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New or little known species of Platygastrinae from Africa
(Hymenoptera, Platygastridae)

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Abstract

The following 9 species new to science are described: *Leptacis bidentata* **sp. nov.** (Tanzania), *Piestopleura abyssinica* **sp. nov.** (Ethiopia), *Platygaster ethiopica* **sp. nov.** (Ethiopia), *P. laticornis* **sp. nov.** (Ethiopia), *P. oculata* **sp. nov.** (Uganda), *Synopeas cynipsoides* **sp. nov.** (Ethiopia), *S. fulvimanus* **sp. nov.** (Ethiopia), *S. kovacsi* **sp. nov.** (Ethiopia), and *S. thorkildi* **sp. nov.** (Tanzania). The hitherto unknown female of *Euxestonotus charon* BUHL, 2004 is described, and *Platygaster baezi* BUHL, 2003 is reported from Ethiopia. The work is illustrated by 39 text-figures.

Zusammenfassung

Die folgenden 9 für die Wissenschaft neuen Arten werden aus Afrika beschrieben: *Leptacis bidentata* **sp. nov.** (Tanzania), *Piestopleura abyssinica* **sp. nov.** (Äthiopien), *Platygaster ethiopica* **sp. nov.** (Äthiopien), *P. laticornis* **sp. nov.** (Äthiopien), *P. oculata* **sp. nov.** (Uganda), *Synopeas cynipsoides* **sp. nov.** (Äthiopien), *S. fulvimanus* **sp. nov.** (Äthiopien), *S. kovacsi* **sp. nov.** (Äthiopien) und *S. thorkildi* **sp. nov.** (Tanzania). Das unbekannte Weibchen von *Euxestonotus charon* BUHL, 2004 wird beschrieben, und *Platygaster baezi* BUHL, 2003 wird aus Äthiopien gemeldet. Die Arbeit ist mit 39 Abbildungen versehen.

Introduction

The species described below were in a loan from the Hungarian Natural History Museum, Budapest (Hungary) (courtesy Sandor CSOSZ), where all specimens are preserved.

Euxestonotus charon BUHL, 2004 (figs 1-2)

Male described from Nigeria by BUHL (2004).

Description of the hitherto unknown female: Length 1.2 mm. Antenna (fig. 1). Mid lobe of mesoscutum strongly sculptured, virtually longitudinally striated. Metasoma (fig. 2) as long as head and mesosoma combined, T2-T5 along hind margins broadly and distinctly reticulate-coriaceous. T6 with such sculpture all over. Otherwise as male.

Additional material examined: 1 female, Tanzania, between Marti and Arusha. KATONA leg.

Leptacis bidentata sp. nov. (figs 3-6)

Female: Length 0.9 mm. Blackish, metasoma with brownish tint, petiole lightest; A1-A3 and legs light brown, A4-A10 medium brown.

Head from above (fig. 3) 1.7 x as wide as long, slightly wider than mesosoma, rather strongly reticulate, without occipital carina; OOL equal to 0.5 ocellar diameter; head in frontal view 1.1 x as wide as high. Antenna (fig. 4).

Mesosoma 1.75 x as long as wide, 1.3 x as high as wide. Sides of pronotum reticulate all over. Mesoscutum with very few hairs, weakly reticulate-coriaceous, without notauli; hind margin medially with a small semitransparent prolongation to base of scutellum; scuto-scutellar grooves each with about five long hairs. Mesopleuron smooth. Scutellum (fig. 5) distinctly reticulate-coriaceous, with few hairs, posteriorly with a semitransparent, reticulate lamella-like tooth. Metapleuron smooth and bare, only with pilosity along posterior margin. Propodeal carinae (fig. 5) high and semitransparent, virtually forming a second tooth below that of scutellum.

Fore wing slightly longer than body, 2.7 x as long as wide, faintly yellowish, with somewhat sparse but distinct microtrichia; marginal cilia one-third the width of wing. Hind wing 9.6 x as long as wide; marginal cilia 1.3 width of wing.

Metasoma (fig. 6) 0.8 x as long as head and mesosoma combined, hardly as wide as mesosoma. T1 with two longitudinal carinae close together. T2 with two small and virtually bare basal foveae. Apical tergites with weak rugosity along hind margins, with a few hairs.

Material examined: Holotype female, Tanzania, between Marti and Arusha. KATONA leg.

A distinct species on account of shape of scutellar spine and propodeal carinae.

Piestopleura abyssinica sp. nov. (figs 7-10)

Female: Length 2.0 mm. Black, A1-A6 and legs brown; A1, trochanters, most of fore femur and tibia, base of mid tibia, and segments 1-4 of all tarsi lighter brown than rest.

Head in dorsal view (fig. 7) 1.7 x as wide as long, 1.1 x as wide as mesosoma, finely and slightly transversely reticulate-coriaceous, occiput weakly angled; OOL equal to diameter of lateral ocellus. Antenna (fig. 8).

Mesosoma about 2 x as long as wide, 1.2 x as high as wide. Sides of pronotum distinctly reticulate-coriaceous all over. Mesoscutum faintly reticulate-coriaceous, with some hairs postero-laterally and in posterior 0.4 of imaginary notauli, these absent; mid

lobe posteriorly slightly prolonged; triangular scuto-scutellar grooves densely hairy. Mesopleuron smooth. Scutellum (fig. 9) sculptured as mesoscutum, moderately hairy, with a dark spine without lamella below. Metapleuron smooth, almost bare except in posterior half and below. Propodeal carinae fused, low and dark.

Fore wing hardly shorter than entire body, 3.6 x as long as wide, almost clear, with dense microtrichia; marginal cilia at most 0.1 width of wing. Hind wing 6.9 x as long as wide; marginal cilia one-third the width of wing.

Metasoma (fig. 10) 1.2 x as long as head and mesosoma combined, as wide as mesosoma. T1 unevenly and rather densely crenulated, anteriorly smooth and swollen. T2 laterally striated to about 0.5, medially to about 0.25 of length, rest of tergite smooth. T3-T6 distinctly reticulate-coriaceous except along anterior and posterior margins (T6 only smooth anteriorly), with a few inconspicuous hairs.

Material examined: Holotype female, Ethiopia, vall. Djerer, VI.1911. KOVÁCS leg.

The first Afrotropical species of *Piestopleura* to be described, but not typical for the genus as the mesosoma is not much compressed. The fore wing of *P. abyssinica* is unusually narrow.

Platygaster baezi BUHL, 2003

Described from the Canary Islands by BUHL (2003b) and reported from the Ivory Coast and Kenya by BUHL (2004).

Additional material: 1 female, Ethiopia, vall. Djerer, VI.1911. KOVÁCS leg.

Platygaster ethiopica sp. nov. (figs 11-14)

Female: Length 1.5 mm. Shiny black, antennae and legs dark brown; fore tibia, base of mid and hind tibiae, and segments 1-4 of all tarsi lighter brown.

Head in dorsal view (fig. 11) 2.0 x as wide as long, 1.2 x as wide as mesosoma; occiput medially weakly unevenly transversely striated and slightly angled, laterally smooth and rounded; vertex finely reticulate-coriaceous; frons smooth in about upper 0.4, rest somewhat obliquely reticulate-coriaceous. OOL and LOL equal. Head in frontal view 1.25 x as wide as high. Antenna (fig. 12) with A1 shorter than height of head (16:17).

Mesosoma 1.7 x as long as wide, 1.2 x as high as wide. Sides of pronotum finely reticulate-coriaceous, smooth in posterior 0.4. Mesoscutum with very few hairs, smooth except for faint rugosity at anterior ends of imaginary notauli, these absent; mid lobe with a distinct, blunt, slightly brownish prolongation reaching slightly over base of scutellum; scuto-scutellar grooves with numerous long hairs. Mesopleuron smooth. Scutellum (fig. 13) smooth, with a few hairs. Metapleuron reticulate-coriaceous and with rather sparse pilosity all over. Propodeal carinae almost parallel, area between them about as long as wide, smooth.

Fore wing slightly surpassing tip of metasoma, 0.8 x as long as body, 2.6 x as long as wide, faintly brownish, with dense microtrichia and short marginal cilia. Hind wing 5.5 x as long as wide, with two hamuli; marginal cilia 0.3 width of wing.

Metasoma (fig. 14) 1.2 x as long as head and mesosoma combined, hardly 0.9 x as wide as mesosoma. T1 crenulated. T2 striated in narrow basal foveae to half of length,

rest of tergite as well as following tergites smooth; T3 with two, T4 with three, and T5 with four distinct hair-implantations on each side around midlength, forming a medially interrupted transverse row on each tergite; T6 with two hair-implantations along margins around midlength. Sternite 2 without hump.

Material examined: Holotype female, Ethiopia, vall. Djerer, VI.1911. KOVÁCS leg.

A distinct Afrotropical species on account of shape of metasoma. In this respect somewhat similar to *P. flagellata* BUHL, 2003 and *P. splendens* SUNDHOLM, 1970, but these species have antennae and hind margin of mesoscutum differently structured, cf. SUNDHOLM (1970) and BUHL (2003a). *P. mandrakae* RISBEC, 1955 has also elongated metasoma, but it is differently shaped and sculptured than in *P. ethiopica*, cf. RISBEC (1955).

Platygaster laticornis sp. nov. (figs 15-18)

Female: Length 1.1 mm. Blackish, A1-A5 and legs medium brown; both ends of tibiae and segments 1-4 of all tarsi light brown; A6-A10 dark brown.

Head from above (fig. 15) 2.1 x as wide as long, 1.3 x as wide as mesosoma; occiput rounded, densely but very finely transversely striated; vertex weakly reticulate-coriaceous; frons very finely transversely (somewhat fan-like) reticulate-coriaceous. OOL = 1.4 LOL. Head in frontal view 1.4 x as wide as high; antenna (fig. 16) with A1 0.9 x as long as height of head; A9 fully 1.1 x as wide as long.

Mesosoma 1.4 x as long as wide, hardly higher than wide. Sides of pronotum finely longitudinally reticulate, smoother along narrow hind margin. Mesoscutum almost bare, faintly and somewhat unevenly reticulate-coriaceous; notauli weakly indicated in posterior half; mid lobe posteriorly hardly prolonged; narrow scuto-scutellar grooves with a few inconspicuous hairs. Mesopleuron smooth. Scutellum (fig. 17) evenly rounded, smooth, with sparse hairs. Metapleuron with pilosity all over. Propodeal carinae parallel, well separated, slightly transverse area between them smooth and shiny.

Fore wing 2.8 x as long as wide, hardly 0.9 x as long as body, finely yellowish and with somewhat sparse microtrichia; marginal cilia short. Hind wing 5.9 x as long as wide, with two hamuli; marginal cilia almost 0.4 width of wing.

Metasoma (fig. 18) about as long as head and mesosoma combined, as wide as mesosoma. T1 slightly unevenly crenulated. T2 striated in basal foveae to 0.4 of length, medially slightly shorter. T3-T5 smooth, T3-T4 with some moderately deeply implanted hairs laterally, T5 with a transverse row of such hairs; T6 faintly reticulate-coriaceous.

Material examined: Holotype female, Ethiopia, vall. Djerer, VI.1911. KOVÁCS leg.

This species has flagellar segments shorter than most Afrotropical species. *P. natalensis* BUHL, 2003 has them just as short, but this species differs from *P. laticornis* e.g. in shape and sculpture of head, in having complete notauli, less convex scutellum and less striated T2, cf. BUHL (2003a).

Platygaster oculata sp. nov. (figs 19-23)

Female: Length 1.0 mm. Shiny blackish, antennae and legs dark brown.

Head in dorsal view (fig. 19) 2.0 x as wide as long, 1.3 x as wide as mesosoma; occiput finely but distinctly transversely striated, slightly angled; vertex weakly transversely reti-

culate-coriaceous; frons smooth, with a few fine transverse striae above antennae; OOL equal to 1.4 ocellar diameter. Head in frontal view (fig. 20) with somewhat angular eyes, 1.2 x as wide as high; antenna (fig. 21) with A1 0.75 x as long as height of head.

Mesosoma 1.5 x as long as wide, fully 1.1 x as high as wide. Sides of pronotum smooth. Mesoscutum with very few hairs, smooth except for slight rugosity at anterior ends of imaginary notauli, these hardly indicated; mid lobe slightly prolonged to base of scutellum; scuto-scutellar grooves with some hairs. Mesopleuron smooth. Scutellum (fig. 22) smooth and almost bare. Metapleuron with pilosity all over. Propodeal carinae short, transverse, area between them smooth and shiny.

Fore wing 0.75 x as long as body, clear, hardly 2.5 x as long as wide; marginal cilia at most 0.1 width of wing. (Hind wing destroyed in glue).

Metasoma (fig. 23) 0.8 x as long as head and mesosoma combined, as wide as mesosoma. T1 crenulated, with two slightly stronger longitudinal carinae. T2 with smooth basal foveae but with longitudinal striation from ends of foveae to 0.4 length of tergite, medi-ally with a few short striae which are half as long. T3-T6 smooth, each with a transverse row of moderately deeply implanted hairs (rows medially interrupted on T3-T4).

Material examined: Holotype female, Uganda, Mujenje, VIII.1913. KATONA leg.

Aberrant on account of angular eyes, though less so than in *P. acutocularis* BUHL, 1999 from Spain, cf. BUHL (1999).

Synopeas cynipsoides sp. nov. (figs 24-27)

Female: Length 1.0 mm. Black, metasoma with brownish tint; legs dark brown, both ends of fore tibia and segments 1-4 of all tarsi lightest.

Head in dorsal view (fig. 24) 1.8 x as wide as long, fully 1.1 x as wide as mesosoma, finely and slightly transversely reticulate-coriaceous, occiput evenly rounded; OOL about twice the diameter of lateral ocellus. Antenna (fig. 25).

Mesoscutum 1.3 x as long as wide, 1.1 x as high as wide. Sides of pronotum slightly longitudinally reticulate, smooth along hind margin. Mesoscutum with very few hairs, finely and slightly longitudinally reticulate-coriaceous, without notauli, hind margin medially with a distinct, narrow and smooth prolongation slightly overreaching base of scutellum; scuto-scutellar grooves each with about six long hairs. Mesopleuron smooth. Scutellum (fig. 26) mostly smooth, medially almost bare, laterally densely hairy, posteriorly slightly tooth-shaped and brownish, without lamella. Metapleuron smooth and bare in anterior 0.25, rest with pilosity. Propodeal carinae low, short and dark.

Fore wing clear, 0.9 x as long as body, with moderately dense microtrichia, without marginal cilia.

Metasoma (fig. 27) 1.25 x as long as head and mesosoma combined, 1.6 x as high as wide. T2 smooth, T3-T5 with faint microsculpture, T5 with a transverse row of hairs; T6 with distinct microsculpture all over.

Material examined: Holotype female, Ethiopia, vall. Djerer, VI.1911. KOVÁCS leg.

This species has metasoma unusually compressed, even more so than in related species, e.g. *S.tropicus* BUHL, 1997, cf. BUHL (1997). *S. paolii* FOUTS, 1934 with much convex metasoma has this much shorter than in *S. cynipsoides*, cf. FOUTS (1934).

Synopeas fulvimanus sp. nov. (figs 28-31)

Female: Length 1.6 mm. Black, A1 reddish brown, A2-A6 and legs dark brown; fore femur and tibia entirely, base of mid and hind tibia, and segments 1-4 of all tarsi yellowish brown.

Head from above (fig. 28) 2.0 x as wide as long, as wide as mesosoma, finely reticulate-coriaceous, with distinct occipital carina; OOL equal to ocellar diameter. Head in frontal view 1.2 x as wide as high; antenna (fig. 29) with A1 about as long as height of head.

Mesosoma almost 1.6 x as long as wide, 1.1 x as high as wide. Sides of pronotum finely reticulate-coriaceous, smooth along lower and hind margins. Mesoscutum with sparse and almost evenly scattered hairs, uniformly sculptured as head, without notauli; hind margin with a short, dark prolongation; scuto-scutellar grooves covered by dense hairs. Mesopleuron smooth. Scutellum (fig. 30) smooth and bare along middle, laterally densely hairy; posteriorly with a small, triangular semitransparent lamella. Metapleuron with whitish pilosity except along anterior margin. Propodeal carinae rather high and fused, slightly semitransparent.

Fore wing almost clear, about as long as entire body, 2.7 x as long as wide, hardly with marginal cilia. Hind wing 5.4 x as long as wide; marginal cilia hardly one-fourth the width of wing.

Metasoma (fig. 31) 1.1 x as long as head and mesosoma combined, as wide as mesosoma, 1.3 x as wide as high. T2 smooth, T3-T5 each with a transverse strip of rugosity, T5 also with a transverse row of hairs; T6 with rugosity all over.

Material examined: Holotype female, Ethiopia, Lac. Dembel, I.1912. KOVÁCS leg.

Characteristic among Afrotropical *Synopeas* in the shape of scutellum. Somewhat similar in this respect to Palaearctic *S. lugubris* THOMSON, 1859, but this species differs from *S. fulvimanus* in shape of head, antenna and metasoma, cf. BUHL (1998).

Synopeas kovacsi sp. nov. (figs 32-35)

Female: Length 1.4 mm. Black, A1-A6 and legs brown; fore tibia, base of mid and hind tibia, and segments 1-4 of all tarsi lighter brown.

Head in dorsal view (fig. 32) 1.8 x as wide as long, hardly wider than mesosoma, with a weak but complete occipital carina, finely and evenly reticulate-coriaceous; OOL equal to diameter of lateral ocellus. Antenna (fig. 33).

Mesosoma 1.5 x as long as wide, hardly 1.1 x as high as wide. Sides of pronotum finely reticulate-coriaceous, smooth in lower 0.4 and along hind margin. Mesoscutum with rather sparse hairs, finely and evenly reticulate-coriaceous, without notauli, hind margin with a small, slightly brownish and smooth prolongation; scuto-scutellar grooves each with about eight long hairs. Mesopleuron smooth. Scutellum (fig. 34) smoother than mesoscutum, medially with few hairs, laterally densely hairy, posteriorly with a tiny dark tooth with a small semitransparent lamella below. Metapleuron smooth and bare in anterior 0.3, rest with whitish pilosity. Propodeal carinae curved, dark, fused.

Fore wing 0.9 x as long as body, 2.6 x as long as wide, clear, with fine and dense microtrichia, without marginal cilia. Hind wing 5.3 x as long as wide; marginal cilia 0.4

width of wing.

Metasoma (fig. 35) slightly shorter than head and mesosoma combined (19:20), very slightly narrower than mesosoma, 1.5 x as wide as high. T2-T6 reticulate-coriaceous along hind margins, T6 reticulate-coriaceous all over, apical tergites with a few hairs.

Material examined: Holotype female, Ethiopia, vall. Djerer, VI.1911. KOVÁCS leg.

Named after the collector. Rather similar to *S. fulvimanus* sp. nov., from which it differs slightly e.g. in shape of head, scutellum and metasoma, and in colour, cf. also above.

Synopeas thorkildi sp. nov. (figs 36-39)

Female: Length 0.6-0.7 mm. Brownish black, antennae and legs brown; A2-A6, fore tibia, base of mid and hind tibiae, and most of tarsi lightest, A7-A10 darkest.

Head from above (fig. 36) 1.9 x as wide as long, 1.1 x as wide as mesosoma; occiput rounded, finely reticulate-coriaceous as vertex, frons with larger meshes. LOL = 4 OOL; OOL equal to ocellar diameter. Head in frontal view 1.1 x as wide as high; antenna (fig. 37) with A1 0.7 x as long as height of head.

Mesosoma one and a third times as long as wide, hardly 1.1 x as high as wide. Sides of pronotum with faint microsculpture in upper half, smooth in lower half and along hind margin. Mesoscutum with few hairs, finely and weakly retiulate-coriaceous, without notauli; hind margin medially slightly prolonged to base of scutellum, laterally with a few long hairs above scuto-scutellar grooves. Mesopleuron smooth. Scutellum (fig. 38) evenly rounded, hardly pointed posteriorly, with faint sculpture, slightly denser hairy than mesoscutum. Metapleuron smooth and bare in anterior 0.3, rest with whitish pilosity. Propodeal carinae semitransparent, fused.

Fore wing clear, 0.9 x as long as body, 2.4 x as long as wide, without marginal cilia. Hind wing 6.1 x as long as wide; marginal cilia fully two-fifths the width of wing.

Metasoma (fig. 39) hardly longer than mesosoma, about as wide as this, 1.4 x as wide as high. T2 smooth. T3-T6 with faint sculpture and a few hairs.

Male: Length 0.6 mm. Very similar to female, but A4 slightly thickened, preapical antennal segments each about as long as wide, and flagellum uniformly pale throughout.

Material examined: Holotype female, Tanzania, Mto-Ja-Kifaru. KATONA leg. Paratypes: 2 females, 2 males same data.

Named after mr Thorkild MUNK who assisted in making the loan of the specimens possible. Among Afrotropical species of *Synopeas* only *S. ibadanensis* BUHL, 2004 approaches *S. thorkildi* in small size, but *S. ibadanensis* has occiput with distinct carina, differently shaped metasoma, etc., cf. BUHL (2004).

Legends to figures

Figs 1-2 *Euxestonotus charon* BUHL, 2004 female: 1 antenna; 2 metasoma.
Figs 3-6 *Leptacis bidentata* sp. nov. female: 3 head; 4 antenna; 5 posterior part of mesoscutum, scutellum and propodeum; 6 metasoma.
Figs 7-10 *Piestopleura abyssinica* sp. nov. female: 7 head; 8 antenna; 9 posterior part of mesoscutum, scutellum and propodeum; 10 metasoma.
Figs 11-14 *Platygaster ethiopica* sp. nov. female: 11 head; 12 antenna; 13 posterior part

of mesoscutum, scutellum and propodeum; 14 metasoma.

Figs 15-18 *Platygaster laticornis* sp. nov. female: 15 head; 16 antenna; 17 posterior part of mesoscutum, scutellum and propodeum; 18 metasoma.

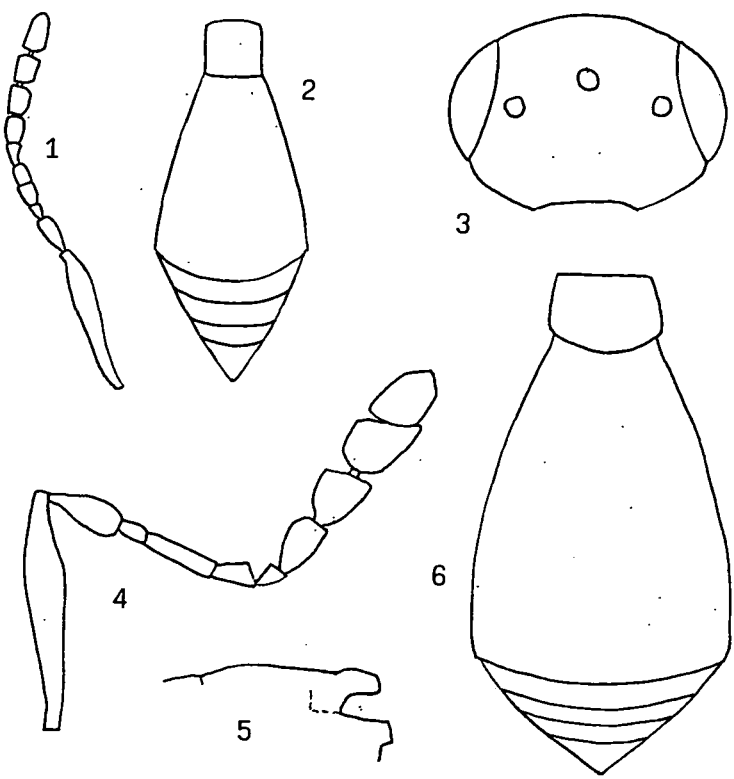
Figs 19-23 *Platygaster oculata* sp. nov. female: 19 head in dorsal view; 20 head in frontal view; 21 antenna; 22 posterior part of mesoscutum, scutellum and propodeum; 23 meta-soma.

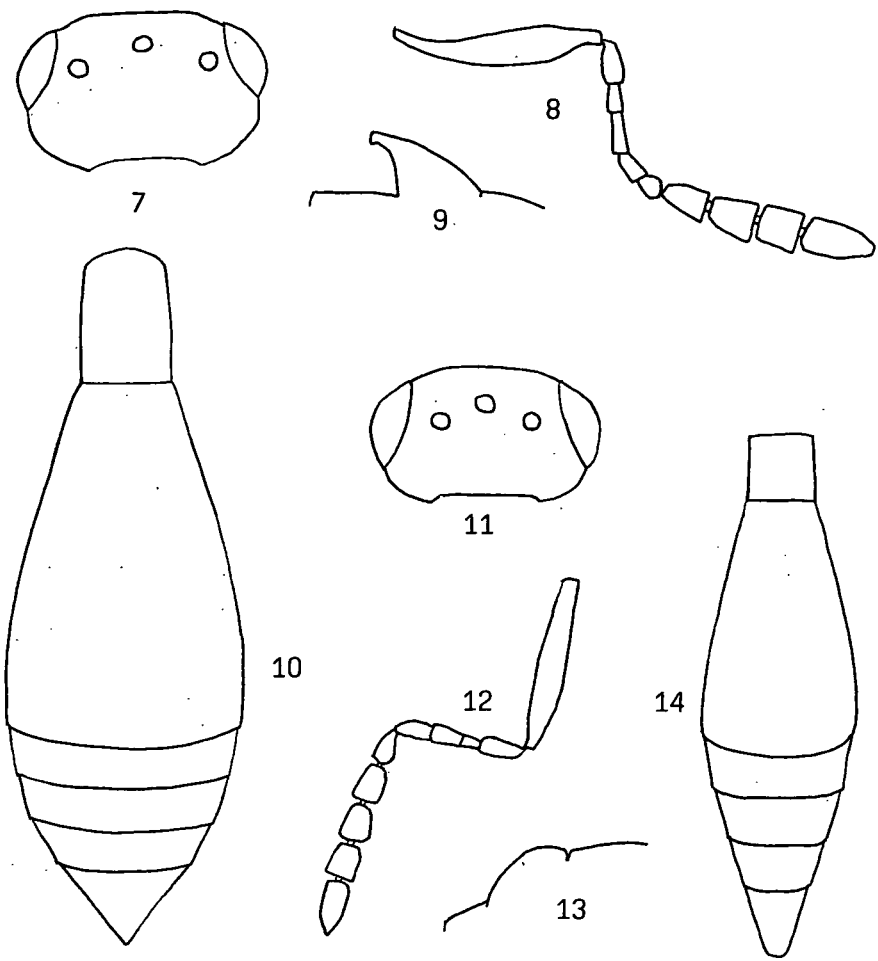
Figs 24-27 *Synopeas cynipsoides* sp. nov. female: 24 head; 25 antenna; 26 posterior part of mesoscutum, scutellum and propodeum; 27 metasoma.

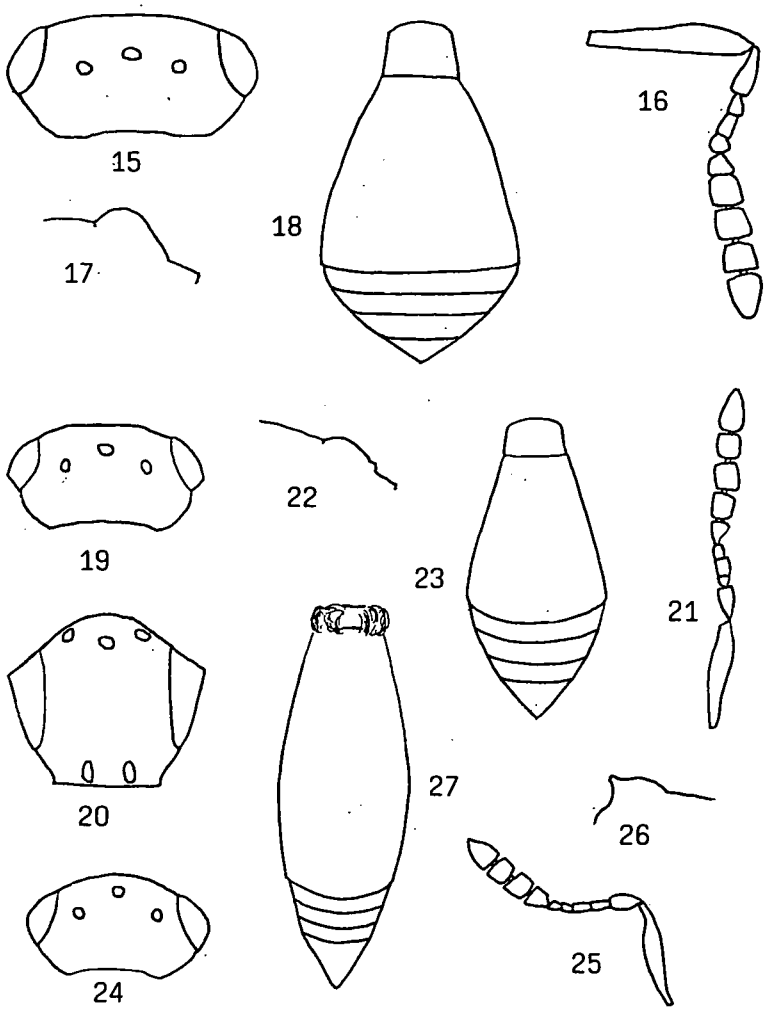
Figs 28-31 *Synopeas fulvimanus* sp. nov. female: 28 head; 29 antenna; 30 posterior part of mesoscutum, scutellum and propodeum; 31 metasoma.

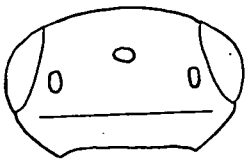
Figs 32-35 *Synopeas kovacsi* sp. nov. female: 32 head; 33 antenna; 34 posterior part of mesoscutum, scutellum and propodeum; 35 metasoma.

Figs 36-39 *Synopeas thorkildi* sp. nov. female: 36 head; 37 antenna; 38 posterior part of mesoscutum, scutellum and propodeum; 39 metasoma.









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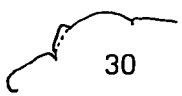

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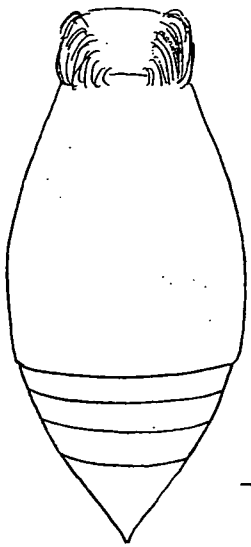

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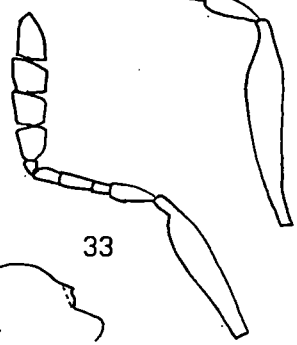

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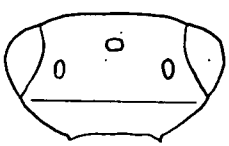

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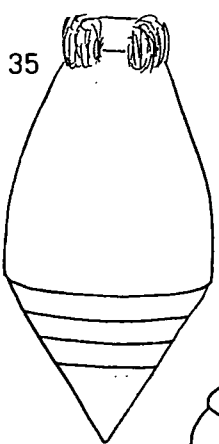

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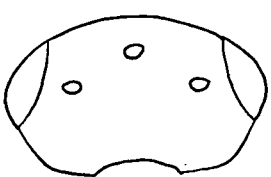

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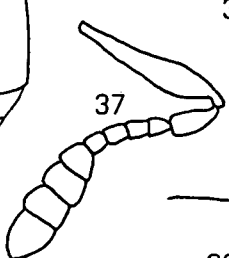

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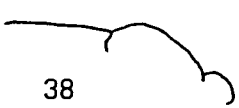

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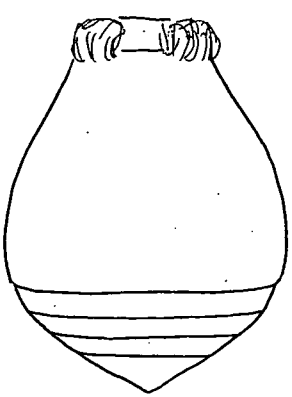

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