

Revision of some types of *Platygastriinae* described by A. FÖRSTER (Hymenoptera, *Platygastriidae*)

Peter Neerup BUHL

Abstract

FÖRSTER's types of *Amblyaspis walkeri*, *Synopeas melampus*, *S. rigidicornis*, *S. prospectus*, *Sactogaster curvicauda*, and *S. subaequalis* are redescribed. *Synopeas melampus* and *S. rigidicornis* are transferred back to *Synopeas* from *Leptacis*, placed there by H. J. VLUG in 1973. *Sactogaster longicauda* and *S. pisi* are proposed as new synonyms for *Sactogaster curvicauda*. *Synopeas melampus* sensu KOZLOV is given the new name *S. sculpturatus*.

Key words: *Platygastriidae*, taxonomy, redescrptions, types, synonymies, new names.

Introduction

The platygastrid types of Arnold FÖRSTER, deposited in the „Naturhistorisches Museum“ in Vienna, were designated and commented upon by VLUG (1973). However, FÖRSTER's very short and inadequate original descriptions also make a redescription of his types necessary. Recently, the types belonging to genus *Platygaster* were redescribed by BUHL(1996). The remaining species described by FÖRSTER (1856, 1861) are revised below, except *Monocrita affinis* FÖRSTER, 1861, *M. monheimi* FÖRSTER, 1861 and *Synopeas nigriscapis* FÖRSTER, 1861.

Redescriptions and comments

Amblyaspis walkeri FÖRSTER, 1861 (Figs 1-4)

Lectotype ♀: Body length 1.5 mm. Colour blackish; scape and legs yellowish; mandibles and coxae reddish.

Head in dorsal view (fig. 1) 1.9 times wider than long, slightly broader than thorax (15:14), with occipital carina. Occiput reticulate and with vertical striation; vertex and frons with faint reticulation, frons medially smooth. Head in frontal view almost 1.2 times wider than high; malar space about one-third the height of an eye; OOL:POL:LOL = 11:10:5. Antenna (fig. 2) with A8 and A9 hardly as long as wide.

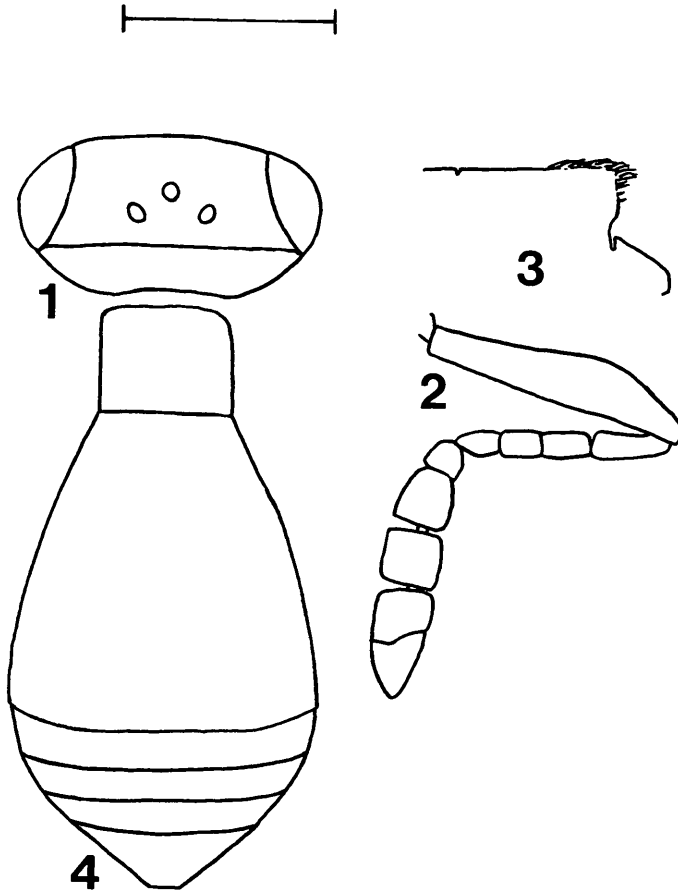
Mesosoma 1.5 times longer than wide and higher than wide (8:7). Sides of pronotum weakly reticulate, almost smooth in lower third and along hind margin, with a few hairs. Mesoscutum evenly reticulate, almost bare except for two complete rows of hairs along imaginary notauli; hind margin neither prolonged nor semitransparent. Mesopleurae smooth. Scutellum (fig. 3) dull and hairy all over, with a rather large and dense tuft posteriorly. Metapleurae with pilosity all over. Propodeal carinae well separated, slightly converging, area in between smooth and shiny.

Fore wing 2.4 times longer than wide, almost clear, whitish, almost as long as whole body (14:15); marginal cilia about 0.1 times the width of wing. Hind wing almost 7.1 times longer than wide; marginal cilia hardly 0.5 times the width of wing.

Metasoma (fig. 4) almost as long as head and mesosoma combined (7:8), as wide as head. T1 with two longitudinal keels close to each other, hairy laterally. T2 with hairy basal foveae, rest smooth. T3-T6 with very fine and dense punctation and some hairs.

Lectotype female designated by VLUG (1973). Type-locality: Rosegg Valley, near Pontresina (Upper Engadine, Switzerland).

This species seems to be close to *A. roboris* (WALKER, 1835), but *A. roboris* has head 2.2 times wider than long and ocelli triangle different, cf. description in VLUG (1985).



Figs 1-4. *Amblyaspis walkeri* FÖRSTER lectotype ♀: (1) Head in dorsal view, (2) Antenna, (3) Scutellum in lateral view, (4) Metasoma in dorsal view. Scale bar = 0.25 mm.

Synopeas melampus FÖRSTER, 1861 (Figs 5-8)

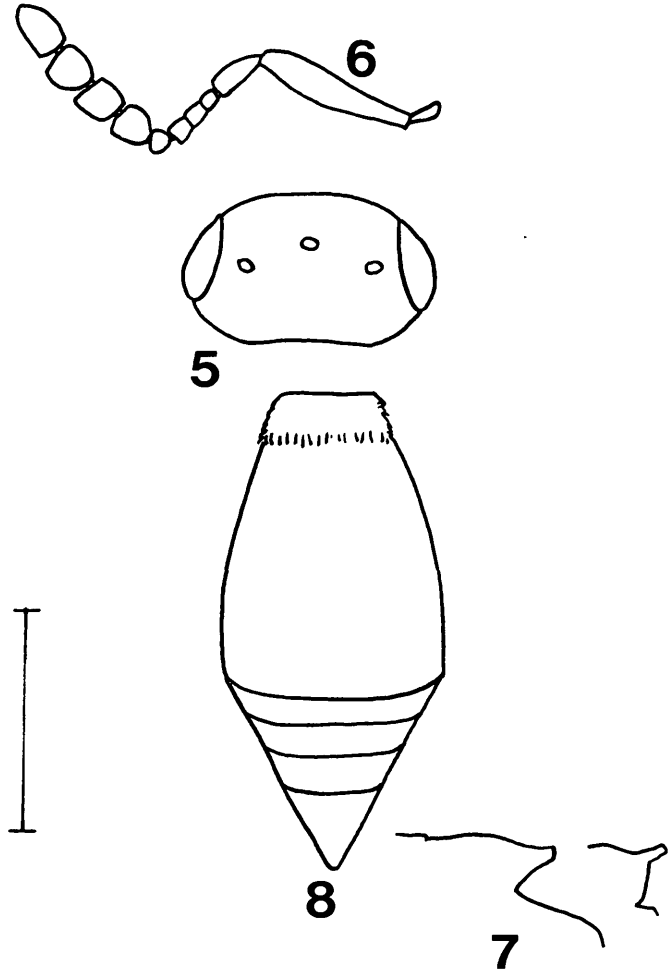
Lectotype ♀: Body length 1.1 mm. Colour black; antennae, mandibles and legs dark brown, segments 1-4 of all tarsi slightly lighter.

Head with dense reticulate sculpture, in dorsal view (fig. 5) 1.7 times wider than long, one and a third times wider than thorax, without occipital carina. Head from in front one and a third times wider than high; malar space one-third the height of an eye; OOL:POL:LOL= 3:20:9. Antenna (fig. 6) with A3-A5 almost equal, each hardly longer than wide; flagellar pubescence about 0.4 times the width of segments.

Mesosoma twice as long as wide and about 1.2 times higher than wide. Sides of pronotum with rather sparse hairs in upper half and along hind margin, and with weak reticulation in upper half, posteriorly and ventrally smooth. Mesoscutum dull reticulate-coriaceous, with sparse hairs, notauli hardly indicated posteriorly; hind margin medially slightly prolonged and smooth. Mesopleurae smooth. Scutellum (fig. 7) in dorsal view almost smooth and bare medially, hairy laterally, at level of mesoscutum. Metapleurae smooth and bare in anterior half. Propodeal carinae long and fused.

Fore wing shorter than whole body (20:23), almost clear, about three times longer than wide; marginal cilia at their longest slightly more than 0.1 times the width of wing. Hind wing six times longer than wide; marginal cilia fully two-fifths the width of wing.

Figs 5-8. *Synopeas melampus* FÖRST.
lectotype ♀: (5) Head in dorsal view, (6) Antenna, (7) To the right: Scutellum in lateral view. To the left: Same of paralectotype, (8) Metasoma in dorsal view.
Scale bar = 0.25 mm.



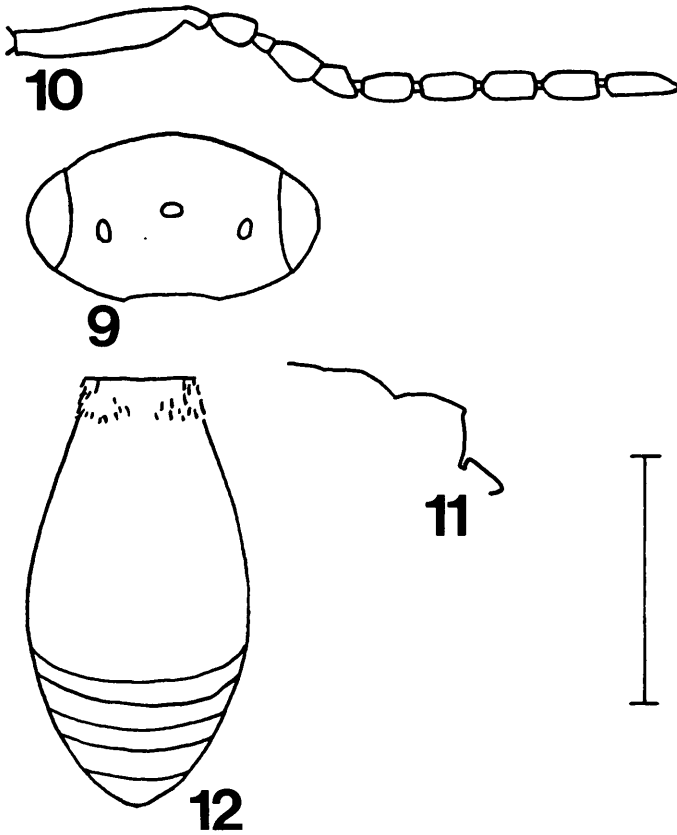
Metasoma (fig. 8) 1.2 times longer and wider (10 : 9) than mesosoma, one and a third times wider than high. Junction of T1 and T2 densely pubescent, rest of T2 smooth; T3-T6 with fine microsculpture and some hairs.

Allotype ♂: Antenna with A2 slightly longer than A3 and A4 combined, A3 very small, A5 about as long as A3 and A4 combined, A7-A9 about equal, each about 1.5 times longer than wide. Metasoma not longer than mesosoma. Otherwise much as ♀.

Lectotype female designated by VLUG (1973). Type-locality: Rosegg Valley, near Pontresina (Upper Engadine, Switzerland).

This species was wrongly transferred to the genus *Leptacis* FÖRSTER, 1856 by VLUG (1973). It seems to be very similar to *S. myles* (WALKER, 1835), cf. description of this species in VLUG (1985). According to VLUG (1973), the female mounted on the same piece of pith as the lectotype of *S. melampus* does not belong to the same species. This is incorrect - the two specimens are very similar except in shape of scutellum (fig. 7). The other female is hereby designated as paralectotype.

The species mentioned as *S. melampus* FÖRSTER by KOZLOV (1978) is in fact a new species, differing from the true *melampus* e.g. in having T2 with distinct reticulate sculpture over half of length, mesopleurae with longitudinal striations in upper third and with reticulate sculpture and longitudinal



Figs 9-12: *Synopeas rigidicornis* FÖRST. holotype ♂: (9) Head in dorsal view, (10) Antenna, (11) Scutellum in lateral view, (12) Metasoma in dorsal view. Scale bar = 0.25 mm.

carina in lower third, mesoscutum with very distinct traces of notauli, and in having scutellum differently shaped, cf. KOZLOV (1978). KOZLOV had evidently not seen the *S. melampus* types. *S. melampus* FÖRSTER sensu KOZLOV, 1978 is hereby given the new name *Synopeas sculpturatus* nom. n.

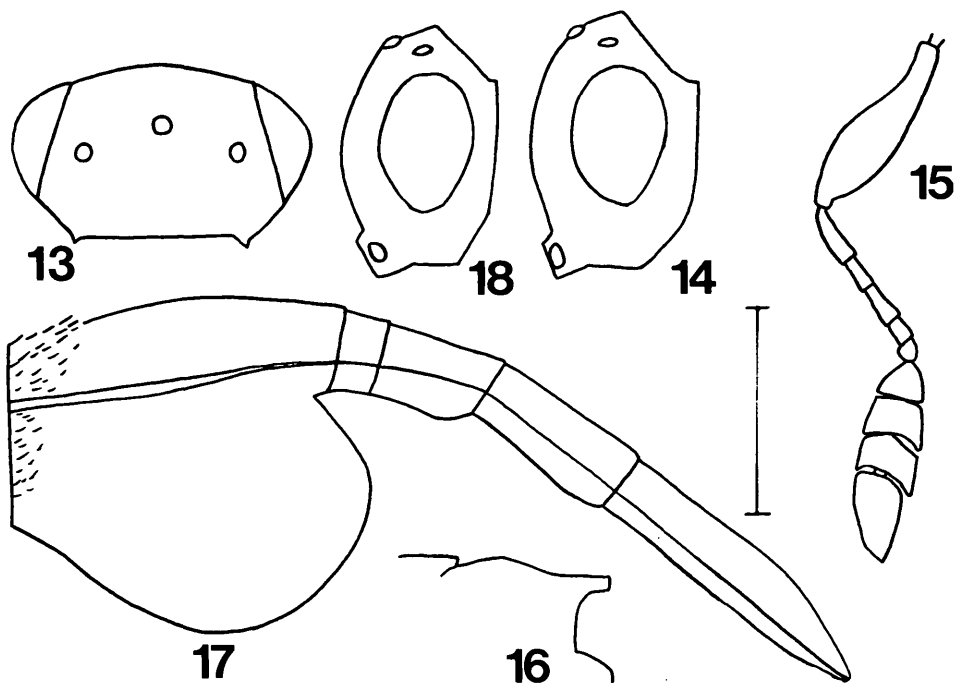
Synopeas rigidicornis FÖRSTER, 1861 (Figs 9-12)

Holotype ♂: Body length hardly 1.0 mm. Colour blackish; antennae, mandibles and legs dark brown; trochanters, both ends of tibiae and segments 1-4 of all tarsi lighter.

Head shiny, rather evenly reticulate, in dorsal view (fig. 9) 1.75 times wider than long, about 1.1 times wider than thorax, without occipital carina. Head in frontal view 1.2 times wider than high; malar space one-fourth the height of an eye; OOL:POL:LOL = 4:21:9. Antenna (fig. 10) with flagellar pubescence about 0.8 times the width of segments.

Mesosoma one and a third times longer than wide and 1.1 times higher than wide. Sides of pronotum reticulate and with sparse hairs, smooth and bare in lower fourth. Mesoscutum weakly reticulate-coriaceous and with sparse hairs, with faint traces of incomplete notauli; hind margin medially prolonged, smooth and swollen; scuto-scutellar grooves very hairy. Mesopleurae smooth except for a few wrinkles just below tegulae. Scutellum (fig. 11) below level of mesoscutum, in dorsal view bare and almost smooth in anterior half, densely hairy in posterior half, with a very small tubercle posteriorly. Metapleurae and sides of propodeum smooth and bare in anterior third, rest with dense pilosity. Propodeal carinae short and fused.

Fore wing hardly shorter than whole body, almost clear, almost 2.7 times longer than wide; marginal cilia very short. Hind wing 6.5 times longer than wide; marginal cilia 0.4 times the width of wing.



Figs 13-18. *Synopeas (Sactogaster) curvicauda* (FÖRSTER) lectotype ♀: (13) Head in dorsal view, (14) Head in lateral view, (15) Antenna, (16) Scutellum in lateral view, (17) Metasoma in lateral view, (18) Head, in lateral view, of *Synopeas (Sactogaster) pisi* (FÖRSTER) lectotype ♀. Scale bar = 0.25 mm.

Metasoma (fig. 12) one and a quarter times longer than mesosoma and hardly 0.9 times as wide as this. Junction of T1 and T2 with white pubescence, rest of T2 smooth and bare; T3-T7 with fine microsculpture and some transverse rows of fine hairs.

Holotype male designated by VLUG (1973). Type-locality: Rosegg Valley, near Pontresina (Upper Engadine, Switzerland).

This species was incorrectly transferred to genus *Leptacis* FÖRSTER, 1856 by VLUG (1973).

Synopeas (Sactogaster) curvicauda (FÖRSTER, 1856) (Figs 13-18)

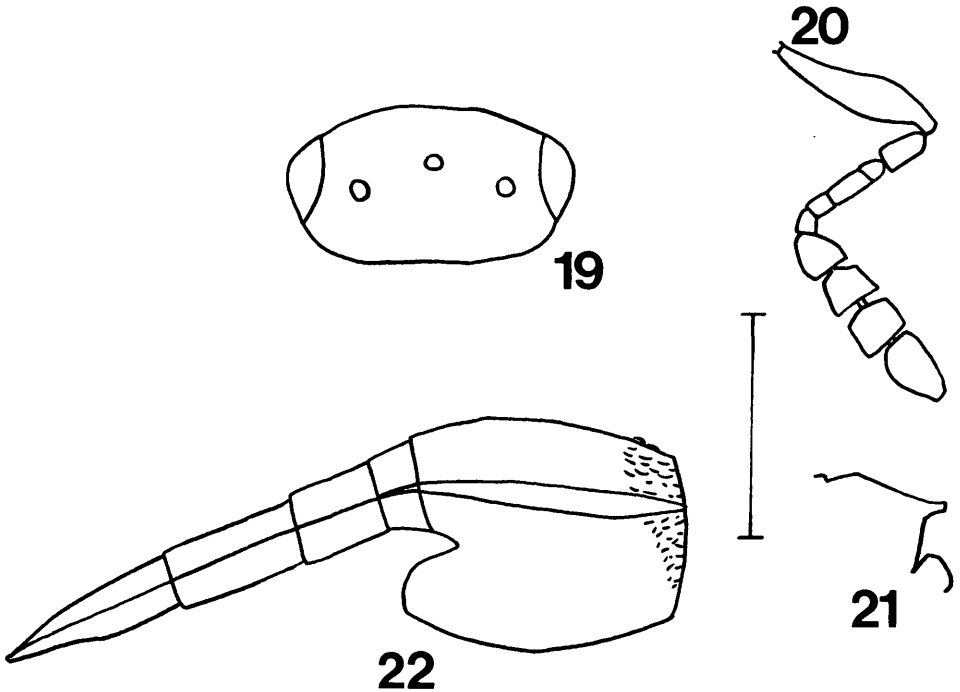
= *Synopeas (Sactogaster) longicauda* (FÖRSTER, 1856), syn. n.

= *Synopeas (Sactogaster) pisi* (FÖRSTER, 1856), syn. n.

Lectotype ♀: Body length 1.6 mm. Colour blackish brown; scape and legs except last segment of tarsi light brown; A2-A6, mandibles and coxae darker.

Head dull, evenly reticulate, in dorsal view (fig. 13) 1.9 times wider than long, slightly wider than thorax (15:14), vertex in lateral view (fig. 14) angled, but without carina. Head in frontal view almost 1.2 times wider than high; malar space fully one-third the height of an eye; OOL:POL:LOL = 5:27:13. Antenna (fig. 15) with A4 slightly longer than A3, A5 slightly longer than A6.

Mesosoma 1.5 times longer than wide and higher than wide (8:7). Sides of pronotum reticulate and moderately hairy, smooth and bare in lower third, smooth and with a row of hairs along hind margin. Mesoscutum dull, evenly reticulate-coriaceous, rather sparsely hairy; notauli weak, fading out medially; mid lobe slightly prolonged and semitransparent posteriorly; scuto-scutellar grooves wide, smooth, each covered by about six long hairs. Mesopleurae smooth. Scutellum (fig. 16) at level of mesoscutum, rather densely hairy all over, not semitransparent posteriorly. Metapleurae with white pilosity all over. Propodeal carinae short and fused.



Figs 19-22. *Synopeas (Sactogaster) subaequalis* (FÖRST.) holotype ♀: (19) Head in dorsal view, (20) Antenna, (21) Scutellum in lateral view, (22) Metasoma in lateral view. Scale bar = 0.25 mm.

Fore wing almost clear, whitish, shorter than whole body (25:32), 2.8 times longer than wide; marginal cilia absent. Hind wing 6.0 times longer than wide; marginal cilia one-fourth the width of wing. Metasoma (fig. 17) 1.6 times longer than head and mesosoma combined, narrower than thorax (6:7), and 1.4 times higher than wide. T2 smooth, with weak microsculpture in posterior one-fourth; T3-T6 with microsculpture except along anterior and posterior margins. T3 four times, T4 1.2 times wider basally than long; T5 two, T6 three times longer than wide; T3-T6 hardly hairy.

Variability: The paralectotype of *S. curvicauda* is somewhat darker and smaller (1.4 mm) than the lectotype. Metasoma of lectotype of *S. pisi* is light reddish-brown.

Female lectotypes of *S. curvicauda*, *S. longicauda* and *S. pisi* designated by VLUG (1973). Type-locality: Germany (for *S. pisi*: Krefeld, Germany).

The types of *S. curvicauda*, *S. longicauda* and *S. pisi* are very similar and evidently conspecific; the characters separating the species mentioned by FÖRSTER (1856) are non-existent: T3-T6 should be less curved on *S. longicauda* than on *S. curvicauda*, but these segments are highly movable on living specimens and their position on dead ones thus just a matter of chance; *S. pisi* should have a sharp carina separating vertex from occiput, on *S. longicauda* this carina should be wanting, but in fact *S. pisi* is without a carina, the head is just angled (fig. 18), exactly as in *S. longicauda* and in *S. curvicauda* (fig. 14). According to FÖRSTER (1856) A5 is shorter than A6 on *S. pisi*, in fact A5 is slightly longer than A6, exactly as in *S. curvicauda* described above.

KOZLOV (1978) indicated that *S. (S.) curvicauda* should be conspecific with *S. (S.) tarsa* (WALKER, 1835), but the two species are very different, e.g. sternite 2 is much less convex, T4-T6 are shorter, and scutellum is different in *S. tarsa*, cf. description of *S. tarsa* in VLUG (1985).

The male allolectotype of *S. pisi* designated by VLUG (1973) is a *Synopeas melampus* ♂. It is very different from the male of *S. pisi* described by KIEFFER (1926).

Synopeas (Sactogaster) subaequalis (FÖRSTER, 1856) (Figs 19-22)

Holotype ♀: Body length 1.3 mm. Colour dark brown, head black; antennae, mandibles and legs light brown.

Head strongly reticulate, in dorsal view (fig. 19) twice as wide as long, about 1.2 times wider than thorax, without occipital carina, but vertex somewhat angled. Head in frontal view very slightly wider than high; malar space about one-third the height of an eye; OOL:POL:LOL = 5:24:11. Antenna (fig. 20).

Mesosoma almost 1.5 times longer than wide and about one and a quarter times higher than wide. Sides of pronotum rather strongly reticulate-coriaceous except along hind and lower margins, with some hairs. Mesoscutum as evenly sculptured as sides of pronotum, with sparse hairs; notauli weakly indicated in about posterior half; mid lobe slightly prolonged posteriorly. Mesopleurae with longitudinal striation in upper half. Scutellum (fig. 21) densely hairy, weakly semitransparent posteriorly. Metapleurae with pilosity all over. Propodeal carinae very short and fused.

Fore wing shorter than whole body (42:53), 2.7 times longer than wide, almost clear, whitish; marginal cilia absent. Hind wing 6.3 times longer than wide; marginal cilia one-fourth the width of wing.

Metasoma (fig. 22) 1.5 times longer than head and mesosoma combined, narrower than thorax (10:11), and 1.1 times higher than wide. T2 almost smooth; T3-T6 entirely covered by sculpture similar to that on mesoscutum, with a few hairs. T3 4.5 times, T4 1.5 times wider basally than long; T5 1.5 times longer than wide at base; T6 two and a quarter times longer than wide at base.

Holotype female designated by VLUG (1973). Type-locality: Germany.

The female mounted on the same piece of pith as the two *S. (S.) longicauda*-types (cf. VLUG, 1973) is a specimen of *S. (S.) subaequalis*.

Synopeas nigriscapis FÖRSTER, 1861

The unique holotype male of this species was reported in good condition by VLUG (1973) but is now missing from the pin and lost.

Synopeas prospectus FÖRSTER, 1861 (Figs 23-26)

Lectotype ♀: Body length 1.3 mm. Colour black; antennae dark brown; mandibles and legs except last segment of tarsi brown; tibiae and segments 1-4 of tarsi light brown.

Head evenly reticulate, in dorsal view (fig. 23) 1.7 times wider than long, about as wide as thorax, without occipital carina. Head in frontal view 1.2 times wider than high; malar space about one-third the height of an eye; OOL:POL:LOL = 3:9:4. Antenna (fig. 24).

Mesosoma 1.3 times longer than wide and 1.1 times higher than wide. Sides of pronotum reticulate and moderately hairy, in lower fourth almost smooth and bare. Mesoscutum evenly reticulate-coriaceous and evenly and moderately hairy, hind margin medially swollen, prolonged and smooth. Mesopleurae smooth. Scutellum (fig. 25) below level of mesoscutum, in dorsal view smooth and bare medially, hairy laterally. Metapleurae with white pilosity all over. Propodeal carinae short and fused.

Fore wing almost clear, whitish, shorter than whole body (9:11), 2.7 times longer than wide; marginal cilia absent. Hind wing about 5.8 times longer than wide; marginal cilia 0.3 times the width of wing.

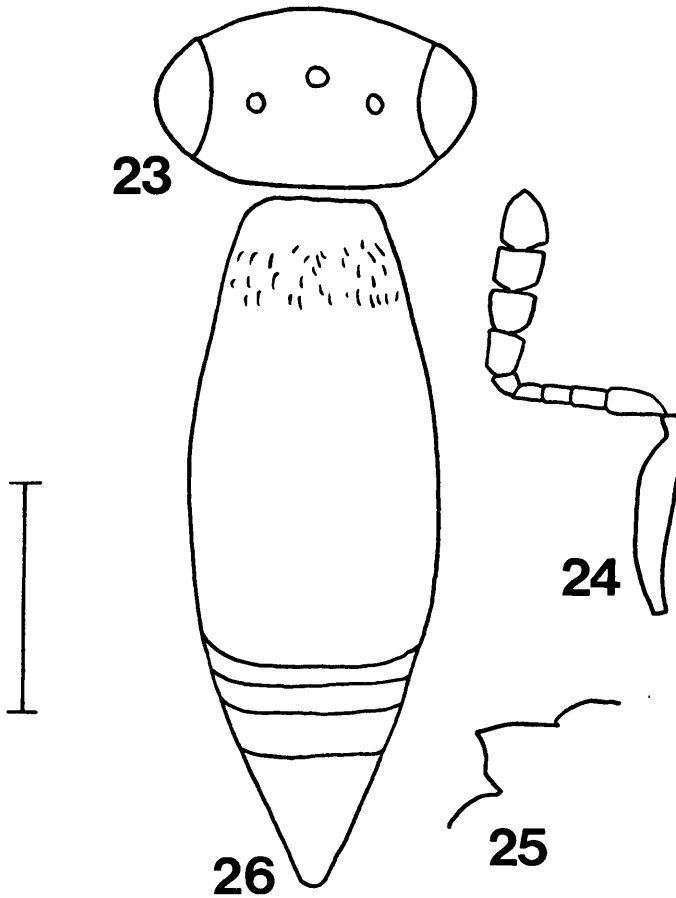
Metasoma (fig. 26) longer than head and mesosoma combined (31:24), 0.8 times as wide as mesosoma, and strongly convex, 1.2 times higher than wide. Junction of T1 and T2 with white pilosity; T2 smooth except for a faint transverse stripe of microsculpture in front of hind margin; T3-T5 each with a transverse stripe of microsculpture; T6 with more extensive microsculpture; T3-T6 almost bare.

Lectotype female designated by VLUG (1973). Type-locality: Rosegg Valley, near Pontresina (Upper Engadine, Switzerland).

Very similar to *S. hyllus* (WALKER, 1835), cf. description of this species in VLUG (1985).

Acknowledgements

I owe my sincere thanks to Dr. Stefan Schödl (Vienna), who generously lent me Förster's types, and to Dr. Niels Peder Kristensen (Copenhagen), who acted as my trustee.



Figs 23-26: *Synopeas prospectus* FÖRST. lectotype ♀: (23) Head in dorsal view, (24) Antenna, (25) Scutellum in lateral view, (26) Metasoma in dorsal view. Scale bar = 0.25 mm.

Zusammenfassung

Einige der von A. FÖRSTER beschriebenen Typen von Platygastrinae werden wiederbeschrieben und abgebildet: *Amblyaspis walkeri*, *Synopeas melampus*, *S. rigidicornis*, *S. prospectus*, *Sactogaster curvicauda* und *S. subaequalis*. *S. melampus* und *S. rigidicornis* gehören nicht zu *Leptacis*, wie von H. J. VLUG behauptet (1973). *S. sculpturatus* ist ein nomen novum für *S. melampus* sensu KOZLOV, 1978.

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Author's address: Peter Neerup BUHL, Parmagade 36, st. tv., DK-2300 Copenhagen S, Denmark.

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