost smooth, with faint indications of transverse microsculpture on occiput and vertex, and fan-like reticulation on frons; occiput with a sharp margin behind eyes. LOL = 5 OOL. Head in frontal view 1.2 times as wide as high. Antenna (fig. 11) with A1 1.25 times as long as distance between inner orbits; A7-A9 each 2.5 times as long as wide.

Mesosoma 1.4 times as long as wide, as wide as high. Sides of pronotum smooth. Mesoscutum smooth, with very few setae, without notauli; hind margin medially with a distinct, blunt prolongation to base of scutellum; scuto-scutellar grooves with dense, white setae. Mesopleuron smooth. Scutellum (fig. 12) at level of mesoscutum, flattened above, almost bare and slightly roughened medially, with dense white setae laterally, somewhat cut off posteriorly. Metapleuron with pilosity except in upper 0.3. Propodeal carinae well separated, short, area between them slightly elongate.

Fore wing reaching end of T5, 2.75 times as long as wide, with faint yellowish tint;



Figs 11-13. *Gastrotrypes malaysianus* spec. nov., female – 11, antenna; 12, scutellum in lateral view; 13, metasoma in dorsal view. Figs 14-17. *Indomerella vanachterbergi* gen. nov. spec. nov., female – 14, head in dorsal view; 15, antenna; 16, body in dorsal view; 17, body in lateral view.

microtrichia rather long, moderately dense; marginal cilia 0.1 width of wing. Hindwing 6.6 times as long as wide, with two hamuli; marginal cilia fully 0.4 times width of wing.

Metasoma (fig. 13) 1.4 times as long as head and mesosoma combined, 0.9 times as wide as mesosoma. T1 crenulated and with four stronger longitudinal carinae. T2 striated in basal foveae to more than 0.8 of length. T3 smooth, at midlength with six deep, elongate punctures on each side. T4-T5 with strong longitudinal rugosity, smoother medially. T6 smooth. Second sternite without hump anteriorly.

Discussion. — Placed in *Gastrotrypes* Brues due to shape of head, antenna and scutellum, but metasoma with 6 tergites as in *Platygaster* Latreille (5 in the two known species of *Gastrotrypes*), though T6 is small in *G. malaysianus* and lateral edge of metasoma sharp as in the known species of *Gastrotrypes*, cf. Huggert (1980).

Etymology. — The name refers to the country of the type locality.

Gastrotrypes spatulatus Brues, 1922

Material. — 1 ♀, "Indonesia: S Halmahera, between Payahe and Gita Woda, 25 m, 17.ii.-17.iii.1995, C. v. Achterberg, R. de Vries & Y. Yasir"; 2 ♀♀, "Indonesia: S Halmahera, 20 km S Payahe, Sagutora, 115 m, 18.ii.-18.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir".

Discussion. — The species is hitherto known from the Neotropical and the Palaearctic regions.

***Indomerella* gen. nov.**

Type species. — *Indomerella vanachterbergi* spec. nov. by present designation.

Diagnosis. — Stout species, in habitus much like *Trissolcus* (Scelionidae). Head, also eyes, covered by short and dense pubescence, almost uniformly sculptured, just behind eyes abruptly angled, but without carina here. ♀ antenna 7-segmented, scape without lamella, last segment very large. Mesosoma as high as wide, with notauli indicated, epicnemium absent. Scuto-scutellar groove narrow, much transverse. Mesopleural depression deep. Scutellum flattened, transverse, postero-medially acutely pointed in dorsal view, along sides with dense setae, at level of mesoscutum, without foveolate margins. Metanotum nonfoveolate. Dorsellum concealed. Propodeum short, steep, with a single keel medially, dorsal areas inconspicuously sculptured and with few setae. Fore wing with submarginal vein long, distinct and straight, knob slightly forked at apex, with RS + M indicated; marginal cilia very inconspicuous. Tibial spur formula 1-2-2, fore spur bifid; tarsal formula 5-5-5. Metasoma short and broad, smooth and inconspicuously setose. T1 much transverse, crenulated (numerous furrows except laterally). T2 with strong furrows only basally, without further modifications. Lateral edges not sharp, laterotergite 2 one-sixth the width of T2; felt field of S2 not developed.

Discussion. — Runs to couplet 27 in Masner & Huggert's (1989) "Key to World genera" (*Aphanomerella* Dodd, *Calomerella* Masner & Huggert, *Pseudaphanomerus* Szélenyi, and *Tetrabaeus* Kieffer). *Indomerella* mixes characters from *Pseudaphanomerus* (antennal structure) and *Calomerella* (shape of mesosoma and scutellum), but *Indomerella* differs

from the first mentioned genus e.g. in shape of mesosoma, from the last mentioned in structure of antenna, and from both in having nonfoveolate scutellar groove and metanotum. *Indomerella* is similar in this regard to *Aphanomerella* and *Tetrabaesus*, but these genera have 10-segmented ♀ antenna with 4-segmented clava. Due to general meso- and metasomal characters, however, *Indomerella* seems to be most closely related to *Aphanomerella* and *Tetrabaesus*, *Indomerella* being the more apomorphic genus due to reduced number of antennal segments.

Etymology. — “Indo” refers to Indonesia, “merella” indicates the relation to *Aphanomerella* and *Calomerella*. The gender is feminine.

Indomerella vanachterbergi spec. nov.
(figs 14-17 and 168-170)

Material. — Holotype, ♀, “Indonesia: S Halmahera, 20 km S Payahe, Sagutora, 125 m, 18.ii.-18.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir. Paratypes: 2 ♀♀ same data as holotype but Malaise trap at 175 m.

Description. — ♀. Length 1.4-1.5 mm. Black, A1-A2 and legs rather pale yellowish, coxae and A3-A7 brown.

Head from above (fig. 14) 2.3 times as wide as long, 0.9 times as wide as mesosoma, finely and uniformly leathery, with short and dense pubescence, frons in lower half less setose, towards middle with transverse wrinkles. OOL hardly half as long as shorter diameter of ocellus. Head in frontal view (fig. 168) 1.2 times as wide as high. Antenna (figs 15 and 169) with A1 1.25 times as long as distance between inner orbits, flagellum with very short pubescence only.

Mesosoma (figs 16-17 and 170) as wide as long and as wide as high. Sides of pronotum with faint microsculpture, in upper half densely setose, in lower half smoother and with sparser setae. Mesoscutum densely and evenly setose, uniformly and roughly leathery sculptured; notauli weakly indicated over whole length, posteriorly widely separated, disc medially between them with a fine longitudinal carina in posterior half; scuto-scutellar groove narrow, covered by fine setae. Mesopleuron with four strong longitudinal striae below tegula, rest smooth. Scutellum (figs 16-17) sculptured and setose as mesoscutum, with a fine longitudinal carina medially, in dorsal view triangular, slightly pointed posteriorly, 1.7 times as wide as long. Metapleuron with dense pilosity all over.

Fore wing (fig. 16) clear, hardly 0.9 times as long as body, 2.25 times as long as wide, with fine and dense microtrichia and short marginal cilia; submarginal vein nearly two-fifths as long as vein, light brown with somewhat forked apical knob. Hindwing 4.8 times as long as wide, with two hamuli; marginal cilia hardly one-fifth the width of wing.

Metasoma (figs 16-17) shorter than head and mesosoma combined, 1.2 times as long as mesosoma, as wide as head, 1.6 times as wide as high. T1 with six strong longitudinal furrows, slightly setose laterally. T2 with about 10 strong furrows basally, the medial longest, reaching fully 0.25 length of tergite, rest smooth, with very few setae laterally. T3-T6 smooth, with superficially implanted pubescence which grows denser towards apex.

Etymology. — Named after one of the collectors.

Genus *Iphitrachelus* Walker, 1835

Note. — Eight species are described worldwide, of which three are known from the Oriental region.

Iphitrachelus lar Walker, 1835

Material. — 1 ♂, "Indonesia: Sula Insl., Mangole, near Buya, 430 m, 13.x-2.xi.1993, Malaise trap, C. v. Achterberg".

Discussion. — This is a cosmopolitan species. Masner (1976) mentions material from the Palaearctic, Nearctic and Neotropical regions as well as specimens probably belonging to this species from New Caledonia, New Britain and Sri Lanka.

Genus *Leptacis* Förster, 1856

About 135 species hitherto described worldwide, 29 of them are Oriental. From the collections available, this genus seems richer in both individuals and species in the region than the worldwide larger genera *Platygaster* and *Synopeas* (these are largest in the temperate regions).

Key to Oriental species of the genus *Leptacis* (females)

The three Indian species *L. coorgensis* Mukerjee, 1981, *L. indicus* Mukerjee, 1978 (only male known), and *L. yercaudensis* Mukerjee, 1981, could not be included confidently in the key. Two are tentatively inserted from information in the incomplete original descriptions.

1. Propodeum with foamy, semitransparent structure 2
- Propodeum with two simple propodeal carinae 3
2. Body length less than 1.1 mm; head as high as wide; OOL equal to diameter of lateral ocellus *L. pteridis* Buhl, 2002
- Body length at least 1.2 mm; head 1.1 times as wide as high; OOL 1.5 times diameter of lateral ocellus *L. transoceanica* spec. nov.
3. T2 striated over most of length *L. bengalensis* Mukerjee, 1981
- T2 hardly striated 4
4. Scutellum with two distinct spines at each posterior corner; T3-T6 almost fused
..... *L. bipartita* spec. nov.
- Scutellum with only one spine posteriorly; T3-T6 not fused 5
5. T5 more than 6 times as long as wide *L. terebrans* Buhl, 2002
- T5 much less elongate 6
6. Notauli at least indicated 7
- Notauli entirely absent 18
7. Hyperoccipital carina absent 8
- Hyperoccipital carina present 16
8. A9 more than twice as wide as long; T6 much longer than wide, longer than T3-T5 combined *L. konkanensis* Mukerjee, 1978

- If T6 is shaped as above, then A9 is longer than wide 9
- 9. Scutellar spine very long; metasoma 2.3 times as long as wide, but shorter than head and mesosoma combined *L. thanensis* Mukerjee, 1978
 - If metasoma is thus elongate, it is longer in relation to rest of body, and scutellar spine is shorter 10
- 10. Notauli complete 11
 - Notauli incomplete 12
- 11. T6 twice as long as wide *L. spatulata* spec. nov.
 - T6 1.5 times as wide as long *L. latispina* Buhl, 2002
- 12. Notauli indicated only in posterior half *L. antennalis* Buhl, 1997

Note. — *L. coorgensis* Mukerjee, 1981, should run to here; it has marginal cilia of Fore wing less than 0.2 times width of wing, and metasoma hardly longer than mesosoma, with T2 more than 4 times as long as T3-T6. Also *L. yercaudensis* Mukerjee, 1981 should run to here; it has marginal cilia of fore wing more than 0.4 times width of wing but metasoma distinctly less elongate than in *L. dupondi* and *L. duponti* spp. nov.

 - Notauli indicated over most of length 13
- 13. Metasoma shorter than mesosoma *L. microgaster* Buhl, 2002
 - Metasoma longer than mesosoma 14
- 14. Fore wing with marginal cilia 0.15 times width of wing *L. obtusiceps* spec. nov.
 - Fore wing with marginal cilia at least 0.4 times width of wing 15
- 15. Fore wing 3.2 times as long as wide with marginal cilia 0.4 times width of wing
 - *L. dupondi* spec. nov.
 - Forwing 4.0 times as long as wide with marginal cilia 0.6 times width of wing
 - *L. duponti* spec. nov.
- 16. Metasoma 1.3 times as long as head and mesosoma combined
 - *L. caudata* spec. nov.
 - Metasoma shorter 17
- 17. Body length 2.7 mm; Fore wing with marginal cilia 0.1 times width of wing
 - *L. laeviusculus* Buhl, 2002
 - Body length about 1 mm; Fore wing with marginal cilia 0.3 times width of wing ...
 - *L. pilosella* spec. nov.
- 18. Hyperoccipital carina present 19
 - Hyperoccipital carina absent 30
- 19. Body uniformly light brownish yellow *L. acutalata* Buhl, 2004
 - Body darker 20
- 20. Fore wing without marginal cilia *L. silvatica* spec. nov.
 - Fore wing with marginal cilia 21
- 21. Fore wing with marginal cilia 0.5 times width of wing
 - *L. brachycerus* Mukerjee, 1981
 - Fore wing with marginal cilia shorter 22
- 22. Fore wing with marginal cilia 0.1 times width of wing *L. adebratti* Buhl, 2002
 - Fore wing with marginal cilia longer 23
- 23. Body mostly brownish; fore wing 3.4 times as long as wide *L. bicolor* spec. nov.
 - Body uniformly dark; fore wing less elongate 24
- 24. Hindwing with marginal cilia fully as long as width of wing 25
 - Hindwing with marginal cilia at most hardly as long as width of wing 26

25. Hyperoccipital carina low *L. maldarensis* Mukerjee, 1981
 - Hyperoccipital carina strong, vertex almost triangularly raised medially
 *L. vertexialis* spec. nov.
26. Fore wing at least 3 times as long as wide 27
 - Fore wing less than 3 times as long as wide 29
27. A9 1.2 times as long as wide *L. mendolongensis* Buhl, 2002
 - A9 at most as long as wide 28
28. A8-A9 transverse; mesopleuron smooth *L. orientalis* Buhl, 1997
 - A8-A9 each as long as wide; mesopleuron striated below tegula
 *L. nigricorpa* Buhl, 2002
29. Scutellum with long spine *L. atturensis* Mukerjee, 1981
 - Scutellum with small tooth *L. microspina* Buhl, 2002
30. A9 4 times as long as wide 31
 - A9 shorter 32
31. Body brownish yellow; hindwing with marginal cilia one-third the width of wing
 *L. longiclava* Buhl, 2002
 - Body black; hindwing with marginal cilia half as long as width of wing
 *L. tenuissimus* spec. nov.
32. Frons distinctly transversely striated *L. lineatifrons* Buhl, 2002
 - Frons not with such sculpture 33
33. Fore wing with marginal cilia 0.6 times width of wing ... *L. mymaroides* spec. nov.
 - Fore wing with marginal cilia shorter 34
34. Mesopleuron striated in upper half *L. tegulata* spec. nov.
 - Mesopleuron less striated 35
35. Metasoma pointed, T6 at least as long as wide 36
 - Metasoma not such pointed 38
36. Vertex with four strong, erect setae; fore wing with unusually strong microtrichia
 *L. microtrichiata* Buhl, 2002
 - Vertex without such setae; microtrichia of fore wing not unusually strong 37
37. T5 much longer than wide; T5-T6 strongly sculptured *L. apiculata* spec. nov.
 - T5 much wider than long; T5 smooth *L. sagittata* spec. nov.
38. Body dark brown or black 39
 - Body light brown or yellow 42
39. Fore wing with marginal cilia 0.4 times width of wing *L. pulla* Buhl, 2002
 - Fore wing with marginal cilia at most 0.2 times width of wing 40
40. Fore wing 3.3 times as long as wide *L. acarinata* spec. nov.
 - Fore wing less than 3 times as long as wide 41
41. Fore wing with marginal cilia 0.2 times width of wing . *L. philippinensis* Buhl, 1997
 - Fore wing with marginal cilia 0.1 times width of wing *L. breviciliata* spec. nov.
42. Body pale yellow 43
 - Body brownish yellow or light brown 44
43. Scutellar spine overreaching hind margin of propodeum
 *L. srilankensis* Buhl, 2003
 - Scutellar spine only half as long as propodeum *L. flavus* Buhl, 1997
44. Metasoma hardly as long as head and mesosoma combined, densely pubescent basally
 *L. synopeana* Buhl, 2002

- Metasoma 1.3 times as long as head and mesosoma combined, not densely pubescent basally *L. yasirae* spec. nov.

Leptacis acarinata spec. nov.
(figs 18-21)

Material.— Holotype, ♀, "Indonesia, Lombok, Batu Kok, near Hulu Kalimuntur, 500 m, 13-26.iii.1991, Malaise trap, C. v. Achterberg". Paratype: 1 ♀ same data as holotype.

Diagnosis.— A dark brownish species without hyperoccipital carina, with female A9 2.6 times as long as wide; fore wing more than 3 times as long as wide, marginal cilia 0.16 width of wing; apical tergites short.

Description.— ♀. Length 1.3-1.8 mm. Dark reddish brown, metasoma dark brown; A1-A2 and legs light brownish, thickened parts of hind femur and hind tibia darker; A3-A6 brown, A7-A10 dark brown.

Head from above (fig. 18) 1.6 times as long, hardly wider than mesosoma, rather uniformly, finely and slightly transversely reticulate-coriaceous; occiput evenly rounded, without hyperoccipital carina. OOL half as long as longer diameter of lateral ocellus. Head in frontal view 1.2 times as wide as high. Antenna (fig. 19) with A1 1.25 times as long as height of head; flagellar pubescence distinct; A9 2.6 times as long as wide.

Mesosoma 1.9 times as long as wide, 1.2 times as high as wide. Sides of pronotum with faint traces of reticulation in upper third, rest smooth. Mesoscutum finely and uniformly reticulate-coriaceous, with two rows of setae where notauli should have been, and with further scattered setae; notauli entirely absent; hind margin of disc straight, with rather fine setae above inconspicuous scuto-scutellar grooves. Mesopleuron smooth. Scutellum (fig. 20) densely covered by fine setae, with a slender, slightly semitransparent spine without lamella. Metapleuron smooth and bare in anterior 0.6, rest with pilosity. Propodeal carinae fused, long, high, slightly semitransparent.

Fore wing fully as long as body, 3.3 times as long as wide, with brownish tint, with fine and dense microtrichia; marginal cilia 0.16 times width of wing. Hindwing 9.1 times as long as wide; marginal cilia hardly 0.6 times width of wing.

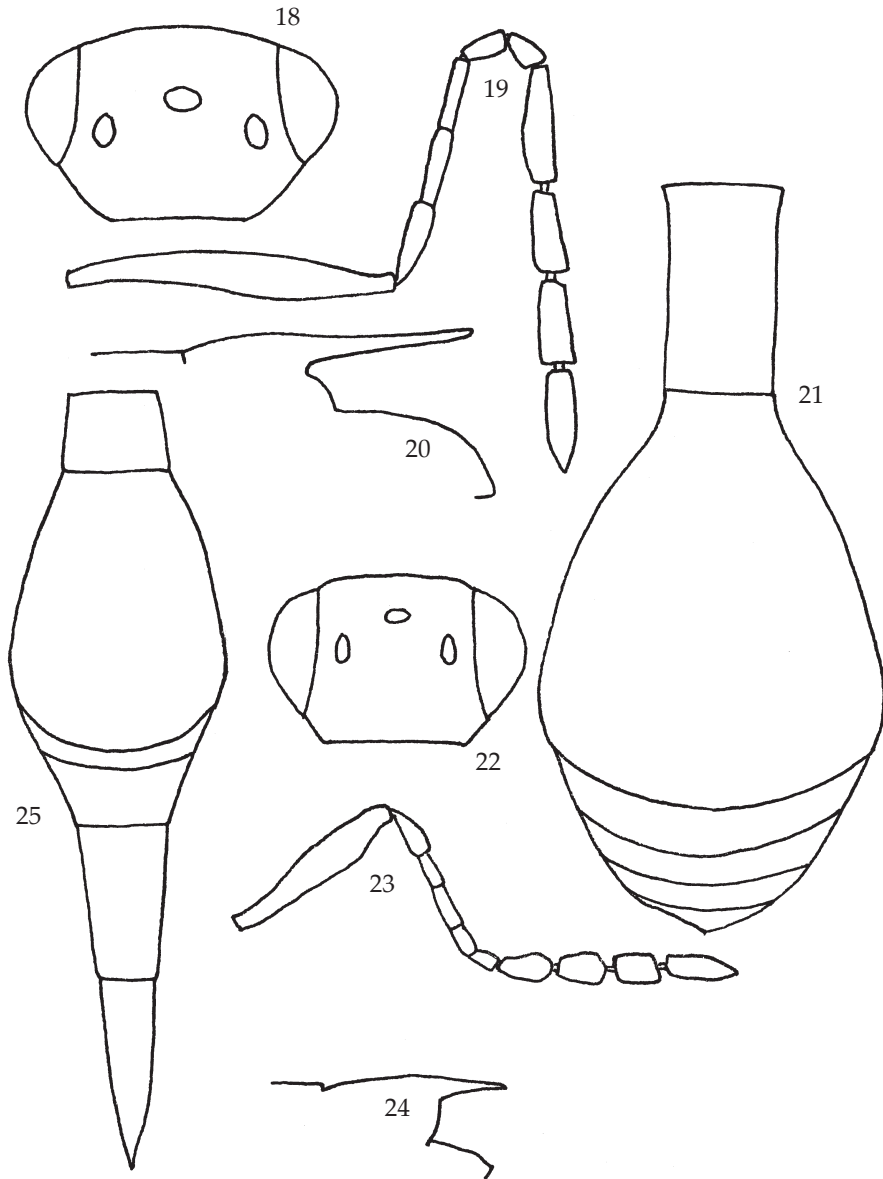
Metasoma (fig. 21) 0.9-1.0 times as long as head and mesosoma combined, slightly wider than mesosoma. T1 smooth and bare medially, with two weak longitudinal carinae, finely and densely setose laterally; distinctly swollen in anterior 0.4. T2 with pubescent basal foveae, smooth except for weak microsculpture along narrow hind margin. T3-T6 smooth except for weak microsculpture along hind margins, virtually bare.

Discussion.— Similar to *L. longiclava* Buhl, 2002 (described from Borneo) but darker, with less slender preapical antennal segments and with longer marginal cilia of wings. More similar to *L. citrea* Buhl, 2002 from Honduras, but with antennae slightly differently structured (A5 shorter than A4). Cf. Buhl (2002a, 2002b).

Etymology.— Named after the collector.

Leptacis adebratti Buhl, 2002

Material.— 1 ♀, "Indonesia, Sula Insl., Mangole, near Buya, 450 m, 13.x-2.xi.1993, Malaise trap, C. v. Achterberg"; 1 ♀, same data but 490 m, 2-22.iii.1995, Malaise trap, C. v. Achterberg & Y. Yasir; 1 ♀. In-



Figs 18-21. *Leptacis acarinata* spec. nov., female – 18, head in dorsal view; 19, antenna; 20, scutellum in lateral view; 21, metasoma in dorsal view. Figs 22-25. *Leptacis apiculata* spec. nov., female – 22, head in dorsal view; 23, antenna; 24, scutellum in lateral view; 25, metasoma in dorsal view.

onesia, S Halmahera, 20 km S Payahe, Sagutora, 115 m, 18.ii.-18.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir; 1 ♀. Indonesia, Sulawesi, near Bantaeng, Borong Rappoa, Gn Daulu, 690 m, 4-24. iv.1991, Malaise trap, C. v. Achterberg.

Discussion.— Hitherto known only from Malaysia (Borneo), cf. Buhl (2002a).

Leptacis apiculata spec. nov.
(figs 22-25)

Material.— Holotype, ♀, "Indonesia, W Bali, near Negara, rainforest above Batuagung, 575 m, 4-13. xii.1991, Malaise trap, C. v. Achterberg".

Diagnosis.— A species characterised by the long female T5-T6; T5 slightly shorter than T6, about 2 and 3 times as long as wide, respectively, and both strongly longitudinally reticulate-coriaceous.

Description.— ♀. Length 1.7 mm. Black, A1 and legs yellowish brown, hind coxa and apical 0.4 of hind tibia darkened; A2-A6 and mandibles dark brownish.

Head from above (fig. 22) 1.6 times as wide as long, very slightly wider than mesosoma, distinctly and almost uniformly reticulate-coriaceous, hardly transversely so, frons slightly smoother than rest; occiput smoothly rounded, without hyperoccipital carina. OOL slightly shorter than shorter diameter of lateral ocellus. Head in frontal view fully 1.1 times as wide as high. Antenna (fig. 23) with A1 0.9 times as long as height of head.

Mesosoma 1.7 times as long as wide, fully 1.1 times as high as wide. Dorsal area of pronotum smoothly reticulate-coriaceous, 0.3 times as long as mesoscutum; sides of pronotum with fine longitudinal microsculpture except along broad hind margin. Mesoscutum finely reticulate-coriaceous, without notauli; hind margin dark, hardly convex; scuto-scutellar grooves each with 3-4 long setae. Mesopleuron smooth. Scutellum (fig. 24) dull reticulate-coriaceous, moderately setose, with a dark spine without lamella below. Metapleuron smooth and bare, only with pilosity along posterior margin. Propodeal carinae low, dark, diverging, anteriorly fused, posteriorly distinctly separated.

Fore wing just reaching tip of metasoma, 2.5 times as long as wide, clear, with sparse and rather long microtrichia, without marginal cilia. Hindwing 8.5 times as long as wide; marginal cilia 0.75 times width of wing.

Metasoma (fig. 25) 1.3 times as long as head and mesosoma combined, 0.9 times as wide as mesosoma. T1 finely crenulate and with two slightly stronger longitudinal carinae, almost bare. T2 smooth and bare, with weak basal foveae. T3 with fine reticulation along hind margin, T4 with such sculpture laterally and with a transverse row of fine punctures with setae, T5-T6 strongly longitudinally reticulate-coriaceous.

Discussion.— Differs from *L. caudata* spec. nov. e.g. in sculpture and structure of head, in shape of scutellar spine and of apical tergites, in colour of fore wings and in lacking marginal cilia on these, and in sculpture of tergites; differs from the also somewhat similar *L. spatulata* spec. nov. e.g. in sculpture and structure of head, shape of propodeal carinae and of apical tergites.

Etymology.— The name means "with sting", referring to the unusually pointed metasoma, hiding a long ovipositor.

Leptacis bicolor spec. nov.
(figs 26-29)

Material. — Holotype, ♀, "Indonesia, Sula Isl., Mangole, near Buya, 490 m, 2-22.iii.1995, Malaise trap, C. v. Achterberg & Y. Yasir".

Diagnosis. — Body brownish except black sides of mesosoma; hyperoccipital carina low and weak; notauli absent; fore wing 3.4 times as long as wide, with marginal cilia 0.25 times width of wing; metasoma short.

Description. — ♀. Length 1.0 mm. Head brownish, darkened around ocelli; mesosoma laterally black, upper half of propleuron brownish yellow; mesosoma dorsally brown; T1 brownish yellow, rest of metasoma brown; A1-A6 and legs light brownish yellow, A7-A10 dark brown.

Head from above (fig. 26) 1.8 times as wide as long, almost 1.2 times as wide as mesosoma; occiput reticulate medially, smooth laterally, with a low and weak hyperoccipital carina; vertex and frons almost smooth except for weak transverse reticulation in lower half of frons. OOL hardly half as long as diameter of lateral ocellus. Head in frontal view 1.2 times as wide as high. Antenna (fig. 27) with A1 0.9 times as long as height of head.

Mesosoma 1.75 times as long as wide, fully 1.2 times as high as wide. Sides of pronotum smooth. Mesoscutum with two rows of setae where notauli should have been, and with setae along midline and just inside tegulae, rest bare; disc smooth except for weak reticulation in anterior third, without notauli; hind margin straight, with a few weak setae above inconspicuous scuto-scutellar grooves. Mesopleuron smooth. Scutellum (fig. 28) smooth, evenly and moderately setose, with a slightly semitransparent spine without lamella. Metapleuron smooth and bare, only with pilosity along hind margin. Propodeal carinae semitransparent, fused in anterior half, posteriorly slightly diverging.

Fore wing 0.9 times as long as body, 3.4 times as long as wide, almost clear, with fine and dense microtrichia; marginal cilia fully 0.25 width of wing. Hindwing 9.6 times as long as wide; marginal cilia 0.9 times width of wing.

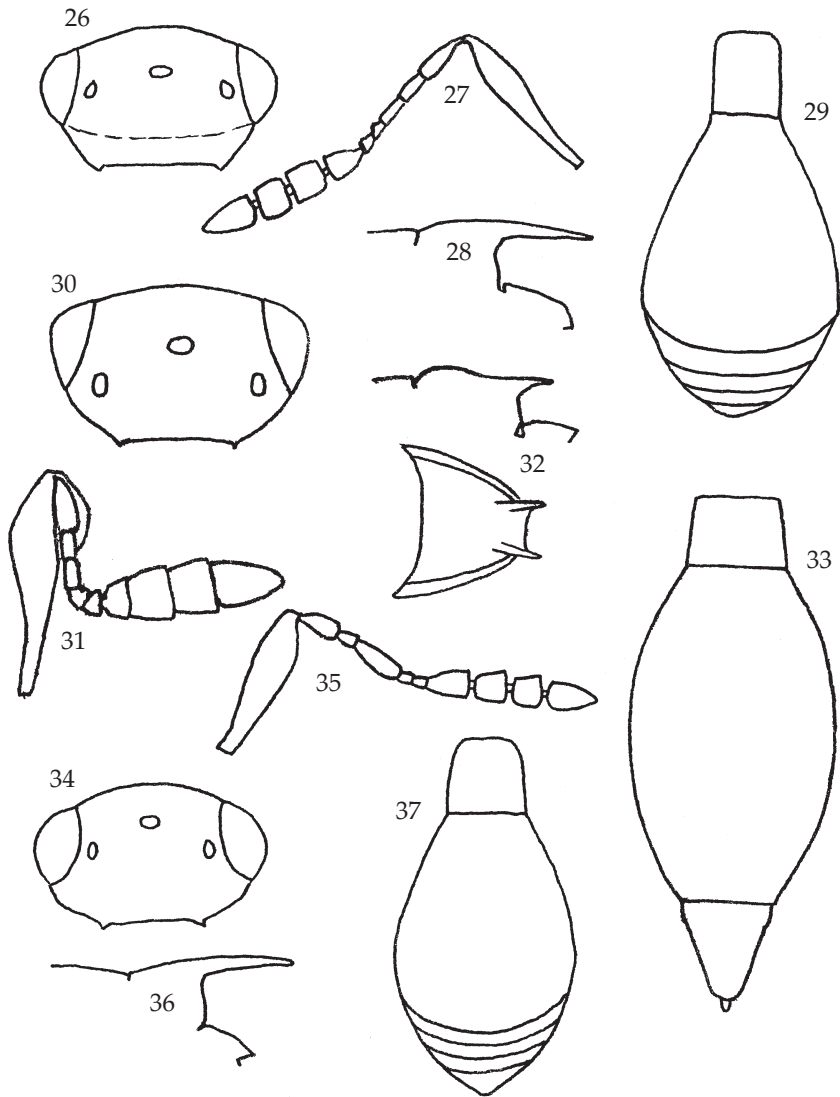
Metasoma (fig. 29) 0.9 times as long as head and mesosoma combined, as wide as mesosoma. T1 distinctly swollen in anterior half, behind with two longitudinal carinae, laterally with fine pubescence. T2 with two small, pubescent basal foveae, rest of tergite as well as the following tergites smooth; apical tergites with a few inconspicuous setae.

Discussion. — Differs from *L. orientalis* Buhl, 1997 (from the Philippines) in colour, sculpture of mesoscutum and length of marginal cilia of hindwing. Also somewhat similar to *L. kierkegaardi* Buhl, 1997 (from the Bismarck archipelago) but smoother and with less slender antennae. Cf. Buhl (1997).

Etymology. — The name refers to the characteristic coloration of this species, basically a mixture of two colours, black and brownish yellow.

Cylindrotacis subgen. nov.

Type species. — *Leptacis bipartita* spec. nov. (described below), by present designation.



Figs 26-29. *Leptacis bicolor* spec. nov., female – 26, head in dorsal view; 27, antenna; 28, scutellum in lateral view; 29, metasoma in dorsal view. Figs 30-33. *Leptacis Cylindrotacis bipartita* subgen. nov. spec. nov., female – 30, head in dorsal view; 31, antenna; 32, scutellum in lateral and in dorsal view; 33, metasoma in dorsal view. Figs 34-37. *Leptacis breviciliata* spec. nov., female – 34, head in dorsal view; 35, antenna; 36, scutellum in lateral view; 37, metasoma in dorsal view.

Diagnosis. — The new subgenus of *Leptacis* is based on the structure of metasoma, which has ♀ T3-T6 clearly separated, usually ring-shaped in *Leptacis* s. str., almost fused in a triangular cone in *Cylindrotacis*, T5-T6 being very small. The sole species of *Cylindrotacis* is also aberrant in having pronotal groove much pubescent and in having bispinose scutellum.

Etymology.— The name is composed of "Cylindro" and the last part of "Leptacis", bringing to mind the parallel case of a subgenus of *Platygaster*, *Cylindrogaster* Huggert, 1980, characterised by similar fused apical tergites.

Leptacis (Cylindrotacis) bipartita spec. nov.
(figs 30-33)

Material.— Holotype, ♀, "Indonesia, Sulawesi, near Mamasa, Penannang, 1850 m, 10-22.iv.1991, Malaise trap, C. v. Achterberg".

Diagnosis.— Cf. description of subgenus.

Description.— ♀. Length 1.3 mm. Black, A1 and legs including coxae reddish yellow. A2-A6 and mandibles dark reddish brown; A7-A10 and last segment of all tarsi dark brown.

Head shiny, from above (fig. 30) 1.9 times as wide as long, as wide as mesosoma; occiput transversely reticulate-coriaceous, smoother in posterior third, without hyper-occipital carina but somewhat angled; vertex and slightly less than upper half of frons superficially, transversely reticulate, frons along inner orbits with punctures, in slightly less than lower half with fan-like fine striation, frons medially almost smooth. OOL about twice the diameter of lateral ocellus; OOL:LOL = 5:8. Head in frontal view as high as wide. Antenna (fig. 31) with A1 hardly 0.9 times as long as height of head, with a rather prominent lamella in apical half.

Mesosoma 1.6 times as long as wide, about as wide as high. Sides of pronotum smooth, with a dense tuft of pubescence in lower 0.25, rest with very few setae. Mesoscutum smooth and bare except for two double rows of setae on two rather wide, parallel stripes of fine rugosity over whole length of disc; hind margin slightly brownish, convex along whole width over base of scutellum; scuto-scutellar grooves virtually absent, without specialised setae. Mesopleuron smooth. Scutellum (fig. 32) smooth and with very sparse long setae on disc, without medial keel, laterally with rugosity and denser setae, with distinct margins; posteriorly with two dark brown spines without lamella. Metapleuron smooth and bare in anterior 0.6, rest with pilosity. Propodeal carinae black and fused.

Fore wing almost as long as body, 2.6 times as long as wide, clear, with dense and moderately long microtrichia; marginal cilia at most 0.1 times width of wing. Hindwing 5.9 times as long as wide; marginal cilia 0.5 times width of wing.

Metasoma (fig. 33) hardly as long as head and mesosoma combined, 1.2 times as long as mesosoma, hardly 0.9 times as wide as this, 1.1 times as wide as high. T1 smooth, somewhat swollen in anterior half, excavated medially in posterior half and along sides, laterally with short pubescence in slightly more than posterior half. T2 smooth, with two small pubescent basal foveae. Apical tergites smooth and bare, hard to separate, almost fused to one triangular cone, T3 short and T5-T6 very inconspicuous.

Discussion.— Differs from the only other described *Leptacis*-species with bispinose scutellum, South African *L. bispinosa* Buhl, 2005 – apart from the subgeneric characters – e.g. in having structure of head widely different, much less slender antennae, shorter scutellar spines, and marginal cilia of fore wing. Cf. also Buhl (2005).

Etymology.— The name refers to the scutellum which is posteriorly divided in two.

Leptacis breviciliata spec. nov.
(figs 34-37)

Material. — Holotype, ♀, "Indonesia, Sula Isl., Mangole, near Buya, 495 m, 12.x.-2.xi.1993, Malaise trap, C. v. Achterberg".

Diagnosis. — No hyperoccipital carina; vertex, frons and mesoscutum smooth; female A9 hardly as long as wide; fore wing 2.6 times as long as wide, marginal cilia hardly more than 0.1 times width of wing; female metasoma short.

Description. — ♀. Length 1.0 mm. Black, A1-A6 and legs yellowish, propodeum and T1 brown.

Head from above (fig. 34) 1.6 times as wide as long, 1.1 times as wide as mesosoma; occiput broad, rounded, without hyperoccipital carina, smooth except for slight reticulation along posterior margin, rather sharply angled just in front of this sculptured margin, laterally with a small projection on each side of neck; vertex and frons smooth. OOL hardly as long as ocellar diameter. Head in frontal view 1.2 times as wide as high. Antenna (fig. 35) with A1 0.8 times as long as height of head.

Mesosoma 1.5 times as long as wide, very slightly higher than wide. Sides of pronotum smooth. Mesoscutum with very few setae, smooth except for a couple of small spots of reticulation anteriorly, without notauli; hind margin only slightly convex medially, on each side with a couple of long setae above scuto-scutellar grooves. Mesopleuron smooth. Scutellum (fig. 36) almost smooth with few setae, most of it with brownish tint, spine semitransparent brown with a vertical lamella below. Metapleuron smooth and bare, with only a very small spot of pubescence posteriorly. Propodeal carinae semitransparent, slightly separated.

Fore wing 0.9 times as long as body, 2.6 times as long as wide, almost clear, microtrichia rather long and sparse; marginal cilia hardly more than 0.1 times width of wing. Hindwing 8.4 times as long as wide; marginal cilia 0.7 times width of wing.

Metasoma (fig. 37) 0.8 times as long as head and mesosoma combined, 0.9 times as wide as mesosoma. T1 almost smooth and bare, swollen in anterior half. T2 without basal foveae, bare and smooth except for a few wrinkles at base. T3-T5 smooth except for very fine microsculpture along narrow hind margins, T6 with weak reticulation over most of surface; apical tergites with very few setae.

Discussion. — A characteristic species on account of smooth head and mesoscutum, and short marginal cilia of fore wings.

Etymology. — The name refers to the marginal cilia of fore wings which are unusually short for a species of *Leptacis*.

Leptacis caudata spec. nov.
(figs 38-41, 171)

Material. — Holotype, ♀ "Indonesia, W Bali, near Negara, rainforest above Batuagung, 575 m, 4-13. xii.1991, Malaise trap, C. v. Achterberg". Paratype: 1 ♀, "Indonesia, Sula Isl., Mangole, near Buya, 480 m, 12.x.-2.xi.1993, Malaise trap, C. v. Achterberg".

Diagnosis. — Female A9 longer than wide; forewing with marginal cilia fully 0.1 times width of wing; female T6 more than twice as long as wide, and more than twice as long as T3-T5 combined.

Description.— ♀. Length 2.2-2.4 mm. Black, A1-A6 and legs light reddish brown, trochanters and apex of hind femur darkened, coxae black.

Head from above (fig. 38) 1.9 times as wide as long, 1.1 times as wide as mesosoma across tegulae; occiput finely transversely coriaceous, almost smoothly rounded, with an indication of a weak and incomplete hyperoccipital carina; vertex finely, transversely reticulate-coriaceous; frons weakly reticulate-coriaceous, sculpture slightly fan-like arranged. OOL hardly half as long as shorter diameter of lateral ocellus. Head in frontal view hardly 1.2 times as wide as high. Antenna (fig. 39) with A1 0.9 times as long as height of head.

Mesosoma 1.8 times as long as wide, very slightly higher than wide. Dorsal area of pronotum rather long, almost 0.4 times as long as mesoscutum; sides of pronotum superficially longitudinally reticulate in upper half, rest smooth. Mesoscutum dull, reticulate-coriaceous, with fine and sparse setae which form two longitudinal rows on each side of middle of disc; notauli indicated in anterior half as two parallel impressions; hind margin virtually straight, dark; scuto-scutellar grooves small, covered by dense setae. Mesopleuron smooth except for a couple of weak wrinkles just below tegula. Scutellum (figs 40 and 171) denser setose and with more rough sculpture than mesoscutum, with a brownish, flattened, pointed spine without lamella below. Metapleuron smooth and bare, only with pilosity along hind margin, bare area sometimes with extensive, weak longitudinal microsculpture. Propodeal carinae low, dark, well separated, area between them smooth and shiny.

Forewing yellowish, hardly overreaching tip of metasoma, 2.9 times as long as wide, with sparse and rather long microtrichia; marginal cilia fully 0.1 times width of wing. Hindwing 6.5 times as long as wide; marginal cilia 0.3 times width of wing.

Metasoma (figs 41 and 171) 1.3 times as long as head and mesosoma combined, hardly 0.9 times as wide as mesosoma. T1 with two low, longitudinal carinae, smooth between them, with microsculpture and short pilosity laterally. T2 slightly pubescent at base of basal foveae, with faint microsculpture in these and on area between them, laterally with weak longitudinal microsculpture to slightly more than half of its length, rest of T2 smooth except for reticulate rugosity along narrow hind margin. T3-T4 smooth with reticulate rugosity along hind margin; T5 with such rugosity along hind margin and laterally; T4-T5 also with a few scattered punctures; T6 with rough, uneven longitudinal microsculpture; apical tergites with a few scattered, very short setae.

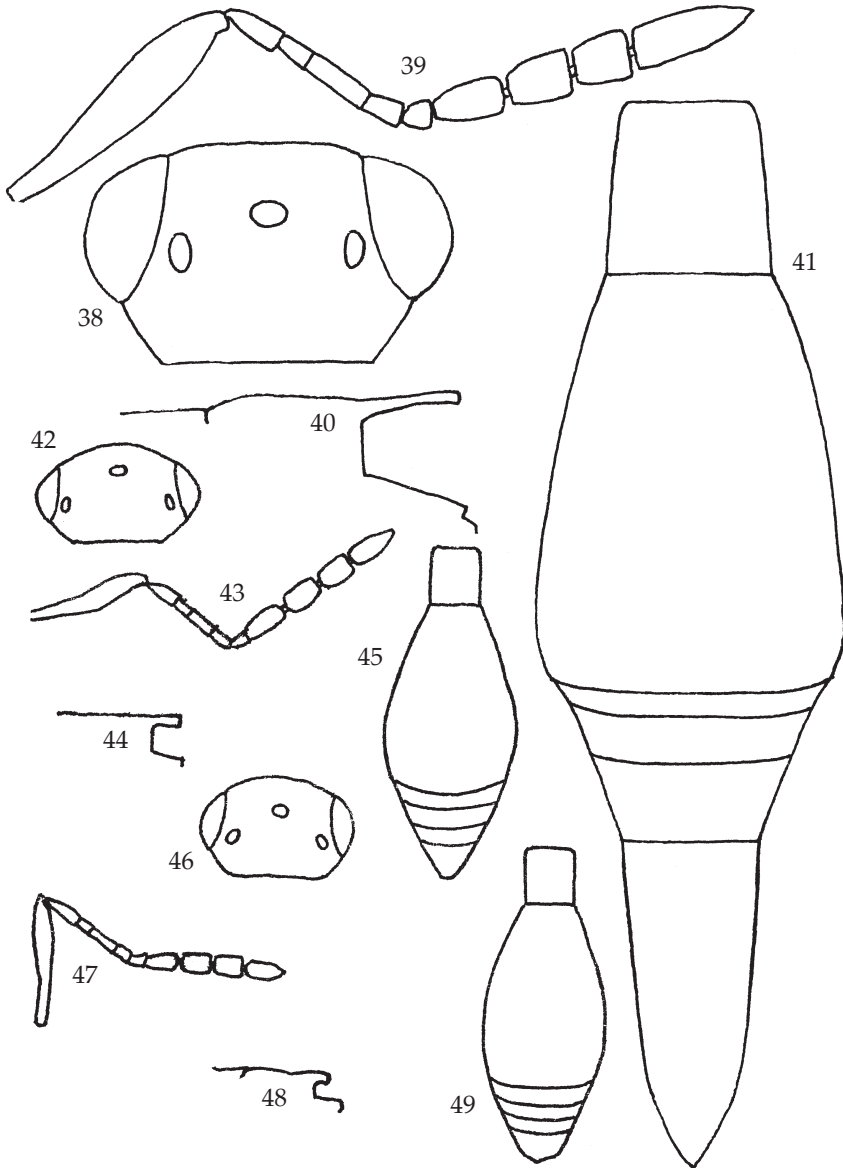
Discussion.— Superficially similar to *L. apiculata* spec. nov., cf. above. Also similar to *L. spatulata* spec. nov., but differs from this species e.g. in structure and sculpture of head, in having yellowish forewings with marginal cilia, and in shape of scutellum and propodeal carinae.

Etymology.— The name directs the attention to the aberrant metasoma of this species.

Leptacis cf. dorsalis Buhl, 2002

Material.— 1 ♀, "Malaysia, SE. Sabah, near Danum Valley Field C., 150 m, 22.xi.-4.xii.1987, Malaise trap, C. v. Achterberg & D. Kennedy".

Discussion.— It is hardly possible to separate this single specimen from the Neotropical *L. dorsalis* Buhl, 2002 described from Honduras by Buhl (2002b).



Figs 38-41. *Leptacis caudata* spec. nov., female – 38, head in dorsal view; 39, antenna; 40, scutellum in lateral view; 41, metasoma in dorsal view. Figs 42-45. *Leptacis dupondi* spec. nov., female – 42, head in dorsal view; 43, antenna; 44, scutellum in lateral view; 45, metasoma in dorsal view. Figs 46-49. *Leptacis duponti* spec. nov., female – 46, head in dorsal view; 47, antenna; 48, scutellum in lateral view; 49, metasoma in dorsal view.

Leptacis dupondi spec. nov.
(figs 42-45)

Material. — Holotype, ♀, "Indonesia, S Halmahera, 20 km S Payahe, Sagutora, 175 m, 18.ii.-18.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir".

Diagnosis. — Hyperoccipital carina absent; notauli indicated over most of length; forewing 3.2 times as long as wide, with marginal cilia 0.4 times width of wing; metasoma as long as head and mesosoma combined.

Description. — ♀. Length 0.8 mm. Black; A1-A6 and legs light brownish yellow; T1 brown.

Head from above (fig. 42) 1.8 times as wide as long, 1.1 times as wide as mesosoma; occiput much transversely reticulate-coriaceous, rounded, without hyperoccipital carina; vertex irregular, weakly reticulate; frons almost smooth, with weak traces of reticulation. Eyes with long, sparse setae. OOL half as long as diameter of lateral ocellus. Head in frontal view slightly more than 1.1 times as wide as high. Antenna (fig. 43) with A1 0.8 times as long as height of head.

Mesosoma 1.5 times as long as wide, almost 1.2 times as high as wide. Sides of pronotum smooth except for faint sculpture in upper anterior corner. Mesoscutum with very few setae, almost smooth except for some faint sculpture anteriorly and along notauli, these faintly indicated over most of length; end of mid lobe hardly behind hind margin of disc which is straight; scuto-scutellar grooves each with 3-4 long setae. Mesopleuron smooth. Scutellum (fig. 44) smooth and almost bare along middle, laterally moderately densely setose. Metapleuron smooth and bare, only with pubescence at posterior corner. Propodeal carinae low, brown, straight; elongate area between them smooth and shiny.

Forewing 0.8 times as long as body, 3.2 times as long as wide, almost clear, with fine and dense microtrichia; marginal cilia 0.4 times width of wing. Hindwing 10 times as long as wide; marginal cilia equal to width of wing.

Metasoma (fig. 45) as long as head and mesosoma combined, 0.8 times as wide as mesosoma. T1 with two distinct longitudinal keels. Basal foveae of T2 with pubescence, rest of T2 smooth. T3-T5 each with a transverse stripe of fine rugosity, T6 with more extensive such sculpture; apical tergites with very few setae.

Discussion. — See under *L. duponti* spec. nov. On the basis of the scarce material it is hard to determine whether the differences between *L. dupondi* and *L. duponti* are of specific value. A few additional specimens in the material probably represent other species very similar to *L. dupondi*.

Etymology. — Named after one of the two almost identical detectives in Hergé's "Tintin", referring to the similarity with *L. duponti*.

Leptacis duponti spec. nov.
(figs 46-49)

Material. — Holotype, ♀, "Indonesia, Sula Isl., Mangole, near Buya, 480 m, 12.x.-2.xi.1993, Malaise trap, C. v. Achterberg".

Diagnosis. — Hyperoccipital carina absent; notauli indicated over most of length; forewing 4.0 times as long as wide, with marginal cilia 0.6 times width of

wing; metasoma 1.2 times as long as head and mesosoma combined.

Description. — ♀. Length 0.7 mm. Blackish with light brownish yellow A1-A6 and legs; propodeum and T1 brown.

Head from above (fig. 46) 1.9 times as wide as long, 1.1 times as wide as mesosoma; occiput transversely reticulate-coriaceous, rather sharply angled but hardly with hyper-occipital carina; vertex faintly transversely reticulate-coriaceous, frons almost smooth. Eyes with sparse long setae. OOL only about half as long as diameter of lateral ocellus. Head in frontal view as high as wide. Antenna (fig. 47) with A1 hardly 0.9 times as long as height of head; flagellum with distinct pubescence and some scattered hairs which are hardly shorter than width of segments.

Mesosoma 1.6 times as long as wide, 1.3 times as high as wide. Sides of pronotum slightly reticulate in upper anterior corner, rest smooth. Mesoscutum sparsely and evenly setose, almost smooth except around anterior ends of notauli, these very finely indicated over most of length; mid lobe posteriorly ending in a fine point hardly behind hind margin of disc; scuto-scutellar grooves each with 3-4 long setae. Mesopleuron smooth. Scutellum (fig. 48) almost smooth, slightly denser setose than mesoscutum, with a semitransparent spine with a narrow, semitransparent vertical lamella below. Metapleuron smooth and bare except for a little pilosity at hind corner. Propodeal carinae low, not semitransparent, straight, well separated; elongate area between them smooth and shiny.

Forewing 4.0 times as long as wide, 0.9 times as long as body, almost clear, with fine and dense microtrichia; marginal cilia almost 0.6 times width of wing. Hindwing about 10 times as long as wide; marginal cilia equal to width of wing.

Metasoma (fig. 49) 1.2 times as long as head and mesosoma combined, 0.9 times as wide as mesosoma. T1 with two strong longitudinal carinae. T2 pubescent in basal foveae, rest of tergites smooth except for a few punctures posteriorly. T3-T5 each with a transverse line of fine rugosity, T6 with such sculpture over most of surface; apical tergites hardly with setae.

Discussion. — Characteristic on account of strikingly narrow wings and metasoma. Occiput sharper margined, scutellar spine smaller, forewing narrower, metasoma relatively longer, and T6 more rounded at apex in *L. duponti* than in *L. dupondi*.

Etymology. — Named after one of the two almost identical detectives in Hergé's "Tintin", referring to the similarity with *L. dupondi*.

Leptacis longiclava Buhl, 2002

Material. — 3 ♀♀, "Indonesia, Sula Insl., Mangole, near Buya, 445-480 m, 13.x-2.xi.1993, Malaise trap, C. v. Achterberg"; 1 ♀, "Indonesia, S Halmahera, 20 km S Payahe, Sagutora, 125 m, 18.ii-18.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir"; 1 ♀, "Indonesia, N Sulawesi, Dumoga-Bone N.P., 220 m, 1-9.xi.1985, Malaise trap, C. v. Achterberg"; 1 ♀, "Malaysia, SE Sabah, near Danum Valley Field C., 150 m, 20.vi-12.vii.1987, Malaise trap, C. v. Achterberg & D. Kennedy".

Discussion. — Hitherto known only from Malaysia (Borneo), cf. Buhl (2002a).

Leptacis mirabilis (Dodd, 1914)

Material. — 1 ♀, "Indonesia, Lombok, Gn Rinjani N.P., 1250 m, 13-26.iii.1991, Malaise trap, C. v. Achterberg".

Discussion.— Hitherto only known from 1 ♀ and 1 ♂ from Australia (N. Queensland). The present ♀ differs from Huggert's (1976) redescription and figures only in slightly different shape of scutellum. It has head as well as rest of body almost uniformly dark reddish brown as described by Huggert, thus this colour is hardly due to the age of the type as stated by him. Description of wings (incomplete on types): Forewing fully 1.1 times as long as body, 3.0 times as long as wide, almost clear, with fine and very dense microtrichia; marginal cilia 0.16 width of wing. Hindwing fully 10 times as long as wide; marginal cilia two-thirds the width of wing.

Leptacis mymaroides spec. nov.
(figs 50-53)

Material.— Holotype, ♀, "Indonesia, S Halmahera, between Payahe and Gita Woda, 25 m, 17.ii.-17.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir".

Diagnosis.— Hyperoccipital carina absent; notauli absent; forewing 2.9 times as long as wide, with marginal cilia 0.6 times width of wing; metasoma as long as head and mesosoma combined.

Description.— ♀. Length 0.8 mm. Black; A1-A2 and legs light brown; tegula and flagellum more or less dark brown.

Head from above (fig. 50) 2.0 times as wide as long, as wide as mesosoma; occiput distinctly transversely reticulate-coriaceous, rounded, without hyperoccipital carina; vertex reticulate, hardly transversely so; frons smooth just below ocelli, rest reticulate, with large transverse meshes. OOL only about half as long as diameter of lateral ocellus. Head in frontal view hardly 1.2 times as wide as high. Antenna (fig. 51) with A1 0.9 times as long as height of head; A7-A9 each 1.9 times as long as wide.

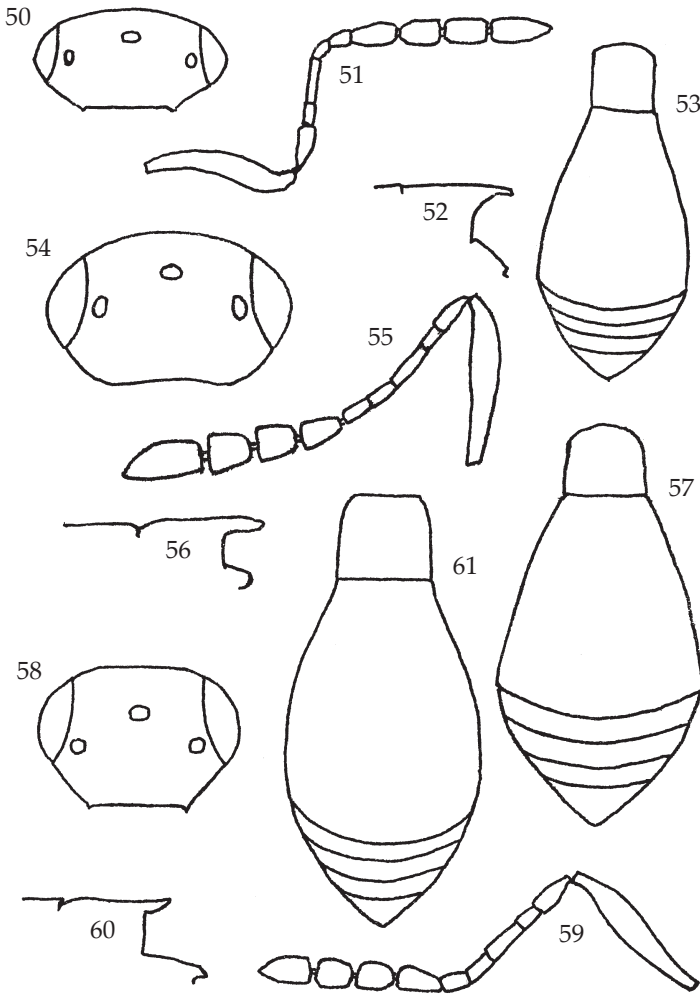
Mesosoma 1.4 times as long as wide, very slightly higher than wide. Sides of pronotum reticulate in upper and anterior half, rest smooth. Mesoscutum weakly reticulate, medially in posterior half almost smooth, without notauli, laterally sparsely setose, medially bare; hind margin with a small semitransparent prolongation medially; scuto-scutellar grooves densely setose. Mesopleuron smooth. Scutellum (fig. 52) almost smooth and bare along middle, laterally densely setose; spine brown with a narrow vertical lamella below. Metapleuron smooth and bare, only with pilosity in posterior corner. Propodeal carinae low, dark, straight, well separated, elongate area between them smooth and shiny.

Forewing 2.9 times as long as wide, 0.9 times as long as body, almost clear and with fine and dense microtrichia; marginal cilia 0.6 times width of wing. Hindwing 13 times as long as wide; marginal cilia 1.3 times the width of wing.

Metasoma (fig. 53) as long as head and mesosoma combined, slightly narrower than mesosoma. T1 medially with two diverging longitudinal carinae, laterally with short pubescence which continues in basal foveae on T2. T2 smooth, T3-T5 each with a transverse row of punctures, T6 reticulate; apical tergites with a few very fine setae.

Discussion.— Characteristic on account of very long marginal cilia of forewing. *L. brachycerus* Mukerjee, 1981 from India approaches this length, but this species has much shorter flagellum, cf. Mukerjee (1981).

Etymology.— The name refers to the fact that the species is superficially similar to a species of Mymaridae because of the long marginal cilia of the forewing.



Figs 50-53. *Leptacis mymaroides* spec. nov., female – 50, head in dorsal view; 51, antenna; 52, scutellum in lateral view; 53, metasoma in dorsal view. Figs 54-57. *Leptacis obtusiceps* spec. nov., female – 54, head in dorsal view; 55, antenna; 56, scutellum in lateral view; 57, metasoma in dorsal view. Figs 58-61. *Leptacis pilosella* spec. nov., female – 58, head in dorsal view; 59, antenna; 60, scutellum in lateral view; 61, metasoma in dorsal view.

Leptacis obtusiceps spec. nov.
(figs 54-57)

Material. — Holotype, ♀, "Indonesia, SW Sulawesi, Gn. Bulusaraung, near Camba Malawa, 750 m, 7. ii.-28.iii.1995, Malaise trap, C. v. Achterberg & Y. Yasir".

Diagnosis. — Hyperoccipital carina absent; notauli faint but almost complete; marginal cilia of forewing 0.15 times width of wing; metasoma distinctly longer than mesosoma.

Description. — ♀. Length 1.0 mm. Black, A1-A6 and legs yellowish. Head from above (fig. 54) hardly 1.8 times as wide as long, almost 1.2 times as wide as mesosoma; occiput and vertex broad and rounded, without hyperoccipital carina, distinctly and uniformly reticulate-coriaceous (not transversely so); frons more smooth and much more transversely reticulate-coriaceous. OOL about half the diameter of lateral ocellus. Head in frontal view 1.2 times as wide as high. Antenna (fig. 55) with A1 0.8 times as long as height of head; A10 fully twice as long as A9.

Mesosoma 1.5 times as long as wide, hardly higher than wide. Sides of pronotum faintly reticulate in slightly less than upper half and along lower margin, smooth behind and between. Mesoscutum with very few setae, weakly and almost uniformly reticulate-coriaceous; notauli faintly indicated, almost complete, mid lobe posteriorly broad but hardly prolonged; scuto-scutellar grooves each with 3 long setae. Mesopleuron smooth. Scutellum (fig. 56) with a pointed spine which is dark brown at apex, along middle with fine rugosity and almost bare, laterally moderately setose, without lamella. Metapleuron smooth, with pilosity in posterior third. Propodeal carinae dark, short, close together.

Forewing about as long as body, 2.4 times as long as wide, with weak brownish tint and rather strong and dense microtrichia; marginal cilia 0.15 times width of wing. Hindwing 6.8 times as long as wide; marginal cilia two-thirds the width of wing.

Metasoma (fig. 57) hardly as long as head and mesosoma combined (29:31), as wide as mesosoma. T1 medially with two parallel longitudinal keels, smooth between them, laterally with short pilosity which continues in short basal foveae on T2, this tergite with broad reticulate hind margin. T3-T5 each with a narrow stripe of reticulation along hind margin, T6 reticulate except anteriorly; apical tergites with very few setae.

Discussion. — Most similar to *L. latispina* Buhl, 2002, from Malaysia (Borneo), but this species has occiput distinctly transversely reticulate, A10 only 1.5 times as long as A9, notauli complete, scutellum with strong parallel-sided spine which is semitransparent at apex and with a lamella, and forewing 2.9 times as long as wide, cf. also Buhl (2002a).

Etymology. — The name refers to the obtuse head of this species, it is broadly rounded and without hyperoccipital carina.

Leptacis pilosella spec. nov.
(figs 58-61)

Material. — Holotype, ♀, "Indonesia, S Halmahera, between Payahe and Gita Woda, 25 m, 17.ii-17.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir".

Diagnosis. — Hyperoccipital carina strong, medially triangularly raised; eyes and female flagellum with unusual long setae.

Description. — ♀. Length 1.1 mm. Black, A1-A7 and legs light brownish yellow; A8-A10 and tegula brown.

Head from above (fig. 58) 1.5 times as wide as long, 1.1 times as wide as mesosoma; occiput transversely reticulate-coriaceous; hyperoccipital carina strong, medially triangularly raised (in both lateral and frontal view); vertex and frons finely reticulate-coriaceous, this sculpture on lower half of frons much transverse. Eye with long, sparse se-

tae. OOL slightly shorter than longer diameter of lateral ocellus. Head in frontal view as high as wide. Antenna (fig. 59) with A1 hardly 0.9 times as long as height of head; A9 1.5 times as long as wide; flagellum with distinct pubescence about half as long as width of segments and with numerous setae as long as width of segments.

Mesosoma 1.8 times as long as wide, 1.2 times as high as wide. Sides of pronotum smooth, with weak microsculpture in upper anterior corner. Mesoscutum sparsely and evenly setose, uniformly faintly reticulate-coriaceous, notauli weakly indicated posteriorly; hind margin medially with a small, slightly semitransparent prolongation; scuto-scutellar grooves with dense setae. Mesopleuron smooth. Scutellum (fig. 60) sculptured as mesoscutum, slightly denser setose than this, in posterior half semitransparent brown, with a distinct vertical lamella below the short spine. Metapleuron smooth and bare, with pilosity only posteriorly. Propodeal carinae low, dark, straight, smooth and virtually fused.

Forewing almost clear, 0.8 times as long as body, 2.8 times as long as wide, with dense and moderately long microtrichia in apical 0.6; marginal cilia nearly 0.3 times width of wing. Hindwing about 10 times as long as wide; marginal cilia as long as width of wing.

Metasoma (fig. 61) 0.9 times as long as head and mesosoma combined, as wide as head. T1 with two longitudinal carinae, laterally with moderately dense setae. T2 with two small, slightly pubescent basal foveae, T2-T5 along hind margin with reticulate microsculpture, T6 with such sculpture all over; apical tergites hardly setose.

Discussion.— Larger and with less slender flagellum than the similar *L. antennalis* Buhl, 1997 (from the Philippines) which also lacks hyperoccipital carina, cf. Buhl (1997).

Etymology.— The name, meaning "with fine setae", refers to the setae of eyes and flagellum characteristic for this species.

Leptacis sagittata spec. nov.
(figs 62-65)

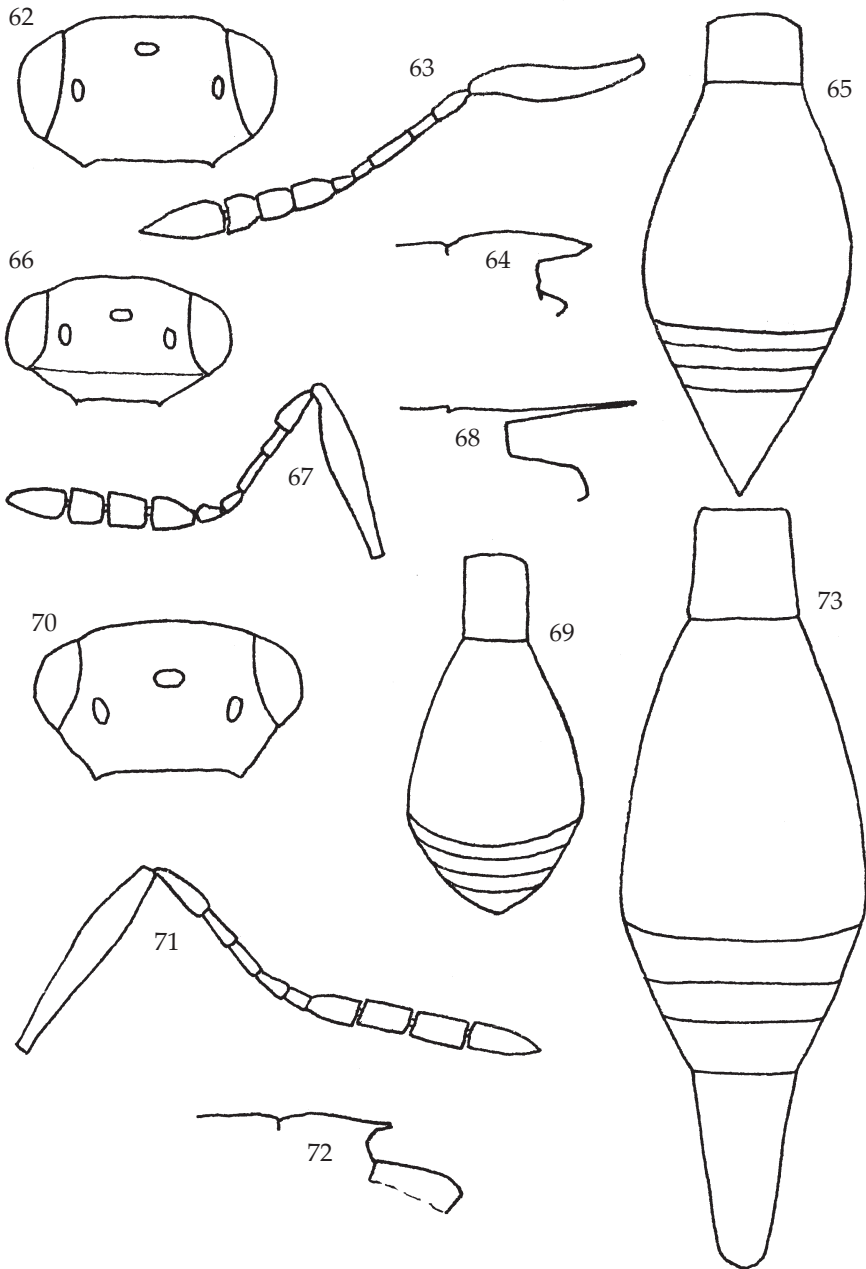
Material.— "Holotype, ♀. Indonesia, S Halmahera, 20 km S Payahe, Sagutora, 125 m, 18.ii.-18.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir".

Diagnosis.— Hyperoccipital carina and notauli absent; female A9 hardly as long as wide; forewing with fine and dense microtrichia, marginal cilia 1/7 times width of wing; female metasoma with T3-T5 smooth, T6 sculptured and as long as wide.

Description.— ♀. Length 1.2 mm. Black, A1-A6 and legs including coxae light brownish; A7-A10, mandibles and tegulae darker brown.

Head from above (fig. 62) 2.0 times as wide as long, almost 1.2 times as wide as mesosoma; occiput distinctly, transversely reticulate-coriaceous, without hyperoccipital carina, rather evenly rounded; vertex and frons reticulate-coriaceous, only transversely so just above antennal insertions. OOL hardly as long as shorter diameter of lateral ocellus. Head in frontal view 1.2 times as wide as high. Antenna (fig. 63) with A1 0.8 times as long as height of head.

Mesosoma 1.4 times as long as wide, fully 1.1 times as high as wide. Sides of pronotum faintly reticulate-coriaceous in upper half except along broad hind margin.



Figs 62-65. *Leptacis sagittata* spec. nov., female – 62, head in dorsal view; 63, antenna; 64, scutellum in lateral view; 65, metasoma in dorsal view. Figs 66-69. *Leptacis silvatica* spec. nov., female – 66, head in dorsal view; 67, antenna; 68, scutellum in lateral view; 69, metasoma in dorsal view. Figs 70-73. *Leptacis spatulata* spec. nov., female – 70, head in dorsal view; 71, antenna; 72, scutellum in lateral view; 73, metasoma in dorsal view.

Mesoscutum sparsely and evenly setose, faintly reticulate-coriaceous, mid lobe smooth in posterior 0.6; notauli absent, but mid lobe in posterior half slightly higher than lateral lobes; hind margin slightly convex, at each side with about eight long setae above triangular scuto-scutellar grooves. Mesopleuron with 5-6 fine longitudinal striae below tegula, rest smooth. Scutellum (fig. 64) slightly more roughly sculptured than mesoscutum, medially sparsely setose, laterally with denser setae; spine broad in both lateral and dorsal view, only brownish at apex. Metapleuron smooth and bare, only with pilosity along posterior margin. Propodeal carinae short, dark, low, slightly separated, diverging.

Forewing 0.8 times as long as body, 2.5 times as long as wide, with brownish tint and fine and dense microtrichia; marginal cilia 1/7 times width of wing. Hindwing 7.7 times as long as wide; marginal cilia two-thirds the width of wing.

Metasoma (fig. 65) 1.1 times as long as head and mesosoma combined, 0.9 times as wide as mesosoma, 1.25 times as wide as high. T1 with two medial longitudinal carinae rather close together, bare between them, laterally with short, dense pilosity which continues in basal foveae on T2, this smooth; T3-T5 smooth with reticulation along hind margins, T6 distinctly reticulate-coriaceous except at extreme base; apical tergites with a few superficially implanted fine setae.

Discussion.— A very distinct species on account of shape of scutellar spine and of T6.

Etymology.— The name, "arrow-shaped", refers to the rather strongly pointed metasoma.

Leptacis silvatica spec. nov.
(figs 66-69, 172)

Material.— Holotype, ♀, "Indonesia, Sula Isl., Mangole, near Buya, 460 m, 12.x.-2.xi.1993, Malaise trap, C. v. Achterberg". Paratypes: 1 ♀ same data as holotype but Malaise trap at 480 m; 1 ♀, "Indonesia, N Ceram, 11 km E of Wahai, 2-20.iii.1997, Malaise trap in coastal rainforest, C. v. Achterberg & R. de Vries".

Diagnosis.— Hyperoccipital carina low but complete; scutellar spine very long and needle-like; forewing with very strong microtrichia, without marginal cilia.

Description.— ♀. Length 0.9-1.1 mm. Blackish, A1-A6 and legs light brownish yellow; A7-A10 and tegula brown; propodeum and T1 reddish brown.

Head from above (fig. 66) 1.8 times as wide as long, fully 1.2 times as wide as mesosoma, distinctly and almost uniformly reticulate-coriaceous, not transverse except slightly so just above antennal insertions; hyperoccipital carina low, not strong, but distinct and complete. OOL about equal to shorter diameter of lateral ocellus; LOL = 4.3 OOL. Head in frontal view 1.2 times as wide as high. Antenna (fig. 67) with A1 hardly shorter than height of head.

Mesosoma (fig. 172) 1.8 times as long as wide, 1.25 times as high as wide. Sides of pronotum with superficial longitudinal reticulation in less than upper and anterior half. Mesoscutum evenly, moderately setose, weakly and uniformly reticulate-coriaceous (distinctly weaker than head), without trace of notauli, hind margin medially only with a very inconspicuous prolongation, laterally with a few long setae over in-

conspicuous scuto-scutellar grooves. Mesopleuron smooth. Scutellum (fig. 68) smoother than mesoscutum, with few setae and with a long, needle-like light brown spine without lamella. Metapleuron smooth and bare except for pilosity at posterior margin. Propodeal carinae high, semitransparent, fused.

Forewing (fig. 172) as long as body, 2.9 times as long as wide, almost clear, with unusually strong microtrichia, without marginal cilia. Hindwing fully 10 times as long as wide; marginal cilia 0.9 width of wing.

Metasoma (fig. 69) 0.8 times as long as head and mesosoma combined, slightly longer than mesosoma, about as wide as this. T1 smooth, with two longitudinal carinae, distinctly swollen in anterior 0.4. T2 with a couple of diminutive basal foveae, smooth and almost bare. T3-T5 smooth, with weak microsculpture along hind margins, T6 with such sculpture all over; apical tergites with some fine setae.

Discussion.— Shape of scutellum similar to that of the Neotropical *L. acuta* Buhl, 2002, but this species lacks the hyperoccipital carina, and it has long marginal cilia on the forewings, cf. Buhl (2002b). *L. silvatica* differs from *L. wauensis* Buhl, 2004, from Papua New Guinea e.g. in the strong microtrichia and in lacking the marginal cilia of forewing, cf. Buhl (2004).

Etymology.— The name means living in woods and refers to the rainforest habitat of the species.

Leptacis spatulata spec. nov.
(figs 70-73, 173-175)

Material.— Holotype, ♀ “Indonesia, N Ceram, 11 km E Wahai, 2-20.iii.1997, Malaise trap in coastal rainforest, C. v. Achterberg & R. de Vries”. Paratypes: 2 ♀♀, “Indonesia, S Halmahera, 20 km S Payahe, Sagutora, 175 m, 18.ii.-18.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir”; 1 ♀, “Indonesia, N Sulawesi, Dumoga-Bone N.P., 220 m, 1-9.xi.1985, Malaise trap, C. v. Achterberg”.

Diagnosis.— Female A9 longer than wide; forewing without marginal cilia; female T6 twice as long as wide, longer than T3-T5 combined.

Description.— ♀. Length 1.1-1.8 mm. Brownish black to black, T1 in some specimens brown; A1 and legs light reddish brown, coxae in some specimens darkened; A2-A6 dark reddish brown; A7-A10 dark brown.

Head from above (figs 70 and 173) 1.8 times as wide as long, hardly 1.1 times as wide as mesosoma; occiput somewhat upturned posteriorly, medially with transverse wrinkles, laterally smooth, without hyperoccipital carina; vertex with transverse wrinkles between ocelli, laterally smooth; frons smooth except for a few transverse wrinkles above antennal insertions (vertex and frons in smaller specimens smooth). OOL as long as shorter diameter of lateral ocellus. Head in frontal view 1.2 times as wide as high. Antenna (fig. 71) with A1 hardly shorter than height of head.

Mesosoma (fig. 173) 2.1 times as long as wide, almost 1.2 times as high as wide. Pronotum unusually long, about half as long as mesoscutum, dorsal area strongly reticulate-coriaceous; sides of pronotum faintly reticulate in anterior half in upper 0.3, rest smooth. Mesoscutum shiny, weakly longitudinally reticulate-coriaceous, almost bare, only with a few setae along the complete notauli and laterally; hind margin almost straight, mid lobe slightly blunt, not prolonged; scuto-scutellar grooves inconspicuous,

without setae. Mesopleuron smooth. Scutellum (fig. 72) dull, with longitudinal microsculpture and a few setae, brownish at least posteriorly, with a sharp, fine tooth with a small vertical lamella below. Metapleuron smooth and bare, only slightly pubescent along hind margin. Propodeal carinae high, light brownish semitransparent, fused.

Forewing (fig. 174) hardly overreaching tip of metasoma, 2.5 times as long as wide, clear, with sparse and rather long microtrichia, without marginal cilia. Hindwing about 10 times as long as wide; marginal cilia 0.8 times width of wing.

Metasoma (fig. 73) 1.2 times as long as head and mesosoma combined, as wide as mesosoma. T1 with two longitudinal carinae, smooth and bare except for very few setae along sides. T2 with long and bare basal foveae, sometimes with a few weak wrinkles at ends of foveae, laterally of foveae with weak longitudinal microsculpture to about half of length; rest of T1 smooth. T3-T5 covered by dense micropunctures, and each also with a transverse row of slightly stronger punctures; T6 (fig. 175) strongly and slightly longitudinally punctured-coriaceous; apical tergites with a few very fine setae.

Discussion.— A striking species on account of the shape of the metasoma. Could be confused only with *L. apiculata* spec. nov. and *L. caudata* spec. nov., see under these species.

Etymology.— The name refers to the spatula-shaped metasoma (much as in *Gastrotrypes spatulatus* Brues, 1922).

Leptacis synopeana Buhl, 2002

Material.— 1 ♀, "Indonesia, Sula Isl., Mangole, near Buya, 465 m, 13.x.-2.xi.1993, Malaise trap, C. v. Achterberg".

Discussion.— Described from Malaysia (Borneo) by Buhl (2002a).

Leptacis tegulata spec. nov.
(figs 74-77 and 176)

Material.— Holotype, ♀, "Indonesia, Sula Isl., Taliabu, near Tubang, 50 m, 9-20.iii.1995, Malaise trap, C. v. Achterberg & Y. Yasir". Paratypes: 1 ♀, "Indonesia, Sula Isl., Mangole, near Buya, 450 m, 13.x.-2.xi.1993, Malaise trap, C. v. Achterberg"; 1 ♀, "Indonesia, N Ceram, 11 km E Wahai, 2-20.iii.1997, Malaise trap in coastal rainforest, C. v. Achterberg & R. de Vries".

Diagnosis.— Hyperoccipital carina and notauli absent; mesopleuron longitudinally sculptured in about upper half; marginal cilia of forewing at most 0.17 times width of wing.

Description.— ♀. Length 1.2-1.4 mm. Black, antennae and legs uniformly yellowish brown, or A7-A10 dark brown, or A2-A10 and coxae dark brown; T1 with brownish tint.

Head from above (fig. 74) 1.9 times as wide as long, almost 1.2 times as wide as mesosoma, with evenly rounded occiput without hyperoccipital carina, distinctly reticulate-coriaceous, occiput strongly transversely so, vertex and frons only slightly transversely so. OOL at most as long as shorter diameter of lateral ocellus. Head in frontal view about 1.3 times as wide as high. Antenna (fig. 75) with A1 1.0-1.2 times as long as height of head; A4 2.5 times as long as A3.

Mesosoma almost 1.9 times as long as wide, 1.2 times as high as wide. Sides of pronotum (fig. 176) with faint longitudinal microsculpture except along broad hind margin. Mesoscutum moderately and evenly setose, finely and uniformly reticulate-coriaceous, without trace of notauli; hind margin dark, medially only very slightly convex, with a very small prolongation medially; scuto-scutellar grooves with dense setae. Mesopleuron (fig. 176) with weak longitudinal microsculpture in upper 0.4-0.5, rest smooth. Scutellum (fig. 76) sculptured and setose almost as mesoscutum, in posterior half light brownish, without lamella below spine. Metapleuron smooth and bare in anterior 0.5-0.6, rest with pilosity. Propodeal carinae low, straight, dark and fused.

Forewing 0.8-0.9 times as long as body, 2.9 times as long as wide, almost clear, with fine and dense microtrichia; marginal cilia at most 0.17 times width of wing. Hindwing 7.5-8.3 times as long as wide; marginal cilia fully 0.5 times width of wing.

Metasoma (fig. 77) 0.9 times as long as mesosoma, hardly as wide as this. T1 with two longitudinal keels, between them smooth and bare, laterally with short pubescence which continues in basal foveae on T2, this tergite as well as following tergites smooth, but T3-T6 with rugosity along hind margin, apical tergites virtually bare.

Discussion. — A characteristic species on account of sculpture of mesopleuron, relatively long A4, shape of scutellum and short metasoma.

Etymology. — The name refers to the tegula and the characteristic sculpture below it.

Leptacis tenuissimus spec. nov.
(figs 78-81)

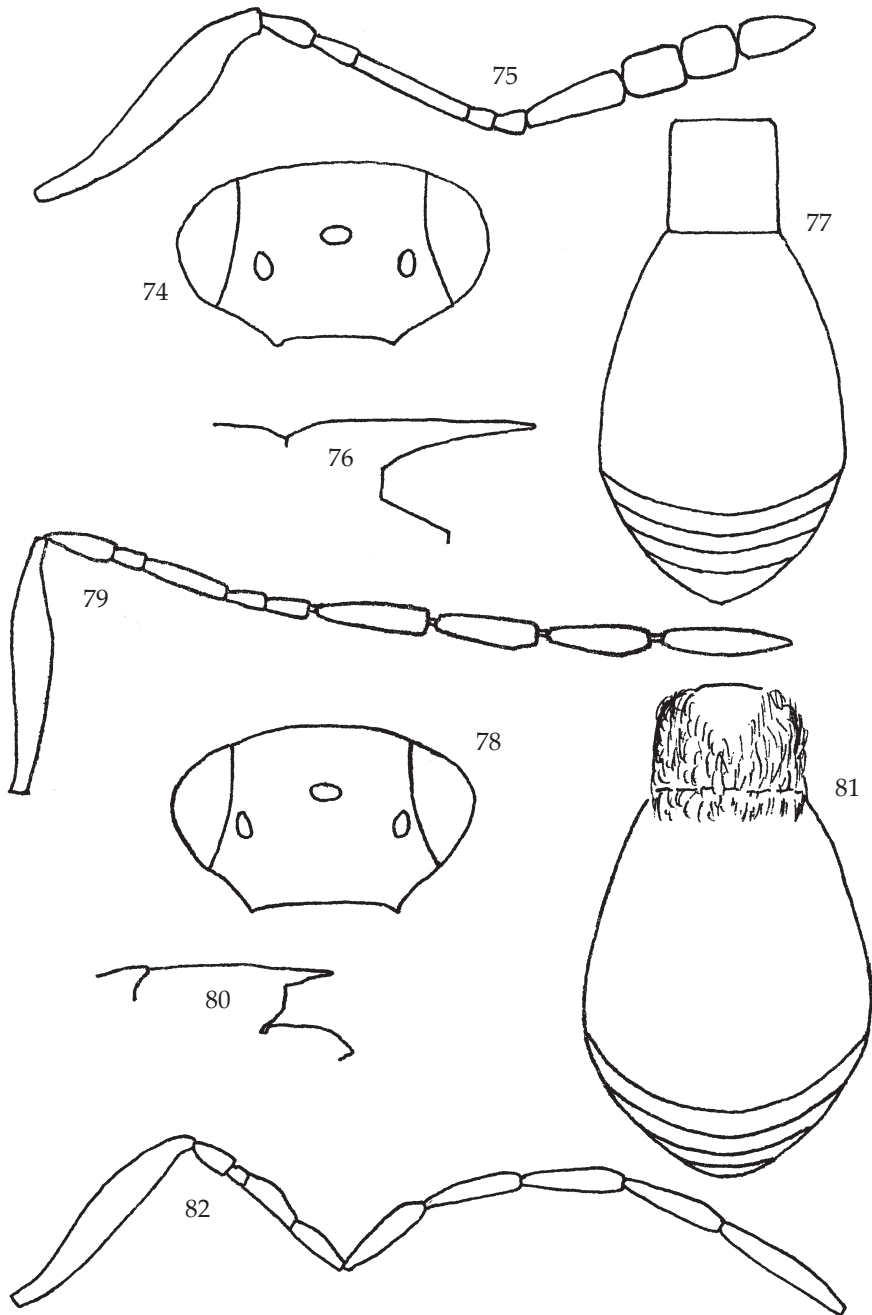
Material. — Holotype, ♀, "Indonesia, S Halmahera, between Payahe and Gita Woda, 20 m, 17.ii.-17.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir".

Diagnosis. — Body black; female A7-A9 each at least 4 times as long as wide.

Description. — ♀. Length 1.3 mm. Black; A1-A6, mandibles and legs including coxae pale brownish yellow; A7-A10 and tegula dark brown.

Head from above (fig. 78) 1.9 times as wide as long, 1.1 times as wide as mesosoma; occiput transversely reticulate-coriaceous, hyperoccipital carina hardly indicated but occiput distinctly angled; vertex and frons smoother than occiput, vertex finely reticulate-coriaceous (not transversely so), frons weakly and slightly transversely reticulate-coriaceous. OOL hardly half as long as shorter diameter of lateral ocellus. Head in frontal view hardly 1.2 times as wide as high. Antenna (fig. 79) with A1 as long as height of head; preapical antennal segments each fully 4 times as long as wide; flagellar pubescence inconspicuous, hardly half as long as width of segments, with a few setae as long as width of segments.

Mesosoma 1.7 times as long as wide, 1.2 times as high as wide. Sides of pronotum finely reticulate (not longitudinally so) in upper half, rest virtually smooth. Mesoscutum moderately and evenly setose, weakly and uniformly reticulate-coriaceous, without trace of notauli; hind margin dark brown and slightly convex medially, at each side with long and dense setae. Mesopleuron with very faint longitudinal microsculpture in upper 0.3, rest smooth. Scutellum (fig. 80) sculptured as mesoscutum, slightly denser setose, with a reddish brown spine with lamella and long setae below. Metapleuron



Figs 74-77. *Leptacis tegulata* spec. nov., female – 74, head in dorsal view; 75, antenna; 76, scutellum in lateral view; 77, metasoma in dorsal view. Figs 78-81. *Leptacis tenuissimus* spec. nov., female – 78, head in dorsal view; 79, antenna; 80, scutellum in lateral view; 81, metasoma in dorsal view. Fig. 82. *Leptacis transoceanica* spec. nov., male antenna.

smooth and bare in anterior half, rest with pilosity. Propodeal carinae reddish brown semitransparent, fused.

Forewing 1.1 times as long as body, 2.9 times as long as wide, slightly greyish, with fine and very dense microtrichia; marginal cilia at their longest 1/8 times width of wing. Hindwing 7.7 times as long as wide; marginal cilia 0.5 times width of wing.

Metasoma (fig. 81) as long as mesosoma, about as wide as this. T1 with anterior swollen margin smooth and bare, rest with a dense cushion of adpressed pilosity continuing over whole width of base of T2, this tergite as well as apical tergites smooth except for weak reticulation on hind margins of T2-T5; apical tergites bare.

Discussion. — A most characteristic species on account of unusually elongate female flagellar segments.

Eymology. — The name means "very thin", referring to the antennae.

Leptacis terebrans Buhl, 2002

Material. — 1 ♀, "Indonesia, S Halmahera, between Payahe and Gita Woda, 25 m, 17.ii.-17.iii.1995, C. v. Achterberg, R. de Vries & Y. Yasir"; 2 ♀♀, "Indonesia, SW Sulawesi, Gn. Bulusaraung, near Camba Malawa, 750 m, 7.ii.-28.iii.1995, Malaise trap, C. v. Achterberg & Y. Yasir".

Discussion. — Hitherto known only from Malaysia (Borneo), cf. Buhl (2002a).

Leptacis transoceanica spec. nov.
(fig. 82)

Material. — Holotype, ♂, "Indonesia, N Sulawesi, Dumoga-Bone N.P., 220 m, 1-9.xi.1985, C. v. Achterberg". Paratypes: 3 ♀♀, "Indonesia, S Halmahera, 20 km S Payahe, Sagutora, 115-125 m, 18.ii.-18.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir"; 1 ♀, "Indonesia, S Halmahera, between Payahe and Gita Woda, 25 m, 17.ii.-17.iii.1995, C. v. Achterberg, R. de Vries & Y. Yasir"; 2 ♀♀, "Indonesia, SW Sulawesi, Gn. Bulusaraung, near Camba Malawa, 750 m, 7.ii.-28.iii.1995, C. v. Achterberg & Y. Yasir".

Diagnosis. — Head 1.1 times as wide as high; OOL 1.5 times diameter of lateral ocellus; propodeum with foamy, semitransparent structure.

Description. — Most of characters as in *L. athos* Masner, 1960, cf. discussion. ♀. Length 1.2-1.5 mm. Forewing 2.8 times as long as wide, about as long as body, with faint brownish tint, with dense and rather strong microtrichia; marginal cilia 0.2 times width of wing. Hindwing 12.7 times as long as wide; marginal cilia 0.9 times width of wing. ♂. Length 1.1 mm. Antenna (fig. 82) with numerous long setae about twice as long as width of segments.

Discussion. — Extremely similar to the characteristic Afrotropical species *L. athos* Masner, 1960. Seems only to differ from this species in having ♂ A3-A4 combined one and a third times as long as A5 (A3-A4 combined slightly shorter than A5 in ♂ *L. athos*), and the ♀ has head 1.1 times as wide as high (in *L. athos* slightly higher than wide) and OOL longer, fully 1.5 times as long as lateral ocellus (in *L. athos* OOL not longer than ocellar diameter). Cf. Masner (1960). He fails to describe the wings of his species, thus their characters are the only to be described in some detail for *L. transoceanica*. One ♀ of *L. transoceanica* has body not black as usual but bright reddish brown with only metasoma partly darkened.

Etymology.— The name refers to the close relations with another species, i.e. *L. athos*, across the Indian Ocean.

Leptacis vertexialis spec. nov.
(figs 83-87, 177)

Material.— Holotype, ♀, "Indonesia, Sula Isl., Mangole, near Buya, 440 m, 12.x.-2.xi.1993, Malaise trap, C. v. Achterberg". Paratypes: 1 ♀ same data as holotype; 1 ♀ same data but Malaise trap at 450 m.

Diagnosis.— Body black; hyperoccipital carina strong, vertex almost triangular raised medially; notauli absent; marginal cilia of forewing 0.3 times width of wing, of hindwing 1.0 times width of wing.

Description.— ♀. Length 0.9-1.1 mm. Black, A1-A6 and legs light brown, apex of hind tibia slightly darkened.

Head from above (fig. 83) 2.0 times as wide as long, almost 1.2 times as wide as mesosoma; occiput distinctly and slightly transversely reticulate-coriaceous; hyperoccipital carina (fig. 177) strong, vertex almost triangular raised medially; vertex and frons weakly and slightly transversely reticulate-coriaceous. Eyes bare. OOL about half the diameter of lateral ocellus. Head in frontal view (fig. 84) hardly wider than high. Antenna (fig. 85) with A1 0.8 times as long as height of head, A9 about as long as wide.

Mesosoma (fig. 177) 1.6 times as long as wide, almost 1.2 times as high as wide. Sides of pronotum finely reticulate in slightly more than upper and anterior half, rest smooth. Mesoscutum evenly and rather densely setose, faintly and uniformly reticulate-coriaceous, without notauli; hind margin slightly convex and brownish medially; scuto-scutellar grooves each with 6-7 long setae. Mesopleuron with fine longitudinal striation in upper 0.3, rest smooth. Scutellum (fig. 86) sculptured and setose almost as mesoscutum; spine and vertical lamella below it brownish. Metapleuron smooth and bare, only with pilosity along hind margin. Propodeal carinae low, straight, brownish, slightly separated, area between them smooth and shiny.

Forewing 0.9 times as long as body, 2.8 times as long as wide, almost clear, with fine and dense microtrichia; marginal cilia 0.3 times width of wing. Hindwing 9.4 times as long as wide; marginal cilia as long as width of wing.

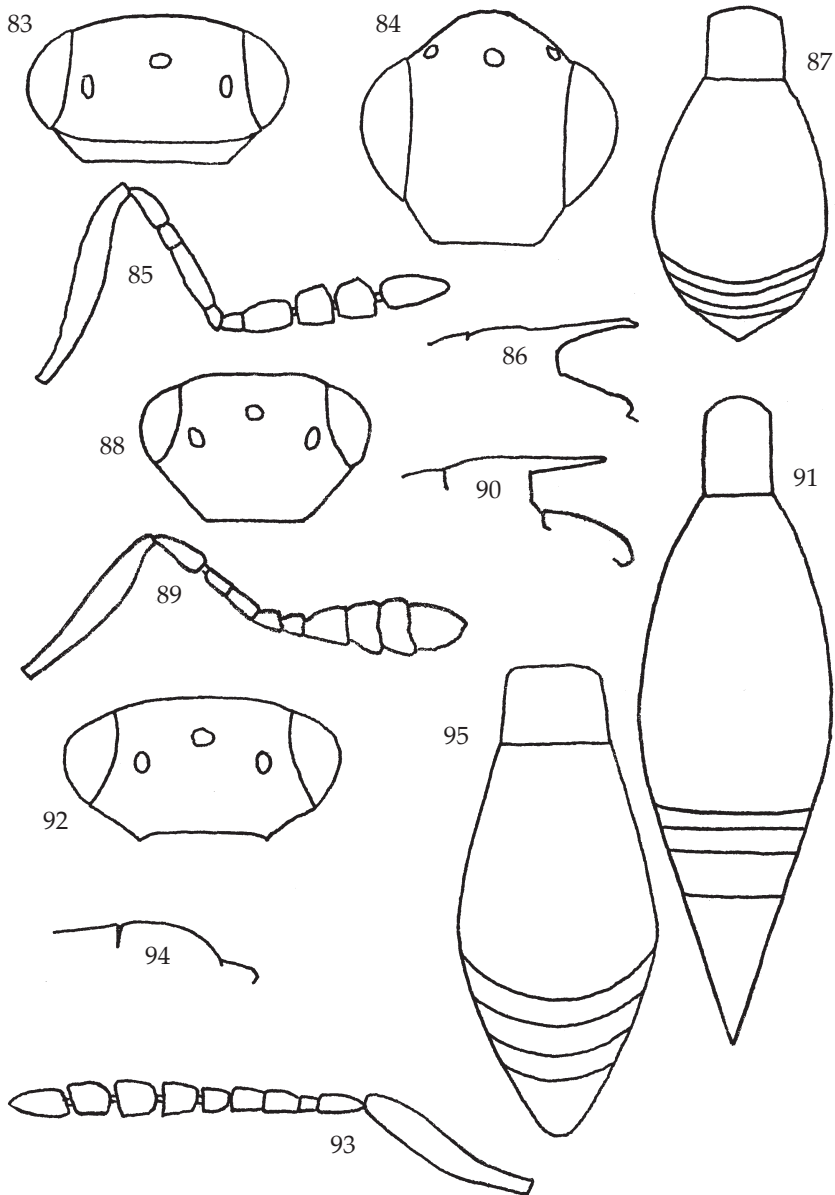
Metasoma (fig. 87) as long as mesosoma, hardly 0.9 times as wide as this. T1 with two longitudinal carinae, laterally with moderately dense setae. T2 with two small, slightly pubescent basal foveae, T2-T5 along hind margin with reticulate microsculpture, T6 with such sculpture all over; apical tergites virtually bare.

Discussion.— Differs from the rather similar *L. pilosella* spec. nov. e.g. in having bare eyes and a shorter flagellum and metasoma.

Etymology.— The name directs the attention to the unusually raised hyperoccipital carina.

Leptacis yasirae spec. nov.
(figs 88-91)

Material.— Holotype, ♀, "Indonesia, S Halmahera, 20 km S Payahe, Sagutora, 125 m, 18.ii.-18.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir". Paratype: 1 ♀ same data but from another Malaise trap placed at 115 m.



Figs 83-87. *Leptacis vertexialis* spec. nov., female – 83, head in dorsal view; 84, head in frontal view; 85, antenna; 86, scutellum in lateral view; 87, metasoma in dorsal view. Figs 88-91. *Leptacis yasirae* spec. nov., female – 88, head in dorsal view; 89, antenna; 90, scutellum in lateral view; 91, metasoma in dorsal view. Figs 92-95. *Platygaster achterbergi* spec. nov., female – 92, head in dorsal view; 93, antenna; 94, scutellum in lateral view; 95, metasoma in dorsal view.

Diagnosis. — Hyperoccipital carina and notauli absent; forewing strongly infuscated and with fine and dense microtrichia all over; female metasoma 3.3 times as long as wide; T6 1.5 times as long as wide, twice as long as T4-T5 combined.

Description. — ♀. Length 1.4-1.5 mm. More or less light brownish, T2-T6 darkest; A1 and legs more yellowish.

Head from above (fig. 88) 1.5 times as wide as long, hardly wider than mesosoma, uniformly finely and weakly reticulate; occiput smoothly rounded, without hyperoccipital carina. OOL slightly shorter than diameter of lateral ocellus; OOL:LOL = 2:5. Head in frontal view 1.2 times as wide as high. Antenna (fig. 89) with A1 as long as height of head.

Mesosoma 1.75 times as long as wide, 1.2 times as high as wide. Sides of pronotum faintly reticulate, in about lower half and behind smooth. Mesoscutum faintly and rather uniformly reticulate, moderately setose, along middle and on mid part of lateral lobes almost bare; notauli absent; hind margin straight, with some inconspicuous setae above scuto-scutellar grooves. Mesopleuron smooth. Scutellum (fig. 90) sculptured as mesoscutum, densely setose, with a slender spine, below this with a very narrow vertical lamella and some long setae. Metapleuron smooth and bare, with whitish pubescence along hind margin. Propodeal carinae high, long, straight and fused.

Forewing 0.8 times as long as body, 3.0 times as long as wide, strongly infuscated and with fine and dense microtrichia all over; marginal cilia 0.3 times width of wing. Hindwing 11.6 times as long as wide; marginal cilia 1.2 times width of wing.

Metasoma (fig. 91) 1.3 times as long as head and mesosoma combined, slightly narrower than mesosoma. T1 swollen in anterior half, behind almost smooth, with three longitudinal carinae only indicated. T2 with two small, bare basal foveae, rest of tergite as well as following tergites smooth and virtually bare.

Discussion. — In general body shape similar to *L. microtrichiata* Buhl, 2002, from Malaysia (Borneo), but *L. yasirae* lacks the long, erect setae on top of the head characteristic for *L. microtrichiata*, it has longer basal flagellar segments than *L. microtrichiata*, a more slender scutellar spine, and with less strong microtrichia on forewings, cf. Buhl (2002a).

Etymology. — Named after one of the collectors, Miss Ida Yasir (Makassar).

Genus *Platygaster* Latreille, 1809

More than 500 species described worldwide, only about 23 hitherto described from the Oriental region.

Key to Oriental species of the genus *Platygaster* (females)

1. Body length more than 4 mm; metasoma much longer than head and mesosoma combined *P. stylatus* Huggert, 1980
- Body distinctly smaller and metasoma much shorter than head and mesosoma combined 2
2. Head with a strong process between antennae; A4 of male much thickened
..... *P. (Eritrissomerus) inderdaadi* Vlug, 1995
- Only a tiny tooth between antennae; A4 of male moderately widened (or male unknown) 3

3. Body length only 0.6 mm *P. salvadorae* Rao, 1950
 - Body length at least around 0.8 mm 4
4. Marginal cilia of forewing unusually long; antennae and legs yellow; A7-A10 forming strong clava; notauli absent *P. oryzae* Cameron, 1891
 - Marginal cilia of forewing at most 0.2 times width of wing, and then antennae and legs brown, and A7-A10 not forming a strong clava, or notauli present 5
5. Notauli absent 6
 - Notauli at least faintly indicated 11
6. Head finely reticulate 7
 - Head smooth or striated posteriorly 8
7. Body black *P. malabaricus* (Mukerjee, 1978)
 - Body yellowish brown *P. galbus* Ushakumari, 2004
8. Body length 1.8 mm; head smooth *P. tibialis* Kieffer, 1905
 - Body length hardly 1 mm; head striated posteriorly 9
9. Head 1.5 times as wide as long *P. ramachandrai* (Rao, 1950)
 - Head at least 1.9 times as wide as long 10
10. A9 transverse; scutellum evenly convex *P. crassiclava* spec. nov.
 - A9 as long as wide; scutellum cut off posteriorly *P. vriesi* spec. nov.
11. Head, mesosoma and metasoma smooth 12
 - Head, mesosoma and metasoma with at least some sculpture 13
12. Preapical antennal segments each longer than wide *P. panchanii* Mani, 1975
 - Preapical antennal segments each wider than long *P. minimus* (Mukerjee, 1978)
13. T2-T5 extensively striated *P. striatitergitis* Buhl, 1995
 - T3-T5 not striated 14
14. Occiput longitudinally striated posteriorly *P. lubomasneri* Buhl, 1995
 - Occipital sculpture transverse or irregular 15
15. Occiput transversely striated 16
 - Occiput reticulate, wrinkled, coriaceous or smooth 20
16. Body length at least 1.4 mm 17
 - Body length at most 1 mm 18
17. T2 basally with a distinct longitudinal fovea on each side and a shallower median one *P. foersteri* (Gahan, 1919)
 - T2 striated in less than basal third *P. sasih* Ushakumari, 2004
18. T2 striated in basal third *P. satara* Mani, 1975
 - T2 smooth 19
19. Antennae and legs yellowish brown *P. imlaci* Buhl, 1997
 - Antennae and legs black *P. keralicus* Ushakumari, 2004
20. T2 striated basally 21
 - T2 smooth 24
21. Coxae dark brown 22
 - Coxae pale 23
22. Marginal cilia of forewings 0.2 times width of wing *P. srilankensis* Buhl, 2003
 - Marginal cilia of forewings much shorter *P. narendrani* Ushakumari, 2004
23. Forewings with sparse microtrichia; T4-T5 each with 14-18 hair-implantations
 *P. sparsipilosa* spec. nov.
 - Forewings with dense microtrichia; T4-T5 each with about 10 hair-implantations ...
 *P. luteipes* spec. nov.

24. Body length about 1.7 mm; head transversely rugulose ... *P. indicus* Mukerjee, 1978
 - Body length at most 1.1 mm; head less sculptured 25
25. Legs light brownish yellow *P. achterbergi* spec. nov.
 - Legs dark 26
26. Scutellum convex 27
 - Scutellum flat 28
27. A4 hardly longer than wide *P. baliensis* spec. nov.
 - A4 distinctly longer than wide *P. nigrocoxatus* Ushakumari, 2004
28. Head from above 2.2 x as wide as long; A5 distinctly longer than wide
 *P. tanus* Ushakumari, 2004
 - Head from above 2.5 x as wide as long; A5 hardly longer than wide
 *P. zantanus* Ushakumari, 2004

Platygaster achterbergi spec. nov.
(figs 92-95)

Material.— Holotype, ♀ “Indonesia, SW Sulawesi, Gn. Bulusaraung, near Camba Malawa, 750 m, 7. ii.-28.iii.1995, Malaise trap, C. v. Achterberg & Y. Yasir”.

Diagnosis.— Body black, legs yellow; head almost smooth with hyperoccipital carina; notauli nearly complete; T2 without striation.

Description.— ♀. Length 1.1 mm. Shiny black; A1-A6 and legs including coxae light brownish yellow, rest of antenna brown.

Head from above (fig. 92) 1.9 times as wide as long, 1.1 times as wide as mesosoma; occiput smooth except for at few faint irregular wrinkles, with a weak but distinct hyperoccipital carina; vertex almost smooth, with some spots of reticulation; frons smooth. OOL 1.2 times as long as diameter of lateral ocellus; OOL:LOL = 2:3. Head in frontal view 1.2 times as wide as high. Antenna (fig. 93) with A1 0.8 times as long as height of head.

Mesosoma 1.4 times as long as wide, very slightly higher than wide. Sides of pronotum slightly reticulate-coriaceous at anterior margin, rest smooth. Mesoscutum with some scattered setae, smooth except for weak rugosity at anterior ends of notauli, these strong, anteriorly ending just before reaching margin of disc; mid lobe posteriorly slightly prolonged to base of scutellum, blunt; scuto-scutellar grooves moderately wide, with dense setae. Mesopleuron smooth. Scutellum (fig. 94) evenly rounded, at level of mesoscutum, smooth but rather densely setose. Metapleuron completely pilose. Propodeal carinae widely separated, parallel, transverse area between them smooth and shiny.

Forewing 0.75 times as long as body, 2.3 times as long as wide, clear, with fine and dense microtrichia; marginal cilia hardly 0.1 times width of wing. Hindwing 6.3 times as long as wide, with two hamuli; marginal cilia hardly 0.4 times width of wing.

Metasoma (fig. 95) as long as head and mesosoma combined, 0.8 times as wide as mesosoma. T1 with two strong longitudinal carinae. T2 with rather deep and narrow basal foveae, without striation. T3-T5 each with a broad hind margin with dense micropunctuation, T6 with such sculpture all over; T3-T5 each with a couple of superficially implanted setae on each side, T6 with a transverse row of four such setae.

Discussion.— Similar to the Palaearctic *P. oscus* Walker, 1835 and related species with smooth T2, but differs from these species in having smooth head with hyperoccipital carina.

Etymology.— Named after one of the collectors.

Platygaster baliensis spec. nov.
(figs 96-99)

Material.— Holotype, ♀, “Indonesia, W. Bali, near Negara, rainforest above Batuangung, 575 m, 4-13.xii.1991, Malaise trap, C. v. Achterberg”.

Diagnosis.— Body black, legs mostly dark brown; head almost smooth with hyperoccipital carina; notauli nearly complete; T2 without striation.

Description.— ♀. Length 0.95 mm. Black, antennae and legs dark brown, tibiae and tarsi lighter, medium brown.

Head from above (fig. 96) 2.0 times as wide as long, 1.2 times as wide as mesosoma; occiput smooth except for a few spots of microsculpture, with a fine but distinct and complete hyperoccipital carina; vertex and frons smooth. OOL 1.2 times as long as longer diameter of lateral ocellus; OOL:LOL = 4:5. Head in frontal view 1.3 times as wide as high. Antenna (fig. 97) with A1 as long as distance between inner orbits.

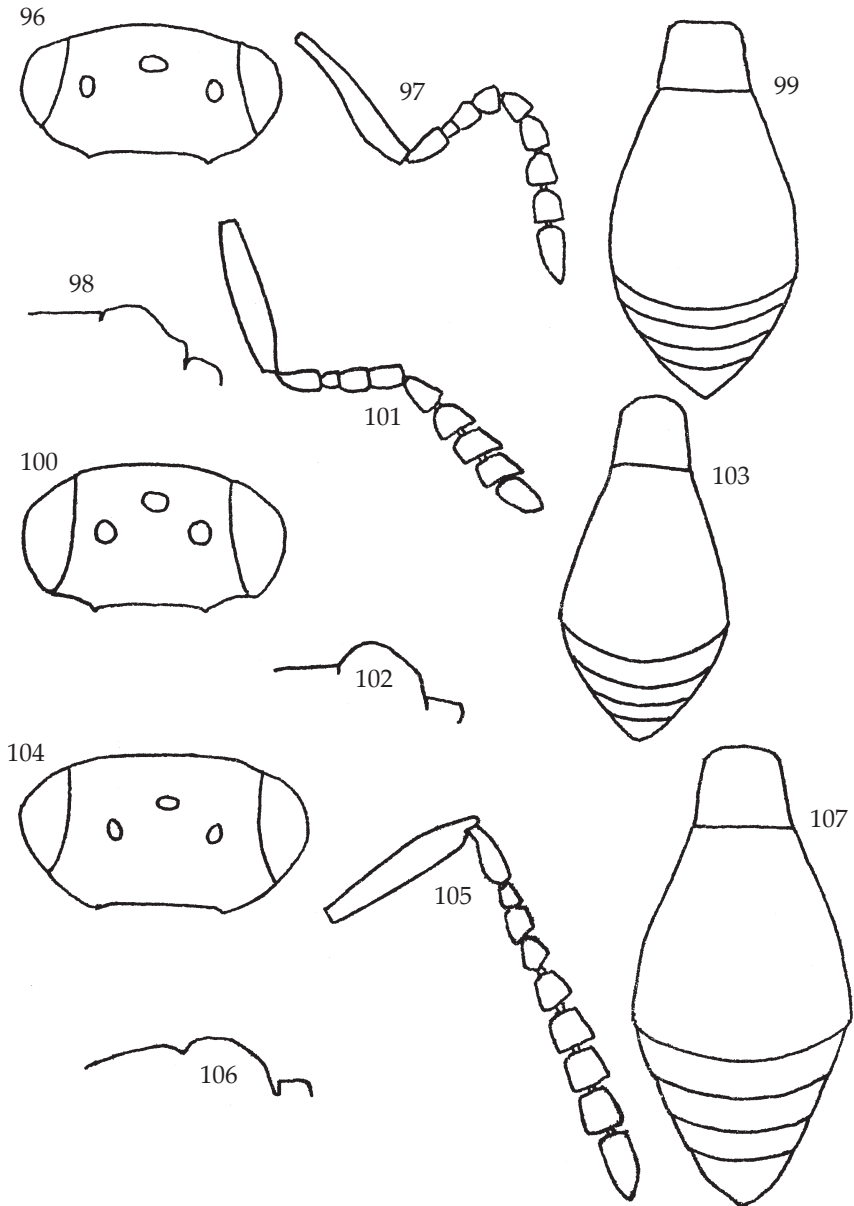
Mesosoma hardly 1.4 times as long as wide, very slightly higher than wide. Sides of pronotum smooth, with scattered long setae. Mesoscutum with sparse, long setae laterally and along notauli, smooth except for slight rugosity at anterior ends of notauli, these deep and anteriorly ending just before reaching margin of disc; mid lobe prolonged to base of scutellum, somewhat blunt posteriorly; scuto-scutellar grooves each with about four long setae. Mesopleuron smooth. Scutellum (fig. 98) hardly above level of mesoscutum, evenly rounded, smooth, moderately setose. Metapleuron completely pilose. Propodeal carinae widely separated, parallel, area between them smooth and shiny.

Forewing about 0.85 times as long as body, 2.3 times as long as wide, with weak brownish tint, microtrichia rather long and dense; marginal cilia distinctly less than 0.1 times width of wing. Hindwing 6.3 times as long as wide, with two hamuli; marginal cilia one-third the width of wing.

Metasoma (fig. 99) 0.9 times as long as head and mesosoma combined, 0.9 times as wide as mesosoma. T1 smooth, with two strong longitudinal carinae; T2 with two smooth, narrow and deep basal foveae, rest of tergite smooth except for fine micropunctuation along hind margin; T3-T5 with such micropunctuation over most of surface; T6 smooth in apical half; T3-T6 each with about two superficially implanted setae on each side.

Discussion.— Similar to *P. achterbergi* spec. nov. in most characters, but differs from this species in having darker wings, less pointed metasoma and distinctly darker body appendages, cf. also above. Apart from the character mentioned in the key, *P. nigrocoxatus* Ushakumari, 2004 differs from *P. baliensis* in having frons finely reticulate, cf. Ushakumari (2004).

Etymology.— Named after the island with the type locality.



Figs 96-99. *Platygaster baliensis* spec. nov., female – 96, head in dorsal view; 97, antenna; 98, scutellum in lateral view; 99, metasoma in dorsal view. Figs 100-103. *Platygaster crassiclava* spec. nov., female – 100, head in dorsal view; 101, antenna; 102, scutellum in lateral view; 103, metasoma in dorsal view. Figs 104-107. *Platygaster luteipes* spec. nov., female – 104, head in dorsal view; 105, antenna; 106, scutellum in lateral view; 107, metasoma in dorsal view.

Platygaster crassiclava spec. nov.
(figs 100-103)

Material.— Holotype, ♀, "Indonesia, Sula Isl., Mangole, near Buya, 495 m, 12.x.-2.xi.1993, Malaise trap, C. v. Achterberg".

Diagnosis.— Head twice as wide as long, posteriorly partly weakly transversely coriaceous or very finely striated; notauli absent; female A8-A9 transverse.

Description.— ♀. Length 0.95 mm. Black, A1-A2 and legs light brownish; A3-A10, mandibles, tegula and hind coxa dark brown.

Head from above (fig. 100) 2.0 times as wide as long, 1.25 times as wide as mesosoma; occiput weakly transversely coriaceous or very finely striated, in posterior half almost smooth, anteriorly with a margin faintly indicated among the transverse sculpture; vertex almost smooth, with faint transverse microsculpture between ocelli, laterally reticulate; frons smooth, with faint fan-like sculpture just above antennal insertions. OOL:LOL = 4:5. Head in frontal view 1.25 times as wide as high. Antenna (fig. 101) with A1 0.8 times as long as height of head; A9 fully 1.5 times as wide as long.

Mesosoma hardly 1.4 times as long as wide, almost 1.2 times as high as wide. Sides of pronotum with faint reticulation in anterior corner, rest smooth. Mesoscutum almost smooth, faintly reticulate, antero-laterally with slight rugosity, with sparse setae; notauli absent; mid lobe distinctly and bluntly prolonged to base of scutellum; scuto-scutellar grooves wide, above and in front of them with numerous long, brownish setae. Mesopleuron smooth. Scutellum (fig. 102) medially smooth and rather bare, towards sides with fine rugosity and denser setosity. Metapleuron completely pilose. Propodeal carinae widely separated, parallel, slightly transverse area between them smooth and shiny.

Forewing with brownish tint, 0.8 times as long as body, 2.3 times as long as wide, with dense and rather fine microtrichia; marginal cilia hardly 0.1 times width of wing. Hindwing 5.4 times as long as wide, with two hamuli; marginal cilia 0.4 times width of wing.

Metasoma (fig. 103) slightly more than 0.8 times as long as head and mesosoma combined, 1.2 times as long as mesosoma, hardly 0.9 times as wide as this. T1 finely crenulated. T2 striated in basal foveae to about half of length, medially smooth. T3-T6 smooth, T3 with 3, T4-T5 each with 4 rather superficially implanted setae on each side, T6 with at total of six such setae.

Discussion.— Apart from having very stout antennae, this species differs from *P. achterbergi* spec. nov. and *P. baliensis* spec. nov. e.g. in having a striated T2, and from *P. luteipes* spec. nov. e.g. in the sculpture of the head, cf. the descriptions of these species.

Etymology.— The name refers to the thick apical antennal segments.

Platygaster luteipes spec. nov.
(figs 104-107)

Material.— Holotype, ♀, "Indonesia, SW Sulawesi, Gn. Bulusaraung, near Camba Malawa, 750 m, 7.ii.-28.iii.1995, Malaise trap, C. v. Achterberg & Y. Yasir".

Diagnosis.— Legs pale yellowish; head evenly rounded, finely and densely transversely coriaceous behind; notauli faintly indicated posteriorly; forewings with dense microtrichia; T2 weakly striated in basal foveae to hardly half of length, medially with a few striae half as long; T4-T5 each with about 10 seta-implantations.

Description.— ♀. Length 1.2 mm. Black, A1-A3 and legs including coxae pale brownish yellow, A4-A10 light brownish, mandibles and tegula dark brown.

Head from above (fig. 104) 1.9 times as wide as long, fully 1.2 times as wide as mesosoma; occiput finely and densely transversely coriaceous, evenly rounded; vertex finely reticulate, between ocelli much transversely so; frons weakly and distinctly transversely reticulate-coriaceous. OOL and LOL equal. Head in frontal view 1.3 times as wide as high. Antenna (fig. 105) with A1 0.8 times as long as height of head, A9 hardly longer than wide.

Mesosoma 1.5 times as long as wide, fully 1.1 times as high as wide. Sides of pronotum somewhat longitudinally reticulate-coriaceous, smooth along rather narrow upper and hind margins. Mesoscutum finely and almost uniformly reticulate-coriaceous, laterally with sparse setae, medially bare; notauli very faintly indicated posteriorly; mid lobe slightly bluntly prolonged to base of scutellum; scuto-scutellar grooves rather wide, with numerous long setae. Mesopleuron smooth. Scutellum (fig. 106) smooth and almost bare medially, towards sides denser setose and finely coriaceous. Metapleuron completely pilose. Propodeal carinae widely separated, parallel, slightly transverse area between them smooth and shiny.

Forewing 2.4 times as long as wide, 0.75 times as long as body, clear, with dense and moderately long microtrichia; marginal cilia about 0.1 times width of wing. Hindwing 5.6 times as long as wide, with two hamuli; marginal cilia hardly 0.4 times width of wing.

Metasoma (fig. 107) hardly as long as head and mesosoma combined, one and a third times as long as mesosoma, fully as wide as this. T1 evenly crenulated. T2 weakly striated in basal foveae to hardly half of length, medially with a few striae half as long, rest of tergites as well as following tergites smooth, only T6 with a transverse stripe of fine rugosity basally; T3 with a couple of superficially implanted setae on each side; T4-T5 each with about 5 moderately deeply implanted setae on each side; T6 with 8 superficially implanted setae.

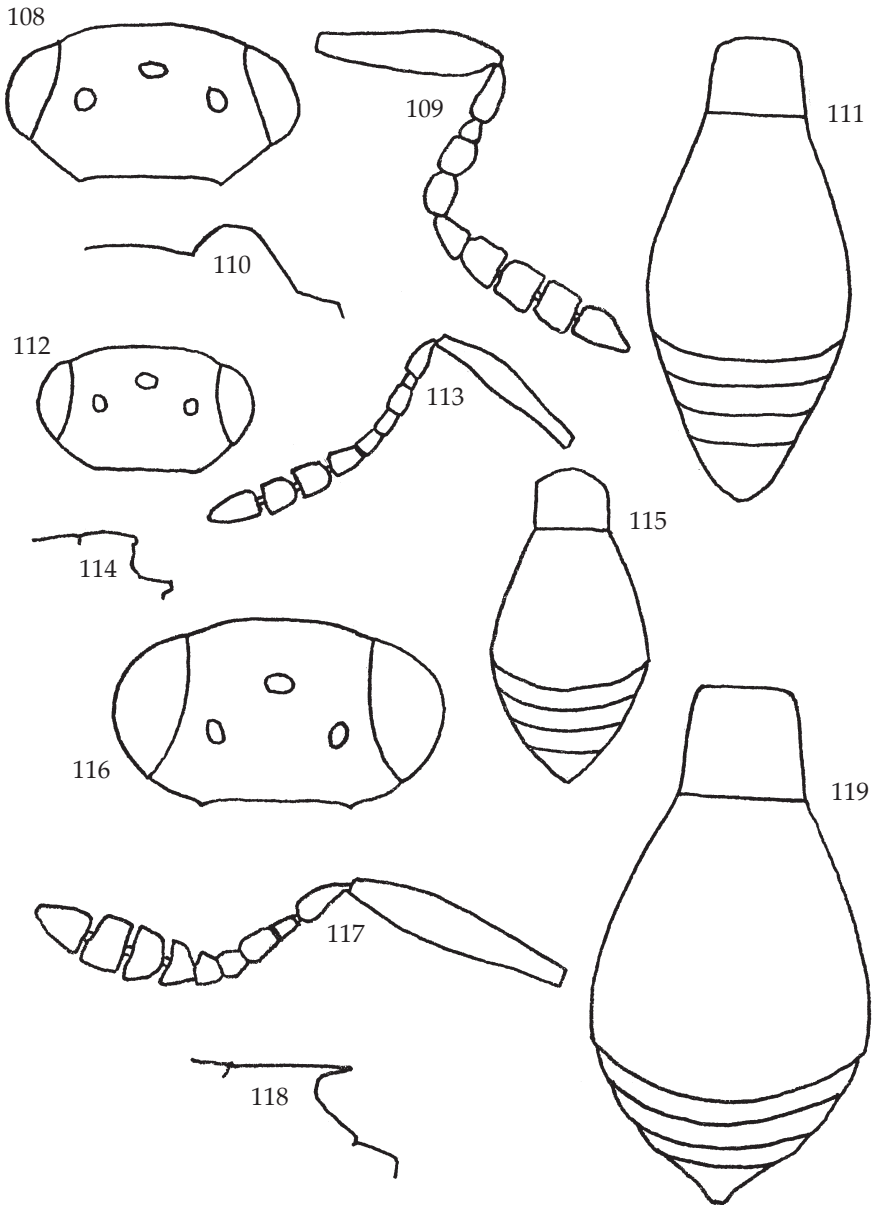
Discussion.— Differs from the somewhat similar *P. achterbergi* spec. nov., *P. baliensis* spec. nov. and *P. sparsipilosa* spec. nov. e.g. in having a smoothly rounded occiput without a hyperoccipital carina, cf. the descriptions of these species.

Etymology.— The name refers to the yellowish legs.

Platygaster sparsipilosa spec. nov.
(figs 108-111)

Material.— Holotype, ♀, "Indonesia, Sulawesi, near Bantaeng, Borong Rappoa, Gn Daulu, 700 m, 4-24. iv.1991, Malaise trap, C. v. Achterberg".

Diagnosis.— Head distinctly margined in front of an almost smooth occiput; notauli nearly complete; forewing with sparse and rather long microtrichia in apical 0.5; T2 striated in basal foveae to almost 0.5; T3-T6 with deeply implanted setae.



Figs 108-111. *Platygaster sparsipilosa* spec. nov., female – 108, head in dorsal view; 109, antenna; 110, scutellum in lateral view; 111, metasoma in dorsal view. Figs 112-115. *Platygaster vriesi* spec. nov., female – 112, head in dorsal view; 113, antenna; 114, scutellum in lateral view; 115, metasoma in dorsal view. Figs 116-119. *Prosynopeas indonesianus* spec. nov., female – 116, head in dorsal view; 117, antenna; 118, scutellum in lateral view; 119, metasoma in dorsal view.

Description.— ♀. Length 1.2 mm. Black, A1 and legs including coxae light brownish yellow; A2-A10, tegula and last segment of tarsi dark brown.

Head from above (fig. 108) about twice as wide as long, 1.1 times as wide as mesosoma; occiput smooth, with only a few faint wrinkles, distinctly margined in front; vertex finely transversely coriaceous, frons smooth. OOL 1.25 times as long as longer diameter of lateral ocellus; OOL:LOL = 5:6. Antenna (fig. 109).

Mesosoma 1.3 times as long as wide, 1.1 times as high as wide. Sides of pronotum with fine longitudinal microsculpture, in upper half smooth in posterior half, in lower half with smooth hind margin less wide. Mesoscutum sparsely setose, finely reticulate-coriaceous, anteriorly with distinct admedian lines; notauli almost complete, posteriorly meeting in a fine point prolonged to base of scutellum; scuto-scutellar grooves wide, with numerous setae. Mesopleuron smooth. Scutellum (fig. 110) smooth, moderately setose. Metapleuron completely pilose. Propodeal carinae widely separated, somewhat diverging, slightly transverse area between them smooth and shiny.

Forewing 0.75 times as long as body, 2.3 times as long as wide, almost clear, with sparse and rather long microtrichia in apical 0.5; marginal cilia very short. Hindwing 5.4 times as long as wide, with two hamuli; marginal cilia 0.3 times width of wing.

Metasoma (fig. 111) 0.9 times as long as head and mesosoma combined, 0.8 times as wide as mesosoma. T1 strongly and evenly crenulated. T2 striated in basal foveae to almost half of length, rest smooth. T3 smooth with a medially interrupted transverse row of deeply implanted setae; T4-T5 each with a complete such row (dense, 14-18 punctures in each) and with traces of microsculpture; T6 with weak longitudinal microsculpture and with a couple of deeply implanted setae along each side and a transverse row of four, less deeply implanted setae.

Discussion.— A distinct species on account of sparse microtrichia of wings and dense rows of deep punctures on preapical tergites.

Etymology.— The name refers to the sparse setae on disc of wings.

Platygaster vriesi spec. nov.
(figs 112-115)

Material.— Holotype, ♀, "Indonesia, S Halmahera between Payahe and Gita Woda, 25 m, 17.ii.-17.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir".

Diagnosis.— Occiput finely and densely transversely striated; notauli absent; scutellum in dorsal view somewhat triangular, in lateral view cut off posteriorly.

Description.— ♀. Length 0.8 mm. Shiny blackish, A1-A3 and legs light brownish yellow, A4-A10 and tegula dark brown; propodeum and T1 reddish brown.

Head from above (fig. 112) 1.9 times as wide as long, almost 1.3 times as wide as mesosoma; occiput rounded, finely and densely transversely striated; vertex almost smooth; frons smooth except for very fine transverse microsculpture in lower third. OOL:LOL = 3:4. Head in frontal view 1.25 times as wide as high. Antenna (fig. 113) with A1 0.9 times as long as height of head, A9 as wide as long.

Mesosoma 1.5 times as long as wide, 1.1 times as high as wide. Sides of pronotum with faint reticulation in upper anterior corner, rest smooth. Mesoscutum with a few scattered setae, in anterior half with some faint reticulation, in posterior half smooth,

without notauli; hind margin medially with a distinct prolongation to base of scutellum; scuto-scutellar grooves wide and with dense setae. Mesopleuron smooth. Scutellum (fig. 114) at level of mesoscutum, smooth, rather densely setose, in dorsal view somewhat triangular, in lateral view cut off posteriorly. Metapleuron completely pilose. Propodeal carinae slightly diverging, area between them about as long as wide, smooth.

Forewing 2.6 times as long as wide, 0.8 times as long as body, almost clear, with moderately fine and dense microtrichia; marginal cilia slightly more than 0.1 times width of wing. Hindwing 6.6 times as long as wide, with two hamuli; marginal cilia 0.4 times width of wing.

Metasoma (fig. 115) 0.9 times as long as head and mesosoma combined, as wide as mesosoma. T1 weakly crenulated and with two slightly stronger longitudinal carinae. T2 striated in narrow basal foveae to 0.4 of length, rest of tergite as well as following tergites smooth; apical tergites each with a few superficially implanted setae.

Discussion. — Characterised by shape of scutellum. Approaches the scutellar shape of Palearctic *P. leptines* Walker, 1835, but not quite as pointed. On the other hand, more pointed than scutellum of the also rather similar Palearctic species *P. nisus* Walker, 1835. Cf. Vlug (1985).

Etymology. — Named after one of the collectors.

Genus *Prosynopeas* Kieffer, 1916

Hitherto only 3 Palearctic species have been referred to this genus, but some species currently placed in *Platygaster* should perhaps be transferred to *Prosynopeas*, cf. e.g. Vlug (1985, 1995).

Prosynopeas indonesianus spec. nov. (figs 116-119, 178-180)

Material. — Holotype, ♀, "Indonesia, Sula Isl., Mangole, near Buya, 450 m, 13.x.-2.xi.1993, Malaise trap, C. v. Achterberg". Paratypes: 1 ♀, same locality as holotype but 500 m, 2-22.iii.1995, Malaise trap, C. v. Achterberg & Y. Yasir; 1 ♀, "Indonesia, S Halmahera, 20 km S Payahe, Sagutora, 115 m, 18.ii.-18.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir"; 1 ♀, "Indonesia, Lombok, Gn Rinjani N.P., 1740 m, 13-26.iii.1991, Malaise trap, C. v. Achterberg".

Diagnosis. — Head almost smooth, with hyperoccipital carina; female A7-A9 strongly transverse; notauli complete; scutellum with a thin spine; T2 with two short, setose, smooth basal foveae.

Description. — ♀. Length 1.0-1.4 mm. Black, A1-A6 and legs light brownish yellow, A7-A10 and tegula dark brown.

Head from above (figs 116 and 178) 2.0 times as wide as long, slightly more than 1.1 times as wide as mesosoma; occiput with a distinct but low hyperoccipital carina, smooth and shiny, laterally behind eyes setose and dull; vertex and frons smooth except for a few wrinkles just above antennal insertions. OOL:LOL = 3:8. Head in frontal view 1.3 times as wide as high. Antenna (figs 117 and 179) with A1 1.2 times as long as distance between inner orbits.

Mesosoma (fig. 180) 1.5 times as long as wide, 1.1 times as high as wide. Sides of

pronotum smooth, with long sparse setae antero-medially. Mesoscutum smooth, sometimes with a spot of rugosity medially in front of hind margin, sparsely setose; notauli complete, meeting in a fine point just behind hind margin of disc; scuto-scutellar grooves narrow, rather densely setose (each with about 10 long setae). Mesopleuron smooth. Scutellum (fig. 118) slightly rugose, with dense setae, posteriorly with a thin spine without lamella below. Metapleuron completely pilose. Propodeal carinae dark, parallel, well separated, area between them slightly longer than wide, smooth and shiny.

Forewing 2.3 times as long as wide, 0.8 times as long as body, with faint yellowish tint and rather long and dense microtrichia; marginal cilia about 0.1 times width of wing. Hind wing 6.3 times as long as wide, with two hamuli; marginal cilia 0.3 times width of wing. Tibial spur formula 1-2-2.

Metasoma (figs 119 and 180) hardly 0.9 times as long as head and mesosoma combined, 1.2 times as long as mesosoma, as wide as this, and 1.7 times as wide as high. T1 shiny, with two strong longitudinal keels, with sparse long setae along sides. T2 with two short, deep, smooth but setose basal foveae, rest of tergite as well as following tergites smooth except for reticulate microsculpture along hind margins, T6 with such sculpture all over; apical tergites with superficially implanted setae which form a transverse row on T5 and T6.

Discussion.— The smallest paratype has the hyperoccipital carina obliterated, another paratype has the body colour generally blackish brown and the metasoma dark brown.

An aberrant species on account of combination of hyperoccipital carina (as in *Gastrotrypes*), shape of antenna (approaching some *Synopeas*), mesoscutum and T1 as in typical *Platygaster*, scutellar spine a mixture of *Gastrotrypes* and *Leptacis*, T2 with unusual basal foveae but most similar to some *Leptacis*. Could represent a new genus, but tentatively placed in the poorly characterised genus *Prosynopeas* Kieffer, defined by Kieffer from species formerly placed in *Synopeas* without densely setose T1-T2. *P. indonesianus* differs from the known (Palearctic) species of *Prosynopeas* e.g. in having complete notauli. Cf. Kieffer (1926).

Etymology.— Named after the country of origin of the types.

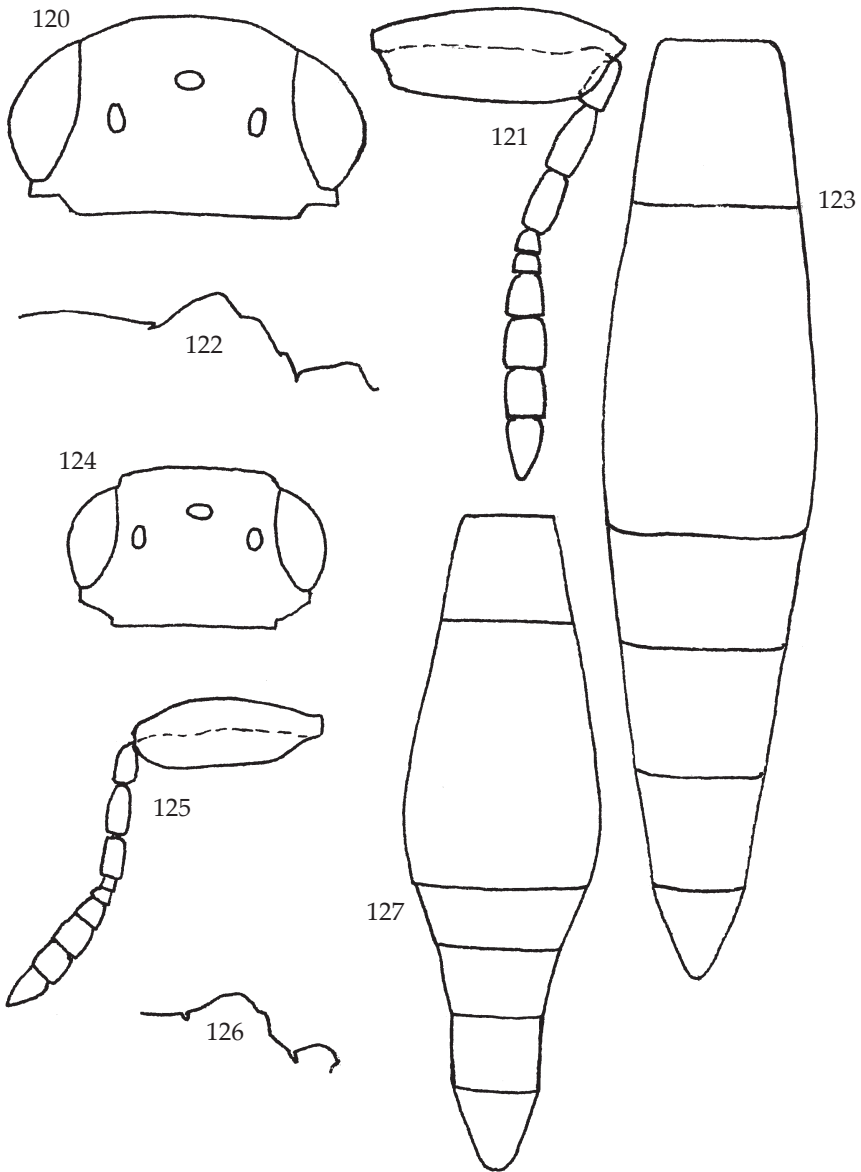
Genus *Sacespalus* Kieffer, 1917

Four species described worldwide, two of them are Oriental. The genus is most diverse in this region with numerous undescribed species, cf. Masner & Huggert (1989: 113).

Sacespalus manii spec. nov. (figs 120-123)

Material.— Holotype, ♀, "Indonesia, N Sulawesi, Gn. Ambang N.R., 1400 m hilltop, 3-8.xi.1985, Malaise trap, C. v. Achterberg".

Diagnosis.— Legs except hind coxa yellowish brown; head with coarse cell-shaped sculpture on background of reticulation; OOL 0.7 times ocellar diameter; metasoma 1.3 times as long as head and mesosoma combined, 0.6 times as wide as mesosoma.



Figs 120-123. *Sacespalus manii* spec. nov., female – 120, head in dorsal view; 121, antenna; 122, scutellum in lateral view; 123, metasoma in dorsal view. Figs 124-127. *Sacespalus rufiscapus* spec. nov., female – 124, head in dorsal view; 125, antenna; 126, scutellum in lateral view; 127, metasoma in dorsal view.

Description. — ♀. Length 2.0 mm. Black, legs bright yellowish brown, only hind coxa dark; A1-A6 light reddish brown, A7-A10 dark brown.

Head from above (fig. 120) 1.8 times as wide as long, 0.9 times as wide as mesosoma, reticulate-coriaceous, without hyperoccipital carina; occiput with about ten lon-

gitudinal carinae reaching irregular transverse carinae on vertex, these carinae and carinae on frons also with transverse elements so that this very coarse sculpture forms large, irregular cells on background of reticulation; frons without depression. Lateral ocellus about 1.4 times as long as OOL. Head in frontal view hardly 1.2 times as wide as high. Antenna (fig. 121) with A1 0.85 times as long as height of head.

Mesosoma 1.25 times as long as wide, 1.1 times as wide as high. Sides of pronotum reticulate-coriaceous, in upper and posterior half with coarse, large cells as on head. Mesoscutum bare, finely reticulate-coriaceous; notauli shallow but complete, hardly differently sculptured than rest of disc, posteriorly separated by a distance about half as long as width of one of them; mid lobe posteriorly hardly prolonged; scuto-scutellar groove distinct and bare. Mesopleuron dull, with fine microsculpture. Scutellum (fig. 122) dull, almost bare, with a complete median carina and weak indication of some short, transverse carinae from median carina. Metapleuron with fine and short pilosity all over. Propodeal carinae parallel, dark, widely separated; area between them almost smooth, with a couple of fine, transverse carinae.

Forewing 2.3 times as long as wide, with yellowish tint, reaching middle of T6, without microtrichia and marginal cilia. Hindwing 5.6 times as long as wide; marginal cilia hardly 0.4 times width of wing.

Metasoma (fig. 123) 1.3 times as long as head and mesosoma combined, 0.6 times as wide as mesosoma. T1 medially with four strong, complete longitudinal carinae on a smooth background. T2 strongly striated antero-medially to hardly 0.15 of length, laterally very finely longitudinally striated, smooth in about medial half. T3-T5 with longitudinal furrows and strong and dense punctation, T3 smooth medially; T6 just with fine and dense punctation; apical tergites with very few setae.

Discussion. — Differs from *Sacespalus indicus* Mani, 1975 in length of OOL, from *S. rugosiceps* Kieffer, 1917 and *S. japonicus* Yamagishi, 1982 in sculpture, from *S. rugosiceps* also in shape of A9-A10 and of metasoma, from *S. japonicus* also in having longer propodeum and lighter body appendages. Cf. Kieffer (1926), Mani & Sharma (1982), and Yamagishi (1982).

Etymology. — Named after the expert of oriental platygastriids, M.S. Mani.

Sacespalus rufiscapus spec. nov.
(figs 124-127)

Material. — Holotype, ♀, "Indonesia, Sula Isl., Mangole, near Buya, 490 m, 2-22.iii.1995, Malaise trap, C. v. Achterberg & Y. Yasir".

Diagnosis. — Head roughly reticulate-coriaceous; OOL about 0.5 times ocellar diameter; T2 striated, in medial half smooth; T3-T6 constricted behind T2, with rough, dense punctation.

Description. — ♀. Length 1.4 mm. Black, legs light brown, scape reddish brown; flagellum, tegula and coxae dark brown.

Head from above (fig. 124) 1.8 times as wide as long, hardly as wide as mesosoma, finely but roughly reticulate-coriaceous, occiput behind with indications of longitudinal elements, without hyperoccipital carina; vertex between and behind ocelli with some irregular transverse carinae; frons with a reverse V-shaped shallow groove in

lower half. Lateral ocellus almost twice as long as OOL. Head in frontal view almost 1.3 times as wide as high. Antenna (fig. 125) with A1 fully 0.9 times as long as height of head.

Mesosoma one and a third times as long as wide, slightly wider than high (19:18). Sides of pronotum roughly reticulate-coriaceous in upper half, in lower half with superficial striation (longitudinal in anterior half, transverse in posterior half). Mesoscutum virtually bare, reticulate-coriaceous (smoother than head), with complete, shallow, longitudinally reticulate-coriaceous notauli which are much widened behind, posterior distance between them slightly shorter than width of one of them; mid lobe posteriorly hardly prolonged; scuto-scutellar groove distinct, bare. Mesopleuron dull, finely longitudinally reticulate-coriaceous. Scutellum (fig. 126) dull, finer sculptured than mesoscutum, almost bare, with a median longitudinal carina in posterior half. Metapleuron with short, fine pilosity all over. Propodela carinae dark, low, widely separated, slightly diverging; area between them dull, with a couple of fine transverse carinae.

Forewing clear, 2.3 times as long as wide, reaching middle of T6, without microtrichia and marginal cilia. Hindwing 6.5 times as long as wide; marginal cilia fully 0.4 times width of wing.

Metasoma (fig. 127) 1.3 times as long as head and mesosoma combined, 0.75 times as wide as mesosoma. T1 with about four longitudinal carinae (plus a complete lateral one), smoother postero-medially. T2 antero-medially with distinct striation about 1/9 length of tergite, rest of tergite with fine longitudinal striation, in medial half smooth. T3-T6 with rough, dense punctation, T3 medially smooth, T5 with 7-8 longitudinal furrows; apical tergites with few setae.

Discussion.— Differs from *S. indicus* Mani, 1975 in length of OOL, from *S. manii* spec. nov., *S. rugosiceps* Kieffer, 1917 and *S. japonicus* Yamagishi, 1982 in sculpture and in shape of metasoma, from *S. rugosiceps* also in shape of A9-A10, from *S. japonicus* also in having longer propodeum and lighter body appendages.

Etymology.— The name refers to the reddish brown antennal scape.

Genus *Synopeas* Förster, 1856

About 210 species described worldwide, of which 23 from the Oriental region.

Key to Oriental species of the genus *Synopeas* (females)

1. Sternite 2 ventrally recessed; apical abdominal segments tail-like; (*Sactogaster* Förster, 1856) 2
 - If apical abdominal segments are prolonged, then sternite 2 is only weakly convex 5
2. Fourth abdominal segment in lateral view longer than high 3
 - Fourth abdominal segment in lateral view higher than long 4
3. Body length about 1.8 mm *S. nepalensis* Mukerjee, 1981
 - Body length about 1 mm *S. indicus* Mani, 1975
4. Head 1.5 times as wide as long *S. crassiceps* Buhl, 1997
 - Head at least 1.7 times as wide as long *S. ventricosus* Buhl, 1997

5. Metasoma 3.4 times as long as head and mesosoma combined *S. longulus* spec. nov.
 - Metasoma shorter 6
6. Temples expanded as carinae protruding as flanges over eyes *S. temporale* Austin, 1984
 - Head evenly rounded above eyes 7
7. Scutellum "volcano-like", cone-shaped and excavated dorsally *S. procon* Austin, 1984
 - Scutellum with spine, tooth, lamella, or evenly convex 8
8. Scutellum without tooth or spine, at most with a small lamella 9
 - Scutellum posteriorly with tooth or spine 16
9. Notauli complete *S. bifurcatus* Buhl, 2001
 - Notauli incomplete or absent 10
10. Metasoma not longer than head and mesosoma combined 11
 - Metasoma longer than head and mesosoma comined 13
11. Hyperoccipital carina strong *S. mangiferae* Austin, 1984
 - Hyperoccipital carina very weak or absent 12
12. Metasoma as long as head and mesosoma combined; scutellum with lamella behind *S. praemorsus* spec. nov.
 - Metasoma hardly as long as mesosoma; scutellum without lamella behind *S. quasimodo* spec. nov.
13. Body length 1.9 mm *S. achterbergi* spec. nov.
 - Body length at most about 1 mm 14
14. Coxae and apex of hind femora and tibiae dark *S. luzonicum* (Ashmead, 1905)
 - Legs uniformly yellowish 15
15. Head less than twice as wide as long; T3-T6 combined as long as T2 *S. montanus* Buhl, 1997
 - Head more than twice as wide as long; T3-T6 combined distinctly longer than T2 .. *S. intermedius* (Ushakumari, 2004) comb. nov.
16. Metasoma distinctly lengthened, T5 at least as long as wide 17
 - Metasoma not longer than head and mesosoma combined 22
17. Hyperoccipital carina strong *S. indopeninsularis* Mani, 1975
 - Hyperoccipital carina absent 18
18. A5 longer than A4 *S. atturensis* Mukerjee, 1981
 - A4 longer than A5 19
19. Metasoma smooth *S. bengalensis* Mukerjee, 1978
 - Apical tergites sculptured 20
20. T5 as long as wide; forewing with distinct brownish tint *S. infuscatus* spec. nov.
 - T5 much longer than wide; forewing clear or with faint yellowish tint 21
21. Mesoscutum evenly reticulate-coriaceous; T5 2.7 x as long as wide *S. mukerjeei* Buhl, 1997
 - Mesoscutum finer sculptured in posterior half; T5 5.4 x as long as wide *S. halmaherensis* spec. nov.
22. Hyperoccipital carina complete 23
 - Hyperoccipital carina incomplete or absent 28

23. Marginal cilia of forewing 0.2 times width of wing *S. ciliaris* spec. nov.
 - Marginal cilia of forewing much shorter or absent 24
24. A8-A9 each as long as wide *S. nigricoxa* spec. nov.
 - A8-A9 each wider than long 25
25. Forewing 3.2 times as long as wide *S. pallescens* Buhl, 1997
 - Forewing less than 3 times as long as wide 26
26. Metasoma fully as long as head and mesosoma combined
 *S. balabacensis* Buhl, 1997
 - Metasoma not longer than mesosoma 27
27. Body length 0.8 mm; metasoma 1.2 times as wide as high
 *S. srilankensis* Buhl, 2003
 - Body length 1.1-1.2 mm; metasoma 1.4 times as wide as high ... *S. obesus* Buhl, 2001
28. Notauli absent *S. flavispinus* spec. nov.
 - Notauli at least posteriorly indicated 29
29. Notauli only posteriorly indicated 30
 - Notauli almost complete 31
30. Hyperoccipital carina indicated; A8-A9 each not longer than wide; metasoma 1.2 times as wide as high *S. luteolipes* Buhl, 1997
 - Hyperoccipital carina absent; A8-A9 each longer than wide; metasoma 1.6 times as wide as high *S. palawanensis* Buhl, 1997
31. T6 2 x as long as wide *S. acutiventris* Buhl, 1997
 - T6 as most as long as wide 32
32. Scutellar spine straight; marginal cilia of forewing absent; metasoma 1.2 times as long as mesosoma *S. lombokensis* spec. nov.
 - Scutellar spine downcurved; marginal cilia of forewing 0.1 times width of wing; metasoma hardly as long as mesosoma *S. solidus* Buhl, 2001

Synopeas achterbergi spec. nov.
(figs 128-131)

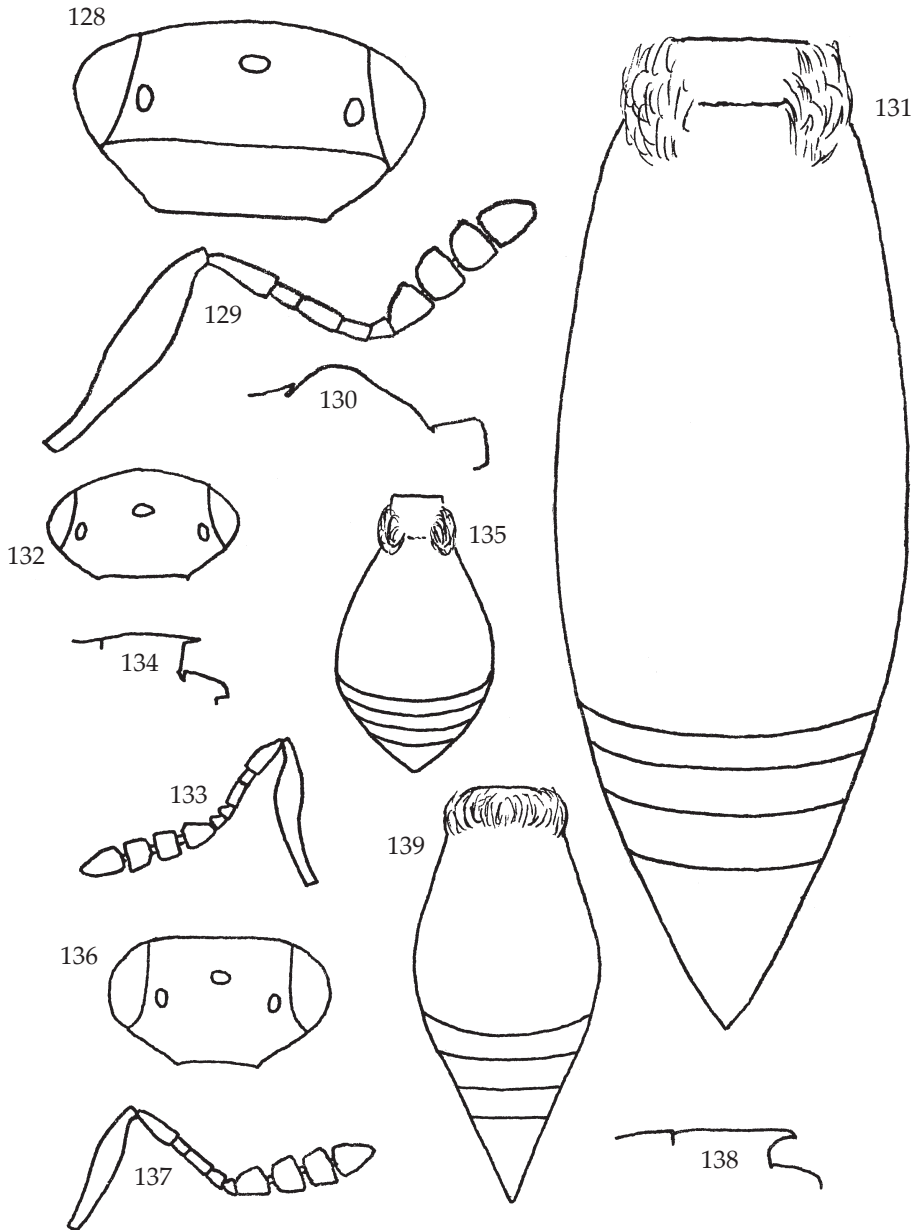
Material. — Holotype, ♀, "Indonesia, S Halmahera, 20 km S Payahe, Sagutora, 115 m, 18.ii.-18.iii. 1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir".

Diagnosis. — Hyperoccipital carina strong and complete; notauli absent; scutellum only with keel; metasoma 1.3 times as long as head and mesosoma combined, 1.2 times as wide as high; T6 slightly transverse, slightly longer than T3-T5 combined.

Description. — ♀. Length 1.9 mm. Black, A1-A2 and legs (except coxae and last segment of tarsi) reddish brown.

Head from above (fig. 128) 2.0 times as wide as long, as wide as mesosoma, finely and rather evenly reticulate-coriaceous; hyperoccipital carina strong and complete; vertex and frons with some fine, scattered punctures, also a line of such punctures along inner orbits. Lateral ocellus very close to eye, short area between them slightly excavated. Head in frontal view only slightly more than 1.1 times as wide as high. Antenna (fig. 129) with A1 1.2 times as long as distance between inner orbits.

Mesosoma 1.4 times as long as wide, hardly 1.1 times as high as wide. Sides of pronotum dull reticulate in upper 0.6, rest smooth. Mesoscutum sparsely setose, almost uniformly finely reticulate-coriaceous, smooth only along hind margin, without notauli;



Figs 128-131. *Synopeas achterbergi* spec. nov., female – 128, head in dorsal view; 129, antenna; 130, scutellum in lateral view; 131, metasoma in dorsal view. Figs 132-135. *Synopeas ciliaris* spec. nov., female – 132, head in dorsal view; 133, antenna; 134, scutellum in lateral view; 135, metasoma in dorsal view. Figs 136-139. *Synopeas flavispinus* spec. nov., female – 136, head in dorsal view; 137, antenna; 138, scutellum in lateral view; 139, metasoma in dorsal view.

hind margin medially with a small triangular (smooth, dark, not swollen) projection to base of scutellum; scuto-scutellar grooves each with about seven long setae. Mesopleuron smooth. Scutellum (fig. 130) slightly above level of mesoscutum; smooth, bare and slightly elevated along middle, this keel becoming semitransparent posteriorly; laterally with dense setae, without further modifications. Metapleuron smooth and bare in slightly less than anterior half, rest with pilosity. Propodeal carinae dark, separated but close together.

Forewing reaching base of T5, clear, 2.9 times as long as wide, with very sparse microtrichia and without marginal cilia. Hindwing about 5 times as long as wide; marginal cilia about one-third the width of wing.

Metasoma (fig. 131) 1.3 times as long as head and mesosoma combined, fully as wide as mesosoma, 1.2 times as wide as high. T2-T5 smooth, T6 with fine rugosity except anteriorly and posteriorly; apical tergites with superficially implanted setae, forming a transverse row on T5. Second sternite with a distinct hump anteriorly.

Discussion. — A distinct species on account of shape of metasoma. Scutellum similar to that of *S. bifurcatus* Buhl, 2001 from Malaysia (Borneo), but this species is much smaller than *S. achterbergi*, it has complete notauli, and metasoma hardly longer than mesosoma, cf. Buhl (2001).

Etymology. — Named after one of the collectors.

Synopeas ciliaris spec. nov.
(figs 132-135)

Material. — Holotype, ♀, "Indonesia, SW Sulawesi, Gn. Bulusaraung, near Camba Malawa, 750 m, 7. ii.-28.iii.1995, Malaise trap, C. v. Achterberg & Y. Yasir".

Diagnosis. — Legs mostly yellowish; marginal cilia of forewing 0.2 times width of wing; metasoma only slightly longer than mesosoma.

Description. — ♀. Length 0.8 mm. Black, A1-A5 and legs yellowish, hind femur, hind tibia and hind tarsus slightly darkened at apex; T1 dark brown.

Head from above (fig. 132) fully 1.8 times as wide as long, 1.1 times as wide as mesosoma; occiput transversely reticulate-coriaceous, hyperoccipital carina complete; vertex and frons with distinct reticulation, the sharp meshes not or hardly transverse. OOL equal to diameter of lateral ocellus. Head in frontal view slightly more than 1.1 times as wide as high. Antenna (fig. 133) with A1 0.9 times as long as height of head.

Mesosoma 1.5 times as long as wide, almost 1.2 times as high as wide. Sides of pronotum smooth. Mesoscutum evenly and rather sparsely setose, faintly reticulate-coriaceous, smooth postero-medially, without notauli, hind margin only slightly prolonged medially; scuto-scutellar grooves inconspicuous, with numerous setae. Mesopleuron smooth. Scutellum (fig. 134) densely setose, with a pale spine with a distinct, pale vertical lamella below. Metapleuron smooth and bare in slightly more than anterior third, rest with pilosity. Propodeal carinae pale semitransparent as scutellar spine, high, straight, fused.

Forewing 2.7 times as long as wide, hardly shorter than body, clear but with fine and dense microtrichia; marginal cilia 0.2 times width of wing. Hind wing 7.8 times as long as wide; marginal cilia 0.9 times width of wing.

Metasoma (fig. 135) slightly longer than mesosoma (19:18), hardly as wide as this, slightly more than 1.5 times as wide as high. T2 smooth, apical tergites with weak traces of microsculpture and a few very fine setae.

Discussion. — Similar to the Palearctic species *S. ciliatus* Thomson, 1859, but scutellum lighter posteriorly with stronger spine, and body appendages lighter, cf. Kozlov (1978). Similar to *S. pallescens* Buhl, 1997 from the Philippines, but this species has smoother frons, more elongate forewings with even longer marginal cilia, and more pointed metasoma than *S. ciliaris*, cf. Buhl (1997).

Etymology. — The name refers to the relatively long marginal cilia of wings.

Synopeas flavispinus spec. nov.
(figs 136-139)

Material. — Holotype, ♀, "Indonesia, S Halmahera, 20 km S Payahe, Sagutora, 115 m, 18.ii.-18.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir". Paratypes: 1 ♀, "S Halmahera, between Payahe and Gita Woda, 25 m, 17.ii.-17.iii.1995, C. v. Achterberg, R. de Vries & Y. Yasir"; 1 ♀, "Indonesia, W Bali, near Negara, rainforest above Batuagung, 575 m, 4-13.xii.1991, Malaise trap, C. v. Achterberg".

Diagnosis. — Legs including coxae light brownish yellow; hyperoccipital carina only weakly indicated medially; notauli absent; scutellum with pale spine; female metasoma 1.3 times as wide as high; T3-T6 two-thirds as long as T1-T2.

Description. — ♀. Length 0.8-1.0 mm. Black, A1-A5 and legs including coxae light brownish yellow, only apex of hind tibia darkened; A6-A10 dark brown.

Head from above (fig. 136) 1.8 times as wide as long, fully 1.1 times as wide as mesosoma, reticulate-coriaceous, occiput with larger and less transverse meshes than frons; hyperoccipital carina only weakly indicated medially. OOL about two-thirds as long as shorter diameter of lateral ocellus. Head in frontal view 1.1 times as wide as high. Antenna (fig. 137) with A1 fully 1.1 times as long as distance between inner orbits, 0.75 times as long as height of head.

Mesosoma 1.5 times as long as wide, 1.2 times as high as wide. Sides of pronotum in upper half with dense seta-implantations and with slight rugosity in anterior half, in lower half smooth and bare. Mesoscutum rather densely and evenly setose, faintly reticulate-coriaceous, without trace of notauli; hind margin with a tiny, dark, smooth, hardly swollen prolongation medially; scuto-scutellar grooves inconspicuous, each with 2-3 long setae. Mesopleuron smooth. Scutellum (fig. 138) smooth and with very few setae medially, without a carina here, laterally densely setose; spine yellowish semitransparent with a small triangular lamella below. Metapleuron smooth and bare in anterior third, rest with pilosity. Propodeal carinae dark, straight, fused.

Forewing 2.5 times as long as wide, 0.8 times as long as body, slightly overreaching tip of metasoma, with fine and moderately dense microtrichia, without marginal cilia. Hindwing 6.7 times as long as wide; marginal cilia 0.5 times width of wing.

Metasoma (fig. 139) as long as head and mesosoma combined, as wide as mesosoma, 1.3 times as wide as high. T2 smooth except for distinct reticulation along hind margin; T3-T6 with such reticulation all over, apical tergites with some fine setae which form a transverse row on T4 and T5.

Discussion.— Similar to *W. European S. muticus* (Nees, 1834) but differs from this species e.g. in having the antennae slightly shorter, the microtrichia on wings less dense, the apical tergites shorter and differently sculptured, and the body appendages lighter.

Etymology.— The name refers to the pale yellowish, semitransparent scutellar spine.

Synopeas halmaherensis spec. nov.
(figs 140-143)

Type material.— Holotype: ♀, "Indonesia, S Halmahera, 20 km S Payahe, Sagutora, 115 m, 18.ii.-18.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir". Paratypes: 4 ♀♀, "Indonesia, S Halmahera, between Payahe and Gita Woda, 20-30 m, 17.ii.-17.iii.1995, Malaise and Schacht traps, C. v. Achterberg, R. de Vries & Y. Yasir".

Diagnosis.— Hyperoccipital carina absent; female T4-T6 with distinct, more or less longitudinal microsculpture, T5 more than 5 times as long as wide.

Description.— ♀. Length 1.4-1.6 mm. Black, A1 and legs almost uniformly light brownish, coxae slightly darker; A2-A10 dark brown.

Head from above (fig. 140) 1.7 times as wide as long, fully 1.1 times as wide as mesosoma, distinctly reticulate-coriaceous (not transversely so), strongest on occiput, this rounded, without hyperoccipital carina. OOL fully as long as longer diameter of lateral ocellus; OOL:LOL = 3:5. Head in frontal view 1.2 times as wide as high. Antenna (fig. 141) with A1 0.8 times as long as height of head.

Mesosoma 1.6 times as long as wide, 1.2 times as high as wide. Sides of pronotum reticulate as head in upper 0.4 in anterior half, rest smooth. Mesoscutum with few setae, in anterior half sculptured almost as head, in posterior half with finer and more longitudinal reticulation; notauli distinct, missing in anterior 0.3, mid lobe posteriorly finely pointed and very slightly prolonged; scuto-scutellar grooves wide and bare. Mesopleuron smooth. Scutellum (fig. 142) sculptured as hind part of mesoscutum, slightly denser setose, uniformly dark. Metapleuron with pilosity except along part of anterior margin. Propodeal carinae low, dark, posteriorly fused.

Forewing reaching to about base of T5, 2.7 times as long as wide, clear, with very sparse microtrichia; marginal cilia absent. Hindwing 7.2 times as long as wide; marginal cilia 0.5 times width of wing.

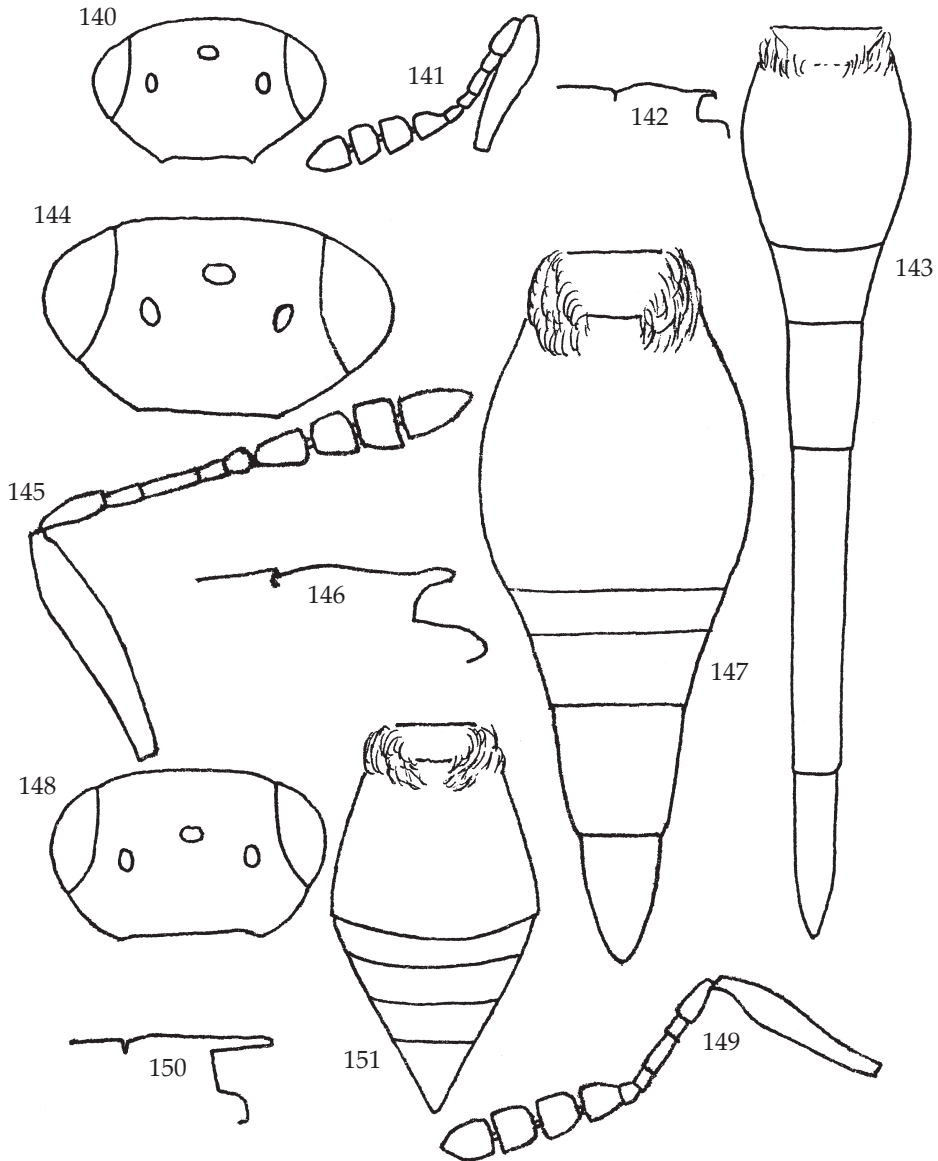
Metasoma (fig. 143) 1.7 to slightly more than 2 times as long as head and mesosoma combined, 0.8 times as wide as mesosoma, as high as wide. T2 smooth; T3 almost smooth; T4-T6 with distinct, more or less longitudinal microsculpture.

Discussion.— Differs from *S. mukerjeei* Buhl, 1997, and *S. solomonensis* Buhl, 1997, e.g. in sculpture of mesosoma and scutellar structure, from *S. saintexuperyi* Buhl, 1997 in sculpture of head, length of metasoma, shape of T3-T6 and colour, cf. Buhl (1997)

Etymology.— Named after the island with the type locality.

Synopeas infuscatus spec. nov.
(figs 144-147)

Material.— Holotype, ♀, "Indonesia, Sula Isl., Mangole, near Buya, 465 m, 13.x.-2.xi.1993, Malaise trap, C. v. Achterberg".



Figs 140-143. *Synopeas halmaherensis* spec. nov., female – 140, head in dorsal view; 141, antenna; 142, scutellum in lateral view; 143, metasoma in dorsal view. Figs 144-147. *Synopeas infuscatus* spec. nov., female – 144, head in dorsal view; 145, antenna; 146, scutellum in lateral view; 147, metasoma in dorsal view. Figs 148-151. *Synopeas lombokensis* spec. nov., female – 148, head in dorsal view; 149, antenna; 150, scutellum in lateral view; 151, metasoma in dorsal view.

Diagnosis.— Hyperoccipital carina absent; scutellum with dark spine; forewing with distinct brownish tint; female T3-T6 reticulate-coriaceous, T5 as long as wide.

Description.— ♀. Length 1.8 mm. Black, A1 and legs light brownish, coxae and A2-A10 darker brown.

Head from above (fig. 144) 1.9 times as wide as long, almost 1.2 times as wide as mesosoma, distinctly and almost uniformly reticulate-coriaceous (not transversely so); occiput rounded, without hyperoccipital carina. OOL 0.7 times as long as longer diameter of lateral ocellus; OOL:LOL = 2:3. Head in frontal view almost 1.4 times as wide as high. Antenna (fig. 145) with A1 shorter than height of head (18:19).

Mesosoma 1.6 times as long as wide, fully 1.1 times as high as wide. Sides of pronotum reticulate-coriaceous in upper anterior corner, rest smooth. Mesoscutum sparsely setose, faintly and evenly reticulate-coriaceous; notauli distinct and almost complete; mid lobe posteriorly narrow, slightly prolonged to base of scutellum; scuto-scutellar grooves wide, each with about 3 long setae. Mesopleuron smooth. Scutellum (fig. 146) sculptured and setose almost as mesoscutum, with a dark spine without lamella. Metapleuron smooth and bare in about anterior 0.25, rest with dense pilosity. Propodeal carinae dark and fused.

Forewing 2.7 times as long as wide, 0.8 times as long as body, overreaching tip of metasoma by fully the length of T6, with distinct brownish tint and fine and dense microtrichia; marginal cilia very short. Hindwing 6.0 times as long as wide; marginal cilia hardly 0.3 times width of wing.

Metasoma (fig. 147) 1.1 times as long as head and mesosoma combined, 0.9 times as wide as mesosoma, 1.3 times as wide as high. T2 smooth; T3-T4 reticulate-coriaceous, smooth anteriorly and posteriorly; T5-T6 reticulate-coriaceous, T6 slightly longitudinally so, smooth only at extreme base.

Discussion.— Differs from *S. atturensis* Mukerjee, 1981, e.g. in shape of A4-A5 and in having incomplete notauli, cf. also Mukerjee (1981). Differs from *S. mukerjeei* Buhl, 1997, *S. solomonensis* Buhl, 1997, and *S. saintexuperyi* Buhl, 1997, e.g. in shape of scutellum and in having darker wings, cf. also Buhl (1997).

Etymology.— The name refers to the rather strongly infuscated wings.

Synopeas lombokensis spec. nov.
(figs 148-151)

Material.— Holotype, ♀, "Indonesia, Lombok, Suranadi N.R., near Mataram, 185 m, 9-29.iii.1991, Malaise trap, C. v. Achterberg".

Diagnosis.— Scutellum with a very long and straight spine; female metasoma 1.25 times as wide as high, with T3-T6 combined as long as T2.

Description.— ♀. Length 1.1 mm. Black, A1 and legs light brownish yellow, hind leg slightly darker than fore legs, especially apex of hind tibia and entire hind tarsus; A2-A6 and last segment of fore and mid tarsi brown, A7-A10 dark brown.

Head from above (fig. 148) 1.9 times as wide as long, 1.25 times as wide as mesosoma, uniformly and rather finely reticulate-coriaceous; occiput bluntly angled, without hyperoccipital carina. OOL as long as diameter of lateral ocellus; LOL = 1.6 OOL. Head in frontal view 1.1 times as wide as high. Antenna (fig. 149) with A1 slightly longer than distance between inner orbits (13:12).

Mesosoma nearly 1.6 times as long as wide, 1.2 times as high as wide. Sides of pronotum weakly reticulate anteriorly in upper third, rest smooth. Mesoscutum faintly reticulate-coriaceous, uniformly covered by moderately dense, short setae; notauli anteriorly fading out shortly before reaching margin of disc, posteriorly meeting in a fine point slightly behind hind margin of disc; scuto-scutellar grooves inconspicuous, each with about four rather fine setae. Mesopleuron smooth. Scutellum (fig. 150) sculptured almost as mesoscutum, with slightly denser setae, with a long, straight dark spine without lamella below. Metapleuron mostly smooth and bare in anterior 0.3, rest with pilosity. Propodeal carinae brownish semitransparent, short.

Forewing clear, 0.8 times as long as body, hardly 2.4 times as long as wide, with fine and sparse microtrichia and without marginal cilia. Hindwing 6.1 times as long as wide; marginal cilia 0.4 times width of wing. Hind tarsus relatively strongly build. Metasoma (fig. 151) 0.8 times as long as head and mesosoma combined, 1.2 times as long as mesosoma, slightly narrower than this and 1.25 times as wide as high. T2 smooth. T3 with a narrow stripe of reticulation along hind margin, T4 with a broader such stripe, even broader on T5; T6 smooth anteriorly and posteriorly. Apical tergites with superficially implanted fine setae, forming a transverse row on T5.

Discussion. — Similar to *S. solidus* Buhl, 2001, from Malaysia (Borneo), but this species has the scutellar spine downcurved, with longer marginal cilia of fore- and hindwings, and T3-T6 combined hardly half half as long as T1-T2 combined, cf. also Buhl (2001). A curious feature of *S. lombokensis* is the rather dark and thick hind tarsus.

Etymology. — Named after the island with the type locality.

Synopeas longulus spec. nov.
(figs 152-155)

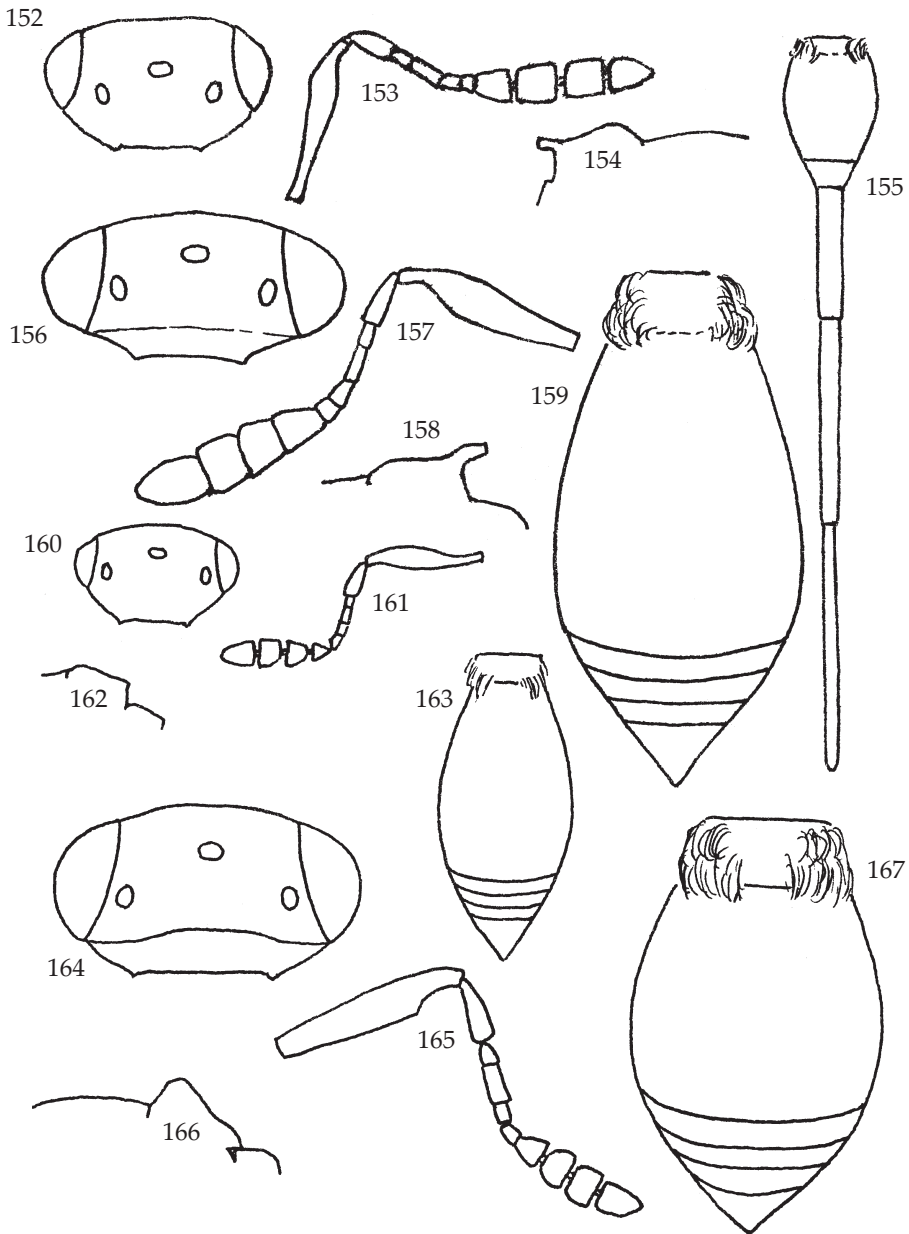
Material. — Holotype, ♀, "Indonesia, Sula Isl., Taliabu, near Tubang, 50 m, 9-20.iii.1995, Malaise trap, C. v. Achterberg & Y. Yasir".

Diagnosis. — Female A7 shorter than A8; notauli almost complete; female T2 hardly longer than wide, T4-T6 enormously lengthened, longitudinally sculptured.

Description. — ♀. Length 2.3 mm. Black, A1 and legs light brown, distal half of A1 and thickened parts of hind femur and tibia darkened; A2-A10 dark brown.

Head from above (fig. 152) 1.75 times as wide as long, 1.1 times as wide as mesosoma, distinctly and uniformly reticulate (not transversely so); occiput rounded, without hyperoccipital carina. OOL and LOL about equal, OOL 1.3 times as long as longer diameter of lateral ocellus. Head in frontal view 1.2 times as wide as high. Antenna (fig. 153) with A1 0.8 times as long as height of head.

Mesosoma 1.4 times as long as wide, very slightly higher than wide. Sides of pronotum slightly reticulate in upper anterior corner, rest smooth. Mesoscutum sparsely setose, faintly reticulate, lateral lobes smooth medially; notauli distinct, fading out anteriorly just before reaching margin of disc; mid lobe posteriorly somewhat blunt, prolonged to base of scutellum; scuto-scutellar grooves narrow and virtually bare. Mesopleuron smooth. Scutellum (fig. 154) medially almost smooth and bare, laterally moderately setose, with a dark spine without lamella. Metapleuron with sparse, long pilosity, dense only along posterior margin. Propodeal carinae slightly semitransparent, fused.



Figs 152-155. *Synopeas longulus* spec. nov., female – 152, head in dorsal view; 153, antenna; 154, scutellum in lateral view; 155, metasoma in dorsal view. Figs 156-159. *Synopeas nigricoxa* spec. nov., female – 83, head in dorsal view; 84, antenna; 85, scutellum in lateral view; 86, metasoma in dorsal view. Figs 160-163. *Synopeas praemorsus* spec. nov., female – 160, head in dorsal view; 161, antenna; 162, scutellum in lateral view; 163, metasoma in dorsal view. Figs 164-167. *Synopeas quasimodo* spec. nov. female – 164, head in dorsal view; 165, antenna; 166, scutellum in lateral view; 167, metasoma in dorsal view.

Forewing reaching end of T4, clear, 2.5 times as long as wide, with very sparse and fine microtrichia, without marginal cilia. Hindwing 7.0 times as long as wide; marginal cilia hardly 0.4 times width of wing.

Metasoma (fig. 155) 3.4 times as long as head and mesosoma combined, hardly as wide as mesosoma. T2 smooth, T3 weakly reticulate in basal half, T4-T6 with fine longitudinal microsculpture.

Discussion.— Metasoma similar in shape to that of the Australian *S. idarniformis* (Dodd, 1916), the Neotropical *S. minor* (Brues, 1922) and the Nearctic *S. hopkinsi* (Crawford & Bradley, 1911). Differs from *S. idarniformis* in having A7 shorter than A8 and T2 hardly longer than wide, from *S. minor* in having distinct notauli and finer and more sparse microtrichia on the forewing, and from *S. hopkinsi* in having a less slender flagellum, the apical tergites not smooth, and in being only half as large in body size. Cf. Dodd (1916), Brues (1922) and Kieffer (1926).

Etymology.— The name refers to the very long metasoma.

Synopeas nigricoxa spec. nov.
(figs 156-159)

Type material.— Holotype: ♀, "Indonesia, S Halmahera, 20 km S Payahe, Sagutora, 115 m, 18.ii.-18.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir".

Diagnosis.— Legs except coxae and trochanters yellowish brown; female A8-A9 each as long as wide; hyperoccipital carina low but complete; scutellum with dark spine; forewing with short marginal cilia; metasoma shorter than head and mesosoma combined, 1.2 times as wide as high, apical tergites short.

Description.— ♀. Length 1.3 mm. Black, A1-A6 and legs yellowish brown, A7-A10 medium brown, all coxae and trochanters blackish in sharp contrast to uniformly light legs.

Head from above (fig. 156) 2.0 times as wide as long, almost 1.2 times as wide as mesosoma, finely, weakly and almost uniformly reticulate, sculpture becoming slightly transverse only just above antennal insertions; hyperoccipital carina fine and low but complete. OOL hardly half as long as longer diameter of lateral ocellus. Head in frontal view 1.2 times as wide as high. Antenna (fig. 157) with A1 as long as distance between inner orbits.

Mesosoma 1.4 times as long as wide, very slightly higher than wide. Sides of pronotum finely reticulate (not longitudinally so) in upper half, smooth below and along broad hind margin. Mesoscutum with sparse setae, faintly reticulate except posteromedially, without notauli; hind margin medially with a distinct, rather narrow, smooth and dark prolongation to base of scutellum; scuto-scutellar grooves wide, each with about 7 long setae. Mesopleuron smooth. Scutellum (fig. 158) smooth and bare along middle, densely setose laterally, with a dark spine without lamella. Metapleuron smooth and bare in slightly more than anterior half. Propodeal carinae dark, well separated; elongate area between them smooth and shiny.

Forewing hardly overreaching apex of metasoma, 2.4 times as long as wide, almost clear but with fine and dense microtrichia; marginal cilia short. Hind wing 5.9 times as long as wide; marginal cilia hardly 0.3 times width of wing.

Metasoma (fig. 159) hardly as long as head and mesosoma combined, hardly as wide as mesosoma, 1.2 times as wide as high. T1 with three longitudinal carinae, T2 smooth, T3-T5 smooth except for rugosity along hind margin, T6 with rugosity all over. Apical tergites with few setae.

Discussion.— Distinct on account of the coloration of the legs. Differs from the somewhat similar *S. obesus* Buhl, 2001, from Malaysia (Borneo) also e.g. in the structure of the scutellum and in the setae of the forewing, crf. Buhl (2001).

Etymology.— The names refers to the strikingly black coxae.

Synopeas praemorsus spec. nov.
(figs 160-163)

Material.— Holotype, ♀, "Indonesia, Sula Isl., Mangole, Buluhaya, 90 m, 6-23.iii.1995, Malaise trap, C. v. Achterberg & Y. Yasir".

Diagnosis.— Frons shiny, distinctly and much transversely reticulate, in lower half almost transversely striated; marginal cilia of forewing 0.25 times width of wing.

Description.— ♀. Length 0.75 mm. Black; A1-A6, mandibles and legs including coxae yellowish brown; A7-A10 medium brown, tegula dark brown.

Head from above (fig. 160) 2.0 times as wide as long, 1.2 times as wide as mesosoma; occiput and vertex distinctly reticulate with large (not transverse) meshes, hyperoccipital carina absent but occiput rather sharply angled; frons shiny, distinctly and much transversely reticulate, in lower half almost transversely striated. OOL equal to longer diameter of lateral ocellus. Head in frontal view hardly 1.1 times as wide as high. Antenna (fig. 161) with A1 hardly as long as distance between inner orbits, 0.75 times as long as height of head.

Mesosoma 1.5 times as long as wide, 1.3 times as high as wide. Sides of pronotum slightly reticulate along upper margin in anterior half, rest smooth. Mesoscutum sparsely setose, finely and weakly reticulate-coriaceous, without notauli; hind margin with a very small, unmodified prolongation medially; scuto-scutellar grooves narrow, each with about 5 longer setae. Mesopleuron smooth. Scutellum (fig. 162) densely setose, slightly elevated along smooth and bare middle, posteriorly with a nearly vertical, hardly semitransparent, narrow lamella. Metapleuron smooth and bare in about anterior third, rest with pilosity. Propodeal carinae dark, straight and fused.

Forewing fully 0.8 times as long as body, 2.9 times as long as wide, almost clear, with fine and dense microtrichia; marginal cilia at their longest fully 0.25 times width of wing. Hindwing 7.9 times as long as wide; marginal cilia 0.75 times width of wing.

Metasoma (fig. 163) as long as head and mesosoma combined, 0.9 times as wide as mesosoma, hardly wider than high. T1 with three longitudinal carinae. T2 smooth. T3-T6 with some faint traces of reticulation, with very few setae.

Discussion.— A very distinct *Synopeas*-species on account of the sculpture of the head and the long marginal cilia of the wings.

Etymology.— The name refers to that the scutellum in lateral view looks like it is "bitten off".

Synopeas quasimodo spec. nov.
(figs 164-167)

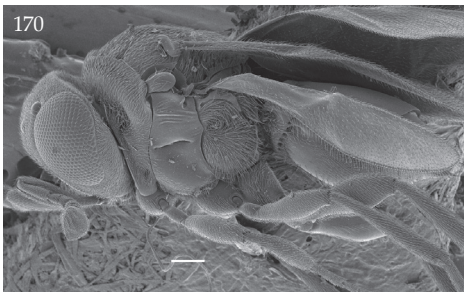
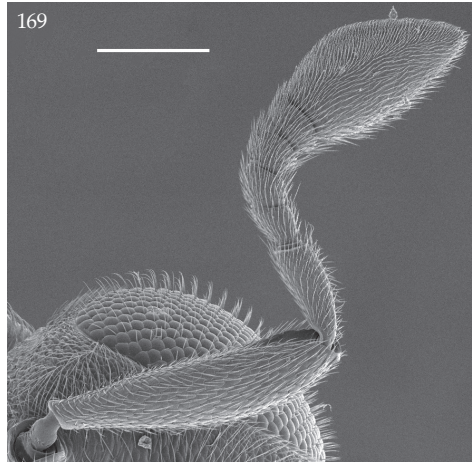
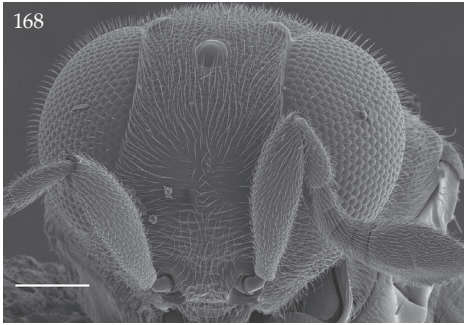
Material. — Holotype, ♀, "Indonesia, S Halmahera, 20 km S Payahe, Sagutora, 115 m, 18.ii.-18.iii.1995, Malaise trap, C. v. Achterberg, R. de Vries & Y. Yasir".

Diagnosis. — Distinct on account of scutellum which is high, acutely convex, without tooth or excavation.

Description. — ♀. Length 1.1 mm. Black, A1-A6 and legs light brownish yellow; all coxae and distal one-fourth of hind tibia dark, hind femur slightly darkened.

Head from above (fig. 164) 1.8 times as wide as long, very slightly wider than mesosoma; occiput finely and smoothly reticulate-coriaceous, with a very weakly indicated hyperoccipital carina; vertex with finely granulate sculpture, frons uniformly sculptured as vertex. OOL hardly as long as shorter diameter of lateral ocellus. Head in frontal view hardly more than 1.1 times as wide as high. Antenna (fig. 165) with A1 0.7 times as long as height of head.

Mesosoma 1.4 times as long as wide, hardly higher than wide. Sides of pronotum dull, finely reticulate-coriaceous all over. Mesoscutum evenly, moderately setose, finely and uniformly reticulate-coriaceous, without notauli; hind margin medially with a smooth, hardly swollen, dark prolongation to base of scutellum; scuto-scutellar grooves with long, dense setae. Mesopleuron smooth. Scutellum (fig. 166) high, acutely convex, without tooth or excavation, smooth and almost bare along middle, densely setose laterally. Metapleuron smooth and bare in fully anterior third, rest with dense pilosity. Propodeal carinae fused and dark.



Figs 168-170. *Indomerella vanachterbergi* gen. nov. spec. nov., female – 168, head in frontal view; 169, antenna; 170, body in lateral view.

Forewing clear, 2.4 times as long as wide, 0.8 times as long as body, with rather few, fine microtrichia and very short marginal cilia. Hindwing 5.6 times as long as wide; marginal cilia one-third the width of wing.

Metasoma (fig. 167) hardly as long as mesosoma (27:28), 0.9 times as wide as this, 1.5 times as wide as high. Tergites smooth, except faint traces of reticulation on T6; apical tergites with superficial implanted fine setae, which form a transverse row on T5.

Discussion.— A very characteristic species on account of shape of scutellum, in this respect slightly approaching *S. procon* Austin, 1984, from India, but Austin's species has the scutellum distinctly excavated. Cf. Austin (1984).

Etymology.— This stout little creature with a hump on its back is named after the main character with the same attributes in Victor Hugo's "The Hunchback of Notre Dame".

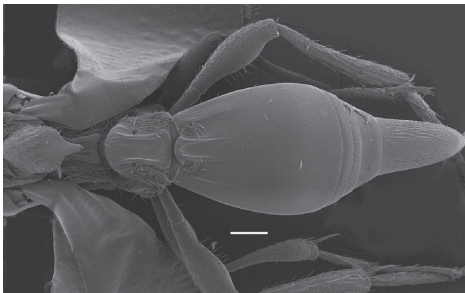


Fig. 171. *Leptacis caudata* spec. nov., female, scutellum and metasoma in dorsal view.

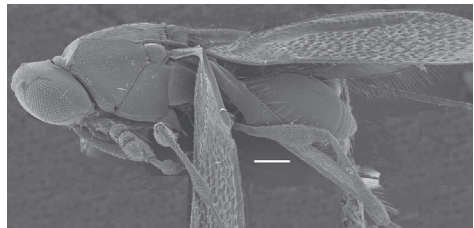
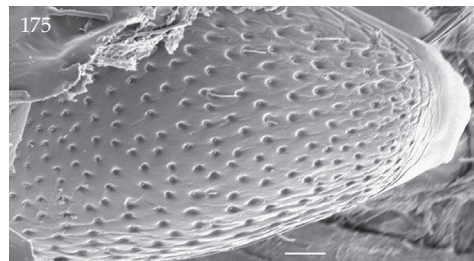
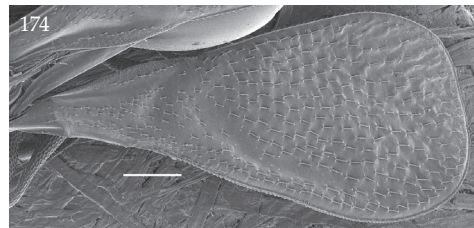


Fig. 172. *Leptacis silvatica* spec. nov., female, body in lateral view.



Figs 173-175. *Leptacis spatulata* spec. nov., female – 173, head and mesosoma in dorsal view; 174, forewing; 175, tergite 6 in dorsal view.



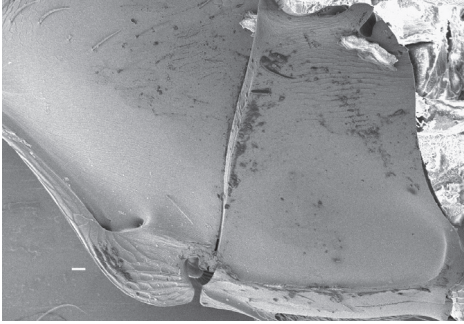


Fig. 176. *Leptacis tegulata* spec. nov., female, pro- and mesopleuron.

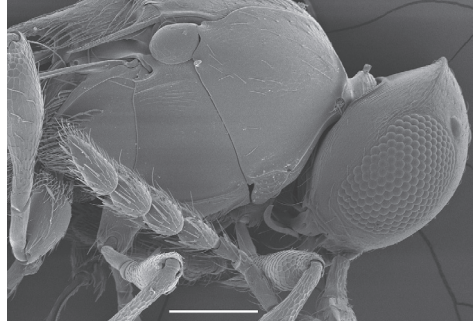
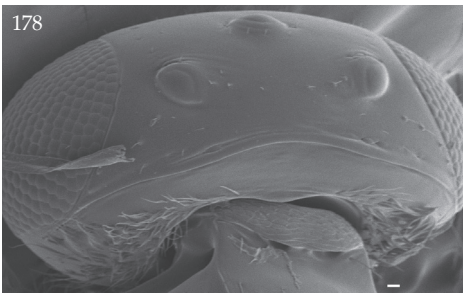
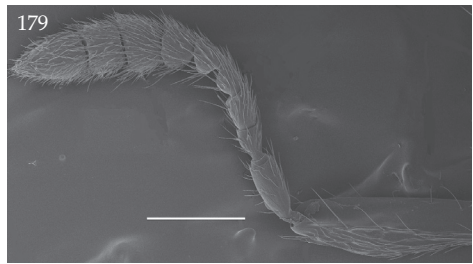


Fig. 177. *Leptacis vertexialis* spec. nov., female, head and mesosoma in lateral view.



Figs 178-180. *Prosynopeas indonesianus* spec. nov., female – 178, head in dorsal view; 179, antenna; 180, body in dorsal view.

Scale bars for figs 168-180 = 100 μ m, except for figs 175, 176 and 178 for which it is = 10 μ m.



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