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On twenty-six new or little known species of Platygastridae (Hymenoptera, Platygastroidea)

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Abstract

The following 24 species new to science are described: Amblyaspis longicornis (Austria), Inostemma malaysianum (Malaysia), I. schwarzi (Thailand), Isolia indica (India), Leptacis kenyana (Kenya), L. macra (Thailand), L. pacholatkoi (Malaysia), L. spectabilis (Thailand), Platygaster anguliceps (Thailand), P. austriaca (Austria), P. becvari (Thailand), P. cernua (Malaysia), P. costai (Brazil), P. excelsa (Malaysia), P. guapirae (Brazil), P. leptopetiolata (Zambia), P. pahangensis (Malaysia), P. rihai (Thailand), P. soppongensis (Thailand), P. thailandica (Thailand), Synopeas horaki (Malaysia), S. mozo (Thailand), S. soppongense (Thailand), and S. thailandicum (Thailand). Amblyaspis latiscapa Buhl, 2008 and Inostemma rufipes (Kieffer, 1913) are commented upon. The work is illustrated by 95 text-figures.

Zusammenfassung

24 neue Arten werden beschrieben: Amblyaspis longicornis (Österreich), Inostemma malaysianum (Malaysia), I. schwarzi (Thailand), Isolia indica (Indien), Leptacis kenyana (Kenya), L. macra (Thailand), L. pacholatkoi (Malaysia), L. spectabilis (Thailand), Platygaster anguliceps (Thailand), P. austriaca (Österreich), P. becvari (Thailand), P. cernua (Malaysia), P. costai (Brasilien), P. excelsa (Malaysia), P. guapirae (Brasilien), P. leptopetiolata (Zambia), P. pahangensis (Malaysia), P. rihai (Thailand), P. soppongensis (Thailand), P. thailandica (Thailand), Synopeas horaki (Malaysia), S. mozo (Thailand), S.

soppongense (Thailand) und *S. thailandicum* (Thailand). *Amblyaspis latiscapa* BUHL, 2008 und *Inostemma rufipes* (KIEFFER, 1913) werden commentiert. Die Arbeit ist mit 95 Abbildungen versehen.

Introduction

Most of the material in this paper is due to a generous loan from Dr. Martin SCHWARZ, Biologiezentrum Linz (Austria) where the material is preserved unless otherwise mentioned. I thank Dr. SCHWARZ and Dr. Jussara COSTA (Rio de Janeiro) very much for material. Terminology: Standard abbreviations used are A1-A10 = antennal segments 1-10, OOL = distance between lateral occllus and eye, LOL = distance between lateral and anterior occlli, and T1-T6 = tergites 1-6.

Amblyaspis latiscapa BUHL, 2008

Material examined. 1 female, 1 male, Thailand, Mae Hong Son prov., Soppong (19 27 N 98 20 E), 1500 m, 7-12.v.1996, S. BECVAR leg.

Recorded from Vietnam by BUHL (2008b). The hitherto unknown male is 1.9 mm long, with antenna uniformly light brown, with A4 only slightly widened, and preapical segments each 1.5 times as long as wide.

Amblyaspis longicornis sp. nov. (figs 1-4)

Diagnosis. Head with complete hyperoccipital carina, occiput transversely reticulatecoriaceous; preapical antennal segments of male each about twice as long as wide.

Description. Male. Length 1.6 mm. Black; meso- and metasoma with brownish tint, T1 lightest; A1, mandibles and legs excluding coxae light yellowish brown; A2-A10, tegulae and coxae dark brown.

Head from above (fig. 1) 2.1 times as wide as long, as wide as mesosoma, finely reticulate-coriaceous, on occiput slightly transversely so; hyperoccipital carina complete and distinct. OOL:LOL = 7:8. Head in frontal view 1.2 times as wide as high. Antenna (fig. 2) with A1 as long as width of head, 1.5 times as long as distance between inner orbits; A7-A9 each about twice as long as wide; flagellar pubescence 0.4 times as long as width of segments.

Mesosoma 1.5 times as long as wide, 1.1 times as high as wide. Sides of pronotum finely reticulate-coriaceous (not longitudinally so) in upper half, smooth in lower half. Mesoscutum sparsely and evenly hairy, finely and uniformly reticulate-coriaceous, with no trace of notauli; hind margin dark, broadly and very slightly convex over base of scutellum. Mesopleuron smooth. Scutellum (fig. 3) densely hairy all over. Metapleuron smooth and almost bare in anterior half, rest with dense pilosity. Propodeal carinae high, slightly semitransparent, very close together but separated, with an elongate smooth area between them.

Fore wing 2.4 times as long as wide, 1.1 times as long as entire body, almost clear, with long and dense microtrichia; marginal cilia nearly 0.1 the width of wing. Hind wing 6.0

times as long as wide; marginal cilia 0.4 the width of wing.

Metasoma (fig. 4) almost as long as head and mesosoma combined (45:48), hardly as wide as mesosoma (23:24). T1 with strongly swollen anterior margin, along middle with two weak longitudinal carinae, laterally with dense pubescence. T2 with two small, pubescent basal foveae, with weak inconspicuous micropunctation along narrow hind margin. Apical tergites densely micropunctate all over and with some hairs inserted in shallow punctures.

Material examined. Holotype male: Austria, Sarleinsbach, 11.ix.1936, J. KLOIBER leg. Affinities. Runs to *A. prorsa* (WALKER, 1835) in VLUG's (1985) key, but *A. prorsa* has male A9 only hardly 1.4 times as long as wide, as well as slightly different measurements of head and metasoma, cf. VLUG (1985). Also, in *A. longicornis* the emargination of A4 covers less than half of the segment, in *A. prorsa* distinctly more than half (British specimens of *A. prorsa* studied).

Etymology. The name refers to tthe characteristic long male antennae.

Inostemma malaysianum sp. nov. (figs 5-6)

Diagnosis. Head with deep notch; female A3 more than twice as long as wide, A4 distinctly longer than wide; horn of T1 reaching anterior ocellus; T2 elongate, female T6 fully twice as long as wide.

Description. Female. Length 2.1 mm. Black; base of A1 dark reddish, rest of A1 very dark brown; legs except coxae light brown, femora slightly darker brown, last segment of tarsi very dark brown.

Head from above 2.2 times as wide as long, as wide as mesosoma, finely but distinctly reticulate-coriaceous, transversely so between ocelli; vertex with deep notch (fig. 5). Lateral ocelli virtually touching eyes, OOL extremely short. Head in frontal view (fig. 5) 1.75 times as wide as medial height, anterior ocellus below margin of notch. Antenna (fig. 5) with A1 1.1 times as long as distance between inner orbits, 1.2 times as long as medial height of head; A3 2.2 times as long as wide, 1.2 times as long as A4 which is 1.75 times as long as wide; A9 1.25 times as wide as long.

Mesosoma 1.3 times as long as wide, almost 1.2 times as wide as high. Sides of pronotum dull reticulate-coriaceous in upper half, smooth and with some longitudinal wrinkles in lower half. Mesoscutum with a few very inconspicuous hairs, weakly reticulate-coriaceous, slightly shiny, smoother posteriorly, in posterior 0.75 along middle with a slightly smoother, weak depression; notauli complete, deep but narrow. Scuto-scutellar grooves wide and bare. Mesopleuron with longitudinal sculpture in upper 0.25 and in lower third, medially smooth. Scutellum bare, flattened and almost smooth. Metapleuron with pilosity all over.

Fore wing hardly reaching apex of T6, 2.4 times as long as wide, with brownish tint and fine and dense microtrichia; subcostal vein dark brown, reaching about 0.3 of wing length; marginal cilia extremely short. Hind wing 4.7 times as long as wide; marginal cilia 0.2 the width of wing.

Metasoma (fig. 6) excluding horn 1.5 times as long as head and mesosoma combined, 0.75 times as wide as mesosoma. T1 and horn of T1 longitudinally striated, horn curved

and reaching anterior ocellus. T2 distinctly elongate, antero-medially with a pubescent fovea, behind this with a few very short striae, laterally finely striated in anterior third, otherwise almost smooth; T3-T5 weakly reticulate over most of surface; T6 roughly reticulate-coriaceous with longitudinal elements, fully twice as long as wide and upturned; apical tergites with some inconspicuous hairs, forming a transverse row of about 8 hairs on each of T3-T5.

Material examined. Holotype female: Malaysia, Pahang, Cameron Highlands (4 28 S 101 23 E), 30.iii.2003, ŘIHA leg.

Affinities. Differs from *I. indicum* MANI, 1941 e.g. in having elongate T2, from *I. berijamum* MANI, 1975 in having shorter OOL, wider A1 and more slender basal flagellar segments, and from *I. coorgense* MUKERJEE, 1981 in having shorter OOL and distinctly elongate T2. *I. hockpari* K0, 1980 has head hardly with notch, and horn shorter than in *I. malaysianum*. *I. malaysianum* differs from *I. boscii* (JURINE, 1807) e.g. in having A1 only 3 times as long as wide. Cf. also MANI (1975), K0 (1980) and MANI & SHARMA (1982).

Etymology. Named after the country with the type locality.

Inostemma rufipes (KIEFFER, 1913)

This species has hitherto been recorded from the Philippines and Japan. It was redescribed by YAMAGISHI (1982). Below is an addition to the description, based on two Indonesian specimens.

Female. Length 2.9 mm. Black; A1-A2 light reddish-brown, legs excluding coxae yellowish brown, last segment of all tarsi darkened. LOL = 3.75 OOL; OOL two-thirds as long as shorter diameter of lateral ocellus. Head in frontal view 1.2 times as wide as high. Antenna with A1 0.7 times as long as height of head, longer than distance between inner orbits (20:19). Metasoma excluding horn 1.5 times as long as head and mesosoma combined; horn slightly overreaching hind margin of mesoscutum, longitudinally striated in basal 0.3, rest reticulate-coriaceous, at apex slightly smoother. T3-T6 with fine reticulation all over and numerous scattered. fine hairs.

Material examined. Two females, Indonesia, W. Java, Bogor, Janlappa Nat. Res., 13.x.1957, swept on Acacia, HAMANN leg.

Inostemma schwarzi sp. nov. (figs 7-9)

Diagnosis. Head with only a very small concavity; female A3 2.5 times, A4 1.75 times as long as wide; horn of T1 reaching occiput, female T4-T6 combined only 0.75 as long as T2, T6 transverse.

Description. Female. Length 2.1 mm. Black; legs excluding coxae light brown, femora and last segment of tarsi darkened; base and apex of antennal scape and entire A2 dark brownish.

Head from above (fig. 7) 2.1 times as wide as long, hardly as wide as mesosoma (33:34), dull, finely and uniformly reticulate-coriaceous (not transversely so), vertex only with a very small concavity medially. OOL equal to diameter of lateral ocellus; OOL:LOL = 2:5. Head in frontal view 1.4 times as wide as medial height. Antenna (fig. 8) with A1

0.8 times as long as height of head, as long as distance between inner orbits; A3 2.5 times as long as wide, 1.4 times as long as A4 which is 1.75 times as long as wide; A8-A9 each about 1.5 times as wide as long.

Mesosoma 1.2 times as long as wide, 1.2 times as wide as high. Sides of pronotum reticulate-coriaceous, in upper half dull, in lower half shiny and with longitudinal sculpture. Mesoscutum dull, finely reticulate-coriaceous; with sparse, inconspicuous hairs; notauli complete, posteriorly widened and smooth. Scuto-scutellar grooves wide and bare. Mesopleuron in upper third finely reticulate-coriaceous in anterior half, longitudinally striated in posterior half; in lower third distinctly reticulate-coriaceous; medially smooth. Metapleuron with short pilosity all over.

Fore wing with faint yellowish tint, just surpassing tip of metasoma, 0.7 times as long as entire body, 2.25 times as long as wide, with fine and dense microtrichia; subcostal vein dark brown, 0.3 times as long as wing; marginal cilia very short. Hind wing 4.1 times as long as wide; marginal cilia hardly 0.2 times the width of wing.

Metasoma (fig. 9) excluding horn 1.2 times as long as head and mesosoma combined, 0.9 times as wide as mesosoma. T1 and horn longitudinally striated, gradually finer so towards anterior apex; horn slightly curved, just reaching occiput. T2 very slightly wider than long (31:30), laterally sculptured to 0.9 of length, anteriorly with striae which gradually become fine longitudinal microsculpture, tergite medially striated to half of length behind a transverse pubescent fovea, tergite otherwise smooth; T3-T6 finely reticulate-coriaceous, smooth along hind margins, with numerous hairs inserted in shallow punctures: A transverse row of 14 hairs on T3, 18 slightly more scattered hairs on each of T4-T5, numerous (about 20) evenly scattered hairs on T6.

Material examined. Holotype female: Thailand, Mae Hong Son prov., Soppong (19 27 N 98 20 E), 1500 m, 7-12.v.1996, S. Becvar leg.

Affinities. This species has more elongate basal flagellar segments and less pointed metasoma than *I. berijamum* Mani, 1975, *I. hockpari* Ko, 1980 and *I. coorgense* MUKER-JEE, 1981. It has also less pointed metasoma than *I. indicum* Mani, 1941. Cf. Mani (1975), Ko (1980), MUKERJEE (1981), and Mani & Sharma (1982).

Etymology. Named after Dr. Martin SCHWARZ, Linz, who provided me with the specimen.

Isolia indica sp. nov. (figs 10-12)

Diagnosis. Head three times as wide as long; OOL much longer than diameter of ocellus; male A9 2.5 times as long as wide; scutellum 1.6 times as wide as long, smooth anteriorly, striated in slightly more than posterior half.

Description. Male. Length 1.3 mm. Black; A1, tegulae, legs including coxae, and metasoma yellowish brown; mandibles and A2 darker; A3-A10 dark brown.

Head from above (fig. 10) 3.0 times as wide as long, as wide as mesosoma; occiput finely reticulate-coriaceous, vertex and frons more smoothly reticulate, sculpture becoming slightly transverse just above antennal insertions. Head sharply edged at level of posterior ocelli, these connected by a low carina which fades out laterally. OOL:LOL = 5:3. Head in frontal view two-thirds as high as wide. Antenna (fig. 11) with A1 0.8 times

as long as height of head, shorter than distance between inner orbits (16:19); A9 2.5 times as long as wide; flagellar pubescence about half the width of segments.

Mesosoma about as wide as long, nearly 1.4 times as wide as high. Sides of pronotum finely reticulate-coriaceous (not longitudinally so). Mesoscutum smooth, finely reticulate-coriaceous in anterior 0.4 and just inside tegulae, with no trace of notauli, bare. Mesopleuron longitudinally striated in upper half, rest smooth. Scutellum 1.6 times as wide as long, smooth anteriorly, with longitudinal striae in slightly more than posterior half. Metapleuron almost bare in anterior half, in posterior half and on propodeum with foamy structures.

Fore wing 1.1 times as long as entire body, 2.3 times as long as wide, slightly infuscated, with dense and short microtrichia (the wing looks densely punctated); marginal cilia absent. Hind wing 5.6 times as long as wide; marginal cilia hardly 0.2 times the width of wing.

Metasoma (fig. 12) very slightly longer than head and mesosoma combined (39:38), narrower than mesosoma (28:30). T1 with fine pubescence; T2-T7 smooth except for faint traces of reticulation along margins; T4-T7 each with a transverse row of inconspicuous hairs inserted in shallow punctures.

Material examined. Holotype male: India, Hyderabad, Utrap, 14-20.x.1997, Dr. OLEJ-NICEK leg.

Affinities. This species has much longer OOL than *I. foersteri* SZABÓ, 1959. *I. biroi* SZABÓ, 1959 has visible notauli and scutellum more extensively striated than *I. indica. I. striatitergitis* SZABÓ, 1962 has scutellum reticulate and striated T2. *I. hispanica* BUHL, 1999 has less transverse head and less sculptured scutellum than *I. indica*, and *I. dobrogica* POPOVICI & BUHL, 2006 has shorter antennae and more striated scutellum. *I. mongolica* (KOZLOV, 1972) (only female known) differs from *I. indica* e.g. in having more transverse scutellum, differently sculptured T2 and darker metasoma. *I. longistriata* ALEKSEYEV, 1979 has head less transverse and flagellar segments less elongate than in *I. indica*. Cf. SZABÓ (1959), KOZLOV (1972, 1978), ALEKSEYEV (1979), BUHL (1999), and POPOVICI & BUHL (2006).

Etymology. Named after the country with the type locality.

Leptacis kenyana sp. nov. (figs 13-16)

Diagnosis. A small species with female A8-A9 distinctly transverse; scutellum with short tooth; fore wing with long and thin microtrichia, marginal cilia 0.3 width of wing; metasoma almost as long as head and mesosoma combined, pointed, T6 about as long as wide.

Description. Female. Length 0.85 mm. Head black; A7-A10 and meso- and metasoma very dark brown, T1 lighter brown; A1-A6 and legs including coxae light brownish yellow.

Head from above (fig. 13) 1.7 times as wide as long, 1.2 times as wide as mesosoma, without hyperoccipital carina, shiny; occiput and lower half of frons more or less transversely reticulate, vertex and upper half of frons almost smooth. OOL equal to diameter of lateral occllus; LOL = 4 OOL. Head in frontal view 1.05 times as wide as high. Antenna

(fig. 14) with A1 0.85 times as long as height of head, longer than distance between inner orbits (10:9); A8-A9 each distinctly wider than long.

Mesosoma 1.75 times as long as wide, 1.25 times as high as wide. Sides of pronotum reticulate with large meshes, in about posterior half smooth. Mesoscutum faintly reticulate-coriaceous, sparsely and evenly hairy, without notauli; hind margin slightly convex and semitransparent; scuto-scutellar grooves each with four long hairs. Mesopleuron smooth. Scutellum (fig. 15) slightly more hairy and dull than mesoscutum, posteriorly pale semitransparent, with a short tooth. Metapleuron smooth and bare, only with pilosity along hind margin. Propodeal carinae slightly semitransparent, low, parallel, close together.

Fore wing 0.9 times as long as entire body, about 3 times as long as wide, almost clear, microtrichia rather long and dense (but not thickened); marginal cilia 0.3 times the width of wing. Hind wing (rather damaged in unique specimen) with marginal cilia about 0.75 times the width of wing.

Metasoma (fig. 16) shorter than head and mesosoma combined (24:26), 0.9 times as wide as mesosoma. T1 with two weak longitudinal carinae, laterally with short pubescence. T2-T6 smooth and virtually bare, T2 without basal foveae.

Material examined. Holotype female: Kenya, near Nairobi, H. FRANZ leg.

Affinities. South African *L. fusiformis* BUHL, 2005 differs from this species in having more slender antennae, lamella-like scutellar spine, and unusually strong microtrichia on wings. *L. graciliventris* BUHL, 2003 has more slender antennae than *L. kenyana*, scutellum hardly with spine, and marginal cilia of fore wing only 0.15 the width of wing. Cf. BUHL (2003, 2005).

Etymology. Named after the country with the type locality.

Leptacis macra sp. nov. (figs 17-20)

Diagnosis. Head reticulate-coriaceous, in lower half of frons transversely so; scutellar spine long and pointed slightly upwards; fore wing without marginal cilia; metasoma 1.9 times as long as head and mesosoma combined, 0.8 times as wide as mesosoma, with T3 only very slightly transverse, and T5 about twice as long as T6.

Description. Female. Length 2.3 mm. Black; A1 and legs including coxae light yellowish brown, apex of hind tibiae and last segment of all tarsi slightly darkened; A2-A6 medium brown; A7-10, mandibles and tegulae dark brown.

Head from above (fig. 17) 1.6 times as wide as long, very slightly narrower than mesosoma (39:40), distinctly reticulate-coriaceous, transversely so in lower half of frons; occiput rounded, without hyperoccipital carina. OOL hardly half as long as diameter of lateral ocellus; LOL = 4 OOL. Head in frontal view 1.15 times as wide as high. Antenna (fig. 18) with A1 0.9 times as long as height of head, one and a third times as long as distance between inner orbits; A9 1.1 times as long as wide.

Mesosoma 1.75 times as long as wide, 1.15 times as high as wide. Sides of pronotum with weak longitudinal microsculpture, smooth in lower half and along wide hind margin. Mesoscutum finely and almost uniformly reticulate-coriaceous, with sparse and inconspicuous hairs, without notauli, hind margin nearly straight; scuto-scutellar grooves wide, each with about five long hairs. Mesopleuron smooth. Scutellum (fig. 19) slightly rougher

sculptured than mesoscutum, with sparse hairs; spine needle-like and in apical half brownish, without lamella below. Metapleuron smooth and bare, only with some very short pubescence along hind margin. Propodeal carinae high, brownish and fused.

Fore wing reaching apex of T5, 2.9 times as long as wide, clear, with sparse but long and thick microtrichia, without marginal cilia. Hind wing 9.1 times as long as wide, with two hamuli; marginal cilia 0.6 times the width of wing.

Metasoma (fig. 20) 1.9 times as long as head and mesosoma combined, slightly more than 0.8 times as wide as mesosoma. T1 in anterior half much swollen, in posterior half with two weak longitudinal carinae, laterally with very few hairs. T2 smooth and bare. T3 with fine rugosity along hind margin; T4-T6 with longitudinal rugosity, T4 smooth medially; apical tergites hardly with hairs; T5 at midlength 1.3 times as wide as high.

Material examined. Holotype female: Thailand, Mae Hong Son prov., Soppong (19 27 N 98 20 E), 1500 m, 15-17.xi.1996, S. BECVAR leg.

Affinities. Differs from *L. spectabilis* sp. nov. e.g. in sculpture of head, conformation of scutellum and propodeal carinae, proportions of female T5-T6, and in having body generally much less hairy/pilose. Differs from *L. terebrans* BUHL, 2002 e.g. in having less elongate wings with shorter marginal cilia and sparser microtrichia, less pilose metapleuron, and narrower female metasoma, cf. BUHL (2002).

Etymology. The name refers to the slender body of the species.

Leptacis pacholatkoi sp. nov. (figs 21-24)

Diagnosis. Head without hyperoccipital carina, preapical antennal segments of male less than twice as long as wide, scutellum with only a small tooth.

Description. Male. Length 1.5 mm. Black; basal 0.4 of A1, fore femora, mid trochanters, base of mid and hind tibiae, and segments 1-4 of mid tarsi reddish brown; fore tibiae and segments 1-4 of fore tarsi light brown; rest of mid legs and A2-A3 very dark reddish brown; all coxae and rest of hind legs blackish.

Head from above (fig. 21) 1.9 times as wide as long, wider than mesosoma (24:23), finely reticulate-coriaceous, slightly transversely so on occiput, distinctly transversely so on frons; hyperoccipital carina absent, but head angled behind ocelli. OOL equal to diameter of lateral ocellus, half as long as LOL. Head in frontal view 1.2 times as wide as high. Antenna (fig. 22) with A1 shorter than height of head (17:20), longer than distance between inner orbits (17:15); A9 1.7 times as long as wide; flagellar pubescence 0.7 times the width of segments.

Mesosoma 1.5 times as long as wide, almost 1.2 times as high as wide. Sides of pronotum reticulate, in lower half longitudinally so, along narrow hind margin smooth. Mesoscutum finely and almost uniformly reticulate-coriaceous, with scattered, inconspicuous hairs; notauli weakly indicated posteriorly; mid lobe posteriorly narrow and distinctly prolonged to base of scutellum; scuto-scutellar grooves wide, each with five long hairs. Mesopleuron smooth. Scutellum (fig. 23) slightly smoother than mesoscutum, raised along middle and with few hairs, laterally denser hairy, with strong margins, posteriorly with a small, dark tooth, without lamella. Metapleuron smooth and bare in anterior half, rest with pilosity. Propodeal carinae dark, close together, slightly diverging.

Fore wing 2.6 times as long as wide, fully 0.9 times as long as entire body, with brownish tint and very sparse microtrichia; marginal cilia at most 0.1 the width of wing. Hind wing 5.8 times as long as wide, with two hamuli; marginal cilia one-third the width of wing.

Metasoma (fig. 24) as long as head and mesosoma combined, 0.9 times as wide as mesosoma. T1 with two longitudinal low carinae, between them smooth and bare, laterally slightly pubescent. T2 smooth, with two long and shallow basal foveae which are pubescent anteriorly, this tergite as well as following tergites with weak reticulate microsculpture along narrow hind margins; apical tergites with a few inconspicuous hairs which are inserted in shallow punctures.

Material examined. Holotype male: Malaysia, Pahang, Cameron Highlands, Tanah Rata, 1600 m, ii.2000, PACHOLATKO leg.

Affinities. Somewhat similar to *L. dentiformis* BUHL, 2008, but this species has hyperoccipital carina, longer preapical male antennal segments, much denser microtrichia on fore wings, and shorter male metasoma. Cf. also BUHL (2008b). Also similar to the Palaearctic *L. laevipetiolata* BUHL, 2001 which however has less transverse head, more elongate antennae, longer scutellar spine, and smooth T1, cf. BUHL (2001a).

Etymology. Named after the collector.

Leptacis spectabilis sp. nov. (figs 25-28)

Diagnosis. Female metasoma 1.9 times as long as head and mesosoma combined, 0.8 times as wide as mesosoma, T6 more than three times as long as T5.

Description. Female. Length 3.4 mm. Black, A1-A6 and legs except coxae light yellowish brown, A7-A10 dark brown.

Head from above (fig. 25) 1.6 times as wide as long, wider than mesosoma (14:13); occiput and vertex finely, transversely reticulate-coriaceous; occiput with some weak, transverse carinae, hyperoccipital carina only faintly indicated medially; frons with fine, oblique reticulation. OOL only one-third as long as diameter of lateral ocellus; LOL = 4 OOL. Head in frontal view 1.1 times as wide as high. Antenna (fig. 26) with A1 0.9 times as long as height of head, 1.4 times as long as distance between inner orbits; A8-A9 each 1.2 times as long as wide.

Mesosoma 2.1 times as long as wide, 1.25 times as high as wide. Sides of pronotum with weak longitudinal sculpture in upper anterior corner, rest smooth. Mesoscutum dull, finely reticulate-coriaceous; notauli indicated by very faint depressions and two rows of fine hairs; anterior admedian lines visible in anterior 0.3 of disc; mid lobe behind broad and slightly convex above base of scutellum; scuto-scutellar grooves with dense, yellowish-white hairs. Mesopleuron smooth except for a few faint longitudinal wrinkles below tegula. Scutellum (fig. 27) sculptured as mesoscutum, evenly covered by sparse hairs; spine as long as anterior part, flattened, from above triangular, brownish, without lamella below. Metapleuron smooth and bare along upper margin and in anterior half, rest with dense, white pilosity. Propodeal carinae low, dark, distinctly separated; slightly elongate area between them smooth.

Fore wing 3.0 times as long as wide, overreaching basal 0.25 of T6, with faint yello-

wish tint and with very sparse and inconspicuous microtrichia; marginal cilia 0.09 times the width of wing. Hind wing 6.1 times as long as wide, with two hamuli; marginal cilia one-third the width of wing.

Metasoma (fig. 28) 1.9 times as long as head and mesosoma combined, 0.8 times as wide as mesosoma. T1 with two longitudinal carinae, smooth between them, with short and dense hairs laterally, segment anteriorly swollen and brownish. T2 anteriorly with four weak longitudinal carinae about 0.25 as long as tergite, basal foveae only indicated by two small tufts of pubescence, rest of tergite otherwise smooth except for fine reticulation along narrow hind margin; T3-T4 weakly reticulate laterally and along hind margin; T5-T6 with longitudinal microsculpture, T5 smooth along middle; apical tergites with a few hair-implantations (about 10 on each of T4-T5); the very long T6 is convex, at midlength one and a third times as wide as high.

Material examined. Holotype female: Thailand, Mae Hong Son prov., Soppong (19 27 N 98 20 E), 1500 m, 7-12.v.1996, S. BECVAR leg.

Affinities. Characterised by the long, narrow and pointed female metasoma, e.g. metasoma narrower and with much longer T6 than in *L. terebrans* Buhl, 2002, and in *L. apiculata* Buhl, 2008. Cf. also Buhl (2002, 2008a).

Etymology. Named so because it is a spectacular species.

Platygaster anguliceps sp. nov. (figs 29-32)

Diagnosis. A large species with smooth occiput, head angled above eyes, preapical antennal segments of female 1.7 times as long as wide, almost complete notauli, female metasoma 1.25 times as long as head and mesosoma combined, and T2 hardly striated.

Description. Female. Length 2.3 mm. Black; A1-A3 and legs excluding coxae light reddish-brown; A4-A10, apex of hind femora, and last segment of all tarsi dark brown.

Head from above (fig. 29) 2.0 times as wide as long, 1.1 times as wide as mesosoma; occiput smooth behind hyperoccipital carina which is indicated by 3-4 transverse, low carinae over whole width of occiput, only laterally where occiput slopes abruptly towards eyes the carinae become irregular; vertex with irregular transverse carinae behind ocelli, this sculpture strongest laterally, almost smooth between ocelli, with a single transverse wrinkle just behind anterior ocellus; frons smooth except for a couple of transverse carinae just above antennal sockets. OOL:LOL = 3:4. Head in frontal view (fig. 30) 1.2 times as wide as high, characteristically angled above eyes. Antenna (fig. 30) with A1 shorter than height of head (25:26), 1.3 times as long as distance between inner orbits; A8-A9 each 1.7 times as long as wide.

Mesosoma 1.6 times as long as wide, nearly 1.2 times as high as wide. Sides of pronotum smooth except for weak rugosity in upper anterior corner, with sparse long hairs scattered over most of surface. Mesoscutum smooth, in anterior 0.25 and along outer margins finely reticulate-coriaceous, with a few hairs laterally, posteriorly and along notauli; notauli distinct, absent only in about anterior 0.1; mid lobe posteriorly hardly prolonged, blunt, just touching base of scutellum; scuto-scutellar grooves triangular, deep, each with 8-9 long hairs. Mesopleuron smooth, with a couple of long hairs just below tegula. Scutellum (fig. 31) at level of mesoscutum, evenly convex, smooth, with numerous

hairs. Metapleuron with pilosity all over. Propodeal carinae parallel; area between them as long as wide, smooth and shiny.

Fore wing 0.7 times as long as entire body, 2.6 times as long as wide, almost clear, with fine and dense microtrichia; marginal cilia 0.08 the width of wing. Hind wing 5.2 times as long as wide, with two hamuli; marginal cilia 0.2 the width of wing.

Metasoma (fig. 32) 1.25 times as long as head and mesosoma combined, narrower than mesosoma (26:28). T1 with two strong longitudinal keels, otherwise smooth. T2 with deep basal foveae and with very faint traces of striation at ends of these, at narrow hind margin of tergite with micropunctation, otherwise smooth. T3-T5 with dense micropunctation all over, T6 distinctly reticulate-coriaceous except basally. T3-T5 each with a couple of long hairs on each side, inserted in shallow punctures; T6 with 3 hairs along each side.

A perhaps conspecific female specimen was collected on the same locality and date as the holotype. It has slightly more slender antennae, T6 only 0.6 times as long as wide, and distinctly darker antennae and legs than the holotype of *P. anguliceps*.

Material examined. Holotype female: Thailand, Mae Hong Son prov., Soppong (19 27 N 98 20 E), 1500 m, 15-17.xi.1996, S. BECVAR leg.

Affinities. Runs to *P. indicus* MUKERJEE, 1978 in BUHL's (2008a) key to Oriental *Platygaster*, but this species has head not angled above eyes, and female antennae much shorter than in *P. anguliceps*.

Etymology. Named after the rather angular head above the eyes.

Platygaster austriaca sp. nov. (figs 33-36)

Diagnosis. Head 1.7 times as wide as long, occiput transversely reticulate-coriaceous, female A9 very slightly longer than wide, notauli complete, scutellum flattened; female metasoma 1.7 times as long as rest of body, rather flat and with smooth T4-T6.

Description. Female. Length 1.7 mm. Black; antennae hardly lighter; tegulae and legs including coxae dark brown; trochanters, apex of fore femora, most of fore tibiae, base of mid and hind tibiae, and segments 1-4 of all tarsi slightly lighter brown.

Head from above (fig. 33) 1.7 times as wide as long, 1.1 times as wide as mesosoma; occiput and vertex distinctly reticulate-coriaceous, sculpture on occiput slightly transverse; hyperoccipital carina absent; frons faintly, much transversely reticulate-coriaceous, sculpture becoming stronger, striated, in lower half. OOL:LOL = 6:5. Head in frontal view 1.25 times as wide as high. Antenna (fig. 34) with A1 0.7 times as long as height of head, longer than distance between inner orbits (14:13); A9 hardly 1.1 times as long as wide.

Mesosoma 1.6 times as long as wide, 1.1 times as high as wide. Sides of pronotum dull and finely reticulate-coriaceous (not longitudinally so) in anterior 0.6 of about upper half, rest smooth and with scattered hair-implantations. Mesoscutum with sparse, scattered hairs, finely and almost uniformly reticulate-coriaceous, hardly longitudinally so, lateral lobes smooth in outer half; notauli complete and distinct, meeting in a fine point nearly touching base of scutellum; scuto-scutellar grooves distinct, each with a couple of inconspicuous hairs. Mesopleuron smooth except for a couple of faint wrinkles just below tegula. Scutellum (fig. 35) flattened, at level of mesoscutum, uniformly and distinctly reticulate-coriaceous, with very few hairs. Metapleuron with pilosity all over. Propodeal

carinae short, parallel, well separated.

Fore wing faintly infuscated. Hind wing with two hamuli. (Wings damaged on unique type).

Metasoma (fig. 36) 1.7 times as long as head and mesosoma combined, as wide as mesosoma. T1 with two weak longitudinal carinae and some shorter carinae, hairy laterally. T2 striated in basal foveae to slightly more than half the length of tergite, between basal foveae smooth, rest of tergite as well as following tergites smooth; apical tergites with a few scattered hairs inserted in shallow punctures; T6 slightly brownish. Sternite 2 not humped anteriorly, very slightly convex, metasoma at its highest twice as wide as high; apical tergites flattened, T5 at midlength 2.4 times as wide as high.

Material examined. Holotype female: Austria, Ötztal, 21.vii.1947, HAMANN leg.

Affinities. Similar in habitus to *P. subapicalis* BUHL, 2006, but this species has occiput transversely striated, scutellum more convex than *P. austriaca*, female metasoma shorter and more striated and convex, cf. BUHL (2006).

Etymology. Named after the country with the type locality.

Platygaster becvari sp. nov. (figs 37-40)

Diagnosis. Length about 1.5 mm; head only with weak rugosity just behind hyper-occipital carina; female A9 1.5 times as long as wide; notauli almost complete; female metasoma about as long as rest of body, with smooth T2.

Description. Female. Length 1.3-1.7 mm. Black; antennae, coxae, femora and last segment of tarsi dark brown; trochanters, tibiae and segments 1-4 of tarsi light brown.

Head from above (fig. 37) 2.0 times as wide as long, very slightly wider than mesosoma; occiput smooth except for weak transverse rugosity just behind the distinct hyperoccipital carina; vertex with distinct transverse striation behind and between ocelli, around ocelli with some weak reticulation; from smooth. OOL = LOL. Head in frontal view 1.1 times as wide as high. Antenna (fig. 38) with A1 1.4 times as long as distance between inner orbits, shorter than height of head (18:19); A9 1.5 times as long as wide.

Mesosoma 1.5 times as long as wide, almost 1.2 times as high as wide. Sides of pronotum smooth, with sparse long hairs in anterior part. Mesoscutum smooth, finely reticulate along pronotum and around anterior ends of notauli, with a few long hairs along margins and notauli; notauli distinct, ending just before reaching anterior margin; mid lobe posteriorly blunt and slightly prolonged over base of scutellum; scuto-scutellar grooves inconspicuous, each with 4-5 long hairs. Mesopleuron smooth. Scutellum (fig. 39) at level of mesoscutum, evenly convex, smooth, rather densely hairy. Metapleuron with pilosity all over. Propodeal carinae parallel, area between them smooth, slightly transverse.

Fore wing 2.4 times as long as wide, 0.8 times as long as entire body, almost clear, with fine and dense microtrichia; marginal cilia slightly more than 0.1 the width of wing. Hind wing 6.6 times as long as wide, with two hamuli; marginal cilia one-third the width of wing.

Metasoma (fig. 40) slightly shorter to slightly longer than head and mesosoma combined (37:42 to 40:39), hardly 0.9 times as wide as mesosoma. T1 with two longitudinal keels. T2 smooth, without striation, with two basal foveae reaching 0.4 the length of

tergite, only narrow hind margin of tergite with very fine punctures; T3-T5 with such micropunctation all over; T6 slightly longitudinally reticulate-coriaceous; T3-T6 also with slightly stronger punctures with hairs forming transverse rows: 4 hairs on T3, 6 on each of T4-T6.

Material examined. Holotype female: Thailand, Mae Hong Son prov., Soppong (19 27 N 98 20 E), 1500 m, 15-17.xi.1996, S. BECVAR leg. Paratypes: 1 female same data as holotype; 1 female, same data but 7-12.v.1996.

Affinities. Differs from *P. achterbergi* BUHL, 2008 and *P. achterbergiana* BUHL, 2008 in having more slender female antennae. *P. achterbergi* also has scutellum less convex than *P. becvari*, and *P. achterbergiana* also has occiput more sculptured and less keeled than *P. becvari*. Cf. also BUHL (2008a, 2008b).

Etymology. Named after the collector.

Platygaster cernua sp. nov. (figs 41-44)

Diagnosis. Hyperoccipital carina present; preapical antennal segments of male each about twice as long as wide; scutellum dorsally prolonged into a broad plate, high above propodeum.

Description. Male. Length 1.05 mm. Black; A1 and legs including coxae light brownish yellow, mandibles slightly darker; A2-A10, tegulae and last segment of tarsi very dark brown.

Head from above (fig. 41) 2.3 times as wide as long, almost 1.2 times as wide as mesosoma; occiput smooth; hyperoccipital carina low but distinct; vertex faintly reticulate-coriaceous; frons weakly fan-like sculptured. OOL=LOL. Head in frontal view 1.2 times as wide as high. Antenna (fig. 42) with A1 0.8 times as long as height of head, longer than distance between inner orbits (14:13); A4 distinctly widened medially, 1.8 times as long as wide; preapical antennal segments each about twice as long as wide; flagellar pubescence distinct, 0.6 the width of segments.

Mesosoma 1.5 times as long as wide, slightly more than 1.1 times as high as wide. Sides of pronotum with weak longitudinal reticulation, smooth along wide hind margin. Mesoscutum superficially reticulate-coriaceous, with a few hairs where notauli should have been, these only indicated in posterior one-third; mid lobe posteriorly very distinctly and bluntly prolonged over base of scutellum; scuto-scutellar grooves with numerous hairs. Mesopleuron smooth. Scutellum (fig. 43) dorsally dull and almost bare, laterally densely hairy; dorsally prolonged into a broad plate, high above propodeum. Metapleuron smooth, with sparse pilosity, in upper third bare. Propodeal carinae low, slightly semitransparent, parallel, widely separated; slightly transverse area between them smooth and shiny.

Fore wing hardly shorter than entire body, 2.5 times as long as wide, with brownish tint and fine and dense microtrichia; marginal cilia short. Hind wing 5.7 times as long as wide, with two hamuli; marginal cilia 0.4 times the width of wing.

Metasoma (fig. 44) 0.9 times as long as head and mesosoma combined, 0.8 times as wide as mesosoma. T1 with two weak longitudinal carinae, otherwise smooth. T2-T7 smooth, apical tergites with a few hairs in moderately deep punctures.

Material examined. Holotype male: Malaysia, Pahang, Cameron Highlands, Tanah Rata, 1600 m, ii.2000, J. HORÁK leg.

Affinities. Similar to *P. cochleata* WALKER, 1835 and *P. filicornis* WALKER, 1835, but these have different head sculpture, more slender antennae, and scutellar prolongation in lateral view splitted in two. Cf. VLUG (1985).

Etymology. The name refers to the high, overhanging scutellum.

Platygaster costai sp. nov. (figs 45-49)

Diagnosis. A9 of both female and male slightly transverse; notauli indicated in posterior 0.4; T2 striated over whole width to about basal third.

Description. Female. Length 0.9 mm. Black; antennae and legs medium brown; base of A1, entire A2-A3, trochanters, fore tibiae, base of mid and hind tibiae, and segments 1-4 of all tarsi yellowish.

Head from above (fig. 45) 2.0 times as wide as long, 1.2 times as wide as mesosoma; occiput very finely and densely reticulate-striate, without hyperoccipital carina; vertex between ocelli sculptured as occiput, laterally without transverse elements; frons very weakly and slightly transversely reticulate-coriaceous. OOL and LOL about equal. Head in frontal view 1.3 times as wide as high. Antenna (fig. 46) with A1 two-thirds as long as height of head, 0.8 times as long as distance between inner orbits; A9 1.2 times as wide as long.

Mesosoma 1.3 times as long as wide, very slightly higher than wide (about 18:17). Sides of pronotum finely and slightly longitudinally reticulate-coriaceous, only smooth along narrow hind margin. Mesoscutum dull, finely reticulate-coriaceous, slightly smoother postero-medially, sparsely and evenly hairy; notauli indicated in posterior 0.4; mid lobe posteriorly blunt, very slightly prolonged to base of scutellum; scuto-scutellar grooves with only a couple of fine hairs. Mesopleuron smooth. Scutellum (fig. 47) finely reticulate-coriaceous as mesoscutum, distinctly above level of this, sparsely hairy, evenly convex. Metapleuron with pilosity all over. Propodeal carinae short, parallel; area between them about 3 times as wide as long, smooth and shiny.

Fore wing clear, 0.8 times as long as entire body, 2.2 times as long as wide, clear, with sparse microtrichia; marginal cilia about 0.1 the width of wing. Hind wing 5.3 times as long as wide, with two hamuli; marginal cilia 0.3 the width of wing.

Metasoma (fig. 48) 0.8 times as long as head and mesosoma combined, hardly 1.1 times as long as mesosoma, 0.9 times as wide as this. T1 with six longitudinal carinae, bare dorsally. T2 striated in inner half of basal foveae to almost 0.4 the length of tergite, medially to hardly 0.3 of length, otherwise smooth except for very faint microsculpture along narrow hind margin; T3-T5 smooth except for very faint microsculpture along narrow hind margin; T6 faintly reticulate; T4-T5 each with a transverse row of about 8 hairs inserted in shallow punctures.

Male. Length 0.7 mm. Antenna (fig. 49) with preapical segments as wide as long; flagellar pubescence nearly 0.6 times the width of segments. Metasoma almost 0.8 times as long as head and mesosoma combined, hardly 1.1 times as long as mesosoma.

Material examined. Holotype female: Brazil, Rio de Janeiro, Maricá, Barra de Maricá, 2400 m, 25.vi.2006, ex. epidermis gall on *Guapira opposita*, Jussara Costa leg. Paratype:

1 male same data. Deposited in the Zoological Museum, University of Copenhagen, Denmark

Affinities. Cf. characters separating it from *P. guapirae* sp. nov. below. *P. costai* has less slender female antennae than *P. luctuosa* KIEFFER, 1911 and *P. baccharidis* KIEFFER, 1910, the two Neotropical *Platygaster*-species most similar to it mentioned in KIEFFER (1926).

Etymology. Named after the collector.

Platygaster excelsa sp. nov. (figs 50-53)

Diagnosis. Male A9 1.6 times as long as wide; scutellum very highly convex, posteriorly sloping unevenly; T2 striated in basal foveae to 0.9 of length.

Description. Male. Length 1.5 mm. Black, A3-A10 hardly lighter; A1-A2 and legs very dark brown; distal part of fore and mid tibiae, and segments 1-4 of fore and mid tarsi, slightly lighter.

Head from above (fig. 50) 2.4 times as wide as long, nearly 1.2 times as wide as mesosoma; occiput with strong oblique striation which becomes vertcal behind eyes; hyperoccipital carina indicated by 3 more or less complete low transverse carinae from eye to eye; vertex with a couple of further short transverse carinae just behind ocelli, vertex otherwise faintly transversely reticulate-coriaceous; frons moderately strongly fan-like striated, above antennal insertions with two strong transverse carinae. OOL:LOL = 5:2. Head in frontal view 1.5 times as wide as high. Antenna (fig. 51) with A1 shorter than height of head (19:20), longer than distance between inner orbits (19:18); preapical antennal segments each 1.6 times as long as wide; flagellar pubescence distinct, equal to half the width of segments.

Mesosoma one and a third times as long as wide, 1.1 times as high as wide (measured in front of scutellum). Sides of pronotum smooth except for very faint longitudinal reticulation in anterior half, with sparse hairs in upper half and in posterior half. Mesoscutum finely reticulate-coriaceous, most of lateral lobes smooth, mid lobe in posterior 0.4 with about six longitudinal carinae, behind these with a short, narrow and smooth prolongation touching base of scutellum; mesoscutum with scattered, inconspicuous hairs; notauli indicated in posterior half; scuto-scutellar grooves deep and wide, with numerous long, golden hairs. Mesopleuron smooth. Scutellum (fig. 52) unusually highly convex, smooth and almost bare along middle, laterally with dense golden hairs, posteriorly sloping unevenly, with a couple of transverse carinae. Metapleuron with pilosity all over. Propodeal carinae dark, parallel; area between them smooth and shiny, about as long as wide.

Fore wing almost 0.9 times as long as entire body, 2.2 times as long as wide, distinctly brownish, virtually without microtrichia; marginal cilia 0.09 the width of wing. Hind wing 4.7 times as long as wide, with two hamuli; marginal cilia 0.3 the width of wing.

Metasoma (fig. 53) 0.8 times as long as head and mesosoma combined, 1.1 times as long as mesosoma, 0.75 times as wide as this. T1 with six longitudinal keels. T2 striated in basal foveae to 0.9 of length of tergite, medially only with a couple of striae reaching hardly 0.4 of length; T2 and following tergites with very fine micropunctation along hind margins; apical tergites each with a transverse row of hairs inserted in moderately deep

punctures: 12 such punctures on T3, 10 on T4, 8 on T5, 6 on T6; T7 very short and downcurved, without hairs.

Material examined. Holotype male: Malaysia, Pahang, Cameron Highlands, Tanah Rata, 1600 m, ii.2000, J. HORÁK leg.

Affinities. The Palaearctic *P. abrupta* BUHL, 1994 and *P. danielssoni* BUHL, 1998 have scutellum similarly shaped, but they have longer male antennae and T2 less striated than in *P. excelsa*. Cf. also BUHL (1994, 1998).

Etymology. The name means "tall", referring to the scutellum.

Platygaster guapirae sp. nov. (figs 54-58)

Diagnosis. Head 1.9 times as wide as long, 1.1 times as wide as mesosoma; female A9 1.1 times as long as wide; notauli indicated in posterior half; female matasoma slightly shorter than rest of body, T2 striated over whole width.

Description. Female. Length 1.0 mm. Black; antennae and legs dark brown; trochanters, base and apex of fore tibiae, base of mid and hind tibiae, and segments 1-4 of all tarsi light brown.

Head from above (fig. 54) 1.9 times as wide as long, 1.1 times as wide as mesosoma; occiput finely and densely transversely striated, without hyperoccipital carina; vertex with weak reticulation; frons smooth, laterally in lower third with weak transverse striation. OOL and LOL about equal. Head in frontal view 1.25 times as wide as high. Antenna (fig. 55) with A1 0.7 times as long as height of head, shorter than distance between inner orbits (11:13); A9 1.1 times as long as wide.

Mesosoma 1.3 times as long as wide, 1.1 times as high as wide. Sides of pronotum longitudinally reticulate, smooth along broad hind margin. Mesoscutum reticulate-coriaceous in anterior half, smooth in posterior half, evenly covered by sparse hairs; notauli weakly indicated in posterior half; mid lobe posteriorly blunt, distinctly prolonged to base of scutellum; scuto-scutellar grooves covered by dense, golden hairs. Mesopleuron smooth. Scutellum (fig. 56) evenly convex, densely hairy all over. Metapleuron with pilosity all over. Propodeal carinae short, parallel, widely separated; much transverse area between them smooth and shiny.

Fore wing 2.4 times as long as wide, clear, 0.7 times as long as entire body, with sparse microtrichia; marginal cilia 0.1 the width of wing. Hind wing 5.3 times as long as wide, with two hamuli; marginal cilia hardly 0.3 the width of wing.

Metasoma (fig. 57) 0.7-0.9 as long as head and mesosoma combined, 1.1-1.25 times as long as mesosoma, 0.9 times as wide as mesosoma. T1 with about six longitudinal carinae, bare. T2 striated in basal foveae to nearly two-thirds the length of tergite, medially to 0.25, rest of tergite as well as following tergites smooth; T3 with a transverse row of 8 hairs inserted in shallow punctures; T4 with 10 such hairs, T5 with 8 such hairs, hairs on T4-T5 in deeper punctures; T6 with 8 hairs in shallow punctures.

Male. Length 1.0-1.1 mm. Antenna (fig. 58) with A5-A9 each 1.5 times as long as wide; flagellar pubescence 0.6 the width of segments. Metasoma about 0.8 times as long as head and mesosoma combined.

Material examined. Holotype female: Brazil, Rio de Janeiro, Maricá, Itaipuaçu, 1800 m,

23.ix.2006, ex. epidermis gall on *Guapira opposita*, Jussara COSTA leg. Paratypes: 1 male, same data but 1400 m, 28.x.2006; 1 female, 1 male same data but 4200 m, 28.x.2006. Deposited in the Zoological Museum, University of Copenhagen, Denmark.

Affinities. This species is close to *P. costai* sp. nov. but larger and darker, with smoother frons and mesoscutum, stronger striated occiput, more hairy scuto-scutellar grooves and scutellum, longer antennae in both sexes and longer striation on T2, as well as slightly differently shaped head, scutellum and metasoma, cf. figs. 45-49. Though *P. guapirae* and *P. costai* are rather similar and share the same host plant in the same region (but on different mountains!), they seem to be distinct enough for separate species status. *P. guapirae* differs from *P. luctuosa* Kieffer, 1911 in having less transverse and more sculptured head, from *P. baccharidis* Kieffer, 1910 in having shorter female antennae and in having notauli, and from both species in having shorter and more striated female metasoma. *P. topaliana* Buhl, 2004 has wider head and female A9 1.4 times as long as wide. Cf. Kieffer (1926) and Buhl (2004).

Etymology. Named after its host plant.

Platygaster leptopetiolata sp. nov. (figs 59-63)

Diagnosis. Scutellum at level of mesoscutum, T1 as long as wide; T2 with two hairy basal foveae, without striation.

Description. Female. Length 1.8 mm. Black; A1-A4 and legs including coxae reddish yellow, A5-A10 and mandibles dark brown.

Head from above (fig. 59) 2.1 times as wide as long, 1.1 times as wide as mesosoma, finely reticulate-coriaceous (not transversely so), frons smooth medially; occiput evenly rounded, without hyperoccipital carina; occiput, vertex and sides of frons with numerous rather long hairs. OOL:LOL = 3:2. Head in frontal view 1.4 times as wide as high. Antenna (figs 60-61) with A1 0.9 times as long as height of head, as long as distance between inner orbits; flagellum with very short hairs only; apical segments perhaps somewhat malformed in holotype.

Mesosoma 1.4 times as long as wide, nearly 1.1 times as high as wide. Sides of pronotum finely coriaceous except along wide upper and hind margins, with rather dense and long hairs all over. Mesoscutum finely reticulate-coriaceous in anterior half of mid lobe and along margins of lateral lobes, otherwise smooth, with some hairs laterally and along notauli, otherwise bare; notauli complete and very deep, mid lobe posteriorly finely pointed and slightly prolonged to base of scutellum; scuto-scutellar grooves narrow, with very few hairs. Mesopleuron smooth, with about seven hairs below tegula. Scutellum (fig. 62) very weakly convex, at level of mesoscutum, finely reticulate-coriaceous, sparsely hairy, with or without some irregular carinae. Metapleuron with pilosity all over. Propodeal carinae dark, parallel, well separated, area between them smooth and shiny, about as long as wide.

Fore wing 0.8 times as long as entire body, 2.75 times as long as wide, almost clear and with fine and dense microtrichia; marginal cilia hardly 0.08 times the width of wing. Hind wing 6.1 times as long as wide, with three hamuli; marginal cilia at most 0.3 times the width of wing.

Metasoma (fig. 63) 0.95 times as long as head and mesosoma combined, 0.9 times as wide as mesosoma. T1 with two weak longitudinal carinae in anterior third, rest of tergite smooth and swollen medially, laterally with a longitudinal groove and about six long hairs standing out from each side. T2 with two small, slightly hairy basal foveae, without striation or sculpture but with some sparse hairs along sides. T3-T6 smooth, each with a transverse row of long hairs in shallow punctures (about 12 on each of T3 and T4, about 14 on T5, 12 on T6).

Material examined. Holotype female: Zambia, Kaoma env. (14 47 S 24 50 E), 13-15.xi.2006, KUBIK leg. Paratype: 1 female, Zambia, Zambia riv., 20 km NW Sesheka (17 17 S 24 09 E), 8.xi.2006, KUBIK leg.

Affinities. An isolated Afrotropical species on account of the low scutellum, narrow T1 and only small hairy basal foveae on T2. *P. alticola* KIEFFER, 1910 has T1 as long as wide and weakly convex scutellum, but more elongate antennae and metasoma than *P. leptopetiolata*, cf. also KIEFFER (1926).

Etymology. The name refers to the relatively narrow T1 (abdominal petiole).

Platygaster pahangensis sp. nov. (figs 64-67)

Diagnosis. Body length 1.2 mm; occiput transversely striated; female A9 as long as wide; notauli present in posterior two-thirds; metasoma as long as rest of body, T2 striated in basal foveae to 0.7, medially with a longitudinal carina.

Description. Female. Length 1.2 mm. Black; legs including coxae pale brownish yellow, A1-A3 slightly darker brownish, A4-A5 medium brown; mandibles, A6-A10, tegulae and last segment of all tarsi dark brown.

Head from above (fig. 64) 2.2 times as wide as long, 1.25 times as wide as mesosoma; occiput weakly but densely and broadly transversely striated to about where hyperoccipital carina is indicated; vertex with very faint reticulation; frons faintly and transversely reticulate-coriaceous. OOL = LOL. Head in frontal view 1.4 times as wide as high. Antenna (fig. 65) with A1 0.85 times as long as height of head, as long as distance between inner orbits; A8-A9 each about as long as wide.

Mesosoma 1.4 times as long as wide, 1.1 times as high as wide. Sides of pronotum finely longitudinally reticulate-coriaceous, smooth along wide upper and hind margins. Mesoscutum smooth, in anterior third finely reticulate, with very few hairs; notauli distinct in posterior two-thirds, anteriorly missing; mid lobe posteriorly slightly prolonged, narrow but not finely pointed, touching base of scutellum; scuto-scutellar grooves with numerous long hairs. Mesopleuron smooth. Scutellum (fig. 66) evenly convex, slightly above mesoscutum, medially smooth and almost bare, laterally with numerous hairs. Metapleuron with pilosity all over. Propodeal carinae short, parallel; area between them fully twice as wide as long, smooth.

Fore wing overreaching tip of metasoma by a length equal to length of T5-T6 combined, 2.4 times as long as wide, clear, in basal half almost bare, from midlength microtrichia become gradually denser towards apex of wing; marginal cilia at their longest slightly less than 0.1 the width of wing. Hind wing 4.9 times as long as wide, with two hamuli; marginal cilia 0.4 the width of wing.

Metasoma (fig. 67) as long as head and mesosoma combined, 0.8 times as wide as mesosoma. T1 with numerous longitudinal carinae. T2 striated in basal foveae to 0.7 the length of tergite, medially with a single longitudinal carina reaching 0.25 the length of tergite which is otherwise smooth. T3-T6 smooth, with hairs inserted in shallow punctures: 2 on T3, 8 on each of T4-T5.

Material examined. Holotype female: Malaysia, Pahang, Cameron Highlands, Tanah Rata, 1600 m, ii.2000, J. HORÁK leg.

Affinities. Runs to *P. sasii* USHAKUMARI, 2004 or to *P. satara* MANI, 1975 in BUHL's (2008a) key to Oriental *Platygaster*, but these species have T2 striated to at most one-third of length. *P. sparsipilosa* BUHL, 2008 is superficially similar to *P. pahangensis*, but it has occiput almost smooth, and shorter and less striated metasoma. *P. seminuda* BUHL, 2008 has shorter notauli and T2 striated shorter in basal foveae, longer medially, and legs darker than in *P. pahangensis*. Cf. BUHL (2008a, 2008b).

Etymology. Named after the Malaysian state Pahang.

Platygaster rihai sp. nov. (figs 68-71)

Diagnosis. Female A8-A9 each fully 3 times as long as wide; notauli almost complete; scutellum at level of mesoscutum; T2 striated to almost 0.6; T5 as long as wide, with rugosity.

Description. Female. Length 1.1 mm. Black, antennae hardly lighter, legs very dark brown; base and apex of anterior tibiae, base of mid and hind tibiae, and segments 1-4 of all tarsi dark reddish.

Head from above (fig. 68) 2.0 times as wide as long, slightly more than 1.1 times as wide as mesosoma; occiput smooth except for faint transverse striae antero-medially; hyperoccipital carina absent but indicated by a couple of weak transverse carinae behind ocelli; vertex almost smooth except for a couple of faint transverse carinae behind ocelli; frons smooth except for weak reticulation laterally in lower 0.4 and a couple of transverse wrinkles above each antennal insertions, smooth medially between these wrinkles. OOL: LOL = 3:4. Head in frontal view 1.2 times as wide as high. Antenna (fig. 69) with A1 0.8 times as long as height of head, about as long as distance between inner orbits; A8-A9 each fully 3 times as long as wide; A9-A10 of about equal length.

Mesosoma 1.5 times as long as wide, 1.1 times as high as wide. Sides of pronotum smooth. Mesoscutum smooth, slightly reticulate-coriaceous in anterior third and along outer margins, with very few hairs; notauli distinct, ending just before anterior margin; mid lobe posteriorly blunt, very slightly prolonged over base of scutellum; scuto-scutellar grooves distinct but rather small, each with a few long hairs. Mesopleuron smooth. Scutellum (fig. 70) at level of mesoscutum, smooth, evenly and moderately hairy. Metapleuron with pilosity all over. Propodeal carinae very short, widely separated.

Fore wing just reaching apex of metasoma, clear, about 2.6 times as long as wide, with fine and dense microtrichia; marginal cilia short. Hind wing 5.8 times as long as wide, with two hamuli; marginal cilia almost 0.4 the width of wing.

Metasoma (fig. 71) 1.3 times as long as head and mesosoma combined, very slightly narrower than mesosoma. T1 with two longitudinal keels. T2 striated in basal foveae to

almost 0.6 the length of tergite, smooth medially, rest of tergite, T3-T4 and T6 smooth, T5 with distinct and slightly longitudinal rugosity except along hind margin; T3-T4 each with a couple of hairs on each side inserted in shallow punctures.

Material examined. Holotype female: Thailand, Mae Hong Son prov., SE of Soppong (19 27 N 98 20 E), 1500 m, 23-27.v.1999, M. RIHA leg.

Affinities. Generally similar to *P. arabica* BUHL, 2007 but with more slender antennae and narrower apical tergites, and *P. arabica* lacks notauli. Cf. BUHL (2007).

Etymology. Named after the collector.

Platygaster soppongensis sp. nov. (figs 72-75)

Diagnosis. Length 1.3 mm; occiput longitudinally striated medially; female metasoma shorter than rest of body, T2 striated to hardly 0.4.

Description. Female. Length 1.3 mm. Black, A4-A10 and coxae hardly lighter; A1-A3, all femora and last segment of all tarsi dark brown; trochanters and tibiae light brown, distal half of mid and hind tibiae slightly darkened.

Head from above (fig. 72) 2.0 times as wide as long, slightly more than 1.1 times as wide as mesosoma; occiput strongly striated, longitudinally so laterally and medially, otherwise obliquely so, behind eyes smooth; hyperoccipital carina indicated as 2-3 low, transverse carinae from eye to eye; vertex with a couple of short transverse carinae between ocelli, otherwise almost smooth; frons smooth except for a few wrinkles around antennal insertions. LOL = 1.3 OOL. Head in frontal view 1.2 times as wide as high. Antenna (fig. 73) with A1 0.9 times as long as height of head, 1.25 times as long as distance between inner orbits; A9 1.5 times as long as wide.

Mesosoma 1.5 times as long as wide, 1.1 times as high as wide. Sides of pronotum smooth, with sparse hairs over entire surface. Mesoscutum smooth, with hairs along margins and notauli; notauli distinct and complete; mid lobe posteriorly narrow but not acutely pointed, slightly prolonged over base of scutellum; scuto-scutellar grooves distinct, each with about 7 long hairs. Mesopleuron smooth, with a couple of hairs below tegula. Scutellum (fig. 74) smooth, evenly convex, rather densely hairy. Metapleuron with pilosity all over. Propodeal carinae short, parallel; much transverse area between them smooth.

Fore wing 0.8 times as long as entire body, 2.4 times as long as wide, clear, with fine and dense microtrichia; marginal cilia short. Hind wing 4.8 times as long as wide, with two hamuli; marginal cilia hardly 0.3 the width of wing.

Metasoma (fig. 75) slightly shorter than head and mesosoma combined (37:40), as wide as mesosoma. T1 with two longitudinal keels. T2 distinctly striated in basal foveae to almost 0.4 length of tergite, smooth between foveae, rest of tergite smooth except for very fine micropunctation along narrow hind margin; T3-T6 with very fine micropunctation; apical tergites also each with a transverse row of hairs inserted in shallow punctures: 4 hairs on each of T3, T5 and T6, 6 hairs on T4.

Material examined. Holotype female: Thailand, Mae Hong Son prov., Soppong (19 27 N 98 20 E), 1500 m, 7-12.v.1996, S. BECVAR leg.

Affinities. Only *P. lubomasneri* BUHL, 1995 has a similar occipital sculpture, but this is a much larger, more elongate species with longer striae on T2 and more deeply implan-

ted hairs on apical tergites, cf. Buhl (1995). Etymology. Named after the type locality.

Platygaster thailandica sp. nov. (figs 76-79)

Diagnosis. A large species with tranverse female A8-A9, strongly striated occiput, almost complete notauli and a female metasoma which is 1.2 times as long as rest of body, T2 striated to half of length, apical tergites pointed and narrowed in straight lines.

Description. Female. Length 2.4 mm. Shiny black; anterior tibiae and segments 1-4 of anterior and mid tarsi medium brown, mid tibiae and base of hind tibiae very dark brown.

Head from above (fig. 76) 2.2 times as wide as long, very slightly wider than mesosoma; occiput strongly, almost half-circularly striated, angled but without hyperoccipital carina; vertex strongly transversely striated behind, between and lateral of ocelli; frons smooth except for transverse striation around antennal insertions. OOL:LOL = 4:3. Head in frontal view 1.25 times as wide as high. Antenna (fig. 77) short and thick, with A1 0.85 times as long as height of head, 1.1 times as long as distance between inner orbits; A9 1.3 times as wide as long.

Mesosoma nearly 1.6 times as long as wide, slightly more than 1.1 times as high as wide. Sides of pronotum smooth except for weak longitudinal rugosity in upper anterior corner and a few hair-implantations. Mesoscutum smooth, along tegulae and pronotum and around ends of notauli finely reticulate-coriaceous, with a few inconspicuous hairs; notauli strong, ending just before reaching anterior margin; mid lobe posteriorly blunt, slightly prolonged to base of scutellum; scuto-scutellar grooves each with about eight long hairs. Mesopleuron smooth. Scutellum (fig. 78) high and evenly convex, with slightly raised rugosity and rather dense, short hairs. Metapleuron smooth, with long pilosity all over (very sparse antero-medially). Propodeal carinae high, dark, parallel, area between them about as long as wide, smooth and shiny.

Fore wing 0.7 times as long as entire body, reaching to about apex of metasoma, 2.6 times as long as wide, with brownish tint and dense and moderately long microtrichia; marginal cilia 0.08 the width of wing. Hind wing 4.6 times as long as wide, with two hamuli; marginal cilia 0.25 the width of wing.

Metasoma (fig. 79) 1.2 times as long as head and mesosoma combined, narrower than mesosoma (15:16). T1 with two strong, parallel longitudinal carinae, laterally with short and sparse hairs. T2 densely striated in basal foveae to half the length of tergite, smooth medially, rest of tergite smooth except for very fine punctation along narrow hind margin. T3-T5 with such very fine punctation except medially; T6 with micropunctation basally and laterally, otherwise smooth. Apical tergites also with stronger punctures with hairs, more or less arranged in transverse rows: 8 punctures on T3, 10 on T4, 8 on T5, and 6 on T6. Sternite 2 not convex.

Material examined. Holotype female: Thailand, Mae Hong Son prov., Soppong (19 27 N 98 20 E), 1500 m, 7-12.v.1996, S. BECVAR leg.

Affinities. Runs to *P. sasii* USHAKUMARI, 2004 in BUHL's (2008a) key, but this species has T2 striated in less than basal third and apical tergites much shorter than in *P. thailandica*, cf. also USHAKUMARI (2004).

Etymology. Named after the country with the type locality.

Synopeas horaki sp. nov. (figs 80-83)

Diagnosis. Scutellum posteriorly with a vertical lamella; fore wings brownish; Metasoma 1.25 times as long as head and mesosoma combined, T2 reticulate in posterior half.

Description. Female. Length 2.4 mm. Black; A1-A6 dark reddish brown; anterior femora (except basally), all tibiae, and segments 1-4 of all tarsi yellowish brown, distal half of mid and hind tibiae darkened.

Head from above (fig. 80) 1.8 times as wide as long, 0.9 times as wide as mesosoma, finely reticulate-coriaceous, this sculpture combined with rougher foveolate sculpture (irregular carinae) on vertex and frons; frons medially in lower half with transverse carinae; hyperoccipital carina strong and complete. OOL:LOL = 2:5, on outer side of each lateral ocellus is a small groove. Head in frontal view 1.15 times as wide as high. Antenna (fig. 81) with A1 0.9 times as long as height of head, 1.25 times as long as distance between inner orbits; A2 unusually slender, 3.6 times as long as wide; A9 about 1.5 times as wide as long.

Mesosoma 1.4 times as long as wide, 1.1 times as high as wide. Sides of pronotum dull, finely reticulate-coriaceous (not longitudinally so), smooth along anterior margin in lower half and along entire narrow hind margin. Mesoscutum dull, finely and uniformly reticulate-coriaceous, sparsely and evenly hairy, with no trace of notauli; hind margin medially with a small, dull and dark prolongation to base of scutellum; scuto-scutellar grooves wide, with numerous long hairs. Mesopleuron smooth, with a small dull area just below tegula. Scutellum (fig. 82) almost smooth and bare along middle, laterally densely hairy, posteriorly with a distinct, dark, vertical lamella. Metapleuron with dense pilosity, in most of anterior 0.2 smooth and bare. Propodeal carinae high, dark, parallel; area between them almost smooth, 1.7 times as long as wide.

Fore wing slightly overreaching tip of metasoma, 0.75 as long as entire body, about 2.5 times as long as wide, with brownish tint and fine and dense microtrichia; marginal cilia absent. Hind wing 5.0 times as long as wide, with two hamuli; marginal cilia 0.25 the width of wing.

Metasoma (fig. 83) 1.25 times as long as head and mesosoma combined, hardly 0.9 times as wide as mesosoma, one and a third times as wide as high. T2 smooth in about anterior half, rest (except lateral margins) with dull reticulate microsculpture; T3-T5 with such sculpture along hind margins, T6 with such sculpture almost all over; apical tergites with a few inconspicuous hairs; sternite 2 distinctly convex anteriorly, forwards below T1.

Material examined. Holotype female: Malaysia, Pahang, Cameron Highlands, Tanah Rata, 1600 m, ii.2000, J. HORÁK leg.

Affinities. *S. coriaceus* BUHL, 2008 has scutellum and T2 rather similar to *S. horaki*, but it has weaker sculptured head than *S. horaki*, clear wings, fused propodeal carinae, and metasoma only as long as head and mesosoma combined, twice as long as wide. *S. achterbergi* BUHL, 2008 has scutellum evenly sloping behind and metasoma less constricted anteriorly than in *S. horaki*. Cf. BUHL (2008a, 2008b).

Etymology. Named after the collector.

Synopeas mozo sp. nov. (figs 84-87)

Diagnosis. Frons with numerous irregular carinae, forming rough, almost alveolate sculpture; female A8-A9 each as wide as long.

Description. Female. Length 1.4 mm. Black; A1 and fore legs yellowish brown; A2-A6 and mid and hind legs darker, more or less reddish-brown; mid tibiae darkest medially, hind tibiae darkest in apical half; A7-A10 dark brown, coxae blackish.

Head dull, from above (fig. 84) 1.75 times as wide as long, 0.9 times as wide as mesosoma; occiput uniformly reticulate-coriaceous (not transversely so); hyperoccipital carina distinct and complete; vertex and frons finely reticulate-coriaceous, vertex also with irregular transverse carinae; frons also with numerous irregular, longitudinal, oblique and transverse carinae, forming rough, almost alveolate sculpture. OOL hardly as long as diameter of lateral ocellus; LOL = 3 OOL. Head in frontal view slightly wider than high (21:20). Antenna (fig. 85) with A1 as long as height of head, 1.5 times as long as distance between inner orbits; A8-A9 each as wide as long.

Mesosoma 1.5 times as long as wide, 1.1 times as high as wide. Sides of pronotum finely reticulate-coriaceous in upper anterior corner, otherwise smooth. Mesoscutum dull, finely and uniformly reticulate-coriaceous, evenly covered with rather dense, fine hairs, with no trace of notauli; hind margin medially with a small triangular prolongation to base of scutellum; scuto-scutellar grooves wide, each with about 10 long, conspicuous hairs. Mesopleuron smooth. Scutellum (fig. 86) sculptured as mesoscutum, with denser hairs; with a distinct dark spine without lamella. Metapleuron with pilosity only posteriorly. Propodeal carinae long, straight, dark, close together.

Fore wing hardly shorter than entire body, 2.6 times as long as wide, faintly infuscated, with fine and dense microtrichia; marginal cilia 0.06 the width of wing. Hind wing 5.6 times as long as wide; marginal cilia one-third the width of wing.

Metasoma (fig. 87) 0.9 times as long as head and mesosoma combined, 1.1 times as long as mesosoma, very slightly narrower than this, 1.5 times as wide as high. T2 with distinct, dense micropunctation along wide hind margin, apical tergites with such sculpture over most of surface.

Material examined. Holotype female: Thailand, Mae Hong Son prov., Soppong (19 27 N 98 20 E), 1500 m, 15-17.xi.1996, S. BECVAR leg.

Affinities. Differs from the similar Central American species *S. carinifrons* BUHL, 2001 e.g. in antennal structure, in having more irregular sculpture on frons, and in having shorter marginal cilia on wings. Cf. also BUHL (2001b). Runs to *S. nigricoxa* BUHL, 2008 in BUHL's (2008a) key to Oriental *Synopeas*-species, but this species has more transverse and differently sculptured head than *S. mozo*. Cf. also BUHL (2008a).

Etymology. Named after Mr. M. WARREN (Hillerød, Denmark).

Synopeas soppongense sp. nov. (figs 88-91)

Diagnosis. Hyperoccipital carina strong; A9 1.5 times as wide as long; notauli absent; scutellum only with a narrow lamella; metasoma slightly shorter than rest of body, 1.4 times as wide as high.

Description. Female. Length 1.2-1.5 mm. Black; A1 and legs except coxae and last segment of tarsi yellowish brown, A2-A6 slightly darker.

Head from above (fig. 88) 1.8 times as wide as long, slightly wider than mesosoma (25:24), finely and almost uniformly reticulate-coriaceous, meshes largest on occiput, with transverse elements only medially just above antennal sockets; hyperoccipital carina strong and complete. LOL = 4.2 OOL; OOL equal to diameter of lateral ocellus. Head in frontal view wider than high (25:22). Antenna (fig. 89) with A1 0.8 times as long as height of head, longer than distance between inner orbits (18:16); A9 1.5 times as wide as long.

Mesosoma almost 1.4 times as long as wide, higher than wide (27:25). Sides of pronotum finely reticulate-coriaceous (not longitudinally so) all over. Mesoscutum finely and almost uniformly reticulate-coriaceous, sparsely and evenly hairy, with no trace of notauli; hind margin medially with a small (not swollen or smooth), slightly brownish prolongation to base of scutellum; scuto-scuteller grooves wide and with dense hairs. Mesopleuron smooth except a small dull area just below tegula. Scutellum (fig. 90) smooth, rounded, along middle slightly raised and with sparse hairs, postero-laterally densely hairy, hind slope with a very narrow lamella or keel along middle. Metapleuron with pilosity except along narrow anterior margin. Propodeal carinae high, slightly semitransparent, fused.

Fore wing 0.85 times as long as entire body, 2.4 times as long as wide, clear, with fine and moderately dense microtrichia, without marginal cilia. Hind wing 4.8 times as long as wide; marginal cilia 0.25 the width of wing.

Metasoma (fig. 91) 0.9 times as long as head and mesosoma combined, almost as wide as mesosoma, 1.4 times as wide as high. T2-T5 smooth, with fine reticulate microsculpture along narrow hind margins; T6 with distinct reticulate microsculpture except at narrow base and apex; T4-T5 each with a transverse row of inconspicuous hairs.

The paratype is smallest (1.2 mm), it has slightly darker body appendages than described above for the holotype, slightly smoother sides of pronotum, mesopleuron with a few striae below tegula, and carina on posterior slope of scutellum slightly wider than in holotype.

Material examined. Holotype female: Thailand, Mae Hong Son prov., Soppong (19 27 N 98 20 E), 1500 m, 15-17.xi.1996, S. BECVAR leg. Paratype: 1 female same data but 7-12.v.1996.

Affinities. Similar to Palaearctic *S. lugubris* THOMSON, 1859, but with thicker head, more transverse preapical antennal segments, and less flattened metasoma. Cf. also BUHL (1998). *Synopeas bister* BUHL, 2008 has A8-A9 each about as long as wide, cf. BUHL (2008b). Runs to *S. mangiferae* AUSTIN, 1984 in BUHL's (2008a) key, but this species has head differently shaped than *S. soppongense*, and scutellum without distinct lamella behind, cf. AUSTIN (1984).

Etymology. Named after the type locality.

Synopeas thailandicum sp. nov. (figs 92-95)

Diagnosis. Head very roughly sculptured all over, hyperoccipital carina present; female A5 distinctly longer and wider than A4, A9 1.2 times as long as wide; disc of mesoscutum distinctly raised above scutellum which is provided with a long and strong spine; fore

wing without marginal cilia; female metasoma short and flattened.

Description. Female. Length 1.7 mm. Black; A1-A2, fore legs, mid tarsi, and segments 2-5 of hind tarsi light reddish-brown; A3-A6 and mid tibiae darker reddish-brown; mandibles, basal half of hind tibiae, and segment 1 of hind tarsi very dark reddish-brown; coxae and rest of antennae and legs blackish.

Head from above (fig. 92) 2.0 times as wide as long, as wide as mesosoma, with a distinct hyperoccipital carina, very roughly sculptured all over by irregular carinae on a background of finer reticulation; carinae longitudinal behind ocelli, mostly transverse in front of them, forming somewhat foveolate sculpture. OOL equal to smallest width of lateral ocellus; LOL = 2 OOL. Head in frontal view wider than high (25:23). Antenna (fig. 93) with A1 0.95 times as long as height of head, 1.7 times as long as distance between inner orbits; A9 1.2 times as long as wide.

Mesosoma 1.6 times as long as wide, slightly more than 1.1 times as high as wide. Sides of pronotum weakly reticulate (not longitudinally so) and with a few hair-implantations in anterior half and upper 0.4, rest smooth and bare. Mesoscutum dull, finely reticulate-coriaceous and evenly and rather densely hairy, without notauli; hind margin in dorsal view convex and medially with a small, slightly brownish prolongation, at sides with short, dense whitish hairs, in lateral view distinctly above level of scutellum. Mesopleuron smooth. Scutellum (fig. 94) smoother than mesoscutum, hairy as this, posterolaterally with a few longer hairs, with a strong and dark spine without lamella. Metapleuron smooth and bare in most of anterior 0.5 and along upper margin over most of length, rest with whitish pilosity. Propodeal carinae rather high, dark, fused, in dorsal view sculptured and widened towards apex.

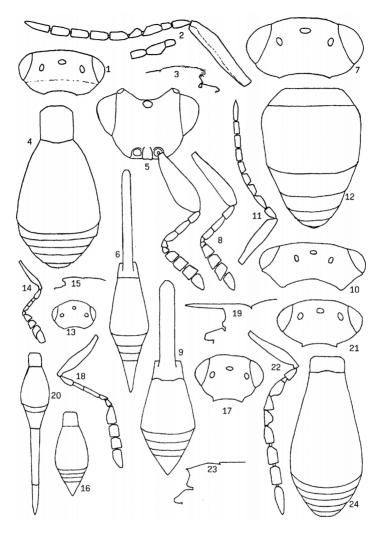
Fore wing 0.9 times as long as entire body, 2.9 times as long as wide, slightly infuscated and with fine and dense microtrichia; marginal cilia absent. Hind wing 5.9 times as long as wide; marginal cilia 0.3 the width of wing.

Metasoma (fig. 95) 0.8 times as long as head and mesosoma combined, 1.1 times as long as mesosoma, 0.9 times as wide as this, 1.5 times as wide as high. T1 and base of T2 with strong pilosity, visible part of T1 and T2 smooth except hind margin of T2; hind margins of T2-T5 with distinct, dull reticulate microsculpture, T6 with such sculpture all over except laterally; apical tergites with a few inconspicuous hairs.

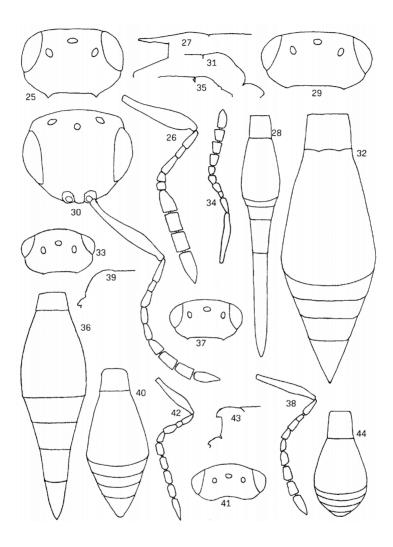
Material examined. Holotype female: Thailand, Mae Hong Son prov., Soppong (19 27 N 98 20 E), 1500 m, 15-17.xi.1996, S. BECVAR leg.

Affinities. Runs to *S. nigricoxa* BUHL, 2008 in BUHL's (2008a) key, but this species has weaker sculptured head, A5 shorter than A4, and scutellar spine shorter than in *S. thailandicum*. Similar to *S. vietnamianus* BUHL, 2008, but this species has female A4 shorter relative to A3 and A5, preapical antennal segments slightly longer, occiput finer sculptured, and a larger gap between level of mesoscutum and level of scutellum than in *S. thailandicum*, and metasoma not longer than mesosoma, cf. BUHL (2008b).

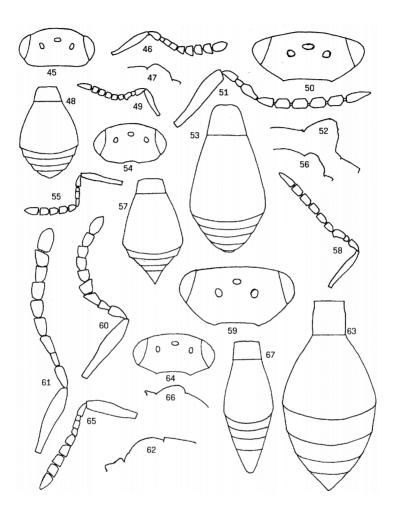
Etymology. Named after the country with the type locality.



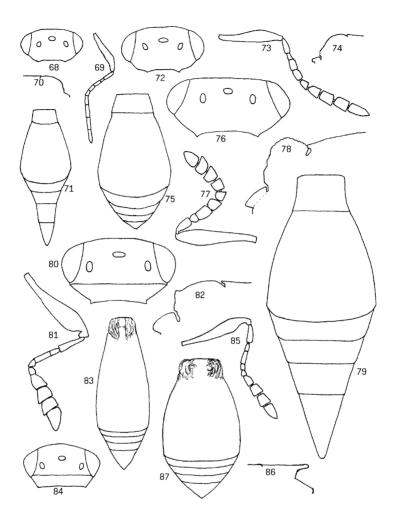
Figs 1-4 *Amblyaspis longicornis* sp. nov. male: 1 head, 2 antenna (A3-A5 also from a different angle), 3 scutellum, 4 metasoma. **Figs 5-6** *Inostemma malaysianum* sp. nov. female: 5 head and antenna, 6 metasoma. **Figs 7-9** *Inostemma schwarzi* sp. nov. female: 7 head, 8 antenna, 9 metasoma. **Figs 10-12** *Isolia indica* sp. nov. male: 10 head, 11 antenna, 12 metasoma. **Figs 13-16** *Leptacis kenyana* sp. nov. female: 13 head, 14 antenna, 15 scutellum, 16 metasoma. **Figs 17-20** *Leptacis macra* sp. nov. female: 17 head, 18 antenna, 19 scutellum, 20 metasoma. **Figs 21-24** *Leptacis pacholatkoi* sp. nov. male: 21 head, 22 antenna, 23 scutellum, 24 metasoma.



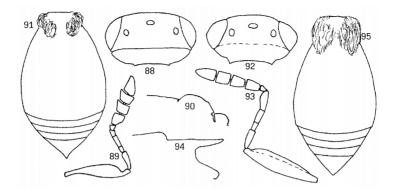
Figs 25-28 *Leptacis spectabilis* female: 25 head, 26 antenna, 27 scutellum, 28 metasoma. **Figs 29-32** *Platygaster anguliceps* sp. nov. female: 29 head from above, 30 head in frontal view and antenna, 31 scutellum, 32 metasoma. **Figs 33-36** *Platygaster austriaca* sp. nov. female: 33 head, 34 antenna, 35 scutellum, 36 metasoma. **Figs 37-40** *Platygaster becvari* sp. nov. female: 37 head, 38 antenna, 39 scutellum, 40 metasoma. **Figs 41-44** *Platygaster cernua* sp. nov. male: 41 head, 42 antenna, 43 scutellum, 44 metasoma.



Figs 45-49 *Platygaster costai* sp. nov.: 45 head, 46 female antenna, 47 scutellum, 48 female metasoma, 49 male antenna. **Figs 50-53** *Platygaster excelsa* sp. nov. male: 50 head, 51 antenna, 52 scutellum, 53 meta-soma. **Figs 54-58** *P. guapirae* sp. nov.: 54 head, 55 female antenna, 56 scutellum, 57 female metasoma, 58 male antenna. **Figs 59-63** *Platygaster leptopetiolata* sp. nov. female: 59 head, 60 antenna of holotype, 61 antenna of paratype, 62 scutellum, 63 metasoma. **Figs 64-67** *Platygaster pahangensis* sp. nov. female: 64 head, 65 antenna, 66 scutellum, 67 metasoma.



Figs 68-71 *Platygaster rihai* sp. nov. female: 68 head, 69 antenna, 70 scutellum, 71 metasoma. **Figs 72-75** *Platygaster soppongensis* sp. nov. female: 72 head, 73 antenna, 74 scutellum, 75 metasoma. **Figs 76-79** *Platygaster thailandica* sp. nov. female: 76 head, 77 antenna, 78 scutellum, 79 metasoma. **Figs 80-83** *Synopeas horaki* sp. nov. female: 80 head, 81 antenna, 82 scutellum, 83 metasoma. **Figs 84-87** *Synopeas mozo* sp. nov. female: 84 head, 85 antenna, 86 scutellum, 87 metasoma.



Figs 88-91 *Synopeas soppongense* sp. nov. female: 88 head, 89 antenna, 90 scutellum, 91 metasoma. **Figs 92-95** *Synopeas thailandicum* sp. nov. female: 92 head, 93 antenna, 94 scutellum, 95 metasoma.

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