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A REVISION OF WESTERN PALAEARCTIC OXYTORINE GENERA. PART VI. (HYMENOPTERA, ICHNEUMONIDAE)

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Introduction

A taxonomic guide and a key to the genera of the Oxytorinae was given by Townes (1971). A generic key to the Palaearctic Oxytorinae was published by Van Rossem (1982). Almost all the type-species of the genera are specified by Townes (1971). This part of the revision of western European Oxytorinae includes a survey of the genus *Hemiphanes* Förster together with the record of three new species, viz., *H. hortense*, *H. inusitatum* and *H. montanum*.

The genus *Apoclima* Förster is re-introduced with the description of one new species, *A. haeselbarthi*.

One new species of *Pantisarthrus* Förster is described, *P. gracilis*.

The Förster (1871) and Thomson (1888) type material of the genus *Plectiscidea* Viereck was studied. Two new subgenera, *Plectiscidea* and *Fugatrix*, are introduced and five new species, *P. indomita*, *P. foersteri*, *P. substantiva*, *P. blandita* and *P. ventosa* are proposed. *Plectiscidea nemorensis* is a nomen novum for *Ephalmator subsimilis* Van Rossem. The *Plectiscidea* species described from males by Förster l.c. are regarded as species inquirendae, for at present it is impossible to find the matching females.

The name *Gnathochorisis* Förster, 1869, takes priority over *Laepserus* Förster, 1869. *Gnathochorisis crassulus* (Thomson), that was presumed (Van Rossem, 1980) to be a colour from of *Gnathochorisis dentifer* (Thomson), is now considered to be a separate species.

A new approach to the genus *Eusterinx* Förster is presented with the recognition of six new subgenera.

Of the genus *Helictes* Haliday a revision of the type material, males only, is published, including two newly described species, *H. incongruens* and *H. fabularis*. At present the recognition of the females is not possible.

The name of the genus *Phosphorus* Van Rossem, 1980, is preoccupied. It is proposed to replace it by *Phosphoriana* nomen novum.

A new species is introduced in the genus *Proeliator* Van Rossem: *P. invictus*.

Of the genera *Oxytorus*, *Cylloceria* and *Megastylus* type material has become available, which allowed me to make some remarks.

Materials and methods

All observations were made with a Zeiss binocular compound microscope. The length of the front wing was measured with the ocular micrometer at 10 X enlargement. The length of the ovipositor was taken from the apex of the gaster.

For the terms used, see Townes (1969: 36—48).

Acknowledgements

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Genus **Hemiphanes** Förster

Hemiphanes Förster, 1871: 101—102.
Hemiphanes; Townes, 1971: 184—185.
Hemiphanes; Van Rossem, 1980: 85—88.

The species described below include three hitherto unknown. I regret that I have only one specimen of each, two of them in rather poor condition. I consider the gender of *Hemiphanes* to be neuter.

Key to *Hemiphanes* males
(The male of *H. montanum* is unknown)

1. Hind aspect of head deeply concave 2
— Hind aspect of head not concave 3
2. Tyloids on flagellar segments 9—12. Occipital carina interrupted. Postpetiole striate ... . *H. gravator* Förster
— No tyloids present. Occipital carina not present. First tergite with different longitudinal sculpture ... *H. hortense* spec. nov.
3. Postanellus conspicuously stout, 3.0 times as long as apical width. No tyloids present ..... *H. inusitatum* spec. nov.
— Postanellus not stout, 5.0—7.6 times as long as apical width 4
4. No tyloids present. Nervulus opposite basal vein ..... *H. townesi* Van Rossem
— Tyloids on flagellar segments 9—10 (or 9—11), running over the whole length of the segment. Nervulus slightly basally of basal vein ..... *H. flavipes* Förster

Key to *Hemiphanes* females
(The females of *H. gravator*, *H. hortense* and *H. inusitatum* are unknown)

1. Apical margin of clypeus with a deep median semicircular notch. Upper and lower teeth of mandible equal in length .... *H. montanum* spec. nov.
— Apical margin of clypeus only weakly indented. Lower tooth of mandible shorter than upper 2
2. Lateral lobes of mesoscutum with close adpressed hairs. Gaster more fuscous, with yellowish spots medially on tergites two and three ..... *H. townesi* Van Rossem
— Lateral lobes of mesoscutum hairless except for some hairs proximally and laterally. The gaster from tergite three yellow .... *H. flavipes* Förster

Hemiphanes flavipes Förster

Hemiphanes flavipes Förster, 1871: 101.
Hemiphanes flavipes; Van Rossem, 1980: 86.

Characteristics of the male: Front wing 4.5—5.3 mm. Mandible yellow, lower tooth shorter than the upper. Clypeus yellow, margin truncate. Anterior tentorial pits open. Antenna long, reaching length of body, scape rather swollen, pedicel large, yellow. Tyloids on flagellar segments 9—11. Postannellus 5.2—6.0 times as long as apical width. Apical corners of prothorax and tegulae yellow. Front parts of notauli deep. Median lobe of mesoscutum with adpressed hairs, lateral lobes polished. Epomia present. Apex of scutellum with some rough sculpture. Propodeum with apical transverse carina strong. Basal transverse carina absent. Median longitudinal carinae present. Front wing without areolet. Nervelus placed basally of basal vein. Nervellus about vertical, intercepted low, discoidella present. Legs, including coxae, yellow, hind coxae comparatively large. Hind femur 5.0—5.7 times as long as wide in the middle, rather short and slender. First gastral segment wide towards apex, end of first sternite and spiracles situated in the middle.

Characteristics of the female: Front wing 5.4—6.0 mm. Clypeus 2.0 times as wide as long. Postanellus 8.0 times as long as apical width. Gena, temple and vertex polished. Occipital carina closed. Pronotum for the greater part polished, epomia weak, with some parallel running ridges. Notauli running beyond centre of mesoscutum. Mesopleurum polished, prepectal cari-

na reaching subtegular ridge. Lateral parts of first tergite with longitudinal striation and with some continuation on tergite two. Following tergites polished. Ovipositor slightly protruding beyond tip of gaster. Gaster rather depressed towards apical part. Otherwise as the male.

Distribution. — Germany. Sweden up to Lapland (Van Rossem, 1980).

Hemiphanes gravator Förster

Hemiphanes gravator Förster, 1871: 102.
Hemiphanes gravator; Van Rossem, 1980: 86.

The female is unknown.

Characteristics of the male: Front wing 4.0—5.0 mm. Mandible yellow, the lower tooth shorter and narrower than upper. Apical margin of clypeus yellow, truncate. Anterior tentorial pits open. Face rather protuberant below the antennal base (more than in *H. flavipes*). Hind aspect of head deeply concave. Occipital carina interrupted. Scape ventrally yellow. Postannellus 5.0—6.0 times as long as apical width. Tyloids situated on flagellar segments 9—12. Notauli present. Scutellum flat, closely punctured. Wing without areolet. Nervulus somewhat distally of basal vein. Legs, including coxae, yellow. Hind femur 4.7—6.0 times as long as wide. Propodeum with only apical transverse carina present, more smoothly sculptured than in *H. flavipes*. First gastral segment wide towards apex, postpetiole striate, with yellow spot. Sternite in front of the middle. Second tergite striate, with brown spots laterally.

Distribution. — Austria. Germany. Sweden (Van Rossem, 1980).

Hemiphanes townesi Van Rossem

Hemiphanes townesi Van Rossem, 1980: 86—87.

Characteristics of the male: Front wing about 5.8 mm. Mandible whitish, teeth brown. The lower tooth about 0.5 times shorter than upper. Clypeus about 2.4 times as wide as long, whitish to brownish, convex, margin truncate. No groove between clypeus and face. Face below antennal sockets closely punctured, with adpressed long, silvery hairs. Malar space wide, about 1.5 times the width of mandibular base, polished. Scape globular, pedicel large, whitish to brownish. Postannellus slender, about 8.0 times as long as apical width. Antenna without tyloids. Frons, vertex, temple and gena polished. Frons not concave. Pronotum polished, epomia present. Mesoscutum with close adpressed hairs. Scutellum punctured, apex with rough sculpture. Propodeum with irregular sculpture, the median longitudinal and lateral longitudinal carinae proximally obliterated. Apical transverse carina strong, medially developed into a keel, lying near to apex of propodeum. The minute propodeal spiracles circular. Dorsal rim of metanotum with a triangular projection, lying opposite the front end of lateral longitudinal carina. Mesopleurum polished, prepectal carina present. Front wing without areolet. Nervulus lying slightly distally of basal vein. Nervellus intercepted low, the discoidella running almost to wing margin. Coxae and legs whitish to light brown. First tergite with rough sculpture, spiracles at 0.40 of the length, end of first sternite at 0.30 of the length of the segment. Front half of second tergite with longitudinal striation and coriaceous sculpture. Apical half with weak striation and a median yellow brown spot. Following tergites more polished. Third and fourth tergite with yellow brown area. Apical part of gaster depressed.

Characteristics of the female: Front wing about 4.5 mm. Otherwise as the male. First tergite with close longgitudinal striation. Ovipositor not protruding beyond tip of gaster.

Distribution. — China, Shaowu Hsien, 1200—1500 m altitude (coll. Townes).

Hemiphanes hortense species nova

Characteristics of the holotype (♂, Netherlands, Asperen (Prov. Zuid-Holland), 8.vi.1973, leg. and coll. C. J. Zwakhals): Front wing 2.8 mm. Head fuscous. Mandible yellowish brown, the lower tooth slightly the longer. Clypeus flat, rather protruding, the margin truncate. Clypeus and face, frons, vertex and gena coriaceous. Hind aspect of head deeply concave (seen from dorsal side V-shaped), occipital carina absent, lower part of genal carina present. Postannellus as long as second flagellar segment, slender. No tyloids present. Epomia absent. Notauli strong to about middle of mesoscutum. Mesoscutum, scutellum, and propodeum coriaceous. Propodeum with only apical transverse carina and pleural carina present. Mesopleurum coriaceous, prepectal carina weak but reaching the margin. Nervellus intercepted about in the middle, discoidella very weak. Legs including middle and hind coxae, yellowish brown, long and very slender, especially the hind tibia. First ter-

gite with conspicuous longitudinal sculpture. Second tergite with weak longitudinal sculpture. Gaster fuscous.

Material examined. — The holotype only.

Hemiphanes inusitatum species nova

Characteristics of the holotype (♂, Italy, Prov. Bolzano, Sarntal, 1250 m, 1.vi.1977, leg. and coll. C. J. Zwakhals): Front wing 3.7 mm. Mandible (teeth reddish), clypeus and face yellow. Clypeus not protruding, short, about 3.6 times as wide as long. Hind aspect of head not concave. Occipital carina present and closed. Postannellus stout, 3 times as long as apical width. No tyloids present. Antenna light brown. Epomia absent. Mesoscutum coriaceous, notauli absent. Propodeum coriaceous, no carinae present except for stubs of median longitudinal carinae. Lower part of mesopleurum coriaceous, upper part polished. Prepectal carina almost obsolete. Front and middle coxae white, hind coxae fuscous. Legs yellowish brown. First tergite 1.8 times as long as apical width, coriaceous. Gaster fuscous, second tergite with brownish apical band.

Material examined. — The holotype only.

The specific name is from the Latin "inusitatus", meaning "uncommon" or "unusual".

Hemiphanes montanum species nova

Characteristics of the holotype (♀, Austria, T., Niederthai Gubener Hütte, 2000 m, 1.ix.1979, leg. and coll. Haeselbarth): Front wing 4.7 mm. Mandible yellowish, teeth brown, of the same length. Clypeus yellow, the apical part depressed and with a deep median semicircular indentation, the side parts of which stand out flap-like. Malar space as wide as base of mandible. Head entirely coriaceous, excepting the clypeus. Flagellum yellowish, postannellus slender, 7.0 times as long as apical width. Epomia absent. Mesoscutum coriaceous, notauli present towards margin, shallow. Scutellum and propodeum coriaceous. Pleural carina present. Median longitudinal carina present only towards base of propodeum. Mesopleurum coriaceous and weakly striated. Prepectal carina strong, reaching the margin. Nervulus distad of basal vein. Nervellus not intercepted. Discoidella absent. All coxae fuscous. Second trochanter of all legs pale in colour. Front and middle legs brownish, hind femur fuscous. Front femur stout, middle and hind femur more slender. Left middle leg missing beyond femur. In the specimen the right hind leg missing beyond coxa; also tarsi of left hind leg missing beyond basitarsus. First tergite coriaceous, rather wide apically, about 1.6 times as long as apical width. A conspicuous pit at base of petiole between the median dorsal carinae. Following tergites coriaceous, with a yellow brown band medially from apical margin of tergite two. Ovipositor not projecting beyond tip of gaster.

Material examined. — The holotype only.

Genus **Oxytorus** Förster

Oxytorus Förster, 1868: 199.
Oxytorus; Townes, 1971: 185.
Oxytorus; Van Rossem, 1980: 88.

Type-species: *Oxytorus armatus* Thomson, 1883.

Oxytorus luridator (Gravenhorst)

Ichneumon luridator Gravenhorst, 1820: 379.
Oxytorus luridator; Van Rossem, 1980: 90.
Atractodes properator Haliday, 1838: 120.
Oxytorus luridator; Fitton, 1976: 332.

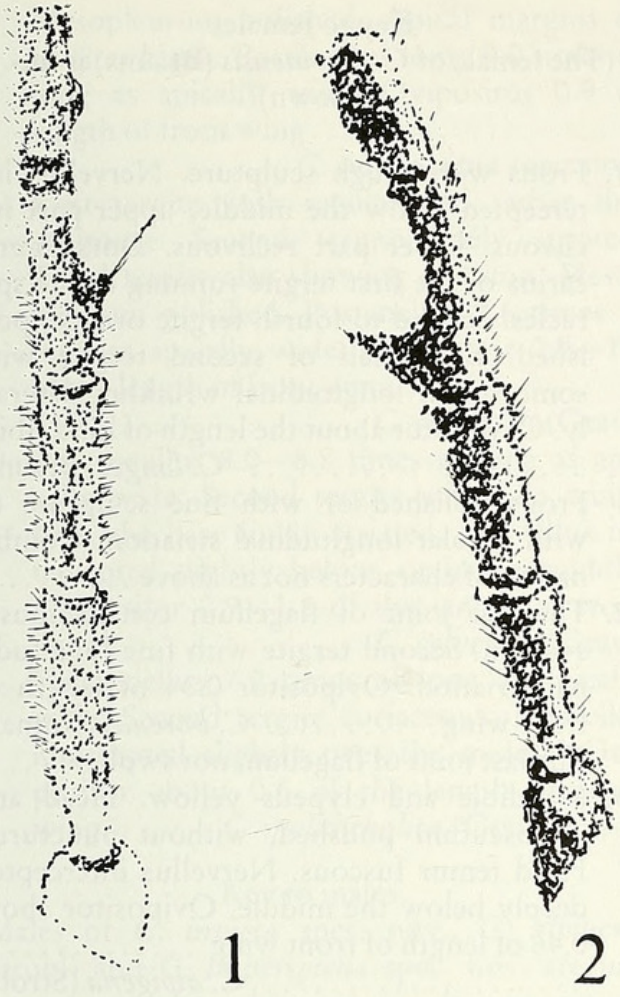
Characteristics of the lectotype of *Atractodes properator* Haliday. Labels: a printed label "England?"; a label "Haliday, 20.2.82"; a label "named by Claude Morley *Atractodes properator* Hal, Type, vi.193"; a circular label with red margin "Type CM"; a small label illegible; lectotype label Fitton, 1975. National Museum of Ireland, Dublin. Female. The specimen represents *Oxytorus luridator* (Gravenhorst).

Oxytorus luridator (Grav.)
forma **nigricoxa** Kiss von Zilah

Callidiotes luridator (Grav.) forma *nigricoxa* Kiss von Zilah, 1924: 118.

The two syntypes (Transylvania, Borosjenö, leg. Diöszeghy) are labelled as males, but both are females. They show fuscous coxae which is in fact a male character. The specimens are kept in the Természettudományi Múzeum, Budapest. I thank the curator Dr J. Papp for sending them to me.

Note. — In the description of *O. luridator* (Van Rossem l.c.) there is a wrong description of the mesopleural sculpture: "transverse" ridges should be "longitudinal" ridges.



Figs. 1, 2. Base of male entenna. 1, *Apoclima signaticorne* Förster, left antenna (right one broken); 2, *A. haeselbarthi* spec. nov., right antenna. Enlargement, ca 80 X.

Genus **Apoclima** Förster

Apoclima Förster, 1871: 97—98.
Apoclima; Townes, 1971: 191—192.
Apoclima; Van Rossem, 1980: 97—98.

In Dr E. Haeselbarth's material I found an *Apoclima* male which I compared with the holotype of Förster's *Apoclima signaticorne*. The latter has a weak projection on segment three of the flagellum that merely delineates the notch of the segment (fig. 1). In Haeselbarth's specimen, which undoubtedly is another species, the projection is strong and toothlike (fig. 2).

Key to *Apoclima* males

1. Third flagellar segment notched on apical half, the base of fourth flagellar segment somewhat notched (the tyloids). The third flagellar segment with a weak projection below the tyloid at the apex of which two bristles (fig. 1) . . . . . *A. signaticorne* Förster
— Third flagellar segment notched on apical half (the tyloid), the base of fourth flagellar segment scarcely notched. The third flagellar segment with a strong tooth below the tyloid at the apex of which two minute hairs (fig. 2) . . . . . *A. haeselbarthi* spec. nov.

Apoclima haeselbarthi species nova

Characteristics of the holotype of *Apoclima haeselbarthi* (♂, Germany, Bayern, Oberammergau, Laber, 1400—1600 m, 5.ix.1980, leg. and coll. Haeselbarth (München)): Front wing 3.5 mm. Palpi brown. Lower margin of mandible turned inwards. Clypeus convex, coriaceous as malar space, face and vertex. Malar space and gena wide. Occipital carina widely interrupted medially. Occiput not so strongly curved inwards as in *A. signaticorne*. Antenna brown, including scape and pedicel tips missing in specimen. Pedicel large. Third flagellar segment notched on apical half (the tyloid). Base of fourth flagellar segment very weakly notched. The third flagellar segment with a strong tooth below the tyloid, at the apex with two minute hairs. Epomia present. Mesoscutum coriaceous, with notauli vaguely meeting in centre. Scutellum with weak carina running towards apex. Propodeum with irregular sculpture, apical transverse present, other carinae not strongly developed. Mesopleurum polished. Prepectal carina rather underdeveloped, not reaching margin. Front wing without areolet, with two bullae. Portion of cubitus between intercubitus and second recurrent vein 0.3 of the length of recurrent vein. Nervellus inclivous. Discoidella present. Legs brownish. Claws of front legs and left hind leg missing beyond femur in the specimen. Femora stout. All coxae fuscous and with long erect hairs. First tergite coriaceous, about 1.1 times as long as apical width, glymma present, median dorsal carina strong to about 0.75 of length. Dorsolateral carina strong, the spiracles protruding. The dorsal profile of first tergite strongly convex in the middle. Apex of first sternite in front of the middle. Second tergite for the greater part coriaceous. The entire gaster fuscous, except for vague brownish apical margin of tergite two. All tergites, except the first, with conspicuous suberect hairs.

Female unknown.

Material examined. — The holotype only.

I name this species after Erasmus Haeselbarth (München) who contributed his extensive Oxytorine material.

Apoclima signaticorne Förster

Apoclima signaticorne Förster, 1871: 97—98.
Apoclima signaticorne; Van Rossem, 1980: 97—98.

Characteristics of the male. Length front wing 3.2 mm. The third flagellar segment notched on apical half, the base of fourth flagellar segment somewhat notched (the tyloids). The third flagellar segment with a weak projection below the tyloid, at the apex of which there are two bristles (fig. 1). Pedicel large. Postannellus 3.7 times as long as wide. Postocciput concave, occipital carina interrupted. First tergite wide and short. Apex of sternite and spiracles in front of the middle. Glymma present. Median dorsal carina not reaching the spiracles.

Characteristics of the female. Length of front wing 3.4 mm. Pedicel large. Flagellum slender, postanellus 4.0 times as long as wide. Postocciput rather concave. Occipital carina widely interrupted. Portion of cubitus between intercubitus and second recurrent vein 0.36 of the length of recurrent vein. Nervellus vertical, intercepted below the middle, front part of discoidella present. First tergite 1.4 times as long as apical width, coriaceous. Glymma weak. Median dorsal carina not reaching the spiracles, the latter at 0.32 of the length. Basal half of second tergite coriaceous. Ovipositor about the length of hind tibia beyond tip of gaster, apex somewhat upcurved, no dorsal notch present, the tip acuminate.

Distribution. — A very rare species. In total four specimens are registered; the male holotype is from Aachen (coll. Förster), a female from Blankenburg (Thüringen) (coll. Schmiedeknecht) and a male and female from Wiesen (Spessart) (Germany) (both coll. Haeselbarth).

Genus **Cylloceris** Schiødte

Cylloceria Schiødte, 1838: 140.
Cylloceria; Townes, 1971: 192.
Cylloceria; Van Rossem, 1980: 98—107.

One undescribed species (*Cylloceria invicta*) is inserted. The lectotype of Gravenhorst's *Tryphon sylvestris* was brought to light. It proved to be the same as *Cylloceria striolata* (Hellén). The type specimen of *Lissonota occupator* Gravenhorst, 1829, is lost.

Key to females
(The female of *C. suerinensis* (Brauns) is unknown)

1. Frons with rough sculpture. Nervellus intercepted below the middle, upper part inclivous, lower part reclivous. Dorsolateral carina of the first tergite running to the spiracles. Second to fourth tergite orange, polished. Basal half of second tergite with some rough longitudinal wrinkling laterally. Ovipositor about the length of hind tibia ..... *C. langei* (Brauns)
— Frons polished or with fine sculpture or with regular longitudinal striation. Combination of characters not as above 2
2. The last joint of flagellum conspicuously swollen. Second tergite with fine longitudinal striation. Ovipositor 0.34 of length of front wing ..... *C. borealis* (Roman)
— The last joint of flagellum not swollen ... 3
3. Mandible and clypeus yellow. Head and mesoscutum polished, without punctures. Hind femur fuscous. Nervellus intercepted deeply below the middle. Ovipositor about 0.46 of length of front wing .... *C. alpigena* (Strobl)
— Clypeus not yellow. Hind femur orange or yellow 4
4. All coxae and femora orange 5
— Alle coxae fuscous 6
5. Mesopleurum polished, widely and finely punctured. Some striation may be present in the lower hind corner below the speculum and some below the subtegular ridge. Frons polished or with indistinct coriaceous sculpture. Ovipositor 0.50—0.67 of length of front wing .... *C. caligata* (Gravenhorst)
— Mesopleurum with close longitudinal striation. Frons with regular longitudinal striation. Ovipositor 0.85 of length of front wing..... *C. invicta* spec. nov.
6. Apical half of second tergite and all following tergites orange . *C. fusciventris* (Hellén)
— Gaster fuscous 7
7. Postannellus long, 9.6 times as long as apically wide. Ovipositor 0.9—1.0 as long as the front wing..... 8
— Postannellus shorter, 7.0—8.8 times as long as apically wide. Ovipositor 0.6—1.1 of the length of front wing..... 9
8. First and second tergite with very rough sculpture. Basal margin of third and fourth tergite with a rough band of sculpture.

Mesopleurum polished. Apical margins of tergites black. Postanellus long, 9.0 times as long as apically wide. Ovipositor 0.9 of length of front wing ..... *C. imperspicua* spec. nov.

— First tergite with regular and rather fine sculpture. Second tergite finely striated. Third tergite also showing striation. Mesopleurum polished. Postanellus 9.6 times as long as apically wide. Ovipositor 0.9—1.0 of the length of front wing ..... *C. sylvestris* (Grav.)

9. Postannellus 8.0—8.8 times as long as apically wide. Second tergite with fine sculpture, the base finely striated. Nervellus intercepted slightly below, or in the middle. Ovipositor 0.9—1.1 of the length of front wing..... *C. sylvestris* (Grav.)

— Postannellus 7.0 times as long as apically wide. Second tergite coriaceous. Nervellus intercepted slightly over the middle. Ovipositor about 0.6 of the length of front wing..... *C. melancholica* (Gravenhorst)

Key to males

(Males of *C. invicta* spec. nov., *C. alpigena* (Strobl) and *C. imperspicua* spec. nov. are unknown).

1. Frons with rough sculpture. Second to fourth tergite orange, polished ..... *C. langei* (Brauns)

— Frons polished or with fine sculpture 2

2. All coxaeand all femora including front and middle tibiae orange ..... *C. caligata* (Gravenhorst)

— All coxae brown or black 3

3. Flagellar segments four and five weakly notched. Third and following tergites polished ..... *C. suerinensis* (Brauns)

— Flagellar segments three and four notched 4

4. Gaster from tergite two reddish to orange in colour. Second tergite coriaceous and with longitudinal wrinkling. The following tergites for the greater part polished ..... *C. fusciventris* (Hellén)

— Gaster fuscous 5

5. Third segment of flagellum apically with a deep semicircular notch. The base of the notch is emphasized tooth-like. The basal half of segment four with a weak notch. Notauli meeting..... *C. borealis* (Roman)

— Third segment of flagellum apically with a semicircular notch, the base not emphasized tooth-like. The basal part of segment four with a weak notch 6

6. Nervellus intercepted slightly below the middle. Second and third tergite with some longitudinal sculpture. Gena polished, widely punctured ..... *C. sylvestris* (Gravenhorst)

— Nervellus intercepted over the middle. Second, third and fourth tergites without longitudinal wrinkling. The base of the second and third tergites with weak coriaceous sculpture. The apical margins of tergite two to five with brownish to orange colour. Gena polished, punctures absent ..... *C. melancholica* (Gravenhorst)

Cylloceria borealis (Roman)

Lampronota borealis Roman, 1925, Arkiv för Zoologi 17 A (4): 20—21.

Characteristics of the lectotype of *C. borealis*. Female. Front wing 6.4 mm long. Palpi brown. Mandible and clypeus brown, the latter polished and 2.2 times as wide as long. Malar space wide, 0.33 of width face. Face, frons and vertex finely sculptured. The last joint of flagellum conspicuously swollen, a character not shown in other *Cylloceria* species. Postannellus 7.1 times as long as apically wide. Pronotum finely sculptured with some wrinkling. Mesoscutum with indistinct sculpture. Notaulus strong. Upper part of scutellum polished. Propodeum with rough sculpture, the longitudinal carinae strong. Mesopleurum for the greater part polished. Prepectus with sculpture. All coxae brown, other parts of legs orange-yellow to brown in colour. Claws strong. First tergite with rough, somewhat striated sculpture. The first abdominal segment robust, with a broad apical edge. Second tergite with fine longitudinal striation. Base of third tergite with longitudinal wrinkling, the further part polished. The apical tergites polished. Ovipositor 0.34 of length of front wing.

Characteristics of the male. Front wing 6.4 mm long. Palpi yellow. The sculpture of the head corresponding to that of the female. Third segment of the flagellum apically with a deep semicircular notch, emphasized tooth-like at base of notch. Basal part of segment four also with a weak notch. Pronotum with irregular sculpture. Mesoscutum almost polished, notauli strong, meeting. Propodeum roughly sculptured, the longitudinal carinae strong. Mesopleurum polished. Prepectal carina bending towards the margin. Coxae brown, other parts of

legs yellow in colour. Claws strong. First tergite with rough sculpture. Second and third tergite with longitudinal wrinkling. The broad apical margin of the third tergite polished. The apical tergites polished.

Material examined. — Sweden: female holotype and male paratype, Ångermanland, leg. C. Stål (coll. Roman, Naturhistoriska Riksmuseet, Stockholm). Lectotype label of Townes.

Distribution. — According to Roman (l.c.), the species is found in northern Sweden, Finland and the U.S.S.R., Siberia (Jenissei region) and Kamchatskaya. Three specimens, all females, were received on loan from the Leningrad Museum: 5 km N. Pusjkina, Leningrad, lesopoloça (forest area near Leningrad), leg. D. R. Kasparyan, 14.viii.1980; Romanovka (east of Baykal Lake), bliz Jamburga, 30.v.1905, leg. Barovskij; R. Nelgeche, berch. Verchojan, okr. 11—12.viii.1927, leg. Tkatsjenko.

Cylloceria caligata (Gravenhorst, 1829)

Phytodietus caligatus Gravenhorst, 1829: 936.
Lampronota crenicornis Curtis, 1832: 407.
Cylloceria crenicornis; Fitton, 1976: 323.
Characteristics of the female lectotype of *Lampronota crenicornis*. Labels: a separate label: Haliday 20-2-82; lectotype label of Fitton (National Museum of Ireland, Dublin). The specimen has the characteristic orange coloured coxae.
Chalinoceras mancus Ruthe, 1855: 82.
Cylloceria manca; Fitton, 1978: 76.

Labels: Germany: Spandau (BMNH). The lectotype is a specimen of Cylloceria caligata.
This was also suggested by Fitton.

Material examined. — Five specimens, all females, were received on loan from the Leningrad Museum: females, Sumuch ? Sumucha), 28.vii.1896, leg. K. Kokujeva (Western Siberia); Kurjat, 18.vi.1886, merig, leg. K. Jarosjevskago; Kurjat, 18.viii.1888, Na Zet poyl, leg. K. Jarosjevskago; Kurjat, 18.vi.1889, merig A. offic., leg. K. Jarosjevskago. 1 ♂, Bologoye, Valdajsk, v.vii.1907, leg. Zajtseez (400 km south of Leningrad).

Distribution. — The species occurs through-out the Palaearctic Region.

Cylloceria invicta species nova

Characteristics of the holotype. Female. Front wing 8.8 mm long. Palpi brown. Mandible brown, medially with a light brown spot. Clypeus brown. Other parts of head black. Face longitudinally striated. Malar space with irregular sculpture, 0.34 of width face. Frons with regular, longitudinal striation. Occiput punctured. Gena more polished, but punctured towards genal carina. Antennal scape closely punctured. Postannellus 7.8 times as long as apically wide. Pronotum closely striated. Mesoscutum finely punctured, backwards and laterally indistinct. Notaulus strong, particularly towards base. Propodeum with regular and rough sculpture, the longitudinal carinae strong. Mesopleurum with close, longitudinal striation. (The mesopleurum in *C. caligata* is polished and punctured, which is a distinguishing character). Prepectal carina indistinct. Front coxae brown. Middle and hind coxae and other parts of legs orange, except for trochanters, hind tibia and tarsus. Nervellus intercepted over the middle. First tergite with regular and rather subtle sculpture. Spiracles at 0.38 of the length of the segment. Median dorsal carina developed to the spiracle. Second and third tergite finely coriaceous. Ovipositor 0.85 of length of front wing.

Material examined. — Female holotype from the Zoological Institute at Leningrad: U.S.S.R., Olenek, Yakutia, 67—689, viii.1874, leg. A. Czekanowski. It also bears a number: 74478.

"Invictus" is the Latin for "irrefutable", "immovable".

Cylloceria imperspicua species nova

Characteristics of the holotype of *C. imperspicua*. Female. Front wing 8.22 mm long. Palpi brown. Basal half of mandible coriaceous and with strong punctures, apical part polished, teeth robust. Clypeus with vague coriaceous sculpture, 2.0 times as wide as long. Malar space wide, 0.37 of width of face. Face towards malar space polished. Medially, below antennal sockets a triangular protuberance with vertically wrinkled sculpture. Postannellus extremely long, 9.0 times as long as apically wide. Frons strongly concave. Vertex with fine coriaceous sculpture. Gena wide, polished. Pronotum medially wrinkled. Mesoscutum with strong notauli, these not meeting. The median lobe in the backward part with rough wrinkled sculpture. The basal part of the median lobe punctured and the lateral lobes indistinctly punctured. Propodeum with rough sculpture, the longitudinal carinae present. Mesopleurum widely punctured and for the greater part polished. Prepectal carina strong, meeting the margin. A robust subtegular ridge present. Nervellus intercepted over the middle. Coxae fuscous and polished. Front and middle tibia and femur and the hind femur

orange in colour. The front and middle tarsus brown, the hind tibia and tarsus black. The first abdominal segment robust, the apical edge 0.85 of the length of the segment. The first and second tergite showing rough and irregular sculpture. Third and fourth tergite basally with a rough band of sculpture, backward more coriaceous. Gaster entirely black. Ovipositor 0.91 of the length of front wing.

Material examined. — Sweden: ♀, holotype, Dalarna, Idre (Fjätervålen), 24.vii—1.viii.1982, Malaise trap, leg. & coll. Van Rossem.

"Imperspicuus" is the Latin for "inscrutable".

Cylloceria sylvestris (Gravenhorst)

Tryphon sylvestris Gravenhorst, 1829: 138.
Cylloceria sylvestris; Pfankuch, 1906: 87.
Lampronota melancholica (Grav.) var. *striolata* Hellén, 1915: 48.
Lampronota striolata Hellén, 1937: 12.
Cylloceria striolata; Jussila, 1965: 101.
Cylloceria striolata; Van Rossem, 1980: 130—104.

Through the kindness of Dr M. Kak (Muzeum Przyrodnicze, Wrocław) I got the opportunity to study the type material of *Tryphon sylvestris* Gravenhorst. It appears that the type material in question consists of two male specimens. The one I labelled as the lectotype is identical with *Cylloceria striolata* (Hellén).

Dr Kak wrote that he was not quite sure that the specimen which I labelled as the type of *Tryphon sylvestris* is a Gravenhorst specimen. However, the other specimen represents *Cylloceria caligata*, which species was also described by Gravenhorst (l.c., p. 138).

Characteristics of the lectotype of *Tryphon sylvestris* (♂, a white tag, 69; a green tag; a white tag handwritten conf (confer?) *melancholica*): Front wing 7.1 mm long. Mandible brown. Clypeus: the apical part polished, near basal margin somewhat sculptured. The apical margin truncate. Face closely punctured, medially somewhat convex. Frons polished. Vertex and gena finely punctured (implantations of hairs). Apex of third flagellar segment with a semicircular notch, base of fourth segment also with a notch. Pronotum with rather coarse semicircular striation, epomia present. The median lobe of mesoscutum convex, closely punctured, the lateral lobes with fine punctures. Propodeum roughly sculptured, with all longitudinal carinae present. Mesopleurum with fine punctures, the prepectal carina to the margin. Below the subtegular ridge some longitudinal striation. Nervellus intercepted below the middle. All coxae and trochanters fuscous. All femora, front and middle tibiae yellow to orange. Hind tibia and tarsus conspicuously fuscous. First tergite roughly sculptured and somewhat longitudinally wrinkled. Second tergite coriaceous and with some longitudinal striation. The third tergite with indistinct coriaceous sculpture.

From Dr R. Jussila (Paattinen, Finland) I received a female and male of *Cylloceria striolata* (Hellén) from Finnish Lapland. In a collection Oxytorinae sent by Dr D. P. Kasparyan from the Zoological Institute at Leningrad there were four dubious specimens of the same species. Although these specimens show rather striking variability, I decided to place the four Russian

Table 1. *Cylloceria sylvestris* (Gravenhorst). For explanation, see text.

specimen	length front wing	length ovipositor/ length front wing	ratio length postannellus/ apical width	ratio width malar space/ width face	nervellus
Reservoir Vudjavr 20.viii.1930	8.93	0.99	9.6	0.40	below middle
Jujasnor chibinsja 8.viii.1937	8.17	0.91	9.6	0.35	below middle
C. striolata, Suomi, Utsjoki, 10.vii.1961	7.86	0.88	8.8	0.36	below middle
Koslovo, 16.vii.1975	7.55	0.94	8.4	0.34	in the middle
Burunduk, kos. r. Adsva, Arkh. 29.vii.1909	7.06	1.10	8.0	0.35	in the middle

specimens tentatively with *C. sylvestris*. For comparison table 1 gives: the length of the front wing in mm; ratio of the length of the ovipositor to the length of the front wing; ratio of the length of postannellus to its apical width; ratio of the width of malar space to the width of face; interception of the nervellus.

Characteristics of the female. Front wing 7.1—8.9 mm long. Palpi brown. Malar space wide, 0.34—0.40 of width face, somewhat coriaceous. Face laterally widely punctured, medially somewhat convex. Postanellus long, 8.0—9.6 as long as apically wide. Second and third flagellar segments long. Frons, vertex and gena polished and with fine punctures (implantations of hairs). Pronotum with coarse sculpture, irregularly striated. The basal part of median lobe of the mesoscutum closely punctured. The lateral lobes indistinctly punctured. Propodeum roughly sculptured, the carination indistinct or absent. Mesopleurum polished, but in the last two specimens of the table, finely striated. The prepectal carina reaching to the margin. Coxae and trochanters fuscous. Other parts of legs yellowish to orange to brown (hind tibia). Hind tarsus fuscous. Nervellus intercepted below the middle or in the middle. First tergite with regular and rather fine sculpture, slightly striated. Second tergite with regular and fine striation, the apical margin polished. Third tergite with some fine striation and coriaceous sculpture. The fourth tergite sometimes also showing indistinct striation and some coriaceous sculpture. Ovipositor 0.9—1.1 of the length of the front wing.

Material examined. — Finland: ♂♀, Suomi Inl. Utsjoki, 10 & 14.vii. 1961 (coll. R. Jussila). U.S.S.R.: 4 ♀, Reservoir Vudjavr, Chibin. g. Kolsk (mountain), leg. Tsevurova, 30.viii.1930; Jujasnor chibinsja, gory Kolsk, leg. Fridolin, 8.viii.1937; Burunduk, kos. r. Adzva, Arkh. g. leg. Kuluk, 29.vii.1909; Kozlovo, 50 km s. Kalgi (? Kalga), Tsit. (=? Chitinskaya), obl. (= oblast = province), leg. Kasparyan, 16.vii.1975 (all Zoological Institute, Leningrad, curator D. P. Kasparyan). Poland: ♂, lectotype, "Warmbrunn" (coll. Gravenhorst, Wrocław).

Cylloceria melancholica (Gravenhorst, 1820)

Ichneumon melancholicus Gravenhorst, 1820: 372.
Lampronota fracticornis Haliday, 1838: 121.
Cylloceria fracticornis; Fitton, 1976: 334.
Characteristics of the female lectotype of *Lampronota fracticornis*. Labels: "British"; a separate label: Haliday 20-2-82; lectotype label of Fitton (Nat. Mus. Ireland, Dublin). In my key the specimen runs to *C. melancholica*.
Chalinoceras longicornis Ratzeburg, 1852: 130. Sensu Viereck, 1914. The type is lost.

Cylloceria melancholica forma **denticornis** (Haliday, 1838)

Lampronota denticornis Haliday, 1838: 121.
? *Cylloceria accusator* (Fabricius) sensu Fitton, 1976: 32 (8): 334.
The Fabrician type material does not belong to the Oxytorinae (Van Rossem, 1980).
Cylloceria melancholica f. *marginator* Schiødte, 1839: 24 (sensu Van Rossem, 1980).

Characteristics of the female lectotype of *Lampronota denticornis*. Labels: "British"; a separate label: 20-2-82; lectotype label of Fitton, 1975 (Nat. Mus. Ireland, Dublin). The second to sixth tergite have an orange to yellowish hind margin and a brownish to light brown colour.

Material examined of *Cylloceria melancholica* (Gravenhorst). — U.S.S.R.: several ♀, Guzeril, Kavkazck (Caucasus), Zapov (National Park), ysjtsj, Zjelobnoi, leg. D. R. Kasparyan, 22.vi.1976; 2 sp., Tebertsinsky, Zapov (Nat. Park), g. M. Chatipara, chv les (forest), leg. D. R. Kasparyan, 14.vii.1976; Berbiguno, 26.v.1891, Lisuv. ber., leg. K. Kokujeva. Identification dubious, ovipositor too short, Sejdozero, 20 km south east of Revdy, Murmansk district, leg. D. R. Kasparyan, 25.vii.1974 (label Aubert; *Cylloceria*). All specimens from the Zoological Institute at Leningrad.

Distribution. — *Cylloceria melancholica* (Gravenhorst) is widely spread in the Western Palaearctic Region.

Genus **Proclitus Förster**

Cryptus (Clepticus) Haliday in Curtis, 1838: 112—121.
Proclitus Förster, 1868: 172.
Proclitus; Förster, 1871: 113.
Plectiscus (Proclitus); Thomson, 1888: 1306—1307.
Proclitus; Townes, 1971: 194.
Proclitus; Aubert, 1977: 142.
Proclitus; Van Rossem, 1983[a]: 153—165.

Key to the males

The males of *P. comes* (Haliday in Curtis), *P. fulvicornis* Förster and *P. rudis* Förster are unknown. I have not seen the male of *P. fulvipectus* Förster. These four species are not included in the key.

The distinction of the males of *P. praetor* (Haliday in Curtis), *P. ardentis* species nova, *P. attentus* Förster and *P. albidipes* Förster is almost impossible; nevertheless I have included them in the key. I based the distinction on the

ratio of the length of the first abdominal segment to the apical width. I have used only those units which are clearly separated. This implies that other data can overlap.

1. Anterior tentorial pits impressed and with a carina between the eye margin and the lateral corner of the clypeus. Clypeus flat, the apical margin arcuate, 2.5 times as wide as long ..... *P. paganus* (Haliday in Curtis)
— Anterior tentorial pits not impressed and without carina between eye and clypeus .. 2
2. Face wide, about 0.45 of frontal width (including the eyes) and with a row of conspicuous long, erect setae along the inner margin of eye. Clypeus exceptionally wide, almost 3 times as wide as long, the apical margin arcuate. Lateral corner of clypeus reaching beyond line of inner margin of eye. Clypeus with widely placed long setae ..... *P. subsulcatus* Förster
— Not this combination of characters 3
3. First tergite coriaceous. Lateral carinae of scutellum running to apex of scutellum, not meeting ..... *P. zonatus* (Gravenhorst)
— First tergite not coriaceous. Lateral carinae of scutellum not running to apex, only present at proximal corners of scutellum 4
4. First abdominal segment 4.0—4.7 times as long as the apical width. Clypeus for the greater part yellow ..... *P. praetor* (Haliday in Curtis)
— First abdominal segment less than 4.0 times as long as the apical width. Clypeus fuscous 5
5. First abdominal segment 3.5—3.7 times as long as the apical width ..... *P. ardentis* spec. nov.
— First abdominal segment 3.1—3.3 times as long as the apical width *P. attentus* Förster

Remark. — There is a male paralectotype of *Proclitus edwardsi* with the same labels, but I doubt whether this male agrees with the female. The specimen does not show the impressed anterior tentorial pits and neither the shape of the clypeus agrees.

Key to the females
(Females of *P. subsulcatus* Förster and *P. albidipes* Förster are unknown)

1. Ovipositor long, 0.60—1.05 of length front wing 2
— Ovipositor shorter, less than 0.60 of length front wing 4
2. Ovipositor exceptionally long, 0.80—1.05 of length front wing. First abdominal segment 2.5—3.0 times as long as the apical width ..... *P. comes* (Haliday in Curtis)
— Ovipositor not exceptionally long, 0.60—0.70 of length front wing. First abdominal segment 2.7—4.5 times as long as the apical width 3
3. First abdominal segment 3.5—4.5 times as long as the apical width. Ovipositor 0.59—0.69 of length front wing. Clypeus for the greater part yellow ..... *P. praetor* (Haliday in Curtis)
— First abdominal segment 2.7—3.0 times as long as apical width. Ovipositor 0.63—0.65 of length front wing. Clypeus fuscous ..... *P. ardentis* spec. nov.
4. Anterior tentorial pits impressed and with a carina between eye margin and lateral corner of clypeus 5
— Anterior tentorial pits not impressed and with a weak or no carina between eye margin and clypeus 7
5. Ovipositor 0.27—0.31 of length of front wing. Clypeus flat, 2.4 times as wide as long, the apical margin weakly arcuate. Margin of tergite two yellowish brown, tergite three yellowish brown or entirely fuscous ..... *P. paganus* (Haliday in Curtis)
— Ovipositor 0.37—0.48 of length of front wing 6
6. Ovipositor 0.37—0.47 of length of front wing. Median dorsal carina of first tergite present. Margin of tergite two and tergite three entirely more yellow in colour ..... *P. fulvicornis* Förster
— Ovipositor 0.48 of length of front wing. Clypeus medially strongly convex, the apical margin arcuate. Median dorsal carina absent. Abdominal tergites from margin of tergite two to apex orange in colour ..... *P. edwardsi* Roman
7. Ovipositor very short, 0.26 of length front wing. Malar space with a groove. Lateral carinae of scutellum running to apex of scutellum, not meeting. Apex of scutellum striated or with somewhat rough sculpture. First, and in some specimens also the second tergite coriaceous ..... *P. zonatus* (Gravenhorst)
— Ovipositor longer, 0.36—0.48 of length front wing. Lateral carinae of scutellum only at proximal corners of scutellum 8
8. Anterior tentorial pits conspicuous, open. A carina and laterally of the carina a groove

between eye margin and lateral corner of clypeus ..... *P. fulvipectus* Förster
— Anterior tentorial pits not conspicuous. There is a groove between eye margin and clypeus, but no carina present 9
9. Ovipositor 0.42—0.48 of length front wing. First abdominal segment 2.7—3.0 times as long as the apical width. Radius originating at 0.54 of lower margin of stigma ..... *P. attentus* Förster
— Ovipositor 0.39 of length of front wing. First abdominal segment short, 2.0 times as long as the apical width[1]). Radius originating at 0.50 of lower margin of stigma ..... *P. rudis* Förster

Proclitus ardentis species nova

Characteristics of the holotype of *Proclitus ardentis*. Female. Front wing 4.97 mm long. Clypeus somewhat convex, fuscous, its apical margin protruding, with rather long setae. Malar space narrow, about as wide as the mandibular base, with a groove between eye margin and clypeus. Clypeal fovea somewhat impressed, but not forming a distinct carina between eye margin and clypeus. Face and other parts of head fuscous. Antennal sockets slightly elevated. Upper part of face between antennal sockets with a circular impression. Flagellum slender. Postannellus 5.6 times as long as the apical width. Pronotum polished, epomia almost obliterated. Mesoscutum polished, notaulus only present as a dent on the mesoscutal margin. Propodeum almost entirely polished, carinae present but rather weak. Mesopleurum polished, prepectal carina almost obliterated. Front and middle legs, inluding the coxae, yellow. Hind coxae yellow, hind femur, tibia and tarsus brownish. First abdominal segment 2.9 times as long as the apical width. Postpetiole with some longitudinal striation, median dorsal carina weakly present. Second tergite polished, thyridia present and rather large, the apical tergal margin yellow. Third tergite polished and almost wholly yellow. Remaining tergites fuscous, polished and with adpressed long setae. Ovipositor 0.65 of the length of front wing.

Characteristics of a male paratype of *P. ardentis*. Front wing 4.62 mm long. Clypeus somewhat convex, fuscous, its apical margin protruding, setae not conspicuous. Malar space narrow. All parts of head fuscous. Frons between antennal sockets impressed. Pronotum fuscous, polished. Epomia absent. Other parts of thorax polished and fuscous. Prepectal carina present, but weak. Front and middle legs, including coxae yellow. Hind coxae yellow. Apex of hind femur, tibia and hind tarsus brown. First abdominal segment 3.5 times as long as the apical width. Median dorsal carina present on postpetiole. All other tergites polished. Apical margin of tergite two yellow. Tergites three, four and five for the greater part yellowish brown. All tergites, except the first, with adpressed long setae.

The trivial name "ardentis" is from the Latin for "sparkling".

Material examined. — Austria: ♀, holotype, Oberösterreich, Riedl im Haselgraben, 12.ix.1985; 2 ♂, paratypes, same locality and date as holotype; 1 ♀, paratype, Oberösterreich, Felsleiten bei Eidenberg, 10.ix.1985; ♀, paratype, Oberösterreich, Brunnwald bei Bad Leonfelden, 21.viii.1985; ♂, paratype, Oberösterreich, Schauerschlag, bei Zwettl R., 15.ix.1985 (the entire series leg. & coll. Martin Schwarz, Zwettl, Österreich).

Distribution. — Only four localities in Austria are kwown.

Proclitus edwardsi Roman

Proclitus edwardsi Roman, 1923: 73—74.

Characteristics of the lectotype of *Proclitus edwardsi*. Female. Front wing 4.71 mm long. Palpi whitish. Mandible yellow. Malar space 0.35 of width face. Clypeus medially strongly convex, the apical margin arcuate. Anterior tentorial pits strongly impressed and with a carina between eye margin and lateral corner of clypeus. Face, frons, vertex and gena polished, fuscous. Pronotum fuscous, polished, epomia present, short. Mesoscutum polished, notaulus short. Scutellum polished, the margin only present at the front corner. Scutellar fossa deep. Propodeum polished, apical transverse carina strong. Median longitudinal carina developed as stubs on apical transverse carina. Mesopleurum polished, prepectal carina not reaching to the margin. Legs, including coxae yellow. Coxae polished. Front femur stout, about 3.0 times as long as wide. Postpectal carina absent. First tergite fuscous, polished, median dorsal carina absent. The spiracle in the middle. The first segment is 2.2 times as long as apically wide. All other tergites polished, from the apical margin

[1]) Based on the holotype only.

of tergite two orange in colour. The ovipositor 0.48 of the length of the front wing.

The species is a parasite of *Brachypeza radiata* Jenkins.

Material examined. — England: lectotype, labels: B.M. Type Hym. 3.b.1623; Shefford Beds. viii.1918, leg. F. W. Edwards, ex *Brachypeza radiata* Jenk. in *Pleurotus*; *Proclitus edwardsi* Roman, ♀, label: *Proclitus Edwardsi* Rn n.sp. type. Lectotype label Fitton, 1977.

Genus **Pantisarthrus** Förster

Pantisarthrus Förster, 1871: 109—110.
Pantisarthrus; Townes, 1971: 193—194.
Pantisarthrus; Van Rossem, 1980: 110—113.

I found an undescribed species in Haeselbarth's collection. It is described below.

Key to the species

1. First tergite exceptionally long, 2.7—3.0 times as long as apical width, with rough and irregular longitudinal sculpture. Profile of tergite trapezium shaped. Claws of front leg conspicuously stronger than of middle and hind leg. Ovipositor 0.16 of length hind tibia ..... *P. gracilis* spec. nov.
— First tergite not more than 2.5 times as long as apical width. Sculpture of first tergite coriaceous. In some males surpassing 2.5 times but in these the first tergite coriaceous 2
2. Second tergite and following polished but with some, not very obvious robust, irregularly placed punctures. Mesoscutum strongly convex, prescutellar groove conspicuously deep. A not very distinct species, of which only the holotype is extant .... *P. rudepunctatus* Strobl
— Second tergite and following polished, without punctures 3
3. Section gh of radiella (fig. 3) in hind wing absent. First tergite 2.0—2.6 times as long as apical width ..... *P. dispar* Van Rossem
— Section gh of radiella present. First tergite 1.4—2.3 times as long as apical width 4
4. Section gh of radiella equal to or slightly shorter than section dg. First tergite 1.8—2.3 times as long as apical width .... *P. inaequalis* Förster
— Section gh of radiella longer than section dg. First tergite 1.4—2.5 times as long as apical width ..... *P. luridus* Förster

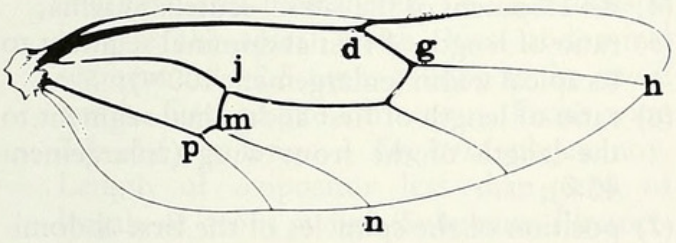


Fig. 3. Hind wing of an ichneumonid. dgh = radiella; jmp = nervellus; mn = discoidella. After Townes (1969).

Pantisarthrus gracilis species nova

Characteristics of the holotype. Female. Front wing 3.5 mm. Palpi yellow. The mandible not turned inwards, the lower tooth much smaller than upper. Clypeus convex, yellowish brown in colour, the margin truncate. Clypeus with erect, long hairs. Occiput slightly concave and sloping beyond ocelli. Pronotum polished, with epomia. Mesoscutum polished, notaulus present towards centre of mesoscutum, but shallow. Prescutellar fovea wide and deep. Propodeum with strong apical transverse carina with an obtuse tooth between median longitudinal carinae (also a character of other *Pantisarthrus* species). Mesopleurum polished, prepectal carina present, not reaching to the margin. Portion of cubitus between intercubitus and second recurrent vein 0.5 times as long as recurrent vein. In the hind wing gh shorter than dg. Discoidella absent. Legs, including the coxae, yellowish. Dorsal part of hind tibia brown. Claws of front leg stronger than those of middle and hind legs. Hind femur conspicuously club-shaped. First tergite exceptionally long, 2.7 times as long as the apical width. The tergite has rough longitudinal sculpture and a trapezium shaped profile. All other tergites fuscous and highly polished. Second tergite with a yellow apical band. Ovipositor 0.16 of the length of hind tibia.

Male unknown.

Material examined. — Italy: ♀, holotype, Prov. Bolzano, Kaltern Leuchtenburg, 500 m, 22.ix.1978; ♀, paratype, Prov. Bolzano, Kaltern Leuchtenburg, 500 m, 22.ix.1978 (both leg. and coll. Haeselbarth, München).

Pantisarthrus inaequalis Förster

Pantisarthrus inaequalis Förster, 1871: 110.
Pantisarthrus ochropus Förster, 1871: 110.
Pantisarthrus pseudochropus Strobl, 1903: 137.
Aniseres subalpinus Strobl, 1903: 138.
Pantisarthrus inaequalis; Van Rossem, 1980: 110—111.

Characteristics of male and female. Length front wing 3.0—3.6 mm. Tyloids absent. Malar space wide, with a groove. Face, frons and vertex polished. Occipital carina present. Mesoscutum convex, polished, notaulus absent. Scutellar carina almost reaching to apex. Section gh of radiella equal to or shorter than section dg. First tergite 1.8—2.3 times as long as wide, coriaceous. Median dorsal carina present.

Common and widely distributed.

Pantisarthrus luridus Förster

Pantisarthrus luridus Förster, 1871: 110.
Pantisarthrus luridus; Van Rossem, 1980: 111—112.

Characteristics of male and female. Length front wing 3.0—3.6 mm. Section dg of radiella about 0.6 of section gh. First tergite 1.4—2.0 times as long as wide.

Common and widely distributed.

Pantisarthrus rudepunctatus Strobl

Pantisarthrus rudepunctatus Strobl, 1903: 137—138.
Pantisarthrus rudepunctatus; Van Rossem, 1980: 112.

Characteristics of the female. Length front wing 3.0 mm. Section dg of radiella 0.5 of section gh. First tergite 2.4 times as long as wide, coriaceous. Other tergites, according to Strobl, with robust, irregularly placed punctures. I did not find these to be very conspicuous.

Distribution. — Only the holotype of Styrian Alp (Austria) is extant.

Pantisarthrus dispar Van Rossem

Pantisarthrus dispar Van Rossem, 1980: 112—113.

Characteristics of male and female. Length of front wing 2.8—3.3 mm. Section gh of radiella absent. First tergite 2.0—2.6 times as long as wide.

Common and widely distributed.

Genus **Plectiscidea** Viereck

Plectiscus auctores, before 1914.
Plectiscidea Viereck, 1914: 118.
Plectiscus; Förster, 1871: 84—90.
Plectiscus; Strobl, 1903: 125—130.
Plectiscidea; Townes, 1971: 196—197.
Plectiscidea; Aubert, 1975: 3—5; 7—8.

Förster (1871) published keys to his *Plectiscus* females and males and at the same time introduced 51 new species in his key to the females. The description of these is extraordinarily concise and based upon characters which do not lead to identification. Apparently Förster confused the conception of a species with mere individual differences, describing specimens rather than species.

The Förster type material is in the Zoologische Staatssammlung at München and in excellent condition. Aubert (1975) first revised this collection and recognized 14 species.

A subgenus, *Fugatrix*, is introduced to incorporate one species, *Plectiscus communis* Förster in the genus *Plectiscidea*. This species was placed in *Dialipsis* by Townes (1971). I think that the character used by Townes to separate *Dialipsis* and *Plectiscidea*, that is the ratio between the length of the petiolar area and the length of combined areola and basal area, does not exclude other *Plectiscidea* species from *Dialipsis*. Neither the shape of the postannellus separates these two genera. It seems to me that only the exceptionally large clypeal fovea is a true character of *Dialipsis*. Townes considers this character to be only an aberrant one. Consequently the other species belong to the subgenus *Plectiscidea*.

On the whole 36 species are dealt with; of these five are new: *Plectiscidea indomita*, *P. foersteri*, *P. substantiva*, *P. blandita* and *P. ventosa*. *Plectiscidea nemorensis* is a nomen novum for *Ephalmator subsimilis* Van Rossem.

Morphology

It is difficult to find proper morphological characters for comparison and for the separation of Förster's types. I used the following eight criteria:

(1) ratio of width malar space to the width of face (enlargement 100×);
(2) ratio of length of postannellus to its apical width (enlargement 100×);
(3) presence or absence of notaulus;
(4) development of the lateral scutellar carina;
(5) ratio of length of first abdominal segment to its apical width (enlargement 100×);
(6) ratio of length of first abdominal segment to the length of the front wing (enlargement 40×);
(7) position of the spiracles of the first abdominal segment in proportion to the length of the segment (enlargement 100×);

(8) length of ovipositor in proportion to the length of the front wing (enlargement 40×).

These criteria offer a rather meagre foundation. Perhaps scanning electron microphotography would reveal better characters, but I had no access to such an instrument.

A word must be said about the males. Förster described 26 species, founded solely on the males. I regard these as species inquirendae as it is impossible at present to find the matching females.

Note to the key

An extensive series of *Plectiscidea collaris* collected in Austria by Martin Schwarz gave me a better understanding of the variability of this species. I, therefore, doubt if my key between 17 and 18 is reliable.

The following observations should also be noted:

Plectiscidea monticola is distinguished by the short first abdominal segment.

Plectiscidea agitator, of which only the holotype is available, could be identical with *P. collaris*.

Plectiscidea conjuncta can be distinguished from *P. collaris* by the ratio of the length of the first abdominal segment to the length of the front wing (0.14—0.16 in *P. conjuncta* and 0.17—0.19 in *P. collaris*). In *P. conjuncta* the spiracles of the first abdominal segment lie at 0.31—0.37 of the length of the segment. In *P. collaris* at 0.37—0.42 of the length of the segment.

Of *P. conjuncta* only the holotype and three other specimens were available. Two of these are type specimens of *P. flavicoxis* of which the status is doubtful.

Key to *Plectiscidea* females

1. Length of ovipositor 0.72—0.85 of length of front wing. Petiolar area of propodeum 1.5—2.0 times as long as combined areola and basal area. Postanellus 3.6—4.5 times as long as the apical width. First abdominal segment 1.8—2.5 times as long as the apical width. First tergite coriaceous. Front wing 2.3—3.6 mm long .. *Fugatrix* subgen. nov.
— Length of ovipositor less than 0.70 of length of front wing. (Subgenus *Plectiscidea*) 2
2. Ovipositor relatively short, 0.09—0.30 of length of front wing 3
— Ovipositor longer than 0.30 of length of front wing 15
3. Ovipositor 0.09 of length of front wing. Postannellus long, 6.0 times the apical width and with a conspicuous character, viz., a medial notch, thus giving the impression of two short inflated segments. Antenna, legs, propodeum and gaster with long hairs. Abdominal segment 2.3 times as long as the apical width. The first tergite coriaceous ..... *P. nemorensis* nom. nov.
— Ovipositor more than 0.10 of length of front wing 4
4. Ovipositor 0.14—0.18 of length of front wing. Postannellus 4.0—4.8 times as long as the apical width. The first abdominal segment 1.4—1.8 times as long as the apical width ..... *P. bistriata* (Thomson)
— Ovipositor longer than 0.18 of length of front wing 5
5. Postannellus 4.0—4.8 times as long as the apical width 6
— Postannellus 5.0—6.5 times as long as the apical width 8
6. The length of the first abdominal segment 1.3 times as long as the apical width due to the conspicuous breadth of the tergite. Ovipositor 0.27 of the length of the front wing. Postannellus 4.2 times as long as the apical width ..... *P. subteres* (Thomson)
— The length of the first abdominal segment 2.0—2.4 times as long as apical width 7
7. Ovipositor 0.20—0.22 of the length of front wing. Postannellus 4.0—4.6 (4.8) times as long as apical width. The length of the first abdominal segment 2.0—2.3 times as long as apical width ..... *P. indomita* spec. nov.
— Ovipositor 0.25—0.27 of the length of front wing. Postannellus 4.3—4.6 times as long as the apical width. The length of the first abdominal segment 2.2—2.4 times as long as the apical width ..... *P. moerens* (Förster)
8. Postannellus 5.0—5.6 times as long as the apical width 9
— Postannellus 6.0—6.5 times as long as the apical width 12
9. First tergite with longitudinal striation and some not very conspicuous coriaceous sculpture between. The spiracles rather protruding. The first abdominal segment 2.1 times the apical width. Postannellus 5.0 times as long as the apical width. Malar space 0.41 of width face. Ovipositor 0.21 of the length of front wing . *P. tener* (Förster)
— First tergite with coriaceous sculpture .. 10

10. Ovipositor 0.19—0.22 of length of front wing. Postannellus 5.0—5.5 times as long as the apical width. First abdominal segment 1.8—2.0 times as long as the apical width ... . *P. parvula* (Förster)
— Ovipositor 0.24—0.30 of length of front wing. Postannellus 5.0—5.6 times as long as the apical width 11
11. Ovipositor 0.24—0.27 of length of front wing. Postannellus 5.5—5.6 times as long as the apical width. First abdominal segment 2.0—2.3 times as long as apical width .... *P. tenuicornis* (Förster)
— Ovipositor 0.28—0.30 of length of front wing. Postannellus 5.0—5.5 times long as the apical width. First abdominal segment 1.9—2.3 times as long as apical width .... *P. cinctula* (Förster)
12. Ovipositor 0.22—0.23 of length of front wing. Postannellus 6.0 times as long as the apical width. The first abdominal segment 2.3—2.6 times as long as apical width .... *P. amicalis* (Förster)
— Ovipositor 0.25—0.30 of length of front wing..... 13
13. First abdominal segment 2.4—2.7 times as long as apical width. Ovipositor 0.25—0.31 of length of front wing. Postannellus 6.5 times as long as apical width .... *P. helvola* (Förster)
— First abdominal segment 2.0—2.3 times as long as apical width 14
14. Ovipositor 0.25—0.30 of length of front wing. Postannellus 6.0 times as long as the apical width. Length of first abdominal segment 2.1—2.3 times the apical width..... ..... *P. vagator* (Förster)
— Ovipositor 0.27—0.30 of length of front wing. Postannellus 6.0—6.5 times as long as the apical width. Length of first abdominal segment 2.0 times the apical width..... ..... *P. melanocera* (Förster)
15. Notaulus indicated by a groove on the mesoscutal margin 16
— Notaulus not present or evanescent..... 25
16. First abdominal segment conspicuously long, 3.1—3.5 times the apical width. Postannellus (4.8)—5.2 times as long as the apical width. Ovipositor 0.33—0.36 of length of front wing .... *P. canaliculata* (Förster)
— Length of first abdominal segment less than 3.0 times the apical width 17
17. Postannellus 5.0—6.3 times as long as the apical width 18
— Postannellus less than 5.0 times as long as the apical width 22
18. Ovipositor 0.55 of the length of front wing. Postannellus long, 6.0 times the apical width. Length of first abdominal segment 2.7 times the apical width. Front wing 4.8 mm long ..... *P. erythropyga* (Förster)
— Ovipositor shorter, 0.35—0.52 of the length of front wing..... 19
19. First abdominal segment short, 2.0 times the apical width. Ovipositor 0.44 of length of front wing. Postannellus 5.0 times as long as the apical width. Front wing 3.7 mm long ..... *P. monticola* (Förster)
— Length of first abdominal segment 2.3—2.9 times the apical width 20
20. Postannellus 6.0 times as long as the apical width. Ovipositor 0.40 of the length of front wing. First abdominal segment 2.3 times as long as the apical width. Front wing 4.5 mm long .... *P. agitator* (Förster)
— Postannellus 5.0—6.3 times as long as the apical width. Ovipositor 0.35—0.52 of length of front wing..... 21
21. The first abdominal segment measures 0.14—0.16 of the length of the front wing. Ovipositor 0.36—0.38 of length of front wing. Postannellus 5.2—5.3 times as long as the apical width. First abdominal segment 2.2—2.4 times as long as the apical width ... . *P. conjuncta* (Förster)
— The first abdominal segment measures 0.17—0.19 of the length of the front wing. Ovipositor 0.35—0.52 of length of front wing. Postannellus 5.0—6.3 times as long as the apical width. First abdominal segment 2.3—2.9 times as long as the apical width ... . *P. collaris* (Gravenhorst)
22. Postannellus 3.7 times as long as the apical width. Ovipositor 0.44 of length of front wing. First abdominal segment 2.4 times as long as the apical width. Front wing 4.7 mm long ..... *P. foersteri* spec. nov.
— Postannellus 4.2—4.6 times as long as the apical width 23
23. Ovipositor 0.38 of length of front wing. Postannellus 4.3 times as long as apically wide. First abdominal segment 2.3 times as long as the apical width. Front wing 3.7 mm ..... *P. nava* (Förster)
— Ovipositor 0.41—0.48 of length of front wing. Postannellus 4.0—4.6 times as long as the apical width 24
24. Malar space 0.29—0.35 of width face. Ovipositor 0.43—0.48 of length of front wing. Postannellus 4.0—4.5 times as long as the

apical width. First abdominal segment 2.4—2.7 times as long as the apical width. Front wing 4.2—5.2 mm long ..... *P. substantiva* spec. nov.

— Malar space wide, 0.41—0.42 of width face. Ovipositor 0.41—0.43 of length of front wing. Postannellus 4.2—4.6 times as long as apical width. First abdominal segment 2.3—2.6 times as long as the apical width. Front wing 3.7—4.5 mm long ..... *P. crassicornis* (Förster)

25. Postannellus extremely long, 7.0 times the apical width. Ovipositor 0.33—0.35 of length of front wing. First abdominal segment 2.7 times as long as apical width ..... *P. posticata* (Förster)

— Postannellus shorter, less than 5.8 × the apical width[1] 26

26. Ovipositor 0.40—0.47 of length of front wing. Postannellus 5.0—5.7 times as long as the apical width. Length of first abdominal segment 1.8—2.8 times the apical width 27

— Ovipositor shorter, 0.33—0.38 of length of front wing. Postannellus 4.3—5.4 times as long as the apical width. Length of first abdominal segment 1.6—2.6 times the apical width 33

27. Ovipositor 0.40 of length of front wing. Postannellus 5.3 times as long as the apical width. Malar space 0.40 of width face. Length of first abdominal segment 2.7 times the apical width, the spiracles situated at 0.37 of the length of the segment ..... *P. connexa* (Förster)

— Ovipositor more than 0.40 of length of front wing 28

28. Length of first abdominal segment 1.8 times the apical width, the spiracles situated at 0.32 of the length of the segment. Postannellus 5.7 times as long as the apical width. Ovipositor 0.42 of length of front wing ..... *P. mesoxantha* (Förster)

— Length of first abdominal segment more than 1.8 times the apical width 29

29. The spiracles of the first abdominal segment situated between 0.40—0.50 of the length of the segment 30

— The spiracles of the first abdominal segment situated between 0.34—0.37 of the length of the segment 32

30. The spiracles of the first abdominal segment situated in the middle of the segment (0.50). The length of the first abdominal segment 2.0 times the apical width. Postannellus 5.0 times as long as the apical width. Malar space 0.37 of width face ..... *P. mendica* (Förster)

— The spiracles of the first abdominal segment situated at 0.40—0.43 of the length of the segment 31

31. The spiracles of the first abdominal segment situated at 0.40 of the length of the segment. The length of the first abdominal segment 2.3 times the apical width. Postannellus 5.5 times as long as the apical width. Malar space 0.38 of width face ..... *P. fraterna* (Förster)

— The spiracles of the first abdominal segment situated at 0.43 of the length of the segment. The length of the first abdominal segment 2.1 times the apical width. Postannellus 5.0 times as long as the apical width. Malar space 0.35 of width face ..... *P. deterior* (Förster)

32. Malar space 0.42 of width face. The first abdominal segment 2.5 times as long as the apical width, the spiracles situated at 0.34 of the length of the segment ..... *P. blandita* spec. nov.

— Malar space 0.33—0.35 of width face. The first abdominal segment 2.1—2.3 times as long as the apical width, the spiracles situated at 0.34—0.37 of the length of the segment. Postannellus 5.0—5.3 times as long as the apical width.[1]) Ovipositor 0.42—0.47 of the length of the front wing. Front wing 3.5—4.5 mm long .. *P. terebrator* (Förster)

33. Postannellus 4.3—4.6 times as long as the apical width. Ovipositor 0.32—0.37 of length of front wing. Length of first abdominal segment 1.6—1.8 times the apical width ..... *P. ventosa* spec. nov.

— Postannellus 5.0—5.4 times as long as the apical width 34

34. Postannellus 5.4 times as long as the apical width. Ovipositor 0.36 of length of front wing. Malar space 0.31 of width face. Scutellar carina slightly beyond the scutellar corner and turning inwards, but not meeting. Length of first abdominal segment 2.2 times the apical width. Front wing long, 5.2 mm ..... *P. subangulata* (Förster)

— Postannellus 5.0—5.2 times as long as the apical width. Malar space 0.31—0.38 of width face. Front wing 3.5—4.3 mm long 35

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[1]) In *P. terebrator* the postannellus can reach to 6.3—6.6 times the apical width.

35. Postannellus 5.0 times as long as the apical width. Malar space 0.37 of width face. Ovipositor 0.36 of length of front wing. Scutellar carina slightly beyond scutellar corner. The spiracles of the first abdominal segment situated at 0.43 of the length of the segment. First abdominal segment 2.5 times as long as the apical width. Front wing 4.0 mm long ..... *P. eurystigma* (Thomson)
— Postannellus 5.0 times as long as the apical width. Malar space 0.33 of width of face. Ovipositor 0.37—0.38 of length of front wing. Scutellar carina slightly beyond corner and curving inwards, not meeting. The spiracles of the first abdominal segment situated at 0.32—0.34 of the length of the segment. First abdominal segment 2.0—2.6 times as long as the apical width. Front wing 3.6—4.3 mm long .... *P. humeralis* (Förster)

Subgenus **Plectiscidea** Viereck

Plectiscidea Viereck, 1914: 118. Type: *Plectiscus collaris* Gravenhorst. Original designation.

Front wing 2.7—6.0 mm long. Postannellus 4.0—7.0 times as long as apically wide. Petiolar area of propodeum around 1.2 times as long as combined areola and basal area. First abdominal segment 1.3—3.5 times as long as apical width. Ovipositor 0.09—0.55 of length of front wing.

Plectiscidea nemorensis nomen novum

Ephalmator subsimilis Van Rossem, 1980: 122 (nec Förster, 1871). Paratype examined in 1985. See also Van Rossem (1982: 169).

The male was originally described with *Ephalmator subsimilis*. It is not taken into consideration here.

Characteristics of the female. Front wing 3.0—4.1 mm long. Malar space 0.38—0.40 of width face. Anterior tentorial pits in the Dutch specimen rather impressed. Postannellus 5.6—6.0 times as long as apical width. The postannellus with a weak medial notch giving the appearance that the postannellus consists of two segments. Notauli not present or fading. Propodeum coriaceous, median longitudinal carina weak, present as stubs from the apical transverse carina. The latter strong. Legs, including coxae, with long hairs. First abdominal segment 2.0—2.3 times as long as apical width. The first tergite coriaceous, median dorsal carina absent, the spiracles at 0.37—0.43 of the length. Second tergite with an apical yellow band. Third tergite for the greater part yellow. The ovipositor exceptionally short, 0.09—0.10 of the length of the front wing. The main characters are shown on table 2.

Material examined. — Austria: ♀, T. Pertisau, 1550 m, 12.vii.1977 (paratype of *Ephalmator subsimilis*) (leg. & coll. Haeselbarth). Netherlands: ♀, Naardermeer, Malaise trap, (Loc. ix), 6.viii.1974, leg. Bunnik & Van Wijngaarden (coll. K. W. R. Zwart, Wageningen).

Remark. — The name "subsimilis" is preoccupied (Förster, 1871, Verh. naturh. Ver. preuss. Rheinl. 28: 86). The new name is from the Latin for "from the holy wood"; the locality "Naardermeer" is a nature reserve.

Table 2. *Plectiscidea nemorensis* nom. nov.: *frw* — the length of the front wing in mm; *ovip/frw* — ratio of ovipositor length to length of the front wing; *psta l/w* —ratio of length of postannellus to its apical width; *malsp /f* — ratio of width of malar space to the width of face; *abds l/w* — ratio of length of first abdominal segment to its apical width; *spir/abds* — the position of the spiracles of the first abdominal segment in relation to the lenght of the segment; *not* — notaulus (if not filled in, no attention is given to the notaulus); *pr* — notaulus present; *weak or prw* — notaulus weakly present; *not pr* — notaulus absent; *pet. area/areo + bas* — ratio of length of petiolar area to length of combined areola and basal area (used only for the subgenus *Fugatrix*); *abds/frw* — ratio of length of first abdominal segment to length of front wing (used only for *P. conjuncta* and *P. collaris*); *not filled in* — not determined.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
Paratype *Ephalmator subsimilis*	4.1	0.10	5.6	0.40	2.0	0.37	weak
Naardermeer 6.viii.1974	3.0	0.09	6.0	0.38	2.3	0.43	not pr

Plectiscidea bistriata (Thomson)

Plectiscus bistriatus Thomson, 1888: 1288. Lectotype designation by Van Rossem. There is a male in the type series (Fitton, 1982).

Characteristics of the lectotype. Female. Front wing 3.5 mm. Clypeus small, square, convex, somewhat protruding, the apical margin truncate. Face polished, slightly produced forward below the antennal sockets. Postannellus 4.0 times as long as the apical width. Occipital carina closed. Mesoscutum polished, notauli weakly present. Scutellum with carina to apex. Propodeum almost completely polished, with erect rather long hairs. Mesopleurum polished, prepectal carina present but widely away from the margin. Legs and coxae brownish. First abdominal segment 1.5 times as long as apical width. Postpetiole finely coriaceous. Apical half of abdomen compressed. Ovipositor 0.18 of the length of the front wing. Compare table 3.

The two main characters of this species are the short ovipositor: 0.14—0.18 of the length of the front wing and the rather short and wide first abdominal segment (1.4—1.8 times the apical width).

The male was described by Thomson (1888).

Distribution. — The species is widely spread in the western Palaearctic region: Austria, Germany, the Netherlands and Sweden.

Material examined. — All ♀. Austria: Kärnten, Bodental 1100 m, 30.vi.1981 (leg. & coll. Zwakhals); Sonnenwendgebirge, 1300—1500 m, Hint. Swjoch 21.vi.1959; St. Haus Gföhlalm, 1300 m, 27.vi.1972. Germany: Oberbayern, Gauting, 5.vi.1972; ibidem, 17.v.1976; Hedemünden C, 12.v.1966; Dransfeld, 12.vi.1966 (all leg. & coll. Haeselbarth). Netherlands: Naardermeer (Malaise trap), 11.vi.1974, leg. Bunnik & Van Wijngaarden (coll. Zwart, Wageningen). Sweden: lectotype, Herrevadskloster (Skåne), vi.1882 (coll. Thomson, Entomology Museum, Lund).

Plectiscidea subteres (Thomson)

Plectiscus subteres Thomson, 1888: 1300. Holotype label of R. Hinz (1962).

Characteristics of the holotype. Female. Front wing 4.2 mm. Clypeus polished, outer margin truncate, medially protruding, with erect hairs, width 0.61 of width face. Face, frons, vertex and temple polished. Occipital carina complete. Postannellus 4.2 times as long as the apical width. Pronotum polished, epomia strong. Mesoscutum polished, notauli present but obliterated posteriorly. Scutellum with the carina partly present. Most of the propodeum with irregular sculpture, carinae rather strongly developed. Mesopleurum polished, prepectal carina present but well away from the margin. Coxae and legs yellowish brown, legs slender. Length of the abdominal first segment 1.3 times the apical width. The apical margin wide. First tergite coriaceous, median dorsal carina to 0.42 of the length of the tergite. The spiracle situated at 0.37 of the length of the segment. The end of the first sternite is at 0.28 of the length of the segment. The second tergite is coriaceous, the apical margin is polished and light brown in colour. The ovipositor is 0.27 of the length of the front wing. Compare table 4.

Male unknown.

Table 3. *Plectiscidea bistriata* (Thomson). For explanation of abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	abds l/w	not
lectotype *P. bistriata*	3.5	0.18	4.0	1.5	
Kärnten, 30.vi.81		0.13	4.8	1.5	
Sonnenw. geb., 21.vi.		0.16	4.8	1.5	
Haus, 27.vi.72		0.17	4.0	1.5	
Gauting, 5.vi.72		0.15	4.0	1.4	
Gauting, 17.v.76		0.17	4.4	1.5	
Hedemünden, 12.v.66		0.16	4.4	1.7	
Dransfeld, 12.vi.66		0.17	4.3	1.7	
Naardermeer, 11.vi.74		0.14	4.8	1.8	

Table 4. *Plectiscidea subteres* (Thomson). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	abds l/w	not
holotype *P. subteres*	4.0	0.27	4.2	1.3	

Material examined. — Germany: (?), ♀, holotype, f. 22.v.1886, leg. and coll. Thomson (Entomological Museum, Lund).

Plectiscidea indomita species nova

Characteristics of the holotype of *P. indomita*. Female. Front wing 3.8 mm long. Mandible yellow, teeth about the same length. Clypeus rather convex, somewhat protruding. Malar space rather wide, 0.43 of width of face. Postannellus 4.0 times as long as the apical width. Epomia present. Notaulus present, short. Lateral carina of scutellum running somewhat behind the corner and slightly curving inwards. Propodeum dorsally with coriaceous sculpture, laterally with irregular fine sculpture. Prepectal carina present. First abdominal segment 2.0 times as long as the apical width. The spiracles situated at 0.40 of the length of the segment. The first tergite medially rather convex, with coriaceous sculpture. The second tergite with vague coriaceous sculpture. The other tergites polished. Ovipositor 0.22 of the length of the front wing. Compare table 5.

Male unknown.

Material examined. — Austria: paratype, T. Lechtaler A., Bichlbachle, 1350 m, 14.viii.1974. Germany: ♀, holotype, Hohenschwangau, Säulingweg, 1120—1300 m 16.vii.1974; 2 ♀, paratypes, Weszling, Hochstadt, 19.v.1974 (all leg. & coll. Haeselbarth); ♀, paralectotype of *Plectiscus sodalis* Förster, Lousberg, 19.v (coll. Förster, München). Italy: BS, Valvestino Malga Tombea, 1800 m, 14.vi.1976 (leg. & coll. Haeselbarth).

Distribution. — Widely spread in the western Palaearctic Region.

"Indomitus" is the Latin for "invincible", "indomitable".

Plectiscidea moerens (Förster)

Plectiscus moerens Förster, 1871: 87. Holotype labelled by Van Rossem.

Plectiscus xanthoneuris Förster, 1871: 87. Holotype labelled by Van Rossem. **New synonym.**

Plectiscus flavizonus Förster, 1871: 88. Holotype labelled by Van Rossem. **New synonym.**

Plectiscus eversorius Förster, 1871: 88. Holotype labelled by Van Rossem. **New synonym**

Characteristics of the holotype of *P. moerens*. Female. Front wing 3.4 mm long. Postannellus 4.3 times as long as apical width. Epomia present, short. Notaulus short. Lateral carina of the scutellum somewhat behind the corner. Propodeum polished, with rather long hairs. Prepectal carina present. First abdominal segment 2.4 times as long as apical width. Spiracles situated at 0.33 of the length of the segment. First tergite coriaceous, with rather long lateral hairs. Second tergite polished. Ovipositor 0.27 of the length of the front wing. Compare table 6.

The species is characterized by the ratio of length and width of the postannellus, 4.3—4.6 times as long as the apical width, the length of the ovipositor, 0.25—0.27 of the length of the front wing and the ratio of length and width of the first abdominal segment, 2.2—2.4 times as long as the apical width. The second tergite almost polished in most specimens.

Male unknown.

Table 5. *Plectiscidea indomita* spec. nov. For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	abds l/w	spir/ abds	not
holotype *P. indomita*	3.8	0.22	4.0	2.0	0.40	pr
Lecht, A., 14.viii.	3.5	0.22	4.3	2.0	0.37	pr
Weszling, 19.v.74	3.5	0.20	4.8	2.3	0.36	prw
Weszling, 19.v.74	3.9	0.20	4.6	2.2	0.38	prw
Lousberg, 19.v.	3.5	0.22	4.3	2.2	0.40	pr

Table 6. *Plectiscidea moerens* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype	3.4	0.27	4.3		2.4	0.33	
P. xanthoneuris	3.1	0.25	4.6		2.3		
P. flavizona	3.3	0.26	4.3		2.3		
P. eversoria	4.0	0.25	4.3		2.7	0.40	
paralectotype *P. subcurvata*	3.6	0.26	4.3		2.1	0.38	

Material examined. — Germany: ♀, holotype of *P. moerens*, Aachen; ♀, holotype of *P. xanthoneuris*, Aachen; ♀, holotype of *P. flavizona*, Aachen; ♀, holotype of *P. eversoria*, Aachen; ♀, paralectotype of *P. subcurvata*, Aachen (all coll. Förster, München); ♀, Bayern, Starnberg, Kerschlach, 18.v.1975; ♀, Oberbayern, Glonn, 13.vi.1968; ♀, Obb. Karwendel (illegible), 20.vii.1958; 2 ♀, Hedemünden (E), 10.vii.1967; 2 ♀, Dransfeld (A), 15.v.1966. Italy: ♀, Schabs, Südtirol, 750 m, 30.vii.1966 (all leg. & coll. Haeselbarth); ♀, Sarntal (Bolzano), 1250 m, 9.vi.1977 (leg. & coll. Zwakhals). Netherlands: ♀, Naardermeer, Malaise trap, 15.x.1974, leg. Bunnik & Van Wijngaarden (coll. Zwart, Wageningen).

Distribution. — Widely spread in Western and Central Europe.

Plectiscidea tener (Förster)

Plectiscus tener Förster, 1871: 86. Report on type by Aubert (1975).

Characteristics of the holotype of *Plectiscus tener*. Female. Front wing 2.8 mm long. Postannellus 5.0 times as long as apical width. Epomia present, but short. Propodeum polished, the apical transverse carina well developed. Prepectal carina present, short, reaching lower corner of pronotum. Left wings missing. First abdominal segment 2.1 times as long as apical width. The first tergite showing the most important feature of the species, namely the longitudinal striation with some vague coriaceous sculpture in the hind part. The spiracles rather protruding. The other tergites polished. Ovipositor 0.21 of the length of the front wing.

I found only one other specimen; it more or less agrees with the type specimen. It has the longitudinal sculpture of the first tergite. Compare table 7.

Male unknown.

Material examined. — Germany: ♀, holotype, Aachen (coll. Förster, München); ♀, Wiershausen (Niedersachsen) (Cb), 14.viii.1966 (leg. & coll. Haeselbarth).

Plectiscidea parvula (Förster)

Plectiscus parvulus Förster, 1871: 86. Holotype labelled by Van Rossem.

Plectiscus coxator Förster, 1871: 86. Holotype labelled by Van Rossem. **New synonym.**

Plectiscus nuptialis Förster, 1871: 87. Report on type by Aubert (1975). **New synonym.**

Characteristics of the holotype of *Plectiscus parvulus*. Female. Front wing 2.7 mm long. Postannellus 5.5 times as long as apical width. Malar space 0.41 of width face. Epomia short. Prepectal carina not reaching the margin. Scutellum damaged by pin. Middle femur extremely slender, 13 times as long as apical width. First abdominal segment 1.8 times as long as apical width. The first tergite coriaceous. Ovipositor 0.19 of the length of the front wing. Compare table 8.

Table 7. *Plectiscidea tener* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype	2.8	0.21	5.0		2.1		weak
Wiershausen, 14.viii.1966	3.5	0.22	5.2		2.5		weak

Table 8. *Plectiscidea parvula* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype *P. parvula*	2.7	0.19	5.5	0.41	1.8		pr
holotype *P. coxator*	2.8	0.22	5.0	0.41	1.9		pr
holotype *P. nuptialis*	2.9	0.22	5.0	0.38	1.9		
Hohenschwangau, 16.vii.74	4.2	0.22	5.0	0.41	1.9		
Hedemünden, 12.v.66	3.1	0.21	5.0		1.8		

Also the holotype of *P. nuptialis* shows the extremely slender middle femur.

Male unknown.

Material examined. — Germany: ♀, holotype of *P. parvula*, Lousberg, 15.ix; ♀, holotype of *P. coxator*, Köln; ♀, holotype of *P. nuptialis*, Aachen (all coll. Förster, München); ♀, Bayern, Hohenschwangau, Wildsulz, 1420—1560 m, 16.vii.1974; ♀, Hedemünden C, 12.v.1966 (specimen badly damaged) (both specimens leg. & coll. Haeselbarth). Austria: 2 ♀, Pass Thurn, Salzburg, 1200 m, 8.ix.1968; ♀, Fliess, Tirol, 4.ix.1971 (all three coll. Haeselbarth).

Distribution. — This is a species from Western Europe and the Alpine Region.

Plectiscidea tenuicornis (Förster)

Plectiscus tenuicornis Förster, 1871: 86. Holotype labelled by Van Rossem.

Plectiscus tenuicornis Thomson, 1888: 1303.

Plectiscus brachyurus Förster, 1871: 87. Holotype labelled by Van Rossem. **New synonym.**

Characteristics of the holotype of *P. tenuicornis*. Female. Frontwing 2.7 mm long. Postannellus 5.5 times as long as apical width. Notaulus weak. First tergite coriaceous. First abdominal segment 2.1 times as long as apical width. Ovipositor 0.27 of length of front wing. Compare table 9.

Characteristics of the holotype of *P. brachy-*

Table 9. *Plectiscidea tenuicornis* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype *P. tenuicornis*	2.7	0.27	5.5		2.1		weak
holotype *P. brachyura*	2.8	0.26	5.5		2.0		weak
Zell Pfarre, 14.vii.79	4.2	0.24	5.6		1.8		
Fliess, Tirol, 11.viii	3.0	0.24	5.5		2.2		
Wiershausen, 14.viii	3.5	0.24	5.2		2.3		
Obb. Weszling, 25.viii	4.3	0.24	5.3		2.3		
Naardermeer, 4.vi.74	3.8	0.25	5.6		2.0		
Norge, Lom — Lia, 26.vi.81	3.8	0.27	5.6		2.2		
Sweden, Värmland, Transtrand, 21.vii.81	4.0	0.25	5.3		2.0		

urus. Female. Front wing 2.8 mm long. Postannellus 5.5 times as long as apical width. Notauli weak, with a short carina on the inner margin. First tergite coriaceous. First abdominal segment 2.0 times as long as apical width. Ovipositor 0.26 of length of front wing.

The species is characterized by the length of the ovipositor (0.24—0.27 of the length of the front wing). The postannellus is 5.5—5.6 times as long as the apical width.

The male was described by Thomson (1888).

Material examined. — Austria: ♀, Kärnten, Zell Pfarre, 1200 m, 14.vii.1979; ♀, Kärnten, Himmelberg, 1000 m, 15.viii.1980 (both coll. Zwakhals); ♀, Fliess (Tirol), 1550 m, 11.viii.1971 (coll. Haeselbarth). Germany; ♀, holotype of *P. tenuicornis*, Lousberg, 25.x.; ♀, holotype of *P. brachyurus*, Aachen (both leg. & coll. Förster, Münden); 2 ♀, Hann. München, 13.viii.1965; ♀, Hedemünden, 12.v.1966; ♀, Lippoldshausen, B, 20.v.1967; ♀, Hessen, Witzenhausen, 14.v.1966; ♀, Niedersachsen, Wiershausen, 19.viii.1966; 2 ♀, Bayern, Herrsching, Kerschlacher Forst, 19.v.1974; ♀, Oberbayern, Weszling, 2.viii.1973. Italy: ♀, Campenjoch, Südtirol, 1350 m, A, 3.ix.1967 (all leg. & coll. Haeselbarth). Netherlands: ♀, Naardermeer, Malaise trap, 4.vi.1974, leg. Bunnik & Van Wijngaarden; ♀, Malaise trap, 8.x.1974, leg. Bunnik & Van Wijngaarden (both specimens coll. Zwart, Wageningen). Norway: ♀, Oppland, Lom-Lia, 26.vi.—20.vii.1978 (leg. & coll. Van Rossem). Sweden: ♀, Örebro Län, Klysna "Norrberga", 8.vii.—2.viii.1979; ♀, Värmland, Transtrand, Storbacken, 1st station, 21—31.vii.1981, margin of forest, close vegetation (leg. & coll. Van Rossem).

Distribution. — The species is widely spread in the Western Palaearctic Region.

Plectiscidea cinctula (Förster)

Plectiscus cinctulus Förster, 1871: 89. Holotype labelled by Van Rossem.

Plectiscus determinatus Förster, 1871: 88. Lectotype designation by Van Rossem. **New synonym.**

Plectiscus curticauda Thomson, 1888: 1302. Lectotype designation by Aubert (1977). The specimen has an Aubert label "gleiche Art wie hier unten als *tenuicornis* Frst." **New synonym.**

Characteristics of the holotype of *P. cinctulus*. Female. Front wing 3.8 mm long. Apical part of clypeus yellow. Postannellus 5.0 times as long as apical width. Notaulus weak, only visible on the margin. Scutellar carina running beyond the corner, not meeting at apex. Propodeum with vague coriaceous sculpture. Prepectal carina not reaching the margin. First abdominal segment 2.3 times as long as apical width. First tergite coriaceous. Ovipositor 0.29 of length of front wing.

Characteristics of the lectotype of *P. curticauda* (Thomson). Female. Front wing 4.3 mm long. Postannellus 5.1 times as long as apical width. Epomia short. Notaulus rather strong, but short. Lateral carina of scutellum not running behind the corner. Propodeum with irregular sculpture, the apical transverse carina with weak apophyses. The first abdominal segment 2.5 times as long as apical width. The spiracles lying at 0.35 of the length of the segment. The first tergite coriaceous. About 0.60 of the second tergite with coriaceous sculpture. Ovipositor 0.27 of the length of the front wing.

Male unknown.

Remark. — The lectotype and paralectotype of *P. determinata* are placed provisionally under *P. cinctula*. In both specimens the ratio of the length and width of the postannellus does not agree with the holotype of *P. cinctula*. Compare table 10.

Material examined. — Austria: ♀, T. Lechtaler Alpen, Bleispitze, 1900—2200 m, 14.viii.1974 (leg. & coll. Haeselbarth). Germany: ♀, holotype of *P. cinctula*, Aachen (coll. Förster, München); ♀, lectotype of *P. curticauda* (Thomson), ? Kaltenkirchen, 23.viii.1886 (coll. Thomson, Lund); 3 ♀, Hedemünden, C, 12.v.1966; ♀, Oberbayern, Deisenhofen, 26.vii.1958; 2 ♀, Bayern, Hohenschwangau, Säulingweg, 1120—1300 m, 16.vii.1974 and Wildsulz, 1420—1560 m, 16.vii.1974 (all leg. & coll. Haeselbarth). Sweden: 2 ♀, Fjätervålen — Idre, Dalarna, 2.viii—12.viii; 24.vii—1.viii.1982 (leg. & coll. Van Rossem); ♀, Dalarna, Transtrand, Hemfjällstangen, vii.1976 (leg. & coll. Van Rossem).

Distribution. — A widely spread species which may tend to mountainous regions.

Plectiscidea amicalis (Förster)

Plectiscus amicalis Förster, 1871: 87. Lectotype designation by Van Rossem.

Plectiscus sodalis Förster, 1871: 88. Lectotype designation by Van Rossem. **New synonym.**

Characteristics of the lectotype of *P. amicalis*. Female. Front wing 4.0 mm long. Postannellus 6.0 times as long as apical width. Notaulus weakly indicated on the margin. Mesopleurum polished, prepectal carina not reaching the margin. The first abdominal segment 2.6 times as long as the apical width. First tergite in part coriaceous. Second tergite with vague coriaceous sculpture. Gaster with rather conspicuous hairs.

Table 10. *Plectiscidea cinctula* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype *P. cinctula*	3.8	0.29	5.0		2.3		weak
lectotype *P. determinata*	3.6	0.28	5.6		2.36	0.4	
paralectotype *P. determinata*	3.3	0.27	4.8		2.18	0.33	
lectotype *P. curticauda*	4.3	0.27	5.1		2.5	0.35	
Lechtaler, A., 14.viii	3.5	0.30	5.2		1.9		
Hedemünden, 12.v.66	3.0	0.30	5.5		1.8		
Hedemünden, 12.v.66	3.8	0.31	5.2		2.3		
Hohenschwangau, 16.vii (wings damaged)		0.29	5.2		1.7		
Sverige, Fjätervålen, 2—12.viii	3.4	0.28	5.2		2.2		

Ovipositor 0.22 of the length of the front wing. Compare table 11.

Male. Thomson (1888) described the male of *P. sodalis*. I did not see the specimen.

Material examined. — Germany: ♀, lectotype of *P. amicalis*, no locality; ♀, lectotype of *P. sodalis*, Lousberg, 26.x (coll. Förster, München); ♀, Bayern, Weszling, Hochstadt, 19.v.1974 (leg. & coll. Haeselbarth). Italy: ♀, Bz, Valvestino, Monte Tombea, 1500—1700 m, 14.vi.1976 (identification dubious); ♀, Bz, Valvestino, Cima Tombea, 1900 m, 14.vi.1976 (identification dubious) (both specimens leg. & coll. Haeselbarth). Sweden: ♀, paralectotype of *P. curticauda* (Thomson), Kfe (=Kävlinge, Skåne) (coll. Thomson, Lund).

Distribution. — There are few localities available of this species in Germany and Sweden. The Italian localities are dubious.

Plectiscidea helvola (Förster)

Plectiscus helvolus Förster, 1871: 86. Report on type by Aubert (1975).

Table 11. *Plectiscidea amicalis* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
lectotype *P. amicalis*	4.0	0.22	6.0		2.6		
lectotype *P. sodalis*	4.0	0.23	6.0		2.0		
paralectotype *P. curticauda* (Th.)	4.3	0.22	6.0		2.3	no areolet	
Weszling, Hochstadt	2.8	0.23	6.0		2.5		
Hedemünden, 12.v.66	3.4	0.24	6.0		2.2		
Valvestino, 1900 m	3.5	0.21	6.5		2.3		
Valvestino, 1500—1700 m	3.6	0.20	6.5		1.8		
Valvestino, 1500—17.00 m		0.22	6.0		2.4		

Table 12. *Plectiscidea helvola* (Förster. For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype *P. helvola*	3.2	0.25	6.5		2.4		weak
holotype *P. subsimilis*	3.3	0.31	6.5		2.5		
holotype *P. petiolata*	3.8	0.28	6.5		2.6		
paralectotype *P. amicalis*	3.7	0.28	6.5		2.7		
Kärnten, Himmelberg, 11.viii.1980	3.5	0.25	6.5		2.4		

Plectiscus subsimilis Förster, 1871: 86. **New synonym.** Placed as synonym of *P. melanocera* by Aubert (1975).

Plectiscus petiolatus Förster, 1871: 87. Holotype labelled by Van Rossem. **New synonym.**

Characteristics of the holotype of *P. helvola*. Female. Front wing 3.2 mm long. Postannellus 6.5 times as long as apical width. Epomia present. Notaulus almost absent. Scutellar carina running to the apex. Propodeal carinae weak. Prepectal carina present, but short. First abdominal segment 2.4 times as long as apical width. First tergite with vague coriaceous sculpture. Ovipositor 0.25 of the length of the front wing. Compare table 12.

Male unknown.

Remark. — The species closely resembles *P. melanocera*, but it differs in the length of the first abdominal segment, 2.4—2.7 times the apical width (2.0 times in *P. melanocera*).

Material examined. — Austria: ♀, Kärnten, Himmelberg, 1000 m, 11.viii.1980 (leg. & coll. Zwakhals). Germany: ♀, holotype of *P. helvola*, Aachen; ♀, holotype of *P. subsimilis*, Lousberg, 4.viii; ♀, holotype of *P. petiolata*, Aachen; ♀, paralectotype of *P. amicalis*, Aachen (all coll. Förster, München).

Plectiscidea vagator (Förster)

Plectiscus vagator Förster, 1871: 87. Holotype labelled by Van Rossem.

Plectiscus ambulator Förster, 1871: 87. Holotype labelled by Van Rossem. **New synonym.**

Characteristics of the lectotype of *P. vagator*. Female. Front wing 3.8 mm long. Postannellus 6.0 times as long as apical width. Epomia present. Notaulus present, a short groove on the margin of the mesoscutum. Scutellar carina running to the apex. Propodeum with some coriaceous sculpture, the carinae rather weak. Prepectal carina present. First abdominal segment 2.1 times as long as apical width. First tergite coriaceous. Ovipositor 0.25 of the length of the front wing. Compare table 13.

The species is characterized by the length of the postannellus, 6.0 times as long as apical width (6.5 times in *P. melanocera* and *P. helvola*). The length of the ovipositor in the lectotype of *P. vagator* (0.25 of the length of the front wing) does not quite agree with the other specimens which I placed in *P. vagator* (0.27—0.30 of the length of the front wing).

Male unknown.

Material examined. — Switzerland: ♀, lectotype of *P. vagator*, Pontresina. Germany: ♀, holotype of *P. ambulator*, Aachen (both specimens coll. Förster, München); ♀, Oberbayern, Glonn, 14.vii.1968. Italy: ♀, Südtirol, 2100 m, B, 24.vii.1966 (both specimens leg. & coll. Haeselbarth).

Plectiscidea melanocera (Förster)

Plectiscus melanocerus Förster, 1871: 87. Report on type by Aubert (1975).

Plectiscus proximus Förster, 1871: 88. Holotype labelled by Van Rossem. **New synonym.**

Characteristics of the holotype of *P. melanocera*. Female. Front wing 3.0 mm long. Lower tooth of mandible slightly shorter than upper tooth. Postannellus 6.5 times as long as apical width. Notaulus weakly present. Length of first abdominal segment 2.0 times the apical width. First tergite coriaceous. The other tergites pol-

ished, but the second tergite with vague coriaceous sculpture. Ovipositor 0.27 of the length of the front wing. Compare table 14.

The species is characterized by the long postannellus, 6.5 times the apical width; the length of the ovipositor, 0.27—0.30 of the length of the front wing and the short first abdominal segment, 2.0 times the apical width.

Male unknown.

Material examined. — Germany: ♀, holotype of *P. melanocera*, Lousberg, 13.ix; ♀, lectotype of *P. proxima*, Lousberg, 11.ix (coll. Förster, München); 2 ♀, Hedemünden, C, 12.v.1966 (leg. & coll. Haeselbarth). Netherlands: ♀, Naardermeer, Malaise trap, 20.viii.1974; ♀, Naardermeer, Malaise trap, 3.ix.1974; ♀, Naardermeer, Malaise trap, 8.x.1974 (all leg. Bunnik & Van Wijngaarden) (coll. Zwart, Wageningen).

Distribution. — Widely spread in the western Palaearctic Region.

Plectiscidea canaliculata (Förster)

Plectiscus canaliculatus Förster, 1871: 86. Lectotype designation by Aubert. Report on type by Aubert (1975).

Plectiscus subtilis Förster, 1871: 86. Lectotype designation by Townes. Placed as synonym with *P. canaliculata* by Aubert (1975).

Plectiscus distinctus Förster, 1871: 88. Lectotype designation by Aubert. Placed as synonym with *P. canaliculata* by Aubert (1975).

Plectiscus subcurvatus Förster, 1871: 89. Lectotype designation by Van Rossem. **New synonym.**

Characteristics of the lectotype of *P. canaliculata*. Female. Front wing 3.1 mm long. Malar space 0.33 of width face. Postannellus 5.2 times as long as apical width. Epomia present but short. Notaulus strong on the mesoscutal margin. Lateral carina of scutellum at the corner. Propodeum with some vague coriaceous sculpture and widely placed rather long hairs. Prepectal carina present, short, not beyond ventral corner of pronotum. First abdominal segment long, 3.1 times as long as apical width. First tergite coriaceous and with a vague median dorsal carina. Ovipositor 0.36 of the length of the front wing. Compare table 15.

Male unknown.

Remark. — The species is characterized by the long first abdominal segment, 3.1—3.5 times as long as apical width. I am well aware that the lectotype of *P. subcurvata* does not quite agree with *P. canaliculata*. The postannellus is rather short. The ovipositor reaches 0.32 of the length of the front wing and the first abdominal segment measures 3.5 times the apical width.

Material examined. — Germany: ♀, lectotype of *P. canaliculata* Lousberg, 15.ix; ♀, lectotype of *P. subtilus*, Aachen; ♀, no locality (pencil label "subtilis"); ♀, lectotype of *P. distincta*, Aachen, 5.vii; ♀, lectotype of *P. subcurvata*, Lousberg, 5.v (all coll. Förster, München). Austria: ♀, Kärnten, Bodental, 1100 m, 13.vii.1981 (leg. & coll. Zwakhals). Germany: ♀, Bayern, Hohenschwangau, 830—1050 m, 16.vii.1974 (leg. & coll. Haeselbarth).

Distribution. — Widely spread in the western Palaearctic Region.

Plectiscidea erythropyga (Förster)

Plectiscus erythropygus Förster, 1871: 88. Lectotype designation by Aubert (1975).

Characteristics of the lectotype of *P. erythropyga*. Female. Front wing 4.8 mm long. Mandibular teeth of the same length. Clypeus for the greater part yellow. Malar space impressed. Postannellus 6.0 times as long as apical width. Epomia strong, almost reaching the mesoscutal margin. Notaulus strong, reaching to about 0.3 of the distance to the center of mesoscutum. Upper part of propodeum more or less polished, apical transverse carina strong. Mesopleurum polished, prepectal carina not reaching the margin. Hind coxa punctured by implantations of hairs. First abdominal segment 2.7 times as long as apical width. The first tergite with longitudinal striated sculpture, also somewhat coriaceous. In the basal half of the second tergite vague coriaceous sculpture, the apical margin yellowish brown. Third tergite with a narrower yellowish margin. The apical part of the gaster dirty yellowish. Length of ovipositor 0.55 of the length of front wing. Compare table 16.

Male unknown.

Material examined. — Germany: ♀, lectotype of *P. erythropyga*, Lousberg, 15.x. (coll. Förster, München).

Plectiscidea monticola (Förster)

Plectiscus monticola Förster, 1871: 89. Lectotype designation by Aubert. Report on type by Aubert (1975).

Table 13. *Plectiscidea vagator* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
lectotype *P. vagator*	3.8	0.25	6.0		2.1		pr
holotype *P. ambulator*	4.0	0.30	6.0		2.3		pr
Glonn, 14.vii.68	3.7	0.27	6.0		2.3		weak
Südtirol, 2100 m, 24.vii.66	3.5	0.29	6.0		2.1		pr

Characteristics of the lectotype of *P. monticola*. Female. Front wing 3.7 mm long. Mandibular teeth of the same length. Malar space 0.35 of width of face. Postannellus 5.0 times as long as apical width. Epomia strong, reaching to the mesoscutal margin. Notaulus present, running to about 0.30 of the distance to the centre of the mesoscutum. Scutellar margin reaching beyond the scutellar corner, turning inwards but not meeting. Propodeum with coriaceous sculpture, carinae strong. Mesopleurum polished, prepectal carina strong, not reaching to the margin. Coxae brown, hind coxa coriaceous. First abdominal segment 2.0 times as long as apical width. First tergite coriaceous, medially rather convex. The second tergite coriaceous, with an apical yellow band, merging into a spot on tergite three. Ovipositor 0.44 of the length of the front wing. Compare table 17.

Material examined. — Switzerland: ♀, lectotype of *P. monticola*, Splügen (coll. Förster, München); ♀, Gr. S-charl Clemgiatal, 2000—2100 m, 12.viii.1973 (leg. & coll. Haeselbarth). Germany: ♀, Oberbayern, Umg. Deisenhofen, 26.vii.1958 (leg. & coll. Haeselbarth). Sweden: ♀, coll. Holmgren, no locality, paralectotype of *P. curticauda* (Thomson) (coll. Thomson, Lund).

Distribution. — The species seems to be a mountainous and perhaps a boreal species.

Plectiscidea agitator (Förster)

Plectiscus agitator Förster, 1871: 89. Holotype labelled by Van Rossem. An Aubert label: *Plectiscidea subangulatus* Först. (= *mesoxanthus* = *agitator* Först.).

Characteristics of the holotype. Female. Front wing 4.5 mm long. Malar space 0.35 of

Table 14. *Plectiscidea melanocera* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype *P. melanocera*	3.0	0.27	6.5		2.0		
lectotype *P. proxima*	3.0	0.25	6.5		2.0		
Hedemünden, 12.v.66	4.0	0.30	6.4		2.0		
Hedemünden, 12.v.66	3.5	0.30	6.5		2.0		
Naardermeer, 20.viii.74	3.1	0.28	6.0		1.9		
Naardermeer, 3.ix.74	3.4	0.33	6.5		2.0		
Naardermeer, 8.x.74	4.0	0.29	6.4		2.0		

Table 15. *Plectiscidea canaliculata* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
lectotype *P. canaliculata*	3.1	0.36	5.2	0.33	3.1		pr
lectotype *P. subtilis*	3.2	0.36	5.2		3.1		pr
P. subtilis specimen, no loc.	3.2	0.33	5.2		3.1		
lectotype *P. distincta*	3.1	0.35	5.2		3.1		
lectotype *P. subcurvata*	3.4	0.32	4.8		3.5		pr

width of face. Lower tooth of mandible slightly shorter than upper tooth. Postannellus 6.0 times as long as apical width. Epomia present. Notaulus present, but rather weakly impressed. Scutellar margin not reaching further than the scutellar corner. Propodeal carinae well developed. Prepectal carina strong. Right hind leg missing beyond femur. Left hind leg missing beyond trochanter. First abdominal segment 2.3 times as long as the apical width. First tergite with some longitudinal sculpture. Second tergite almost polished, with a yellow apical margin. Ovipositor 0.40 of the length of the front wing.

Male unknown.

Material examined. — Germany: ♀, holotype of *P. agitator*, Lousberg, 1.vii (coll. Förster, München).

Plectiscidea conjuncta (Förster)

Plectiscus conjunctus Förster, 1871: 87. Report on type by Aubert (1975).

?Plectiscus flavicoxis Förster, 1871: 87. Placed in the synonymy of *P. conjuncta* by Aubert (1975).

Characteristics of the holotype of *P. conjuncta*. Female. Front wing 3.9 mm long. Clypeus yellow. Malar space 0.38 of width of face. Postannellus 5.2 times as long as apical width. Tips of both antennae broken off. Epomia to the pronotal margin (an exception). Notaulus present. Scutellar carina running beyond the corner, curving inwards, but not meeting. Propodeum polished. Prepectal carina present. First abdominal segment 2.4 times as long as apical width and it measures 0.16 of the length of the front wing. Spiracles situated at 0.34 of the length of the segment. First tergite coriaceous. Second tergite with vague coriaceous sculpture. Ovipositor 0.38 of the length of the front wing. Compare table 18.

Male unknown.

Remark. — The status of the lectotype of *P. flavicoxis* is disputable. The notaulus is obliterated by the glue fixing the head of the specimen. Nevertheless the first abdominal segment measures 0.15 of the length of the front wing. I have placed *P. flavicoxis* tentatively as a synonym of *P. conjuncta*. In the paralectotype of *P. flavicoxis* the abdominal segment measures 0.14 of the length of the front wing and consequently agrees with *P. conjuncta*.

Male unknown.

Material examined. — Germany: ♀, holotype of *P. conjuncta*, Lousberg, 25.x; ♀, lectotype of *P. flavicoxis*, Lousberg, 25.x; ♀, paralectotype of *P. flavicoxis*, Lousberg, 31.x (all coll. Förster, München). Italia: ♀, Funes (Prov. Bolzano), 20.vii—9.viii.1968, Selva Nera 1400—2000 m (leg. & coll. Van Rossem).

Table 16. *Plectiscidea erythropyga* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
lectotype *P. erythropyga*	4.8	0.55	6.0		2.7		pr

Table 17. *Plectiscidea monticola* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
lectotype *P. monticola*	3.7	0.44	5.0	0.35	2.0		pr
paralectotype *P. curticauda*	4.4	0.42	5.0	0.44	2.1		weak
Deisenhofen, 26.vii.1958	5.2	0.42	5.6	0.41	2.1		pr
Clemgiatal, 12.viii.73	3.5	0.41	5.2	0.37	2.2		pr

Plectiscidea collaris (Gravenhorst)

Plectiscus collaris Gravenhorst, 1829: 987. No Gravenhorst label present. Lectotype designation by Aubert.

Plectiscus collaris; Förster, 1871: 85 & 89.

Plectiscus collaris; Thomson, 1888: 1300. Material not examined.

Plectiscus binodulus Förster, 1871: 89. Holotype labelled by Van Rossem. **New synonym.**

Characteristics of the lectotype of *Plectiscus collaris*. Female. Front wing 4.8 mm long. Palpi yellow. Lower mandibular tooth somewhat shorter than upper tooth. Clypeus protruding, the apical margin curved inwards. Width of clypeus about half the width of face. Malar space wide, 0.38 of width of face. All parts of head polished. Postannellus 5.0 times as long as apical width. Epomia present. Notaulus strong at the margin, but short. Scutellum with the carina to the apex, not meeting. Mesopleurum polished, prepectal carina not reaching the margin. Coxae and legs yellow. Hind coxa slightly coriaceous. Length of first abdominal segment 2.6 times the apical width and it measures 0.18 of the length of the front wing. The first tergite coriaceous. The second tergite for the greater part polished with some vague coriaceous sculpture. The other tergites polished. Ovipositor 0.38 of the length of the front wing.

Characteristics of the holotype of *Plectiscus binodulus*. Female. Front wing 5.2 mm long. Palpi and mandible whitish. Lower tooth of mandible somewhat shorter than upper tooth. Clypeus protruding, the outer margin curved inwards weakly. Malar space 0.35 of width of face. Postannellus 5.2 times as long as apical width. Notaulus strong, but short. Margin of scutellum not present. Mesopleurum polished, prepectal caina wide away from margin. Length of first abdominal segment 2.4 times the apical width and measuring 0.19 of the length of the front wing. Coriaceous sculpture of the first tergite present but weak. Second tergite polished but with vague coriaceous sculpture. The other tergites polished. Ovipositor 0.35 of the length of the front wing. Compare table 19.

Male. Thomson (1888) and Strobl (1903) distinguished the male.

Material examined. — No locality, ♀, lectotype of *P. collaris* (Muzeum Przyrodnicze, Wroclaw). Germany: ♀, label *P. collaris*, Aachen; ♀, holotype of *P. binodula*, Lousberg, 26.x (both specimens coll. Förster, München); 2 ♀, Bayern, Herrsching, Wid-

Table 18. *Plectiscidea conjuncta* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not	abds /frw
holotype *P. conjuncta*	3.9	0.38	5.2	0.38	2.4	0.34	pr	0.16
lectotype *P. flavicoxis*	3.5	0.38	5.2	0.35	2.2	0.31		0.15
paralectotype *P. flavicoxis*	3.7	0.36	5.2	0.38	2.2	0.37	weak	0.14

Table 19. *Plectiscidea collaris* (Gravenhorst). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	abds l/w	spir/ abds	abds /frw
lectotype *P. collaris*	4.8	0.38	5.0	2.6		0.18
Aachen, coll. Förster	4.9	0.37	5.2	2.6		
holotype *P. binodula*	5.2	0.35	5.2	2.4		0.18
Ede, 3.x.64		0.40	6.0	2.8	0.37	0.19
Sarntal, 1250 m, 24.vi.1976		0.34	5.7	2.6		
+ Amesberg, 30.viii.85		0.45	5.7	2.3	0.42	0.18
+ Brunnwald, 21.viii.85		0.52	6.0	2.6		0.19
+ Brunnwald, 21.viii.85		0.48	6.3	2.8	0.39	0.19
+ Schönau, 4.viii.85		0.45	6.0	2.4	0.41	0.18
+ Penzenmühle, 19.ix.85	4.97	0.46	6.0	2.3		0.18
+ Dreiegg, 24.ix.85		0.46	5.6	2.6		0.18
+ Riedl, 12.ix.85		0.47	5.0	2.9		0.19
+ Riedl, 12.ix.85		0.45	4.8	2.3	0.40	0.17

+ = Austria

dersberg, sumpfiges Tal, 22.vi.1974 (leg. & coll. Haeselbarth). Italia: ♀, Bolzano, Sarntal, 24.vi.1976 (leg. & coll. Zwakhals). Netherlands: ♀, Ede, Planken Wambuis, 3.x.1964 (leg. & coll. Van Rossem).

Distribution. — *Plectiscidea collaris* is the type species of *Plectiscidea* but it seems to be uncommon. It is nevertheless widely spread.

Plectiscidea foersteri species nova

Characteristics of the holotype. Labels: 23 gl., Aachen (coll. Förster, München). Female. Front wing 4.7 mm long. Lower tooth of mandible much shorter than upper tooth. Clypeus yellow. Malar space 0.33 of width of face. Right antenna missing. Postannellus 3.7 times as long as apical width. Pronotum reddish brown in colour. Epomia present. Notaulus developed to about 0.5 of the distance to the mesoscutal center, with a short carina on the inner side at the mesoscutal margin. Scutellum with the lateral carina only at the basal corner. Propodeum with vague coriaceous sculpture, the carinae well developed. Prepectal carina strong. Left hind leg missing beyond coxa. First abdominal segment 2.4 times as long as apical width. First tergite coriaceous. Second tergite with vague coriaceous sculpture, the apical half yellow. The other tergites and sternites yellow. Ovipositor 0.44 of the length of the front wing.

Male unknown.

The species is named after Arnold Förster (1810—1884).

Material examined. — Germany: ♀, holotype of *P. foersteri*. Aachen. (coll. Förster, München). The specimen belongs to the material placed by Förster under the name *Plectiscus collaris*.

Plectiscidea nava (Förster)

Proclitus navus Förster, 1871: 117. Holotype labelled by Van Rossem. Label of Aubert: *Plectiscidea flavizonus* Först. (= *Proclitus navus* Först.).
Plectiscidea (nec *Proclitus*) *navus*; Aubert, 1977: 146.

Characteristics of the holotype of *Proclitus navus*. Female. Front wing 3.9 mm. Malar space 0.41 of width of face. Width of clypeus 0.52 of width of face. Postannellus 4.3 times as long as the apical width. Flagellum of the left antenna lacking. Flagellum of the right antenna lacking beyond the third flagellar segment. Epomia present. Mesoscutum polished, with notaulus strong towards the mesoscutal margin, further on obsolete. Propodeum with coriaceous sculp-

Table 20. *Plectiscidea nava* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype *P. nava*	3.9	0.38	4.3		2.3		pr
Bodental, 1100 m 1.viii.81	4.7	0.39	4.0		2.2		pr
Spertental, Tirol 5.vii.71	3.5	0.37	4.3		2.0		pr
Clemgiatal, 1900—2000 m, 12.viii.73	3.5	0.35	4.0		2.0		pr.

ture. Mesopleurum polished, prepectal carina not reaching the margin. First abdominal segment 2.3 times as long as the apical width. The first tergite with coriaceous sculpture. The second tergite for the greater part coriaceous. The other tergites polished. Ovipositor 0.38 of the length of the front wing. Compare table 20.

Male unknown.

Material examined. — Germany: ♀, holotype of *P. navus*, Aachen (coll. Förster, München). Austria: ♀, Kärnten, Bodental, 1100 m, 1.vii.1981 (leg. & coll. Zwakhals); ♀, Tirol, Spertental, 1100 m, 5.vii.1971 (leg. & coll. Haeselbarth) Switzerland: ♀, Gr. S-charl, Clemgiatal, 1900—2000 m, 12.viii.1973 (leg. & coll. Haeselbarth).

Distribution. — Besides the type specimen from Aachen, there are some alpine localities at high altitudes.

Plectiscidea substantiva species nova

Characteristics of the holotype of *P. substantiva* (♀, Nd Spessart, Lochmühle 1971, 17—22.ix, Malaise trap, leg. G. van Rossem): Front wing 4.5 mm long. Palpi and mandible yellow. Lower mandibular tooth shorter than upper tooth. Malar space wide, 0.35 of width of face. Anterior tentorial pits conspicuous. All parts of head polished. Mandible, clypeus and face with rather long hairs. Postannellus 4.2 times as long as the apical width. Epomia present. Notaulus strong on the mesoscutal margin and with a short carina on the inner side. Mesoscutum polished, on front part and along the lateral margin with suberect long hairs. First and second pleural area and metapleural area with conspicuous and close suberect hairs. Mesopleurum polished, hairs on lower part, prepectal carina strong, not reaching the margin. Front and middle coxae whitish, hind coxae brown. Claws strong. First tergite coriaceous and with fine longitudinal striation, laterally with hairs. The first abdominal segment 2.6 times as long as apical width. The second tergite with vague coriaceous sculpture and with a yellow apical band. The other tergites polished and yellow. Ovipo-

Table 21. *Plectiscidea substantiva* spec. nov. For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype	4.5	0.47	4.2	0.35	2.6		pr
Lochmühle, 17—22.ix.71	4.8	0.43	4.5	0.33	2.7		pr
Lochmühle, 17—22.ix.71	4.8	0.45	4.5	0.29	2.5		pr
Lousberg, 6.x, coll. Förster	4.6	0.48	4.5	0.35	2.5		pr
Obbay. Jettenhausen, 12.vii.68	4.2	0.43	4.0	0.33	2.4		pr
Austria, Bodental, 1100 m, 3.vii.81	5.2	0.48	4.5	0.31	2.5		pr
Neth., Ede 2—3.xi.66	4.8	0.48	4.5	0.33	2.7		pr

Table 22. *Plectiscidea crassicornis* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype *P. crassicornis*	4.5	0.41	4.2	0.42	2.6	0.37	pr
Südtirol, 1900 m, 24.vii.66	4.5	0.41	4.2	0.41	2.3		
Switzl. St. Surains, 1500 m, 30.vii.73	3.7	0.43	4.6	0.41	2.3		

sitor 0.47 of the length of the front wing. Compare table 21.

Male unknown.

Remark. The anterior tentorial pit of the holotype is strongly impressed. In the paratypes this is less conspicuous.

The specific name "substantivus" is the Latin for "separately".

Material examined. — Germany: ♀, holotype of *P. substantiva*, Nd Spessart, Lochmühle, Malaise trap, 17—22.ix.1971; 2 ♀, paratypes, Nd Spessart, Lochmühle, Malaise trap, 17—22.ix.1971 (leg. & coll. Van Rossem); ♀, paratype, third specimen of *P. collaris* sensu Förster, Lousberg, 6.x (coll. Förster, München); ♀, paratype, Oberbayern, Jettenhausen, 12.vii.1968 (leg. & coll. Haeselbarth). Austria: ♀, Kärnten, Bodental, 1100 m, 3.vii.1981 ((leg. & coll. Zwakhals). Netherlands: ♀, paratype, Ede (garden), 2—3.xi.1963 (leg. & coll. Van Rossem).

Distribution. — The species is widely spread in the Western Palaearctic Region.

Plectiscidea crassicornis (Förster)

Plectiscus crassicornis Förster, 1871: 89. Report on type by Aubert (1975).

Characteristics of the holotype of *P. crassicornis*. Female. Front wing 4.5 mm long. Malar space wide, 0.42 of width of face. Postannellus 4.2 times as long as apical width. Epomia present, short. Notaulus present and rather strong. Scutellar carina not running behind the scutellar corner. Propodeum with strong carinae and weak apophyses. Prepectal carina present. Legs and coxae yellowish brown, strong. Femora stout. Front femur 3.0 times as long as wide. First abdominal segment 2.6 times as long as apical width. First tergite coriaceous and with a conspicuous lateral row of hairs. The spiracles situated at 0.37 of the length of the segment. The gaster bright yellow of colour in the apical half of the second tergite and further. Ovipositor conspicuously long, 0.41 of the length of the front wing. The type specimen is robust for a *Plectiscidea* species. Compare table 22.

Male. Thomson (1888) described the male.

Material examined. — Germany: ♀, holotype of *P. crassicornis*, Lousberg, 15.ix (coll. Förster, München). Italia: ♀, Südtirol (Bolzano district), 1900 m, C, 24.vii.1966. Switzerland: ♀, Gr. Sent Surains u. Val Gronda, 1500 m, 30.vii.1973 (both specimens leg. & coll. Haeselbarth).

Distribution. — Besides the type specimen from Lousberg (Aachen), there are two specimens from high altitudes in the Alps.

Plectiscidea posticata (Förster)

Plectiscus posticatus Förster, 1871: 87. Report on type by Aubert (1975).

Plectiscus pungens Förster, 1871: 87. Placed as synonym of *P. posticata* by Aubert (1975).

Table 23. *Plectiscidea posticata* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype *P. posticata*	3.6	0.33	7.0	0.30	2.7		weak
holotype *P. pungens*	3.6	0.35	7.0		2.7		weak

Table 24. *Plectiscidea connexa* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype *P. connexa*	4.2	0.40	5.3	0.40	2.7	0.37	not pr
Austria, Haus, 1200 m 9.vi.72	4.2	0.46	5.0	0.37	3.0	0.40	weak

Characteristics of the holotype of *P. posticata*. Female. Front wing 3.6 mm long. Left antenna missing. Malar space 0.30 of width of face. Postannellus 7.0 times as long as apical width. Epomia present. Notaulus weak. Lateral carina of scutellum running somewhat past the scutellar corner. Propodeum polished. Prepectal carina present. First abdominal segment 2.7 times as long as apical width. First tergite coriaceous. The gaster compressed behind the second segment. Ovipositor 0.33 of the length of the front wing.

Male unknown.

Remark. — The chief characters of the female of this species are the following. Front wing 3.6 mm long. The postannellus is conspicuously long, 7.0 times the apical width. Notaulus evanescent. The ovipositor 0.33—0.35 of the length of the front wing. Compare table 23.

Material examined. — Germany: ♀, holotype of *P. posticata*, Aachen; ♀, holotype of *P. pungens*, Lousberg, 3.x (coll. Förster, München).

Plectiscidea connexa (Förster)

Plectiscus connexus Förster, 1871: 89. Holotype labelled by Van Rossem.

Characteristics of the holotype of *P. connexa*. Female. Front wing 4.2 mm long. Malar space 0.40 of width of face. Postannellus 5.3 times as long as apical width. Epomia short. Notaulus not present. Lateral carina of scutellum running to apex of scutellum. Prepectal carina with a sinuosity caused by the indentation of the sternaulus. First abdominal segment 2.7 times as long as apical width. First tergite coriaceous. The spiracles situated at 0.37 of the length of the segment. Second tergite almost polished, with a yellow band merging into a yellow zone of tergite three. Ovipositor 0.40 of the length of the front wing. Compare table 24.

Male unknown.

Material examined. — Germany: ♀, holotype of *P. connexa*, Aachen (coll. Förster, München). Austria: ♀, St., Haus, Heidelbeere, 1200 m, 9.vi.1972 (leg. & coll. Haeselbarth).

Plectiscidea mesoxantha (Förster)

Plectiscus mesoxanthus Förster, 1871: 88. Holotype labelled by Van Rossem.

Characteristics of the holotype of *P. mesoxantha*. Female. Front wing 4.6 mm long. Malar space 0.38 of width of face. Postannellus 5.7 times as long as apical width. Epomia strong, but short. Notaulus almost absent. Propodeal carinae strong. Prepectal carina with a sinuosity from the rather strong impression of the sternaulus. First abdominal segment 1.8 times as long as apical width. The apical margin of the postpetiole is wide. The spiracles situated at 0.30 of the length of the segment. The first tergite coriaceous with some longitudinal sculpture. The second tergite almost polished, with a yellow lateral and apical margin. The third tergite yellow. Ovipositor 0.42 of the length of the front wing. The right front wing missing, the other wings in bad shape. Compare table 25.

Male unknown.

Remark. The holotype of *P. mesoxantha* is a conspicuously stout specimen of *Plectiscidea*.

Material examined. — Germany: ♀, holotype of

Table 25. *Plectiscidea mesoxantha* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype *P. mesoxantha*	4.6	0.42	5.7	0.38	1.8	0.32	not pr

Table 26. *Plectiscidea mendica* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype *P. mendica*	4.2	0.43	5.0	0.37	2.0	0.50	not pr

P. mesoxantha, Veen (near Wesel) (coll. Förster, München).

Plectiscidea mendica (Förster)

Plectiscus mendicus Förster, 1871: 88. Holotype labelled by Van Rossem.

Characteristics of the holotype of *P. mendica*. Female. Front wing 4.2 mm long. Malar space 0.37 of width of face. Postannellus 5.0 times as long as apical width. Epomia present. Notaulus hardly impressed. Lateral carina of the scutellum running somewhat beyond the corner and slightly curved inwards. First abdominal segment 2.0 times as long as apical width. First tergite coriaceous. The spiracles situated at 0.50 of the length of the segment, a character deserving attention. Ovipositor 0.43 of the length of the front wing. Compare table 26.

Male unknown.

Material examined. — Germany: ♀, holotype of *P. mendica*, Aachen (coll. Förster, München).

Plectiscidea fraterna (Förster)

Plectiscus fraternus Förster, 1871: 87. Holotype labelled by Van Rossem.

Characteristics of the holotype of *P. fraterna*. Female. Front wing 3.1 mm long. Malar space 0.38 of width of face. Postannellus 5.5 times as long as apical width. Flagellum of both antennae missing, except for right postannellus. Epomia present. Notaulus absent. Lateral carina of scutellum curved inwards behind the corner, not meeting. Prepectal carina present. First abdominal segment 2.3 times as long as apical width. The spiracles situated at 0.40 of the length of the segment. First tergite coriaceous. Second tergite with vague coriaceous sculpture. Ovipositor 0.46 of the length of the front wing. Compare table 27.

Male unknown.

Material examined. — Germany: ♀, holotype of *P. fraterna*, Aachen (coll. Förster, München).

Plectiscidea deterior (Förster)

Plectiscus deterior Förster, 1871: 88. Lectotype designation by Van Rossem. Report on type by Aubert (1975).

Characteristics of the lectotype of *P. deterior*. Female. Front wing 4.2 mm long. Malar space 0.35 of width of face. Postannellus 5.0 times as long as apical width. Notaulus evanescent. Lateral scutellar carina running somewhat behind the scutellar corner. First abdominal segment 2.1 times as long as apical width. The spiracles situated at 0.43 of the length of the segment. First tergite coriaceous. Sculpture of the second tergite for the greater part coriaceous. Ovipositor 0.46 of the length of the front wing. Compare table 28.

Male unknown.

Material examined. — Germany: ♀, lectotype of *P. deterior*, Aachen (coll. Förster, München). Austria: ♀, Fliess, Tirol, Heidelbeeren, 1600 m, 4.ix.1971 (leg. & coll. Haeselbarth).

Plectiscidea blandita species nova

One paralectotype of *P. hostilis* does not agree with *P. humeralis* (of which *P. hostilis* is a synonym). The ovipositor is too long (0.44 of the length of the front wing). The specimen comes close to *P. terebrator*, but the malar space (0.43 of the width of face) does not agree with that of *P. terebrator*. The length of the first

Table 27. *Plectiscidea fraterna* (Förster). For abbreviatios, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype *P. fraterna*	3.1	0.46	5.5	0.38	2.3	0.40	not pr

Table 28. *Plectiscidea deterior* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
lectotype *P. deterior*	4.2	0.46	5.0	0.35	2.1	0.43	not pr
Tirol, Fliess, 1600 m, 4.ix.71		0.45	5.2	0.35	2.1	0.40	

abdominal segment reaches 2.5 times the apical width. I consider this specimen to represent a different species.

Characteristics of the holotype of *P. blandita*. Labels: Aachen, 26.x. Paralectotype of *P. hostilis* Förster. Female. Front wing 4.0 mm long. Malar space 0.42 of width of face. Postannellus 5.0 times as long as apical width. Epomia short. Pronotum yellowish in colour. Notaulus not present. Lateral carina of scutellum curved inwards behind the scutellar corner. Prepectal carina present. Left hind leg missing behind the coxa. First abdominal segment 2.5 times as long as apical width. The spiracles situated at 0.34 of the length of the segment. First tergite coriaceous. The second tergite polished with some vague coriaceous sculpture near the base, the apical margin yellowish. The third tergite yellowish. Ovipositor 0.44 of the length of the front wing. Compare table 29.

Male unknown.

Material examined. — Germany: ♀, holotype of *P. blandita*, Aachen, 26.x (coll. Förster, München).

The specific name "blandita" is the Latin for "enchanting".

Plectiscidea terebrator (Förster)

Plectiscus terebrator Förster, 1871: 87. Lectotype designation by Aubert (1975).

Plectiscus habilis Förster, 1871: 88. Holotype labelled by Van Rossem. **New synonym.**

Plectiscus praepositus Förster, 1871: 89. Lectotype designation by Van Rossem. **New synonym.**

Characteristics of the lectotype of *P. terebrator*. Female. Front wing 3.5 mm long. Malar space 0.33 of width of face. Postannellus 5.2 times as long as apical width. Epomia present. Notaulus absent. Prepectal carina present. First abdominal segment 2.2 times as long as apical width. First tergite coriaceous. Spiracles situated at 0.34 of the length of the segment. Second tergite weakly coriaceous. Ovipositor 0.46 of the length of the front wing. Compare table 30.

Male unknown.

Remarks. — Of the lectotype of *P. praeposita* the face and mouthparts are obscured by glue.

I have placed the single paralectotype of *P. proxima* under *P. terebrator* as I cannot identify it properly. A part of the first, second and third abdominal segments are damaged by Dermestids.

Material examined. — Germany: ♀, lectotype of *P. terebrator*, Aachen; ♀, holotype of *P. habilis*, Aachen; ♀, lectotype of *P. praeposita*, Lousberg, 15.ix; ♀, paralectotype of *P. praeposita*, Lousberg, 15.ix; ♀, paralectotype of *P. subangulata* (Förster), Lousberg, 26.x; ♀, paralectotype of *P. proxima* (Förster), Aachen (all coll. Förster, München); ♀, Lippoldshausen, B, 21.viii.1966 (coll. Haeselbarth). Austria: ♀, Fliess, Tirol, Heidelbeeren, 1600 m, 4.ix.1971 (leg. & coll. Haeselbarth). Sweden: ♀, Dalarna, Transtrand, Hemfjällstangen, vii.1976 (leg. & coll. Van Rossem).

Distribution. — Recorded from Germany (Aachen region) and Lippoldshausen, also from Austria and Sweden.

Table 29. *Plectiscidea blandita* spec. nov. For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype *P. blandita*	4.0	0.44	5.0	0.42	2.5	0.34	not pr

Table 30. *Plectiscidea terebrator* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
lectotype *P. terebrator*	3.5	0.46	5.2	0.33	2.2	0.34	not pr
holotype *P. habilis*	4.3	0.47	5.3	0.33	2.3	0.35	
lectotype *P. praepostia*	4.2	0.47	5.0	+	2.1	0.35	
paralectotype *P. praeposita*	4.0	0.47	5.0	0.35	2.3	0.37	
parelectotype *P. subangulata*	4.5	0.45	5.3	0.33	2.2	0.37	weak
paralectotype++ *P. proxima*	3.5	0.42	5.2	0.33	1.9	0.20	not pr

\+ damaged
++ species inquirenda

Plectiscidea ventosa species nova

Characteristics of the holotype of *P. ventosa* (Holland, Naardermeer, Malaise trap, 20.viii.1974, Bunnik & Van Wijngaarden): Female. Front wing 3.7 mm long. Mandible yellow, lower tooth shorter than upper tooth. Clypeus rather small, with erect hairs, width 0.58 of width of face. Face, frons, vertex and temple polished. Occipital carina complete. Postannellus 4.3 times as long as the apical width. Mesoscutum highly polished. Notaulus absent. Hairs scarce, only along the margin and on the front part of the lateral lobes. Scutellar carina running to the apex, but not closed. First lateral and pleural areas and metapleurum coriaceous. Mesopleurum highly polished. Prepecteal carina present, well away from the margin. Legs slender, yellowish brown. First abdominal segment 1.7 times as long as the apical width. The first tergite coriaceous, fuscous. The end of the first sternite at 0.64 of the length of the tergite. Front half of the second tergite coriaceous, the apical half polished. Other tergites polished, brownish in colour. Ovipositor 0.33 of the length of the front wing. Compare table 31.

Male unknown.

Material examined. — Netherlands: ♀, holotype of *P. ventosa*, Naardermeer, Malaise trap, 20.viii.1974, leg. Bunnik & van Wijngaarden. Two paratypes from the same locality and data (all coll. K. W. R. Zwart, Wageningen). Sweden; ♀, syntype of *Plectiscidea curticauda* (Thomson), Halland (coll. Thomson, Entomological Museum, Lund).

Distribution. — The type material originated from a marshy area in the Netherlands. There is one specimen from Sweden.

Table 31. *Plectiscidea ventosa* spec. nov. For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holtotype *P. ventosa*	3.7	0.33	4.3		1.7		not pr
paratype *P. ventosa*	3.7	0.33	4.6		1.6		not pr
paratype *P. ventosa*	3.7	0.32	4.3		1.8		not pr
paralectotype *P. curticauda*	4.2	0.37	4.28		1.8		

Table 32. *Plectiscidea subangulata* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
lectotype *P. subangulata*	5.2	0.35	5.4		2.2		not pr

The specific name "ventosus" is from the Latin meaning "tempestuous".

Plectiscidea subangulata (Förster)

Plectiscus subangulatus Förster 1871: 88. Report on type by Aubert (1975).

Characteristics of the lectotype of *P. subangulata*. Female. Front wing 5.2 mm long. Malar space narrow, 0.31 of width of face. Postannellus 5.4 times as long as apical width. Notaulus absent. Scutellar carina running slightly behind the scutellar corner, curving inwards, not meeting. The length of the first abdominal segment is 2.2 times the apical width. Ovipositor 0.36 of the length of the front wing. Compare table 32.

Male unknown.

Material examined. — Germany: ♀, lectotype of *P. subangulata*, Lousberg, 14.ix (coll. Förster, München).

Plectiscidea eurystigma (Förster)

Plectiscus eurystigmus Thomson, 1888: 1301. Lectotype designation by Townes, Momoi and Townes. Examination of type reported by Fitton (1982).

Characteristics of the lectotype of *P. eurystigma*. Female. Front wing 4.0 mm long. Malar space 0.37 of width of face. Postannellus 5.0 times as long as the apical width. Notaulus absent. Scutellar carina running slightly behind the scutellar corner, not curving inwards. The length of the first abdominal segment is 2.5 times the apical width. Spiracles situated at 0.43 of the length of the segment. Ovipositor 0.36 of the length of the front wing. Compare table 33.

Male unknown.

Material examined. — Sweden: ♀, lectotype of *P. eurystigma*, Esp (= Äsparöd) (Skåne) (coll. Thomson, Entomological Museum, Lund).

Plectiscidea humeralis (Förster)

Plectiscus humeralis Förster, 1871: 86. Report on type by Aubert (1975).

Plectiscus fulvus Förster, 1871: 86. Report on type by Aubert (1975). **New synonym.**

Plectiscus hostilis Förster, 1871: 88. Placed as synonym of *P. humeralis* by Aubert (1975).

Characteristics of the holotype of *P. humeralis*. Female. Front wing 3.6 mm long. Malar space 0.33 of width of face. Postannellus 5.0 times as long as apical width. Epomia present, short. Notaulus not present. Scutellar carina running somewhat behind the scutellar corner. Propodeum polished. Prepectal carina present. First abdominal segment 2.3 times as long as apical width. Spiracles situated at 0.34 of the length of the segment. First tergite coriaceous. Ovipositor 0.38 of the length of the front wing.

Characteristics of the female. Front wing 3.6—4.3 mm long. Malar space 0.31—0.33 of width of face. Width of clypeus 0.50—0.53 of width of face. Clypeus protruding. Mandibular teeth about the same length. Postannellus 5.0 times as long as the apical width. Epomia present, but weak. Notaulus absent. Scutellar carina running somewhat behind the scutellar corner. Propodeum polished. Mesopleurum polished, prepectal carina present. The first abdominal segment 2.0—2.6 times as long as apical width. Spiracles lying at 0.32—0.34 of the length of the segment. First tergite coriaceous. Ovipositor 0.37—0.38 of the length of the front wing. Compare table 34.

Male unknown.

Table 33. *Plectiscidea eurystigma* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
lectotype *P. eurystigma*	4.0	0.36	5.0	0.37	2.5	0.43	not pr

Table 34. *Plectiscidea humeralis* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	spir/ abds	not
holotype *P. humeralis*	3.6	0.38	5.0	0.33	2.3	0.34	not pr

Material examined. — Germany: ♀, holotype of *P. humeralis*, Lousberg, 30.viii; ♀, holotype of *P. fulva*, Aachen; ♀, lectotype of *P. hostilis*, Lousberg, 9.x (all coll. Förster, München); ♀, Oberbayern, Glonn, Heidelbeeren, 18.viii.1970 (2 specimens, leg. & coll. Haeselbarth). Austria: ♀, Fliess, Tirol, 1550 m, 11.viii.1971 (leg. & coll. Haeselbarth). Netherlands: ♀, Naardermeer, Malaise trap, 8.x.1974, leg. Bunnik & Van Wijngaarden (coll. K. W. R. Zwart, Wageningen).

Distribution. — Three type-specimens are from the Aachen region. One specimen is Alpine. One specimen comes from a marshy area in the Netherlands.

Subgenus **Fugatrix** novum

Type species *Plectiscidea communis* (Förster).

Front wing 2.3—3.6 mm long. Postannellus 3.6—4.5 times as long as apical width. Petiolar area of propodeum 1.5—2.0 times as long as combined areola and basal area. First abdominal segment 1.9—2.8 times as long as apical width. Ovipositor 0.72—0.85 of the length of the front wing.

"Fugatrix" is Latin for "she who dispels".

Plectiscidea (Fugatrix) communis (Förster)

Plectiscus communis Förster, 1871: 86. Report on type by Aubert (1975).
Plectiscus nigritus Förster, 1871: 86. Lectotype designation by Van Rossem. Report on type by Aubert (1975).
Plectiscus gilvus Förster, 1871: 86. Lectotype designation by Van Rossem. Report on type by Aubert (1975).
Plectiscus infirmus Förster, 1871: 86. Lectotype designation by Van Rossem. Report on type by Aubert (1975).

Characteristics of the lectotype of *P. communis*. Female. Front wing 3.6 mm long. Postannellus 3.6 times as long as the apical width. Petiolar area 1.6 times as long as combined areola and basal area. First abdominal segment 1.8 times as long as the apical width. Ovipositor 0.72 of the length of the front wing. Compare table 35.

Male. Förster (1871) observed the male. Also Thomson (1888) and Strobl (1903) were aware of it. I did not study the males of *Plectiscidea* for want of males of most species.

Material examined. — Germany: ♀, lectotype of *P. communis*, Lousberg, 11.ix; ♀, lectotype of *P. nigrita*, Lousberg, 25.x; ♀, lectotype of *P. gilva*, no locality; ♀, lectotype of *P. infirma*, Lousberg, 25.x; 3 ♀, Lousberg, 25.vi; 25.x; 31.x.1862; 4 ♀, Lousberg, 25.x.1864 (all coll. Förster, München). Austria: ♀, T. Achenkirch, 1100 m, 13.viii.1974; ♀, same locality, 1200—1500 m, 23.vii.1974 (leg. & coll. Haeselbarth); ♀, Kärnten, Bodental, 1100 m, 27.vi.1981 (leg. & coll. Zwakhals). Germany: 2 ♀, Bayern, Ammergebirge, Nickelswald, 1100—1300 m, 28.vii.1974; 2 ♀, Weszling, Hochstadt, 19.v.1974; 2 ♀, Hohenschwangau, Säulingweg, 1120—1300 m, 16.vii.1974; 2 ♀, Oberbayern, Umg. Gauting, 24.v.1959 & 22.vi.1972; ♀, Umg. Andechs, 18.v.1959; ♀, Lippoldshausen, B, 8.viii.1966; ♀, Oberjettenberg b. Reichenhall, 26.v.1969; ♀, Harthausen b. München, 20.viii.1969; 2 ♀, Hedemünden, C, 12.v.1966 (all leg. & coll. Haeselbarth). Ireland: ♀, Co Tyrone, Moy (H8356), 17—24.ix.1984, Malaise trap (leg. & coll. M. Boston). Italia: ♀, Bolzano, Feldthurns, 1200 m, 11.ix.1978; ♀, Bs, Valvestino, Monte Tombea, 1500—1700 m, 14.vi.1976; ♀, Vr, Malcesine, 500—1300 m, 18.vi.1976; 2 ♀, Campenjoch, Südtirol, 1550 m, E, 23.vii.1966.

Distribution. — The species is widely spread in the Western Palaearctic Region.

Genus **Gnathochorisis** Förster

Gnathochorisis Förster, 1868: 152.
Gnathochorisis; Förster, 1871: 111.
Gnathochorisis; Aubert, 1969: 41.
Laepserus Förster, 1868: 205.
Laepserus; Perkins, 1962: 434.
Laepserus; Aubert, 1969: 41.
Laepserus; Van Rossem, 1980: 114.
Blapticus Thomson, 1888: 1288.
Blapticus; Strobl, 1902: 113.
Acroblapticus Schmiedeknecht, 1911: 2173.
Blapticus Förster, 1869 is a subjective synonym of *Symplecis* Van Rossem, 1980: 114, 123.

Dr. Klaus Horstmann (Würzburg) kindly drew my attention to the priority that the name *Gnathochorisis* takes over *Laepserus*, as Aubert

Table 35. *Plectiscidea (Fugatrix) communis* (Förster). For abbreviations, see table 2.

	frw	ovip/ frw	psta l/w	malsp /f	abds l/w	pet.area /areo+bas
lectotype *P. communis*	3.6	0.72	3.6		1.8	1.6
lectotype *P. nigrita*	3.4	0.80	3.6		2.2	1.5
second specimen *P. nigrita*	2.8	0.84			2.1	2.0
lectotype *P. gilva*	3.0	0.85			2.5	1.6
second specimen *P. gilva*	2.6	0.89			2.5	2.0
Ammergeb., Nickelswald 1100—1300 m		0.80			2.5	1.6
Hohenschwangau, 1120—1300 m, 16.vii		0.82			2.2	1.8
Italia, Feldthurns, 1200 m, 11.ix.78		0.85			2.8	1.6

(1969), being the first reviser, gave precedence to *Gnathochorisis*.

I cannot redeem my first view that *Gnathochorisis (Blapticus* sensu Thomson) *crassulus* (Thomson, 1888) is a colour-form of *Gnathochorisis dentifer* (Thomson, 1888). With hesitation I arrive at the opinion that the taxa in question represent two species although the morphological differences are not convincing. The differences in colouring seem to be constant between the males, though not between the females of the two species.

Key to the males

Without recapitulation of the entire key to *Gnathochorisis (Laepserus* Van Rossem, 1980), the males of these two species can be separated as follows.

1. Face, lower third part of frons and lower frontal orbits yellow. Pronotum, lower half of mesopleurum and mesosternum yellow. Width of face 1.0—1.4 times the width of face in *G. dentifer*. The first abdominal segment 2.1—2.3 times as long as the apical width *Gnathochorisis crassulus* (Thomson)
— Face yellow. Frons fuscous. Lower frontal orbits yellow. Pronotum, mesopleurum and mesosternum fuscous. Width of face 0.71—0.95 times the width of face in *G. crassulus*. The first abdominal segment 2.0—2.4 times as long as the apical width . . . . . *Gnathochorisis dentifer* (Thomson)

Key to the females

1. Face fuscous. Clypeus and lower gena ivory to yellow (a fuscous lower gena may occur). Lower frontal orbits yellow or fuscous. Dorsal corner of pronotum and tegulae yellow. Width of face 1.0—1.3 times the width of face in *Gn. dentifer*. The first abdominal segment 2.1—2.6 times as long as the apical width . . . . . *G. crassulus* (Thomson)
— Face fuscous. Clypeus ivory to yellow. Lower gena fuscous. Lower frontal orbit fuscous. Dorsal corner of pronotum and tegulae yellow. Width of face 0.70—0.90 times the width of face in *G. crassulus*. The first abdominal segment 2.2—2.7 times as long as the apical width . . . . . *G. dentifer* (Thomson)

Material examined. — *Gnathochorisis crassulus* (Thomson). No locality label: 3 ♂/♀, (ex coll. Schmiedeknecht) (Laboratorium voor Entomologie, Wageningen). Austria: 1 ♀, Kärnten, Bodental, 1100 m, 30.vi.1981 (coll. Zwakhals). Germany: 1 ♀, Bechtaler Wald (near Stegen-Wittental, Baden-Württemberg), 14.ix.1984 (leg. & coll. H. Hilpert, Forstliche Versuchsanstalt, Freiburg im Breisgau). Italy: 1 ♀, Funes (Prov. Bolzano), 20.vii.—9.viii.1968, Selva Ne-

ra, 1400—2000 m (coll. Van Rossem). Netherlands: 6 ♀, Asperen (Prov. Zd. Holl.), 3.ix.1972; 1.vi, 30.vii, 9.viii, 7.ix, 10.ix.1973; 1 ♀, Nunspeet, 10.vii.1975; 4 ♀, Ede, 22.v, 26.v, 6.vi, 12.vi.1971 (Dutch specimens coll. Zwakhals). Sweden: 2 ♀, Järnavik (Blekinge) 12—20.vii.1972; Örebro Län, Klysna-Norrberga, 8.vii—2.viii.1979 (coll. Van Rossem).

Distribution. — Widely spread in the Western Palaearctic Region.

Gnathochorisis dentifer (Thomson). Austria: 2 ♂, Tirol, Aschbach, 1400 m, 6.vii.1976 and 1 ♀, 18.viii.1975; 3 ♀, Kärnten, Himmelberg, 1100 m, 14.vii.1979, 11.viii and 15.viii.1980; 1 ♂, Kärnten, Bodental, 1100 m, 13.vii.1981 (all coll. Zwakhals). Germany: 4 ♀, Bechtaler Wald (Stegen-Wittental), 5.x & 2—9.xi.1984; 29.v.1985; no locality: 7.ix.1984 (leg. & coll. H. Hilpert). Netherlands: 1 ♂ 3 ♀, Asperen (Prov. Zd Holl.), 3.vi, 15.vi, 1.ix.1972; 4 ♂, Ede, 22.v, 26.v, 3.vi, 6.vi.1971 (coll. Zwakhals).

Distribution. — Widely spread in the Western Palaearctic Region.

Checklist of *Gnathochorisis* species

1. *Gnathochorisis flavipes* Förster, 1871: 113.
   Gnathochorisis terebrata Strand, 1918: 159. The holotype has the following labels: Ignalina (Litauen), viii.1916, leg. W. Horn; *G. terebrata* m. ♀ Strand det. Typus (Institut für Pflanzenschutsforschung Kleinmachow, Eberswalde). The type agrees with *G. flavipes*.
   Gnathochorisis terebrata; Oehlke, 1963: 409.
   Laepserus flavipes; Van Rossem, 1980: 115.
2. *Gnathochorisis dentifer* (Thomson, 1888: 1288) (comb.n.).
   Laepserus dentifer; Van Rossem, 1980: 118.
3. *Gnathochorisis crassulus* (Thomson, 1888: 1289) (comb.n.).
   Laepserus dentifer f. *crassulus*; Van Rossem, 1980: 119.
4. *Gnathochorisis xanthocephalus* (Strobl, 1903: 113) (comb.n.).
   Laepserus xanthocephalus; Van Rossem, 1980: 120.
5. *Gnathochorisis restrictus* (Van Rossem, 1980: 121) (comb.n.).
   Laepserus restrictus; Van Rossem, 1980: 121.

Revision of the genus **Eusterinx** Förster

Eusterinx Förster, 1868: 172.
Eusterinx; Förster, 1871: 107—109.
Eusterinx; Aubert, 1968: 39.
Eusterinx; Townes, 1971: 202—204.
Eusterinx; Van Rossem, 1980: 131—132.
Eusterinx; Van Rossem, 1982: 154—169.

Since my revision of the type material of *Eusterinx* in 1982 I have come to the conclusion that the diverging characters of the species allow the introduction of six subgenera, viz., *Eusterinx* Förster, 1868; *Catomicrus* Thomson, 1888; *Ischyracis* Förster, 1868; *Divinatrix* subgenus novum; *Dallatorrea* Ashmead, 1902; and *Holomeristus* Förster, 1868. A tentative key to the subgenera follows here.

1. Tyloids absent 2
— Tyloids present 3
2. Apophyses absent. Front wing not longer than 3.0 mm. Eyes not hairy ..... Subgenus *Eusterinx* Förster
— Apophyses weakly developed or well developed. Front wing in most specimens longer than 3.0 mm. Eyes often hairy ..... Subgenus *Catomicrus* Thomson
3. Front wing without areolet 4
— Front wing with areolet 5
4. Strong apophyses present. Front wing without areolet and in most specimens longer than 3.0 mm. Sixth flagellar segment with a tyloid, a concave polished area ..... Subgenus *Ischyracis* Förster
— Apophyses absent. Front wing without areolet and in most specimens not longer than 3.0 mm. There is a tyloid on sixth flagellar segment or the sixth and seventh flagellar segments are flattened ..... Subgenus *Eusterinx* Förster
5. Second and third tergites in the female and tergites two, three, four and five in the male divided by a conspicuous transverse suture. The two parts of the tergites have a different sculpture .. Subgenus *Divinatrix* novum
— Tergites of female and male without suture 6
6. Eyes crassate. Apophyses exceptionally strong. Ovipositor straight, 0.12—0.14 of length of front wing. (I have seen only two females of this subgenus) ..... Subgenus *Dallatorrea* Ashmead
— Eyes normal. Apophyses not developed. Ovipositor somewhat upcurved, 0.19—0.25 of length of front wing (straight in *E. aquilonigena*). Tyloids on flagellar segments six and seven, a longitudinal carina; or on segments six to eleven, laterally somewhat concave and polished and with a carina ..... Subgenus *Holomeristus* Förster

Key to the females
(The females of *E. minima* and *E. tartarea* are unknown)

1. Eyes convergent towards clypeus 2
— Eyes not convergent towards clypeus 7
2. Apophyses of propodeum absent 3
— Apophyses of propodeum present..... 4
3. Second and third tergite with different sculpture of proximal and distal half. These areas separated by a groove. Ovipositor 0.15 of length of front wing .... *E.* (*Divinatrix*) *inaequalis* Van Rossem
— Second and third tergite without groove. Ovipositor 0.22 of length of front wing .... *E.* (*Catomicrus*) *pusilla* (Zetterstedt)
4. Eyes conspicuously hairy, converging towards clypeus. Notauli meeting, with a weak carina from pronotal margin. Scutellum striated. Apophyses somewhat developed. Mesopleurum polished. Front wing with areolet not closed. Hind femur 6.3 times as long as wide. First to fourth tergite coriaceous. Ovipositor 0.28 of length of front wing..... .... *E.* (*Catomicrus*) *disparilis* Van Rossem
— Eyes without hairs or with inconspicuous setae. Strong apophyses present..... 5
5. First and second tergite with striation. Third tergite with weaker striation. Strong apophyses present. Ovipositor 0.20 of length of front wing..... ..... *E.* (*Ischyracis*) *bispinosa* (Strobl)
— First to fourth tergite coriaceous 6
6. Eyes exceptionally large and convex, inner margins strongly converging towards clypeus, leaving a very narrow face. Notauli strong, meeting, restricting the median lobe. The apical region of the median lobe with strong longitudinal sculpture. Propodeum with all carinae and robust, flattened apophyses. Mesopleurum polished, with some longitudinal sculpture medially. Legs long and slender, including coxae orange in colour. Hind coxae for the greater part with rough sculpture. First abdominal segment very slender, with long petiole. Postpetiole apically with some striation. First to fouth tergite coriaceous. Ovipositor 0.12 of length front wing..... ..... *E.* (*Dallatorrea*) *armata* Ashmead
— Eyes not excessively large and convex, converging to clypeus. Mesoscutum without special characters. Propodeum with all carinae and robust, flattened apophyses. Mesopleurum polished, with some longitudinal sculpture medially. Legs slender, brownish. Hind coxa with rough sculpture. First abdominal segment slender, with long petiole. First to fourth tergite coriaceous. Ovipositor 0.10—0.14 of length of front wing..... ..... *E.* (*Dallatorrea*) *circaea* Van Rossem
7. Front wing without areolet. Eyes without hairs. Head square, vertex deep. Tip of mandible twisted and with a sharp upper and lower tooth. Second tergite slightly striated or with some rough longitudinal sculpture or second tergite coriaceous or polished. Some specimens have conspicuous thyridia. Length of front wing 1.7—3.0 mm ..... Subgenus *Eusterinx*
— Front wing with areolet 8
8. Malar space very narrow, 0.18 of width face. Postannellus slender 4.5 times as long as the apical width. Notauli not meeting on mesoscutum. Propodeum without apophyses. Second tergite proximally with some longitudinal striation, apical half polished. Ovipositor 0.14—0.19 of length of front wing..... *E.* (*Holomeristus*) *aquilonigena* Van Rossem
— Malar space wide, 0.25—0.40 of width of face 9
9. Malar space 0.23—0.25 of width of face. Postannellus 3.0—5.0 times as long as the apical width. Notauli meeting on center of mesoscutum. Propodeum without apophyses. Second tergite coriaceous and with longitudinal striation. Ovipositor upcurved, about 0.20—0.26 of length of front wing ... . *E.* (*Holomeristus*) *tenuicincta* (Förster)
— Malar space wide, 0.40 of width of face. Postannellus 3.3 times as long as the apical width. The apical transverse carina somewhat lamelliform and with weak apophyses. Second tergite coriaceous. Ovipositor somewhat upcurved, 0.23—0.25 of length of front wing ..... *E.* (*Holomeristus*) *refractaria* Van Rossem

Key to the males

(Males of the Subgenus *Eusterinx* are tentatively included; males of *E.* (*Catomicrus*) *disparilis* and *E.* (*Dallatorrea*) *circaea* are unknown)

1. Front wing without areolet..... 2
— Front wing with areolet 9
2. Propodeum with strong apophyses. First, second and third tergites striated. Sixth flagellar segment with a tyloid, which is a concave polished area .... *E.* (*Ischyracis*) *bispinosa* (Strobl)
— Propodeum without apophyses 3
3. Second tergite with conspicuous thyridia.

Tyloids absent 4
— Second tergite without, or with indistinct thyridia 6
4. Medial part of clypeal margin somewhat risen, with a pair of very weak tubercles. Postannellus 2.8 times as long as apically wide. Three flagellar segments after the postannellus about 0.71 of length of postannellus. Second tergite finely striated. Thyridia conspicuous ..... *E.* (*Eusterinx*) *jugorum* (Strobl)
— Medial part of clypeus not risen and without tubercles. Flagellar segments after the postannellus short 5
5. Postannellus 2.0 times as long as apically wide. Flagellar segments after the postannellus short less than 0.71 of length postannellus. Setae of flagellar segments erect. Thyridia in basal corners of second tergite conspicuous, yellow in colour. Second tergite basally with some coriaceous sculpture. Following tergites polished. (There is no male in Förster's material, it is inserted tentatively) .. *E.* (*Eusterinx*) *obscurella* Förster
— Postannellus 3.0 times as long as apically wide. Flagellar segments after the postannellus less than 0.71 of length postannellus. Setae of flagellar segments erect. Thyridia of second tergite less conspicuous. Second tergite with longitudinal striation, the distal margin and the following tergites polished ..... *E.* (*Eusterinx*) *subdola* Förster
6. Flagellum without tyloids 7
— Flagellum with tyloids 8
7. Eyes hairy. Hind femur notably slender, 7.4 times as long as wide. Second tergite striated and with coriaceous sculpture. Propodeum with indistinct apophyses. Length of front wing about 3.8 mm ..... *E.* (*Catomicrus*) *pusilla* (Zetterstedt)
— Eyes not hairy. Second tergite polished, or with indistinct coriaceous sculpture. Propodeum without apophyses. Length of front wing about 1.9 mm ..... *E.* (*Eusterinx*) *pseudoligomera* Gregor
8. Antenna with tyloid on sixth flagellar segment. Second tergite polished or proximally somewhat coriaceous. In some specimens the second tergite weakly striated ..... *E.* (*Eusterinx*) *oligomera* Förster
— Antenna with tyloids on flagellar segments six and seven (the second tyloid difficult to see). An indication of a tyloid on segment eight. The flagellum more robust than in *E.* (*Eusterinx*) *oligomera* ..... *E.* (*Eusterinx*) *argutula* Förster
9. Apophyses of propodeum present. In *E. refractaria* the apical transverse carina somewhat lamelliform, thus developing weak apophyses 10
— Apophyses of propodeum absent 11
10. Apophyses rather strong. Antenna without tyloids. Hind femur stout, 3.8 times as long as wide. First and second tergites entirely coriaceous. Third tergite proximally coriaceous ..... *E.* (*Catomicrus*) *tartarea* Van Rossem
— Apophyses weak, caused by the somewhat lamelliform shape of the apical transverse carina. Flagellar segments six and seven with a tyloid, a longitudinal carina. Hind femur stout. First, second and proximad half of third tergite coriaceous. Tergites two, three and four with narrow apical margin yellow. ..... *E.* (*Holomeristus*) *refractaria* Van Rossem
11. Second and third tergites with a transverse groove (groove weak on fourth tergite). The proximal and distal regions of these tergites with a difference in sculpture ..... *E.* (*Divinatrix*) *inaequalis* Van Rossem
— Second and third tergites not so 12
12. Tyloids on flagellar segments six to eleven. The flagellar segments flattened, without setae. Second tergite for the greater part with longitudinal striation. The thyridia visible. The third tergite with some striation ..... *E.* (*Holomeristus*) *aquilonigena* Van Rossem[1])
— Tyloids on flagellar segments six to eight or six to nine. The flagellar segments flattened and with a carina. Thyridia not visible .. 13
13. Second tergite and front part of third tergite with longitudinal sculpture. Thyridia not visible. Tyloids on flagellar segments six to eight. Clypeus impressed ..... *E.* (*Holomeristus*) *tenuicincta* Förster
— Second and third tergites coriaceous. Tyloids on flagellar segments six to nine. Clypeus not impressed ..... *E.* (*Holomeristus*) *minima* Strobl

Subgenus **Eusterinx** Förster

Eusterinx Förster, 1868: 172.
Type-species: *Eusterinx oligomera* Förster.

[1]) The separation of *E. aquilonigena* and *E. tenuicincta* is difficult without females from the same locality.

Front wing 1.7—3.0 mm long. Males with one tyloid on sixth flagellar segment, and either two or none on flagellar segments six and seven. Head square, vertex deep. Ratio gena-width : eye-width = 7 : 4 (7 : 6) or 1 : 1. Mesoscutum strongly convex, notauli varying from very weak to strong. Propodeum with all carinae. In some specimens the costula is absent. Front wing without areolet. Nervellus reclivous. First gastral segment slender, spiracles at about 0.5 of length. In *E. obscurella* and *E. subdola* the thyridia are conspicuous, in other species weak or absent. Second tergite in most species polished, occasionally somewhat coriaceous, seldom striated. The ovipositor relatively long, 0.15—0.22 of length front wing, rather wide or somewhat club-shaped and with long erect hairs on sheath.

The subgenus includes five closely related species. Males of different species are distinguishable. The separation of the females of *E. oligomera*, *E. argutula* and *E. pseudoligomera* remains impossible. The following characters are not reliable: length of postannellus; the ratio of gena-width to eye-width; and the ratio of ovipositor length to length of hind tibia.

The males are inserted into the general key to *Eusterinx* males. The following key to the females is tentative.

Key to the females
(The female of *E. jugorum* (Strobl) is unknown)

1. Second tergite with conspicuous thyridia in proximal corners 2
— Second tergite without or with weak thyridia 3
2. Ratio gena-width : eye-width = 7 : 5 or 7 : 6. Postannellus 3.0 times as long as wide. Second tergite polished or with some coriaceous sculpture ..... *E. (Eusterinx) obscurella* Förster
— Ratio gena-width : eye-width = 1 : 1. Postannellus 4.5 times as long as wide. Second tergite with longitudinal striation or weakly striated and somewhat coriaceous ..... *E. (Eusterinx) subdola* Förster
3. Notauli weakly indicated directly behind mesoscutal margin. Second tergite polished, thyridia weak ..... *E. (Eusterinx) pseudoligomera* Gregor
— Notauli stronger, running towards centre of mesoscutum. Second tergite polished. Thyridia absent in *E. argutula* ..... *E. (Eusterinx) oligomera* Förster and *E. (Eusterinx) argutula* Förster

Eusterinx (Eusterinx) jugorum (Strobl)

Hemiteles pseudominutus var. *jugorum* Strobl, 1900: 243—244.

Characteristics of the holotype (label partly illegible, 12/8, Styriae Alp Strobl, holotype label of Horstmann, 1971): Male. Front wing 2.44 mm long. Medial part of clypeal margin somewhat risen, with a pair of very weak tubercles (a character not found in other species of the subgenus). Face finely coriaceous. Malar space wide. Postannellus 2.8 times as long as apically wide. Tyloids absent. Three segments coming after the postannellus about 0.71 of the length of postannellus. Frons, vertex and gena polished. Gena wide. Pronotum indistinctly coriaceous. Mesoscutum polished, notauli strong, meeting and medially extended by a short furrow. Propodeum laterally coriaceous. Mesopleurum polished, prepectal carina not reaching to the margin. Coxae and all other parts of the legs conspicuously brown. Hind coxae coriaceous. Gaster fuscous. First tergite coriaceous, spiracles protruding. Second tergite finely striated. Thyridia conspicuous. The apical margin of the second tergite yellowish. Third tergite indistinctly coriaceous. The apical tergites polished.

The holotype from the "Kalbling" (2000 m) (Austria) is the only extant specimen.

Remark. — A female syntype (Horstmann, 1971) of *Hemiteles pseudominutus* Strobl, 1900, has no original label. The specimen belongs to *Eusterinx* (*Eusterinx*).

As the identification of the females of this subgenus is still uncertain, the specimen was labelled: *Eusterinx* (*Eusterinx*) species.

Postannellus 3.0 times as long as apically wide. Spiracles of first gastral segment at 0.41 of the length of the segment. Second and following tergites polished. Ovipositor 0.18 of the length of front wing.

According to Horstmann "jugorum" is derived from the Latin word "jugum" which means "pass, narrow passage in mountains".

Eusterinx (Eusterinx) oligomera Förster

Eusterinx oligomera Förster, 1871: 109.
Eusterinx oligomera; Townes, 1971: 202.

Eusterinx oligomera; Van Rossem, 1982: 163—164.

Characteristics of the female: Front wing 1.7 mm long. Clypeus flat, 2.0 times as wide as long. Malar space wide, 0.3 of width of face, somewhat coriaceous. Face coriaceous, slightly convex with widely placed long hairs. Eyes small, broadly elliptic. Ratio gena-width : eye-width = 7 : 4. Head square, frons and vertex about 0.5 deeper than wide. Frons vaguely coriaceous. Vertex polished. Postannellus 3.3 times as long as wide. Mesoscutum polished, notauli present. Propodeum coriaceous, with all carinae. Nervulus distad of basal vein. Areolet absent. Nervellus reclivous. Lower part of mesopleurum coriaceous. Middle and hind legs, including tarsi, with long, subadpressed hairs. First tergite coriaceous, spiracles at 0.4 of length. Apex of first sternite at 0.56 of length. Ovipositor club shaped, 0.12 of length front wing.

Characteristics of the male: Front wing 1.7 mm long. A lateral tyloid on sixth flagellar segment, somewhat flattened and polished. Pronotum polished, epomia weak. Mesoscutum polished, notauli present. Propodeum weakly coriaceous, with all carinae, except costula. Legs with close, long hairs. Second gastral segment variable in sculpture, from polished to somewhat coriaceous. Striated sculpture may occur.

Distribution. — Apart from the Förster specimens from the Aachen region, the species occurs at rather striking altitudes (1200—1300 m) in Austria and Italy (Dolomites).

Eusterinx (Eusterinx) argutula Förster

Eusterinx argutula Förster, 1871: 108
Eusterinx argutula; Van Rossem, 1982: 164—165.

Characteristics of the female: Front wing 2.5—3.0 mm long. Ratio gena-width : eye-width = 1 : 1 (or 8 : 7). Mesoscutum rather strongly convex, polished, notauli present but faint. All tergites polished. Thyridia obsolete.

There is no female in the Förster type material.

Characteristics of the male: Front wing 2.6 mm long. Anterior tentorial pits large. Malar space wide. Face, frons, vertex and gena polished, vertex deep. Postannellus 3.5 times as long as wide. Sixth flagellar segment flattened on one side, seventh segment slightly flattened and here the microscopical longitudinal ridges (glumes) absent. An indication of a tyloid on segment eight. The flagellum more robust than in *E. oligomera*. Mesoscutum convex, polished, notauli present but weak. Second tergite vaguely coriaceous, other tergites polished.

Distribution. — The Aachen Region (Förster collection). Italy: Dolomites (1300 m); Judikari Alpen (1720 m) (Haeselbarth collection).

Eusterinx (Eusterinx) pseudoligomera Gregor

Eusterinx pseudoligomera Gregor, 1941: 8.
Eusterinx pseudoligomera; Van Rossem, 1982: 168—169.

The males of this species can be tentatively distinguished from males of other species by lack of antennal tyloids and by the vagueness of the thyridia; but females cannot be distinguished from those of other species, except by their association in the field with males.

Characteristics of the female: Front wing 1.9 mm long. Ratio gena-width : eye-width = 1 : 1. Malar space wide. Pronotum coriaceous. Mesoscutum polished, notauli obsolete. Propodeum with all carinae. Mesopleurum coriaceous. First tergite coriaceous, median dorsal carinae present. End of first sternite at 0.69 of length of segment. Second tergite polished, with weak thyridia. Ovipositor 0.21 of length of front wing.

Characteristics of the male: Front wing 1.9 mm long. Ratio gena-width : eye-width = 1 : 1. Antenna without tyloids. Notaulus short. Upper half of mesopleurum polished, lower half somewhat coriaceous. Spiracles of first gastral segment at 0.5 of length of segment. End of first sternite at 0.7 of length of segment. First tergite coriaceous, the others polished. Gaster rather depressed.

Distribution. — Czechoslovakia, the Gregor type material is from Moravia, Ubušín. Austria, Reiter Alp, 1600 m; St. Haus, 1200 m. Germany, Lippoldshausen.

Eusterinx (Eusterinx) subdola Förster

Eusterinx subdola Förster, 1871: 108.
Eusterinx subdola; Aubert, 1968: 39.
Eusterinx subdola; Van Rossem, 1982: 165.
Hemiteles pseudominutus Strobl, 1900: 243.

There is no female of this species in the Förster collection. Recognition of the female remains uncertain.

Characteristics of the supposed female by

comparison with the male: Front wing 2.6 mm long. Postannellus 4.5 times as long as wide. Ratio gena-width : eye-width = 1 : 1. Second tergite with longitudinal striation. Ovipositor 0.2 of length of front wing.

Characteristics of the male: Front wing 3.0 mm long. No tyloids present. Postannellus 3.0 times as long as wide. Femora rather stout, hind femur 4.3 times as long as wide. Second tergite with large thyridia and longitudinal sculpture. Other tergites polished, with apical margins yellow and rather long adpressed hairs.

Characteristics of the lectotype of *Hemiteles pseudominutus* Strobl. Lectotype label of Horstmann, 1971. Male. Front wing 2.6 mm long. Postannellus 2.8 times as long as wide. Second tergite with longitudinal sculpture. Hind femur 4.0 times as long as wide.

Distribution. — The type locality is Lousberg (Aachen). I saw specimens from Austria, Tirol, 1400 m. Czechoslovakia, near Prague. Germany, Oberbayern. Italy, Bolzano Region. Netherlands, Asperen. Sweden, Skåne; Lappland.

Eusterinx (Eusterinx) obscurella Förster

Eusterinx obscurella Förster, 1871: 108.
Eusterinx obscurella; Aubert, 1968: 39.
Eusterinx obscurella; Van Rossem, 1982: 167—168.

Characteristics of the type female from the type locality Aachen: Front wing 2.5 mm long. Postannellus 3.0 times as long as apically wide. Ratio gena-width : eye-width = 7 : 6. Thyridia on second tergite conspicuous, more outlined by their colour. Ovipositor 0.15—0.22 of the length of front wing.

Characteristics of the male. The male was not described by Förster. The following description is based on males tentatively considered to be of this species. They are from Monte Bondone Cornetto, 1900—2100 m, Dolomites, Italy. Front wing about 1.9 mm long. No tyloids present. Ratio gena-width : eye-width = 6 : 4. Eyes comparatively small, roundish. Pedicel proportionally large, slightly shorter than postannellus. Apex of scutellum with rough sculpture. First tergite with longitudinal striation. Large thyridia in proximal corners of second tergite, yellow in colour, some coriaceous sculpture between them. Rest of tergite and other tergites polished.

Distribution. — The type locality is Aachen. Italy: Trento, M. Bondone Cornetto, 1900—2100 m (coll. Haeselbarth).

Subgenus **Catomicrus** Thomson

Catomicrus Thomson, 1888: 1291.

Type-species: *Tryphon pusillus* Zetterstedt (*Catomicrus trichops* Thomson).

Characteristics: Front wing 2.8—3.5 mm long. Males without tyloids. Eyes converging to clypeus in females, in males not converging. Eyes hairy in some species. Notauli strong and meeting in some species. Apophyses of propodeum weakly or strongly developed. Front wing with or without closed areolet. Ovipositor 0.22—0.28 of length of front wing.

I have placed two species in this subgenus. The single female of *E. disparilis* is inserted tentatively.

Eusterinx (Catomicrus) pusilla (Zetterstedt)

Tryphon pusillus Zetterstedt, 1838: 385. Male holotype.
Catomicrus trichops Thomson, 1888: 1291.
Eusterinx trichops; Townes, 1971: 203.
Eusterinx pusilla; Van Rossem, 1982: 159—160.

Characteristics of the female: Front wing 2.8 mm. Malar space absent, eye margin almost touching clypeal margin. Face narrow, polished, eyes strongly converging to clypeus. Frons, vertex and gena polished. Antenna rather short, towards distal end gradually somewhat widening. Epomia distinct. Mesoscutum polished, notauli present, with short carina on pronotal margin. Propodeum coriaceous, with all carinae. No apophyses present. Mesopleurum somewhat coriaceous, prepectal carina not reaching the margin. Front wing with areolet not closed. Legs slender. Hind femur notably slender, 6.6 times as long as wide, with close subadpressed hairs. First, second and third tergite coriaceous. Apical margins of tergites two, three and four yellow. Ovipositor 0.22 of length of front wing.

Characteristics of the male: Front wing 3.8 mm. Malar space 0.27 of width of face. Eyes hairy and with inner margins parallel. Face, frons, vertex and gena polished. Face with erect hairs. Epomia distinct. Notauli strong, with a carina along inner edge. Propodeum without

distinct dorsal face. Apical transverse carina lying towards distal edge of propodeum, with weak apophyses. Prepectal carina present. Hind femur slender, 7.4 times as long as wide. First tergite coriaceous, medially convex, median dorsal carinae weak. Second tergite coriaceous and with weak striation. Third tergite proximally coriaceous.

Distribution. – Sweden.

Eusterinx (Catomicrus) tartarea Van Rossem

Eusterinx tartarea Van Rossem, 1982: 159.

Characteristics of the male: Front wing 3.8 mm. Clypeus 1.3 times as wide as long, polished, somewhat convex. Face polished. Malar space wide, 0.3 of width of face, with a groove. Frons, vertex and gena polished, with rather long subadpressed hairs. Antenna without tyloids. Epomia present. Notauli rather strong, with a short carina. Apex of scutellum striated. Propodeum with all carinae and conspicuous apophyses. Prepectal carina to the middle of pronotal margin. Front wing with areolet. Hind coxae with rough coriaceous sculpture. Hind femur stout. First tergite coriaceous, median dorsal carinae absent. Lateral dorsal carina indicated. Second tergite for the greater part coriaceous, third tergite proximally coriaceous. Second tergite with a carina from spiracle to proximal margin. All tergites with rather long adpressed hairs.

Female unknown.

Distribution. — Only the male holotype from Italy, St. Peter, Ahrntal, 1350 m, Südtirol, is extant (coll. Haeselbarth).

Eusterinx (Catomicrus) disparilis Van Rossem

Eusterinx disparilis Van Rossem, 1982: 159.

Characteristics of the female: Front wing 3.5 mm. Malar space 0.3 of width of face. Face polished, with widely placed setae. Eyes hairy, converging to clypeus. Frons, vertex and gena polished. Mesoscutum with adpressed hairs, notauli meeting, with weak carina from margin. Scutellum striated. Propodeum coriaceous. Apophyses somewhat developed. Front wing with areolet not closed. Legs slender, hind femur 6.3 times as long as wide. First to fourth tergite coriaceous. Apical margin of second to fourth tergite yellowish. Ovipositor 0.28 of length of front wing.

Male unknown.

Distribution. — Only the holotype from Sweden, Messaure (Lapland) is extant.

Subgenus **Ischyracis** Förster

Ischyracis Förster, 1868: 175

Type-species: *Catomicrus alpigenus* Strobl.

Ischyracis; Perkins, 1962: 431—432.

Ischyracis; Townes, 1971: 203.

Front wing 3.1—3.6 mm long, without areolet. In the female the eyes converging to the clypeus, in the males not so. Sixth flagellar segment of the male with a tyloid, a concave polished area. Strong apophyses present.

I have placed only one species in this subgenus, viz. *E. alpigena* (Strobl) = *Eusterinx bispinosa* (Strobl), which species was designated by Perkins as the type species of *Ischyracis*.

Eusterinx (Ischyracis) bispinosa (Strobl)

Hemiteles bispinosus Strobl, 1900: 234—235.

Ischyracis bispinosus; Aubert, 1970: 279.

Eusterinx bispinosa; Horstman, 1974: 53.

Catomicrus alpigenus; Strobl, 1903: 116—117.

Eusterinx alpigena; Van Rossem, 1980: 131—132.

Characteristics of the female: Front wing 3.1—3.6 mm long. Eyes convergent to clypeus, not touching clypeal margin. Eyes not hairy. Malar space present. The clypeal fovea situated in a conspicuous depression between eye and clypeus. Face and frons polished. Strong notauli meeting in the middle. Front wing without areolet. Propodeum with strong apophyses. Hind coxa black, coriaceous. Hind femur 5.0 times as long as wide. Gaster fuscous. First tergite with strong striation, second and third tergite with weaker striation. Ovipositor 0.2 of length of front wing.

Characteristics of the male: Front wing 3.2—3.6 mm long. Eyes not convergent. Sixth flagellar segment with a tyloid, a concave polished area. Notauli meeting in the middle. Propodeum with strong apophyses. Front wing without areolet. Hind femur robust, 4.4 times as long as wide, with conspicuous adpressed hairs. Median sternal groove (mesolcus) deep. Gaster fuscous. Spiracles of first segment at 0.5 of length. First tergite with rong striation, weaker on second and third tergite. Tergites two to four coriaceous.

Distribution. — Austria, Admont; Natterriegel. Germany, Thüringen, Blankenburg (Schmiedeknecht); Lippoldshausen (Haeselbarth). Netherlands, Asperen (Prov. Zuid-Holland) (Zwakhals).

Divinatrix subgenus novum

Front wing 3.0—3.20 mm long, with areolet. Eyes strongly convergent to clypeus in the female; slightly converging in the male. Mesoscutum with deeply impressed notaulices. Apophyses absent. Second and third tergites in the female and tergites two to five in the male divided by a conspicuous transverse suture. The two parts of the tergites with a different sculpture. Ovipositor 0.15 of length of front wing.

There is only one species in this subgenus, *E. inaequalis*, which is the type-species. "Divinatrix" is the Latin for "prophetess".

Eusterinx (Divinatrix) inaequalis Van Rossem

Eusterinx inaequalis Van Rossem, 1980: 132.

Characteristics of the female: Front wing 3.2 mm long. Clypeus somewhat protruding, about as wide as long. Large eyes strongly convergent to clypeus, touching clypeal margin. Face and frons polished. Scape and pedicel yellow. Pronotum coriaceous. Mesoscutum with strong, deeply impressed notauli, meeting in the middle, with conspicuous transverse ridges. Pronotal margin turning inwards towards notauli. Mesoscutum with adpressed hairs. Prepectal carina reaching pronotal margin somewhat below wing base. Propodeum completely areolated. Front wing with areolet. Front and middle coxae yellow, hind coxa coriaceous, brown; hind femur 6.4 times as long as wide. The most conspicuous character is the sculpture of the second and third tergite. Proximal 0.75 part of second tergite coriaceous and striate, distal part polished. About 0.5 part of third tergite striated, distal part polished. The two halves separated by a conspicuous suture, almost giving the impression of two tergites. A weak indication of the suture on tergite four. Ovipositor 0.15 of length of front wing.

Characteristics of the male: Front wing 3.0 mm long. Eyes slightly converging, not touching clypeal margin. Malar space present. The tergites two, three, four and five with the same conspicuous character as the female's second and third tergites.

Distribution. — Italy, Riva S. Garda (Haeselbarth). Netherlands: Asperen (Prov. Zuid-Holland) (Zwakhals). U.S.A.: Spring Br. Pa., 25.viii.1945 (leg. H. K. Townes).

Subgenus **Dallatorrea** Ashmead

Dallatorrea Ashmead, 1902: 205.
Dallatorrea; Townes, 1971: 203.
Type-species: *Dallatorrea armata* Ashmead.

Front wing 5.2—6.0 mm long, with areolet. Eyes crassate, converging, or strongly converging to clypeus. Antenna short. Mesoscutum with close adpressed hairs. Notauli strong. Apophyses very robust, flattened. Ovipositor 0.11—0.14 of length of front wing.

There are two species in this subgenus. I have examined only females.

Eusterinx (Dallatorrea) armata (Ashmead)

Dallatorrea armata Ashmead, 1902: 205.
Eusterinx armata; Townes, 1971: 203.

Characteristics of the female: Front wing 5.2 mm. Mandible turned in, upper tooth long and sharp, lower tooth minute. Clypeus protruding, its width about 2.0 times the lower width of face. Malar space absent. Eyes very large and strongly convex, with inconspicuous setae. Inner margins of eyes strongly converging to clypeus. Width frons at ocelli more than 3.5 times the width of face at clypeus. Face, frons and gena polished. Antenna short. Occipital carina closed. Epomia strong. Pronotum polished. Mesoscutum with close adpressed hairs. Notauli robust, meeting in centre of mesoscutum, bounding a convex median lobe. The distal zone of median lobe with strong, longitudinal wrinkles. Propodeum completely areolated with strong carinae. Apophyses very conspicuous, robust and flattened. Mesopleurum polished, with some longitudinal wrinkles medially. Front wing with areolet. Nervulus proximal of basal vein. Nervellus vertical, discoidella absent. Legs long and slender, including the coxae yellowish to orange in colour. Hind coxae with rough sculpture, about 3.0 times the size of middle coxae. Hind femur strongly developed. Fringe at apex of hind tibia minute. Petiole long. First tergite coriaceous, with some longitudinal striation on post-petiole. Spiracles about in the middle. Second, third and fourth tergite proxi-

mally coriaceous. Ovipositor 0.12 of length of front wing. The ovipositor with a long and slender tip.

Material examined. — 1♀, Corvallis (Oregon, U.S.A.), 11 July 1978, from collection Townes.

Eusterinx (Dallatorrea) circaea Van Rossem

Eusterinx circaea Van Rossem, 1982: 157—158.

Characteristics of the female: Front wing 5.2—6.0 mm long. Mandible yellowish, the tip twisted. Upper tooth with sharp point, the lower tooth inside and less than 0.3 of length of upper tooth. Clypeus convex, strongly protruding, about as wide as long. Clypeus not distinctly separated from face by a groove. Malar space wide, about 0.5 of width clypeus, with a groove between eye and clypeus. Eye margins converging to clypeus. Face and frons polished. Ocelli robust. OOL : POL = 6 : 4. Vertex narrow, occiput steeply sloping behind ocelli. Occipital carina closed. Antenna slender, but short. Epomia present. Mesoscutum polished, with close adpressed hairs. Notauli strong, with a sharp notch on margin. Scutellum and postscutellum rugulose. Propodeum laterally with conspicuous hairs. Median longitudinal carinae around area superomedia strongly developed. Apophyses very robust, flattened. Mesopleurum polished, ventrolateral margin rugulose and with longitudinal striation. Front coxae yellow, polished. Middle coxae with long hairs, ventrally rugulose. Hind coxae fuscous, with long hairs, rugulose, dorsally with a polished concavity towards trochanter. Front and middle legs slender, hind femur robust, with rugulose sculpture. Hind tibia and tarsus slender. Claws of all legs small. Front wing with areolet. First gastral segment with slender petiole, spiracles at 0.5 of length. End of first sternite at 0.7 of length. First tergite coriaceous, with longitudinal striation. Second to fourth tergite coriaceous, apical margins polished, yellow. Ovipositor 0.11—0.14 of length of front wing.

Male unknown.

Distribution. — The female holotype is from Hochstadt, Oberbayern (Germany) (coll. Haeselbarth). One female was collected in Italy, Prov. Bolzano, Sarntal, 1250 m, 28.vi.1976, leg. and coll. C. J. Zwakhals.

Subgenus **Holomeristus** Förster

Holomeristus Förster, 1868: 171.

Type-species: *Holomeristus tenuicinctus* Förster.

Front wing 2.6—4.0 mm long, with areolet. Malar space wide. Males with tyloids on sixth to eleventh flagellar segments, flattened and slightly concave areas with a longitudinal carina on one side or only a longitudinal carina. Eyes not convergent to clypeus. Notauli present. Propodeum completely areolated. (*E.* (*Holomeristus*) *refractaria* has weakly developed apophyses). Front wing with areolet. Thyridia weak. Ovipositor somewhat upcurved, 0.14—0.26 of length of front wing.

The subgenus includes four species.

Eusterinx (Holomeristus) tenuicincta (Förster)

Holomeristus tenuicinctus Förster, 1871: 80—81.
Holomeristus tenuicinctus; Aubert, 1970: 274.
Eusterinx tenuicincta; Townes, 1971: 202.
Eusterinx tenuicincta; Van Rossem, 1982: 160—161.

Characteristics of the female: Front wing 3.5 mm long. Eyes not convergent to clypeus. Clypeus yellow, impressed, 1.8—2.1 times as wide as long.Mandible twisted, with a single tooth. Malar space 0.23—0.25 of width face. Gena wide. Scape and other parts of antenna yellow. Postannellus 3.0—5.0 as long as the apical width. Last joint of antenna large and inflated. Pronotum polished, epomia long. Mesoscutum fuscous, polished, with conspicuous notauli coming together in centre of mesoscutum and with a short carina on their front side, meeting the epomia. Propodeum with all carinae, apical transverse carina somewhat lamelliform, but not developing apophyses. Mesopleurum polished, prepectal carina extending to subtegular ridge. Sternaulus not developed but indicated by weak ridges to edge of mesopleurum. Legs, including coxae yellowish with brownish hind femur, tip of hind tibia and hind tarsus. Areolet present. First tergite fuscous and with longitudinal striation. Second tergite fuscous and striated, with polished yellow apical margin. Thyridia vague. Third tergite in some specimens with narrow front margin striated, the greater part brownish and polished, with yellow apical margin. Other tergites fuscous and polished. Ovipositor 0.20—0.26 of length of front wing, upcurved. Its sheaths slender.

Characteristics of the male: Front wing 3.1—3.6 mm long. Mandible twisted, narrow, with a sharp point. The clypeus impressed, yellowish brown, with a marginal fringe of setae. Malar space 0.22 of width of face. All parts of head fuscous and polished. Gena wide. Postannellus

3.7 times as long as the apical width. Antenna yellow, with vague tyloids on flagellar segments 6, 7 and 8. Pronotum fuscous, epomia long. Mesoscutum fuscous, polished. Notauli conspicuous, meeting in center with a short carina on front side. Propodeum with all carinae. Mesopleurum polished, prepectal carina to subtegular ridge. Sternaulus absent, indicated by weak ridges. Legs yellowish. Front and middle legs very slender. Areolet present, in some specimens not closed. First abdominal segment fuscous, slender, about 3.25 times as long as the apical width. First tergite with longitudinal striation. Second tergite with longitudinal striation, fuscous, with polished apical margin brown. Third tergite with longitudinal striation proximally, the remaining part polished.

Distribution. — The Palaearctic Region, including Japan. The Nearctic Region, including Alaska.

Remark. — Mr. Andreas Zumdick (Kiel) bred the species from *Polyporus squamosus* Fr. collected in the Stifter Wald (near Kiel, Germany) between July and September 1983. The mushrooms were infested with Diptera larvae: Mycetophilidae, Limoniidae and Muscidae.

Eusterinx (Holomeristus) refractaria
Van Rossem

Eusterinx refractaria Van Rossem, 1982: 158.

Characteristics of the female: Front wing 3.9 mm long. Eyes not convergent to clypeus. Clypeus rather convex, polished, 2.0 times as wide as long. Face polished, with widely-placed fine punctures. Malar space wide, 0.4 of width face, with a distinct furrow. Frons, vertex and gena polished. Postannellus 3.3 times as long as wide. Pronotum with distinct epomia. Mesoscutum with close adpressed hairs. Notauli strong, with a short carina from margin. Propodeum with all carinae, the apical transverse carina somewhat lamelliform and thus developing short apophyses. Mesopleurum polished, prepectal carina to about the middle of pronotal margin. Front wing with areolet. Nervellus vertical, not intercepted. Front and middle coxae yellow; hind coxae brown, coriaceous; hind femur stout; claws of all legs strong. End of first sternite at 0.6 of length of segment. First tergite without dorsolateral and median dorsal carinae. Second tergite and proximal part of third tergite coriaceous. Following tergites polished. All tergites with apical margin yellow. Ovipositor somewhat upcurved, 0.23—0.25 of length of front wing.

Characteristics of the male: Tyloids, longitudinal carinae, on flagellar segments six and seven. Hind femur stout. First, second and proximal part of third tergite coriaceous. Tergites two, three and four with narrow apical margin yellow.

Distribution. — The holotype is from Kytin (Bohemia), Czechoslovakia. Italy, Bolzano, Feldthurns, 1200 m. Sweden, Skåne, Rostanga.

Eusterinx (Holomeristus) minima (Strobl)

Holomeristus minimus Strobl, 1903: 119.
Eusterinx minima; Van Rossem, 1982: 161—162.

Of this species only the Strobl holotype male is extant. It has the tyloids on the flagellar segments six to nine. The sculpture of the second and third tergites is coriaceous. In *E. tenuicincta* these tergites have longitudinal striation. The sculpture of the tergites is rather variable in *Eusterinx* and does not offer definite characters to separate the species.

Characteristics of the holotype: Front wing 2.6 mm long. Clypeus slightly protruding and somewhat convex, 1.5 times as wide as long. Face, frons and vertex polished. Antenna with tyloids on flagellar segments 6—9. Notauli strong, meeting in middle of mesoscutum. Legs very slender, with long hairs. Prepectal carina to about 0.5 of pronotal margin. First, second and third tergite coriaceous.

Female unknown.

Distribution. — The holotype was collected in Austria, Styrian Alp (Alpenwiesen des Natterriegel). It is kept in the Strobl collection at Admont (Austria).

Eusterinx (Holomeristus) aquilonigena
Van Rossem

Eusterinx aquilonigena Van Rossem, 1982: 156—157.

Characteristics of the female: Front wing 3.0 mm long. Mandible twisted, with a sharp upper tooth. Lower tooth 0.5 of length of upper tooth. Clypeus 1.5 times as wide as long, the apical margin with a close row of bristles. Malar space very narrow, 0.18 of width of face. Face polished, with a row of erect hairs along inner margins of eyes and with two rows medially. Frons, vertex and gena polished. Gena with two rows of subadpressed hairs. Scape subcylindrical.

Epomia weak. Notauli with a fine carina on their front side. The notauli not meeting in center. Propodeum with all carinae. Prepectal carina not reaching the margin. Front wing with areolet. Legs slender, including coxae, yellow. First tergite coriaceous, medially convex. Second tergite coriaceous and with longitudinal striation on front part, apical half polished. Thyridia lying near basal margin behind end of ventrolateral carina of first tergite. Other tergites polished. Ovipositor 0.14—0.19 of length of front wing.

Characteristics of the male: Front wing 3.1 mm long. Tyloids on flagellar segments 6—11, a flattened zone without setae. Second tergite more rough than in female, for the greater part with longitudinal striation. Third tergite in front part with some longitudinal striation.

Distribution. — Sweden. Skåne.

Genus **Helictes** Haliday

Helictes Haliday, 1838: 115.
Myriarthrus Förster, 1869: 172.
Myriarthrus; Förster, 1871: 102.
Idioxenus Förster, 1868: 171.
Idioxenus; Förster, 1871: 94.
Megastylus; Holmgren, 1855: 129.
Megastylus (*Helictes*); Thomson, 1888: 1312.
Helictes; Strobl, 1903: 139.
Helictes; Townes, 1971: 204.
Helictes; Aubert, 1977: 148.

Ichneumon erythrostoma Gmelin, 1790, was designated as the type-species of *Helictes* Haliday by Westwood in 1840. Gmelin's material is lost. It is therefore best to follow Gravenhorst, 1829, with respect to this species and to designate Gravenhorst's male as the neotype.

For no good reason Förster rejected the name *Helictes* and introduced the genus *Myriarthrus* with *Plectiscus erythrostoma* Gravenhorst as the type. Förster did not see the Gravenhorst type material. His other species in *Myriarthrus* belong to *Megastylus* Schiødte. Moreover Förster described the genus *Idioxenus* with *Megastylus mediator* Schiødte, 1838, as the type-species. The Schiødte type specimen is a true *Megastylus* (Townes, 1971; van Rossem, 1974). The lectotype of Förster's *Idioxenus mediator* is a male specimen of *Helictes erythrostoma* (Gmelin) (sensu Gravenhorst).[1]) The other species placed by Förster in *Indioxenus* also belong to *Helictes*.

Redescriptions of the Western Palaearctic species of *Helictes* Haliday, 1838, are given below, with a key to the males. Two new species are proposed: *Helictes fabularis* and *H. incongruens*. The identity of the males could only be based on a single character namely the position of the tyloids on the flagellar segments. I have been unable to recognize the females. Only with *Helictes erythrostoma* I have females and a male from the same locality and date.

Key to *Helictes* males
(Postannellus counted as first segment)

1. Segment five of flagellum with a tyloid . . . 2
— Segment five of flagellum without a tyloid 3
2. Tyloids on flagellar segments 5—6—7. Tergite two with vague microsculpture . . . . . *H. erythrostoma* (Gmelin)
— Tyloids on flagellar segments 5—6—7—8. Tergite two with microsculpture . . . . . *H. conspicuus* (Förster)
3. Tyloid on flagellar segment six . . . . . *H. fabularis* spec. nov.
— Tyloids on flagellar segments 6—7—8 or 6—7—8—9 4
4. Tyloids on flagellar segments 6—7—8. Tergite two polished or with indistinct microsculpture . . . . . *H. borealis* (Holmgren)
— Tyloids on flagellar segments 6—7—8—9. Tergite two polished . . . . . *H. incongruens* spec. nov.

Helictes erythrostoma (Gmelin)

Ichneumon erythrostoma Gmelin, 1790: 2721. Type destroyed.
Plectiscus erythrostoma; Gravenhorst, 1829: 718.
Cryptus (*Helictes*) *fulvicornis* Haliday, 1838: 115. Lectotype Fitton, 1976: 333.
Idioxenus mediator (Schiødte, 1838) sensu Förster, 1871: 95.
Idioxenus inaequalis Förster, 1871: 95.

The type material of *Ichneumon erythrostoma* Gmelin has been destroyed. This species is named according to the revision by Gravenhorst, 1829, whose specimen is regarded as the neotype. No original Gravenhorst label is present. There are two existing labels; that of Aubert which says *Helictes erythrostoma* Gmel.

[1]) If Förster, 1871, designates as type-species for *Idioxenus* gen. nov. a species that he cites in some such manner as *Megastylus mediator* Schiødte, 1838, the type-species of *Idioxenus* is that which was before Förster, and not that named by Schiødte, and its name is to be cited as *Idioxenus mediator* Förster, 1871. (Int. Code, 1985, Art. 70c).

male (= *conspicuus* = *inaequalis*) and the neotype label of the present author.

Characteristics of the neotype of *Helictes erythrostoma*: Male. Front wing 3.5 mm long. Tyloids of flagellar segments 5—6—7. Tergite two almost polished. The specimen is in bad condition and glued on a square of mica. Right antenna missing beyond postannellus; left antenna missing beyond segment eight. Right middle leg and left hind leg missing.

Characteristics of the lectotype of *Cryptus* (*Helictes*) *fulvicornis* Haliday. Labels: lectotype label of Fitton, 1975. Ireland. Female (National Museum of Ireland, Dublin). I have seen the lectotype. It is a reddish brown specimen.

There is a male specimen of *Idioxenus mediator* sensu Förster labelled as follows: a Förster label "Aachen, male, 27 gl."; a box label "*mediator*" Schiødte"; a label of Aubert "*Helictes erythrostoma* Grav. (= *mediator* auct. nec. Schiødte)".

Characteristics of Förster's specimen of *Helictes mediator*: Male. Front wing 3.6 mm long. Tyloids on flagellar segments 5—6—7. Tergite two with fine microsculpture.

The lectotype of *Idioxenus inaequalis* is labelled as follows. A Förster label "Lousb. 15.6."; a box label "*inaequalis* Frst." and the lectotype label of the present author.

Characteristics of the lectotype of *Helictes inaequalis*: Male. Front wing 3.2 mm long. Tyloids on flagellar segments 5—6—7. Tergite two almost polished. There are two paralectotypes, both from Lousberg.

Description of the male of *H. erythrostoma* (Gmelin): Front wing 2.9—3.6 mm long. Palpi yellow. Clypeus convex. Face with fine microsculpture and suberect, rather close hairs. Frons polished, only upper part with some hairs. Vertex, occiput and temple with suberect hairs. Tyloids on flagellar segments 5—6—7. Pronotum with microsculpture, epomia present. Mesoscutum with microsculpture and adpressed hairs, notauli present, reaching margin. Scutellum without margin. Propodeum with microsculpture, pleural carina present and strong. Apical carina present or absent. Mesopleurum polished with hairs on lower part. Prepectal carina not reaching margin. Tegulae white to yellowish. Front and middle coxae brownish, hind coxae fuscous and with microsculpture. Tergites one and two with microsculpture (tergite three sometimes), following tergites more polished.

Characteristics of the female: Description based on Haeselbarth's specimen from Lippoldshausen, 20.v.1967, from the same locality (A) as a male. Front wing 3.6 mm. Palpi whitish. Face with microsculpture and adpressed hairs. Frons polished. Vertex and occiput with very fine microsculpture and widely placed adpressed hairs. Temple polished, without hairs. Antenna yellowish brown, slender. Postannellus long and slender, 8 times as long as apical width. Pronotum with fine microsculpture, epomia present. Mesoscutum with microsculpture, notauli almost obliterated. Scutellum with microsculpture, without margin. Propodeum with strong microsculpture. Median longitudinal carina strong down to apical transverse carina. Pleural carina present. Mesopleurum with microsculpture and adpressed hairs on front half up to apex of prepectal carina. Prepectal carina not reaching margin. Tegulae whitish. Legs, including coxae, light brown. Middle and hind coxae with close sculpture. Tergites one, two and three with microsculpture. Ovipositor not extending beyond subgenital plate.

Material examined. — ♂, no locality label, neotype, coll. Gravenhorst (Wrocław). Austria: ♂, Kärnten, Himmelberg, 1000 m, 14.vii.1979 (coll. Zwakhals); 2 ♂, Pass Thurn, Salzburg, 1200 m, 8.ix.1968 (coll. Haeselbarth). Germany: 2 ♂, Lippoldshausen, A, 20.v.1967; B, 20.v.1967; 3 ♀, Lippoldshausen, A, 20.v.1967; B, 20.v.1967; E, 21.v.1967; ♂, Lippoldshausen, B, 5.vi.1966; 2 ♂, Hedemünden, D, 10.vii.1967; ♂, Erding, 4.vii.1971; ♂, Wiershausen, A. 22.v.1966; ♂, Ober Bayern, Umg. Gauting, 22.vi.1972; ♂, Bayern, Weszling, Hochstadt, 22.vi.1974; ♂, Fl. Triesenberg, 1450 m, 1.ix.1969 (all German specimens leg. & coll. Haeselbarth). Italy: ♂, Bolzano, Sarntal, 1250 m, 30.vi.1976 (coll. Zwakhals); ♂, St Peter, Ahrntal, Südtirol, 1300 m, G, 25.viii.1967; 5 ♂, St. Peter, Ahrntal, Südtirol, 1800 m, Jb, 26.viii.1967; 5 ♂, ibid., 1950 m, Ja (all coll. Haeselbarth). Netherlands: ♂, Terschelling, Hoorn, 23.v.1967, Alnus wood; ♂, Ameland, Hollum, de Blieke, pond "Tonny", 5—26.vii.1969 (both coll. van Rossem); 5 ♂, Ede (Prov. Geldl.), 28.ix., 10.x, 14.x, 21.x, 24.x.1970 (coll. Zwakhals); ♂, Asperen (Prov. Zuid-Holland), 30.viii.1968; ♂, Asperen, 17.v; 4 ♂, 20.v, 2 ♂, 27.v, 2 ♂, 30.v, ♂, 2.vii, ♂, 25.vii, ♂, 29.vii, 2 ♂, 6.viii, ♂, 18.x.1972; 3♂, Asperen, 10.v, 24.v.1973; ♂, Arkel, 26.vii.1970; 2 ♂, 15.vi.1980 (all. coll. Zwakhals); ♂, Giessenburg, 1.viii.1968 (coll. Zwakhals). Suisse: ♂, Gr., Scharl, God Tamangur, 2150 m, 12.viii.1973 (coll. Haeselbarth).

Distribution. — The species is widely spread in the western Palaearctic Region.

Helictes conspicuus (Förster)

Idioxenus conspicuus Förster, 1871: 95.
Idioxenus inquilinus Förster, 1871: 95.
Idioxenus intricator Förster, 1871: 95.
Idioxenus tetraglyptus Förster, 1871: 95.
Helictes nigricoxus Strobl, 1903: 139.

The holotype of *Idioxenus conspicuus* is laballed as follows: a Förster label "Aachen ♂"; a box label "*conspicuus* Frst." and the holotype label of the present author.

Characteristics of the holotype of *Helictes conspicuus*: Male. Front wing 3.4 mm long. Face with microsculpture and adpressed hairs. Vertex, occiput and temple with adpressed hairs. Tyloids on flagellar segments 5—6—7—8. Pronotum with epomia and microsculpture. Mesoscutum with microsculpture and notauli present. Propodeum with microsculpture down to position of apical transverse carina, the latter being obliterated. A part of mesopleurum almost polished. Prepectal carina not reaching margin. Upper part of hind coxae with somewhat more rough sculpture. Second tergite with fine microsculpture.

The lectotype of *Idioxenus inquilinus* is labelled with a Förster label "♂, 30 gl. 5—8 ausgebuchtet". Lectotype label of Aubert, 1977.

Characteristics of the lectotype of *Helictes inquilinus*: Male. Front wing 4.0 mm long. Face with microsculpture. Tyloids on flagellar segments 5—6—7—8. Mesoscutum, first and second tergite with microsculpture.

There are two paralectotypes from Lousberg (the type locality), probably a specimen of *H. erythrostoma* and also one female from Lousberg.

The holotype of *Idioxenus intricator* is labelled with a Förster label, "♂, 28 gl., Lousberg 12.10." and a holotype label of the present author.

Characteristics of the holotype of *Helictes intricator*: Male. Front wing 4.0 mm long. Face with microsculpture. Tyloids on flagellar segments 5—6—7—8. Mesoscutum, first and second tergite with microsculpture.

The lectotype of *Idioxenus tetraglyptus* is labelled with a Förster label, "♂, 25 gl., Lousberg, 9.6." and a lectotype label of the present author.

Characteristics of the lectotype of *Helictes tetraglyptus*: Male. Front wing 3.2 mm long. Face with microsculpture. Tyloids on flagellar segments 5—6—7—8. Mesoscutum with microsculpture. First and second tergite with vague microsculpture.

There are three paralectotypes (2 ♂ 1 ♀), all from Lousberg. There are also specimens (8 ♂ 14 ♀), labelled by Förster *Idioxenus tetraglyptus*, but these are not type specimens.

The lectotype of *Helictes nigricoxus* Strobl, 1903, is labelled: "Admont 18 August" and bears the lectotype label of Aubert, 1977, who identified this specimen as *Helictes erythrostoma* Grav., male. I have not seen this specimen, but following the original description of Strobl, viz. "das fünfte bis achte Geiszelglied start ausgerandet" I am inclined to place it under *Helictes conspicuus*. Strobl also noted: "nach Frst. Tab. gelangt man auf *inquilinus*".

Material examined. — The localities mentioned above are not recapitulated. Germany: ♂, holotype of *Idioxenus conspicuus*, Aachen (coll. Förster, München); 2 ♂, Wiershausen (Niedersachsen), A, 22.v.1966; 4 ♂, Lippoldshausen, A & B, 20.v.1967; 2 ♂, Ziegenhagen (Hessen), Ac, 13.viii.1966; Aa, 15.viii.1966; ♂, Münden (Hann.), 13.viii.1965; ♂, Glonn (Ober Bayern), 14.vii.1968; ♂, Weszling (Ober Bayern), 12.viii.1972; 2 ♂, Weszling, Hochstadt (Bayern), 22.vi.1974; ♂, Starnberg, Kerschlach (Bayern), 27.vii.1974; ♂, Sachsenkam, Kirchseefilz (Ob. Bayern), 19.vii.1972 (all leg. & coll. Haeselbarth). Italy: ♂, TN, M. Baldo Bocca Navene, 1400 m, 9.vii.1972; ♂, Algund (Südtirol), 1800 m, A, 24.vii.1966; male, Idrosee (Brescia), Vesta, 500 m, 15.vi.1958; ♂, Campi, Riva s. Garda, 1400 m, E, 7.ix.1967 (all leg. & coll. Haeselbarth); 2 ♂, Sarntal (Bolzano), 1250 m, 26.vi.1976 & 30.vi (both leg. & coll. Zwakhals). Netherlands: 10 ♂, Ede (Prov. Geldl.), 28.ix.1970, 14.x, 17.x, 24.x, 1.xi, 15.xi; 12.vi.1971; ♂, Overveen (Prov. Noord-Holland), 9.vi.1974; 4 ♂, Asperen (Prov. Zuid-Holland) i.v.1967; 18.v.1970; 24.v.1972; 27.v.1972; ♂, Arkel (Prov. Zuid-Holland), 10.viii.1967; ♂, Schelluinen, 23.viii.1967; ♂, Hoornaar, 11.vii.1967. All material leg. and coll. Zwakhals. Poland: ♂, Polanowice (10 km N. of Wrocław), 15.vii.1967, leg. W. J. Pulawski (coll. van Rossem). Switzerland: ♂, Tarasp Lai Nair (Gr.), 11.viii.1973 (coll. Haeselbarth); ♂, Bern, Delémont, 21.v.1975, leg. R. T. Simon Thomas (coll. van Rossem). Sweden: ♂, Lapland m., 30.viii. Bhn (Boheman) (in type series of *Megastylus borealis* Holmgr., Riksmuseet, Stockholm).

Distribution. — The species is widely spread in the western Palaearctic Region.

Helictes borealis (Holmgren)

Megastylus borealis Holmgren, 1855: 129.
Idioxenus coxalis Förster, 1871: 95.
Idioxenus propinquus Förster, 1871: 95.
Idioxenus invalidus Förster, 1871: 95.

Idioxenus variator Förster, 1871: 95.
Megastylus (Helictes) pilicornis Thomson, 1888: 1312.

The lectotype of *Megastylus borealis* Holmgren (Riksmuseet, Stockholm) is labelled: "Lp (= Lapland) m, 5.viii. Bhn (= Boheman)". Lectotype label of the present author.

Characteristics of the lectotype of *Helictes borealis*: Male. Front wing 3.7 mm long. Palpi and mandible yellow. Clypeus convex, yellow. Face coriaceous, with long, subadpressed hairs. Malar space wide, 0.26 of width of face. Eyes with setae. Tyloids on flagellar segments 6—7—8. Frons and vertex polished. Gena with long hairs. Occipital carina closed. Pronotum with vague sculpture, epomia present. Mesoscutum with adpressed setae. Notauli present. Propodeum polished, carinae absent except for stubs of longitudinal carinea. Mesopleurum polished, prepectal carina not reaching te margin. Coxae and legs yellow. Middle and hind coxae with long hairs. Hind femur slender, hind tibia slender and very long, Nervellus vertical, discoidella absent. First gastral segment rather slender, tergite almost polished. Following tergites polished. Second tergite proximally and distally yellow. Third tergite proximally yellow.

The two males labelled: "Lapland m., 4.viii. Bhn" and "Lapland in. Bhn", respectively, I labelled as paralectotypes.

The lectotype of *Idioxenus coxalis* was labelled by Aubert and has a Förster label "Aachen".

The neotype of *Idioxenus coxalis* has a Förster label "Aachen, ♂ und ♀, 29 gl" a cabinet label *coxalis* Frst. and a lectotype label of Aubert, 1977. There are two specimens mounted on the pin. I consider the right-hand specimen, a male, to be the neotype.

Characteristics of the neotype of *Helictes coxalis*: Male. Front wing 3.4 mm long. Palpi yellow. Clypeus convex, yellowish brown. Malar space wide, 0.33 of width of face. Clypeus and face with rather long, close, suberect hairs. Face with microsculpture. Scape ventrally yellow, with long hairs. Tyloids on flagellar segments 6—7—8. Frons vertex and gena polished. Lower gena with long hairs. Pronotum polished, epomia present. Mesoscutum strongly convex, with fine microsculpture. Notauli present, but not reaching the margin. Scutellum with lateral carina only at proximal corners and with long hairs. Propodeum polished, laterally with hairs, pleural carina present. Mesopleurum polished, with prepectal carina present but weak, not reaching the margin. Tegulae white. Legs including coxae yellow. All tergites polished.

The holotype of *Idioxenus propinquus* is labelled with a Förster label "Aachen, ♂".

Characteristics of the holotype of *Helictes propinquus*: Male. Front wing 4.3 mm long. Tyloids on flagellar segments 6—7—8. Second tergite almost polished, some vague microsculpture present.

The lectotype of *Idioxenus invalidus* has two Förster labels: "Aachen, ♂, 30 gl"; "6—8..." (illegible) and the lectotype label of the present author.

Characteristics of the lectotype of *Helictes invalidus*: Male. Front wing 3.4. mm long. Tyloids on flagellar segments 6—7—8. second tergite polished.

There are two males mounted on the pin. I consider the right-hand specimen to be the type. The other specimen also represents *H. coxalis*. There are also three female paralectotypes; one of these is the holotype of *Megastylus (Helictes) pilicornis* Thomson, holotype label of M. G. Fitton, 1980.

The lectotype of *Idioxenus variator* has a Förster label "Lousberg, 17.10. ♂, 29 gl" and the lectotype-label of the present author.

Characteristics of the lectotype of *Helictes variator*: Male. Front wing 4.2 mm long. Tyloids of flagellar segments 6—7—8. Second tergite almost polished, some vague microsculpture is present.

Ther are two other Förster males, one labelled "Aachen". The other without a label.

Material examined. — I studied 147 ♂ from the following localities. Austria: St. Schladming, 1250 m, Heidelbeere; Flintsbach, Inn.B, 550 m; Walchsee, Tirol, 800 m; T. Pertisau, 1550 m; Fl.3, Schwestern Grat, 2000 m; Reiter Alm, 1600 m, Heidelbeere (all coll. Haeselbarth); Kärnten, Himmelberg, 1000 m (coll. Zwakhals). Germany: Bayern. Wiershausen; Jettenhausen; Ammergeb. Jausen, 1400—1600 m, Nickelswald 1100—1300 m; Starnberg, Kerschlach; Leutstetten; Glonn; Niederaudorf, 1000 m; Herrsching Widdersberg Mischwald; Gauting (all coll. Haeselbarth); Ellmau 1050 m; Garmisch 700—1400 m; illegible 750 m (coll. Bauer, Zool.Staatss. München). Hann. Münden; Geierlambach, Heidelbeere; Lippoldshausen; Nd. Sachsen, Bramwald; Holledau, Heidelbeere; Fl.Triesenberg, 1450 m; Hedemünden; Meensen; Dransfeld (all coll. Haeselbarth); illegible leg. Pfankuch (Zool.Staatss. München); Augsburg (Zool.Staatss. München); Goslar a. H. Haldenstieg, Grauhöferholz; Harz, Harzburg, Radautal; Allgäu,

Riezlern, 1150 m (coll. Bauer, Zool. Staatss. München). Italy: St. Peter, Ahrntal, Südtirol, 1350—1600 m; Martelltal, Südtirol, 2100 m; Tremalzo, Judikar Voralpen, 1730-1900 m; Karthaus Südtirol, 1200 m; Merano, 700 m; Feldthurns (Bolzano) 1200 m; Partschins, Südtirol, 850 m; Tirol, Südtirol, 2250 m; Malcesine (VR) 500—1300 m, Bosco ceduo; Campi, Riva s. Garda, 240—1200 m (22 specimens) (all coll. Haeselbarth); Bolzano, 800 m; Sarntal (Bolzano) 1250 m (coll. Zwakhals). Netherlands: Ede (Prov. Gelderl.) (coll. Zwakhals and coll. van Rossem); Heilo and Bergen (Prov. Nd Hol.); Asperen and Arkel Prov. Zd Hol.) (14 specimens); Halsteren (Prov. Nd Brab.) (coll. Zwakhals). Norge: Opland, Lom-Lia (4 specimens) (coll. van Rossem). Sweden: Dalarna, Boda Kyrkby, Silverberg; Fjätervålen Idre; Transtrand, Hemfjäll Stangen (coll. van Rossem); Höör (Skåne) (coll. Zwakhals). Switzerland: Wallis, Fiesch, 1200 m (coll. Zwakhals).

Localities of type material are not repeated.

Collecting dates between May and November.

Distribution. — The species is widely spread in the western Palaearctic Region.

Helictes incongruens species nova

The holotype of *Helictes incongruens* species nova has the following labels: "Judikar Voralpen, C. Tombea 1800 m, 18.vi.1958" (leg. & coll. Haeselbarth). "*Helictes* sp." det. Townes, 1964, and the holotype label of the present author.

Characteristics of the holotype of *Helictes incongruens*: Male. Front wing 3.6 mm long. Palpi whitish. Clypeus convex, polished, fuscous, front margin light brown, width 0.59 of width face. Lower part of face polished, towards antennal sockets somewhat rough, with suberect hairs. Frons, vertex an occiput polished. Vertex and occiput with widely placed hairs. Tyloids on flagellar segments 6—7—8—9. Pronotum polished, epomia present. Mesoscutum almost polished. Lateral carina of scutellum only present beyond the corner and not meeting at apex. Mesopleurum polished, prepectal carina not reaching the margin. Legs long and slender. Tegulae white. Propodeum polished, only pleural carina present. All tergites polished.

Material examined. — Italy: ♂, Brescia, Judikar Voralpen, C. Tombea, 1800 m, 18.vi.1958, holotype. Paratypes: ♂, Judikar Voralpen, C. Tombea, 1800 m, 18.vi.1958. Austria: ♂, Steiermark, Schladming, 1250 m, 11.vi.1972, Heidelbeere. Germany: ♂, Reither Alm, 1600 m, Heidelbeere. Preceding specimens leg. and coll. E. Haeselbarth, München. Sweden: ♂, Lapland in., 8.viii., Bhn (= Boheman) (specimen in type series of *Megastylus borealis* Holmgren; Riksmuseum Stockholm).

Distribution. — The species gives the impression of being a boreal and alpine element.

The name "incongruens" is the Latin for "disagreeing".

Helictes fabularis species nova

In the type series of *Megastylus borealis* Holmgren there is a male which differs conspicuously from the other syntypes by having a single tyloid. I consider this specimen to represent an undescribed species.

The holotype of *Helictes fabularis* has the following labels: "Lp (= Lapland) in., Bhn" (= Boheman) (Riksmuseum, Stockholm).

Characteristics of the holotype of *Helictes fabularis*: Male. Front wing 4.7 mm long. Palpi and mandible yellow. Clypeus convex, polished, front margin protruding. Face wide, polished to slightly coriaceous, with widely placed setae. Malar space wide, 0.45 of width of face. Frons and gena slightly coriaceous. Gena and occiput with long, subadpressed hairs. Occipital carina closed. The single tyloid on the sixth flagellar segment. Postannellus long. Scape large, broadly ovate. Pronotum polished, with strong epomia and a rather characteristic downward slope of the hind margin dorsally. Mesoscutum with indistinct microsculpture and vaguely outlined notauli (damaged by pin). Propodeum polished, with erect setae. Only the pleural carina present. Mesopleurum polished, prepectal carina not reaching the margin. Legs, including the coxae yellowish. Hind coxa relatively slender. Hind femur and tibia exceptionally slender. Nervellus indistinctly intercepted, discoidella absent. First gastral segment slender, polished and with the spiracles at 0.5 of the length. The first sternite ending in the apical half. The other tergites fuscous, polished, with short suberect hairs.

Material examined. — The holotype only (Sweden, Lapland). In a collection of the Museo de Ciencias Naturales (Santa Cruz de Tenerife) (Dr G. Ortega) I found specimens from Gran Canaria, Gomera and Palma (Islas Canarias).

The name "fabularis" is the Latin for "mythical".

Phosphoriana nomen novum

Phosphorus Voet, ? 1769: 84.

Phosphorus Thomson, 1857: 27 (= *Voetia* Strand, 1943).

Phosphorus Van Rossem, 1980: 129—131.

The name *Phosporus*, which I re-introduced in 1980, is preoccupied. I propose to use *Phosphoriana* as the replacement name, gender feminine. The type-species of *Phosphoriana* is *Entypoma rugosissimum* Strobl, 1903, the type-species of *Phosphorus* Van Rossem by monotypy.

Phosporiana rugosissima (Strobl)

Entypoma rugosissimum Strobl, 1903: 114.
Phosphorus rugosissimus; Van Rossem, 1980: 129—131.

Hitherto the male of this species was unknown. I found two males in the collection of Haeselbarth. A description follows here.

Characteristics of the male: Length front wing 4.6 mm. Palpi white. Mandible yellow, lower tooth slightly shorter. Clypeus with apical half flattened and yellow, about 1.7 times as wide as long. Face below the antennae protuberant, with a conspicuous groove between the antennal sockets. Below each antennal socket a triangulate ivory spot, the base proximal to the socket. Malar space as wide as apex of postannellus. OOL : POL =2 : 1[1]). Frons, vertex and gena polished. Face with some vague and shallow punctures. Gena narrow, about 0.35 of width eye. Antenna long and slender, postannellus 7.0 times as long as the apical width. No tyloids present. The pronotum striking, having two elevations, ivory in colour, with a sharp groove between, directly behind the postocciput. The mesoscutum strongly inclined upwards from the pronotum, the median lobe conspicuously separated from the lateral lobes by wide but shallow notauli. Towards the centre of the mesoscutum the median lobe with a V-shaped depression. The propodeum with some transverse, irregular sculpture. Pleural, lateral longitudinal and median longitudinal carinae present. Mesopleurum polished prepectal carina strong. All coxae and most of the front and middle legs whitish yellow. Hind femur and tibia more yellow. All femora rather stout. Hind tibia long and slender. First tergite long and slender, 3.5 times as long as the apical width, with longitudinal sculpture, which is continued on tergites two and three. All tergites with a broad apical ivory band.

Material examined. — Germany: 2 ♂, Bayern, Neuburg Donau, Finkenstein, 6.vii.1982, leg. and coll. Haeselbarth.

Characteristics of the female: Length front wing 5.0 mm. Postannellus slender, 7.0—9.0 times as long as wide. The pronotum with the same characteristics as in the male. Mesoscutum steeply rising, polished, with conspicuous notauli. Propodeum with pleural, lateral longitudinal and apical transverse carina. Prepectal carina strong. Colour of the legs the same as in the male. Hind femur robust, 4.3 times as long as wide. Front wing with areolet. Nervellus intercepted below the middle, discoidella present. First tergite long and slender, about 3.0 times as long as wide apically, with rough sculpture, spiracles at 0.76 of length. Apical margins of all tergites ivory-yellow. Ovipositor 0.25 of length front wing.

Distribution. — A rare species. The holotype of Strobl is from Johnsbachgraben (Austria). There are three specimens from Germany in the collection of E. Haeselbarth (München).

Genus **Proeliator** Van Rossem

Proeliator Van Rossem, 1982: 152—154.

Dr. H. Townes brought to my notice an undescribed species in the type series of *P. proprius* Van Rossem. A description follows here.

Key to the *Proeliator* females
(The males of *P. invictus* and *P. captiosus* are unknown)

1. Length of ovipositor 0.14—0.17 of length of front wing ..... *Proeliator invictus* spec. nov.
— Length of ovipositor 0.23—0.30 of length of front wing 2
2. Lower tooth of mandible very small, giving the impression of a single-toothed mandible. Last tarsal joint of hind leg robust, claws strong. Alaska ..... *Proeliator captiosus* Van Rossem
— Lower tooth of mandible shorter than upper tooth, but visible. Last tarsal joint of hind leg not particularly robust. Europe ..... *Proeliator proprius* Van Rossem

[1]) OOL = ocular-ocellar line.
POL = distance between lateral ocelli

Proeliator invictus species nova

Characteristics of the holotype of *P. invictus*. Female. Front wing 3.4 mm long. Lower tooth of mandible about half the length of upper tooth. Clypeus elliptical, upper margin convex. for the rest clypeus impressed. Entire head polished. Pedicel large. Antenna yellowish brown. Pronotum polished, with epomia. Mesoscutum polished, with adpressed rather close hairs. Notauli weak, only indicated on the margin. Propodeum with rather close erect hairs. Apical transverse, median longitudinal, and pleural carinae present. Mesopleurum polished, prepectal carina to the margin. Front wing with areolet. Discoidella absent. Front and middle legs, including coxae yellow. Hind legs more brownish, hind femur with conspicuous long hairs. First tergite coriaceous, 2.0 times as long as apical width. Dorsolateral and median dorsal carina strong. Median dorsal carina to apical margin. Following tergites polished. The fourth tergite and following with transverse rows of widely placed suberect setae. Ovipositor 0.14 of length front wing. Sheath with widely placed long hairs.

Ovipositor of paratype is 0.17 of length of front wing.

Male unknown.

Material examined. — Sweden, ♀, holotype, Messaure, 7.ix.1972, leg. Karl Muller; ♀, paratype, Messaure, 12.ix.1971, leg. Karl Muller (both coll. Townes, Gainesville (Florida).

The name "invictus" is the Latin for "indisputable, irrefutable".

Proeliator proprius Van Rossem

Proeliator proprius Van Rossem, 1982: 152—153.

Characteristics of the female: Front wing 3.5 mm. The lower tooth of mandible visible, shorter than upper tooth. Head polished, square. Occipital carina closed. Scapus subcylindrical, pedicel large. Pronotum polished, epomia present. Mesoscutum convex, polished, with widely placed subadpressed hairs. Notauli weak. Propodeum with a strong apical transverse carina and pleural carina, other carinae weak to obsolete. Propodeum with long, erect hairs. Front wing with areolet. Nervellus vertical, discoidella absent. Front and middle coxae whitish, hind coxae brown. Legs yellow, with rather long hairs, especially the hind tibia, the hind femur and the tarsi. The first tergite rather variable in shape, 1.8—2.5 times als long as the apical width. Median dorsal carina in most specimens short. The first tergite coriaceous. Second tergite in part coriaceous. Following tergites polished. Ovipositor 0.23—0.30 of length of front wing. Sheath with widely placed hairs.

Characteristics of the male: Tyloids of flagellar segments 6—8.

Distribution. — Germany: Spessart. Sweden: Messaure (Lapland).

Proeliator captiosus Van Rossem

Proeliator captiosus Van Rossem, 1982: 153—154.

Characteristics of the female: Front wing 3.3 mm. Lower tooth of mandible very small, giving the impression of a single toothed mandible. Occipital carina closed. Pedicel large. Postannellus 4.0 times as long as wide. Epomia present. Front wing with areolet. Nervulus somewhat inclivous. Nervellus somewhat reclivous. Last tarsal joint of hind leg robust, claws strong. First tergite coriaceous, median dorsal carinae not present. Following tergites brown, polished. Ovipositor 0.26 of length front wing. Sheath with widely placed long hairs.

Male unknown.

Distribution. — U.S.A.: Mt McKinley, Alaska (coll. Townes)

Genus **Megastylus** Schiødte

Megastylus Schiødte, 1838: 139.
Megastylus; Townes, 1971: 205.
Megastylus; Van Rossem, 1974: 273—285.
Megastylus; Van Rossem, 1983b: 121—132.

Type-species: *Megastylus cruentator* Schiødte, 1838.

Megastylus cruentator Schiødte

Megastylus cruentator Schiødte, 1838: 139.
Megastylus cruentator; Van Rossem, 1974: 276—278.
Megastylus cruentator; Van Rossem, 1983b: 123 & 126.
Cryptus (*Helictes*) *cruentatus* Haliday, 1838: 115.
Megastylus cruentator; Fitton, 1976: 333.

Characteristics of the lectotype of *Cryptus cruentatus* Haliday. Labels: a label "named by Claude Morley *Helictes cruentatus* Hal. Type (unlabelled) vi.1913; a circular label with red margin Type CM; lectotype label of Fitton, 1975. Nat. Mus. Ireland, Dublin). Female. The

specimen represents *Megastylus cruentator* Schiødte.

Megastylus orbitator Schiødte

Megastylus orbitator Schiødte, 1839: 139 (type lost).
Megastylus orbitator; Van Rossem, 1983b: 127—129 (neotype)
Misoleptus maderensis Wollaston, 1859: 21 (*Misoleptus* is a lapsus for *Mesoleptus*)
?*Megastylus maderensis*; Fitton, 1976: 356.

Characteristics of the holotype. Labels: Madeira Wollaston (printed); a blue label: *Misoleptus maderensis* W.; B. M. Type Hym. 36. 1999; holotype label Fitton 1974. Male. Front wing 2.4 mm long. The specimen is quite small and stuck to the mounting slip in such a way that ventral examination is impossible. Nevertheless I hold it to be close to *M. orbitator*.

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(Synonyms in italics)