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New or little known species of Platygastriinae from the Holarctic region (Hymenoptera, Platygasteridae)

Peter Neerup BUHL

Abstract

The following 13 species are described as new to science: *Ceratacis grahami* (Portugal), *Leptacis quebecensis* (Canada), *Platygaster laevifoveolata* (Finland), *Pl. maritima* (Italy and Spain), *Pl. omoeensis* (Denmark), *Pl. pedicellata* (Canada), *Pl. portneufensis* (Canada), *Pl. subaptera* (Spain), *Pyrgaspis jordanica* (Jordan), *Synopeas corcyranum* (Greece), *S. johansonii* (Sweden), *S. kyrgyzstanicum* (Kyrgyzstan), and *S. ontariense* (Canada). New records of *Platygaster harteni* BUHL, 2007, *Pl. lilleoeensis* BUHL, 2013, and *Pl. reyi* BUHL, 2001 are commented upon. The work is illustrated by 50 text-figures.

Zusammenfassung

13 neue Arten werden beschrieben: *Ceratacis grahami* (Portugal), *Leptacis quebecensis* (Kanada), *Platygaster laevifoveolata* (Finnland), *Pl. maritima* (Italien und Spanien), *Pl. omoeensis* (Dänemark), *Pl. pedicellata* (Kanada), *Pl. portneufensis* (Kanada), *Pl. subaptera* (Spanien), *Pyrgaspis jordanica* (Jordanien), *Synopeas corcyranum* (Griechenland), *S. johansonii* (Schweden), *S. kyrgyzstanicum* (Kirgistan) und *S. ontariense*

(Kanada). Neue Fundangaben von *Platygaster harteni* BUHL, 2007, *Pl. lilleoensis* BUHL, 2013 und *Pl. reyi* BUHL, 2001 werden kommentiert. Die Arbeit ist mit 50 Abbildungen versehen..

Introduction

Most of the material treated below were part of generous loans or gifts. Abbreviations used for depositories are as follows: Zoological Museum, University of Copenhagen (ZMUC), Zoological Museum in Helsinki, Finland (MZH), Swedish Museum of Natural History (SMNH), and the Natural History Museum in London (NHM).

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

Material

Ceratacis grahami nov.sp. (figs 1-4)

Material examined. Holotype ♀: Portugal, Madeira, Cural dos Romeiros, 23.vii.1982, M.W.R. de V. Graham leg. (NHM). Paratypes: 1 ♀ same locality as holotype but 20.vii.1982; 1 ♀ Madeira, Lagoa do Fanal, 28.vii.1982; 1 ♀ Madeira, Terreiro da Luta, 7.viii.1982; 1 ♀ Madeira, Queimadas, 10.viii.1985; 1 ♀ Madeira, João Delgado, 28.vii.1987. All M.W.R. de V. Graham leg. (NHM).

Diagnosis. Female A4 about one and two-thirds times as long as A3, not longer than A5, hardly 1.9 times as long as wide; scutellum flat, slightly pointed and densely setose as in a typical species of *Amblyaspis*.

Description. ♀. Body length 1.1-1.6 mm. Black; A1-A3, mandibles, tegulae and legs yellowish brown, hind coxae always darker brown, sometimes also mid or all coxae darker brown; A4-A10 dark brown, A4-A6 sometimes intermediate in colour.

Head from above (fig. 1) 2.2 times as wide as long, 1.1 times as wide as mesosoma. Occiput with a few but distinct transverse striae, behind eyes only finely reticulate-coriaceous; occiput smoothly angled medially but without hyperoccipital carina; vertex and frons very finely reticulate-coriaceous, frons in lower half with oblique striation medially, transverse striation just above antennal insertions. OOL = 1.6 LOL. Head in frontal view 1.1 times as wide as high. Antenna (fig. 2) with A1 0.95 times as long as height of head, longer than distance between inner orbits (20:17); A9 1.33 times as long as wide.

Mesosoma 1.5 times as long as wide, 1.2 times as high as wide. Sides of pronotum finely longitudinally reticulate-coriaceous, smooth along wide upper and hind margins. Mesoscutum evenly and rather densely setose, finely leathery in about anterior half, rest mostly smooth; notauli absent; hind margin medially with a distinct, transverse, slightly brownish prolongation which covers base of scutellum, at each side with about ten long pale setae over each scuto-scutellar groove. Mesopleuron smooth. Scutellum (fig. 3) in

same level as mesoscutum, densely setose and finely leathery, disc in dorsal view as long as wide, somewhat pointed behind, much *Amblyaspis*-like, in lateral view vertical or very slightly excavated between two tiny brownish lamellae. Metapleuron with long and rather dense whitish pilosity all over. Propodeal carinae low, dark, parallel; area between them about as long as wide.

Fore wing 0.85 times as long as entire body, about 2.5 times as long as wide, almost clear, with fine and dense microtrichia; marginal cilia 0.05 width of wing. Hind wing 5.3 times as long as wide, with two hamuli; marginal cilia 0.2 width of wing.

Metasoma (fig. 4) 1.0-1.1 times as long as head and mesosoma combined, fully 1.2 times as wide as mesosoma. T1 with two weak longitudinal carinae, between them with a slightly weaker medial longitudinal carina, central area otherwise smooth except for fine, short crenulation along anterior margin, T1 laterally with setae which continue on the two basal foveae of T2 which are also pubescent to almost 0.25 length of T2, rest of basal foveae smooth and bare, reaching 0.4 length of tergite, T2 with striation only between basal foveae to 0.15 length of tergite which is otherwise smooth. T3-T6 smooth, with setae inserted in shallow punctures (six on T3, ten on each of T4-T6).

C o m m e n t s . Clearly related to species such as *C. cochleata* (WALKER, 1835), *C. flavipes* THOMSON, 1859, and *C. laricis* (HALIDAY, 1835), but these species have different measurements of basal flagellar segments, and scutellum less "*Amblyaspis*-like". The scutellum of *C. grahami* is much as in typical *Amblyaspis*-species, but conformation of A9-A10 and the distinctly separate propodeal carinae prove that it does not belong in that genus.

E t y m o l o g y . Named after the collector.

***Leptacis quebecensis* nov.sp. (figs 5-6)**

M a t e r i a l e x a m i n e d . Holotype ♀: Canada, Quebec, western outskirts of Trois Rivières, 25.viii.1994, swept in forest, M. von Tschirnhaus leg. (ZMUC).

D i a g n o s i s . Head distinctly sculptured with hyperoccipital carina faintly indicated; female A4 fully 3 times as long as A3; scutellar spine in lateral view thick, about two-thirds as long as anterior part of scutellum; female metasoma 0.9 times as long as rest of body, with T1 nearly twice as wide as long.

D e s c r i p t i o n . ♀. Body length 1.5 mm. Head black, mesosoma blackish with dark brown tint, metasoma dark brown; antennae dark brownish; basal 0.4 of A1 lighter, reddish brown; mandibles and legs including coxae medium reddish brown with thickened parts of hind femora and hind tibiae inconspicuously darkened.

Head from above 1.75 times as wide as long, as wide as mesosoma, distinctly reticulate-coriaceous, strongest on occiput, slightly transversely so medially on occiput; hyperoccipital carina only indicated as a soft angle. OOL half as long as diameter of lateral ocellus, 0.25 times as long as LOL. Eyes bare. Head in frontal view slightly less than 1.1 times as wide as high. Antenna (fig. 5) with A1 as long as width of head, 1.6 times as long as distance between inner orbits; A9 1.2 times as long as wide.

Mesosoma 1.7 times as long as wide, fully 1.25 times as high as wide (28:22). Sides of pronotum with faint longitudinal microsculpture in anterior two-thirds, smooth behind.

Mesoscutum evenly and moderately densely setose, finely reticulate-coriaceous, smoother postero-medially; two admedian lines visible in anterior 0.3 of mid lobe; notauli absent; hind margin narrowly brownish, medially very slightly convex over base of scutellum; each triangular scuto-scutellar groove covered by at least ten long, pale setae. Mesopleuron with three longitudinal wrinkles in about upper 0.2, covering hind 0.7 length of sclerite which is otherwise smooth. Scutellum (fig. 6) evenly and moderately densely setose, smooth along middle, weakly coriaceous towards sides; spine in lateral view thick, yellowish, just reaching base of T1, with a translucent vertical lamella below its base, spine in dorsal view narrowly pointed. Metapleuron smooth and bare in anterior 0.75, rest with short, whitish pilosity. Propodeal carinae low, dark, widely separated, slightly diverging; area between them slightly elongate, smooth.

Fore wing hardly shorter than entire body (86:89), 2.85 times as long as wide, slightly infuscated, with fine and dense microtrichia; marginal cilia 0.2 width of wing. Hind wing 7.1 times as long as wide; marginal cilia 0.6 width of wing.

Metasoma 0.9 times as long as head and mesosoma combined, 1.15 times as long as mesosoma, 1.75 times as long as wide, wider than mesosoma (24:22). T1 nearly twice as wide as long, towards sides with strong pubescence which continues over T1-T2 junction to one-sixth the length of T2. T2 5.0 times as long as T1, 1.25 times as long as wide, smooth. T3-T6 combined 0.3 times as long as T2; T3-T5 smooth, with reticulate-coriaceous sculpture along hind margins; T6 with such sculpture all over, four times as wide as long. Apical tergites with very inconspicuous setae inserted in shallow punctures (10-12 on each of T4-T5). Sternite 2 with strong pubescence basally.

C o m m e n t s . A species distinctly dissimilar to any of the Nearctic species of *Leptacis* described by R. M. FOUTS. More similar to Palaearctic *L. nydia* (WALKER, 1835), but that species has stronger hyperoccipital carina, scutellar spine longer and in dorsal view more blunt, mesopleuron stronger striated, and base of metasoma less pubescent with T1 distinctly more elongate than in *L. quebecensis*.

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

***Platygaster harteni* BUHL, 2007 (figs 7-9)**

Hitherto known from the United Arab Emirates.

Further material examined: 1 ♀, 1 ♂ Jordan, NE bank of Dead Sea, large Wadi to the mountains, 14.iv.1992, swept along roadside with Poaceae, *Phragmites*, Brassicaceae, *Juncus* and herbs, M. von Tschirnhaus leg.; 1 ♀ Iran, Khonj, (27°53'31"N, 53°26'42"E), 6.iv.2013, M. Atbaei leg. (all ZMUC).

The Jordanian female illustrated shows the variability of this species; the antenna being slightly more slender, the scutellum keeled and the metasoma shorter than in the specimens illustrated in the original description (BUHL, 2007).

The generic placement of this species remains uncertain. The head with antennae point towards placement in *Platygaster* as does the well separated propodeal carinae and clear division between T1 and T2, but structure of mesoscutum, especially scuto-scutellar grooves, and base of T2 points to *Synopeas*, conformation being in between (varying between evenly convex as in typical *Platygaster* and keeled behind as in many *Synopeas*!). A solution could be to unite such "hybrid" species, cf. also *Synopeas*

ontariense nov. sp. below, in an entirely new genus, but it is doubtful that these otherwise very dissimilar species are truly closely related.

***Platygaster laevifoveolata* nov.sp. (figs 10-13)**

Material examined. Holotype ♀: Finland, Oa, Jurva (6971:244), 8.vii.1999, M. Koponen leg. (MZH). Paratype: 1 ♀ same data (MZH).

Diagnosis. Head finely striated behind; female A9 very slightly transverse; notauli missing in anterior third; scutellum smooth, behind vertical or slightly excavated in lower half; female metasoma very slightly shorter than rest of body; T1 with three carinae; T2 with deep and smooth basal foveae which are slightly striated on inner slope and apically.

Description. ♀. Body length 1.4-1.5 mm. Black; A1 and coxae dark brown; mandibles, femora and apical half of mid and hind tibiae slightly lighter (medium-dark) brown; most of fore tibiae, basal half of mid and hind tibiae, and segments 1-4 of all tarsi light brownish; A2-A10 and last segment of tarsi blackish brown.

Head from above (fig. 10) 2.25 times as wide as long, 1.1 times as wide as mesosoma; occiput finely transversely striated all over, behind eyes vertically reticulate-striate; vertex dull reticulate-coriaceous, between ocelli transversely so; frons dull all over, finely but distinctly, obliquely reticulate-striate out from a midline. OOL:LOL = 4:3. Head in frontal view 1.3 times as wide as high. Antenna (fig. 11) with A1 0.8 times as long as height of head, fully 0.9 times as long as distance between inner orbits; A9 1.1 times as wide as long.

Mesosoma hardly 1.4 times as long as wide, 1.1 times as high as wide. Sides of pronotum finely longitudinally reticulate-coriaceous, smooth along hind margin. Mesoscutum sparsely setose, most of setae situated along notauli and margins, but in posterior 0.3 densely setose in front of each scuto-scutellar groove; disc finely reticulate-coriaceous, mid lobe smooth in about posterior third; notauli weak but distinct, missing in about anterior third; mid lobe posteriorly moderately blunt, slightly but distinctly prolonged to base of scutellum; scuto-scutellar grooves each covered by more than ten conspicuous, pale setae. Mesopleuron smooth except for a dull, microsculptured area just below tegula. Scutellum (fig. 12) very slightly above level of mesoscutum, vertical or even slightly excavated behind, smooth except for seta-implantations which are very sparse medially, moderately dense towards sides. Metapleuron with pilosity all over. Propodeal carinae parallel, much transverse area between them smooth and shiny.

Fore wing 0.85 times as long as entire body, 2.25 times as long as wide, clear, with fine and dense microtrichia; marginal cilia very short. Hind wing 4.7 times as long as wide, with two hamuli; marginal cilia 0.22 width of wing.

Metasoma (fig. 13) very slightly shorter than head and mesosoma combined (41:43 to 43:44), 0.9 times as wide as mesosoma. T1 with three strong longitudinal carinae, laterally deeply excavated. T2 with two elongate, deep and smooth basal foveae, these striated along their inner slope and apically, striae almost reaching midlength of tergite, medially only 0.25 of length. T3-T6 smooth except for very faint reticulation near margins; T3-T5 each with a slightly irregular transverse row of about 14 setae which are

inserted in rather superficial punctures; T6 1.6 times as wide as long, with ten more scattered setae.

C o m m e n t s . In BUHL's (2006) key this species runs to *P. danielssoni* BUHL, 1998, alternatively to *P. misella* BUHL, 2006, but *P. danielssoni* has upper hind part of scutellum with a distinct excavation and distinctly longer antennae and metasoma than *P. laevifoveolata*. *P. misella* is a smaller species with scutellum evenly sloping behind, T1 with numerous fine carinae and T2 striated in basal foveae.

***Platyaster lilleoensis* BUHL, 2013**

Hitherto only known from the Danish holotype.

Further material examined: 1♀ Germany, Thuringia, Naturschutzgebiet Unstruttal, Grossvargula, 1.vii.1994, F. Creutzburg leg. (Collection of the University of Jena); 1♀ Thuringia, Jena, wetlands along the river Saale, v.2012, Jena-Experiment leg. (ZMUC).

The German specimens are very similar to the holotype.

***Platyaster maritima* nov.sp. (figs 14-17)**

Material examined. **Holotype** ♀: Italy, Sardinia, coast at Punta de S' Incòdina, salt vegetation along beach and a stony wall near pedestrian bridge (39°50'14"N, 8°24'10"E), 5.v.2011, swept in windy vegetation consisting of *Salicornia*, *Halimione*, *Plantago maritima*, *Tripleurospermum maritimum*, *Iris* and young grass, M. von Tschirnhaus leg. (ZMUC). **Paratypes:** 1♀ same data as holotype; 1♀, 1♂ Spain, Dry rocky area NE of coastal salines near Cabo de Gata, 23 km ESE of Almeri, 15.iv.1993, swept in heavily grazed, rich-flowering, small vegetation, M. von Tschirnhaus leg. (ZMUC).

D i a g n o s i s . Head slightly more than twice as wide as long, with strongly striated occiput and finely striated frons; female A9 1.1-1.5 times as long as wide; mesoscutum almost smooth with weak notauli to 0.75 of length; scutellum smooth; female metasoma only one and two-thirds as long as wide, T2 more than twice as wide as T1, striated to 0.3-0.4 of length, medially to 0.2-0.3 of length; apical tergites short, all much transverse, with shallow punctures.

D e s c r i p t i o n . ♀. Body length 1.15-1.5 mm. Black, A1, tegulae and coxae hardly lighter, rest of antennae and legs as well as mandibles dark brownish, inner side of A2, most of A3, base and apex of fore tibiae, base of mid tibiae, and segments 1-4 of all tarsi light brownish, trochanters and basal half of hind tibiae dark reddish brown.

Head from above (fig. 14) 2.15 times as wide as long, 1.15 times as wide as mesosoma; occiput densely and rather strongly half-circularly striated; hyperoccipital carina absent, head rounded; vertex irregularly reticulate-coriaceous (with a few longitudinal elements medially, sometimes faint); entire frons finely but distinctly covered by oblique striation out from a weak longitudinal midline. OOL = 1.3 LOL. Head in frontal view one and a third times as wide as high. Eyes with only a few very inconspicuous setae. Antenna (fig. 15) with A1 0.8 times as long as height of head, shorter than distance between inner orbits (17:18); A9 1.5 times as long as wide (but cf. below under comments).

Mesosoma barely 1.3 times as long as wide, about as high as wide. Sides of pronotum with a small spot of rugosity in upper anterior corner, in lower half with fine longitudinal

striation in slightly more than anterior half, otherwise smooth except for sparse seta-implantations over entire surface. Mesoscutum with few setae, most of them near margins and notaulic courses; disc smooth except for reticulate-coriaceous sculpture at anterior ends of notauli, and for weak longitudinal sculpture around midlength on mid lobe; notauli rather weak, missing in about anterior 0.25, posteriorly only slightly converging; mid lobe broad, its hind margin convex, medially just touching base of scutellum. Scuto-scutellar grooves wide, each with only about three inconspicuous setae along anterior margin. Mesopleuron smooth. Scutellum (fig. 16) strongly and evenly convex, smooth, almost bare over most of surface, moderately densely setose along sides. Metapleuron with dull microsculpture, with rather short and moderately dense pilosity all over. Propodeal carinae short, parallel; area between them smooth.

Fore wing two-thirds as long as entire body, 2.15 times as long as wide, clear, with fine and dense microtrichia; marginal cilia 0.07 width of wing. Hind wing 4.5 times as long as wide, with two hamuli; marginal cilia 0.2 width of wing.

Metasoma (fig. 17) 0.9-1.0 times as long as head and mesosoma combined, wider than mesosoma (about 26:25). T1 with two complete, moderately strong longitudinal carinae, between them with numerous weak longitudinal carinae which are obliterated in posterior half. T2 faintly striated in basal foveae to almost 0.4 length of tergite (9:24), between foveae distinctly longitudinally striated to 0.3 of length (this refers to the holotype, the smaller Italian paratype has T2 striated to 0.3 from basal foveae, to 0.25 between them, cf. for the Spanish paratypes below), rest of tergite as well as following tergites smooth; apical tergites with setae inserted in shallow punctures (6-10 on T3, 8-10 on T4, 10 on T5, 6 on T6, cf. for the Spanish female paratype below).

♂. Body length 1.10 mm. Antenna with A4 moderately widened, as wide as preapical antennal segments, 1.2 times as long as one of these and 0.9 times as long as A2, about 3 times as long as A3; preapical segments each about 1.33 times as long as wide; flagellar pubescence about 0.4 width of segments. Metasoma 0.85 times as long as head and mesosoma combined. T2 striated from basal foveae to almost half the length of tergite, medially to almost 0.3 length of tergite.

C o m m e n t s . The Spanish female paratype has A9 barely 1.1 times as long as wide, T2 striated from basal foveae to almost 0.4 length of tergite (7:19), medially only to 0.2 length of tergite, and it has T4 with 14, T5 with 12, and T6 with 8 setae. Both the Spanish specimens have basal foveae stronger striated than the specimens from the holotype locality. *P. maritima* runs to *P. manto* WALKER, 1835 in VLUG's (1985) key, but that species has smooth frons, female flagellar segments slightly less slender, propodeal carinae diverging, and sides of female T2 less divergent with T2 narrower relative to T1 than in *P. maritima* which has a rather characteristic short and broad female metasoma..

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

***Platygaster omoeensis* nov.sp. (figs 18-21)**

M a t e r i a l e x a m i n e d . Holotype ♀: Denmark, SZ, Omø, 15.vii.2013, swept, P.N. Buhl leg. (ZMUC). Paratype: 1 ♀ same data (ZMUC).

D i a g n o s i s . Occiput distinctly, frons finely transversely striated; female A9 1.15-1.2 times as long as wide; notauli indicated in posterior half; scuto-scutellar grooves with

few setae; scutellum strongly and evenly convex; female metasoma 1.15 times as long as rest of body; T2 striated to 0.65 of length, medially much shorter; T3-T6 generally smooth, with weak punctures, T6 slightly elongate, finely pointed.

D e s c r i p t i o n . ♀. Body length 1.15 mm (paratype) to 1.35 mm (holotype). Black, including antennae and legs; only knees of fore legs, less than apical half of fore tibiae, and segments 1-4 of fore tarsi noticeable lighter, dark brownish.

Head from above (fig. 18) 2.2 times as wide as long, 1.1 times as wide as mesosoma; occiput moderately strongly, almost half-circularly striated; hyperoccipital carina absent; vertex between ocelli finely transversely reticulate-striate, laterally finely reticulate-coriaceous (not transversely so); frons finely but distinctly, obliquely striated out from a midline. LOL hardly noticeable shorter than OOL. Eyes with sparse and very short setae. Head in frontal view 1.3 times as wide as high. Antenna (fig. 19) with A1 0.8 times as long as height of head, shorter than distance between inner orbits (14:15); A9 1.15-1.2 times as long as wide.

Mesosoma 1.45 times as long as wide, almost 1.1 times as high as wide. Sides of pronotum longitudinally reticulate-coriaceous, smooth only in upper posterior corner. Mesoscutum with scattered and rather sparse setation, distinctly reticulate-coriaceous, sculpture slightly roughened; notauli faintly indicated in about posterior half; mid lobe rather narrow behind, prolonged to base of scutellum; the moderately wide scuto-scutellar grooves each covered by about six setae. Mesopleuron smooth except for a small spot of faint longitudinal sculpture just below tegula. Scutellum (fig. 20) strongly and evenly convex, sparsely setose, weakly reticulate-coriaceous, almost smooth medially and posteriorly. Metapleuron smooth, with long and moderately dense pilosity all over. Propodeal carinae short, parallel; area between them distinctly wider than long, smooth.

Fore wing 0.7 times as long as entire body, just reaching tip of metasoma, 2.3 times as long as wide, clear, with fine and dense microtrichia; marginal cilia at their longest 0.1 width of wing. Hind wing 5.2 times as long as wide, with two hamuli; marginal cilia 0.25 width of wing.

Metasoma (fig. 21) 1.15 times as long as head and mesosoma combined, 1.6 times as wide as high, 0.85 times as wide as mesosoma. T1 with eight longitudinal furrows. T2 distinctly striated in basal foveae to about 0.65 the length of tergite, medially to 0.2 of length, otherwise smooth as T3-T6 except for very faint reticulation on narrow hind margins of T3-T5, these last mentioned tergites each with a transverse row (irregular on T5) of setae inserted in rather shallow punctures (10 on each of T3-T4, eight on T5, on paratype only six on T3 and eight on T4); T6 finely pointed, 1.15-1.3 times as long as wide, with 10 more scattered setae; sternite 2 not convex anteriorly.

C o m m e n t s . Most similar to *P. tuberosula* KIEFFER, 1926 but with slightly less slender antennae, more sculptured mesoscutum, less setosity on scuto-scutellar grooves and scutellum, slightly less elongate wings, metasoma slightly more flattened with slightly longer striation on T2, slightly less setose T3-T6, and more acutely pointed T6. *P. walli* BUHL, 2010 is somewhat similar to *P. omoensis* but smoother, with slightly more slender preapical antennal segments and shorter metasoma.

E t y m o l o g y . Named after the islet (just SW of the Danish island of Zealand) with the holotype locality.

***Platygaster pedicellata* nov.sp. (figs 22-25)**

Material examined. Holotype ♀: Canada, Quebec, western outskirts of Trois Rivières, 25.viii.1994, swept in forest, M. von Tschirnhaus leg. (ZMUC) Paratypes: 9 ♀ ♀, 2 ♂ ♂ same data as holotype; 2 ♀ ♀ Canada, Ontario, Wellington County, Rte. 35, 1.5 km S of Downey's, Downey Road between Guelph and Hamilton, 18.viii.1994, swept, M. von Tschirnhaus leg. (ZMUC).

Diagnosis. Head with distinctly striated occiput; female antennae long, A3 more than 3, A9 fully 2 times as long as wide; notauli visible in posterior 0.66; mid lobe of mesosuctum hardly covering scutellum, this smooth, evenly and weakly convex; female metasoma 1.2-1.35 times as long as rest of body, almost 0.9 times as wide as mesosoma; T2 striated in basal foveae to half of length, apical tergites smooth except for shallow punctures.

Description. ♀. Body length 1.05-1.45 mm. Black; antennae, mandibles and legs dark brown, about apical half of fore tibiae, and all tarsi, lighter brown.

Head from above (fig. 22) 1.8 times as wide as long, 1.1 times as wide as mesosoma; occiput finely half-circularly striated; hyperoccipital carina absent, head broadly and smoothly rounded; vertex weakly reticulate-coriaceous, between ocelli transversely so; frons with a smooth midline from anterior ocellus, in upper half finely reticulate-coriaceous and with scattered punctures, in lower half finely obliquely striated. LOL = 1.15 OOL. Head in frontal view roundish, 1.05 times as wide as high. Antenna (fig. 23) 0.9 times as long as height of head, 1.3 times as long as distance between inner orbits; A2 slightly more than 3 times as long as wide; clava flattened, A9 seen at its widest fully twice as long as wide.

Mesosoma 1.8 times as long as wide, 1.15 times as high as wide. Sides of pronotum weakly, longitudinally reticulate-coriaceous, becoming finely striated in lower half, smooth along rather wide upper and hind margins. Mesoscutum sparsely and evenly setose, with slightly raised implantations; reticulate-coriaceous in about anterior 0.4, rest smooth; notauli distinct in posterior two-thirds of their courses, abruptly ending anteriorly; mid lobe broad behind, covering extreme anterior part of scutellum; scuto-scutellaar grooves covered by dense, light brown setation. Mesopleuron smooth. Scutellum (fig. 24) weakly and evenly convex, smooth, rather evenly and moderately densely setose (slightly denser laterally). Metapleuron with dull microsculpture, evenly and rather densely covered by whitish pilosity. Propodeal carinae short, slightly diverging; area between them distinctly transverse, smooth.

Fore wing reaching about midlength of T6, about 0.7 times as long as entire body, 2.9 times as long as wide, clear, with fine and moderately dense microtrichia; marginal cilia very short. Hind wing 5.4 times as long as wide, with two hamuli; marginal cilia slightly more than 0.2 width of wing.

Metasoma (fig. 25) 1.2-1.35 times as long as head and mesosoma combined (T1-T5 combined 1.1 times as long as head and mesosoma combined), hardly 0.9 times as wide as mesosoma, 1.5 times as wide as high. T1 with about eight uniform, rather strong longitudinal carinae. T2 1.45 times as long as wide, finely striated in the two narrow basal foveae to about half the length of tergite, between foveae with a few very short crenulae, rest of tergite as well as following tergites smooth. T3-T5 each with a transverse row (irregular on T4-T5) of setae inserted in rather shallow punctures (8-10 on T3,

about 10 on each of T4-T5); T6 with four setae along each side. Sternite 2 anteriorly not convex or produced anteriorly below petiole.

♂. Body length 1.0-1.1 mm. Antenna with A2 twice as long as wide, fully as long as A5; A3 about 0.33-0.4 as long as A2; A4 about as long as A2, wider than this, 1.5 times as long as wide; A6-A9 each about 1.66-1.75 times as long as wide; flagellar pubescence 0.5-0.6 as long as width of segments. Metasoma slightly more than 0.9 times as long as head and mesosoma combined; T3-T7 combined hardly half as long as T2.

C o m m e n t s . Runs to *P. rohweri* FOUTS, 1924 in FOUTS' (1924) and MACGOWN's (unpublished) keys, but *P. rohweri* has female A2 only twice as long as wide, notauli only distinct in basal half, scutellum bare, and female metasoma slightly shorter than in *P. pedicellata* (T1-T5 combined as long as head and mesosoma combined) with T2 not longer than wide, twice as wide apically as basally. The male of *P. rohweri* has A2 only 1.5 times as long as wide, distinctly shorter than A5, A3 two-thirds as long as A2, A5-A9 each almost twice as long as wide, and T3-T7 combined almost as long as T2. *P. pedicellata* is in fact most similar to Palaearctic *P. nashi* BUHL & O'CONNOR, 2011, but that species has head more transverse and more narrowed behind eyes, mid lobe of mesoscutum more prolonged over scutellum which is more unevenly sloping posteriorly than in *P. pedicellata*, mesopleuron dull in upper one-sixth, propodeal carinae parallel, fore wings only 2.4 times as long as wide, and metasoma of *P. nashi* is only 0.75 times as wide as mesosoma.

***Platyaster portneufensis* nov.sp. (figs 26-29)**

M a t e r i a l e x a m i n e d . Holotype ♀: Canada, estuary of Rivière Portneuf, N of Sainte-Anne de Portneuf, S of Forestville, eastern bank of Fleuve Saint-Laurent, 25.viii.1994, swept on several qkm of flooded area with uniform vegetation, tidal inlets and partly moist ground, M. von Tschirnhaus leg. (ZMUC) Paratype: 1♂ same data as holotype (ZMUC).

D i a g n o s i s . Sculpture of occiput not transverse; female A9 fully as wide as long; notauli complete; scutellum low, distinctly sculptured; female metasoma 1.5 times as long as rest of body; T2 striated to 0.4 of length, medially slightly shorter; apical tergites smooth; T5 very slightly transverse, about 0.55 as wide as T2.

D e s c r i p t i o n . ♀. Body length 2.1 mm. Black; antennae, mandibles and coxae medium brown, antennae darkened towards apex (A2-A3 lightest), legs slightly lighter brown (with tibiae and tarsi inconspicuously lighter than femora), tegulae dark brown.

Head from above (fig. 26) 1.95 times as wide as long, hardly 1.1 times as wide as mesosoma; occiput and vertex broadly rounded, distinctly isodiametrically reticulate-coriaceous, just behind ocelli much transversely so; frons finely reticulate-coriaceous in upper half, in lower half becoming finely but distinctly obliquely striated. OOL = 1.25 LOL. Head in frontal view 1.25 times as wide as high. Antenna (fig. 27) with A1 0.95 times as long as height of head, longer than distance between inner orbits (20:19); A9 fully as wide as long.

Mesosoma 1.4 times as long as wide, as wide as high. Sides of pronotum in upper half distinctly reticulate-coriaceous (not longitudinally so) except along narrow hind margin, in lower half almost smooth except for traces of longitudinal microsculpture and moderately dense seta-implantations. Mesoscutum with very few setae, most of them on outer

half of lateral lobes, distinctly reticulate-coriaceous, slightly smoother postero-medially; anterior admedian lines smooth, parallel, 0.25 as long as disc; notauli strong, complete; mid lobe behind pointed, almost reaching base of scutellum; scuto-scutellar grooves rather wide, each only with a couple of inconspicuous setae. Mesopleuron smooth. Scutellum (fig. 28) almost flat, sparsely setose, distinctly reticulate-coriaceous. Metapleuron dull coriaceous, with moderately dense and rather short pilosity all over. Propodeal carinae short, parallel; slightly transverse area between them smooth and shiny.

Fore wing nearly reaches apex of metasoma, 0.7 times as long as entire body, 2.85 times as long as wide, almost clear, with fine and dense microtrichia; marginal cilia 0.06 width of wing. Hind wing 5.5 times as long as wide, with two hamuli; marginal cilia about 0.25 width of wing.

Metasoma (fig. 29) 1.5 times as long as head and mesosoma combined, 0.95 times as wide as mesosoma, 1.3 times as wide as high. T1 with two moderately strong longitudinal carinae, between them bare and almost smooth, only with a couple of incomplete longitudinal crenulae; lateral areas dull, rather densely pubescent, this pubescence continues in basal foveae of T2, these weakly longitudinally striated to about 0.4 length of tergite, between basal foveae striated to hardly 0.3 length of tergite, rest of tergite as well as following tergites smooth; apical tergites with fine setae inserted in shallow punctures, three on each side on T3, four on each side on T4 (punctures forming a rather even transverse row on each of these tergites), T5 on each side with eight much more scattered such punctures with setae, T6 with six such punctures with setae along each side. Apical tergites not flattened (T5 at midlength only 1.6 times as wide as high). Sternite 2 moderately convex anteriorly.

♂. Body length 1.7 mm. Antenna with A4 strongly swollen, 1.25 times as long as wide, 1.5 times as long as A5, and 1.33 times as wide as that and following segments; A9 1.3 times as long as wide; flagellar pubescence one-third as long as width of segments. Metasoma hardly 1.1 times as long as head and mesosoma combined.

C o m m e n t s . Female metasoma is smoother and less constricted behind in *P. nigrifemur* (ASHMEAD, 1890) than in *P. portneufensis* which has shorter antennal segments than in e.g. *P. alnicola* (ASHMEAD, 1893), *P. melanocera* (ASHMEAD, 1887), *P. pseudotsugae* MACGOWN, 1979 and *P. nigricoxa* FOUTS, 1925; *alnicola* also has scutellum highly convex, *P. pseudotsugae* and *P. nigricoxa* have back of head with distinct transverse sculpture, and female metasoma longer and more constricted behind, cf. also FOUTS (1924).

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

***Platygaster reyi* BUHL, 2001 (figs 30-32)**

M a t e r i a l e x a m i n e d : 4♀♀, 4♂♂ Italy, Sardinia (central SW), volcanic plateau mountain "Giara di Gesturi", Monte Zeparedda, NNE of Tuili, "Tuili Nuraghe Tutturuddu", ancient tower Domus de Janas (39°44'17"N, 8°58'05"E), 437 m. 4.v.2011, swept among *Asphodelus*, *Euphorbia*, *Bellis*, *Ornithogalum*, partly between walls and within shade of oak trees, M. von Tschirnhaus leg. (ZMUC).

Hitherto known from central Spain (Madrid area). A few minor discrepancies in the Italian specimens from the original description fall within the intraspecific variability.

Below the different measurements for the Italian specimens are given, and a few details not mentioned in BUHL (2001) are added:

♀. Body length 1.20-1.35 mm. Shiny black; antennae, mandibles, tegulae and coxae dark brown, femora hardly to slightly lighter; tibiae light brownish, darkened in about apical half except fore tibiae; tarsi light brownish except last segment. Head from above (fig. 30) 2.2 times as wide as long; A9 (fig. 31) 1.1 times as long as wide. Scuto-scutellar grooves rather narrow, each with about seven inconspicuous setae. Scutellum (fig. 32). Propodeal carinae slightly diverging; area between them about 1.5 times as wide as long, smooth. Fore wing 0.8 times as long as entire body, overreaching tip of metasoma by a distance equal to length of T5-T6 combined, 2.4 times as long as wide, faintly infuscated, with fine and dense microtrichia; marginal cilia 0.06 width of wing. Hind wing 4.7 times as long as wide. Metasoma 1.0-1.05 times as long as head and mesosoma combined, 1.15 times as wide as mesosoma. T1 with four rather strong longitudinal carinae on a raised central area, between them and laterally with some fine longitudinal carinae or crenulae. T2 striated in basal foveae to half the length of tergite, between them with a medial longitudinal carina and some weak striation which are about half as long as the striation from basal foveae. T3-T5 each with a transverse row of fine setae inserted in shallow punctures (6 to 10 on each of T3-T4, 10 to 12 on T5); T6 with 5 such setae along each side.

♂. Body length 1.2-1.4 mm. Antenna with A4 moderately widened, narrowed in a straight edge in inner basal half, seen at its widest 1.2 times as long as wide, as long as each of the following segments, and 1.25 times as wide as these, and 1.7 times as long as A3; A9 1.6 times as long as wide; flagellar pubescence about half as long as width of segments. Metasoma 0.80-0.95 times as long as head and mesosoma combined.

***Platygaster subaptera* nov.sp. (figs 33-36)**

Material examined. Holotype ♀: Spain, Andalucia, Fuengirola, Los Pacos, 17.xi.2011, M. Koponen leg. (MZH).

Diagnosis. Female A9 1.15 times as long as wide; notauli only slightly converging, mid lobe prolonged over base of scutellum; fore wings of female hardly overreaching base of T2 which is without striation.

Description. ♀. Body length 1.0 mm. Shiny black, including coxae; antennae and femora blackish, tegulae dark brown, trochanters medium brown; tibiae dark brown, lighter brown towards base and at narrow apex; tarsi light brown, darkened towards apex.

Head from above (fig. 33) 1.7 times as wide as long, 1.3 times as wide as mesosoma; occiput broadly rounded, finely but distinctly reticulate-coriaceous all over, only very faintly transversely so around middle; vertex finely reticulate-coriaceous (not transversely so), smooth between posterior ocelli and between these and eyes; frons smooth except for very faint (not transverse) reticulation towards sides, in lower third with weak transverse wrinkling. OOL = LOL. Head in frontal view 1.2 times as wide as high. Antenna (fig. 34) with A1 hardly noticeable longer than height of head, longer than distance between inner orbits (14:12); A9 1.15 times as long as wide.

Mesosoma 1.55 times as long as wide, 1.05 times as high as wide. Sides of pronotum reticulate-coriaceous (not longitudinally so) on a small spot in upper anterior part, rest

smooth except for sparse seta-implantations in anterior half. Mesoscutum smooth except for reticulate microsculpture along narrow margins, with very few setae; notauli strong and complete, only slightly converging behind; mid lobe slightly and bluntly prolonged over base of scutellum; scuto-scutellar grooves inconspicuous, each only with a couple of very inconspicuous setae. Mesopleuron smooth. Scutellum (fig. 35) at level of mesoscutum, almost flat, smooth, evenly and moderately sparsely setose. Metapleuron with dense pilosity all over. Propodeal carinae hardly noticeable diverging; area between them about as long as wide, smooth and shiny.

Fore wing whitish, 3.1 times as long as wide, only just reaching base of T2 (reaching about 0.05 length of tergite). Hind wing a little longer than fore wing, 6.6 times as long as wide, reaching slightly farther behind than fore wing (about 0.15 length of T2).

Metasoma (fig. 36) 1.15 times as long as head and mesosoma combined, 1.4 times as wide as mesosoma. T1 with two rather weak longitudinal carinae, smooth between them, along sides with numerous setae. T2 smooth, with two weak and slightly setose basal foveae. T3-T6 smooth, with a few shallow punctures.

C o m m e n t s . The only two other described species of *Platygaster* with short wings, *P. brachyptera* BUHL, 2004, and *P. pedestris* BUHL, 2004, have less slender flagellum than *P. subaptera*, mesoscutum reticulate and notauli meeting in a fine point, with mid lobe not prolonged behind, and T2 striated. Cf. further differences in BUHL (2004).

***Pyrgaspis jordanica* nov.sp. (figs 37-38)**

M a t e r i a l e x a m i n e d . Holotype ♀: Jordan, Highway No. 15 from Amman to Aqaba, Rest House Petra/Al Qatrāna, east of the road, 18.iv.1992, swept in barley field and ditch with *Sinapis*, white Brassicaceae, *Salicornia*, *Matricaria*, *Iris*, M. von Tschirnhaus leg. (ZMUC). Paratypes: 1 ♀, 1 ♂ same data (ZMUC).

D i a g n o s i s . Female A9 1.66 times as long as wide, male A9 1.75 times as long as wide; T2 striated to 0.3, laterally shorter.

D e s c r i p t i o n . ♀. Body length 1.6-1.7 mm. Black; mandibles, tegulae and coxae dark reddish brown; antennae and legs light brownish, last segment of tarsi darkened.

Head from above 1.8 times as wide as long, wider than mesosoma (27:24), finely reticulate-coriaceous, transversely so medially on occiput and vertex, these broadly and evenly rounded. LOL = 1.25 OOL. Head in frontal view wider than high (27:22). Antenna (fig. 37) with A1 0.7 times as long as height of head, 0.85 times as long as distance between inner orbits; A9 one and two-thirds times as long as wide.

Mesosoma 1.5 times as long as wide, higher than wide (25:24). Sides of pronotum reticulate-coriaceous (not longitudinally so), distinctly longitudinally striated along anterior margin, in lower 0.4 over entire length. Mesoscutum with a few setae (most of them near margins and notauli), finely and slightly longitudinally reticulate-coriaceous, antero-medially with admedian lines to 0.4 of length; notauli weak, fading out just before reaching anterior margin; mid lobe narrow behind, slightly prolonged to base of scutellum; scuto-scutellar grooves wide, each with about six long setae. Mesopleuron longitudinally striated, smoother only on a small area medially. Scutellum in lateral view much as in *P. haloxylomyiae* KOZLOV according to KOZLOV (1967), finely reticulate-coriaceous, moderately densely setose. Metapleuron with dull, partly longitudinal, rugosity, with

scattered pilosity over most of surface. Propodeal carinae strongly sloping, slightly diverging, low and dark; area between them (measured posteriorly) slightly transverse.

Fore wing shorter than entire body (70:97), 2.4 times as long as wide, clear, with fine and moderately dense microtrichia; marginal cilia absent. Hind wing 4.9 times as long as wide, with two hamuli; marginal cilia one-sixth the width of wing.

Metasoma 0.90-0.95 times as long as head and mesosoma combined, as wide as head, 1.75 times as long as wide. T1 2.6 times as wide as long, with a transverse impression anteriorly of midlength, behind smooth medially, with two widely separated weak longitudinal carinae, on lateral areas with a few setae. T2 5.4 times as long as T1, as long as wide, with two small, slightly pubescent basal foveae, between basal foveae longitudinally striated to 0.3 of length, laterally with some weak striae which are half as long as the medial ones, tergite otherwise smooth except for distinct reticulation in hind 0.13 of length. T3-T6 combined about half as long as T2, smooth basally, distinctly reticulate along hind margins (T6 sculptured nearly all over); T4-T6 with a few setae inserted in shallow punctures (four on T4, 10 on T5, six on T6).

♂. Body length 1.3 mm. Antenna (fig. 38) with A9 1.75 times as long as wide; flagellar pubescence very slightly more than half as long as width of segments. Metasoma 0.9 times as long as head and mesosoma combined, T2 striated to hardly 0.2 of length.

Comments. Only two other species of this genus have been described: *P. haloxylomyiae* KOZLOV, 1967 has female A9 only about 1.2 times as long as wide, male A9 fully twice as long as wide. *P. striativentris* BUHL, 2009 (only male known) has distinctly more elongate male A9, lower scutellum, and distinctly longer striation on T2 than *P. jordanica*.

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

***Synopeas corcyranum* nov.sp. (figs 39-42)**

Material examined. Holotype ♀: Greece, Corfu, Acharavi, 29.iv.1994, M. Koponen leg. (MZH).

Diagnosis. Head without hyperoccipital carina; female A9 1.5 times as wide as long; notauli nearly complete; scutellum with a short and thick tooth; female metasoma as long as mesosoma.

Description. ♀. Body length 0.95 mm. Black, antennae and legs dark brown; mandibles, basal 0.25 of A1, trochanters, base and apex of fore tibiae, basal 0.25 of mid and hind tibiae, and segments 1-4 of all tarsi lighter brown.

Head from above (fig. 39) 1.75 times as wide as long, fully 1.1 times as wide as mesosoma, distinctly and uniformly reticulate-coriaceous (not transversely so); hyperoccipital carina absent but head slightly bluntly angled behind ocelli. OOL equal to diameter of lateral ocellus; LOL = 4 OOL. Head in frontal view 1.2 times as wide as high. Antenna (fig. 40) with A1 hardly 0.8 times the height of head, as long as distance between inner orbits; A9 1.5 times as wide as long.

Mesosoma 1.4 times as long as wide, 1.15 times as high as wide. Sides of pronotum uniformly sculptured as head. Mesoscutum sparsely and almost evenly setose, uniformly dull, slightly longitudinally reticulate-coriaceous; notauli distinct and almost complete,

fading out just before reaching anterior margin; mid lobe posteriorly pointed, prolonged, touching scutellum in an acute point; scuto-scutellar grooves wide, each with four long setae. Mesopleuron smooth, with fine longitudinal wrinkles in posterior half (longest, upper wrinkles) of upper third. Scutellum (fig. 41) evenly and densely covered by short, adpressed setae, sculptured much as mesoscutum, with a dark, short but distinct tooth, without lamella. Metapleuron smooth, with pilosity all over (sparse in anterior half). Propodeal carinae dark, rather low, fused but seen from above wide, dull.

Fore wing as long as entire body, 2.5 times as long as wide, almost clear, with fine and dense microtrichia; marginal cilia absent. Hind wing 5.9 times as long as wide; marginal cilia about one-fourth the width of wing.

Metasoma (fig. 42) as long and as wide as mesosoma, 1.5 times as wide as high. T1 almost smooth, without distinct carinae. T2 smooth except for fine reticulation along narrow hind margin, T3-T5 each with such microsculpture in posterior half, T6 over most of surface; apical tergites virtually bare.

C o m m e n t s . This species runs to Danish *S. acutispinus* BUHL, 1998 in BUHL's (1999) key, but that species has A9 not wider than long, more striated mesopleuron and much longer scutellar spine. *S. corcyranum* is somewhat similar to Norwegian *S. hansseni* BUHL, 1998, but that species has notauli fine and complete, mesopleuron distinctly striated in upper half, and a much longer scutellar spine.

***Synopeas johansoni* nov.sp. (figs 43-45)**

M a t e r i a l e x a m i n e d . Holotype ♀: Sweden, Sm., Nybro Kommun, Bäckebo, Grytsjöns naturreservat, 2.-12.vii.2005, Malaise trap in old moisty haymaking meadow in forest edge, Swedish Malaise Trap Project leg. (SMNH).

D i a g n o s i s . Head pustulated, with a weak hyperoccipital carina; female A9 as long as wide; scutellum at level with mesoscutum, behind with a lamella and a very tiny tooth; metasoma 1.15 times as long as rest of body, as high as wide.

D e s c r i p t i o n . ♀. Body length 1.3 mm. Black; antennae, mandibles and legs medium dark brown; all trochanters, apex of fore femora, most of fore tibiae, about basal 0.6 of mid and hind tibiae, and all tarsi light yellowish brown.

Head from above 1.9 times as wide as long, barely 1.1 times as wide as mesosoma, finely and almost uniformly pustulated; hyperoccipital carina weak but complete; OOL slightly longer than longer diameter of lateral ocellus; LOL = 1.6 OOL. Head in frontal view 1.3 times as wide as high. Antenna (fig. 43) with A1 shorter than height of head (14:16), as long as distance between inner orbits; A9 as long as wide

Mesosoma 1.35 times as long as wide, about 1.05 times as high as wide. Sides of pronotum pustulated (or distinctly reticulate-coriaceous with very small meshes) except along rather narrow hind margin. Mesoscutum rather evenly and moderately densely setose, uniformly sculptured as head except for being slightly smoother; notauli absent; hind margin medially with a smooth, dark brown bluntly pointed prolongation, 1.5 times as wide as long, to base of scutellum; at each side with dense, long greyish setation over scuto-scutellar grooves. Mesopleuron smooth. Scutellum (fig. 44) along middle with very few setae and almost smooth, otherwise densely covered by greyish, adpressed setation, posteriorly with a narrow, dark, slightly oblique lamella which ends in a very tiny tooth

dorsally. Metapleuron smooth and bare in about anterior 0.3, rest with rather dense, greyish pilosity. Propodeal carinae dark, of moderate height, close together but slightly diverging at apex.

Fore wing about 0.85 times as long as entire body, of average proportions (wings somewhat longitudinally curled up in unique specimen), surpassing tip of metasoma by a distance equal to slightly less than the length of T6, clear, with fine and dense microtrichia; marginal cilia absent. Hind wing about 5.25 times as long as wide; marginal cilia 0.3 width of wing.

Metasoma (fig. 45) 1.2 times as long as head and mesosoma combined, 0.8 times as wide as mesosoma, as high as wide. T1 with a couple of weak longitudinal carinae visible between the strong tufts of pubescence. T2 smooth except for reticulate-coriaceous sculpture along narrow hind margin. T3-T5 also with such sculpture along hind margins; T6 with such sculpture all over. Apical tergites with a few inconspicuous setae. T6 hardly noticeable longer than wide.

C o m m e n t s . Somewhat similar to *S. magnussoni* BUHL, 2010, but that species has head distinctly reticulate, on frons strongly transversely so, fore wing with marginal cilia, and metasoma not longer than rest of body, 1.25 times as wide as high, with three distinct carinae on T1. *S. londiniense* BUHL, 2009 has head without a hyperoccipital carina and shorter flagellar segments than *S. johansonii*.

E t y m o l o g y . Named after Dr. Kjell Arne JOHANSON at the Swedish Malaise Trap Project.

***Synopeas kyrgyzstanicum* nov.sp. (fig. 46)**

M a t e r i a l e x a m i n e d . Holotype ♀: Kyrgyzstan, southern slopes of Küngöy-Ala-Too mountain range, N of western end of lake Ysyk Köl, south-north running valley North of the village Toru-Aygyr, 1903 m (42°36'80"N, 76°23'31"E), 22.viii.2003, swept in mountain creek with rich flowering vegetation, M. von Tschirnhaus leg. (ZMUC).

D i a g n o s i s . Head without hyperoccipital carina, 1.3 times as wide as mesosoma which is twice as long as wide, nearly 1.3 times as high as wide, without notauli; mid lobe of mesoscutum prolonged over base of scutellum which is distinctly below level of mesoscutum, with a very small tooth; female metasoma 1.3 times as long as rest of body, fully 2.5 times as long as wide.

D e s c r i p t i o n . ♀. Body length 1.45 mm. Black, antennae and legs including coxae dark brown; mandibles, base and apex of fore tibiae, basal half of mid and hind tibiae, and segments 1-4 of all tarsi light brown.

Head from above 2.2 times as wide as long, 1.3 times as wide as mesosoma, finely (not transversely) reticulate-coriaceous (meshes most distinct on occiput); hyperoccipital carina absent. LOL = 2.6 OOL. Head in frontal view 1.25 times as wide as high. Antenna with A1 0.75 times as long as height of head, 0.85 times as long as distance between inner orbits; A4 short, about equal to A5, very slightly longer than A3, only 0.55 times as long as A2; A9 about 1.2 times as wide as long.

Mesosoma 2.0 times as long as wide, almost 1.3 times as high as wide. Sides of pronotum finely reticulate-coriaceous (not longitudinally so), smooth in about lower third. Mesoscutum sparsely and evenly setose, finely and uniformly reticulate-coriaceous,

smooth only on the large, transverse, dark brown medial prolongation over base of scutellum; notauli absent; the two small scuto-scutellar grooves covered by dense, light setae. Mesopleuron smooth. Scutellum (fig. 46) distinctly below level of mesoscutum, not elevated along middle, smooth and almost bare dorsally, densely setose laterally; posteriorly low, dark, with a very small tooth, without lamella. Metapleuron smooth and bare in most of anterior half, rest with whitish pilosity. Propodeal carinae long, low, dark, very close together.

Fore wing 0.75 times as long as entire body, 2.7 times as long as wide, slightly surpassing tip of metasoma, clear, with fine and dense microtrichia; marginal cilia absent. Hind wing 5.4 times as long as wide; marginal cilia hardly 0.3 width of wing.

Metasoma 1.3 times as long as head and mesosoma combined, fully 2.5 times as long as wide, 1.15 times as wide as mesosoma, 1.6 times as wide as high. T2 smooth. T3-T6 combined 0.8 times as long as T2, reticulate-coriaceous over most of surface and with a few fine setae inserted in shallow punctures (four on T3, six on T4, eight on each of T5-T6); T6 as long as wide.

C o m m e n t s . Generally similar to *S. myles* (WALKER, 1835) but slightly larger, and *S. myles* has mid lobe of mesoscutum with a smaller prolongation postero-medially, not above level of scutellum which has a distinctly stronger tooth and is higher at hind margin. Furthermore, *S. myles* has distinct marginal cilia on fore wings, and metasoma only about 2.2-2.3 times as long as wide (German specimens of *S. myles* examined, cf. also VLUG (1985)).

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

***Synopeas ontariense* nov.sp. (figs 47-50)**

M a t e r i a l e x a m i n e d . Holotype ♀: Canada, Ontario, Wellington County, Rte. 35, 1.5 km S of Downey's, Downey Road between Guelph and Hamilton, 18.viii.1994, swept, M. von Tschirnhaus leg. (ZMUC) Paratype: 1 ♀ same data as holotype (ZMUC).

D i a g n o s i s . Head without hyperoccipital carina; female A9 1.33 times as long as wide; notauli indicated in posterior 0.75; scutellum with a small lamella-like tooth; propodeal carinae separated anteriorly and then rather strongly diverging; fore wing with marginal cilia 0.18 width of wing; female metasoma very slightly longer than rest of body, 1.2 times as wide as high; T1 2.4 times as long as wide, with two longitudinal carinae, moderately densely pubescent and clearly separated from T2.

D e s c r i p t i o n . ♀. Body length 1.2-1.3 mm. Head black, meso- and metasoma dark brown; A1-A4, mandibles and legs including coxae more or less light brown; tegulae, last segment of tarsi, and A7-A10 darker brown (A5-A6 intermediate in colour).

Head from above (fig. 47) 1.75 times as wide as long, 1.2 times as wide as mesosoma, without hyperoccipital carina (broadly rounded), finely reticulate-coriaceous, on occiput and on most of frons much transversely so (not along inner orbits, and in upper half only medially). OOL about half as long as LOL, one and a third times as long as lateral ocellus. Head in frontal view 1.2 times as wide as high. Antenna (fig. 48) with A1 about as long as height of head, 1.3 times as long as distance between inner orbits; A9 one and a third times as long as wide.

Mesosoma 1.6 times as long as wide, 1.1 times as high as wide. Sides of pronotum in upper 0.4 finely and slightly longitudinally reticulate-coriaceous, rest with weak longitudinal microsculpture, smooth only along narrow hind margin. Mesoscutum with few setae, concentrated along notaulic courses, just inside tegulae and along hind margin; disc finely and almost uniformly reticulate-coriaceous (only slightly longitudinally so); notauli finely indicated in hind 0.75 of their courses, absent anteriorly; mid lobe behind finely pointed, just touching base of scutellum; scuto-scutellar grooves wide, each with about five long setae. Mesopleuron smooth except for a very small area with weak longitudinal microsculpture just below tegula. Scutellum (fig. 49) smooth and bare on mid area, rather densely setose along sides, posteriorly with a small lamella-like translucent tooth. Metapleuron smooth, with adpressed whitish pilosity (sparse in anterior half). Propodeal carinae low, translucent, separated anteriorly and then rather strongly diverging; area between them hardly as long as its posterior width.

Fore wing surpassing tip of metasoma by a distance equal to half the length of metasoma, 0.95 times as long as entire body, 3.25 times as long as wide, almost clear, with dense and rather long microtrichia; marginal cilia 0.18 width of wing. Hind wing 7.0 times as long as wide; marginal cilia about half as long as width of wing.

Metasoma (fig. 50) hardly longer (36:35) to fully 1.1 times as long as head and mesosoma combined, wider than mesosoma (18:17), 1.2 times as wide as high. T1 clearly separated from T2, with two moderately strong longitudinal carinae, between them smooth and bare, laterally moderately densely pubescent, this pubescence continues in the two small basal foveae on T2, that tergite as well as apical tergites smooth (except for very faint microsculpture along narrow hind margins). T4-T6 with setae inserted in shallow punctures (four on T4, eight on T5, six on T6).

C o m m e n t s . A distinct species in the genus on account of shape of propodeal carinae; antennae, wings and conformation of metasoma also rather unusual in *Synopeas*. Aberrant from all Nearctic species of the genus; somewhat similar to *S. latvianum* BUHL, 2009 in aberrant characters, but *S. latvianum* has distinctly less slender flagellum and differently shaped (e.g. more pointed) metasoma.

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

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Author's address:

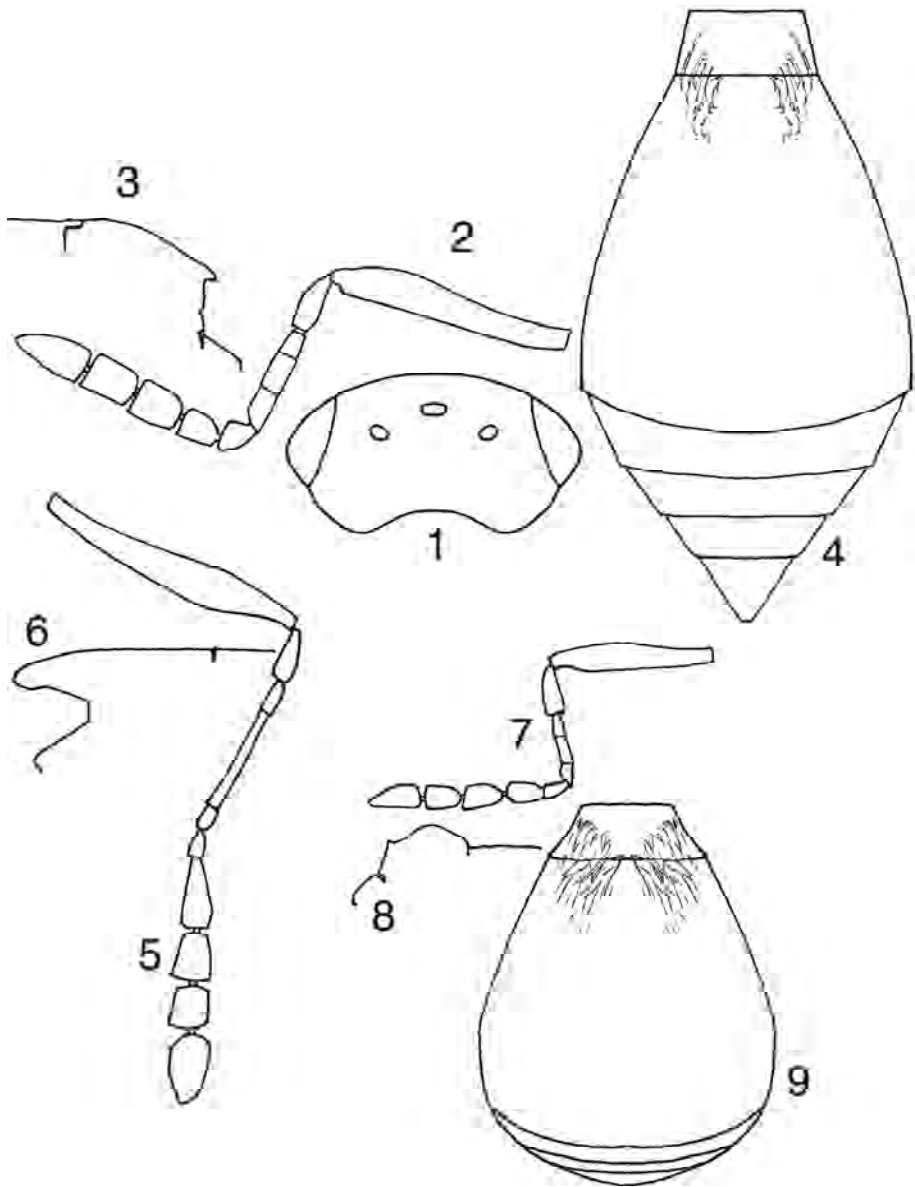
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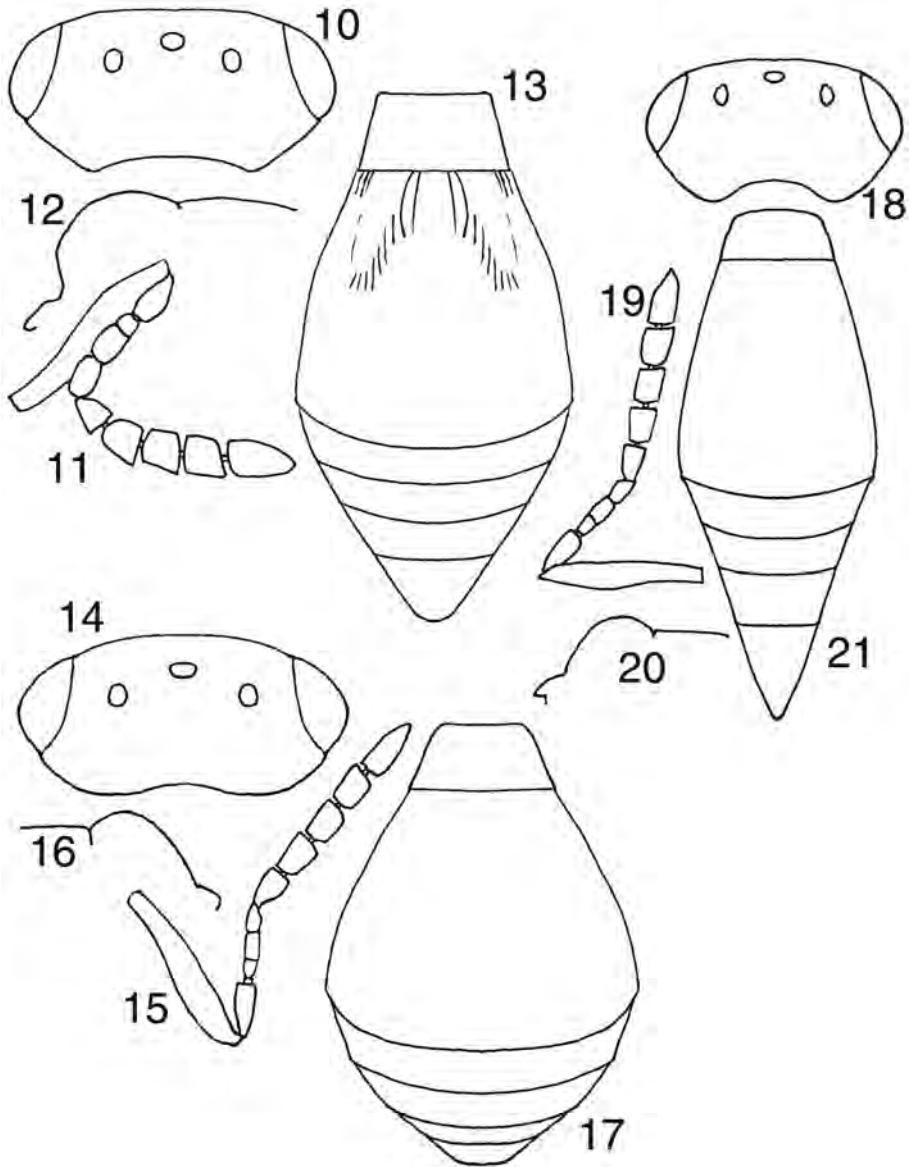
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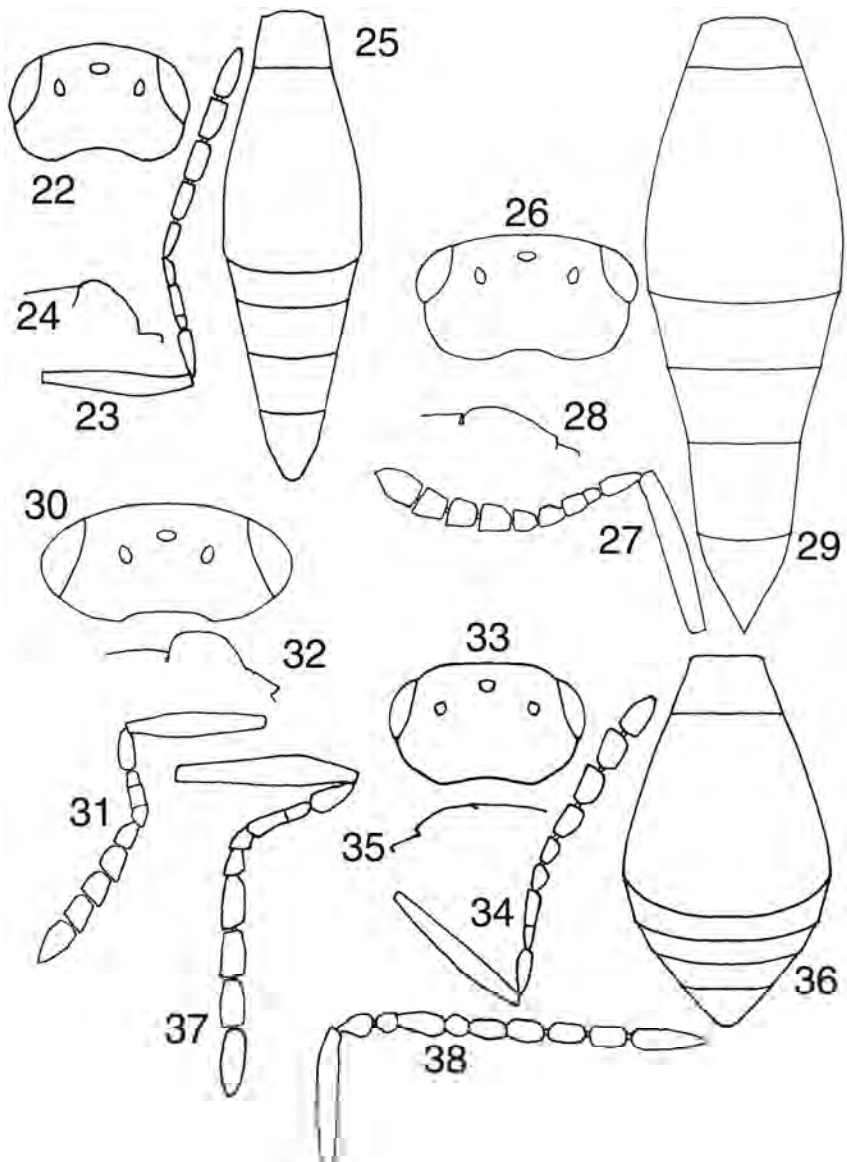
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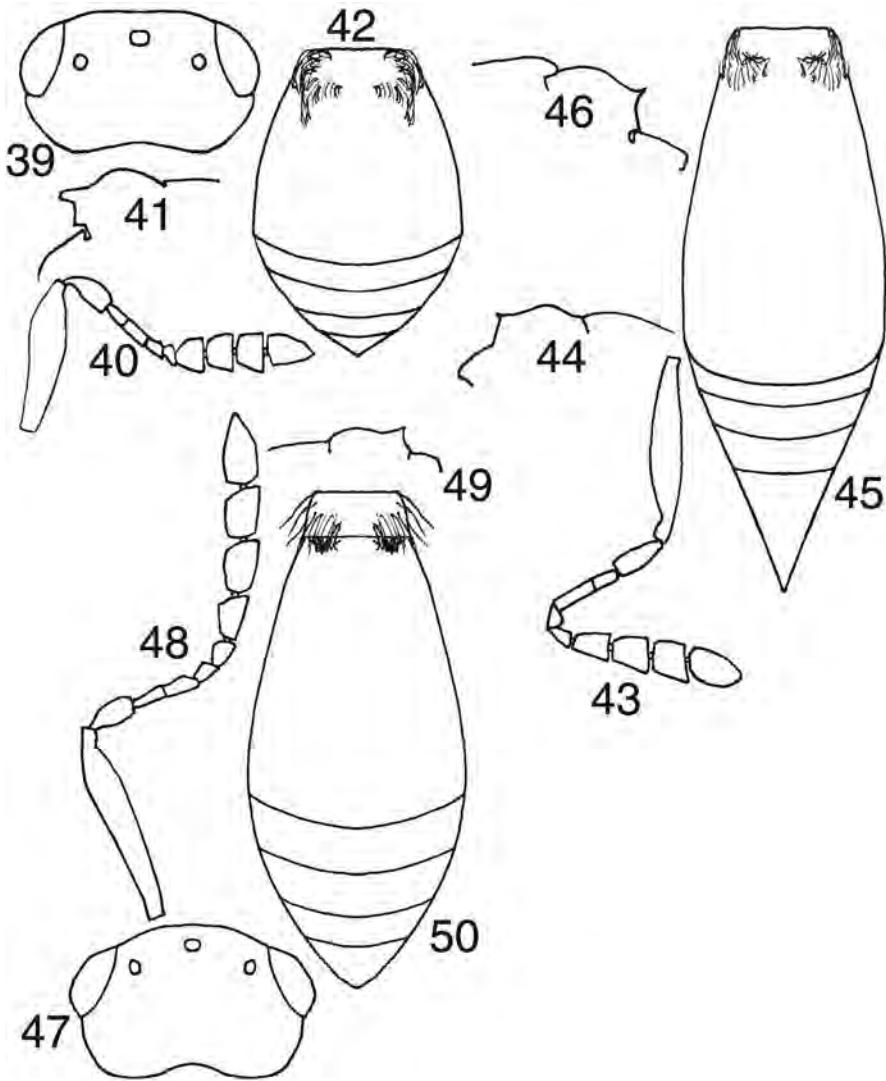
Figs 1-9: **Figs 1-4:** *Ceratacis grahami* nov.sp. female: (1) head, (2) antenna, (3) scutellum and propodeum, (4) metasoma. **Figs 5-6:** *Leptacis quebecensis* nov.sp. female: (5) antenna, (6) scutellum and propodeum. **Figs 7-9:** *Platygaster harteni* BUHL, 2008 female: (7) antenna, (8) scutellum, (9) metasoma.



Figs 10-21: **Figs 10-13:** *Platygaster laevifoveolata* nov.sp. female: (10) head, (11) antenna, (12) scutellum and propodeum, (13) metasoma. **Figs 14-17:** *Platygaster maritima* nov.sp. female: (14) head, (15) antenna, (16) scutellum and propodeum, (17) metasoma. **Figs 18-21:** *Platygaster omoeensis* nov.sp. female: (18) head, (19) antenna, (20) scutellum and propodeum, (21) metasoma.



Figs 22-25: *Platygaster pedicellata* nov.sp. female: (22) head, (23) antenna, (24) scutellum and propodeum, (25) metasoma. **Figs 26-29:** *Platygaster portneufensis* nov.sp. female: (26) head, (27) antenna, (28) scutellum and propodeum, (29) metasoma. **Figs 30-32:** *Platygaster reyi* BUHL, 2001 female: (30) head, (31) antenna, (32) scutellum and propodeum. **Figs 33-36:** *Platygaster subaptera* nov.sp. female: (33) head, (34) antenna, (35) scutellum and propodeum, (36) metasoma. **Figs 37-38:** *Pyrgaspis jordanica* nov.sp.: (37) female antenna, (38) male antenna.



Figs 39-50: **Figs 39-42:** *Synopeas corcyranum* nov.sp. female: (39) head, (40) antenna, (41) scutellum and propodeum, (42) metasoma. **Figs 43-45:** *Synopeas johansonii* nov.sp. female: (43) antenna, (44) scutellum and propodeum, (45) metasoma. **Fig. 46:** *Synopeas kyrgyzstanicum* nov.sp. female scutellum and propodeum. **Figs 47-50:** *Synopeas ontariense* nov.sp. female: (47) head, (48) antenna, (49) scutellum and propodeum, (50) metasoma.

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Maximilian SCHWARZ, Konsulent f. Wissenschaft der Oberösterreichischen Landesregierung, Eibenweg 6, A-4052 Ansfelden, E-Mail: maximilian.schwarz@liwest.at.

Redaktion: Erich DILLER, ZSM, Münchhausenstraße 21, D-81247 München;
Roland GERSTMEIER, Lehrstuhl f. Tierökologie, H.-C.-v.-Carlowitz-Pl. 2, D-85350 Freising
Fritz GUSENLEITNER, Lungitzerstr. 51, A-4222 St. Georgen/Gusen;
Wolfgang SPEIDEL, MWM, Tengstraße 33, D-80796 München;
Thomas WITT, Tengstraße 33, D-80796 München.

Adresse: Entomofauna, Redaktion und Schriftentausch c/o Museum Witt, Tengstr. 33, 80796 München, Deutschland, E-Mail: thomas@witt-thomas.com; Entomofauna, Redaktion c/o Fritz Gusenleitner, Lungitzerstr. 51, 4222 St. Georgen/Gusen, Austria, E-Mail: f.gusenleitner@landesmuseum.at