

PLATYGASTRIDAE (HYMENOPTERA) SPECIES OF A *JUNIPERUS THURIFERA* L. FOREST OF LOS MONEGROS REGION (ZARAGOZA, SPAIN)

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ABSTRACT

Platygastriidae (Hymenoptera) species of a *Juniperus thurifera* L. forest of Los Monegros region (Zaragoza, Spain).

In a survey of the Platygastriidae of a *Juniperus thurifera* L. forest of Los Monegros region (Zaragoza, Spain) 38 species were recognized, belonging to 12 genera. The following 20 species are new to science: *Isolia hispanica*, *Platygaster acuticlava*, *P. acutocularis*, *P. blascozumetae*, *P. crassicornis*, *P. etsuhoae*, *P. euxestonotoides*, *P. genata*, *P. iberica*, *P. javieri*, *P. leptoptera*, *P. modesta*, *P. pinaensis*, *P. retuertae*, *P. specularis*, *P. stefaniolae*, *P. vera*, *P. zaragozana*, *Synopeas blascoi*, and *S. fuscus*.

Key words: Hymenoptera, Platygastriidae, new species, hosts, faunistics, Spain.

Recepción: 5 Febrero 1998. Aceptación: 20 Junio 1998.

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RESUMEN

Un muestreo de la familia Platygastriidae en un bosque de *Juniperus thurifera* L. en la comarca de Los Monegros (Zaragoza, España) ha dado como resultado la captura de 38 especies pertenecientes a 12 géneros. Se describen las siguientes 20 especies: *Isolia hispanica*, *Platygaster acuticlava*, *P. acutocularis*, *P. blascozumetae*, *P. crassicornis*, *P. etsuhoae*, *P. euxestonotoides*, *P. genata*, *P. iberica*, *P. javieri*, *P. leptoptera*, *P. modesta*, *P. pinaensis*, *P. retuertae*, *P. specularis*, *P. stefaniolae*, *P. vera*, *P. zaragozana*, *Synopeas blascoi* y *S. fuscus*.

INTRODUCTION

Hitherto no comprehensive investigations of Platygastriidae have been carried out on the Iberian peninsula. Only scattered records of single species have been published; e.g. CEBALLOS (1941) mentions *Inostemma pircola* Kieffer, 1906 from Cercedilla, and LLORENS CLIMENT & CAPILLA ESQUITINO (1995) report on the biology of a species of *Amitus* in Spain. The present first paper listing numerous platygastriid species from Spain is based solely on specimens collected by Mr. Javier Blasco-Zumeta from 1990 to 1994 in an area near the locality Pina de Ebro (Zaragoza province) called «Retuerta de Pina» (UTM grid square 30TYL29). It is the last well-preserved *Juniperus thurifera* L. forest in the Monegros region. For a detailed description of this locality and of the material and methods used at collecting I refer to

BÄCHLI & BLASCO-ZUMETA (1995). All specimens treated below are preserved in the Zoological Museum, University of Copenhagen (Denmark) except for a few paratypes and non-types returned to Mr. Blasco-Zumeta.

***Allotropa mecrida* (Walker, 1835)**

Examined material (4 ♀, 10 ♂): 1 ♂, UTM 30TYL2695, on coloured plates, 9.IV.1991; 1 ♂, UTM 30TYL2794, Malaise trap, 7.V.1991; 1 ♂, UTM 30TYL2794, Moericke trap, 20.V.1991; 1 ♀, 4 ♂, UTM 30TYL2794, Malaise trap, 20.VI.1991; 1 ♀, same data but 7.VIII.1991; 1 ♀, same data but 10.IX.1991; 1 ♀, same data but 23.IX.1991; 2 ♂, same data but 20.X.1991; 1 ♂, same data but 9.XI.1991.

Hitherto known from e.g. England, Germany, Scandinavia, Moldavia, and Russia. Hosts: Species of Pseudococcidae on e.g. *Ficus*, *Vitis*, *Betula* and *Picea*.

***Amblyaspis* sp.**

Examined material: 1 ♂, UTM 30TYL2792, Malaise trap, 24.V.1991. Nearly 30 Palearctic species of this genus have been described, most of them very similar to each other. All are supposed to be parasitoids of Cecidomyiidae (VLUG, 1995).

***Fidiobia synergorum* (Kieffer, 1921)**

Examined material (5 ♀, 1 ♂): 1 ♀, UTM 30TYL2794, on coloured plates, 9.II.1991; 1 ♀, UTM 30TYL2896, on coloured plates, 20.II.1991; 2 ♀, UTM 30TYL2894, on coloured plates, 9.III.1991; 1 ♀, UTM 30TYL2794, Moericke trap, 25.III.1991; 1 ♂, UTM 30TYL2695, on coloured plates, 9.IV.1991.

Hitherto known from e.g. Austria, Norway and Hungary. Hosts: Species of Cynipidae on *Quercus* sp. (VLUG, 1995). *Quercus coccifera* L. is present in «Retuerta de Pina» according to BÄCHLI & BLASCO-ZUMETA (1995).

***Inostemma discensus* (Szelényi, 1939)**

Examined material: Numerous ♀ and ♂ emerged 11.IV.1996 from in undetermined gall midge gall on *Ephedra distachya* L. (Gnetales, Ephedraceae) collected 9.IV.96. According to Dr. Marcela Skuhrová the gall midge is either a sp. n. or recorded only in middle Asia.

Hitherto known only from Hungary. Biology hitherto unknown.

***Inostemma mediterraneum* (Kieffer, 1916)**

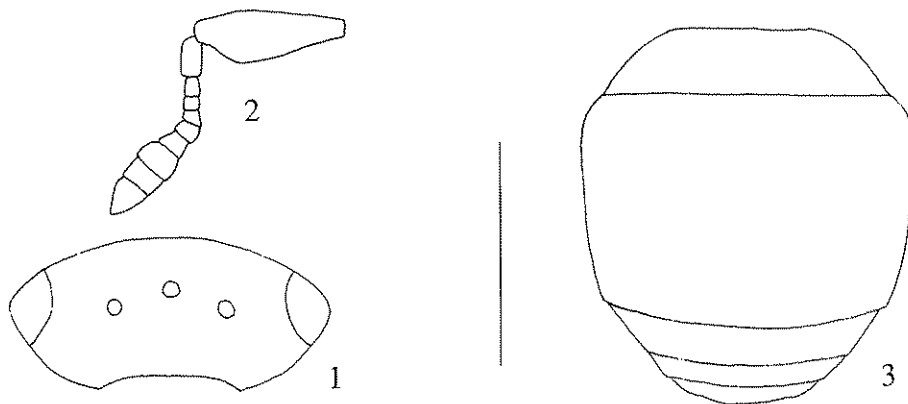
Examined material (5 ♀): 1 ♀, UTM 30TYL3097, swept on *Tamarix canariensis* Willd., 9.VI.1991; 1 ♀, UTM 30TYL3097, swept on *Atriplex halimus* L., 15.VI.1991; 1 ♀, UTM 30TYL2597, swept on *A. halimus*, 22.V.1992; 1 ♀, UTM 30TYL2997, swept on *A. halimus*, 28.VI.1992; 1 ♀, UTM 30TYL2597, swept on *A. halimus*.

Hitherto known from Sicily, Algeria and Moldavia. Host: *Stefaniella atriplicis* Kieffer on *Atriplex halimus* L. (VLUG, 1995).

***Inostemma* sp.**

Examined material: 4 ♀, UTM 30TYL2796, on coloured plates, 25.IV.1991; 1 ♀, UTM 30TYL2794, Moericke trap, 7.V.1991; 9 ♀, same data but Malaise trap; 3 ♀, UTM 30TYL2794, Moericke trap, 20.V.1991; 1 ♀, UTM 30TYL2792, Malaise trap, 24.V.1991; numerous ♀, ♂, UTM 30TYL2794, Wilkening trap between brushes of *Rosmarinus officinalis* L., 10.IV.1992; 1 ♀, UTM 30TYL2891, swept on *Rosmarinus officinalis* L., 20.IV.1992; 1 ♀, UTM 30TYL2794, Wilkening trap near the trunk of *Juniperus thurifera* L., 13.V.1994.

Rather similar to *I. opacum* Thomson, 1859, but the female has shorter horn (reaching only to anterior margin of thorax) and slightly shorter A3-A4 than *opacum*.



Figures 1-3. *Isolia hispanica* sp. n., female: 1) head in dorsal view; 2) antenna; 3) metasoma in dorsal view. Scale bar = 0.25 mm.

Iphitrachelus gracilis Masner, 1957

Examined material: 1 ♂, UTM 30TYL2794, Malaise trap, 18.IX.1990.

Hitherto known from e.g. Czechoslovakia, England, Scandinavia and The Netherlands. Host: Unknown, but the species has been collected in vegetation of *Vinca minor* L. in Czechoslovakia and The Netherlands (VLUG, 1995). The only gall midge species known to be associated with *V. minor* on the Iberian peninsula is *Dasineura vincae* (Kieffer & Trotter, 1904) (SKUHRÁVÁ *et al.*, 1996).

Isolia hispanica sp. n.

Examined material

Holotype ♀: UTM 30TYL2794; in Wilkening trap placed in the branches of *Juniperus thurifera* L., 25.VII.1992.

Description

♀: Body size 0.9 mm. Colour black, metasoma dark brown, propodeum and T1 light brown; mandibles, A1-A7, tegulae and legs reddish yellow.

Head from above (Fig. 1) 2.3× as wide as long, slightly wider than thorax (15:14), strongly angled just behind ocelli; occiput and vertex strongly reticulate, frons finely so; head from in front 1.25× as wide as high; malar space equal to height of an eye; OOL:POL:LOL = 5:9:4. Antenna (Fig. 2) with scape reticulate-coriaceous, about 0.6 as long as height of head.

Mesosoma as wide as long and nearly 1.3× as wide as high. Sides of pronotum with weak longitudinal reticulation, stronger reticulate on shoulders. Mesoscutum with sparse and very short hairs, faintly reticulate-coriaceous, almost smooth medially in front of scutellum; notauli absent but indicated by two weak incomplete converging depressions. Mesopleurae smooth, with some longitudinal wrinkles in upper half. Scutellum hardly sculptured between parallel lateral margins, almost bare, about 2.4× as wide as long, hind margin slightly convex. Postscutellum smooth, with two widely separated keels. Metapleurae anteriorly smooth, rest of metapleurae and most of propodeum covered by a whitish, reticulate membrane as well as by some long white hairs.

Fore wing slightly infuscated, fully 1.1× as long as whole body, and 2.6× as long as wide, hardly with marginal cilia. Hind wing 4.4× as long as wide; marginal cilia hardly 0.2 width of wing.

Metasoma (Fig. 3) hardly shorter than head and mesosoma combined, 1.1× as wide as thorax, and fully 1.1× as long as wide. T1 punctured and with dense and short whitish hairs over most of surface; T2 medially along anterior margin with dense and short whitish hairs, rest of tergite smooth and almost bare; T3-T6 almost smooth, with a few very fine hairs.

♂: Unknown.

Hitherto five species of *Isoila* have been described, all Palaearctic. *I. biroi* Szabó, 1959, *foersteri* Szabó, 1959, and *longistriata* Alekseyev, 1979 all differ from *hispanica* in having longitudinally sculptured scutellum, *biroi* also in having A3 2× as long as wide, *foersteri* also in having posterior ocelli much closer to eye margin than in *hispanica*, and *longistriata* (only ♀ known) also in being twice as large as *hispanica*. *I. mongolica* (Kozlov, 1972) has head 3.5× as wide as long, A3 relatively longer than in *hispanica*, and wings distinctly smaller. *I. striatitergitis* Szabó, 1962 has T2 entirely sculptured. Cf. KOZLOV (1972, 1978) and ALEKSEYEV (1979).

Etymology

Named after the country of the type locality.

Leptacis ozines (Walker, 1835)

Examined material: 1 ♀, UTM 30TYL2794, Malaise trap, 7.VIII.1991.

Hitherto known from e.g. England and Scandinavia. Biology unknown.

Piestopleura sp.

Examined material: 1 ♂, UTM 30TYL2794, Malaise trap, 17.X.1990. The head is missing on unique specimen, so it is not possible to say anything about this species' placement among the 11 known Palaearctic species of the genus.

Platygaster acrisius Walker, 1835

Examined material: 1 ♀, UTM 30TYL 2592, swept on *Artemisia herba-alba* Asso, 8.VII.1992.

Hitherto known from England and Scandinavia. Biology unknown.

Platygaster acuticlava sp. n.

Examined material

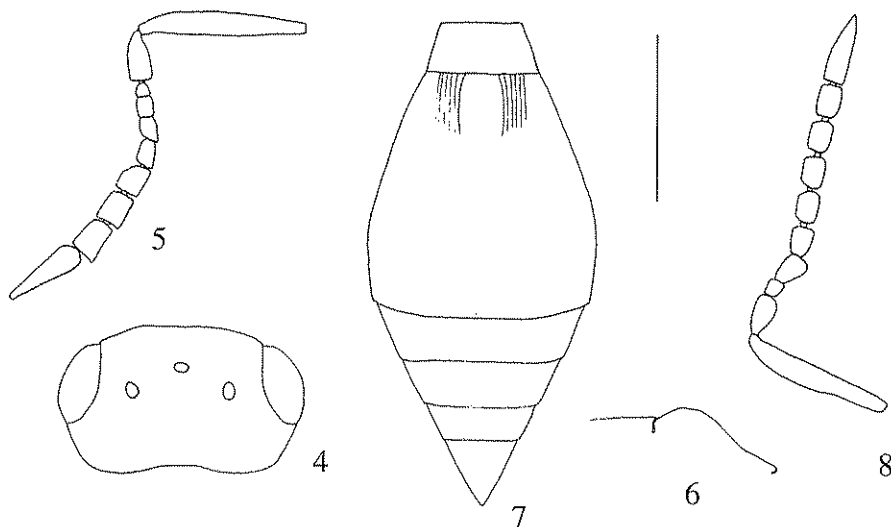
Holotype ♀: UTM 30TYL2792; Malaise trap, 24.V.1991. Paratypes (2 ♀, 5 ♂): 3 ♂, UTM 30TYL2796, on coloured plates, 25.IV.1991; 2 ♀, 1 ♂, UTM 30TYL2846, on coloured plates, 7.V.1991; 1 ♂, UTM 30TYL2794, Moericke trap, 7.V.1991.

Description

♀: Body size 1.2-1.4 mm (holotype 1.3 mm). Colour brownish to brownish black; antennae and mandibles brown, legs preponderantly lighter brown, most of fore legs and both ends of middle and hind tibiae yellowish brown.

Head from above (Fig. 4) 1.8× as wide as long, fully 1.1× as wide as thorax; occiput and vertex reticulate-coriaceous, medially transversely so, forming fine wrinkles medially on occiput; frons almost smooth, towards sides weakly reticulate and punctured; with distinct transverse wrinkles above antennae. Head from in front 1.3× as wide as high; malar space 0.3 the height of an eye; OOL:POL:LOL = 7:21:10. Antenna (Fig. 5) with A9 hardly 1.2× as long as wide; A10 much pointed, longer than A8-A9 combined.

Mesosoma 1.4× as long as wide and 1.1× as high as wide. Sides of pronotum anteriorly in upper half hairy and with fine rugosity, rest smooth with scattered pustules and hairs. Mesoscutum with sparse hairs, reticulate, smoother laterally; notauli complete and deep,



Figures 4-8. *Platygaster acuticlava* sp. n.: 4) female head in dorsal view; 5) female antenna; 6) female scutellum in lateral view; 7) female metasoma in dorsal view; 8) male antenna. Scale bar = 0.25 mm.

mid lobe prolonged to base of scutellum, smooth here and ending in a fine point; scuto-scutellar grooves triangular, with a few hairs. Mesopleurae almost smooth, with a few wrinkles below tegulae. Scutellum (Fig. 6) above level of mesoscutum, dull, reticulate, with sparse hairs. Metapleurae and sides of propodeum with dense pilosity. Propodeal carinae well separated, hardly diverging, area in between smooth and shiny.

Fore wing almost clear, 0.8 as long as whole body, and $2.4\times$ as long as wide; marginal cilia short. Hind wing $5.4\times$ as long as wide, with two frenal hooks; marginal cilia 0.2 the width of wing.

Metasoma (Fig. 7) longer than head and mesosoma combined (15:13), very slightly wider than thorax. T1 crenulated, almost smooth along a rather wide hind margin; T2 with some short and faint striae in basal foveae, rest of metasoma smooth, T3-T5 each with a medially interrupted transverse row of rather superficially implanted hairs, T6 with hairs more scattered and deeper implanted.

♂: Body size 1.2-1.5 mm. Antenna (Fig. 8) with A4 distinctly widened; A9 $1.33-1.67\times$ as long as wide; length of flagellar pubescence about half the width of segments. Metasoma slightly shorter than head and mesosoma combined (23:25), slightly less pointed at apex than in female.

This species seems to be rather similar to the North American species *P. lampronota* Fouts, 1924 in general outline, but neither this nor any other species of *Platygaster* I know has such relatively long and acute A10 as *P. acuticlava*.

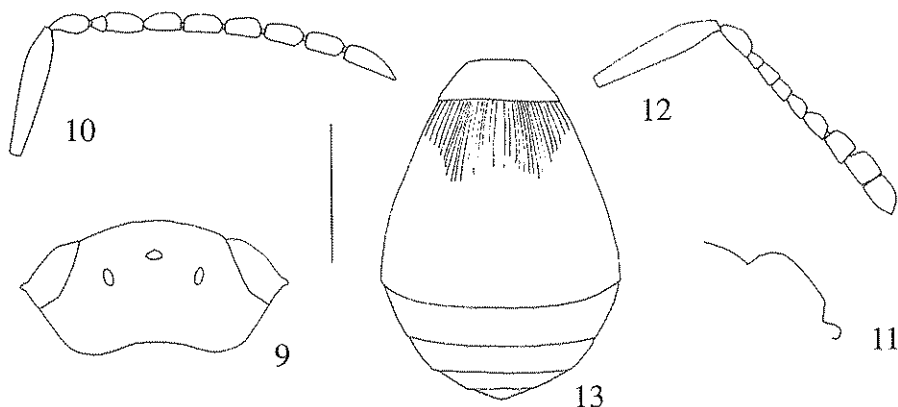
Etymology

The name *acuticlava* refers to the unusually pointed tip of the female antennal club.

Platygaster acutocularis sp. n.

Examined material

Holotype ♂: UTM 30TYL2794; Moericke trap, 7.V.1991. Paratypes (2 ♀, 9 ♂): 1 ♀, 2 ♂ same data as holotype; 1 ♂ same data but Malaise trap; 3 ♂, UTM 30TYL2792, Malaise trap,



Figures 9-13. *Platygaster acutocularis* sp. n.: 9) male head in dorsal view; 10) male antenna; 11) male scutellum in lateral view; 12) female antenna; 13) female metasoma. Scale bar = 0.25 mm.

24.V.1991; 2 ♂, UTM 30TYL2794, Malaise trap, 20.VI.1991; 1 ♂, UTM30TYL2794, Wilkening trap placed in the branches of *Juniperus phoenicea* L., 10.V.1992; 1 ♀, UTM 30TYL2997, emerged 6.V.1994 from galls of *Etsuhoa thuriferae* Skuhravá, 1995 collected 30.IV.94.

Description

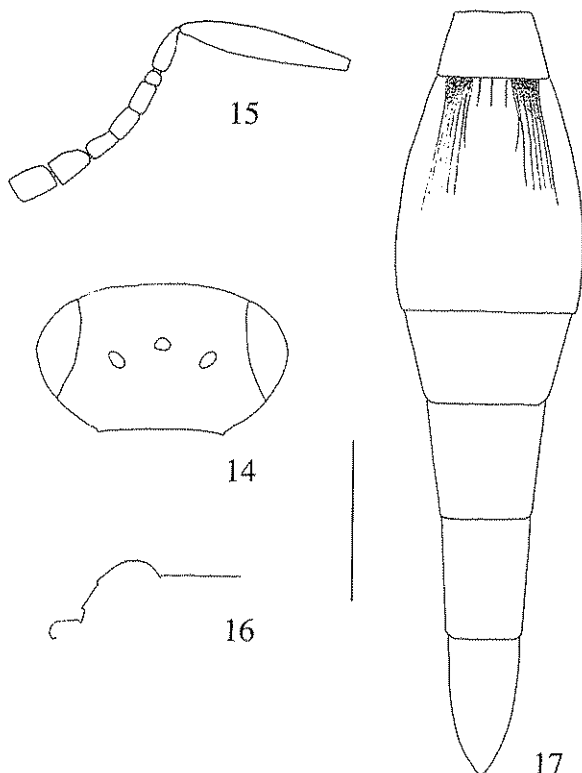
♂: Body size 0.9-1.2 mm (holotype 1.1 mm). Colour dark brownish; antennae, mandibles and legs light brown; most of fore legs, both ends of middle and hind tibiae, and all tarsi yellowish brown.

Head from above (Fig. 9) 2.2× as wide as long, 1.1× as wide as thorax; surface of eyes with an acute projection; occiput distinctly transversely striated medially, posteriorly with finer transverse wrinkles; vertex reticulate; frons smooth, with faint reticulation along inner orbits and with a few weak wrinkles above antennae. Head from in front 1.5× as wide as high; malar space 0.4× the height of an eye; OOL:POL:LOL = 10:24:11. Antenna (Fig. 10) with A4 hardly widened, A9 about 1.7× as long as wide; flagellar pubescence about two-thirds the width of segments.

Mesosoma 1.1× as long as wide and very slightly higher than wide. Sides of pronotum with longitudinal reticulation, smooth along broad margins, with a few hairs in upper half. Mesoscutum smooth, with weak sculpture anteriorly, almost bare, with a line of hairs were absent notauli should have been; "median plate" slightly prolonged posteriorly, reaching base of scutellum, at each side with long and dense hairs covering scuto-scutellar grooves. Mesopleurae smooth except for a few faint wrinkles below tegulae. Scutellum (Fig. 11) convex, below highest point of mesoscutum, smooth, moderately hairy. Metapleurae and sides of propodeum smooth and almost bare anteriorly, rest with long pilosity. Propodeal carinae widely separated, slightly diverging, area in between shiny and almost smooth.

Fore wing faintly infuscated, 1.1× as long as whole body, and 2.3× as long as wide; marginal cilia hardly 0.1× the width of wing. Hind wing 4.7× as long as wide, with two frenal hooks; marginal cilia hardly 0.3 width of wing.

Metasoma very slightly longer than mesosoma, and narrower than this (5:6). T1 with about five carinae medially, laterally smoother and somewhat depressed; T2 striated in basal foveae to hardly 0.5, medially slightly shorter, rest of metasoma almost smooth, T3-T7 each with a transverse row of superficially implanted hairs.



Figures 14-17. *Platygaster blascozumetae* sp. n., female: 14) head in dorsal view; 15) antenna (A9-A10 missing); 16) scutellum in lateral view; 17) metasoma in dorsal view. Scale bar = 0.25 mm.

♀: Body size 1.2 mm. Projection on eye only indicated as a rather sharp angle. Antenna (Fig. 12) with very short pubescence, A9 1.1× as long as wide. Fore wing about 0.9 as long as whole body. Metasoma (Fig. 13) nearly as long as head and mesosoma combined. Rest of characters as in ♂.

This species fits in no key to Palaearctic species. In MacGown's unpublished key to species of *Platygaster* in the United States it runs to *P. diplosidis* (Ashmead, 1893), but this species is much different from *acutocularis* in structure of scutellum and of eyes, the peculiar modification on these being a unique structure for *acutocularis*.

Etymology

The name refers to the acutely angled eyes.

Platygaster blascozumetae sp. n.

Examined material

Holotype ♀: UTM 30TYL2794; Moericke trap, 25.III.1991.

Description

♀: Body size 1.9 mm. Colour shiny black; mandibles, antennae, tegulae, coxae, and metasoma towards apex dark brown; femora brown, trochanters, tibiae and tarsi yellowish brown.

Head from above (Fig. 14) 1.8× as wide as long, 1.2× as wide as thorax; occiput moderately transversely striated, reticulate-coriaceous towards sides; vertex reticulate-coriaceous, between ocelli transversely so; frons smooth, with a few punctures and very faint sculpture along eyes, above antennae with rather numerous transverse wrinkles. Head from in front 1.25× as wide as high; malar space 0.4 the height of an eye; OOL:POL:LOL = 2:5:2. Antenna (Fig. 15) with A4-A6 nearly equal, each about 1.5× as long as wide; A8 hardly 1.4× as long as wide (A9-A10 missing in unique type).

Mesosoma 1.6× as long as wide and higher than wide (8:7). Sides of pronotum smooth except for longitudinal rugosity medially in anterior half, and for some sparse punctures with hairs. Mesoscutum smooth, without notauli but with a line of hairs on their imaginary courses, otherwise rather bare; "median plate" broad and prolonged backwards over base of scutellum, on each side with long and dense hairs covering scuto-scutellar grooves. Mesopleurae smooth. Scutellum (Fig. 16) slightly above mesoscutum, hardly sculptured, with a few hairs, posterior margin not evenly rounded but forming two «steps». Metapleurae and sides of propodeum covered by pilosity; propodeal carinae slightly diverging, area in between smooth and shiny.

Fore wing faintly infuscated, reaching to posterior third of T5, 2.9× as long as wide; marginal cilia short. Hind wing 5.0× as long as wide, with two frenal hooks; marginal cilia 0.2 width of wing.

Metasoma (Fig. 17) 1.7× as long as head and mesosoma combined, 0.9× as wide as thorax. T1 evenly crenulated; T2 finely striated from deep basal foveae to about half of length, area in between with a few short striae; T3-T6 smooth, laterally with deeply implanted and distinct hairs; hairs of T3 almost standing in a single row only, on T4-T6 they are more scattered; T5-T6 also medially with a few hairs. Apical tergites convex, T5 only about 1.2× as wide as high. Sternite 2 anteriorly not prolonged.

♂ unknown.

Runs to *Misocyclops subterraneus* Kieffer, 1916 in KIEFFER's (1926) key, but this species has notauli distinct, «median plate» in front of scutellum much narrower and T4 much more transverse than in *P. blascozumetae*. Other related species mentioned by KIEFFER (1926) also have notauli distinct, except *M. sambuci* Kieffer, 1916 which has much more slender antennae than *P. blascozumetae*. *Platyaster apicalis* Thomson, 1859 (synonym: *Misocyclops crevecoeuri* Maneval, 1936) is rather similar to *P. blascozumetae* in structure of antennae and mesoscutum, but *apicalis* has A3 more slender than in *blascozumetae*, notauli faintly indicated, metasoma shorter and T5-T6 sculptured, cf. e.g. MANEVAL (1936) and BUHL (1995b). *Platyaster* (*Misocyclops* sensu Kieffer) *blascozumetae* is a characteristic species on account of its very smooth body combined with the total absence of notauli.

Etymology

Named after the collector.

Platyaster cebes Walker, 1835

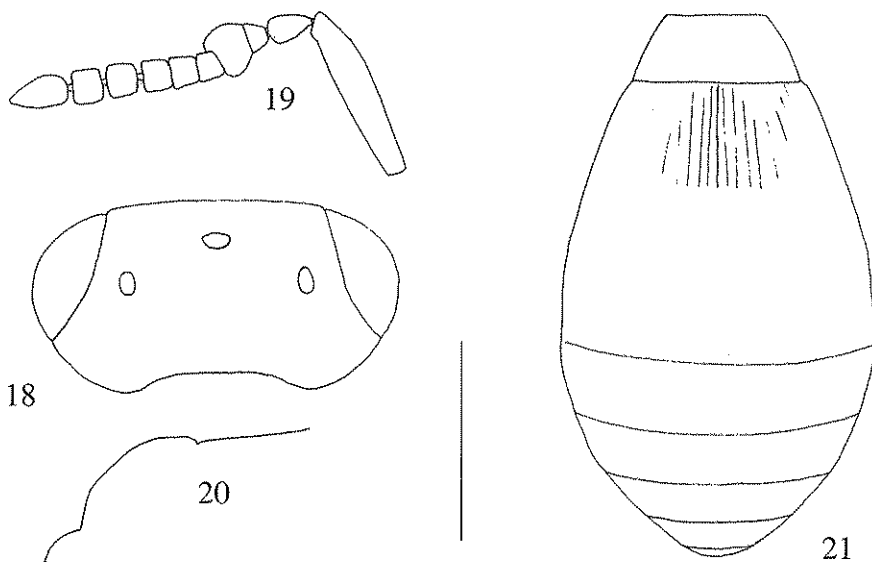
Material examined (2 ♀, 1 ♂): 1 ♂, UTM 30TYL2894, on coloured plates, 9.III.1991; 1 ♀, UTM 30TYL2794, Malaise trap, 9.IV.1991; 1 ♀, UTM 30TYL2792, Malaise trap, 24.V.1991.

Hitherto known from Scotland. Biology unknown.

Platyaster crassicornis sp. n.

Examined material

Holotype ♂: UTM 30TYL2794; Moericke trap, 20.V.1991. Paratypes (1 ♀, 2 ♂): 1 ♀, UTM 30TYL2795, on coloured plates, 7.VI.1991; 2 ♂, UTM 30TYL2794, Wilkening trap between brushes of *Rosmarinus officinalis* L., 10.V.1992.



Figures 18-21. *Platygaster crassicornis* sp. n., male: 18) head in dorsal view; 19) antenna; 20) scutellum in lateral view; 21) metasoma in dorsal view. Scale bar = 0.25 mm.

Description

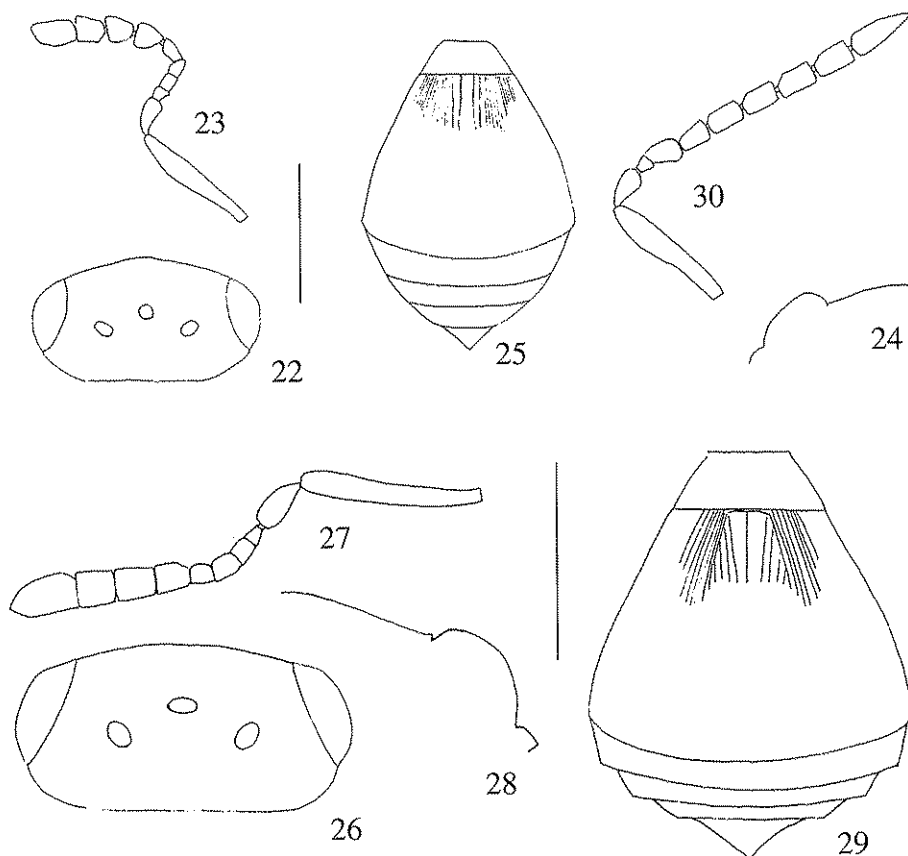
♂: Body size 1.05-1.45 mm (holotype 1.45 mm). Colour blackish; antennae, tegulae and legs dark reddish brown; apical half of mandibles yellowish red.

Head from above (Fig. 18) 2.1× as wide as long, 1.1× as wide as thorax, dull, coriaceous, covered densely all over with fine pustules with hairs, frons above antennae with some weak wrinkles. Head from in front 1.3× as wide as high, with a distinct long projection between antennae; malar space 0.15 the height of an eye; OOL:POL:LOL = 3:17:8. Antenna (Fig. 19) with A4 twice as wide as A2; A5-A9 each slightly transverse; flagellar pubescence very short.

Mesoscutum 1.5× as long as wide, 1.1× as high as wide. Sides of pronotum covered densely with fine pustules with hairs, dull (coriaceous) in upper half, slightly shiny (smooth) in lower half. Mesoscutum dull, coriaceous, covered densely with fine pustules with hairs, with weak and smooth admedian lines in anterior one-fourth; notauli complete and deep; mid lobe behind hardly prolonged, rather narrow, at sides with some short hairs above scuto-scutellar grooves. Mesopleurae smooth, rather densely hairy over most of surface, with a few wrinkles below tegulae. Scutellum (Fig. 20) at level of mesoscutum, sculptured and hairy as this. Metapleurae and sides of propodeum with short, whitish pilosity. Propodeal carinae short, hardly diverging, rather far apart, area in between sculptured and dull.

Fore wing hardly three-fourths as long as whole body, slightly infuscated and densely covered by short hairs, only 2.1-2.2× as long as wide; marginal cilia extremely short and scarce. Hind wing 4.6× as long as wide, with two frenal hooks; marginal cilia about 0.1 width of wing.

Metasoma (Fig. 21) 1.0-1.1× as long as mesosoma, hardly as wide as this. T1 with two rather strong longitudinal keels and a couple of weak longitudinal carinae between them, laterally smooth but dull, hardly hairy. T2 striated medially to almost two-fifths of length, laterally fainter and slightly shorter, rest of tergite smooth, with a few hairs. T3-T7 smooth, each with numerous superficially implanted hairs which are not placed in distinct rows.



Figures 22-30. *Platygaster etsuhoae* sp. n.: 22-25) holotype female; 26-29) paratype female; 22 and 26) head in dorsal view; 23 and 27) antenna; 24 and 28) scutellum in lateral view; 25 and 29) metasoma in dorsal view; 30) male antenna. Scale bars = 0.25 mm.

♀: Head missing from unique specimen. Meso- and metasoma much as in male; metasoma about $1.75\times$ as long as wide, hardly $1.3\times$ as long as mesosoma, only very slightly more pointed at apex than in male.

On shape of clypeal process and male A4 somewhat similar to species of the subgenus *Eritrissomerus* Ashmead, 1893, but *P. crassicornis* has clypeal process more blunt than these and lacks the diagonal, clublike tyloid on A4 also characteristic for *Eritrissomerus*, cf. figs. in MCGOWN's unpublished key to species of *Platygaster* in the United States. Hitherto only three species of *Eritrissomerus* have been described, all Nearctic. *P. crassicornis* runs to *P. (E.) cecidomyiae* Ashmead, 1893 in FOURS' (1924) key, but apart from the subgeneric characters, this species has head much more striated than *P. crassicornis*, A5-A7 each slightly longer than wide, A8-A9 each as long as wide, T2 strongly and regularly striated to half of length, and it is 2 mm long. Though belonging to *Platygaster* s. str., *P. crassicornis* is a remarkable species on account of form of antennae, sculpture, hairs and wings.

Etymology

The name refers to the very strongly built male antennae.

Platygaster etsuhoae sp. n.

Examined material

Holotype ♀: UTM 30TYL2997; emerged 6.V.1994 from galls of *Etsuhoa thuriferae* Shuhravá, 1995 collected 30.IV.94. Paratypes (20 ♀, 13 ♂): 12 ♀, 6 ♂ same data as holotype; 2 ♀, 5 ♂ same data but emerged 2.V.94; 1 ♀ same data but emerged 9.V.94; 1 ♀, 1 ♂, UTM 30TYL2794, Malaise trap, 19.II.1991; 1 ♀, UTM 30TYL2794, Moericke trap, 7.V.1991; 1 ♀, UTM 30TYL2794, Malaise trap, 20.VI.1991; 1 ♀ (Figs. 26-29), found dead, partly hatched from pupa of *Etsuhoa thuriferae* in a gall, collected 6.X.1991 on *Juniperus thurifera* L.; 1 ♀, UTM 30TYL2694, swept on *Quercus coccifera* L., 10.IV.1992; 1 ♀, UTM 30TYL3097, swept on *Tamarix canariensis* Willd., 28.V.1992.

Description

♀: Body size 0.9-1.2 mm (holotype 1.1 mm). Colour black to blackish brown; antennae and mandibles dark reddish brown to dark brown; tegulae and legs dark brown; coxae, trochanters, knees, apex of tibiae, and segments 1-4 of tarsi light brown.

Head from above (Figs. 22 and 26) 1.8-2.0× as wide as long, 1.1-1.2× as wide as thorax; occiput finely and densely transversely striated, laterally sometimes weakly reticulate as vertex; frons nearly smooth, sometimes faintly reticulate laterally, above antennae with a few wrinkles which laterally cover at most 0.3 height of frons. Head from in front 1.3× as wide as high; malar space about one-third the height of an eye; OOL:POL:LOL = 5:10:4. Antenna (Figs. 23 and 27) with A9 as long as wide.

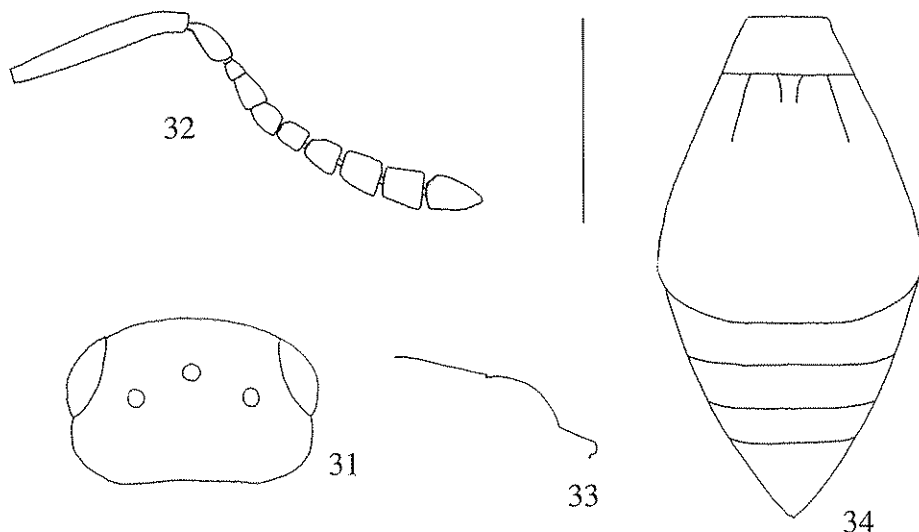
Mesosoma 1.15-1.30× as long as wide, from hardly higher than wide to almost 1.2× as high as wide. Sides of pronotum with fine longitudinal reticulation, sometimes smoother in basal third, with sparse hairs in upper 0.4 and along smooth hind margin. Mesoscutum with a few hairs, faintly to moderately longitudinally coriaceous, anteriorly reticulate; notauli very faintly indicated in posterior one-third to half; mid lobe slightly prolonged to base of scutellum, rather wide and smooth here, slightly raised above lateral lobes; scuto-scutellar grooves narrow, covered by some hairs. Mesopleurae smooth. Scutellum (Figs. 24 and 28) slightly to much below highest point of mesoscutum, smooth or faintly reticulate-coriaceous, with sparse hairs. Metapleurae and sides of propodeum with rather sparse but long pilosity all over. Propodeal carinae very short, widely separated, area in between smooth but dull.

Fore wing clear or faintly yellowish, fully 0.8 as long as whole body, 2.3-2.4× as long as wide; marginal cilia short. Hind wing 4.9-5.0× as long as wide, with two frenal hooks; marginal cilia 0.3-0.4 the width of wing.

Metasoma (Figs. 25 and 29) shorter than head and mesosoma combined (21:25) to nearly as long, 1.0-1.1× as wide as thorax. T1 medially crenulated and with 2-3 weak longitudinal keels, laterally with a few hairs; T2 faintly to distinctly striated in basal foveae to one-third or two-fifths, medially slightly to hardly shorter, rest of tergite smooth or with faint longitudinal sculpture, hind margin of T2-T5 often with fine reticulation, rest of apical tergites hardly sculptured; T3 with some superficially implanted hairs laterally; T4-T5 each with a complete transverse row of such hairs; T6 with a few hairs.

♂: Body size 1.1-1.3 mm. Antenna (Fig. 30) with A4 moderately widened; A6-A9 each 1.75× as long as wide; length of flagellar pubescence about half the width of segments. Fore wing almost as long as whole body. Metasoma hardly longer than mesosoma.

Rather similar to *P. manto* Walker, 1835, but this species has head behind eyes narrowed in straight lines, basal antennal segments (A2-A6) more slender than in *etsuhoae*, and T2 longer than wide (in *etsuhoae* wider than long) and less striated than in *etsuhoae*, cf. VLUG (1985). The females of *etsuhoae* and *acutocularis* sp. nov. are rather similar (and a female *P. acutocularis* even emerged from the same batch of galls at the same time as the holotype *P. etsuhoae*!), but apart from *acutocularis* having angular eyes and more transverse head (fully 2.2× as wide as long) than in *etsuhoae*, *acutocularis* has mesoscutum and sides of pronotum distinctly smoother than this.



Figures 31-34. *Platygaster euxestonotoides* sp. n., female: 31) head in dorsal view; 32) antenna; 33) scutellum in lateral view; 34) metasoma in dorsal view. Scale bar = 0.25 mm.

Etymology

The name *etsuhoae* is derived from the generic name of the gall midge host.

Platygaster euxestonotoides sp. n.

Examined material

Holotype ♀: UTM 30TYL2794; Malaise trap, 17.X.1990.

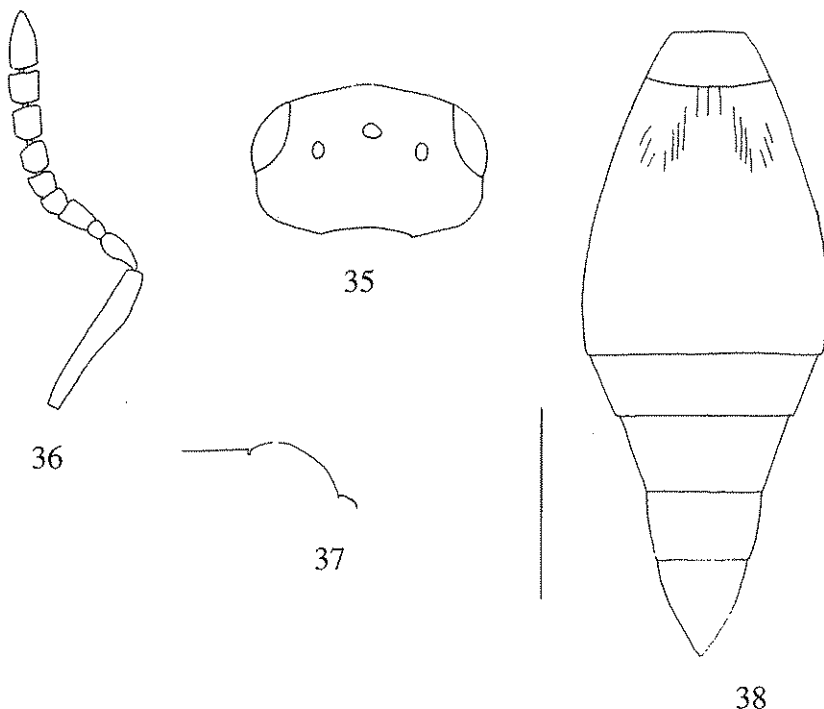
Description

♀: Body size 1.2 mm. Colour black; antennae, mandibles and legs dark reddish brown; both ends of fore tibiae, apex of middle and hind tibiae, and segments 1-4 of all tarsi yellowish brown.

Head from above (Fig. 31) 1.6× as wide as long, slightly wider than thorax (13:12); occiput reticulate, vertex weakly so; frons medially smooth, with transverse wrinkles in lower half, laterally faintly reticulate. Head from in front wider than high (13:11); malar space hardly 0.5 the height of an eye; OOL:POL:LOL = 2:7:3. Antenna (Fig. 32) with A9 as long as wide.

Mesosoma 1.4× as long as wide, slightly higher than wide (13:12). Sides of pronotum in upper half with moderately dense hairs and faint sculpture in anterior half, smooth and with a few hairs in posterior half; sides in lower half almost smooth, with moderately dense punctures with hairs. Mesoscutum with very few hairs, smooth except for faint reticulation anteriorly; notauli nearly complete, only slightly converging; mid lobe broad, slightly prolonged to base of scutellum, as wide as lateral lobes posteriorly; scuto-scutellar grooves rather wide, with a few hairs. Mesopleurae smooth. Scutellum (Fig. 33) slightly below level of mesoscutum, smooth, moderately hairy. Metapleurae and sides of propodeum with dense whitish pilosity all over. Propodeal carinae very slightly diverging, area in between smooth and shiny.

Fore wing almost clear, 0.9 as long as whole body, 2.8× as long as wide; marginal cilia at their longest fully 0.1 width of wing. Hind wing 6.3× as long as wide, with two frenal hooks; marginal cilia 0.4 width of wing.



Figures 35-38. *Platygaster genata* sp. n., female: 35) head in dorsal view; 36) antenna; 37) scutellum in lateral view; 38) metasoma in dorsal view. Scale bar = 0.25 mm.

Metasoma (Fig. 34) longer than head and mesosoma combined (26:23), wider than thorax (7:6). T1 with two weak longitudinal keels, area in between smooth, laterally hairy; T2 hardly sculptured but rather hairy in and between basal foveae; T3-T5 smooth, T6 with faint sculpture; T3 with a single rather superficially implanted hair on each side, T4 with a medially interrupted transverse row of such hairs, T5 with a complete such row, T6 with scattered hairs.

♂: Unknown.

In structure of mesoscutum, scutellum and metasoma generally similar to *Euxestonotus error* (Fitch, 1861), but this species has head more transverse, antennae more slender, T1 differently shaped, T2 more sculptured, and apical tergites more flattened than in *P. euxestonotoides*. In shape of notauli and scutellum *euxestonotoides* (and a couple of undescribed species from Denmark I know) seems to be close to the genus *Euxestonotus* which is characterized by parallel notauli which are even slightly diverging in front of scutellum, and by a flattened scutellum which is separated from mesoscutum by a fine linear impression only. *P. euxestonotoides*, however, clearly belongs to *Platygaster* as its notauli are slightly converging (and stronger than in *Euxestonotus*), and as it has distinct scuto-scutellar grooves.

Etymology

The name of the new species means that it is similar to a species belonging to the genus *Euxestonotus*.

Platygaster genata sp. n.

Examined material

Holotype ♀: UTM 30TYL2997; on coloured plates, 25.III.1991.

Description

♀: Body size 1.4 mm. Colour black, metasoma with brownish tint; antennae, mandibles, tegulae and legs reddish brown, both ends of middle and hind tibiae slightly lighter; most of fore tibiae, and all tarsi entirely, more or less yellowish brown.

Head from above (Fig. 35) 1.7× as wide as long, very slightly wider than thorax; occiput and vertex reticulate-coriaceous, medially transversely so; frons weakly transversely reticulate, in lower 0.3 finely transversely striated, smooth medially. Head from in front fully 1.1× as wide as high; malar space two-fifths the height of an eye; OOL:POL:LOL = 3:10:4. Antenna (Fig. 36) with A9 hardly longer than wide.

Mesosoma almost 1.4× as long as wide, hardly 1.1× as high as wide. Sides of pronotum reticulate and hairy in upper half except along wide hind margin, in lower half smooth, with a few hairs. Mesoscutum with sparse hairs, reticulate-coriaceous, lateral lobes smooth on their outer half; notauli complete, nearly meeting posteriorly, the narrow mid lobe prolonged to base of scutellum; scuto-scutellar grooves rather wide and deep, with some long hairs. Mesopleurae smooth. Scutellum (Fig. 37) just above mesoscutum, finely reticulate-coriaceous, with sparse hairs. Metapleurae and sides of propodeum with pilosity all over. Propodeal carinae very short, well separated, area in between smooth and shiny.

Fore wing almost clear, reaching to middle of T6, 2.75× as long as wide; marginal cilia very short. Hind wing 5.1× as long as wide, with two frenal hooks; marginal cilia one-sixth the width of wing.

Metasoma (Fig. 38) almost 1.5× as long as head and mesosoma combined, 1.1× as wide as thorax, rather convex, medially only 1.3× as wide as high. T1 finely crenulated and with two stronger longitudinal carinae. T2 with some hairs in basal foveae which are finely striated on their slopes to one-third the length of tergite, area in between with a few shorter striae, rest of tergite as well as the following tergites smooth; T3 and T6 with a few superficially implanted hairs, T4-T5 each with a transverse row of such hairs. 2nd sternite not prolonged anteriorly.

♂: Unknown.

Rather similar to *P. nigra* Nees ab Esenbeck, 1834 (*Misocyclops nigerrimus* Kieffer, 1926), but this species has occiput with distinct transverse ridges, and genae less prominent, mesoscutum rougher sculptured and less shiny, scutellum lower, metasoma slightly shorter, and T2 more striated than in *P. genata*, and *nigra* has sides of T4 and most of T5 with faint rugosity, and T6 hardly as long as T5 (*P. genata* has T6 1.5× as long as T5), and it is darker than *P. genata*, cf. also BUHL (1995b). The best character to separate *genata* and *P. nigra* is, however, probably the structure of T1: Whereas *genata* has medial area of T1 sculptured (mostly crenulated) almost all over, *P. nigra* has this area with wide and smooth anterior and posterior margins, with only a narrow transverse stripe of crenulation medially; in *nigra* the two longitudinal carinae on T1 are also wider from each other and more parallel than in *genata*.

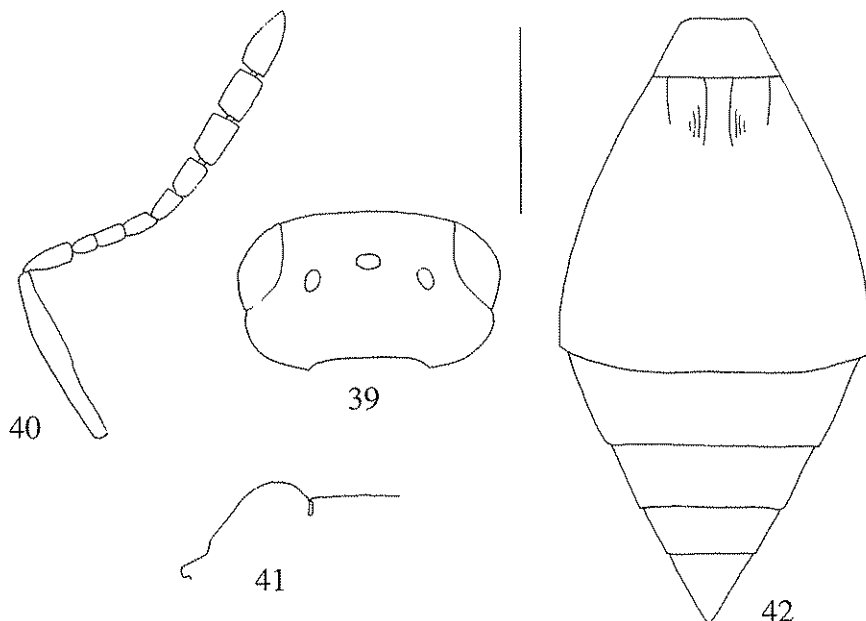
Etymology

The name of the new species directs the attention to its rather prominent genae.

Platygaster iberica sp. n.

Examined material

Holotype ♀: UTM 30TYL2695; on *Rosmarinus officinalis* L., 9.III.1992.



Figures 39-42. *Platygaster iberica* sp. n., female: 39) head in dorsal view; 40) antenna; 41) scutellum in lateral view; 42) metasoma in dorsal view. Scale bar = 0.25 mm.

Description

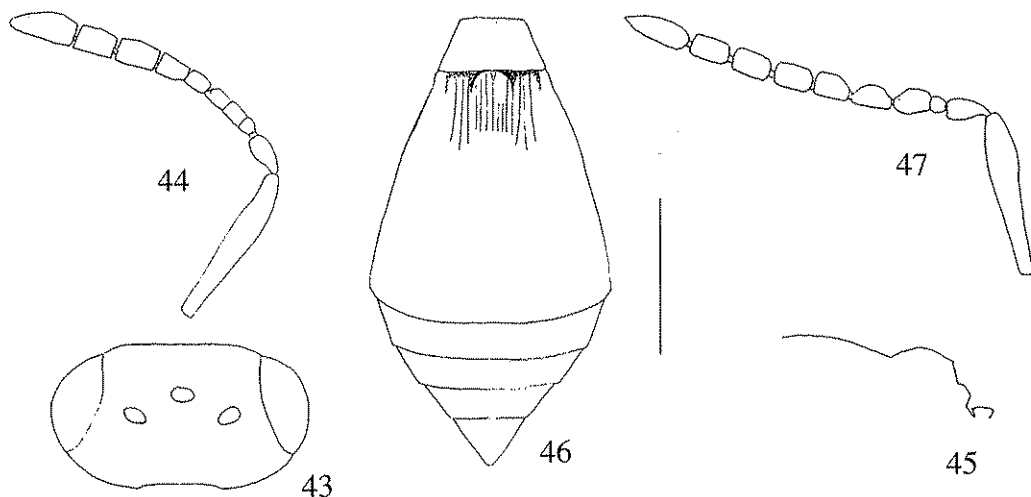
♀: Body size 1.5 mm. Colour black; antennae and legs dark brownish; mandibles, trochanters, knees, apex of tibiae and most of tarsi dark reddish.

Head from above (Fig. 39) 1.8× as wide as long, as wide as thorax; occiput reticulate-coriaceous, medially transversely so, with a few wrinkles; vertex weakly reticulate-coriaceous; frons almost smooth, with some wrinkles above antennae. Head from in front hardly 1.2× as wide as high; malar space 0.4 the height of an eye; OOL:POL:LOL = 5:22:8. Antenna (Fig. 40) with A9 1.5× as long as wide.

Mesosoma one and a third times as long as wide, as wide as high. Sides of pronotum anteriorly in upper half reticulate-coriaceous and with sparse hairs, rest smooth and bare. Mesoscutum with very few hairs, weakly reticulate-coriaceous, lateral lobes smooth on their outer half; notauli complete, mid lobe reaching base of scutellum in a fine point; scuto-scutellar grooves wide, each with only a couple of long hairs. Mesopleurae smooth. Scutellum (Fig. 41) evenly convex, above level of mesoscutum, sculptured as this, with a few hairs. Metapleurae and sides of propodeum with pilosity all over; propodeal carinae parallel, area in between smooth and shiny.

Fore wing faintly infuscated, three-fourths as long as whole body, 2.7× as long as wide; marginal cilia short. Hind wing 5.7× as long as wide, with two frenal hooks; marginal cilia one-fourth the width of wing.

Metasoma (Fig. 42) 1.3× as long as head and mesosoma combined, wider than thorax (17:15). T1 with two longitudinal keels, area between them smooth and with two rather large impressions; areas lateral of keels dull, each with a couple of small impressions and some hairs. T2 with deep basal foveae which are faintly striated on their slopes, rest of tergite as well as the following tergites smooth; T4-T5 each with a medially interrupted transverse row of superficially implanted hairs, T3 and T6 with a few such hairs.



Figures 43-47. *Platygaster javieri* sp. n.: 43) female head in dorsal view; 44) female antenna; 45) female scutellum in lateral view; 46) female metasoma in dorsal view; 47) male antenna. Scale bar = 0.25 mm.

Superficially similar to *P. polita* Thomson, 1859, but this species has sculpture of head very different from *P. iberica*, notauli incomplete, and metasoma shorter with T2 striated to half of length in basal foveae, cf. also BUHL (1995b). *P. iberica* runs to *P. lampronota* Fouts, 1924 in MACGOWN's unpublished key to species of *Platygaster* in the United States, but *P. lampronota* has A10 as long and as wide as A2 (in *P. iberica* A10 is distinctly longer and wider than A2), mesosoma higher than wide, mesoscutum and scutellum smoother than in *P. iberica*, and T2 slightly longer than wide (in *P. iberica* hardly as long as wide), cf. FOUTS (1924). Possible host of *P. iberica*: The only gall midge species on the Iberian peninsula known to be associated with *Rosmarinus officinalis* is *Dasineura rosmarini* (Tavares, 1902) (SKUHRÁVÁ *et al.*, 1996).

Etymology

The name refers to the Iberian peninsula.

Platygaster javieri sp. n.

Examined material

Holotype ♀: UTM 30TYL2595; swept on *Reseda lutea* L., 9.VI.1991. Paratypes (2 ♀, 5 ♂): 1 ♀, 1 ♂, UTM 30TYL2794, Moericke trap, 7.V.1991; 2 ♂, UTM 30TYL2792, Malaise trap, 24.V.1991; 1 ♂, UTM 30TYL2794, Malaise trap, 7.VI.1991; 1 ♀, UTM 30TYL3097, swept on *Tamarix canariensis* Willd., 9.VI.1991; 1 ♂, UTM 30TYL2691, swept on *Retama sphaerocarpa* (L.) Boiss, 10.V.1992.

Description

♀: Body size 1.4 mm. Colour black; antennae, mandibles and legs reddish brown, both ends of fore tibiae and segments 1-4 of all tarsi somewhat lighter.

Head from above (Fig. 43) 1.9× as wide as long, almost 1.2× as wide as thorax. Occiput densely and rather strongly transversely striated; vertex weakly reticulate-coriaceous; frons with faint traces of reticulation (fan-like medially) and a few striae above antennae. Head from in front 1.2× as wide as high; malar space one-third the height of an eye; OOL:POL:LOL = 7:20:8. Antenna (Fig. 44) with A9 fully 1.5× as long as wide.

Mesosoma one and a third times as long as wide, slightly higher than wide (16:15). Sides of pronotum smooth except for weak longitudinal microsculpture medially, with sparse hairs scattered over most of surface. Mesoscutum almost smooth, with weak reticulation anteriorly, and with hairs only along margins and along imaginary courses of notauli; notauli entirely absent, mid lobe prolonged to base of scutellum, slightly elevated and moderately wide here; scuto-scutellar grooves wide, covered by numerous conspicuous whitish hairs. Mesopleurae smooth. Scutellum (Fig. 45) almost smooth, rather densely hairy, below highest point of mesoscutum, slightly excavated posteriorly. Metapleurae and sides of propodeum with pilosity all over. Propodeal carinae short, slightly diverging, area in between unsculptured.

Fore wing almost clear, fully three-fourths as long of whole body, $2.5\times$ as long as wide; marginal cilia short. Hind wing $4.8\times$ as long as wide, with two frenal hooks; marginal cilia one-fourth the width of wing.

Metasoma (Fig. 46) slightly longer than head and mesosoma combined (15:14), $1.1\times$ as wide as thorax. T1 with two longitudinal carinae, between these finely crenulated, laterally depressed and with a few hairs. T2 faintly striated in basal foveae to 0.3 of length, medially slightly shorter but more distinctly striated, rest of tergite as well as the following tergites smooth, T3-T5 each with a complete transverse row of deeply implanted hairs, T6 with more scattered hairs.

♂: Body size 1.3-1.4 mm. Antenna (Fig. 47) with A4 slightly widened, and A7-A9 each fully $1.6\times$ as long as wide; length of flagellar pubescence hardly two-thirds the width of segments. Fore wing fully $0.8\times$ as long as whole body, $2.3\times$ as long as wide. Metasoma shorter than head and mesosoma combined (13:15); T2 striated in basal foveae to nearly half of length, medial striae hardly half as long. Otherwise as female.

Runs to *P. manto* Walker, 1835 in VLUG's (1985) key, but *P. manto* is only 0.5-1.1 mm long, it has T1 without evident carinae between crenulae, and male A7-A9 each only about $1.2\times$ as long as wide (VLUG, 1985).

Etymology

Named after the collector.

Platygaster leptoptera sp. n.

Examined material

Holotype ♀: UTM 30TYL2794; Malaise trap, 25.III.1991.

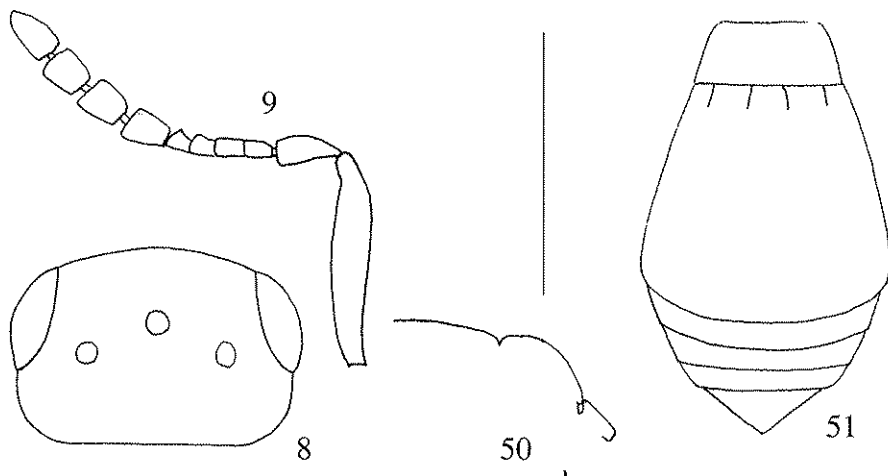
Description

♀: Body size 0.9 mm. Colour black; antennae, mandibles and legs more or less dark reddish brown, both ends of anterior tibiae, and all tarsi entirely, somewhat lighter.

Head from above (Fig. 48) $1.5\times$ as wide as long, fully $1.1\times$ as wide as thorax; occiput weakly transversely reticulate, nearly forming fine striae, from each side meeting in an acute angle medially; vertex faintly reticulate; frons with distinct transverse wrinkles all over. Head from in front $1.25\times$ as wide as high; malar space 0.4 the height of an eye; OOL:POL:LOL = 5:19:8. Antenna (Fig. 49) with A9 hardly $1.2\times$ as long as wide.

Mesosoma $1.33\times$ as long as wide, about $1.1\times$ as high as wide. Sides of pronotum distinctly longitudinally reticulate all over, in upper 0.4 with sparse hairs. Mesoscutum longitudinally reticulate-coriaceous, with a few hairs, without notauli, hind margin slightly convex; scuto-scutellar grooves small and triangular, each with a single long hair. Mesopleurae faintly longitudinally striated in upper third, rest smooth. Scutellum (Fig. 50) hardly reaching level of mesoscutum, sculptured as this and slightly more hairy, evenly rounded. Metapleurae and sides of propodeum with pilosity all over. Propodeal carinae diverging, rather close, area in between shiny and almost smooth.

Fore wing fully $1.1\times$ as long as whole body, with faint yellowish tint, about $3.2\times$ as long as wide; marginal cilia 0.2 width of wing. Hind wing $8.5\times$ as long as wide, with two frenal hooks; marginal cilia fully 0.6 the width of wing.



Figures 48-51. *Platygaster leptoptera* sp. n., female: 48) head in dorsal view; 49) antenna; 50) scutellum in lateral view; 51) metasoma in dorsal view. Scale bar = 0.25 mm.

Metasoma (Fig. 51) 1.2× as long as mesosoma, hardly wider than this. T1 almost smooth, with a transverse impression and two weak and widely separated longitudinal carinae, between these with two small impressions, laterally with rather dense hairs which continue in basal foveae on the smooth T2; apical tergites smooth, with some superficially implanted inconspicuous hairs.

♂: Unknown.

Runs to either *P. longicaudata* Kieffer, 1906 or *P. pygmaea* Kieffer, 1913 in KIEFFER'S (1926) key, but both these species have antennal structure distinctly different from *P. leptoptera*.

Etymology

The name of the new species refers to its unusually narrow wings.

Platygaster luteocoxalis (Kozlov, 1966)

Examined material (2 ♀): 1 ♀, UTM 30TYL2796, on coloured plates, 25.IV.1991; 1 ♀, UTM 30TYL2792, Malaise trap, 24.V.1991.

Hitherto known from Moldavia, England and Scandinavia. In NW. Europe this species seems to be confined to heath-like biotopes (BUHL, 1995a).

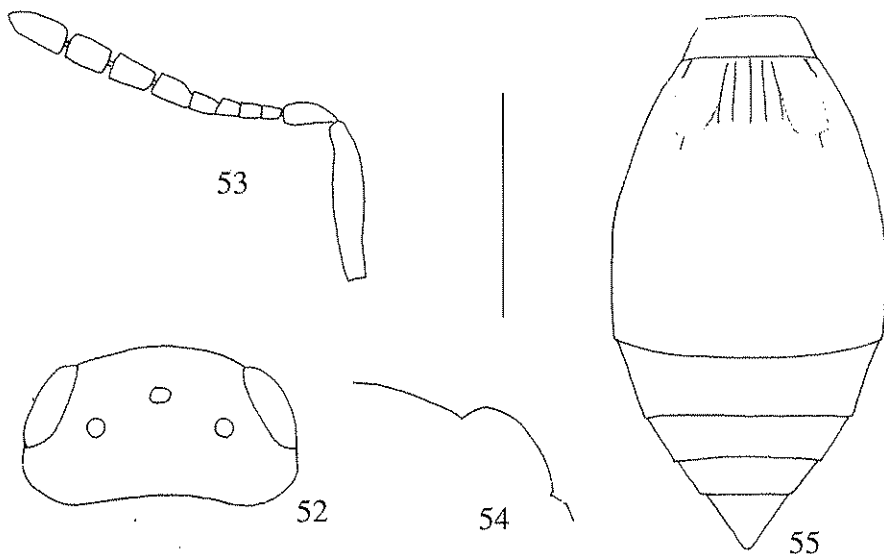
Platygaster modesta sp. n.

Examined material

Holotype ♀: UTM 30TYL2894; swept on *Artemisia herba-alba* Asso ssp. *valantina*, 24.X.1992. Paratypes (3 ♀, 2 ♂): 1 ♀, UTM 30TYL2794, Malaise trap, 20.X.1991; 1 ♂, UTM 30TYL2894, swept on *Artemisia herba-alba*, 10.III.1992; 1 ♀, UTM 30TYL2793, swept on *A. herba-alba*, 29.III.1992; 1 ♀, UTM 30TYL2896, swept on *A. herba-alba*, 20.IV.1992; 1 ♂, UTM 30TYL2597, swept on *A. herba-alba*, 11.X.1992.

Description

♀: Body size 0.7-1.1 mm (holotype 1.1 mm). Colour black; antennae, mandibles and legs dark brownish, apical third of fore tibiae yellowish brown.



Figures 52-55. *Platygaster modesta* sp. n., female: 52) head in dorsal view; 53) antenna; 54) scutellum in lateral view; 55) metasoma in dorsal view. Scale bar = 0.25 mm.

Head from above (Fig. 52) hardly $1.9\times$ as wide as long, slightly wider than thorax (13:12); occiput finely transversely reticulate-striate; vertex weakly reticulate, frons mostly faintly so and with some transverse wrinkles above antennae. Head from in front $1.2\times$ as wide as high; malar space hardly 0.2 the height of an eye; OOL:POL:LOL = 5:20:9. Antenna (Fig. 53) with A9 $1.4\times$ as long as wide.

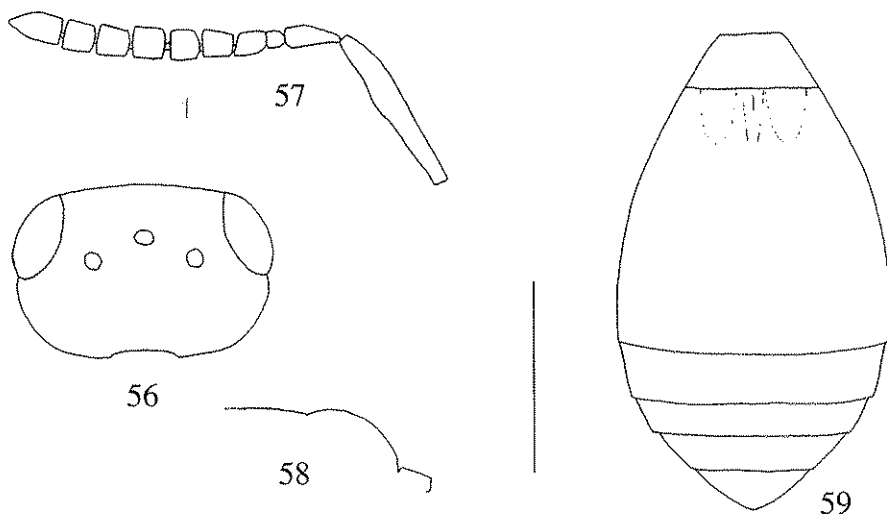
Mesosoma $1.25\times$ as long as wide, about $1.1\times$ as high as wide. Sides of pronotum faintly reticulate anteriorly in upper 0.4, rest smooth except for rather numerous pustules with hairs. Mesoscutum reticulate-coriaceous, with some pustules with hairs along the distinct and complete notauli; mid lobe posteriorly rather narrow, very slightly prolonged, hardly reaching base of scutellum; scuto-scutellar grooves narrow and bare. Mesopleurae smooth. Scutellum (Fig. 54) below highest point of mesoscutum, sculptured as this, with a few pustules and sparse hairs. Metapleurae and sides of propodeum with dense pilosity all over. Propodeal carinae very short, rather far apart, area in between dull.

Fore wing hardly $2.4\times$ as long as wide, $0.75\times$ as long as whole body, faintly infuscated, blunt at apex; marginal cilia short. Hind wing $5.4\times$ as long as wide, with two frenal hooks; marginal cilia hardly 0.25 the width of wing.

Metasoma (Fig. 55) slightly longer than head and mesosoma combined (25:22), as wide as head. T1 with two weak longitudinal carinae, laterally with rather numerous hairs continuing on basal foveae of T2; T2 with a few short striae between basal foveae, these with a few striae at margins, rest of metasoma smooth, T4-T5 each with a medially interrupted transverse row of rather superficially implanted fine hairs.

♂: Body size 0.8-0.9 mm. Antennae and legs brighter than in female, reddish brown. Antenna with A4 moderately widened in apical half, slightly wider than and as long as A5; A6-A9 each about $1.4\times$ as long as wide; length of flagellar pubescence about half the width of segments. Metasoma as long as mesosoma, $1.2\times$ as long as wide.

The paratypes are distinctly smaller than the holotype, the smallest is also smoother than this (e.g. frons entirely smooth), it has clear wings, and metasoma shorter than head and mesosoma combined (about 13:14), nearly $1.2\times$ as wide as thorax.



Figures 56-59. *Platygaster pinaensis* sp. n., female: 56) head in dorsal view; 57) antenna; 58) scutellum in lateral view; 59) metasoma in dorsal view. Scale bar = 0.25 mm.

Runs to *P. persicariae* Kieffer, 1906 in KIEFFER's (1926) key, but this species has antennae structured distinctly different from *P. modesta*, mesoscutum and scutellum smooth, and scuto-scutellar grooves wide and hairy. Among the species treated by VLUG (1985), *P. modesta* is most similar to *P. sagana* Walker, 1835, but this species has head much more narrowed behind eyes, T1 less transverse, T2 differently sculptured, and apical tergites more pointed than in *modesta*. Probable host of *P. modesta*: Four species of gall midges from the Iberian peninsula are known to be associated with *A. herba-alba*, all belonging to the genus *Rhopalomyia* (SKUHRAVÁ *et al.*, 1996).

Etymology

The name *modesta* means that this species is rather modest or indistinct in body size as well as in general habitus.

Platygaster ?munita Walker, 1835

Examined material (2 ♀): 1 ♀, UTM 30TYL2695, on coloured plates, 9.IV.1991; 1 ♀, UTM 30TYL2691, swept on *Retama sphaerocarpa* (L.), 12.VI.1993.

P. munita is hitherto known from England and Scandinavia. Biology unknown.

Platygaster pinaensis sp. n.

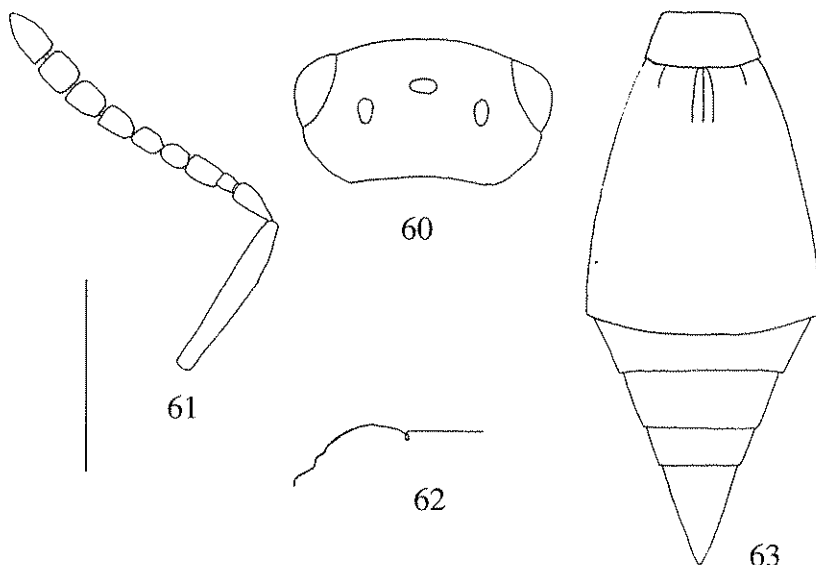
Examined material

Holotype ♀: UTM 30TYL2794; Malaise trap, 17.X.1990.

Description

♀: Body size 1.2 mm. Colour black; antennae, mandibles, tegulae and legs dark reddish-brown, trochanters, tibiae and tarsi lighter.

Head from above (Fig. 56) 1.6× as wide as long, very slightly wider than thorax. Occiput transversely reticulate; vertex and frons weakly reticulate, above antennae with a few wrinkles. Head from in front 1.25× as wide as high; malar space one-fourth the height of an eye; OOL:POL:LOL = 7:20:9. Antenna (Fig. 57) with A9 as long as wide.



Figures 60-63. *Platygaster retuertae* sp. n., female: 60) head in dorsal view; 61) antenna; 62) scutellum in lateral view; 63) metasoma in dorsal view. Scale bar = 0.25 mm.

Mesosoma 1.3× as long as wide, very slightly higher than wide. Sides of pronotum over most of surface with moderately dense small pustules with hairs, in upper half reticulate except along margins. Mesoscutum almost bare, with hairs along the complete, deep and moderately converging notauli; lateral lobes reticulate, mid lobe faintly so, rather wide and slightly prolonged posteriorly to base of scutellum; scuto-scutellar grooves triangular, rather wide, with only a few hairs. Mesopleurae smooth, with faint rugosity below tegulae. Scutellum (Fig. 58) at level of mesoscutum, reticulate, sparsely hairy. Metapleurae and sides of propodeum with pilosity all over. Propodeal carinae slightly diverging, not wide apart, area in between shiny and almost smooth.

Fore wing faintly yellowish, fully 0.8 as long as whole body, 2.6× as long as wide; marginal cilia at their longest hardly 0.1 width of wing. Hind wing 4.5× as long as wide, with two frenal hooks; marginal cilia hardly 0.2 width of wing.

Metasoma (Fig. 59) as long as head and mesosoma combined, 1.1× as wide as thorax. T1 with two strong longitudinal keels and a few faint longitudinal wrinkles, laterally somewhat hairy; T2 with a few weak wrinkles in and between slightly hairy basal foveae, rest of metasoma smooth, T3-T6 each with a (on T3 medially interrupted) transverse row of superficially implanted hairs.

♂: Unknown.

Among the species treated by VLUG (1985) *P. pinaensis* is most similar to *P. cebes* Walker, 1835, but this species has differently shaped antennae, sides of pronotum in lower half more or less smooth, scutellum above level of mesoscutum, propodeal carinae connected by one or more transverse carinae, and metasoma more than twice as long as wide (in *pinaensis* about 1.7×). *P. pinaensis* runs to *P. websteri* Fouts, 1924 in MACGOWN's unpublished key to species of *Platygaster* in the United States, but *websteri* has more transverse head, much different antennae and more elongate metasoma than *P. pinaensis*.

Etymology

Named after the town near the type locality.

***Platygaster retuertae* sp. n.**

Examined material

Holotype ♀: UTM 30TYL2695; on *Rosmarinus officinalis* L., 9.III.1992.

Description

♀: Body size 1.3 mm. Colour black; antennae, mandibles and legs rather uniformly dark reddish brown, apical half of fore tibiae somewhat lighter.

Head from above (Fig. 60) 1.9× as wide as long, about 1.1× as wide as thorax. Occiput finely transversely striated, laterally reticulate-coriaceous; vertex weakly reticulate-coriaceous; frons faintly reticulate, medially almost smooth, above antennae with fine transverse striation. Head from in front hardly 1.2× as wide as high; malar space fully one-fourth the height of an eye; OOL:POL:LOL = 7:22:9. Antenna (Fig. 61) with A9 slightly longer than wide (8:7).

Mesosoma almost 1.4× as long as wide, as wide as high. Sides of pronotum with sparse hairs over most of surface, smooth except for pustule-like hair-implantations and for some reticulation medially in upper half. Mesoscutum almost bare, reticulate-coriaceous, lateral lobes smooth except anteriorly and posteriorly; notauli complete, meeting in a fine point at base of scutellum, mid lobe smooth here; scuto-scutellar grooves rather wide, with a few hairs. Mesopleurae smooth. Scutellum (Fig. 62) finely reticulate, just above mesoscutum, with sparse hairs. Metapleurae and sides of propodeum with pilosity all over. Propodeal carinae parallel, area in between nearly as long as wide, smooth and shiny.

Fore wing with yellowish tint, 0.8 as long as whole body, 2.6× as long as wide; marginal cilia short. Hind wing 5.2× as long as wide, with two frenal hooks; marginal cilia one-fourth the width of wing.

Metasoma (Fig. 63) 1.3× as long as head and mesosoma combined, very slightly wider than thorax. T1 with two strong longitudinal carinae, laterally rather densely hairy; T2 with a few hairs in smooth basal foveae, area in between with a few short striae, rest of tergite as well as the following tergites smooth, T3-T6 with some superficially implanted hairs which on T5 form an almost complete transverse row.

♂: Unknown.

Collected together with *P. iberica* sp. n. and in some respects similar to this species which, however, has distinctly more slender antennae, more bulging cheeks, more convex scutellum, and distinctly wider and differently sculptured metasoma than *P. retuertae*, cf. above. *P. retuertae* is more similar to *P. sagana* Walker, 1835, but this species has mid lobe of mesoscutum evenly sculptured (smooth posteriorly in *retuertae*), basal foveae of T2 striated to hardly one-third the length of tergite, midlobe between these foveae rounded and smooth, and T6 about as long as wide (1.25× as long as wide in *P. retuertae*); *sagana* also has disc of fore wing with a hairless area over whole width, except along anterior margin, situated at about two-fifths the length of wing measured from tegula, in *retuertae* this area has scattered hairs (VLUG, 1985; regarding the mesoscutum, T6, and wing characters Danish specimens of *P. sagana* have been used for comparison). Probable host: Cf. under *P. iberica*.

Etymology

Named after the type locality.

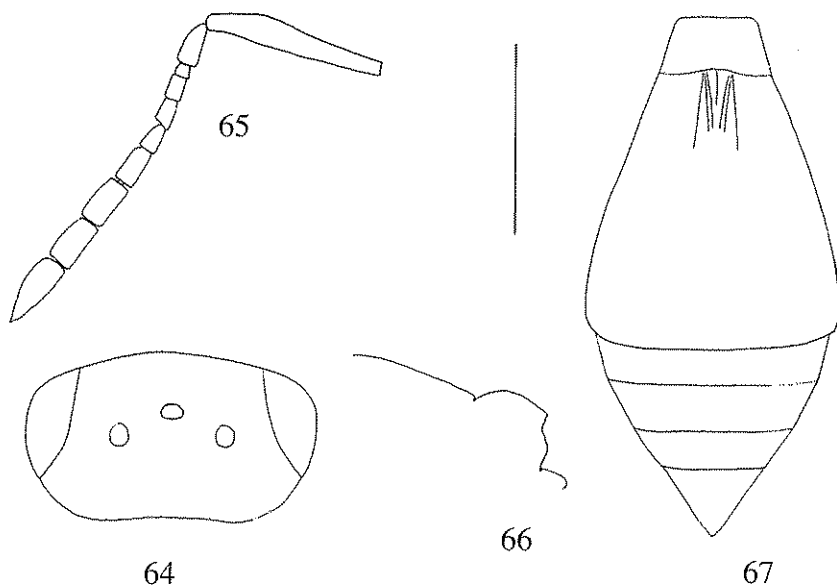
***Platygaster specularis* sp. n.**

Examined material

Holotype ♀: UTM 30TYL3097; swept on *Tamarix canariensis* Willd., 9.VI.1991.

Description

♀: Body size 1.3 mm. Colour black; antennae, mandibles, tegulae and legs dark reddish brown, trochanters, most of fore and middle tibiae, both ends of hind tibiae, and segments 1-4 of all tarsi somewhat lighter.



Figures 64-67. *Platygaster specularis* sp. n., female: 64) head in dorsal view; 65) antenna; 66) scutellum in lateral view; 67) metasoma in dorsal view. Scale bar = 0.25 mm.

Head from above (Fig. 64) $1.8\times$ as wide as long, wider than thorax (8:7); occiput smooth medially, with a few distinct transverse striae, laterally reticulate; vertex smooth between ocelli, faintly reticulate laterally; frons hardly sculptured, with some extremely faint fan-like striation medially and with some stronger wrinkles above antennae. Head from in front $1.3\times$ as wide as high; malar space hardly half the height of an eye; OOL:POL:LOL = 8:19:8. Antenna (Fig. 65) with A9 one and two-thirds times as long as wide.

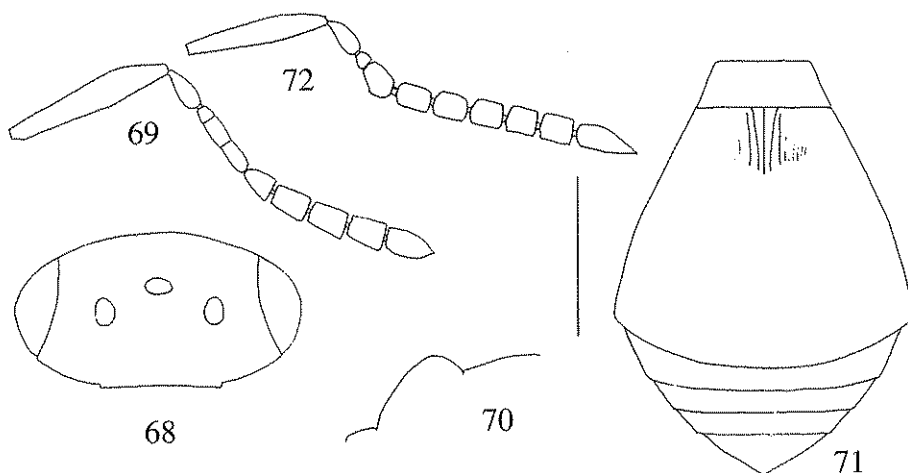
Mesosoma one and a third times as long as wide, slightly higher than wide (15:14). Sides of pronotum smooth, faintly reticulate medially, with sparse hairs in upper 0.6. Mesoscutum smooth, with a few hairs; notauli absent, «median plate» prolonged to base of scutellum, moderately wide and semi-transparent brownish here; scuto-scutellar grooves wide, covered by dense hairs. Mesopleurae smooth. Scutellum (Fig. 66) at level of mesoscutum, smooth, bare medially, rather densely hairy laterally, bluntly triangular in dorsal view, in lateral view with hind margin slightly excavated. Metapleurae and sides of propodeum with rather sparse pilosity, denser posteriorly. Propodeal carinae short, not far apart, area in between smooth and shiny.

Fore wing almost clear, hardly overreaching apex of gaster, about 0.7 as long as whole body, $2.8\times$ as long as wide; marginal cilia very short. Hind wing $5.0\times$ as long as wide, with two frenal hooks; marginal cilia 0.2 the width of wing.

Metasoma (Fig. 67) slightly longer than head and mesosoma combined (28:27), as wide as thorax. T1 crenulated, with two weak keels and with a few long hairs standing out from sides; T2 hardly sculptured in basal foveae, area in between with a few short striae, rest of metasoma smooth, T3-T4 each with a medially interrupted transverse row of deeply implanted hairs, T5 with a complete such row, T6 with a few hairs along margins.

♂: Unknown.

Most similar to *Pinermis* Walker, 1835, but this species has distinctly thicker antennae and more transverse head than *P. specularis*, mesoscutum with scale-like hair-implantations, and head and metasoma somewhat differently sculptured than *P. specularis*, cf. Vlug (1985).



Figures 68-72. *Platygaster stefaniolae* sp. n.: 68) female head in dorsal view; 69) female antenna; 70) female scutellum in lateral view; 71) female metasoma in dorsal view; 72) male antenna. Scale bar = 0.25 mm.

Etymology

The name refers to the unusually smooth, mirror-like mesoscutum and scutellum («speculum» = mirror).

Platygaster ?splendidula Ruthe, 1859

Examined material (2 ♀, 3 ♂): 1 ♀, 3 ♂, UTM 30TYL2794, Malaise trap, 7.VI.1991; 1 ♀, same data but 23.IX.1991.

P. splendidula is hitherto known from e.g. Iceland, Scandinavia and Germany. Biology unknown.

Platygaster stefaniolae sp. n.

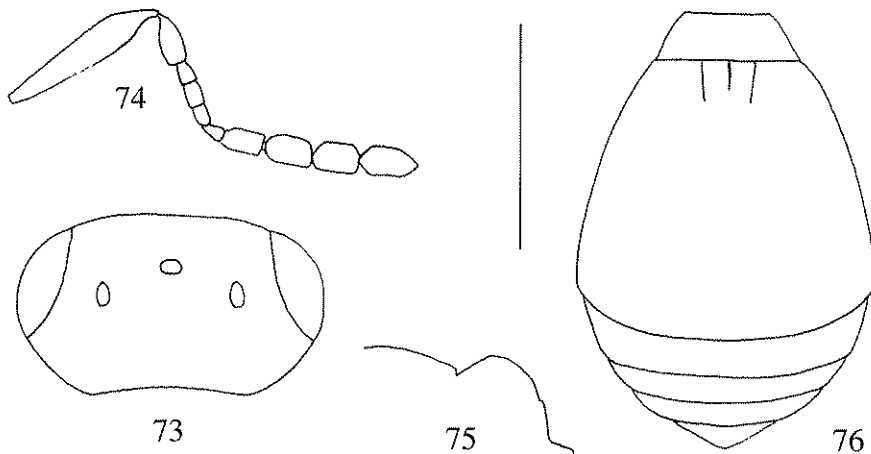
Examined material

Holotype ♀: UTM 30TYL2794; Malaise trap, 7.VI.1991. Paratypes (9 ♀, 8 ♂): 1 ♀, 1 ♂ same data as holotype; 1 ♀ same data but 7.V.1991; 1 ♂ same data but 20.VI.1991; 3 ♂, UTM 30TYL2595, swept on *Frankenia thymifolia* Desf., 1.VI.1991; 1 ♂, UTM 30TYL2691, swept on *Thapsia villosa* L., 1.VI.1991; 1 ♂, UTM 30TYL2795, on coloured plates, 7.VI.1991; 1 ♀, UTM 30TYL3097, swept on *Tamarix canariensis* Willd., 9.VI.1991; 1 ♀, UTM 30TYL2595, swept on *Reseda lutea* L., 9.VI.1991; 1 ♀, UTM 30TYL2794, Malaise trap, 7.VIII.1991; 1 ♀, 1 ♂, UTM 30TYL2896, swept on *Salsola vermiculata* L., 22.V.1992; 3 ♀ ex. galls of *Stefaniola bilobata* (Kieff.) (det. M. Skuhravá) on *Salsola vermiculata*.

Description

♀: Body size 1.2-1.4 mm (holotype 1.4 mm). Colour black; antennae, mandibles, tegulae, coxae, and sometimes T1 brown, legs except coxae lighter brown; both ends of fore tibiae, basal half of middle and hind tibiae, and segments 1-4 of all tarsi yellowish brown.

Head from above (Fig. 68) 1.9× as wide as long, 1.1× as wide as thorax; occiput strongly transversely striated; vertex between ocelli finely transversely striated, laterally irregularly finely coriaceous; frons finely but distinctly fan-like striated. Head from in front 1.3× as wide as high; malar space about half the height of an eye; OOL:POL:LOL = 5:12:5. Antenna (Fig. 69) with A9 fully 1.25× as long as wide.



Figures 73-76. *Platygaster vera* sp. n., female: 73) head in dorsal view; 74) antenna; 75) scutellum in lateral view; 76) metasoma in dorsal view. Scale bar = 0.25 mm.

Mesosoma 1.3× as long as wide, very slightly higher than wide (18:17). Sides of pronotum in upper 0.4 finely coriaceous and rather densely hairy, rest with fine longitudinal microsculpture and sparse hairs, smooth along wide hind margin. Mesoscutum with sparse hairs, weakly reticulate-coriaceous anteriorly, notauli indicated in about posterior two-thirds, disc between and laterally of notauli longitudinally coriaceous, almost striated; mid lobe rather narrow posteriorly, slightly prolonged to base of scutellum; scuto-scutellar grooves wide, with a few long hairs. Mesopleurae smooth, weakly coriaceous below tegulae. Scutellum (Fig. 70) strongly convex, above level of mesoscutum, smooth except for rather sparse small pustules with hairs. Metapleurae and sides of propodeum with dense and long whitish pilosity all over. Propodeal carinae hardly diverging, area in between about 1.5× as wide as long, smooth and shiny.

Fore wing clear, about three-fourths as long as whole body, 2.4× as long as wide; marginal cilia short. Hind wing 4.4× as long as wide, with two frenal hooks; marginal cilia one-fourth the width of wing.

Metasoma (Fig. 71) 0.9 as long as head and mesosoma combined, almost 1.2× as wide as thorax. T1 with two weak longitudinal carinae, area between them crenulated, lateral areas depressed, with a few hairs. T2 with deep basal foveae which are only faintly striated on their slopes, area between foveae with distinct striation to hardly 0.3 of length. T3-T6 hardly sculptured, T3-T5 each with a medially interrupted transverse row of superficially implanted hairs, T6 with hairs along hind margin.

♂: Body size as female. Antenna (Fig. 72) with A4 distinctly thickened; A6-A9 each about 1.25× as long as wide; flagellar pubescence about 0.6 the width of segments. Metasoma about as long as mesosoma.

Runs to *P. manto* Walker, 1835 in VLUG's (1985) key, but *manto* has frons and posterior part of mesoscutum smooth, and it is somewhat different from *stefaniolae* in shape of antennae and sculpture of T2 (♀), and it is smaller, 0.5-1.1 mm. *P. stefaniolae* is also rather similar to *P. aegeus* Walker, 1835, *P. minthe* Walker, 1835, and *P. oscus* Walker, 1835, but all these species have notauli nearly complete and T2 without striae; *aegeus* and *P. minthe* also have T1 clearly more elongate and differently sculptured than *P. stefaniolae*; *oscus* has head 1.7× as wide as long, distinctly less narrowed behind eyes than in *stefaniolae*, and it has female metasoma fully twice as long as wide (in *stefaniolae* only 1.4×), cf. VLUG (1985).

Etymology

The name of the new species is derived from the generic name of its gall midge host.

Platygaster vera sp. n.

Examined material

Holotype ♀: UTM 30TYL2997, swept on *Suaeda vera* J.F. Gmelin, 28.VI.1992. Paratype: 1 ♀, UTM 30TYL2794, Malaise trap, 25.VIII.1991.

Description

♀: Body size 0.95-1.05 mm (holotype 1.05 mm). Colour black; antennae, mandibles and legs dark reddish brown (on paratype almost uniformly light brown); both ends of fore and middle tibiae, and base of hind tibiae reddish; most of tarsi yellowish brown.

Head from above (Fig. 73) 1.8× as wide as long, 1.1× as wide as thorax, distinctly reticulate, medial parts of occiput and vertex transversely so. Head from in front 1.2× as wide as high; malar space 0.3× the height of an eye; OOL:POL:LOL = 3:11:5. Antenna (Fig. 74) with A9 about 1.4× as long as wide.

Mesosoma 1.25× as long as wide, as wide as high. Sides of pronotum reticulate and sparsely hairy, sculpture becoming finer downwards, sides smooth in lower 0.3. Mesoscutum with a few hairs, reticulate-coriaceous; notauli indicated by nearly complete fine lines (only visible from some angles); hind margin of mesoscutum hardly prolonged medially, on each side with three long hairs covering wide and deep scuto-scutellar grooves. Mesopleurae longitudinally striated in upper 0.4 and in lower 0.2, rest smooth. Scutellum (Fig. 75) strongly convex but below highest point of mesoscutum, sculptured as this, sparsely hairy. Metapleurae and sides of propodeum with pilosity except anteriorly below. Propodeal carinae parallel, not far apart, area in between only slightly transverse, faintly sculptured.

Fore wing faintly infuscated, almost 0.9 as long as whole body, 2.4× as long as wide; marginal cilia very short. Hind wing 5.6× as long as wide, with two frenal hooks; marginal cilia hardly one-fourth the width of wing.

Metasoma (Fig. 76) slightly shorter than head and mesosoma combined (20:23), as wide as head. T1 with three weak keels, almost smooth between these, hairy laterally, anteriorly strongly upturned; T2 with smooth basal foveae, with a few short longitudinal wrinkles between these, rest of metasoma smooth, T5-T6 with some superficially implanted hairs.

♂: Unknown.

Resembles *P. splendidula* Ruthe, 1859 (*P. leptocera* Thomson, 1859), but this species is much more shiny (less sculptured) than *vera*, which has also scutellum differently structured and T2 less striated than *P. splendidula*. Possible host of *vera*: The only gall midge species on the Iberian peninsula known to be associated with *Suaeda vera* is *Baldratia suaedae* Möhn, 1969 (Skuhravá *et al.*, 1996).

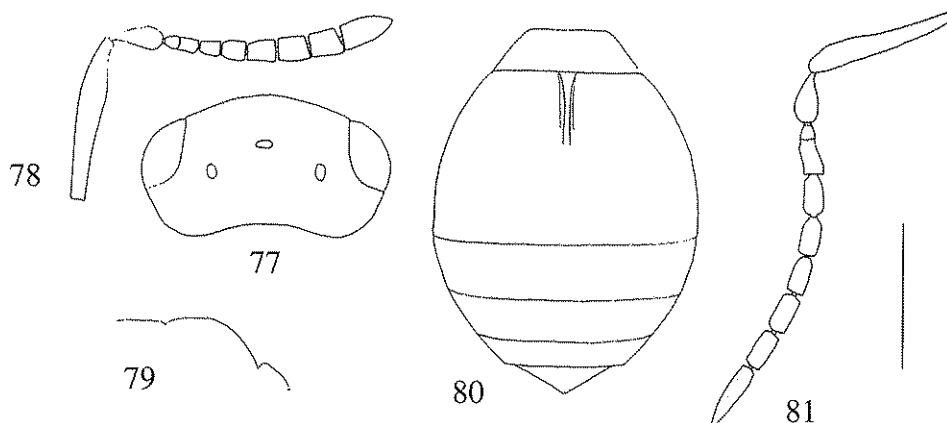
Etymology

The new species is named after the plant species on which the holotype was collected.

Platygaster zaragozana sp. n.

Examined material

Holotype ♀: UTM 30TYL2794; Malaise trap, 7.V.1991. Paratypes (4 ♀, 4 ♂): 1 ♂ same as holotype; 2 ♀ same data but Moericke trap; 1 ♀, UTM 30TYL2794, Moericke trap, 25.IV.1991; 1 ♀, UTM 30TYL2796, on coloured plates, 25.IV.1991; 3 ♂, UTM 30TYL2997, emerged 2.V. and (2 ♂) 6.V.1994 from galls of *Etsuhia thuriferae* Skuhravá, 1995 collected 30.IV.94.



Figures 77-81. *Platygaster zaragozana* sp. n.: 77) female head in dorsal view; 78) female antenna; 79) female scutellum in lateral view; 80) female metasoma in dorsal view; 81) male antenna. Scale bar = 0.25 mm.

Description

♀: Body size 1.2-1.3 mm (holotype 1.2 mm). Colour blackish; antennae, mandibles, tegulae and legs dark brown, most of fore legs, both ends of middle and hind tibiae, and segments 1-4 of tarsi lighter brown.

Head from above (Fig. 77) 2.0× as wide as long, as wide as thorax; occiput reticulate, with a weak longitudinal impression medially; vertex reticulate, frons faintly so, with a few faint wrinkles above antennae. Head from in front 1.3× as wide as high; malar space 0.4× the height of an eye; OOL:POL:LOL = 5:14:6. Antenna (Fig. 78) with A9 1.1× as long as wide.

Mesosoma slightly longer than wide (10:9) and as wide as high. Sides of pronotum reticulate and hairy in upper half, smooth along broad hind margin, in lower half with very few hairs, smooth. Mesoscutum weakly reticulate-coriaceous, with sparse inconspicuous hairs; notauli faintly indicated posteriorly, midlobe hardly prolonged, reaching base of scutellum as a moderately wide tongue, slightly elevated above lateral lobes which are smooth posteriorly, scuto-scutellar grooves very narrow, hardly hairy. Mesopleurae nearly smooth. Scutellum (Fig. 79) at level of mesoscutum, evenly rounded, smooth except for faint reticulation posteriorly, and with a few hairs. Metapleurae and sides of propodeum with whitish pilosity all over; propodeal carinae diverging, area in between with slightly uneven surface and with four short keels posteriorly.

Fore wing faintly infuscated, slightly shorter than whole body (47:50) and nearly 2.5× as long as wide; marginal cilia short. Hind wing 4.9× as long as wide, with two frenal hooks; marginal cilia one-fourth the width of wing.

Metasoma (Fig. 80) slightly shorter than head and mesosoma combined (13:14), slightly wider than thorax (19:18). T1 crenulated; T2 with very faint traces of striation in basal foveae, medially with a few distinct striae reaching to about 0.4 of length; T3-T6 combined only slightly shorter than T2, smooth, with some superficially implanted hairs.

♂: Body size 1.2 mm. Antenna (Fig. 81) with A4 slightly widened; A9 nearly 2.0× as long as wide; length of flagellar pubescence about two-thirds the width of segments. Fore wing as long as whole body. Metasoma hardly longer than mesosoma (44:41).

Somewhat similar to *P. strato* Walker, 1835, but this species has head (except occiput) and mesoscutum smooth, without microsculpture, and metasoma differently sculptured and

more slender than in *P. zaragozana*, cf. Vlug (1985). Runs to *P. juniperi* MacGown, 1979 in MACGOWN's unpublished key to species of *Platygaster* in the United States; *P. juniperi* has metasoma characteristically shaped as in *P. zaragozana* but T2 much more striated than in *P. zaragozana*, *P. juniperi* also differs from this species e.g. in having occiput transversely aciculate, notauli longer, and male antennae less slender, cf. MACGOWN (1979). The host of *P. juniperi* is presumed to be a cecidomyiid inhabiting juniper (reared from juniper in Michigan), thus *P. zaragozana* and *P. juniperi* are also biologically very similar.

Etymology

Named after the Zaragoza region.

Pseudaphanomerus hyalinatus Szélenyi, 1941

Examined material (5 ♀): 1 ♀, UTM 30TYL2994, swept on *Carduus bourgeanus* Boiss. & Reut., 20.V.1991; 1 ♀, UTM 30TYL2794, Malaise trap, 20.VI.1991; 1 ♀, UTM 30TYL2794, Wilkening trap between brushes of *Rosmarinus officinalis* L., 10.V.1992; 1 ♀, UTM 30TYL2794, Wilkening trap into branches of *Pinus halepensis* Miller, 13.VIII.1992; 1 ♀, UTM 30TYL2794, Wilkening trap near the trunk of *Juniperus thurifera* L., 4.VI.1994.

Hitherto known from Hungary and Moldavia. Biology unknown.

Synopeas blascoi sp. n.

Examined material

Holotype ♂: UTM 30TYL2691; swept on *Retama sphaerocarpa* (L.), 12.VI.1993. Paratypes (1 ♀, 5 ♂): 3 ♂, same data as holotype; 1 ♀, UTM 30TYL2597, swept on *Suaeda vera* J.F. Gmelin, 20.IV.1992; 1 ♂, UTM 30TYL2693, swept on some species of Cruciferae, 28.VI.1992; 1 ♂, UTM 30TYL2397, sweeping on *Reseda lutea* L., 18.VI.1993.

Description

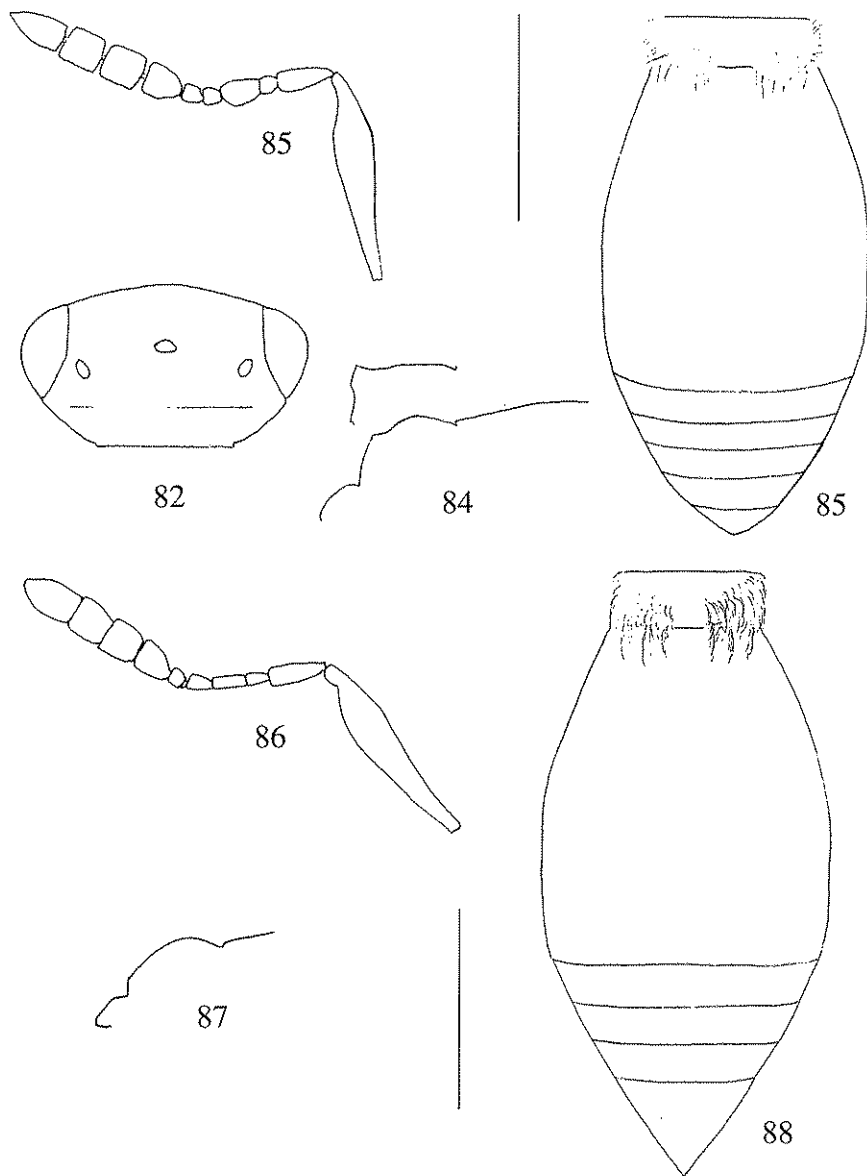
♂: Body size 1.3-1.4 mm (holotype 1.3 mm). Colour black; antennae, mandibles and legs dark reddish brown; trochanters, most of fore femora, base of fore and hind tibiae, apex of fore and middle tibiae, and tarsi entirely, light brownish.

Head from above (Fig. 82) 1.7× as wide as long, slightly wider than thorax (15:14), dull, evenly and finely reticulate-coriaceous, with distinct but incomplete occipital carina. Head from in front slightly wider than high (15:13), malar space one-fourth the height of an eye; OOL:POL:LOL = 3:31:14. Antenna (Fig. 83) with A2 as long as A3-A4 combined, A4 slightly thickened, A9 about as long as wide; flagellar pubescence very short.

Mesosoma almost 1.6× as long as wide, higher than wide (8:7). Sides of pronotum dull, reticulate except along narrow hind and lower margins, sparsely hairy in posterior half. Mesoscutum reticulate and dull, sparsely hairy, without notauli, hind margin medially prolonged to base of scutellum but not swollen here, laterally with long and dense whitish hairs covering wide scuto-scutellar grooves. Mesopleurae smooth, with a couple of longitudinal striae just below tegulae. Scutellum (Fig. 84) in profile rather variable, convex to almost flat, posteriorly ending in a blunt angle or short tooth, always with a vertical semi-transparent lamella, disc at level of mesoscutum, in dorsal view with fine rugosity, rather densely hairy all over, somewhat elevated medially. Metapleurae and sides of propodeum with dense whitish pilosity except along smooth anterior margin. Propodeal carinae fused, in lateral view curved, slightly semi-transparent.

Fore wing whitish, hardly 0.9 as long as whole body, 2.6× as long as wide; marginal cilia absent. Hind wing 5.6× as long as wide, with two frenal hooks; marginal cilia at most 0.3 the width of wing.

Metasoma (Fig. 85) slightly shorter than head and mesosoma combined (27:29), as wide as thorax; T2 in posterior half with fine reticulate microsculpture and a few fine hairs; T3-



Figures 82-88. *Synopeas blascoi* sp. n.: 82) male head in dorsal view; 83) male antenna; 84) male scutellum in lateral view (below: holotype; above: paratype); 85) male metasoma in dorsal view; 86) female antenna; 87) female scutellum in lateral view; 88) female metasoma in dorsal view. Scale bars = 0.25 mm.

T7 sculptured over most of surface, T4-T6 each with a more or less complete transverse row of superficially implanted fine hairs.

♀: Body size 1.4 mm. Antenna (Fig. 86) with A4 2.5× as long as wide, A8-A9 each as wide as long. Scutellum (Fig. 87) almost evenly rounded with only a very short keel posteriorly. Fore wing three-fourths as long as whole body. Metasoma (Fig. 88) nearly 1.2× as long as head and mesosoma combined, 1.5× as wide as high; T2-T5 along hind margin, and T6 almost entirely covered by reticulate microsculpture.

Seems to be rather similar to *S. gracilicornis* Kieffer, 1916 and *S. nervicola* Kieffer, 1916 (only females known), but both these species have somewhat different shape of antennae and of scutellum than *S. blascoi*, and metasoma only as long as mesosoma; cf. also KIEFFER (1926) for further separating characters. Also *S. inermis* Thomson, 1859 (only female known) is similar to *S. blascoi*, but *inermis* (lectotype seen) has A7-A9 as well as metasoma shorter than this.

Etymology

Named after the collector.

Synopeas ciliatus Thomson, 1859

Examined material: 1 ♀, UTM 30TYL2794, Malaise trap, 10.IX.1991.

Hitherto known from e.g. England, Scandinavia and Karelia. Biology unknown.

Synopeas fuscus sp. n.

Examined material

Holotype ♀: UTM 30TYL2794; Malaise trap, 18.IX.1990. Paratypes (7 ♀, 5 ♂): 1 ♀, same data as holotype; 2 ♀, same data but 28.X.1990; 1 ♀, same data but 7.V.1991; 1 ♀, UTM 30TYL2896, on coloured plates, 7.V.1991; 3 ♀, 1 ♂ UTM 30TYL2792, Malaise trap, 24.V.1991; 1 ♀, UTM 30TYL2794, Malaise trap, 7.VI.1991; 1 ♂, same data but 25.VII.1991; 1 ♂, UTM 30TYL2794, Wilkening trap into branches of *Juniperus phoenicea* L., 28.VIII.1992.

Description

♀: Body size 0.8-1.0 mm (holotype 0.9 mm). Colour medium brown to blackish brown; antennae, mandibles and legs more or less dark reddish brown, trochanters, most of fore tibiae, base of middle and hind tibiae, and most of tarsi somewhat lighter.

Head from above (Fig. 89) 1.6× as wide as long, 1.1× as wide as thorax; occiput without carina, transversely reticulate, vertex and frons faintly so. Head from in front 1.2× as wide as high; malar space two-fifths the height of an eye; OOL:POL:LOL = 1:4:2. Antenna (Fig. 90) with A4 hardly longer than wide; A8-A9 each distinctly transverse; A10 fully as long as A8-A9 combined; flagellar pubescence about 0.3 the width of segments.

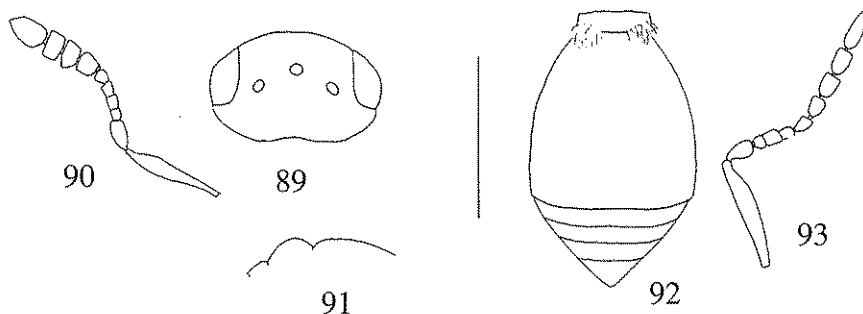
Mesosoma about 1.25× as long as wide, slightly higher than wide. Sides of pronotum reticulate and sparsely hairy in upper half, rest almost smooth and bare. Mesoscutum longitudinally reticulate-coriaceous, with sparse hairs, without notauli; hind margin slightly convex, hardly prolonged or swollen medially, with a few hairs above narrow triangular scuto-scutellar grooves. Mesopleurae smooth, with a few faint wrinkles below tegulae. Scutellum (Fig. 91) at level of mesoscutum, evenly rounded, smooth, rather hairy laterally. Metapleurae and sides of propodeum with whitish pilosity except anteriorly. Propodeal carinae short and fused.

Fore wing 0.8 as long as whole body, clear, 2.5× as long as wide; marginal cilia absent. Hind wing 6.5× as long as wide, with two frenal hooks; marginal cilia about one-third the width of wing.

Metasoma (Fig. 92) hardly as long as head and mesosoma combined (about 18:19), 1.1× as wide as thorax, about 1.2× as wide as high, hardly sculptured (T5-T6 on larger specimens faintly so), apical tergites with a few inconspicuous hairs.

♂: Body size 0.8-0.9 mm. Antenna (Fig. 93) with A4 moderately thickened; A9 about 1.6× as long as wide; flagellar pubescence hardly 0.4 width of segments. Metasoma only slightly longer than mesosoma (about 15:14).

Runs to *S. involutus* Kieffer, 1926 and *S. daucicola* Kieffer, 1916 in KIEFFER's (1926) key, but *S. involutus* has A4 twice as long as wide and scutellum triangular, *S. daucicola* has generally more slender antennae than *S. fuscus*, and it is 1.5 mm long.



Figures 89-93. *Synopeas fuscus* sp. n.: 89) female head in dorsal view; 90) female antenna; 91) female scutellum in lateral view; 92) female metasoma in dorsal view; 93) male antenna. Scale bar = 0.25 mm.

Etymology

The name of the new species refers to its dark brown body colour.

Synopeas sp.

Examined material (3 ♀, 7 ♂): 2 ♂, UTM 30TYL2794, Moericke trap 7.V.1991; 1 ♀, same data but Malaise trap; 1 ♂, UTM 30TYL2794, Moericke trap, 20.V.1991; 3 ♂, UTM 30TYL3097, UTM 30TYL3097, swept on *Tamarix canariensis* Willd., 9.VI.1991; 1 ♀, UTM 30TYL2794, swept on *Ephedra nebrodensis* Tineo ex Guss., 2.V.1992; 1 ♂, UTM 30TYL2794, swept on *Lepidium subulatum* L., 24.III.1994; 1 ♀, same data but 24.IV.1994.

Belongs to the group of very similar *Synopeas* s. str.-species with evenly rounded scutellum; among these probably closest to *S. neuroteri* Kieffer, 1916.

Trichacis illusor Kieffer, 1916

Examined material: 1 ♀, UTM 30TYL2794, on coloured plates, 17.XI.1990.

Hitherto known from Italy (Triest). Biology unknown.

ACKNOWLEDGEMENTS

I am most grateful to Mr. Javier Blasco-Zumeta for his excellent collecting of platygastriids and for his kind placing this valuable material at my disposal.

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