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# New species of Platygastrinae from the Afrotropical region (Hymenoptera, Platygastridae)

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#### Abstract

The following 14 species are described as new to science: Euxestonotus michaeli. Inostemma transversiceps, Leptacis humifusa, L. madagascariensis, L. maritima, L. pilosiscutellata, L. wawa, Platygaster grandidieri, P. madagascariensis, P. maroantsetrensis, P. risbeciana, Synopeas ambrense, S. popovicii, and S. rajaonarimampianinai, all from Madagascar except L. wawa which is from Togo. The work is illustrated by 40 text-figures.

#### Zusammenfassung

14 neue Arten werden beschrieben: Euxestonotus michaeli, Inostemma transversiceps, Leptacis humifusa, L. madagascariensis, L. maritima, L. pilosiscutellata, L. wawa, Platygaster grandidieri, P. madagascariensis, P. maroantsetrensis, P. risbeciana, Synopeas ambrense, S. popovicii und S. rajaonarimampianinai aus Madagaskar, nur L. wawa ist aus Togo. Die Arbeit ist mit 40 Abbildungen versehen.

#### Introduction

As a supplement to my recent key to Afrotropical platygastrids (Buhl 2011) I hereby provide descriptions of further species from the region, mainly from Madagascar. All material has been collected by Dr. Michael von TSCHIRNHAUS, and it is preserved in the Zoological Museum, University of Copenhagen (ZMUC).

Standard abbreviations used in the descriptions are A1-A10 = antennomeres 1-10, OOL = distance between lateral ocellus and eye, LOL = distance between lateral and anterior ocelli, and T1-T6 = tergites 1-6.

#### Material

#### Euxestonotus michaeli nov.sp. (figs 1-3)

M a t e r i a l e x a m i n e d: Holotype  $\varphi$ : Madagascar, west coast of Masoala Peninsula, National Park S of the village Ambanizana (15°42'20"S, 49°57'69"E), 13-19.xi.2006, yellow pan trap on sandy beach and adjacent grass.

D i a g n o s i s . Head fully twice as wide as long, female A9 1.5 times as wide as long; female metasoma about 1.6 times as long as wide, T1 twice as wide as long.

Description. Q. Body length 1.1 mm. Black; antennae, mandibles and tegulae dark brown; legs including coxae medium brown; trochanters, most of fore tibiae, base of mid and hind tibiae, and segments 1-4 of all tarsi light brown.

Head from above (fig. 1) fully twice as wide as long, 1.15 times as wide as mesosoma; occiput distinctly and slightly transversely reticulate-coriaceous; hyperoccipital carina absent; vertex and from smooth. LOL = 1.25 OOL. Head in frontal view 1.2 times as wide as high. Antenna (fig. 2) with A1 0.75 times as long as height of head, as long as distance between inner orbits; A9 1.5 times as wide as long.

Mesosoma one and a third times as long as wide, slightly higher than wide (20:19). Sides of pronotum smooth except for a small spot of reticulation antero-medially. Mesoscutum with very few setae (near margins and notauli), reticulate-coriaceous in most of anterior half (7:15), rest smooth; notauli distinct and posteriorly slightly diverging as usual in genus, almost complete, ending shortly before reaching anterior margin (missing in less than anterior one-sixth); mid lobe at the straight hind margin hardly narrower than scutellar disc. Mesopleuron smooth. Scutellum very sparsely setose, at level of mesoscutum as usual in genus, hind margin low, dark and very slightly excavated in lateral view. Metapleuron with moderately dense pilosity and faint microsculpture all over. Propodeal carinae dark, parallel; area between them very slightly transverse, almost smooth.

Fore wing 0.75 as long as entire body, 2.2 times as long as wide, clear, with very sparse and fine microtrichia; marginal cilia 0.13 width of wing. Hind wing 5.25 times as long as wide; marginal cilia almost 0.4 width of wing.

Metasoma (fig. 3) 1.2 times as long as mesosoma, 0.85 times as long as head and mesosoma combined, as wide as mesosoma. T1 twice as wide as long, with about ten similar longitudial carinae. T2 hardly with basal foveae, laterally irregularly longitudinally striated to one-third of length, medially to one-fourth, rest of tergite smooth except

for faint micropunctation along narrow hind margin. T3-T6 smooth except for faint micropunctation, and each with a transverse row of setae inserted in shallow punctures (six on T3, eight on each of T4-T5, four on T6).

C o m m e n t s . Runs to *E. astraea* BUHL, 1998 from the United States of America in BUHL's (1998) key, but that species has A1 and legs yellow, A8-A9 less widened towards apex, and A10 more pointed. *E. charon* BUHL, 2004 from Nigeria has more slender antennae and metasoma, shorter OOL, mesoscutum sculptured in anterior one-third, fore wings darker, T1 only with a couple of carinae, and T2 smoother than in *E. michaeli*.

E t y m o l o g y . Named after the collector, Dr. Michael von TSCHIRNHAUS.

# Inostemma transversiceps nov.sp. (fig. 4)

M a t e r i a l e x a m i n e d : <u>Holotype</u>  $\varphi$ : Madagascar, island Nosi Tanikely (E of Nosi Be), (13°28'59"S, 48°14'18"E), 11.ix.2004, swept on hot beach below hill with *Ipomoea* and and Poaceae. <u>Paratypes</u>:  $11 \circ \circ \circ$ ,  $11 \circ \circ \circ$  same data.

D i a g n o s i s . Head in frontal view 1.7 times as wide as high; female horn of T1 longitudinally striated, overreaching entire head.

Description. Q. Body length 1.3-1.7 mm. Black; A1-A2, mandibles, legs including coxae, and last segment of tarsi more or less dark brown; trochanters, base and apex of tibiae, and segments 1-4 of tarsi light brown.

Head from above 2.25 times as wide as long, 1.3 times as wide as mesosoma, finely reticulate-coriaceous, only somewhat transversely so medially on frons and in the shallow vertexial notch. OOL about equal to shorter diameter of lateral ocellus. Head in frontal view (fig. 4) 1.7 times as wide as high, with eyes slightly angular. Antenna with A1 0.75 times as long as height of head, also 0.75 times as long as distance between inner orbits; A3 1.5 times as long as wide, 0.8 times as long as A2 and 1.2 times as long as A4 which is 1.25 times as long as wide; A7 about 0.95 times as wide as A8-A9; A9 about one and a third times as wide as long; A10 1.8 times as long as A9.

Mesosoma 1.2 times as long as wide, 1.15 times as wide as high. Sides of pronotum dull reticulate-coriaceous (not longitudinally so), smoother antero-medially. Mesoscutum with a few inconspicuous setae laterally and along notauli, finely and almost uniformly reticulate-coriaceous; notauli complete, deep and smooth, distinctly widened in posterior third. Mesopleuron reticulate-coriaceous, smoother in about medial third, in upper third with a few longitudinal carinae in posterior half. Scutellum sculptured, flat, slightly concave along middle. Metapleuron with dense, adpressed pilosity except on a small spot in upper part along anterior margin.

Fore wing clear, just reaching base of T6, 0.55 as long as entire body, 2.4 times as long as wide, with fine and dense microtrichia; subcostal vein light brown, 0.35 as long as wing; marginal cilia very short. Hind wing 4.2 times as long as wide; marginal cilia hardly more than one-sixth the width of wing.

Metasoma 1.4 times as long as head and mesosoma combined, 0.85 times as wide as mesosoma. Horn of T1 overreaching entire head (surpassing anterior occllus by a distance equal to about one-third the length of head), longitudinally striated, from above with parallel sides, blunt at apex, in lateral view evenly curved, with inconspicuous setae along lower margin. T2 1.2 times as long as wide, laterally finely longitudinally striated

to about midlength, wide hind margin of T2 and entire T3-T6 finely reticulate; T3-T6 combined 1.1 times as long as T2, with numerous fine setae, T6 1.5 times as long as wide.

 $\delta$ . Body length 1.3-1.5 mm. Head in frontal view about 1.6 times as wide as high. Antenna with A1 about 0.75 as long as shortest distance between eyes; A2-A3 combined 1.2 times as long as A4, A3 hardly more than half as long as A4 which is not widened, only 0.8 times as wide as preapical segments, 1.85 times as long as wide, in apical half narrowed towards apex; A6-A9 almost equal, A9 about 1.1 times as long as wide, A10 1.8 times as long as A9. Head and scutellum without concavity. Metasoma about as long as rest of body.

C o m m e n t s . *I. ambilobei* (RISBEC, 1955) from Madagascar (only male known) has head only 1.25 times as wide as high, male antennae more slender with A1 0.9 times as long as distance between eyes, A4 hardly longer than A3, and A10 only 1.4 times as long as A9, and, contrary to *I. transversiceps*, mesoscutum behind more roughly sculptured than rest of disc and with setae. *I. senegalense* RISBEC, 1950 has less transverse head, shorter horn of T1 and smoother T2 than *I. transversiceps*.

E t y m o l o g y . The name refers to the rather unusually transverse head of this species, epecially when the head is seen from in front.

# Leptacis humifusa nov.sp. (figs 5-7)

M a t e r i a l e x a m i n e d: Holotype φ: Madagascar, Andasibe (=Perinet), lawn within campsite at national park entrance/forest station (18°56'10"S, 48°24'51"E), 18.ix.2004, 1027 m, swept along forest edge and on lawn with *Ageratum* (Asteraceae).

D i a g n o s i s . Scutellum with a characteristic short, lamella-like, slightly translucent tooth closely along propodeal carinae.

Description. Q. Body length 0.8 mm. Body dark brown, head darkest; A1-A6, mandibles and legs including coxae light yellowish brown.

Head from above 1.95 times as wide as long, almost 1.15 times as wide as mesosoma, distinctly reticulate-coriaceous with large meshes, on occiput and frons sculpture much transverse, on frons fading out towards middle; head angled behind ocelli, but hyperoccipital (hyper-occipital) carina weakly indicated. OOL as long as diameter of lateral ocelli, hardly half as long as LOL. Eyes bare. Head in frontal view almost 1.15 times as high as wide. Antenna (fig. 5) with A1slightly (A1 slightly) more than 0.9 times as long as height of head, 1.2 times as long as distance between inner orbits; A9 about as long as wide; clava with distinct pubescence.

Mesosoma 1.6 times as long as wide, 1.2 times as high as wide. Sides of pronotum smooth, in upper third with sparse setae. Mesoscutum with rather few setae, most of them along imaginary notaulic courses and margins; disc weakly reticulate-coriaceous; notauli absent; hind margin medially with a very small convexity to base of scutellum; each of the triangular scuto-scutellar grooves with 4-5 long setae. Mesopleuron with about three longitudinal striae just below tegula, rest smooth. Scutellum (fig. 6) slightly smoother than mesoscutum, sparsely setose, sloping behind, ending in a short, lamellalike, slightly translucent tooth closely along propodeal carinae. Metapleuron smooth and bare except for a row of pilae around midheight and along hind margin. Propodeal

carinae fused, of moderate height, weakly translucent, in lateral view tooth-like prolonged behind.

Fore wing fully 0.9 times as long as entire body, just about 3.0 times as long as wide, weakly infuscated and with fine and dense microtrichia; marginal cilia fully one-third the width of wing. Hind wing 9.25 times as long as wide; marginal cilia equal to width of wing.

Metasoma (fig. 7) 1.1 times as long as head and mesosoma combined, very slightly more than 0.9 times as wide as mesosoma. T1 with two widely separated longitudinal carinae, smooth and bare between them, moderately densely pubescent at each side, pubescence continuing in the two very small basal foveae on T2 which is unsculptured. T3-T5 each with a transverse stripe of fine rugosity, T6 reticulate-coriaceous all over; apical tergites with a few very inconspicuous setae.

C o m m e n t s . This species runs to  $L.\ luboi$  BUHL, 2003 in BUHL's (2011) key, but it differs from that species as well as from other species of the genus in the characteristic conformation of scutellum (from  $L.\ luboi$  also in more slender antennae, longer metasoma etc.).

E t y m o l o g y . The name refers to the scutellar tooth characteristically "lying down" along the propodeum.

# Leptacis madagascariensis nov.sp. (figs 8-11)

M a t e r i a l e x a m i n e d: <u>Holotype</u> ç: Madagascar, Ampasikibo, village at road from Tulear to Morombe, 6 km SSW of Analamisampy (22°32'S, 43°39'E), 17.ii.1984, swept at roadside. Paratype: 1♂ same data.

D i a g n o s i s . Head with strong hyperoccipital carina; female antennae with a 4-segmented clava, A4 only about 1.25 times as long as A3, preapical segments each about as long as wide; notauli absent; scutellum in lateral viw high behind, with a thin tooth only 0.25 as long as propodeal carinae; fore wings without marginal cilia; female metasoma 1.2 times as long as rest of body.

Description. Q. Body length 1.1 mm. Body medium brown, head dark brown; A1-A6, mandibles and legs including coxae light brown, apical 0.4 of hind tibiae and last segment of all tarsi slightly darkened; A7-A10 dark brown.

Head from above 2.1 times as wide as long, 1.25 times as wide as mesosoma; occiput finely (very slightly transversely) reticulate-coriaceous, smooth behind eyes; hyperoccipital (hyper-occipital) carina strong and complete; vertex and frons finely reticulate-coriaceous, frons distinctly transversely so. OOL slightly shorter than diameter of lateral ocellus, one-third as long as LOL. Eyes bare. Head in frontal view 1.15 times as wide as high. Antenna (fig. 8) with A1 0.8 times as long as height of head, 1.15 times as long as distance between inner orbits.

Mesosoma 1.8 times as long as wide, 1.15 times as high as wide. Sides of pronotum reticulate-coriaceous in about anterior half, rest smooth; about 20 adpressed setae on each side, mostly on upper half. Mesoscutum evenly and moderately sparsely covered by adpressed setae, finely and uniformly reticulate-coriaceous; notauli absent; hind margin medially with a very small, smooth and dark prolongation to base of scutellum; scuto-scutellar grooves rather small, each covered by 7-8 setae. Mesopleuron smooth. Scutellum (fig. 9) almost smooth, slightly denser setose than mesoscutum, in dorsal view finely

pointed behind, in lateral view with a very thin, small tooth with a narrow vertical lamella below its base. Metapleuron smooth, bare in about anterior two-thirds, rest with weak pilosity. Propodeal carinae light brownish translucent, very close together.

Fore wing about 0.75 as long as entire body, 2.9 times as long as wide, almost clear, with fine and dense microtrichia; marginal cilia absent. Hind wing 7.2 times as long as wide; marginal cilia 0.4 width of wing.

Metasoma (fig. 10) 1.2 times as long as head and mesosoma combined, 1.15 times as wide as mesosoma, 1.55 times as wide as high. T1 with two longitudinal carinae, swollen anteriorly, with few setae. T2 smooth, with two slightly pubescent basal foveae in anterior one-sixth. T3-T5 each with a transverse stripe of reticulation, smooth along margins; T6 1.2 times as wide as long, with reticulation in slightly less than basal half, rest smooth. Apical tergites with very inconspicuous setae (eight on each of T4-T5).

 $\delta$ . Body length 1.0 mm. Body dark brown, head black; A1-A6, mandibles and legs including coxae uniformly light yellowish; A7-A10 very slightly darkened. Antenna (fig. 11) with short and inconspicuous setation. Marginal cilia of fore wing 0.07 width of wing. Metasoma as long as rest of body.

C o m m e n t s . This species runs to *L. graciliventris* BUHL, 2003 in BUHL's (2011) key, but it differs from that species in having less slender antennae, relatively highter (higher) scutellum and shorter propodeum, absence of marginal cilia on fore wing, longer and more pointed female metasoma etc., cf. also BUHL (2003).

E t y m o l o g y . Named after the country with the type locality.

# Leptacis maritima nov.sp. (figs 12-13)

M a t e r i a l e x a m i n e d: Holotype φ: Madagascar, west coast of Masoala Peninsula, National Park S of the village Ambanizana (15°42'20"S, 49°57'69"E), 13-19.xi.2006, yellow pan trap on sandy beach and adjacent grass.

D i a g n o s i s . Hyperoccipital carina strong; A4 of female hardly noticeable longer than A3, A8-A9 each distinctly wider than long; notauli absent; scutellar spine 0.25 as long as propodeal carinae; fore wings clear with marginal cilia about 0.1 width of wing; female metasoma as long as rest of body, with T1 slightly wider than long, T6 3 times as wide as long.

Description. Q. Body length 1.4 mm. Black; A1, mandibles and legs including coxae orange-yellow, mandiles and last segment of tarsi partly darkened.

Head from above 2.1 times as wide as long, 1.15 times as wide as mesosoma; occiput finely reticulate-coriaceous (not transversely so) in upper two-thirds, rest smooth, becoming completely smooth behind eyes (when head is seen from behind, only area above eyes is sculptured); hyperoccipital carina strong; vertex and frons finely reticulate-coriaceous, sculpture becoming transverse around middle of frons, in lower third of frons with distinct transverse wrinkles over antennal insertions. OOL distinctly less than half ocellar diameter; eyes bare. Head in frontal view (fig. 12) 1.15 times as wide as high with vertex strongly convex. Antenna (fig.12) with A1 lacking a distinct lamella, 0.8 times as long as height of head, 1.2 times as long as distance between inner orbits.

Mesosoma 1.7 times as long as wide, 1.1 times as high as wide. Sides of pronotum smooth, in upper anterior part reticulate-coriaceous, in lower half with faint longitudinal sculpture in slightly more than anterior half; sclerite with sparse setae in upper half, very

few in lower half. Mesoscutum rather sparsely and almost evenly setose, uniformly reticulate-coriaceous; notauli absent; hind margin medially with a small, triangular, smooth and dark prolongation touching base of scutellum; scuto-scutellar grooves each covered by about 10 long setae. Mesopleuron smooth except for three wrinkles just below tegula. Scutellum (fig. 13) along middle almost smooth and sparsely setose, otherwise coriaceous and distinctly denser setose than mesoscutum; posteriorly dark with a short, blunt tooth, without lamella. Metapleuron smooth and bare, with short pilosity only along hind margin. Propodeal carinae slightly translucent, of moderate height, fused.

Fore wing 0.9 times as long as entire body, 2.7 times as long as wide, clear, with fine and dense microtrichia; marginal cilia 0.11 width of wing. Hind wing 6.1 times as long as wide; marginal cilia 0.4 width of wing.

Metasoma as long as head and mesosoma combined, 1.8 times as long as wide, 1.1 times as wide as mesosoma. T1 wider than long (9:7), with two strong longitudinal carinae, laterally with some short and inconspicuous pubescence. T2 about 1.2 times as long as wide, 3.9 times as long as T1, with two small and slightly pubescent basal foveae, smooth except for faint rugosity along narrow hind margin. T3-T6 combined hardly 0.4 times as long as T2, with coriaceous microsculpture over most of surface and a few inconspicuous setae inserted in shallow punctures (2 on T3, 6 on T4, no more than 10 on each of T5-T6); T6 3 times as wide as long.

C o m m e n t s . Approaching *L. seyrigi* MASNER, 1960 (only male known), but that species has sides of pronotum completely smooth and bare, mesoscutum with as dense setosity as scutellum, this forming an acute angle with propodeal carinae when seen in lateral view (in *L. maritima* forming a right angle); wings are rather infuscated in *L. seyrigi*, and it has T1 elongate, "intensely hairy" laterally (MASNER 1960).

E t y m o l o g y . The name refers to the coastal habitat of the holotype.

#### Leptacis pilosiscutellata nov.sp. (14-16)

M a t e r i a l e x a m i n e d: <u>Holotype</u> ♂: Madagascar, Andasibe (=Perinet), National Center and forest station, trail from water tank to the north, up the hills W of the road to the N.P. center (18°56′10″S, 48°24′51″E), 20.ix.2004, forest herbs, ferns, grasses, shrubs, mainly in the shade.

D i a g n o s i s . Head 2.4 times as wide as long, remarkably concave behind hyper-occipital carina; male A4 hardly modified, preapical antennal segments of male each 3 times as long as wide, with mostly short pubescence; scutellum densely setose, spine about 0.6 as long as propodeal carinae; fore wings 2.3 times as long as wide, with marginal cilia 0.14 width of wing.

Description. ♂. Body length 1.4 mm. Black; antennae and legs light brownish; coxae and apex of hind femora dark brownish.

Head from above (fig. 14) 2.4 times as wide as long, 1.1 times as wide as mesosoma; occiput smooth with weak transverse sculpture, remarkably hollowed out, entire hind surface of head from hyperoccipital carina and just behind eyes turned inwards, invisible when head is seen from above; vertex and frons finely and transversely reticulate-coriaceous, frons smooth in lower half on area above antennal insertions. Eyes bare. OOL slightly shorter than shorter diameter of lateral ocellus. Head in frontal view 1.15

times as wide as high. Antenna (fig. 15) with A1 0.85 times as long as height of head, one and a third times as long as distance between inner orbits; preapical antennal segments each about three times as long as wide; flagellum with few setae which are slightly longer than width of segments, most of setae distinctly shorter than width of segments.

Mesosoma 1.5 times as long as wide, 1.05 times as high as wide. Sides of pronotum smooth, only slightly coriaceous in upper anterior corner, with very few setae in upper half, bare in lower half. Mesoscutum with sparse, scattered setae, finely and uniformly reticulate-coriaceous, only smooth on prolongation along hind margin, prolongation covering base of scutellum as a distinct, much transverse dark plate; notauli absent; scuto-scutellar grooves mostly hidden by medial plate, with very few, inconspicuous setae above them. Mesopleuron smooth. Scutellum (fig. 16) with roughened surface, densely covered by rather long, light brown setae; spine distinct, dark, without lamella. Metapleuron smooth, with sparse pilosity scattered over most of surface, dense only along hind margin. Propodeal carinae dark, low and fused.

Fore wing 0.9 times as long as entire body, 2.3 times as long as wide, almost clear, with dense and rather long microtrichia; marginal cilia at their longest 0.14 width of wing. Hind wing 5.3 times as long as wide; marginal cilia about one-third the width of wing.

Hind legs rather stout, hind tarsus 1.3 times as long as hind tibia; hind metatarsus slightly less than one-third the total length of tarsus, hardly more than three times as long as wide.

Metasoma as long as mesosoma, 1.75 times as long as wide, hardly 0.9 times as wide as mesosoma. T1 1.5 times as wide as long, smooth except for two strong, slightly converging longitudinal carinae, bare except for a row of rather sparse setae along each side. T2 smooth, 2.7 times as long as T1, 1.15 times as long as wide, with two distinct, wide and bare basal foveae which are separated by two medial longitudinal carinae which reach 0.3 length of tergite. T3-T7 combined 0.2 as long as T2, mostly faintly coriaceous and with a few inconspicuous setae.

C o m m e n t s . *L. pubicornis* BUHL, 2010 from Tanzania (only female known) also has scutellum densely setose all over and somewhat similar to that of *L. pilosiscutellata*, but *L. pubicornis* has head less transverse, setosity of mesoscutum less scattered, metapleuron with pilosity only posteriorly, fore wing three times as long as wide with marginal cilia nearly 0.3 width of wing, and base of T2 with three longitudinal carinae each 0.2 as long as tergite.

E t y m o l o g y . The name refers to the rather characteristic (among Afrotropical species) much hairy scutellum.

#### Leptacis wawa nov.sp. (figs 17-18)

M a t e r i a l e x a m i n e d : <u>Holotype</u> ♀: Togo, Région des Plateaux, N of Kessibo-Wawa, at the border to Ghana (N of Badou), at river Wawa (7°42'11"N, 0°35'26"E), 180 m, 24.iv.2008, forest understory, cocoa plantation, and sun exposed vegetable fields, some Cyperaceae, swept.

D i a g n o s i s . A very small species without hyperoccipital carina; female A4 fully 3 times as long as A3; notauli faintly indicated in posterior 0.7; scutellum sloping behind, with just a tiny, low lamella here; marginal cilia of fore wing almost 0.3 with of wing; metasoma shorter than mesosoma, with T1 more than twice as wide as long.

D e s c r i p t i o n .  $\circ$ . Body length 0.45 mm. Dark brown; A1-A6, mandibles and legs including coxae yellowish brown, femora and apical 0.4 of hind tibiae slightly darkened, A7-A10 stronger darkened.

Head from above fully twice as wide as long, 1.25 times as wide as mesosoma; occiput and vertex distinctly reticulate-coriaceous, on occiput strongly transversely so; hyper-occipital carina absent, but head bluntly angled; frons transversely reticulate-coriaceous. OOL very short, hardly half as long as diameter of lateral ocellus. Eyes bare. Head in frontal view 1.15 times as wide as high. Antenna (fig. 17) with A1 hardly 0.75 times as long as height of head, very slightly shorter than distance between inner orbits; A9 1.6 times as wide as long.

Mesosoma 1.45 times as long as wide, 1.2 times as high as wide. Sides of pronotum slightly reticulate-coriaceous in upper anterior part, otherwise smooth. Mesoscutum with very few, scattered setae, weakly reticulate-coriaceous; notauli finely indicated in about posterior 0.7 of their courses; mid lobe behind narrow, distinctly prolonged to base of scutellum; scuto-scutellar grooves rather wide, each with about five long setae. Mesopleuron smooth. Scutellum (fig. 18) on medial part almost bare and smooth, along sides moderately setose, disc in dorsal view as long as wide, posteriorly sloping, ending in a tiny, dark tooth-like lamella just above anterior corner of propodeal carinae. Metapleuron smooth, with sparse pilosity over most of surface. Propodeal carinae short, of moderate height, clearly separated, diverging.

Fore wing 0.95 times as long as body, 2.65 times as long as wide, almost clear, with fine and moderately dense microtrichia in apical 0.4, otherwise almost bare; marginal cilia nearly 0.3 width of wing. Hind wing 9.6 times as long as wide; marginal cilia 1.3 width of wing.

Metasoma hardly 0.9 times as long as mesosoma, 1.5 times as long as wide, 1.2 times as wide as high, 0.85 times as wide as mesosoma. T1 2.4 times as wide as long, swollen anteriorly, postero-medially with two parallel longitudinal carinae close together, laterally of these with moderately strong pubescence just overreaching junction of T1-T2, T1 widened towards posterior end. T2 4.1 times as long as T1, as long as wide, smooth except for a couple of very short crenulae antero-medially, basal foveae hardly present. T3-T6 combined hardly 0.3 times as long as T2, smooth, virtually bare.

C o m m e n t s . This species runs to *L. aramis* MASNER, 1960 in BUHL's (2011) key, but *aramis* has a distinct scutellar spine. The same is true for *L. pumilio* MASNER, 1960 (though with spine less distinct than in *aramis*), and *pumilio* also has T1 only slightly transverse. *L. wawa* is most similar to *L. pederseni* BUHL, 2009 from Laos (only male known), but that species has scutellum not sloping behind.

E t y m o l o g y . Named after the type locality.

# Platygaster grandidieri nov.sp. (figs 19-21)

M a t e r i a l e x a m i n e d: <u>Holotype</u> ç: Madagascar, Andasibe (=Perinet), National Center and forest station, trail from water tank to the north, up the hills W of the road to the N.P. center (18°56′10″S, 48°24′51″E), 20.ix.2004, forest herbs, ferns, grasses, shrubs, mainly in the shade. Paratype: 1 ♀ same data.

D i a g n o s i s . Head 2.2 times as wide as long, finely and densely striated behind; female A9 1.9-2.0 times as long as wide; notauli distinct in posterior half; female

metasoma about 0.9 times as long as rest of body, T2 striated in basal fovea (foveae) to 0.55.

Description. Q. Body length 1.1-1.2 mm. Black; A1-A5 and legs including coxae light brownish yellow; A6-A10, mandibles and tegulae dark brown.

Head from above (fig. 19) 2.2 times as wide as long, 1.2 times as wide as mesosoma; occiput dull, finely and densely half-circularly striated, without hyperoccipital carina; vertex finely reticulate-coriaceous, medially with transverse elements; frons finely and transversely reticulate-striate out from a smooth longitudinal midline. OOL and LOL about equal. Head in frontal view 1.4 times as wide as high. Antenna (fig. 20) with A1 about as long as height of head, 1.3 times as long as distance between inner orbits; A9 between 1.9 and 2.0 times as long as wide.

Mesosoma 1.5 times as long as wide, almost 1.1 times as high as wide. Sides of pronotum finely longitudinally reticulate-striate all over. Mesoscutum with few setae, most of them along notaulic courses and on outer half of lateral lobes; disc finely but distinctly reticulate-coriaceous (not longitudinally so), smoother on posterior 0.25 of mid lobe; impressed admedian lines weakly indicated in anterior 0.4; notauli distinct in about posterior half of their courses, missing in anterior half; mid lobe slightly prolonged to base of scutellum, moderately wide here; scuto-scutellar grooves each covered by about seven setae. Mesopleuron smooth. Scutellum (fig. 21) evenly convex, along medial third smooth and bare, towards sides moderately densely setose and slightly dull. Metapleuron with pilosity all over. Propodeal carinae parallel; area between them very slightly transverse, with a shiny but slightly uneven surface.

Fore wing overreaching tip of metasoma by a distance which is slightly longer than length of T2, very slightly shorter than entire body (about 67:70), 2.55 times as long as wide, clear; microtrichia fine, becoming dense only in apical third of wing; marginal cilia 0.1 width of wing. Hind wing 5.8 times as long as wide, with two hamuli; marginal cilia one-third the width of wing.

Metasoma hardly more than 0.9 times as long as head and mesosoma combined, 2.05 times as long as wide, 0.8 times as wide as mesosoma. T1 1.4 times as wide as long, with two rather weak and almost complete longitudinal carinae, in anterior half with several even weaker longitudinal carinae. T2 about 1.2 times as long as wide, 3.6 times as long as T1, striated in narrow basal foveae to 0.55 of length, antero-medially with only very short crenulae, otherwise smooth. T3-T6 combined one-third to half as long as T2, smooth, with setae inserted in moderately deep punctures (2 on T3, 8 on T4, 10 on each of T5-T6). T6 about 3.3 times as wide as long.

C o m m e n t s . Runs to P. hedayati Buhl, 2010 in Buhl's (2011) key, but that species has head only 1.8 times as wide as long, with flattened vertex, and slightly less elongate antennae, cf. also Buhl (2010).

E t y m o l o g y . Named after the lepidopterist and great explorer of Madagascar, Alfred Grandider (1836-1921).

#### Platygaster madagascariensis nov.sp. (figs 22-25)

M a t e r i a l e x a m i n e d : <u>Holotype</u>  $\circ$ : Madagascar, isle Nosy Mangabe, western coast near tourist huts (15°29'78"S, 49°45'71"E), 10.xi.2006, swept along beach and freshwater creek. <u>Paratypes</u>:  $1\circ$ ,  $2\circ$   $\circ$  same data.

D i a g n o s i s . Occiput finely reticulate-striate, frons smooth over most of surface; female A9 1.35 times as long as wide; notauli weakly indicated in less than posterior half; scuto-scutellar grooves each with about five setae; female metasoma 1.25-1.35 times as long as rest of body, with T2 faintly striated in basal foveae to hardly 0.4 length of tergite.

D e s c r i p t i o n .  $\circ$ . Body length 1.05-1.25 mm. Black, sometimes body except head dark brown; A1-A3 and legs including coxae light brown (sometimes hind coxae dark brown); A4-A10, mandibles, tegulae and last segment of all tarsi dark brown.

Head from above 2.0 times as wide as long, 1.3 times as wide as mesosoma; occiput finely transversely reticulate-striate, anteriorly with a fine and almost complete hyper-occipital carina indicated; vertex weakly reticulate-coriaceous, medially transversely so; from smooth, in upper half weakly reticulate along eyes, in lower half finely obliquely striated laterally. OOL and LOL about equal; POL = 1.7 OOL. Head in frontal view 1.2 times as wide as high. Antenna (fig. 22) with A1 0.8 times as long as height of head, as long as distance between inner orbits; A9 1.35 times as long as wide.

Mesosoma 1.7 times as long as wide, 1.15 times as high as wide. Sides of pronotum smooth except for faint longitudinal striation antero-medially. Mesoscutum with a few scattered setae, smooth, notauli weakly indicated in slightly less than posterior half; mid lobe behind narrow but not finely pointed, slightly prolonged to base of scutellum; scuto-scutellar grooves each with about five setae. Mesopleuron smooth. Scutellum (fig. 23) evenly convex, sparsely setose, smooth. Metapleuron slightly dull and with moderately dense pilosity all over. Propodeal carinae short, parallel; area between them distinctly transverse, smooth and shiny.

Fore wing reaching base of T6, about 0.6 times as long as entire body, 2.8 times as long as wide, faintly infuscated, with rather dense and moderately fine microtrichia; marginal cilia 0.1 width of wing. Hind wing 6.1 times as long as wide, with two hamuli; marginal cilia 0.4 width of wing.

Metasoma (fig. 24) 1.25-1.35 times as long as head and mesosoma combined, 0.85 times as wide as mesosoma, 1.6 times as wide as high. T1 with numerous almost uniform carinae. T2 with a few faint striae in two basal foveae which reach hardly 0.4 length of tergite which is otherwise smooth. T3-T6 smooth, with setae in rather superficial punctures: a transverse row of 4 on T3, 10 on T4, 12 on T5, 10 along margins on T6 (on T4-T5 they are scattered laterally).

 $\vec{\sigma}$ . Body length 0.95-1.00 mm. Antenna (fig. 25) with distinct flagellar pubescence standing out from segments to a distance equal to 0.4 width of segments. Metasoma about as long as head and mesosoma combined.

C o m m e n t s . Generally similar to *P. danyiensis* BUHL, 2014 from Togo, but that species has OOL = 1.6 LOL, POL = 1.5 OOL, female antennae slightly less slender, notauli absent, scuto-scutellar grooves with denser setosity, scutellum more setose and less evenly convex, mesopleuron in upper third with wrinkles, female metasoma slightly longer and fully twice as wide as high, T2 with more extensive striation than in *P. madagascariensis*, T3-T4 each with about six punctures, and punctures on T5 not forming a row, and T6 is relatively shorter in *P. danyiensis* than in *P. madagascariensis*. Cf. BUHL (2014). *P. madagascariensis* is also rather similar to *P. setiventris* BUHL, 2010 from Tanzania, but that species has female A9 only 1.1 times as long as wide, stronger sculptured head, scuto-scutellar grooves each with nine setae, fore wing only 2.4 times as

long as wide, and T3 with 12, T4-T5 each with 16 punctures, and distinctly darker body appendages.

E t y m o l o g y . Named af the country with the type locality.

#### Platygaster maroantsetrensis nov.sp. (figs 26-27)

M a t e r i a l e x a m i n e d : Holotype ♀: Madagascar, Maroantsetra, western end of town towards airport (15°25'40"S, 49°44'39"E and further west), 20.xi.2006, swept along road, adjacent waste land and rice field. Paratype: 1 ♀ same data.

D i a g n o s i s . Head twice as wide as long, not margined, occiput finly striated in less than posterior half, smooth anteriorly; female A9 1.45 times as long as wide; notauli very short; scuto-scutellar grooves each with at most four setae; scutellum rather high and subangular behind; female metasoma slightly shorter than rest of body; T2 striated in basal foveae to half of length, medially to 0.1 of length.

Description. Q. Generally similar to South African *P. pubiventris* Buhl, 2005, but differs in the following:

Body length 1-05-1.15 mm. Blackish with light reddish brown T1 and base of T2; A1-A5 and legs including coxae light yellowish brown; A6-A10, mandibles and tegulae medium brown.

Head from above twice as wide as long, 1.2 to almost 1.3 times as wide as mesosoma; occiput not margined anteriorly, smooth except for very fine and weak striation around opening of neck, at most covering hardly posterior half of occiput; vertex and frons smooth except for a few wrinkles closely around antennal insertions. Head in frontal view 1.3 times as wide as high. Antenna (fig. 26) with A1 hardly shorter than height of head; preapical antennal segments each about 1.45 times as long as wide.

Mesoscutum smooth, with a row of setae along each of the imaginary notaulic courses, notauli very shortly indicated behind; scuto-scutellar grooves each with at most four setae. Scutellum (fig. 27) smooth and bare, towards sides moderately setose, slightly less sloping behind than in *P. pubiventris*, but angular as in that species.

Wings with rather sparse microtrichia.

Metasoma 0.85-0.95 times as long as head and mesosoma combined. T2 medially only with some very short crenulae (to about 0.1 of length). T3 without setation.

C o m m e n t s . The most important characters separating this species from *P. pubiventris* is the sculpture and conformation of occiput, but also the relatively wider head, less setose scuto-scutellar grooves and less sloping scutellum are important.

E t y m o l o g y . Named after the town at the type locality.

#### Platygaster risbeciana nov.sp. (figs 28-32)

M a t e r i a l e x a m i n e d: Holotype ♀: Madagascar, Andasibe (=Perinet), lawn within campsite at national park entrance/forest station (18°56'10"S, 48°24'51"E), 18.ix.2004, 1027 m, swept along forest edge and on lawn with *Ageratum* (Asteraceae). Paratypes: 5♀♀, 3♂♂ Andasibe (=Perinet), National Center and forest station, trail from water tank to the north, up the hills W of the road to the N.P. center (18°56'10"S, 48°24'51"E), 20.ix.2004, forest herbs, ferns, grasses, shrubs, mainly in the shade.

D i a g n o s i s . Head 2.25 times as wide as long, occiput distinctly striated at least anteriorly; female A9 1.25 times as long as wide; notauli absent; scutellum flattend above, vertical behind; female metasoma as long as rest of body, striated in basal foveae to nearly half of length, medially much shorter.

Description. Holotype  $\circ$ . Body length 1.15 mm. Black, A1 in basal half and legs light brown; rest of A1, A2 and distal half of hind femora and hind tibiae slightly darkened; A3-A10, mandibles, coxae and tegulae dark brown.

Head from above (fig. 28) 2.25 times as wide as long, 1.15 times as wide as mesosoma; occiput on mid area mostly smooth, only with a couple of strong tranverse striae at anterior margin, towards sides with more extensive, half-circularly striation, but still mostly smooth in posterior half; head rather sharply angled with a nearly complete hyperoccipital carina indicated between the striation; vertex almost smooth except for a couple of transverse wrinkles behind ocellar area; from smooth, only a couple of transverse wrinkles very closely above antennal insertions, continued on malar space. OOL = LOL. Head in frontal view 1.3 times as wide as high. Antenna (fig. 29) with A1 0.9 times as long as height of head, 1.1 times as long as distance between inner orbits; A9 1.25 times as long as wide.

Mesosoma almost 1.4 times as long as wide, higher than wide (20:19). Sides of pronotum with longitudinal microsculpture, smooth along wide upper and narrow hind margin. Mesoscutum rather evenly and moderately densely setose, smooth except for reticulate microsculpture in anterior 0.2 and slightly along sides (around end of imaginary notaulic courses); notauli absent; hind margin medially with a distinct, blunt, slightly transverse prolongation which slightly covers base of scutellum, at each side with dense, bright setation over scuto-scutellar grooves. Mesopleuron smooth. Scutellum (holotype fig. 30, paratype fig. 31) at level of mesoscutum, dorsally almost smooth and flat, moderately densely setose, laterally densely setose, vertical behind. Metapleuron with moderately dense pilosity all over and with faint microsculpture. Propodeal carinae low, dark, parallel, slightly transverse area between them smooth and shiny.

Fore wing 0.85 times as long as entire body, 2.4 times as long as wide, almost clear, with dense and moderately fine microtrichia; marginal cilia 0.08 width of wing. Hind wing 5.6 times as long as wide, with two hamuli; marginal cilia one-third the width of wing.

Metasoma (fig. 32) about as long as head and mesosoma combined, 2.25 times as long as wide, hardly 0.8 times as wide as mesosoma. T1 with about ten almost identical longitudinal carinae. T2 striated in basal foveae to very slightly less than half the length of tergite, between basal foveae with weak crenulae reaching about 0.15 length of tergite, otherwise smooth. T3-T6 smooth except for faint microsculpture very close to margins; T3-T5 each with a transverse row of 10-12 setae inserted in deep punctures, T6 with eight setae in less deep punctures.

 $\delta$ . Body length 0.95-1.1 mm. Antenna with A4 distinctly swollen, about 1.5 times as wide as A5; preapical antennal segments hardly longer than in female, but flagellar pubescence distinct (fully half as long as width of segments). Metasoma 0.8 to nearly 1.0 times as long as rest of body.

V a r i a b i l i t y . The female paratypes are 1.15-1.3 mm long. In some specimens occiput is strongly half-circularly striated all over. The conformation of scutellum is somewhat variable, cf. figs. 30-31; sometimes it is hardly less densely setose dorsally than laterally. The colour varies from A1 and legs including coxae being almost uni-

formly light brownish to antennae and legs being dark brown with only trochanters, base of tibiae and tarsal segments 1-4 light brown.

C o m m e n t s . Shape of scutellum approaching that of South African *P. pubiventris* BUHL, 2005, but *P. risbeciana* has scutellum less sloping (also more flattened above and less sloping than in *P. maroantsetrensis* nov.sp.). *P. pubiventris* also has head only 1.9 times as wide as long and slightly shorter female metasoma with less strong punctation on T3-T5. *P. risbeciana* runs to *P. nigeriana* BUHL, 2004 in BUHL's (2011) key, but that species has scutellum evenly sloping behind.

E t y m o l o g y . Named after the pioneer researcher of platygastrids in Madagascar, Jean RISBEC.

#### Synopeas ambrense nov.sp. (figs 33-35)

M a t e r i a l e x a m i n e d: <u>Holotype</u>  $\varphi$ : Madagascar, Mount Ambre north, National Park (12°31'35"S, 49°10'30"E), 5.ix.2004, 450 m, swept along rain forest trails near campground, including secondary vegetation along path with much flowering.

D i a g n o s i s . Head with a complete and rather strong hyperoccipital carina; female A4 fully 1.4 times as long as A5, A9 1.4 times as wide as long; scutellum behind with a rather wide and high, slightly oblique lamella; female metasoma 0.95 times as long as rest of body, twice as long as wide, 1.45 times as wide as high, with apical tergites distinctly sculptured.

Description. Q. Body length 1.4 mm. Black, T1 dark brown, coxae hardly lighter; A1-A6 and legs excluding coxae bright orange, mandibles and A7-A10 (A7-A10) dark brown.

Head from above (fig. 33) twice as wide as long, as wide as mesosoma, dull, finely pustulated, on vertex and upper part of frons also with numerous distinct punctures, on lower half of frons with irregular wrinkling; hyperoccipital carina complete and moderately strong. LOL = 3.25 OOL. Head in frontal view 1.15 times as wide as high. Antenna (fig. 34) with A1 0.9 times as long as height of head, one and a third times as long as distance between inner orbits; A9 1.4 times as wide as long.

Mesosoma one and a third times as long as wide, as wide as high. Sides of pronotum dull pustulated, smooth only in lower 0.25 and along narrow hind margin, anterior margin in lower half brown, distinctly expanded, accomodating an unusual large (diameter about 40  $\mu$ ) (40  $\mu$ m) almost circular white pit. Mesoscutum rather evenly and moderately sparsely setose, uniformly dull, finely pustulated; only the small medial prolongation to base of scutellum smooth, this forming a slightly transverse plate which is narrowed towards apex; scuto-scutellar grooves wide, each with eight long setae. Mesopleuron smooth. Scutellum (fig. 35) faintly coriaceous, densely setose, along middle slightly less setose and raised, ending in a brownish, distinct, almost vertical lamella. Metapleuron smooth, bare in only anterior 0.1, rest with rather dense, long whitish pilosity. Propodeal carinae rather high, curved, translucent, fused.

Fore wing 0.85 times as long as entire body, 2.45 times as long as wide, almost clear, with very fine and dense microtrichia, without marginal cilia. Hind wing 4.9 times as long as wide; marginal cilia about 0.25 width of wing.

Metasoma 0.95 times as long as head and mesosoma combined, 2.0 times as long as wide, 0.85 times as wide as mesosoma, 1.45 times as wide as high, with strong basal

pubescence leaving only a small smooth area on T1 visible. T2 1.2 times as long as wide, smooth except for faint microsculpture along narrow hind margin, basal puescence on each side reaching about 0.2 length of tergite. T3-T6 combined half as long as T2; T3-T5 each with a transverse stripe of weak pustulated microsculpture; T6 dull, distinctly covered by such microsculpture all over, as long as T3-T5 combined, 1.9 times as wide as long. Apical tergites with short setae (10 on T5, fewer on rest).

C o m m e n t s . This species runs to *S. bicolor* SUNDHOLM, 1970 in BUHL's (2011) key, but that species has A9 only 1.25 times as wide as long, and a much smaller lamella at end of scutellum. Alternatively *S. ambrense* could run to *S. lineae* BUHL, 2011 in the mentioned key, but *S. lineae* has scutellum higher than more vertical behind, metasoma shorter and more flattened etc.

E t y m o l o g y . Named after the type locality.

# Synopeas popovicii nov.sp. (figs 36-38)

M a t e r i a l e x a m i n e d: Holotype φ: Madagascar, Andasibe (=Perinet), lawn within campsite at National park entrance/forest station (18°56′10″S, 48°24′51″E), 18.ix.2004, 1027 m, swept along forest edge and on lawn with *Ageratum* (Asteraceae).

D i a g n o s i s . Female A5 as long as A3-A4 combined; slightly more than twice as long as A4 which is almost equal to A3; notauli absent; scutellum with a short, oblique tooth; female metasoma 1.6 times as long as rest of body.

Description. Q. Body length 1.75 mm. Black; A1 and legs including coxae light brownish; A2-A6, mandibles and last segment of tarsi dark brown; A7-A10 blackish.

Head from above 1.7 times as wide as long, 1.25 times as wide as mesosoma, finely and almost uniformly reticulate-coriaceous, postero-medially on vertex slightly transversely so, angled behind ocellar area but without a distinct hyperoccipital carina. OOL equal to longitudinal diameter of lateral ocellus; LOL = 1.5 OOL. Head in frontal view 1.15 times as wide as high. Antenna (fig. 36) with A1 five-sixths as long as height of head, 1.1 times as long as distance between inner orbits; A5 as long as A3-A4 combined; A9 as long as wide.

Mesosoma 1.8 times as long as wide, 1.2 times as high as wide. Sides of pronotum reticulate-coriaceous, smooth only along hind margin. Mesoscutum evenly and moderately densely setose, uniformly reticulate-coriaceous (slightly weaker than head); notauli absent (from some angles a faint depression is visible along imaginary notaulic courses); hind margin medially with a distinct, smooth, slightly transverse prolongation to base of scutellum, at each side with dense whitish setae over scuto-scutellar grooves. Mesopleuron smooth. Scutellum (fig. 37) smooth, along middle almost bare, towards sides densely setose, posteriorly dark brown, with a rather small, oblique tooth and a narrow vertical lamella below. Metapleuron smooth, with pilosity all over except along narrow anterior margin (dense only along hind margin). Propodeal carinae dark brown, fused.

Fore wing 0.7 times as long as entire body, reaching to 0.7 the length of T6, 3.1 times as long as wide, weakly infuscated, with fine and dense microtrichia; marginal cilia absent. Hind wing 6.6 times as long as wide; marginal cilia one-third the width of wing.

Metasoma (fig. 38) 1.6 times as long as head and mesosoma combined, 0.95 times as wide as mesosoma, 1.3 times as wide as high. T2 smooth. T3-T4 with fine longitudinal microsculpture laterally, T5-T6 with such sculpture over most of surface (T6 smooth in

slightly less than apical half). T3-T5 also with rather deep punctures: 8 in a transverse row on T3, about 14 much more scattered on each of T4-T5 (some of them rather indistinct). Sternite 2 hardly convex, not prolonged anteriorly.

C o m m e n t s . Runs to *S. dentilamellatum* BUHL, 2011 in BUHL's (2011) key, but that species has mesosoma, wings and metasoma less elongate and scutellar spine pointed straight behind. The somewhat similar Central African *S. striatum* (RISBEC, 1958) has A3 longer than A2 and more than five times as long as A4, antennal clava 5-segmented, notauli present, stronger scutellar spine, metasoma hardly more than 1.1 times as wide as high, T3-T6 with longitudinal rugosity all over, T6 distinctly shorter than T5, and darker legs (especially coxae) than *S. popovicii*.

E t y m o l o g y . Named after Dr. Ovidiu Popovici (Iași).

#### Synopeas rajaonarimampianinai nov.sp. (figs 39-40)

M a t e r i a l e x a m i n e d: Holotype  $\varphi$ : Madagascar, Andasibe (=Perinet), lawn within campsite at national park entrance/forest station (18°56'10"S, 48°24'51"E), 18.ix.2004, 1027 m, swept along forest edge and on lawn with *Ageratum* (Asteraceae). Paratype: 1 \( \varphi \) same data as holotype.

D i a g n o s i s . A very small species without hyperoccipital carina; female A4-A5 of equal length, A9 about one and a third times as wide as long; scutellum slightly convex, behind with a very tiny, low lamella; fore wing as long as body, with short marginal cilia; female metasoma 0.8 times as long as rest of body, 1.5 times as long as wide, 1.40-1.45 times as wide as high.

Description. Q. Body length 0.60-0.65 mm. Body black or dark brown with blackish head; A1-A6, mandibles, tegulae and legs including coxae light to medium brown (A1 or A1-A2, trochanters, fore tibiae, base of mid and hind tibiae, and segments 1-4 of all tarsi lighter than rest).

Head from above 1.9 times as wide as long, 1.15 times as wide as mesosoma, finely reticulate-coriaceous, most distinctly so on frons, but distinctly transversely so only postero-medially on vertex; hyperoccpital carina absent. OOL about equal to shorter diameter of lateral ocellus; LOL = 3.75 OOL. Head in frontal view 1.15 times as wide as high. Antenna (fig. 39) with A1 0.8 times as long as height of head, as long as distance between inner orbits; A9 about 1.33 times as wide as long.

Mesosoma 1.45 times as long as wide, 1.05 times as high as wide. Sides of pronotum in upper half faintly reticulate-coriaceous (not longitudinally so), rest smooth. Mesoscutum with scattered, sparse adpressed setae, finely and almost uniformly reticulate-coriaceous; notauli faintly indicated at hind margin; mid lobe ending in a small convexity barely reaching base of scutellum, at each side with about four setae over each moderately wide scuto-scutellar grooves. Mesopleuron smooth. Scutellum (fig. 40) almost evenly and rather densely setose, smooth or almost smooth, slightly and evenly convex, only with a very tiny lamella at low hind margin; disc seen from above about 1.25 times as wide as long. Metapleuron slightly dull, bare only in about anterior 0.1, otherwise with rather sparse white pilosity, dense only at hind margin. Propodeal carinae low, straight, brownish, fused.

Fore wing as long as entire body, 2.4 times as long as wide, almost clear, with fine and dense microtrichia; marginal cilia 0.06 width of wing. Hind wing about 7 times as long as wide; marginal cilia about half as long as width of wing.

Metasoma about 0.8 times as long as head and mesosoma combined, very slightly longer than mesosoma (17:16.5), 0.9-1.0 times as wide as this, 1.5 times as long as wide, 1.40-1.45 times as wide as high. T1 slightly more than twice as wide as long, one-sixth as long as T2, with weak crenulae, laterally with short and dense white pilosity. T2 smooth, slightly elongate (about 12:11), with pilosity anteriorly, pilosity towards sides reaching farthest back, at most 0.2 length of tergite. T3-T6 combined 0.3 as long as T2, most of surface faintly reticulate, strongest on T6 which is about 3 times as wide as long.

C o m m e n t s . S. thorkildi Buhl, 2004 from Tanzania has fore wings without marginal cilia, scutellum slightly more convex than S. rajaonarimampianinai, and mesosoma and metasoma each only 1.33 times as long as wide with T3-T6 combined fully 0.4 as long as T2. S. soederlundi Buhl, 2005 from South Africa is somewhat larger (0.95 mm), with slightly shorter A4 and slightly wider A7, it has mesosoma nearly 1.2 times as high as wide, scutellum slightly more sloping than in S. rajaonarimampianinai; fore wings only 0.9 times as long as body, without marginal cilia; metasoma 1.1 times as wide as mesosoma, 1.33 times as wide as high.

E t y m o l o g y . Named after the current president of Madagascar, Mr. Hery Martial Rakotoarimanana RAJAONARIMAMPIANINA.

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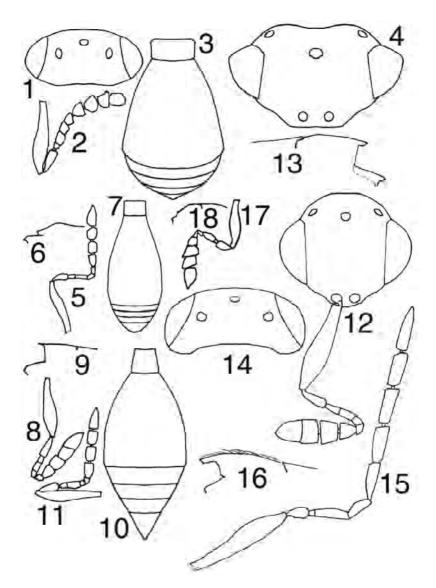
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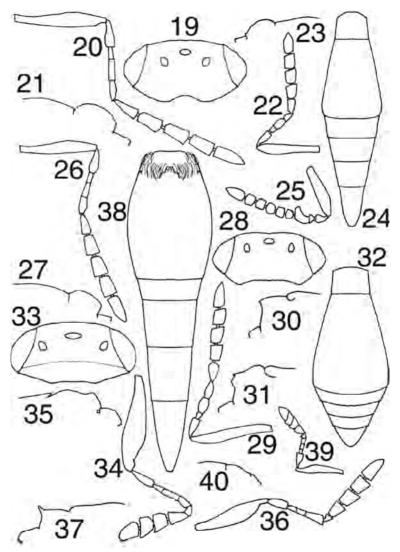
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