

Arquivos de Zoologia

MUSEU DE ZOOLOGIA DA UNIVERSIDADE DE SÃO PAULO

CONTEÚDO

AZEVEDO, C. O. *REVISION OF THE NEOTROPICAL DISSOMPHALUS ASHMEAD, 1893 (HYMENOPTERA, BETHYLIDAE) WITH MEDIAN TERGAL PROCESSES*..... 301

ISSN 0066-7870

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| Arq. Zool., S. Paulo | São Paulo | v. 35 | n. 4 | p. 301-394 | 1999 |
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ISSN 0066-7870

ARQ. ZOOL. S. PAULO 35(4): 301-394

27.VIII.1999

REVISION OF THE NEOTROPICAL *DISSOMPHALUS* ASHMEAD, 1893 (HYMENOPTERA, BETHYLIDAE) WITH MEDIAN TERGAL PROCESSES

CELSO OLIVEIRA AZEVEDO

ABSTRACT

The Neotropical species of Dissomphalus with median tergal processes are defined as having a pair of median processes situated in a depression. These species are divided into 13 species groups: apertus and altivolans, basidentatus, bifoveatus, bisulcus, curvifoveatus, linearis, longiclypeus, rasissimus, stellatus, ulceratus, unitus, vallensis. Eight previously described Dissomphalus species: D. vallensis Evans, D. bisulcus Ashmead, D. bifoveatus Kieffer, D. ulceratus Evans, D. apertus Kieffer, D. altivolans Evans, D. megomphalus Evans and D. deformis Evans are considered as having median tergal processes. The following 40 new species are described and illustrated: D. bicarinatus, D. largidentatus, D. tortuosus, D. stellatus, D. scavatus, D. rotundus, D. cerutus, D. basidentatus, D. planus, D. bisserratus, D. extrarramis, D. polidentatus, D. bifurcatus, D. triangularis, D. dilatatus, D. strictus, D. digitatus, D. curvifoveatus, D. horizontalis, D. angulatus, D. microculus, D. rasissimus, D. bilobatus, D. linearis, D. completus, D. incompletus, D. gigantus, D. serratus, D. multicorniaceus, D. scamatus, D. longiclypeus, D. concavatus, D. rectilineus, D. dentiformis, D. unitus, D. delgatus, D. subpilosus, D. parvus, D. subdeformis and D. lanceolatus. D. nigrescens Evans is considered a junior synonym of D. altivolans Evans. Keys to males and females to the groups are presented. 125 micrographs and 79 line drawings are included.

Keywords. Bethylidae, *Dissomphalus*, Hymenoptera, Neotropical Region, Systematics.

INTRODUCTION

The genus *Dissomphalus* (Bethylidae, Pristocerinae) was described by Ashmead (1893) for the species of Bethylidae possessing two pubescent tubercles on the second tergite of the gaster in the males. He recognized two species, *D. xanthopus* and *D. californicus*, described from males, with the former as type-species (Evans, 1954).

Other species were described by Ashmead (1894, 1904) and Kieffer (1904, 1906, 1908a, 1910a, 1910b, 1911, 1914a). Kieffer (1914b) revised the world Bethylidae, and recognized twenty species of *Dissomphalus* from all zoogeographic regions, except for the Palearctic and Australian. Evans (1954, 1962, 1964, 1966, 1969a, 1969b, 1969c, 1979) described several new species from the New World.

Gordh & Moczar (1990) listed 78 species of *Dissomphalus* from all over the world, 55 of them from the Neotropical region.

Dissomphalus presents a strong sexual dimorphism. Males are large, winged and with well-developed eyes. Females are wingless, small, and with reduced eyes.

The function of the tergal processes is unknown. Evans (1979) suspected they are glandular and play a role in mating, and that the female somehow comes in contact with them during the phoretic copulation.

Biological data on several species suggest that *Dissomphalus* is a parasitoid of myrmecophilous or wood boring beetle larvae (Krombein, 1979).

Evans (1954) established two species groups of *Dissomphalus*, based on the distance between the tergal processes; the xanthopus group for the species with distant tergal processes, i.e., processes located dorso-laterally in the gastral tergite II, and the apertus group for the species with close together tergal processes, i.e., processes located at the middle of the gastral tergite II.

Evans (1962) established a third species group, kansanus, for the species formerly placed in the xanthopus group with minute tergal processes. In this paper, he included *D. kansanus* Evans, 1954, *D. arizonicus* Evans 1962 and *D. chiapanus* Evans, 1962 in this group. After this, this species group of *Dissomphalus* was recorded only once, by Evans (1969a).

These three species groups in Evans' sense overlap broadly in their range of variation and include many different species. Here, I have reorganized the genus *Dissomphalus* into groups which include similar species in terms of variation of morphological structures. In this first step, I have redescribed the genus based on the analysis of about 6,000 specimens of Nearctic and Neotropical species and some Afrotropical and Oriental species, including type material of almost all Nearctic and Neotropical species. I have also introduced a taxonomic study of the species whose tergal processes are close (apertus group in Evans' sense), with the description of 40 new species, redescription of all known species, and a synonymy, based on the analysis of about 630 specimens of *Dissomphalus*. This study intends to be no more

than a preliminary study of the Neotropical species of this genus.

The *Dissomphalus* with median tergal processes have this pair of processes (tubercles, pits, tufts or other modifications) at the median third of the width of the gastral tergite II. These processes may be placed close together (Fig. 116, 121) or separated by a short interval (Fig. 44, 103) or by a larger interval (Fig. 14). In all cases, these processes are surrounded by a depression, which can be large, extending beyond the median third of the width of the tergite (Fig. 105, 111), deep (Fig. 25, 64), shallow (Fig. 53, 86, 92), wholly covered by the processes or nearly so (Fig. 44, 116, 121), or partially divided or nearly so (Fig. 69, 74). So, *Dissomphalus* with median tergal processes is defined as having a pair of median processes surrounded by a depression.

Species like *D. cornutus* Evans, 1964 and *D. hastatus* Evans, 1979 (Evans, 1979, fig. 8) and some undescribed ones with tergal processes located within the median third of the width of the tergite, but placed in two distinct depressions, were considered out of the scope of this revision.

If the fusion of the lateral depressions into a median one has been a tendency during the evolution of the genus, then the presence of a single depression in *Dissomphalus* specimens can be considered an apomorphic character of the group, and the species treated here can represent a monophyletic group.

However, the groups and species analyzed here were not treated under a phylogenetical framework. There are some 50 other known Neotropical *Dissomphalus* species and at least 100 undescribed ones in collections. So, I think a phylogenetic approach will be more useful when the Neotropical diversity of *Dissomphalus* is better known and described.

Dissomphalus is a widespread group in the Neotropical region, ranging from North of Mexico to North of Argentina, occurring also in many islands of the West Indies. *D. apertus* Kieffer and *D. altivolans* Evans are Neotropical species widespread in the south of the Nearctic region. I was not able to study any specimens of *Dissomphalus* from Chile. Most *Dissomphalus* species, however, are not widespread.

The study of genitalia characters has shown

that there are good characters for the systematics of *Dissomphalus*, as they show more diversity in form than the tergal processes, as in the *vallensis* group, in which the tergal processes are very similar, but the genitalia vary considerably. Only in the *ulceratus* and *altivolans* groups, the variations of the tergal processes are more diverse than the genitalia.

Texture of the integument, clypeus, mandible teeth and head profile are useful for the separation of *Dissomphalus* species and their classification, although such characters present sometimes significant intra-specific variation.

Females of different species of *Dissomphalus* are very similar and hardly separable, because there are few variations, as well as the absence of ocelli, notauli, parapsidal furrows, scutellum, pronotal and propodeal carinae, mesepisternal and subalar grooves and tergal processes. Clypeus, mandible teeth and head profile are useful for separating species of *Dissomphalus* through the females.

COLLECTIONS

The examined material used in the present paper was provided by the following institutions:

- AMNH - American Museum of Natural History, USA (J. M. Carpenter & E. Quinter)
- CASC - California Academy of Sciences, USA (D. Ubick & W. Pulawsky)
- CNCI - Canadian National Collection of Insects, Canada (J. Huber)
- CUIC - Cornell University, USA (E. R. Hoebecke)
- DCBU - Universidade Federal de São Carlos, Brazil (A. M. Pentead-Dias)
- DZPR - Universidade Federal do Paraná, Brazil (K. Zanol)
- EMUS - Utah State University, USA (W. J. Hanson)
- FIML - Fundación y Instituto Miguel Lillo, Argentina (Z. D. Ajmut T.)
- FIOC - Fundação Instituto Oswaldo Cruz do Rio de Janeiro, Brazil (S. J. Oliveira)
- FSCA - Florida State Collection of Arthropods, USA (L. Stange & J. Wiley)
- IBGE - Instituto Brasileiro de Geografia e Estatística, Brasília, Brazil (B. Dias)
- INPA - Instituto Nacional de Pesquisas da Amazônia, Brazil (C. Magalhães)
- LACM - Los Angeles County Museum of Natural

History, USA (R. R. Snelling)

- MCZH - Museum of Comparative Zoology, USA (S. Cover & P. D. Perkins)
- MNRJ - Museu Nacional do Rio de Janeiro, Brazil (R. Tibana)
- MPEG - Museu Paraense Emílio Goeldi, Brazil (A. Harada)
- MZSP - Museu de Zoologia de São Paulo, Brazil (C. R. F. Brandão)
- OSUC - Ohio State University, USA (N. Johnson)
- PMAE - Provincial Museum of Alberta, Canada (A. T. Finnermore)
- SEAN - Museo de Entomologia de Nicaragua (J. M. Maes)
- UCDC - Bohart Museum of Entomology, USA (S. L. Heydon)
- UFES - Universidade Federal do Espírito Santo, Brazil (author)
- USNM - National Museum of Natural History, USA (K. V. Krombein)

I have also studied *Dissomphalus* material from some other collections, which did not have specimens with median tergal processes, but this was useful in the redescription of the genus for comparison matters, as listed below:

- BMNH - The Natural History Museum, United Kingdom (T. Huddleston),
- INHS - Illinois Natural History Survey, USA (K. R. Methven),
- MTEC - Montana State University Entomology Collection, USA (R. R. Snelling)
- UCRC - Entomological Teaching and Research Collection, USA (S. V. Triapitsyn),
- ZMHB - Zoologisches Museum an der Humboldt-Universität zu Berlin, Germany (A. Kleine-Möllhof & F. Koch).

TERMINOLOGY AND MEASUREMENTS

Main measurements and indices used in this study are as follows: LH, length of head, measured in frontal view, from the vertex crest to the median apical margin of the clypeus; WH, width of head, measured in frontal view, its maximum width including the eyes; WF, width of frons, measured in frontal view, its minimum width, usually about the bottom of the eyes; HE, height of eye, measured in lateral view, its maximum height (length); OOL,

ocello-ocular line, measured in latero-dorsal view, the shortest distance from the eye top to the posterior ocellus; WOT, width of the ocellar triangle, measured in frontal view, the maximum width, including the ocelli; DAO, diameter of anterior ocellus, measured in frontal view; distance of the ocellar triangle to vertex, measured in dorsal view, the distance from posterior ocellus to vertex crest; VOL, vertex-ocular line, measured in lateral view, the distance from the eye top to vertex crest; LFW, length of fore wing.

The nomenclature of the integument generally follows Harris (1979). Terminology of external morphology generally follows Evans (1964), and of genitalia follows Snodgrass (1941), but in some cases terms need clarification and some new terms are introduced as listed below:

Coriaceous (in sense of Eady, 1968): leather-like in texture, with minute polygonal granules (Fig. 57, 114).

Coriarius (in sense of Harris, 1979): leather-like in texture, with small elongate granules (Fig. 57, 114).

Occipital carina: carina that delimits the occiput.

Sub-genal carina: a median longitudinal carina from hypostomal carina to post-occipital carina, separating the genae and ventral area of occiput.

Trapezoidal clypeus: when the corner of median lobe is angulate (clypeus tridentate in Evans' sense).

Subtrapezoidal clypeus: when the corner of median lobe is subangulate.

Rounded clypeus: when the median lobe is wholly rounded.

Observation: there is a median tooth in the lobe in these three kinds of clypeus.

Tridentate clypeus: when the clypeus has three conical expansions in the median lobe.

Frontal carina (linear impression of frons in Evans, 1964 sense): is a longitudinal median ridge from basal margin of the clypeus.

Pronotal flange (in sense of Huber & Sharkey, 1993) (pronotal collar in Evans' sense): it is the anterior projecting rim into the foramen of the head on a lower plane than the pronotal disc.

Mesosoma: second division of the body, which means thorax plus propodeum.

Mesoaxillar pit: pit beside the scutellar disc

in mesonotum.

Basal triangle: anterior region of propodeal disc.

Mesopleuron: lateral region of the mesothorax.

Subalar groove: longitudinal groove in anterior region of the mesopleuron.

Mesepisternal groove: oblique groove as a row of pits at the middle of the mesopleuron.

Epicnemium: anterior ventral region of the mesothorax.

Acetabular carina: transversal carina between the epicnemium and the pleurosternum.

Precoxal groove or carina (in sense of Richards, 1977): a latero-posterior groove or carina in the pleurosternum.

Pleurosternum (in sense of Matsuda, 1971): considered here as the ventral region of the mesothorax.

Metacarpus (in sense of Richards, 1977 and Olmi, 1984): it is the part of R1 (radius) that extends beyond the stigma.

Gaster: third division of the body, which means abdomen minus propodeum.

Genital ring: ring formed by the basal margin of the basiparameres.

GENUS *DISSOMPHALUS* ASHMEAD, 1893

Redescription, Male: castaneous to black. Body polished to strongly coriaceous; propodeum striate; gaster polished to weakly coriarius; mandible coriarius; paramere imbricate. Pubescence of the antenna suberect.

Head: mandible with 2 to 4 apical teeth or with cutting edge; usually with 2 or 3 teeth, the lower large and sharpened, the upper ones small and rounded, when with four teeth, the two lower are larger. Clypeus with a longitudinal median carina complete, more or less straight in profile, rarely with two, or incomplete, apical margin completely projected toward or with a median lobe, with a median tooth and sometimes lateral projections or teeth. Antenna with 13 segments. Malar space very short. Eye glabrous or more commonly with short and sparse hairs. Frontal carina short. Ocellar triangle compact, frontal angle of the ocellar triangle acute. Sub-genal and occipital carinae usually complete. Hypostomal carina arched, sometimes straight. Palpal formula 5:3.

Mesosoma: pronotal disc short, sides

divergent behind, usually with anterior striae, punctures larger, deeper and closer than the others parts of the thorax, sometimes carinate. Notaulus usually complete and arched, divergent anteriorly. Parapsidal furrow thin, with outer margin high, absent anteriorly. Scutellar groove conspicuous with dilated edges. Mesoaxillar pit large, deep, sub-rectangular, with a transversal median carina and anterior transversal striae. Metanotum short, with a median pit wide and with a metaxillar groove, which has an inner pit and outer transverse striae. Propodeal disc short, with median carina, sometimes incomplete behind, discal carinae usually occupying the anterior two thirds of disc and convergent behind, lateral carinae usually incomplete anteriorly; basal triangle, posterior corners and lateral of the disc with cross-ridges. Declivity of the propodeum striate, usually with complete median carina. Lateral surface of the propodeum (Fig. 78) either rugose or with oblique striae, stronger and mixed anteriorly or without striae. Propleurum with a median carina, areolate near the anterior margin. Mesopleurum with subalar and mesepisternal groove. Metapleurum with two small and deep pits closed to median coxa base, with upper oblique striae. Prosternum very small and lozenge. Epicnemium striate, with a longitudinal carina and striae. Acetabular carina thick medially. Pleurosternum with anterior carina, usually with perpendicular striae followed by a groove, which does not reach the posterior margin, precoxal groove or carina thin reaching the posterior margin. Space between mesepisternal groove and acetabular carina usually with a short carina. Metasternum small, elongate, posterior margin high, with a longitudinal carina. Forewing with discoidal cell sometimes defined, metacarpus distinct; basal vein subperpendicular, rarely perpendicular; discoidal and subdiscoidal veins indistinct apically; median-transverse vein perpendicular and arched. Forefemur elongate, midtibia rarely with spines. Claws simple (Fig. 79).

Gaster: subsessile and stout. Tergite I with a longitudinal median groove, absent behind, its lateral margin carinate, paralleled by striate depression. Tergite II with a pair of processes as depression, pit, tuft of hairs, tubercle or combination of them, sometimes with hairs around and a pair of pale anterior spots. Sternite VII short (Fig. 135). Hypopygium with an anterior margin

with a median stalk and a pair of small arched and sharpened teeth, closed to the lateral margin.

Genitalia with paramere simple, rarely bilobate, as long as basiparamere, apex usually arched inward, dorsal margin more developed than the ventral, both of them more developed basally, apical and ventral margin hairy; volsella with cuspis arched, elongate with rounded apex, digitus usually small, wider medially, with sharpened apex, with a basal projection usually rounded, upper margin usually serrated medially; aedeagus with ventral rami, complex dorsal body, sometimes with serrated margin; lamina volsellar partially fused to basiparamere at the base of ventral margin; median region of the ventral side of the basiparamere usually with an expansion not angulate; without basal ring.

Redescription, Female: Castaneous, weakly to strongly coriaceous, gaster nearly polished. Pubescence of the antenna short and subappressed. Head longer than wide, sides slightly convex. Mandible with 3 or 4 apical teeth. Clypeus with a median lobe truncate or rounded. Eye small, each one with 1 to 25 facets, ocelli absent. Antenna with 13 segments, scape long, flagellomeres short and thick. Gena long, with sub-genal carina. Occiput small, occipital carinae complete. Palpi short, palpal formula 3:2. Pronotal disc with sides divergent behind. Mesonotum short, posterior margin slightly convex, broadly attached to the propodeum, anterior margin of the propodeal disc not embracing the sides of the mesonotum to any large extent. Propodeal disc elongate, sides nearly parallel, sometimes slightly constricted at the spiracles, maximum width at most 1.4 X the minimum, without transversal carinae. Propleurum with a longitudinal median carina. Mesopleurum slightly prominent, thorax wider at the mesothorax. Prosternum small and lozenge. Epicnemium concave, without carinae. Pleurosternum deep anteriorly, with a median carina complete and high. Metasternum with a posterior margin high. Forefemur not elongate and midtibia can have spines. Gaster petiolate.

Key of *Dissomphalus* groups with median tergal processes based on males:

1. tergite II with an elliptical (Figs. 3, 25) or rounded (Fig. 9) depression, and with a pair of la-

- teral tubercles, reaching the lateral margin of depression or nearly so, tubercles slightly directed toward each other 2
- tergite II with depression variable, when elliptical, the tubercles are median and not directed toward each other 4
2. clypeus tridentate (Fig. 1), teeth angulate, lateral teeth far from the median, stalk of the hypopygium wide (Fig. 134), base of the ventral ramus of the aedeagus with a pair of processes, usually filamentous (Figs. 126, 139) stellatus
 clypeus only with a median tooth (Fig. 22), stalk of the hypopygium slender (Fig. 163), base of the ventral ramus of the aedeagus when with processes, never filamentous (Figs. 139, 145) 3
3. tergite II with broad, deep and rounded depression (Fig. 9), tubercles wide and low, nearly totally directed toward each other, with an apical pit hairy (Fig. 10) basidentatus
 tergite II with elliptical depression (Fig. 25), not broad and deep as above, with tubercles high and narrower apically (Figs. 15, 21, 26) vallensis
4. tergite II with depression deep and wide, subtriangular with base directed forward, with a lateral pit very large, much arched inward medially, with many long hairs inward (Fig. 44) curvifoveatus
 depression of the tergite II when present never triangular, pits never so big and arched as above when present 5
5. tergite II with a very shallow depression, and with two linear and horizontal tufts with hairs bisulcus
 tergite II when with linear and horizontal tufts (Fig. 64), the depression is deep and broad 6
6. ventral ramus of the aedeagus very slender at the apical half and much arched outward medially, apex abruptly angulate, straight and divergent (Figs. 170, 172) bifoventus
 ventral ramus of the aedeagus never as above 7
7. depression of the tergite II embracing broadly the posterior margin of the tergite I (Figs. 58, 64, 69), half-moon shaped 8
 depression of the tergite II when reaches the posterior margin of the tergite I, it is never embrace the posterior margin of the tergite I (Figs. 80, 107) 9
8. depression of the tergite II extremely shallow, much more wider than long, occupying nearly two median thirds of the width of the tergite, (Fig. 58) rasicissimus
 depression of the tergite II rounded, deep, only slightly wider than longer, occupying slightly more than the median third of the width of the tergite (Figs. 64, 69) linearis
9. depression of the tergite II elliptical (Figs. 80, 86, 92, 96), with a pair of median tubercles longiclypeus
 depression of the tergite II with variable shape and always with tufts of hairs and never with tubercles (Figs. 105, 111, 120, 122) 10
10. apex of the paramere truncate with small and rounded teeth (Fig. 188) or concave with corners very angulate and produced (Figs. 190-192) ulceratus
 apex of the paramere convex or rounded, and without teeth 11
11. tergite II with depression rounded, small, deep, distant from the anterior margin, with a pair of hairy tufts joined or nearly so, hairs longer than the diameter of one tuft and inclined inward (Fig. 116) unitus
 tergite II with depression of variable size, when with tufts of hairs are joined, so the hairs of tufts are short and shorter than the diameter of one tuft 12
12. tergite II with depression shallow or absent, with large and rounded hairy tufts, sometimes surrounded by sparse and long hairs, dorsal body of the aedeagus variable,

but when the inner lobe is membranous, so very large and sinuous ventrally (Fig. 196) *apertus* tergite II with a large median depression with large hairy tufts (Figs. 120, 122, 124), or with small tufts in a small depression; dorsal body of the aedeagus with the inner lobe semicircular, not so large and never sinuous ventrally (Fig. 200) *altivolans*

It was not possible to make groups based on the female. Following, a key to females of *Dissomphalus* whose males have median tergal processes:

1. frons with punctures small and slightly dense, separated by 1-2 X their diameters
 *D. altivolans* Evans, 1954
 frons with punctures large and dense, separated by 0.5 X their diameters 2
2. clypeus with median lobe wider than long
 *D. apertus* Kieffer, 1914a
 clypeus with median lobe as wide as long .. 3
3. frons weakly coriaceous, median lobe of clypeus slightly trilobate
 *D. bisserratus* sp. n.
 frons very weakly coriaceous, median lobe of the clypeus slightly invaginated
 *D. bifurcatus* sp. n.

STELLATUS GROUP

This group is characterized by having the clypeus tridentate, lateral teeth well-defined, subangulate and far from the median one (Fig. 1), lateral margins of the depression of the tergite II very hairy (Fig. 3), stalk of the hypopygium wide (Fig. 134), apex of the paramere with a dorsal projection much arched inward (Figs. 126, 132), base of the ventral ramus of the aedeagus with a pair of ventral modifications (Fig. 126, 139), and the inner lobe of the dorsal body developed dorsally (Figs. 128, 137).

This group is related to the *vallensis* and *basidentatus* groups by showing the depression of the tergite II with a pair of lateral tubercles, so that the depression becomes biconcave in dorsal view.

This group is composed by *D. bicarinatus*,

sp. n., *D. largidentatus*, sp. n., *D. stellatus*, sp. n., and *D. tortuosus*, sp. n. It occurs only in South America, *D. stellatus*, sp. n., being more broadly widespread than all the others. The other species occur in the Amazon Forest.

D. bicarinatus, sp. n., is promptly recognized by the bicarinate clypeus. It is only species with one tooth in the dorsal body of the aedeagus (Fig. 128), the others in the group have two or three and the ventral ramus differing from the ramus of the other species by having two teeth downwards; the filament of the ventral ramus is sinuous (Fig. 126), while the ramus of the others is arched outward medially.

D. largidentatus, sp. n., and *D. stellatus*, sp. n., have the dorsal body of the aedeagus with two teeth in the edge and with a basal filament of the ventral margin, but there is a conspicuous tooth in the dorsal margin of the dorsal body in *D. stellatus*, sp. n.; the ventral ramus differs from the ramus of the other species by having the inner margin with a basal tooth large and inward. (Fig. 129).

D. scavatus, sp. n., differs from the others by having the base of the ventral ramus of the aedeagus with a pair of subtriangular laminar expansions (Fig. 139), instead of a filament as in the others; besides, the inner margin of the ventral ramus is partially serrated (Fig. 139), while it is wholly serrated in the other species. Furthermore, this species differs from the others by having a short vertex, with the corners more broadly rounded and with the temple very diverging anteriorly and the ocellar triangle closer of the vertex crest (Fig. 1).

D. tortuosus, sp. n., differs from the other species by the shape and position of the apical teeth of the dorsal body of the aedeagus (Fig. 133), one toward, one downward and the other directed to the apex and by having the apex of the ventral ramus bidentate (Fig. 132).

D. stellatus, sp. n., is similar to *D. tortuosus*, sp. n., by having the inner margin of the ventral ramus wholly serrated. There are two teeth at the edge of the dorsal body of the aedeagus and one at the dorsal margin upward (Fig. 138) and the ventral ramus without apical teeth (Fig. 136)

Key to males of stellatus group:

1. clypeus with two conspicuous median carinae, dorsal body of the aedeagus with only one

apical tooth (Fig. 128), ventral ramus with two large teeth downward (Fig. 127), ventral basal filament of the ramus sinuous and rather wide (Fig. 126)

..... *D. bicarinatus*, sp. n.

clypeus with a median carina (Fig. 1), dorsal body of the aedeagus with more than one tooth (Figs. 130, 133), ventral basal filament of the ventral ramus when present, never sinuous or wide (Figs. 129, 132, 136) 2

2. dorsal body of the aedeagus with two apical teeth somewhat directed to the base of genitalia, ventral margin with a basal filament (Fig. 130), outer margin of the ventral ramus with a large median tooth (Fig. 131)

..... *D. largidentatus*, sp. n.
dorsal body of the aedeagus with three apical teeth (Figs. 133, 140) or with a conspicuous tooth in the dorsal margin when with two apical teeth (Fig. 138), ventral ramus with a serrated margin (Figs. 132, 136) 3

3. apex of the ventral ramus of the aedeagus bidentate (Fig. 132), outer margin serrated apically, with conspicuous and different teeth, apex of the dorsal body of the aedeagus triangular (Fig. 133)

..... *D. tortuosus*, sp. n.
ventral ramus of the aedeagus without apical teeth (Figs. 136, 139), inner margin serrated, apex of the dorsal body of the aedeagus not triangular (Figs. 138, 140) 4

4. ventral ramus of the aedeagus parallel, outer margin serrated with rounded apical teeth, apex of the dorsal body with two teeth, dorsal margin with a conspicuous tooth (Fig. 136)

..... *D. stellatus*, sp. n.
ventral ramus of the aedeagus diverging apically, inner margin with three small median teeth (Fig. 139), dorsal margin of the dorsal body slightly excavated after the tooth, dorsal body with a very large tooth downward, one upward and other directed to the apex (Fig. 140)

..... *D. scavatus*, sp. n.

1. *Dissomphalus bicarinatus*, sp. n.

(Figs. 126-128)

Description: male: length of body 4.33 mm; LFW 2.73 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible and antenna castaneous; clypeus dark castaneous; palpi light castaneous; legs castaneous, hindfemur darker; wings subhyaline.

Head: mandible tridentate. Clypeus tridentate, the lateral teeth short, subangulate and far from the median, with two median carinae incomplete basally, somewhat high and very convex in profile, carinae converging at the edges and touching each other at the apex. First four antennal segments in a ratio of 16:5:5:7; segment XI 1.75 X as long as thick; sensilla elongated and dense. Front somewhat coriaceous, shining, punctures shallow, not so large, separated by 1-2 X their diameters, frontal carina 0.44 X length of clypeus, clypeal-frontal suture carinate, frons with a linear depression very shallow from the anterior ocellus to near the frontal carina. LH 1.06 X WH; WF 0.55 X WH; WF 1.09 X HE; OOL 1.4 X WOT, DAO 0.33 X WOT, posterior ocellus far from the vertex crest, 2.6 X DAO. Vertex slightly convex, with a small median depression, the corners rounded; VOL 0.56 X HE.

Mesosoma: thorax coriaceous, punctures small, shallow, separated by 1-2 X their diameters. Pronotal disc 0.71 X the length of mesoscutum. Notaulus slightly wider behind. Propodeal disc 0.64 X as long as wide, with a complete median carina, propodeum wholly strongly striate. Metacarpus 1.81 X the stigma. Forefemur 2.67 X as long as thick.

Gaster: transversal section elliptical. Tergite II with a depression rounded, deep and not so large, occupying hardly the median third of the width of the tergite and hardly the anterior half, reaching the anterior margin, with a pair of lateral hairy tubercles, so that the depression becomes biconcave in dorsal view, such tubercles slightly inward, separated by 1.5 X their diameters, lateral margins of the depression with many hairs; tergite with additional pair of light spots. Hypopygium with a wide stalk, with truncate apex, 1.5 X the hypopygium, the lateral teeth 6 X longer than the stalk, posterior margin straight, corners rounded.

Genitalia (Fig. 126): paramere wide, apex

truncate and oblique, with a dorsal projection truncate and corners rounded, ventral and dorsal margins straight, the dorsal evenly developed; aedeagus with ventral ramus (Fig. 127) slightly longer than the dorsal body, laminar, parallel, dorsal margin smooth and the ventral with two large and sharpened teeth, one median and other apical, both downward, base of the rami with a ventral sinuous filament, slightly wide, sharpened apically and directed to the apex; dorsal body of the aedeagus with two pairs of apical lobes (Fig. 128), the outer laminar, much arched downward, not in right angle, with edge directed to the apex, which is sharpened and dentiform, their ventral and dorsal margins smooth, the inner lobe expanded dorsally, stout, with outer surface densely hairy, and with some basal denticles, the dorsal margin smooth and with the basal corner angulate, forming a long and thin tooth backward, apical corner rounded; apodema of the aedeagus not extending beyond the elliptical genital ring.

Examined material: Holotype: male Brazil, *Pará*, Tucuruí, Rio Tocantins, right margin; 26.iii.1984 (MPEG).

Observations: this species is known only by the holotype.

Etymology: name refers to the bicarinate clypeus.

Distribution: Brazil (*Pará*).

2. *Dissomphalus largidentatus*, sp. n.

(Figs. 129-131)

Description: male: length of body 3.73 mm; LFW 2.57 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible and antenna castaneous; clypeus dark castaneous; palpi pale-castaneous; legs castaneous; wings subhyaline.

Head: mandible tridentate. Clypeus tridentate, the lateral teeth short, subangulate and distant from the median. First four antennal segments in a ratio of 8:3:3:3.5; segment XI 2.33 X as long as thick; sensilla elongate and inclined. Eye very short-haired. Front somewhat coriaceous, shining, punctures shallow, large, separated by 0.5-2 X their diameters, frontal carina 0.48 X length of clypeus, clypeal-frontal suture carinate. LH 1.05 X WH; WF 0.6 X WH; WF 1.44 X HE; OOL 1.47

X WOT, DAO 0.33 X WOT, ocellus posterior far from the vertex crest, 2.6 X DAO. Vertex slightly convex, with a very small median depression, the corners rounded; occipital carina partially visible in dorsal view; VOL 0.74 X HE.

Mesosoma: thorax coriaceous, shining, punctures small, shallow, separated by 1.5-2 X their diameters. Pronotal disc 0.7 X the length of mesoscutum. Notaulus slightly wider behind. Mesoscutum with anterior transversal striae. Propodeal disc 0.61 X as long as wide, with a complete median carina, propodeum wholly strongly striate. Metacarpus 1.33 X the stigma. Forefemur 2.7 X as long as thick.

Gaster: transversal section subcircular. Tergite II with a depression rounded, deep and not so large, occupying hardly the median third of the width of the tergite and hardly anterior half, reaching the anterior margin, with a pair of lateral hairy tubercles, so that the depression becomes biconcave in dorsal view, tubercles slightly directed toward each other, separated by 1.5 X their diameters, lateral margins of the depression with many hairs; tergite with additional pair of light spots. Hypopygium with a wide stalk, slightly wider before the apex, which is thin and truncate, 1.5 X the hypopygium, the lateral teeth 6 X as long as the stalk, posterior margin straight, corners rounded.

Genitalia (Fig. 129): paramere wide, apex oblique-truncate, with a dorsal projection truncate and corners rounded, ventral and dorsal margins straight, the dorsal evenly developed; aedeagus with ventral ramus (Fig. 131) slightly longer than the dorsal body, laminar, inner surfaces concave, upper surfaces horizontal, its margin straight median and basally, but with the apical sinuous and forming a very small cavity, outer margin with a large and wide median tooth, with the apex thin, outer margin slightly convex in the apical half and with a denticle extremely small below the thin apex, base of the rami with a ventral filament sharpened and directed to the apex; dorsal body of the aedeagus with two pairs of apical lobes (Fig. 130), the outer laminar, much arched downward apically, surfaces vertical, the dorsal margin rather concave, the ventral with a basal filament, the edge with two large and sharpened teeth slightly directed to the base of genitalia, the outer larger, the inner lobe rather expanded dorsally, stout, with outer surface densely hairy, with some basal denticles, dorsal

margin smooth with basal corner very angulate, forming a large and very thin tooth backward, the apical corner rounded; apodema of the aedeagus not extending beyond the elliptical genital ring.

Examined material: Holotype: male Brazil, Amazonas, Estirão do Equador, Rio Javari; x.1979; M. Alvarenga col. (PMAE). Paratype: 1 male Brazil, same data as holotype (PMAE).

Variation: legs lighter and scutellar groove thinner.

Etymology: name refers to the hypopygium with a median tooth wide.

Distribution: Brazil (Amazonas).

3. *Dissomphalus tortuosus*, sp. n.

(Figs. 132-135)

Description: male: length of body 4.07 mm; LFW 2.53 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible and antenna castaneous; clypeus dark castaneous; palpi light castaneous; legs castaneous; wings subhyaline.

Head: mandible tridentate. Clypeus tridentate, the lateral teeth short, subangulate and distant from the median. First four antennal segments in a ratio of 7:2.5:2:3; segment XI 2.5 X as long as thick; sensilla elongated, the basal ones rounded. Eye very short-haired. Front coriaceous, shining, punctures shallow, large, separated by 0.5-2 X their diameters, frontal carina 0.5 X length of clypeus, clypeal-frontal suture carinate. LH 1.04 X WH; WF 0.57 X WH; WF 1.22 X HE; OOL 1.46 X WOT, DAO 0.35 X WOT, ocellus posterior far from the vertex crest, 2.39 X DAO. Vertex slightly convex, the corners rounded; occipital carina partially visible in dorsal view; VOL 0.67 X HE.

Mesosoma: thorax coriaceous, shining, punctures shallow, small, separated by 1.5-2 X their diameters. Pronotal disc 0.52 X the length of mesoscutum. Notaulus slightly wider behind. Mesoscutum with anterior transversal microstriae and a pair of small calli. Scutellar groove thin with very dilated edges. Propodeal disc 0.7 X as long as wide, with a complete median carina, propodeum wholly strongly striate. Metacarpus 1.53 X the stigma. Forefemur 3 X as long as thick.

Gaster: transversal section subcircular. Tergite

II with a depression rounded, deep and not so large, occupying hardly the median third of the width of the tergite and hardly the anterior half, reaching the anterior margin, with a pair of lateral hairy tubercles, so that the depression becomes biconcave in dorsal view, tubercles slightly directed toward each other, separated by 1.5 X their diameters, lateral margins of the depression with many hairs; tergite with additional pair of light spots. Hypopygium (Fig. 134) with a wide stalk, slightly wider before the apex, which is thin and truncate, 1.33 X the hypopygium, the lateral teeth 5.26 X as long as the stalk, posterior margin straight, corners rounded.

Genitalia (Fig. 132): paramere wide, apex oblique-truncate, with a dorsal projection truncate and corners rounded, ventral and dorsal margin straight, the dorsal evenly developed; aedeagus with ventral ramus slightly shorter than the dorsal body, evenly wide in ventral view and wider medially in lateral view, slightly downward, evenly parallel, apex twisted and with two large and sharpened teeth, the outer slightly larger, its inner margin smooth and the outer serrated apically, the rami laminar, surfaces vertical, its base with a ventral filament sharpened apically and directed to the apex; dorsal body of the aedeagus with two pairs of apical lobes (Fig. 133), the outer much arched downward, not in a right angle, its dorsal margin slightly concave and the ventral smooth, the apex of the dorsal body much widened and subtriangular with three large and sharpened teeth, the dorsal smallest, very wide basally and outward, the median downward and the ventral very larger than the others and inward, inner lobe rather expanded dorsally, stout, with its outer surface densely hairy, with some basal denticles, dorsal margin smooth and with the corner very angulate, as a large and very thin tooth backward; apodema of the aedeagus not extending beyond the elliptical genital ring.

Examined material: Holotype: male Ecuador, Napo, Laguna Jattungocha, 20km S Nuevo Roca Juerte, Rio Yasuni; 7-9.ii.1986; Malaise trap; A.T. Finnamore col. (PMAE).

Observations: this species is known only by the holotype.

Etymology: name refers to the ventral ramus with twisted apex.

Distribution: Ecuador.

4. *Dissomphalus stellatus*, sp. n.

(Figs. 1-4, 136-138)

Description: male: length of body 3.52 mm; LFW 2.60 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible and antenna castaneous; clypeus dark castaneous; palpi pale-castaneous; legs castaneous; wings subhyaline.

Head (Fig. 1): mandible tridentate. Clypeus tridentate, the teeth lateral short, subangulate and distant far from the median. First four antennal segments in a ratio of about 16:5:6:5, segment XI 2 X as long as thick; sensilla elongated. Front coriaceous, somewhat shining, punctures small, shallow, separated by 1.5-2.0 X their diameters, frontal carina 0.7 X length of clypeus, clypeal-frontal suture carinate. LH 1.03 X WH; WF 0.61 X WH; WF 1.16 X HE; OOL 1.21 X WOT ocelli small, DAO only 0.29 X WOT, posterior ocelli distant from the vertex crest 2 X DAO. Vertex nearly straight, with a small depression, nearly imperceptible, the corners rounded; VOL 0.43 X HE.

Mesosoma (Fig. 2): thorax coriaceous, punctures shallow and small, separated by 2-3 X their diameters. Pronotal disc 0.8 X the length of mesoscutum. Scutellar groove very thin. Propodeal disc 0.65 X as long as wide, with a complete median carina, propodeum wholly strongly striate. Metacarpus 1.33 X the stigma. Forefemur 3.1 X as long as thick.

Gaster (Fig. 3): transversal section elliptical. Tergite II with a depression large, circular and somewhat deep, occupying hardly the median third of the width of the tergite and anterior half, reaching the anterior margin, with a pair of lateral hairy tubercles, so that the depression becomes biconcave in dorsal view, tubercles slightly directed toward each other and far from each other 2 X their diameters, their lateral margins with hairs, tergite with some hairs behind the depression and with additional pair of light spots. Hypopygium with stalk wider before the apex, which is thin and truncate, 1.5 X the hypopygium, the lateral teeth 6 X as long as the stalk, posterior margin straight, corners rounded.

Genitalia (Figs. 4, 136): paramere wide, apex oblique-truncate, with a dorsal projection truncate and corners rounded, ventral and dorsal margin straight, the dorsal evenly developed;

aedeagus with ventral ramus slightly longer than the dorsal body, wide, divergent and narrowing in the inner margin apically, forming a thin apex, inner margin smooth, apex of the outer margin serrated with rounded teeth, the rami laminar, with surfaces convergent dorsally, base of the rami with a ventral filament sharpened and directed to the apex; dorsal body of the aedeagus with two pairs of apical lobes, the outer (Figs. 137-138) laminar, much arched downward, not in a right angle, ventral margin with a node very small medially and with a basal filament, its dorsal margin with a basal node small, followed by a large and wide tooth, with the sharpened apex upward, the edge of the dorsal body with two large teeth downward, the inner wider than the outer; inner lobe expanded in the dorsum, stout, outer surface very hairy, with some basal denticles, dorsal margin smooth and with the basal corner very angulate, forming a large and very thin tooth backward, the apical corner broadly rounded; apodema of the aedeagus not extending beyond the elliptical genital ring.

Examined material: Holotype: male Brazil, *São Paulo*, Ibitinga, rubber-tree crop; 6.ix.1988; Möricke trap (UFES). Paratypes: 24 males; 1 male Surinam, Lelydorp SumatraWeg; 9-13.v.1964; Malaise trap; J.C. Geijakes col. (MCZH); 11 males Brazil, 1 male, *Rondonia*, Rio Guaporé, opposite mouth Rio Baures (Bolivia); 26-29.ix.1964; Bouseman & Lussenhop col. (AMNH); 9 males, *São Paulo*, Ibitinga, rubber-tree crop; 10.viii.1988-17.V.1989; Möricke trap (UFES); 1 male *São Paulo*, Teodoro Sampaio; xii.1977; M. Alvarenga col. (PMAE); 11 males Bolivia, 4 males, *Beni*, Rio Itenez, 2 (1 male) or 4 km (1 male) above Costa Marques (Brazil) or at mouth Rio Baures (1 male), opposite Costa Marques (Brazil) (1 male); 3.xi-10.x.1964; 1 male, *Beni*, 20 km W Laranjeiras 3-5.viii.1964; 2 males, *Beni*, Rio Mamoré, at mouth Rio Ibaré; 15-21.viii.1964; 3 males, *Santa Cruz*, Rio Ichilo, locality A or B; 24-25.vii.1964; 1 male, *Santa Cruz*, Rio Mamoré, 2 km N of mouth Rio Chaparé; 31.vii.1964; J.K. Bouseman & J. Lussenhop col. (AMNH); 1 male Paraguay, *Paraná*, SW Saltos del Guaira; 8.xii.1971; L. Peña col. (AMNH).

Variation: lateral teeth of the clypeus larger; sensilla more conspicuous; parapsidal furrow shorter; scutellar groove with more dilated at the edges; propodeal disc without striae posteriorly in

the specimen from Bolivia; striae weaker.

Observations: there are some uncommon characters in this species as: mesoscutum with evenly spread hairs, different from the pattern which is concentrated around the notaulus and parapsidal furrow, scutellar groove relatively short and apex of the dorsal body of the aedeagus much ornamented.

Etymology: name refers to the shape of the dorsal body of the aedeagus.

Distribution: Surinam, Brazil (Rondônia, S. Paulo), Bolivia, Paraguay.

5. *Dissomphalus scavatus*, sp. n.

(Figs. 139-140)

Description: male: length of body 3.53 mm; LFW 2.5 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible and antenna castaneous; clypeus dark castaneous; palpi light castaneous; legs castaneous; wings subhyaline.

Head: mandible tridentate. Clypeus tridentate, the lateral teeth short, subangulate and distant from the median. First four antennal segments in a ratio of 7:2:2:3; segment XI 1.67 X as long as thick; sensilla elongated. Eye with short-haired. Front somewhat weakly coriaceous, shining, punctures somewhat shallow, large, separated by 1-2 X their diameters, frontal carina 0.5 X length of clypeus, clypeal-frontal suture carinate. LH 1.02 X WH; WF 0.57 X WH; WF 1.15 X HE; OOL 1.42 X WOT, DAO 0.36 X WOT, posterior ocelli distant from the vertex crest, 1.54 X DAO. Vertex straight, the corners somewhat broadly rounded; VOL 0.57 X HE.

Mesosoma: thorax coriaceous, shining, punctures small, shallow, separated by 1-2 X their diameters. Pronotal disc 0.59 X the length of mesoscutum, posterior margin with a median invagination. Notaulus slightly wider behind. Mesoscutum microstriate anteriorly. Propodeal disc 0.6 X as long as wide, with a complete median carina, propodeum wholly strongly striate; declivity of the propodeum with a median carina poorly defined. Metacarpus 1.39 X the stigma. Forefemur 2.6 X as long as thick.

Gaster: transversal section subcircular. Tergite II with a depression rounded, deep and not so large, occupying hardly the median third of the

width of the tergite and hardly anterior half, reaching the anterior margin, with a pair of lateral hairy tubercles, so that the depression becomes biconcave in dorsal view, tubercles slightly directed toward each other, separated by 1.5 X their diameters, lateral margins of the depression with many hairs; tergite with additional pair of light spots. Hypopygium with a wide stalk, slightly wider before the apex, which is thin and truncate, 1.75 X the hypopygium, the lateral teeth 5.25 X as long as the stalk, posterior margin straight, corners rounded.

Genitalia (Fig. 139): paramere wide, apex oblique-truncate, with a dorsal projection truncate and corners rounded, ventral and dorsal margin straight, the dorsal margin evenly developed; aedeagus with ventral ramus slightly longer than the dorsal body, thin, with its apical half divergent, laminar, with surfaces convergent dorsally, apex thin, inner margin smooth, median and basally straight, outer margin serrated apically, the teeth small, wide and distant among them, the apical larger, base of the outer margin very convex, with a ventral expansion laminar and triangular with rounded dorsal vertex; dorsal body of the aedeagus (Fig. 140) with two pairs of apical lobes, the outer laminar, much arched downward, not in a right angle, its ventral margin smooth, the dorsal with a short rounded tooth, the edge of the dorsal body with three large teeth sharpened, but widened basally, the ventral larger, downward, the apical the smallest and outward and the dorsal upward, dorsal margin excavated between the tooth and the first of the edge, the inner lobe expanded dorsally, stout, with surface densely hairy, the dorsal margin smooth and with the basal corner very angulate as a long and thin tooth backward; apodema of the aedeagus not extending beyond the elliptical genital ring.

Examined material: holotype: male Peru, *Madre de Dios*, Puerto Maldonado; 9.i.1984; L. Huggert col. (PMAE). Paratypes: 3 males Peru, 2 males *Junin*, Satipo; 24.i.1984; L. Huggert col. (PMAE); 1 male *Cuzco*, Quillamba; 25.xii.1983; L. Huggert col. (PMAE).

Variation: antenna darker; mesoscutum with two small anterior calli between the notauli; median carina of the declivity of the propodeum defined.

Etymology: name refers to the dorsal body of the aedeagus with dorsal margin excavated.

Distribution: Peru.

BASIDENTATUS GROUP

This group is characterized by having a rounded, large and deep median depression in the tergite II (Fig. 9), with a pair of lateral hairy tubercles, so that the depression becomes biconcave in dorsal view, tubercles much directed toward each other and the clypeus with only a median tooth (Fig. 5).

This South American group is composed by *D. rotundus*, sp. n., *D. cerutus*, sp. n., and *D. basidentatus*, sp. n..

D. rotundus, sp. n., differs from the other species of this group by having the digitus small and with upper margin serrated medially, the genital ring thin, the ventral ramus dilated below the apex, with a basal modification unidentate in the inner margin (Fig. 141), dorsal body of the aedeagus complex, with apical teeth and a large projection at the ventral margin with their border serrated, while *D. cerutus*, sp. n., and *D. basidentatus*, sp. n., have the digitus smooth and very large, 0.5 X as long as the paramere, genital ring very wide ventrally, the ventral ramus with the basal modifications multidentate at the inner margin.

D. cerutus, sp. n., differs from *D. basidentatus*, sp. n., by having the pleurosternum with a pair of horns backward in the posterior margin and the base of the outer margin of the ventral ramus of the aedeagus with a projection with seven small apical teeth (Fig. 143), while *D. basidentatus*, sp. n., has posterior margin of the pleurosternum without such pair of horns and the base of the outer margin of the ventral ramus of the aedeagus with a projection with three large apical teeth, digitus with a small dilation in the edge (Fig. 145). Both species have their ventral ramus of the aedeagus very angulate medially upward in lateral view.

Key to males of basidentatus group:

1. digitus small with upper margin serrated medially, genital ring thin, inner margin of the ventral ramus with basal modification unidentate (Fig. 141)
 *D. rotundus*, sp. n.
 digitus smooth and long, 0.5 X longer than the length of paramere, genital ring very wide ventrally, inner margin of the ventral ramus with basal modification multidentate (Figs. 143, 145) 2

2. posterior margin of the pleurosternum with a pair of horns backward, basal projection of the outer margin of the ventral ramus with seven small apical teeth (Fig. 143)
 *D. cerutus*, sp. n.
 posterior margin of the pleurosternum without horns, basal projection of the outer margin of the ventral ramus with three large apical teeth, digitus slightly dilated in the edge (Fig. 145) *D. basidentatus*, sp. n.

6. *Dissomphalus rotundus*, sp. n.

(Figs. 141-142)

Description: male: length of body 3.17 mm; LFW 2.37 mm.

Color: body dark castaneous; base of the gaster lighter; mandible and clypeus dark castaneous; antenna, palpi and legs castaneous; wings subhyaline.

Head: mandible tridentate. Clypeus with a large tooth. First four antennal segments in a ratio of 8:3:3:3; segment XI 2.07 X as long as thick; sensilla small, rounded and dense. Eye short-haired. Front rather strongly coriaceous, shining, punctures large, shallow, separated by 0.5-1.5 X their diameters, frontal carina 0.42 X length of clypeus. LH 0.99 X LH; WF 0.61 X WH; WF 1.23 X HE; OOL 1.14 X WOT, ocelli small, DAO 0.31 X WOT, posterior ocelli distant from the vertex crest 1.0 X DAO. Vertex slightly convex, nearly straight, with corners rounded; VOL 0.42 X HE.

Mesosoma: thorax somewhat strongly coriaceous, punctate as frons, but sparse. Pronotal disc 0.6 X the length of mesoscutum, with a anterior transversal carina poorly defined. Mesonotum microstriate anteriorly. Propodeal disc 0.72 X as long as wide, with a complete median carina, with striae not so strong, with a small coriaceous area behind the basal triangle; declivity of the propodeum with median carina poorly defined. Metapleura without striae. Metacarpus 1.5 X the stigma. Forefemur 3.11 X as long as thick.

Gaster: transversal section subcircular. Tergite II with a depression very deep and wide, occupying hardly the median half of the width of the tergite and slightly more than the anterior half, reaching the anterior margin, with a pair of lateral wide tubercles, so that the depression becomes

biconcave in dorsal view, the tubercles with an apical hole with a tuft of a few hairs, nearly totally directed toward each other and separated by 1.5 X their diameters, the lateral margins of the depression with hairs, tergite with additional pair of light spots. Hypopygium with the stalk 1.42 X the hypopygium, the lateral teeth much arched inward, 4.7 X as long as the stalk, posterior margin straight, corners rounded.

Genitalia (Fig. 141): paramere with apex oblique-truncate, ventral and dorsal margin straight, the dorsal with a conspicuous concavity below the apex; aedeagus with ventral ramus long, but shorter than the dorsal body, laminar, with surfaces horizontal, not so wide in the apical half, apex sharpened and the outer dilation below the apex, forming a rounded lobe, ventral ramus downward, base of the rami with a conspicuous tooth, sharpened and much arched to the apex; dorsal body of the aedeagus with two pairs of apical lobes, the outer (Fig. 142) laminar, with surfaces vertical, much arched downward apically, in a right angle, dorsal margin smooth and with base expanded inward, base of the ventral margin smooth, apex with a projection large and wide much serrated, followed by a large and sharpened tooth arched downward, and the edge of the dorsal body with two teeth, the outer small and wide and the inner larger and slightly sharpened, both downward, inner lobe stout, inner surface very hairy; apodema of the aedeagus not extending beyond the elliptical genital ring.

Examined material: Holotype: male BRAZIL, *Rio de Janeiro*, Silva Jardim; viii.1974; F. M. Oliveira col. (CNCI).

Observation: this species is known only by the holotype.

Etymology: name refers to the rounded shape of the depression of the tergite II.

Distribution: Brazil (Rio de Janeiro)

7. *Dissomphalus cerutus*, sp. n.

(Figs. 143-144)

Description: male: length of body 3.7 mm; LFW 2.73 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible and antenna castaneous; clypeus dark castaneous; palpi light castaneous;

legs castaneous, coxae and femora darker; wings subhyaline.

Head: mandible tridentate. Clypeus plane, median carina very low, with a rather large tooth. First four antennal segments in a ratio of 8:3:3:3; segment XI 1.78 X as long as thick; sensilla elongated and dense. Front somewhat coriaceous, shining, punctures large, separated by 1-2 X their diameters, frontal carina 0.43 X length of clypeus. LH 1.02 X WH; WF 0.57 X WH; WF 1.14 X HE; OOL 1.21 X WOT, DAO 0.33 X WOT, posterior ocelli distant from the vertex crest 1.7 X DAO. Vertex somewhat convex, with corners broadly rounded, occipital carina partially visible in dorsal view; VOL 0.5 X HE.

Mesosoma: thorax rather coriaceous, punctures shallow, small. Pronotal disc 0.73 X the length of mesoscutum; mesoscutum with a pair of anterior small calli. Notaulus straight. Scutellar groove with edges very dilated. Propodeal disc 0.67 X as long as wide, with a complete median carina, wholly with striae strong. Mesopleurum with subalar groove very wide anteriorly. Metapleurum without striae. Pleurosternum with a pair of large processes horn-like in the posterior margin. Metacarpus 1.09 X the stigma. Forefemur 3 X as long as thick.

Gaster: transversal section subcircular. Tergite II with a depression very deep and wide, occupying nearly the median half of the width of the tergite and slightly more than the anterior half, reaching the anterior margin, with a pair of lateral wide tubercles, so that the depression becomes biconcave in dorsal view, the tubercles with an apical hole with tuft of hairs, nearly totally directed toward each other, separated by 1.5 X their diameters, the lateral margins of the depression with hairs, tergite with additional pair of light spots. Hypopygium with a slender stalk, 0.88 X the hypopygium, the lateral teeth not arched, with rounded apex, posterior margin straight, corners rounded.

Genitalia (Fig. 143): paramere with apex oblique and very concave, with the ventral corner forming a right angle, ventral and dorsal margin straight, the dorsal with a small concavity below the apex; volsella much developed, nearly the same high of the apex of the paramere, with digitus very long, as long as half of the paramere, slender and smooth, with a rounded basal projection; aedeagus

with ventral ramus laminar, with surfaces vertical, the basal half much widened, narrowing to sharpened apex, the margins smooth, the rami downward apically, base of the outer margin with a projection with seven small and sharpened apical teeth inward (Fig. 144); dorsal body of the aedeagus laminar with surfaces vertical, wide, narrowing to the rounded apex, dorsal body very arched downward apically, but not in a right angle, the margins smooth and a inner surface hairy; basiparamere opened basally and widening in the apex as an angulate projection, below of the base of the volsella in ventral side; apodema of the aedeagus extending beyond the elliptical genital ring and with a pair of ventral median calli.

Examined material: Holotype: male Ecuador, *Queredo*, Pichilingue; v.1978; V. Mendoza col. (USNM). Paratypes: 7 males Ecuador, 2 males same data as holotype (USNM); 5 males *Pichincha*, Tinalandia (1 male Santo Domingo); 15.vi.1975 and 14.vi.1976; S. & J. Peck col. (PMAE).

Variation: antenna darker; sensilla more conspicuous; ocellar triangle more distant from vertex crest; notaulus slightly arched outward; horns of the posterior margin of the pleurosternum smaller; metapleuron totally polished.

Observations: this species has some uncommon characters, as: clypeus plan medially and pleurosternum with two large horns in posterior margin. Mesopleurum, pleurosternum and propodeum with strong carinae and striae; discoidal vein becomes abruptly unpigmented apically, which is uncommon.

Etymology: name refers to the process of the posterior margin of the pleurosternum.

Distribution: Ecuador.

8. *Dissomphalus basidentatus*, sp. n.

(Figs. 7-10, 145)

Description: male: length of body 5.0 mm; LFW 3.33 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible dark castaneous; clypeus black; palpi pale-castaneous; antenna and legs castaneous; wings subhyaline.

Head (Fig. 5): mandible bidentate (Fig. 6). Clypeus with a median carina weak, very low and

thin, with a median tooth. First four antennal segments in a ratio of 11:3:4:4, segment XI 1.75 X as long as thick; sensilla elongated and dense (Fig. 7). Eye very short-haired. Front coriaceous, shining, punctures shallow, somewhat large, conspicuous, separated by 1-3 X their diameters, not evenly distributed, frontal carina 0.44 X length of clypeus and narrowing posteriorly. LH 1.01 X WH; WF 0.57 X WH; WF 1.08 X HE; OOL 1.11 X WOT, ocelli large, DAO 0.33 X WOT, posterior ocelli distant from the vertex crest 1.6 X DAO. Vertex slightly convex, nearly straight, the corners rounded; occipital carina visible in dorsal view; VOL 0.43 X HE.

Mesosoma (Fig. 8): thorax coriaceous with punctures small, somewhat deep, separated by 2-3 X their diameters. Pronotal disc 0.7 X the length of mesoscutum, low anteriorly. Mesonotum with two small anterior tubercles. Scutellar groove very thin. Propodeal disc 0.7 X as long as wide, with a complete median carina, with strong striae. Mesopleurum with poorly defined subalar groove. Metasternum with a rounded process between mid and hindcoxae. Metacarpus 1.45 X the stigma. Forefemur 3.0 X as long as thick.

Gaster (Fig. 9): transversal section subcircular. Tergite II with a depression very deep and wide, occupying nearly the median half of the width of the tergite and slightly more than the anterior half, reaching the anterior margin, with a pair of lateral wide tubercles, so that the depression becomes biconcave in dorsal view, the tubercles (Fig. 10) with a hole with a tuft of hairs, nearly totally directed toward each other, separated by 1.5 X their diameters, lateral margins of the depression with hairs, tergite with additional pair of light spots. Hypopygium with stalk 0.7 X the hypopygium, the lateral teeth very small, posterior margin slightly concave, corners rounded.

Genitalia (Fig. 145): paramere with apex oblique and very concave, with the ventral corner forming a right angle, ventral and dorsal margins straight, the dorsal with a concavity small below the apex; volsella much developed, nearly the same high of the apex of the paramere, with cuspis very long, as long as digitus is, much arched, digitus very long, 0.5 X the length of paramere, slender and smooth, its edge dilated; aedeagus with ventral ramus long, slightly shorter than the dorsal body, laminar, base evenly wide and narrowing

apically, which is somewhat sinuous and forming a thin apex, their margins smooth, its apical portion much inclined downward, its surface ventral somewhat concave, base of the outer margin of the ramus with an apical projection widened, where there are three large and sharpened teeth; dorsal body of the aedeagus laminar with surfaces vertical, wide, narrowing slightly in the rounded apex, dorsal body much arched downward, but not in a right angle, their margins smooth and the inner surface densely hairy; basiparamere opened basally and widening apically below of the base of the volsella in ventral side, where there is a rounded projection; apodema of the aedeagus extending beyond the elliptical genital ring, very expanded and concave medially in ventral side.

Examined material: Holotype: male Brazil, Pará, Tucuuruí, Rio Tocantins; interception trap; 7.vii.1986; N. Degalier col. (MPEG). Paratypes: 8 males Brazil, 4 males Amapá, Serra do Navio; 15-17.v.1989; Malaise trap; Gorayeb col. (1 male) and 2.ii.1990-14.v.1991; interception trap; N. Degalier col. (3 males) (MPEG); 4 males same data as holotype except dates 13.iv.1985-7.xii.1986 (MPEG).

Variation: specimens from Serra do Návio, Amapá have the depression of the tergite II narrower and longer, tooth of the clypeus large and head more coriaceous with punctures conspicuous; specimens from Tucuuruí, Pará are similar to that from Serra do Návio by having depression of the tergite II narrower and longer and tooth of clypeus larger.

Etymology: name refers to the base of the ventral ramus with a dentate projection.

Distribution: Brazil (Amapá, Pará).

VALLENSIS GROUP

This group is characterized by having a median depression of the tergite II transversally elliptical, not so deep (Figs. 25, 20, 31) and with a pair of lateral tubercles, so that the depression becomes biconcave in dorsal view, tubercles directed each other and clypeus with only a median tooth (Figs. 17, 28, 32).

It is the largest group in number of species and is widespread in Neotropica, from Mexico to south of Brazil, including some Caribbean islands. It is composed of *D. bisserratus*, sp. n., *D. polidentatus*, sp. n., *D. planus*, sp. n., *D. extrarramis*,

sp. n., *D. triangularis*, sp. n., *D. dilatatus*, sp. n., *D. strictus*, sp. n., *D. bifurcatus*, sp. n., *D. digitatus*, sp. n., and *D. vallensis* Evans, 1979.

These species are similar externally. The main differences are in the dorsal body and ventral ramus of the aedeagus. *D. bisserratus*, sp. n., *D. polidentatus*, sp. n., *D. planus*, sp. n., and *D. extrarramis*, sp. n., differ from the other species by having teeth in the outer lobe of the dorsal body of the aedeagus (Figs. 146-147, 149-153). The outer lobe of the dorsal body of the aedeagus of *D. bisserratus*, sp. n., (Fig. 149) has the dorsal and ventral margins serrated, and the edge with two sharpened teeth of the same size. *D. extrarramis*, sp. n., also has two teeth in the edge of the outer lobe of the dorsal body of the aedeagus, but the outer teeth is very smaller than the inner and the ventral margin has a large microserrated projection (Fig. 150), as in *D. rotundus*, sp. n., of basidentatus group. *D. polidentatus*, sp. n., is another species with two teeth in the edge, but here, they are thin and long with dorsal margin having two more teeth (Figs. 152-153). *D. planus*, sp. n., has the outer lobe of the dorsal body of the aedeagus with a large and sharpened tooth downward in the edge and one smaller in the ventral margin (Figs. 146-147). *D. bifurcatus*, sp. n., has the apex of the outer lobe of the dorsal body of the aedeagus strongly divided (Fig. 154). The other species of this group have the outer lobe of the dorsal body wide and hairy inside, being *D. triangularis*, sp. n., and *D. dilatatus*, sp. n., with the dorsal margin widened and slightly invaginated for all extension (Figs. 156-157).

The ventral ramus of the aedeagus is diverse, too. In *D. vallensis*, *D. digitatus*, sp. n., and *D. planus*, sp. n., the ventral ramus has the basal half wide and the apical half thin and evenly divergent, but in *D. digitatus*, sp. n., the apical half is completely covered by rounded denticles (Fig. 161), in *D. vallensis* and *D. planus*, sp. n., is wholly smooth, but in *D. vallensis* the ventral ramus is thinner (Fig. 162) and in *D. planus*, sp. n., is slightly wider and oblique-truncate apically, with sharpened inner corner (Fig. 146). The ventral ramus of *D. bisserratus*, sp. n., *D. strictus*, sp. n., and *D. triangularis*, sp. n., is narrowed apically, but in *D. triangularis*, sp. n., this portion of the rami are diverging and evenly arched inward medially (Fig. 156), the apex of the ventral ramus of *D. bisserratus*, sp. n., is sharpened (Fig. 149) and in

D. strictus, sp. n., is very thin but not sharpened (Fig. 159). The other species have peculiar ventral ramus, *D. extrarramis*, sp. n., has the apex much arched outward and oblique (Fig. 150), *D. polidentatus*, sp. n., has short ventral ramus, wide and apex wide and truncate or slightly concave (Fig. 152), in *D. dilatatus*, sp. n., there is a dilation in the inner margin before the apex (Fig. 157) and in *D. bifurcatus*, sp. n., is parallel and narrows evenly until the sharpened apex (Fig. 154).

Key to males of vallensis group:

1. outer lobe of the dorsal body of the aedeagus with conspicuous teeth (Figs. 146-147, 149-153) 2
 - outer lobe of the dorsal body of the aedeagus without conspicuous teeth, but sometimes with small teeth in the serrated area (Figs. 157, 159, 161-162) 5
2. outer lobe of the dorsal body of the aedeagus with two teeth at the edge, dorsal body of the aedeagus with until two pairs of apical lobes (Figs. 16, 151, 153) 3
 - outer lobe of the dorsal body of the aedeagus with a tooth at the edge, ventral margin with another small tooth, dorsal body of the aedeagus with three pairs of apical lobes, median lobe with a tooth in the edge (Fig. 147) *D. planus*, sp. n.
3. outer lobe of the dorsal body of the aedeagus with the dorsal and ventral margins serrated, without other modifications, edge with two sharp and small teeth downward (Figs. 150-151) *D. bisserratus*, sp. n.
 - outer lobe of the dorsal body of the aedeagus with projections or teeth in the ventral or dorsal margin (Figs. 150-153) 4
4. outer lobe of the dorsal body of the aedeagus with the outer tooth very smaller than the inner, ventral margin with a large microserrated projection (Fig. 151)
 - *D. extrarramis*, sp. n.
 - outer lobe of the dorsal body of the aedeagus with the teeth of the edge thin and very long, dorsal margin with two another teeth separated by a wide and rounded projection (Fig. 153) *D. polidentatus*, sp. n.
5. apex of outer lobe of the dorsal body of the aedeagus strongly divided, forming a inner and outer rami, ventral ramus slightly dilated before the apex (Fig. 154)
 - *D. bifurcatus*, sp. n.
 - outer lobe of the dorsal body of the aedeagus not divided apically, ventral ramus variable, but when dilated before the apex, it is very short 6
6. outer lobe of the dorsal body of the aedeagus somewhat serrated in the apical area ventrally (Figs. 156-157) 7
 - outer lobe of the dorsal body of the aedeagus not serrated ventrally (Figs. 159, 161-162) 8
7. outer lobe of the dorsal body of the aedeagus serrated at ventral margin, ventral ramus narrowing in the outer margin and diverging apically and arched inward medially (Fig. 156)
 - *D. triangularis*, sp. n.
 - outer lobe of the dorsal body of the aedeagus serrated at ventral surface, ventral ramus dilated in the inner margin before the apex (Fig. 157) *D. dilatatus*, sp. n.
8. apical half of the ventral ramus of the aedeagus distinctly thin (Figs. 161-162) 9
 - ventral ramus of the aedeagus thin only in the apex (Fig. 159) *D. strictus*, sp. n.
9. ventral ramus of the aedeagus with apical half completely covered by rounded denticles (Fig. 161) *D. digitatus*, sp. n.
 - ventral ramus of the aedeagus with smooth apical half (Fig. 162) *vallensis* Evans, 1979

9. *Dissomphalus planus*, sp. n.

(Figs. 146-148)

Description: male: length of body 4.89 mm; LFW 3.17 mm.

Color: head black; mesosoma and gaster dark castaneous; mandible and antenna castaneous; clypeus dark castaneous; palpi pale-castaneous; legs light castaneous; wings subhyaline.

Head: mandible tridentate. Clypeus with a large median tooth. First four antennal segments in a ratio of 9:3:3:4, segment XI 2.33; sensilla elongated and dense. Front somewhat weakly coriaceous, punctures very small, shallow, separated by 2-4 X their diameters, frontal carina low, wide, 0.44 X length of clypeus. LH 1.0 X WH; WF 0.58 X WH; WF 1.17 X HE; OOL 1.2 X WOT, DAO 0.35 X WOT, posterior ocelli distant from the vertex crest 1.2 X DAO. Vertex straight, with corners slightly angulate; occipital carina partially visible in dorsal view; VOL 0.4 X HE.

Mesosoma: thorax weakly coriaceous, not so shining, punctated as frons. Pronotal disc 0.56 X the length of mesoscutum. Parapsidal furrow complete. Propodeal disc 0.74 X as long as wide, with a complete median carina, weak behind, with a polished area behind the basal triangle; declivity of the propodeum with median carina poorly defined. Mesopleurum with subalar groove wide anteriorly. Metacarpus 1.48 X the stigma. Forefemur 2.97 X as long as thick.

Gaster: transversal section elliptical. Tergite II with a depression transversally elliptical, rather shallow, occupying the median third of the width of the tergite and nearly the anterior half, reaching the anterior margin, with a pair of lateral hairy tubercles, so that the depression becomes biconcave in dorsal view, tubercles slightly directed toward each other, separated by 2 X their diameters, lateral margins of the depression with hairs; tergite with additional pair of light spots. Hypopygium with slender stalk, 1.5 X the hypopygium, the lateral teeth much arched, 4.8 X as long as the stalk, posterior margin straight, with a small invagination, corners rounded.

Genitalia (Fig. 146): paramere apex with the ventral half oblique-truncate and the dorsal half with a rounded projection, dorsal margin straight, with a small concavity below the apex, the ventral slightly concave; aedeagus with ventral ramus rather long, but slightly shorter than the dorsal body, transversal section flattened, very divergent dorsally, their margins smooth, parallel apically, the rami divergent apically, wide and parallel basally, where the outer margin are convergent and the inner straight and parallel, apex sharpened, the rami evenly downward apically; dorsal body of the aedeagus with three pairs of laminar and parallel lobes, the outer (Fig. 147) much arched downward

medially, in a right angle, where there is a sharpened tooth very large, ventral margin with a tooth sharpened smaller, the median lobe (Fig. 148) also arched downward medially, in a right angle and with a sharpened and large tooth in the edge, but smaller than the outer lobe, ventral margin much more widened at the angulation level than the base, the inner lobe subcircular, with inner surface densely hairy; apodema of the aedeagus not extending beyond the elliptical genital ring, with a dorsal pair of calli broadly rounded.

Examined material: Holotype: male Brazil, *Pernambuco*, Caruaru, iv.1972, M. Alvarenga col. (PMAE). Paratypes: 14 males Brazil, *Pernambuco*, Caruaru, 1 male vii.1972, J. Lima col. and 13 males same data as holotype (PMAE).

Variation: head and mesosoma dark castaneous; antenna and femora darker; clypeus weakly subtrapezoidal; eye smaller and head more developed behind the eye; vertex convex with a small median depression; frons less coriaceous, pronotal disc low anteriorly or with a transversal carina, such carina extending to lateral margin of the disc anteriorly, pronotal disc very short, 0.33 X the length of mesoscutum; polished area behind the basal triangle of the propodeal disc smaller or absent; pleurosternum very convex; depression of the tergite II deeper; apex of the cuspis oblique-truncate, with the inner corner sharpened.

Observations: this species is peculiar because the apex of the dorsal body of the aedeagus is trilobate.

Etymology: name refers to the smooth margins of the ventral ramus.

Distribution: Brazil (*Pernambuco*).

10. *Dissomphalus bisserratus*, sp. n.

(Figs. 11-16, 149)

Description: male: length of body 4.00 mm; LFW 2.93 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible and antenna castaneous; clypeus dark castaneous; palpi pale-castaneous; legs light castaneous; wings subhyaline.

Head (Fig. 11): mandible bidentate (Fig. 12). Clypeus with a low median carina, with a very large tooth, as long as the half length of the clypeus. First four antennal segments in a ratio of 16:5:5:6;

segment XI 1.77 X as long as thick; sensilla slightly longer than wide. Eye very short-haired. Front very weakly coriaceous, punctures small, not so shallow, separated by 0.5-1.5 X their diameters, frontal carina 0.29 X length of clypeus. Head as long as wide; WF 0.63 X WH; WF 1.36 X HE; OOL 1.13 X WOT, DAO 0.33 X WOT, posterior ocelli distant from the vertex crest 1.4 X DAO. Vertex slightly convex, with corners rounded, occipital carina partially visible in dorsal view; VOL 0.6 X HE.

Mesosoma (Fig. 13): thorax somewhat coriaceous, punctures not so small and shallow, separated by 1.0-1.5 X their diameters. Pronotal disc 0.66 X the length of mesoscutum, with a poorly defined anterior transversal carina, which extends to lateral margin of the disc. Mesonotum somewhat depressed in frons of the parapsidal furrow. Propodeal disc 0.64 X as long as wide, with a thick median carina, incomplete behind, disc with strong striae. Metacarpus 1.5 X the stigma. Forefemur 3.13 X as long as thick.

Gaster (Fig. 14): transversal section subcircular. Tergite II with a depression transversally elliptical, somewhat deep and not so large, occupying the median third of the width of the tergite and the anterior half, reaching the anterior margin, with a pair of lateral hairy tubercles, so that the depression becomes biconcave in dorsal view, tubercles (Fig. 15) slightly directed toward each other, far from each other their diameters, lateral margins of the depression with hairs, tergite with additional pair of light spots. Gaster elongated. Hypopygium with a very slender stalk, 1.8 X the hypopygium, posterior margin slightly concave, corners rounded.

Genitalia (Fig. 149): paramere with apex very widened, nearly as the base, oblique-truncate, dorsal and ventral margins little developed, the dorsal with a small concavity below the apex; volsella with a basal projection of the digitus somewhat sharpened; aedeagus with ventral rami as long as the dorsal body, laminar with surfaces horizontal, apical half narrowing slightly to apex sharpened, their margins smooth, the inner straight and parallel, except below the apex, diverging apically, the outer broadly convex, with a basal concavity, apex slightly diverging; dorsal body of the aedeagus (Fig. 16) concave with two pairs of apical lobes, the outer very large, laminar, with surfaces vertical and much arched downward

apically, in a right angle, the edge with two large teeth, their margins serrated, the dorsal more conspicuous, inner lobe smaller, circular, densely hairy inside, base of the dorsal body with a thin tooth upward, base of the dorsal body produced upward apically; apodema of the aedeagus not extending beyond the elliptical genital ring.

Description: female (*in copula*): length of body 3.33 mm, larger than the male in copula (3.00 mm).

Color: head, mesosoma and petiole dark castaneous, head lighter; gaster, mandible and clypeus castaneous; palpi and antenna pale-castaneous, scape darker; legs castaneous, coxae darker; eye black with light facetes.

Head: wholly weakly coriaceous, densely punctate, punctures large, somewhat deep, separated by 0.2-1.0 X their diameters, absent in a narrow median band in the frons. Mandible quadridentate, the lower larger, apical margin much inclined. Clypeus subtrapezoidal, with two small concavities, median carina high, forming a nearly right angle before the apex. First four antennal segments in a ratio of 9:2:1:1; segment XI 2 X as thick as long. Eye subcircular, with about 7 facets, distant from the mandible its length. LH 1.44 X WH, head with sides parallel and slightly convex. Vertex slightly concave, nearly straight, the corners somewhat angulate, occipital carina visible in dorsal view. Gena 0.41 X LH.

Mesosoma: coriaceous, lateral of the pronotal disc, pronotal collar, lateral of the propodeum, lower area of the declivity, pleurosternum microstriae; pronotal and propodeal disc with punctures conspicuous, separated by 1-2 X their diameters; pronotal collar large, 0.33 X the length of pronotal disc, and 1.29 X as long as wide. Mesonotum 0.33 X the length of the pronotal disc, with a posterior margin convex and slightly embraced by the propodeum. Propodeal disc elongated, maximum width 1.45 X the minimum. Epicnemium with transversal striae. Metasternum lozengy. Forefemur 2.22 X as long as thick; midtibia without spurs.

Gaster: polished, petiole long and coriaceous-striate. Gaster elongated and stout, 2 X as mesosoma. Transversal section circular.

Examined material: Holotype: male Brazil, *Distrito Federal*, Brasília, Ecological Reserve of IBGE, 15°5'58" S 47°51'02" W, forest ecotone; 18.iii.1982; window trap; J. Dalmácio col. (IBGE).

Paratypes: 21 males and 1 female Brazil, 16 males, *Distrito Federal*, Brasília, Ecological Reserve of IBGE, 15°55'58" S 47°51'02" W, campo limpo (3 males), campo sujo (5 males), cerrado (2 males), forest ecotone (5 males), forest (1 male); 14.i.1982-24.ii.1983; window trap; J. Dalmácio col. (IBGE); 1 male, *São Paulo*, Moji-guaçu, Campiminas Farm; 29-31.xii.1969; J.M. & B. A. Campbell col. (CNCI); 1 male, *São Paulo*, Moji-guaçu; 29.xii.1969; J. M. & B. A. Campbell col. (UCDC); 2 males *São Paulo*, São Carlos, Canchim Farm, cerrado; 3.IV.1986; light trap (1 male), forest; 16.iii.1989; suspensa trap (1 male); L. A. Joaquim col. (DCBU); 1 female, Brasil, *Distrito Federal*, Brasília, Ecological Reserve of IBGE, 15°55'58" S 47°51'02" W, campo sujo; 25-30.xii.1982; window trap; J. Dalmácio col. (IBGE).

Variation: body lighter or darker; ocellar triangle more compact or longer, with angle frontal more acute; head developed behind the eye; temple more diverging anteriorly; sensilla elongated; anterior transversal carina of the pronotal disc slightly defined; notaulus straight; mesoscutum convex anteriorly in lateral profile; mesopleuron and pleurosternum separated by a groove, not by a carina; subalar groove of the mesopleuron slightly defined; tubercles more distant each other; depression deeper.

Etymology: name refers to the both dorsal and ventral serrated margins of the dorsal body of the aedeagus.

Distribution: Brazil (*Distrito Federal*, *São Paulo*).

11. *Dissomphalus extrarramis*, sp. n.

(Figs. 150-151)

Description: male: body elongated; length of body 3.93 mm; LFW 3.5 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible wholly castaneous; clypeus dark castaneous; antenna castaneous; palpi light castaneous; legs castaneous; wings subhyaline.

Head: mandible tridentate. Clypeus with a large median tooth. First four antennal segments in a ratio of 10:3:4.5:5; antenna elongated, segment XI 2.72 X as long as thick; sensilla inconspicuous. Front strongly coriaceous, shining, punctures small, shallow, separated by 1-2 X their diameters, fron-

tal carina strong and high, 0.44 X length of clypeus. LH 1.02 X WH; WF 0.62 X WH; WF 1.2 X HE; ocellar triangle very compact, OOL 1.27 X WOT, DAO 0.38 X WOT, frontal angle of the ocellar triangle very acute, posterior ocelli distant from the vertex crest 1.2 DAO. Vertex slightly convex, with corners angulate, temple slightly diverging anteriorly; occipital carina well-visible in dorsal view; VOL 0.6 X HE.

Mesosoma: thorax strongly coriaceous, shining, punctures rather conspicuous, small, not so shallow, separated by 1-2 X their diameters. Pronotal disc 0.77 X the length of mesoscutum, low anteriorly. Parapsidal furrow complete. Scutellar groove very thin. Propodeal disc elongated, 0.87 X as long as wide, with a complete median carina, with strong striae, with a large polished area behind the basal triangle; declivity of the propodeum with a poorly defined median carina. Metacarpus 1.11 X the stigma. Forefemur very elongated, 3.89 X as long as thick.

Gaster: transversal section elliptical. Tergite II with a depression transversal elliptical, slightly deep and not so large, occupying the median third of the width of the tergite and the anterior half, reaching the anterior margin, with a pair of lateral hairy tubercles, so that the depression becomes biconcave in dorsal view, tubercles small, slightly directed each other, separated by 2 X their diameters, their lateral margins very weakly hairy, tergite with additional pair of light spots. Hypopygium with a slender stalk 1.83 X the hypopygium, the lateral teeth 6.6 X as long as the stalk, posterior margin somewhat convex, corners rounded.

Genitalia (Fig. 150): paramere wide, with apex oblique-truncate, dorsal margin nearly straight with a small concavity below of the apex; volsella with a basal projection of the digitus sharpened, base of the volsella high, at the same level of the apex of the ventral ramus; aedeagus with ventral ramus long and sinuous, but shorter than the dorsal body, their margins smooth, the inner diverging apically since the base and with a shallow median concavity, the outer with a concavity below the inner margin, basal half of the ramus evenly slightly wide, the apex thin, ramus downward; dorsal body of the aedeagus with two pairs of apical lobes, both laminar, parallel, the outer (Fig. 151) arched downward apically, but not so angulate, with two sharpened teeth at the edge, the outer very small

and the inner large, anterior area of the ventral margin with a large and subquadratic projection, with margin serrated with small teeth, and apically folded outward, dorsal margin with a longitudinal fold outward; inner lobe sub-rectangular, with the inner surface very hairy; ventral median expansion of the basiparamere wide; apodema of the aedeagus not extending beyond the subtriangular genital ring. Examined material: Holotype: male *São Paulo*, São José do Barreiro, Serra da Bocaina; 4.xi.1965; F. M. Oliveira col. (DZPR). Paratypes: 4 males BRASIL, 2 males *Rio de Janeiro*; ii.1972; M. Alvarenga col. (PMAE); 1 male *Rio de Janeiro*, Represa Rio Grande; ii.1972; F. M. Oliveira col. (PMAE); 1 male *Rio de Janeiro*, Guajahú; 14.vi.1939; Lopes col. (FIOC).

Variation: body lighter; vertex straight; frons coriaceous with punctures more distant and conspicuous; frontal carina smaller and weaker; frons with a linear depression; head less developed behind the eye; pronotal disc higher anteriorly; parapsidal furrow incomplete anteriorly; median carina of the propodeal disc very weak behind; median carina declivity of the propodeum well-defined; depression of the tergite II deeper with tubercles more directed toward each other.

Observations: genitalia of this species is similar to genitalia of *D. rotundus* sp. n. by having the outer lobe of the dorsal body of the aedeagus bidentate apically and by the serrated anterior projection in the ventral margin, but such projection is large and serrated with small teeth in this species, while it is small and serrated with large teeth in that species; furthermore, there is no more teeth in the aedeagus in this species, while there is a additional tooth between the projection and the apex in ventral margin of the dorsal body of the aedeagus in that species; there is a pair of teeth sharpened in the genital ring of the genitalia in this species.

Etymology: name refers to the apex of the ventral ramus directed outwards.

Distribution: Brazil (Rio de Janeiro, São Paulo).

12. *Dissomphalus polidentatus*, sp. n.

(Figs. 18-21, 152-153)

Description: male: length of body 4.00 mm; LFW 2.80 mm.

Color: head and mesosoma black; gaster,

mandible and clypeus dark castaneous; antenna castaneous; palpi light castaneous; legs castaneous, outer area of forecoxa and femora darker; wings subhyaline.

Head (Fig. 17): mandible tridentate (Fig. 18). Clypeus with a very large tooth, as long as the half of the clypeus. First four antennal segments in a ratio of 9:3:3:3.5; segment XI 2.33 X as long as thick; sensilla conspicuous. Eye very short-haired. Front weakly coriaceous, shining, punctures small and shallow, separated by 1-2 X their diameters, frontal carina 0.36 X length of clypeus. LH 1.0 X WH; WF 0.6 X WH; WF 1.2 X HE; OOL 1.22 X WOT, ocelli small, DAO 0.3 X WOT, posterior ocelli distant from the vertex crest 1.14 X DAO. Vertex with a median depression, the corners rounded; occipital carina partially visible in dorsal view; VOL 0.4 X HE.

Mesosoma (Fig. 19): thorax weakly coriaceous, punctures very shallow, small, separated by 3 X their diameters. Pronotal disc 0.5 X the length of mesoscutum, lateral and anterior margins of the disc sharp. Scutellar groove very thin. Propodeal disc 0.65 X as long as wide, with a median carina incomplete behind, with a smooth area behind the basal triangle. Mesopleurum without subalar groove. Pleurosternum very convex. Metacarpus 1.35 X the stigma. Forefemur 3.0 X as long as thick.

Gaster (Fig. 20): transversal section subcircular. Tergite II with a depression elliptical, slightly deep, not so large, occupying the median third of the width of the tergite and hardly the anterior half, reaching the anterior margin, with a pair of lateral hairy tubercles, so that the depression becomes biconcave in dorsal view, tubercles (Fig. 21) slightly directed toward each other, separated by 2.5 X their diameters, lateral margins of the depression with hairs, tergite with additional pair of light spots. Hypopygium with a very slender stalk, 2.17 X the hypopygium, the lateral teeth with apex slightly dilated, 8.67 X as long as the median, posterior margin straight, corners rounded.

Genitalia (Fig. 152): paramere with apex oblique-truncate, with the corners rounded, apical margin thick, dorsal margin developed and straight, with a small concavity below the apex; aedeagus with ventral ramus much shorter than the dorsal body, conspicuous, wide, their margins smooth, the inner straight and the outer convergent apically, the apex somewhat concave and wide, with their corners angulate, ventral ramus laminar with a surface

divergent ventrally, dorsal body of the aedeagus (Fig. 153) with two pairs of apical lobes laminar, the outer lobe slightly convergent and arched downward apically, in a right angle, the dorsal margin with two teeth separated by a rounded and wide projection, the anterior tooth inward and with the apex thin, the posterior tooth sharpened, both large, ventral margin with two teeth very small, the basal rounded and the apical sharpened, distant from each other, edge of the lobe with two teeth sharpened, thin and large, the lower slightly larger, both directed to the apex, the inner lobe circular in lateral view, densely hairy, surfaces vertical; apodema of the aedeagus extending beyond the elliptical genital ring.

Examined material: Holotype: male Brasil, Amazonas, Manaus, Reserve 1208; 17.xi.1986; Malaise trap; B. Klein col. (INPA). Paratypes: 55 males Brasil, 2 males, Amapá, Serra do Návio; ix.1957; J. Lane col. (MZSP); 46 males, Amazonas, Manaus, Reserve 1210 (8 males), Reserve 1310 (2 males), Reserve 1301 (4 males), Reserve 1113 (4 males) Reserve 1208 (16 males), Reserve 1112 (12 males); 3.i.1986-1.i.1987; Malaise trap; B. Klein col. (INPA); 7 males Amazonas, Manaus, Reserve Campina (1 male), Reserve Ducke (6 males); 2.x.1991-29.vii.1992; glue trap 1m (5 males), glue trap 2m (2 males); Vidal & Vidal col. (INPA).

Variation: body darker; mandible lighter; antenna evenly castaneous; median tooth of the clypeus smaller; ocellar triangle closer to the vertex crest; frontal carina absent; median depression of the vertex absent; notaulus straight; mesopleuron with subalar groove slightly defined; mesonotum arched in lateral view; depression and tubercles of tergite II smaller; apex of the ventral ramus of the aedeagus truncate; apodema of the aedeagus not extending beyond the genital ring.

Observation: pleurosternum uncommonly convex; depression of the tergite II not so deep as the others.

Etymology: name refers to the multidentate dorsal body of the aedeagus.

Distribution: Brazil (Amapá, Amazonas).

13. *Dissomphalus bifurcatus*, sp. n.

(Figs. 22-27, 154-155)

Description: male: length of body 4.00 mm; LFW 2.93 mm.

Color: body black; mandible and antenna castaneous; clypeus black; legs castaneous, coxae and femora darker; palpi light castaneous; wings subhyaline.

Head (Fig. 22): mandible tridentate (Fig. 23). Clypeus with a large tooth. First four antennal segments in a ratio of 9:2.5:2.5:3; segment XI 2 X as long as thick; sensilla elongated, relatively dense. Front rather coriaceous, somewhat shining, punctures very small, shallow, separated by 1.5-2.5 X their diameters, frontal carina thick, 0.4 X length of clypeus. LH 0.98 X WH; WF 0.6 X WH; WF 1.23 X HE; OOL 1.23 X WOT, DAO 0.37 X WOT, posterior ocelli distant from the vertex crest 1.0 X DAO. Vertex with a weak median depression, the corners rounded; VOL 0.39 X HE.

Mesosoma (Fig. 24): thorax coriaceous, mesoscutum microstriate anteriorly, punctures small, shallow, separated by 1-2 X their diameters. Pronotal disc 0.5 X the length of mesoscutum, lateral margin sharp. Propodeal disc 0.73 X as long as wide, with a complete median carina, weak behind; propodeum wholly strongly striate. Metacarpus 1.5 X the stigma. Forefemur 2.83 X as long as thick.

Gaster (Fig. 25): transversal section subcircular. Tergite II with a depression elliptical, deep not so large, occupying the median third of the width of the tergite and hardly the anterior half, with a pair of lateral hairy tubercles, so that the depression becomes biconcave in dorsal view, tubercles (Fig. 26) slightly directed toward each other, distant each other 2 X their diameters, lateral margins of the depression with hairs, tergite with additional pair of light spots. Hypopygium with a slender stalk, 1.51 X the hypopygium, the lateral teeth 7.33 X as long as the stalk, posterior margin straight, corners rounded.

Genitalia (Fig. 154): paramere (Fig. 27) apex convex and oblique, apical margin thick, dorsal margin straight and with a small concavity below the apex; volsella with a basal projection of the digitus sharpened; aedeagus with ventral ramus nearly as long as the dorsal body, apical half thin, somewhat dilated below the apex, basal half wider, inner margin straight basally, excavated medially, outer margin broadly convex basally; dorsal body of the aedeagus with two pairs of apical lobe, the outer lobe (Fig. 155) with apex arched downward, in a right angle, where there is a bifurcation which

forms two rami, inner and outer, both laminar and separated by the apex of the ventral ramus, the outer ramus convergent apically with the edge oblique-truncate, with two apical denticles, its dorsal and ventral margins smooth, the inner ramus thinner, divergent apically, with the edge narrowed and somewhat sharpened, inner lobe circular with margins weakly hairy, base of the apex with a pair of thin teeth upward; apodema of the aedeagus not extending beyond the elliptical genital ring.

Description: female (*in copula*): length of body 2.00 mm.

Color: body dark castaneous, petiole darker, head, mandible and clypeus lighter; antenna rather dark castaneous; palpi and legs castaneous; eye black.

Head: very weakly coriaceous, densely punctate, punctures large, somewhat shallow, separated by 0.2-1.0 X their diameters, but absent in a narrow median band at the frons. Mandible tetradentate, the lower larger, apical margin very oblique. Clypeus trapezoidal, invaginated apically, with a median carina very high, angulate before the apical margin. First four antennal segments in a ratio of 16:2:1:2; segment XI 2.1 X as long as thick. Eye subcircular, with about 7 facets, distant of mandible 1.4 X its length. LH 1.36 X WH, head with sides parallel, slightly convex. Vertex straight, the corners rounded, occipital carina visible in dorsal view. Gena 0.43 X LH.

Mesosoma: rather coriaceous, declivity of the propodeum weakly coriaceous; upper area of the lateral of the mesosoma with longitudinal and sinuous microstriae and pronotal collar and declivity of the propodeum microstriate transversally; dorsum of the mesosoma with punctures small, relatively deep, separated by 1-2 X their diameters. Collar pronotal large, 0.38 X the length of pronotal disc, this 1.14 X as long as wide. Mesonotum 0.38 X the length of pronotal disc, posterior margin convex and slightly embraced by the propodeum. Propodeal disc elongated, maximum width 1.13 X the minimum. Pleurosternum with a posterior margin slightly produced upward medially. Metasternum very elongated with high lateral margins. Legs weakly coriaceous, midtibia without spurs; forefemur 2.13 X as long as thick.

Gaster: petiole long and coriaceous, segments nearly polished, the apical with transversal microstriae. Transversal section subcircular.

Examined material: Holotype: male BRAZIL, *Pará*, Tucuuruí, Rio Tocantins, base 4; 17.xii.1986; interception trap; N. Degalier col. (MPEG). Paratypes: 27 males, 2 female, Brazil, 27 males *Pará*, Tucuuruí, Rio Tocantins (11 males in base 4); interception trap (2 males with extract of feces, meat and fruit); 12.iv.1984-17.vi.1989; A. L. Nunes col (1 male), N. Degalier col. (26 males) (MPEG); 2 females *Pará*, Tucuuruí; 9.xi.1985-v.1986; interception trap; N. Degalier col. (MPEG).

Variation: gaster and mandible dark castaneous; body dark castaneous; punctures of the frons more evident; vertex less concave; occipital carina partially visible in dorsal view; head as long as wide; texture of the frons slightly stronger or weaker; notaulus straight; propodeal disc with a polished area behind the basal triangle; subalar groove undefined; depression of the tergite II wider. Females: legs dark; two upper teeth of the mandible hardly defined; non-punctate band of the frons narrower.

Etymology: name refers to the dorsal body of the aedeagus with strongly bifurcate apex.

Distribution: Brazil (*Pará*).

14. *Dissomphalus triangularis*, sp. n.

(Fig. 156)

Description: male: length of body 3.67 mm; LFW 2.47 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible and clypeus dark castaneous; antenna castaneous; palpi light castaneous; legs castaneous; wings subhyaline.

Head: mandible tridentate. Clypeus with a tooth not so large, with a nearly imperceptible rounded projection besides. First four antennal segments in a ratio of 9:2.5:3:3; segment XI 1.67 X as long as thick; sensilla elongated. Eye glabrous. Front coriaceous, somewhat shining, punctures large, shallow, irregularly sparse, separated by 0.5-3.0 X their diameters, frontal carina 0.25 X length of clypeus. LH 1.0 X WH; WF 0.57 X WH; WF 1.17 X HE; OOL 1.23 X WOT, DAO 0.38 X WOT, posterior ocelli distant from the vertex crest 1.24 X DAO. Vertex slightly convex, with a median depression, the corners rounded; occipital carina partially visible in dorsal view; VOL 0.53 X HE.

Mesosoma: thorax coriaceous, punctures

somewhat deep and large, separated by 1.5-3.0 X their diameters. Pronotal disc 0.57 X the length of mesoscutum, lateral margin of the disc sharp. Mesonotum microstriate anteriorly and with two small calli between the notauli. Propodeal disc 0.66 X as long as wide, with a complete median carina, weak behind, with strong striae. Metacarpus 1.05 X the stigma. Forefemur 2.73 X as long as thick.

Gaster: transversal section circular. Tergite II with a depression elliptical, deep and slightly large, occupying slightly more than the median third of the width of the tergite and the anterior half, reaching the anterior margin, with a pair of lateral hairy tubercles, so that the depression becomes biconcave in dorsal view, tubercles directed toward each other, distant 2 X their diameters, lateral margins of the depression with hairs, tergite with additional pair of light spots. Hypopygium with a slender stalk, 1.6 X the hypopygium, the lateral teeth 8 X as long as the stalk, posterior margin slightly concave, corners slightly angulate.

Genitalia (Fig. 156): paramere with rounded apex, dorsal margin straight and with a small concavity below the apex, apical half of the ventral margin oblique and slightly concave; volsella with digitus wide; aedeagus with ventral ramus rather long, but shorter than the dorsal body, laminar, surfaces horizontal, narrowing gradually since the base to the divergent and sharpened apex, their margins smooth and with the base somewhat concave, outer margin broadly concave in the apical half; dorsal body of the aedeagus below the apex of the volsella, arched downward apically, but evenly since the base, laminar, but its surface dorsal concave median-longitudinally, so that the transversal section is V-shaped, surface with transversal bands densely hairy and with a ventral line of small teeth; apodema of the aedeagus not extending the elliptical genital ring.

Examined material: Holotype: male, Dominican Republic, 4.7 km South Santo Domingo; A. Forsyth col. (MCZH). Paratype: 1 male, Dominican Republic same data as holotype (MCZH).

Variation: mandible lighter; median carina of the declivity of the propodeum not so distinct; tubercles of the tergite II lower.

Observations: this species is peculiar by having the eye glabrous. Its genitalia is different

from the genitalia of the related species by having the dorsal body of the aedeagus non-bilobate.

Etymology: name refers to the triangular transversal section of the dorsal body of the aedeagus.

Distribution: Dominican Republic.

15. *Dissomphalus dilatatus*, sp. n.

(Figs. 28-31, 157-158)

Description: male: length of body 4.63 mm; LFW 3.37 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible, antenna and palpi castaneous; clypeus dark castaneous; legs castaneous, hindfemur darker; wings subhyaline.

Head (Fig. 28): mandible tridentate (Fig. 29). Clypeus with a median tooth. First four antennal segments in a ratio of 17:3:7:8; segment XI 2.22 X as long as thick; sensilla dense and elongated. Eye very short-haired. Front rather coriaceous, shining, punctures rather large, shallow, separated by 1-2 X their diameters, frontal carina 0.44 X length of clypeus. LH 0.96 X WH; WF 0.64 X WH; WF 1.36 X HE; OOL 1.32 X WOT, ocelli large, DAO 0.4 X WOT, posterior ocelli distant from the vertex crest 1.17 X DAO. Vertex slightly convex, with corners rounded, occipital carina partially visible in dorsal view; VOL 0.48 X HE.

Mesosoma (Fig. 30): thorax coriaceous, punctures conspicuous, rather large and deep, separated by 2-3 X their diameters. Pronotal disc 0.7 X the length of mesoscutum, anterior half rugose. Mesonotum with anterior microstriae and with two small calli between the notauli. Notaulus nearly straight. Propodeal disc 0.74 X as long as wide, with a complete median carina, weak behind, with a smooth small area behind the basal triangle. Mesopleurum with subalar groove poorly defined. Metacarpus 1.23 X the stigma. Forefemur 3 X as long as thick.

Gaster (Fig. 31): transversal section elliptical. Tergite II with a depression elliptical, slightly deep and large, occupying slightly more than the median third of the width of the tergite and less than the anterior half, reaching the anterior margin, with a pair of lateral hairy tubercles, so that the depression becomes biconcave in dorsal view, tubercles slightly directed toward each other, separated by 2 X their diameters, lateral margins

of the depression with hairs, tergite with additional pair of light spots. Hypopygium with a slender stalk, 1.29 X the length of hypopygium, the lateral teeth 5 X as long as the stalk, posterior margin somewhat concave, corners rounded.

Genitalia (Fig. 157): paramere much arched inward apically, rounded, base of the paramere not widened basally in dorsal view, and with a concavity below the apex, with a fold in ventral view; volsella with digitus wide medially; aedeagus with ventral ramus short, much shorter than dorsal body, with a dilation below the thin apex (Fig. 158), with a straight inner margin and the outer broadly convex; dorsal body of the aedeagus with two pairs of apical lobes, the outer large with apex much folded inward, inner surface densely hairy and serrated below, the inner lobe circular and hairy in the inner surface; apodema of the aedeagus extending slightly the elliptical genital ring.

Examined material: Holotype: male Costa Rica, *Puntarenas*, Monteverde, 1400 m, 10°43' N 84°02' W, 12-15.vi.1974; Malaise trap; W. A. Harding & J. P. Donahue col. (LACM). Paratypes: 27 males; 3 males Mexico, 1 male *Vera Cruz*, Cordoba; 6.vii.1966; J.S. Bucket, M.R. & R.C. Gardner col. (UCDC); 2 males *Vera Cruz*, Cordoba; 4.ix.1974; W. Hanson & G. Bohart col. (EMUS); 22 males Costa Rica, 5 males, *San Vito de Coto Brus*, Las Cruces, 1200m; 28.vi-12.ix.1982; Malaise trap; B. Gill col. (CNCI, PMAE); 1 male, *Puntarenas*, Monteverde, Hotel grounds, 1433m; 3.iii.1985; L. Herman col. (AMNH); 2 males *Puntarenas*, Monteverde; 20-24.vi.1986; Hanson & Bohart col. (EMUS); 6 males, *Heredia*, Biological Station LaSelva, 10.43° N 84.02° W, 4 males 26.vi-1.vii.1993; trap 1 or 3; B. V. Brown & D. H. Feerner col.; and 1 male 12-15.vi.1974; Malaise trap; W. A. Harding & J. P. Donahue col. (LACM); 2 males *Heredia*, Biological Station LaSelva; 11-17.vi.1986; Hanson & Bohart col. (EMUS); 2 males *Guanacaste*, 3 Km SE R. Naranjo; 21.x.1992-31.vii.1993; F. D. Parker col. (EMUS), 1 male *Estrella Valley*, Pandora; 1-16.iii.1984; H. Howden & G. Manley col. (PMAE), 1 male *Alajuela*, Peñas Blancas; 1.viii.1987; Malaise trap; E. Cruz col. (PMAE), 1 male *Alajuela*; 28.ii.1970; O. Peck col. (PMAE); 2 males Panama, 1 male *Canal Zone*, Barro Colorado I; 6.v.1981; R. B. & L. S. Kimsey col. (UCDC); 1 male *Canal Zone*, Barro Colorado; 24vi.1960 (EMUS).

Variation: antenna, mandible and legs

darker; median tooth of the clypeus larger or with rounded lateral projection inconspicuous; texture of the frons stronger or weaker; anterior calli of the mesoscutum more or less conspicuous; propodeal disc without polished area behind the basal triangle; tubercles more directed toward each other or smaller.

Etymology: name refers to the ventral ramus with dilated apex.

Distribution: Mexico (*Vera Cruz*), Costa Rica, Panama.

16. *Dissomphalus strictus*, sp. n.

(Figs. 32-35, 159-160)

Description: male: length of body 3.67 mm; LFW 2.87 mm.

Color: head black; mesosoma and gaster dark castaneous; mandible and antenna castaneous pedicel and scape lighter; clypeus dark castaneous; palpi pale-castaneous; legs castaneous; wings subhyaline.

Head (Fig. 32): mandible tridentate (Fig. 33). Clypeus with a small median tooth. First four antennal segments in a ratio of 9:2.5:3:3.5; segment XI 2.33 X as long as thick; sensilla elongated. Eye very short-haired. Front coriaceous, shining, punctures large, shallow, separated by 0.5-2 X their diameters, frontal carina 0.41 X length of clypeus. LH 0.98 X WH; WF 0.62 X WH; WF 1.33 X HE, OOL 1.2 X WOT, DAO 0.33 X WOT, posterior ocelli distant from the vertex crest 1.25 X DAO. Vertex slightly convex, the corners somewhat angulate; temple nearly parallel in dorsal view; occipital carina partially visible in dorsal view; VOL 0.41 X HE.

Mesosoma (Fig. 34): thorax coriaceous, punctures shallow, large, separated by 1-2 X their diameters. Pronotal disc 0.7 X the length of mesoscutum. Mesonotum with anterior microstriae. Propodeal disc elongated, 0.82 X as long as wide, with a complete median carina, very weak behind, with large polished area behind the basal triangle. Metacarpus 1.13 X the stigma. Forefemur 3.33 X as long as thick.

Gaster: transversal section elliptical. Tergite II (Fig. 35) with a depression elliptical, not so deep and not so large, occupying the median third of the width of the tergite and anterior half, reaching the anterior margin, with a pair of lateral hairy

tubercles, so that the depression becomes biconcave in dorsal view, tubercles slightly directed toward each other, separated by 2 X their diameters, lateral margins of the depression with some hairs, tergite with additional pair of light spots. Hypopygium with a slender stalk, 1.58 X the hypopygium, the lateral teeth 5.75 X as long as the stalk, posterior margin straight, corners rounded.

Genitalia (Fig. 159): paramere apex convex and oblique, apical margin thick, dorsal margin straight and with a small concavity below the apex; aedeagus with ventral ramus long, but shorter than the dorsal body, laminar with surfaces horizontal and ventrally concave, wholly evenly wide and divergent, with apex thin, dorsal body of the aedeagus with two pairs of apical lobes, the outer lobe (Fig. 160) larger and much arched downward, in a right angle, surfaces vertical, laminar with the edge somewhat projected medially, with an outer half oblique and with three denticles and inner half very oblique and smooth, ventral margin of the dorsal body with a subquadratic expansion, serrated in the ventral margin, the inner lobe slightly flattened, parallel, stout in lateral view and with the inner surfaces hairy; apodema of the aedeagus extending beyond the subtriangular genital ring.

Examined material: Holotype: male Brazil, *Paraná*, Colombo, Embrapa, Br 476, Km 20; 15.vi.1987; Malaise trap; Survey Profaupar (DZPR). Paratypes: 5 males Brazil, 1 male, *São Paulo*, Juquitiba, forest; 23.iv.1988; suspensa trap; L. A. Joaquim col. (DBCU); 3 males, *Paraná*, Telêmaco Borba, Reserve Samuel Klabin; 15.xii.1986-19.i.1987; Malaise trap; Survey Profaupar (DZPR); 1 males, *Paraná*, Colombo, Embrapa, Br 476, Km 20; 15.vi.1987; Malaise trap; Survey Profaupar (DZPR).

Variation: vertex with anterior inconspicuous median depression; subalar groove of the mesopleuron defined, depression of the tergite II deeper.

Etymology: name refers to the short ventral ramus of the aedeagus.

Distribution: Brazil (*São Paulo*, *Paraná*).

17. *Dissomphalus digitatus*, sp. n.

(Figs. 36-39, 161)

Description: male: length of body 3.57 mm; LFW 2.93 mm.

Color: head and mesosoma black; gaster

dark castaneous; mandible, antenna and palpi castaneous; clypeus dark castaneous; legs castaneous, femora darker; wings subhyaline.

Head (Fig. 36): mandible tridentate (Fig. 37). Clypeus with a median tooth. First four antennal segments in a ratio of 9:3:3.5:3.5; segment XI 1.67 X as long as thick; sensilla small. Eye very short-haired. Front weakly coriaceous, shining, punctures small, shallow, separated by 1-2 X their diameters, frontal carina 0.29 X length of clypeus. LH 0.93 X WH; WF 0.58 X WH; WF 1.21 X HE; OOL 1.14 X WOT, ocelli large, DAO 0.43 X WOT, posterior ocelli distant from the vertex crest 1.0 X DAO. Vertex straight, the corners rounded, occipital carina partially visible in dorsal view; VOL 0.38 X HE.

Mesosoma (Fig. 38): thorax weakly coriaceous, shining, punctures small, relatively deep, separated by 1.5-2.0 X their diameters. Pronotal disc 0.73 X the length of mesoscutum. Notaulus straight. Scutellar groove very thin. Propodeal disc 0.71 X as long as wide, with a median carina thick, nearly complete, with striae strong, with a polished area behind the basal triangle. Metacarpus 1.17 X the stigma. Forefemur 2.91 X as long as thick.

Gaster (Fig. 39): transversal section subcircular. Tergite II with a depression elliptical, somewhat deep, not so large, occupying the median third of the width of the tergite and anterior half, reaching the anterior margin, depression with a pair of lateral hairy tubercles, so that it becomes biconcave in dorsal view, tubercles slightly directed toward each other and separated by 2 X their diameters, lateral margins of the depression with hairs; tergite with additional pair of light spots. Hypopygium with a slender stalk, apex dilated and truncate, 1.28 X the hypopygium, the lateral teeth 9 X as long as the stalk, posterior margin slightly concave, corners rounded.

Genitalia (Fig. 161): paramere with apex convex and oblique, apical margin thick, dorsal margin straight and with a small concavity below the apex; aedeagus with ventral ramus much shorter than the dorsal body, their margins smooth, the inner straight, with a small median concavity, the outer convex, apical half of the ramus thin and diverging, with transversal section rounded, surface covered by small rounded teeth; dorsal body of the aedeagus much arched downward in the apical half, forming a wide surface and with a median fold

opened dorsally and closed ventrally forming two parallel laminae, being the inner surface of the inner lamina with transversal bands densely hairy, the dorsal margin of the dorsal half arched outward, base of the dorsal body with a pair of very small lobes upward; apodema of the aedeagus not extending beyond the elliptical genital ring.

Examined material: Holotype: male Trinidad & Tobago, *Tobago*, Saint John Prov., Hermitage River, Bridge Charlotteville; 12-21.iii.1979 (USNM). Paratypes: 13 males, 1 male, Trinidad & Tobago, same data as holotype (USNM); 1 male, Venezuela, *Aragua*, Rancho Grande, 1100m, rain forest; black light trap; J. B. Heppener col. (USNM); 9 males Ecuador, *Napo*, Huahua Sumaco, Road Hollin-Loreta, Km 44 and 45; 14-22.xii.1989; Malaise trap; M. J. Wasbauer & H. Real col. (UCDC); D. Hardy & W. Rowe col; trap (USNM), 2 males, Brazil, *Rondônia*, 62 km South Ariquemes; 17.iii.1981 and 25.iv.1992; W. Hanson col. (EMUS).

Variation: mandible lighter; body dark castaneous; gaster lighter and coxae pale-castaneous in the specimens from Ecuador; sensilla conspicuous; pronotal disc low anteriorly; ocelli smaller; vertex more broadly rounded in the corners; frons more coriaceous and punctures more conspicuous; median carina of the propodeal disc incomplete behind; pleurosternum separated of the mesopleuron by a groove or not by carina; lateral margin of the depression of the tergite II more hairy, depression deeper.

Etymology: name refers to the apical area of the ventral ramus with small finger-like teeth.

Distribution: Trinidad & Tobago, Venezuela, Ecuador, Brazil (*Rondônia*).

18. *Dissomphalus vallensis* Evans, 1979

(Figs. 162-163)

Dissomphalus vallensis Evans, 1979: 277, 281; Gordh & Moczar, 1990: 226.

Redescription: male: length of body 3.66 mm; LFW 3.95 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible, palpi and antenna castaneous; clypeus dark castaneous; legs castaneous, hindfemur darker; wings subhyaline.

Head: mandible bidentate. Clypeus with apical margin broadly projected forward without median lobe, with a small median tooth. First four antennal segments in a ratio of 9:3:3:3.5; segment XI 2 X as long as thick, sensilla elongated. Eye glabrous. Front weakly coriaceous and shining, punctures shallow, small, separated by 1.5-2.5 X their diameters, frontal carina 0.64 X length of clypeus. Head as long as wide; WF 0.64 X WH; WF 1.33 X HE; OOL 1.41 X WOT; DAO 0.33 X WOT, posterior ocelli distant from the vertex crest 1.7 X DAO. Vertex slightly convex, nearly straight, the corners angulate; occipital carina partially visible in dorsal view; VOL 0.42 X HE.

Mesosoma: thorax weakly coriaceous, punctures shallow, small, separated by 1-3 X their diameters. Pronotal disc 0.7 X the length of mesoscutum. Scutellar groove very thin. Propodeal disc 0.79 X as long as wide, with a complete median carina, weak behind, with a polished area behind the basal triangle. Mesopleuron with subalar groove poorly defined. Metacarpus 1.28 X the stigma. Forefemur 3.3 X as long as thick.

Gaster: transversal section elliptical. Tergite II with a depression elliptical, large and somewhat deep, occupying slightly more than the anterior third of the tergite, reaching the anterior margin, slightly larger than the third of the width of the tergite, with a pair of lateral hairy tubercles, so that the depression becomes biconcave in dorsal view; tubercles slightly directed toward each other, separated by 3 X their diameters, lateral margins of the depression with hairs, tergite with additional pair of light spots. Hypopygium (Fig. 163) with a slender stalk, with apex dilated and truncate, 1.65 X the hypopygium, the lateral teeth 8.2 X as long as the stalk, posterior margin somewhat concave, corners rounded.

Genitalia (Fig. 162): paramere with apex truncate and oblique, apical margin thick; aedeagus with ventral ramus nearly as long as the dorsal body, their margins smooth, the inner straight, the outer convex, the apical half of the ramus thin and diverging, with transversal section circular, surface smooth; dorsal body of the aedeagus arched downward in the apical half dorsally, the ventral side more slightly, forming a wide surface with a median fold, so that the outer surface is parallel to the inner, which is larger, the inner surface of the inner lamina with transversal bands of hairs

downward, the dorsal margin of the apical half arched outward, base of the dorsal body with a pair of very small lobes upward forming a small tooth at the edge; apodema of the aedeagus at the same level of the elliptical genital ring.

Examined material: 3 males, Colombia, *Valle del Cauca*, Peñas Blancas, 1750m; 10 Km W Cali, very wet premontane forest; 29.x.1974-14.ii.1975; Malaise trap; R. C. Wilkerson col. (all paratypes) (USNM, FSCA).

Variation: three basal segments of antenna testaceous (Evans 1979).

Observations: this species has glabrous eye as *D. triangularis* sp. n.

Distribution: Colombia.

CURVIFOVEATUS GROUP

This group is characterized by having the tergite II with a depression large, deep, wide, triangular with the base toward, with a pair of very large lateral pits, much arched inward medially, totally covered by a lot of long hairs inward (Fig. 44).

It is a monotypic group, composed of *Dissomphalus curvifoveatus*, sp. n., but with broad distribution, from Honduras to north of Brazil.

19. *Dissomphalus curvifoveatus*, sp. n.

(Figs. 40-42, 164-165)

Description: male: length of body 3.20 mm; LFW 2.17 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible, palpi and antenna castaneous; clypeus dark castaneous; legs pale-castaneous, hindfemur dark castaneous inside; wings subhyaline.

Head (Fig. 40): mandible bidentate (Fig. 41-42). Clypeus subtrapezoidal. First four antennal segments in a ratio of 8:2:2:3, segment XI 2 X as long as thick. Eye parallel. Front weakly coriaceous, shining, punctures small and shallow, separated by 1-2 X their diameters, frontal carina 0.46 X length of clypeus LH 0.98 X WH; WF 0.58 X WH; WF 1.07 X HE; ocellar triangle very compact, OOL 1.33 X WOT, DAO 0.35 X WOT, posterior ocelli distant from the vertex crest 1.0 X DAO. Vertex slightly convex, with a small median depression, the corners rounded; VOL 0.5 X HE.

Mesosoma (Fig. 43): thorax coriaceous, shining, punctures shallow, small, separated by 0.5-2.0 X their diameters. Pronotal disc 0.55 X the length of mesoscutum. Mesoscutum microstriate anteriorly. Propodeal disc 0.68 X as long as wide, with a median carina incomplete behind, with a polished area behind the basal triangle; declivity of the propodeum with a median carina inconspicuous. Mesopleurum with callus in the center. Metacarpus 1.25 X the stigma. Forefemur 3.2 X as long as thick.

Gaster (Fig. 44): transversal section subcircular. Tergite II with a depression deep, wide, triangular with the base toward, occupying more than the half of the width of the tergite and anterior half, reaching the anterior margin, each lateral with a pit very large, much arched inward medially, so that the inner face is convex, densely hairy, such pit delimits the depression laterally; tergite II developed behind of the pits and without additional pair of spots. Hypopygium with a slender stalk, 1.3 X the hypopygium, the lateral teeth much arched inward apically, 6 X as long as the stalk, posterior margin with a very short invagination, corners rounded.

Genitalia (Fig. 164): paramere bidigitiform, with a median longitudinal invagination very deep, dorsal ramus larger and wider, with rounded apex, outer margin widened, ventral ramus thin, widened basally, apex thin; volsella with digitus very long, 0.5 X the length of paramere, base of the upper margin slightly serrated by a short distance, apex very sharpened; aedeagus with ventral ramus longer than the dorsal body, with surfaces vertical and the outer convex, in lateral position to the dorsal body, its apex somewhat thin, their margins smooth, the inner much excavated medially, and straight basally, the outer broadly convex; dorsal body of the aedeagus with two pairs of lobes of the same size, the ventral pair (Fig. 165) thin and lanceolate, with apex sharpened, ventral margin irregularly serrated and more strongly basally, where the lobe is more widened, the dorsal pair sharpened, diverging apically and hardly downward, narrowing gradually since the base to the apex, which is bidentate with the outer tooth large and the inner small, both sharpened with widened base; apodema of the aedeagus not extending beyond the elliptical genital ring.

Examined material: Holotype: male Brazil,

Amazonas, Manaus, Reserve 1112; 8.xi.1985; Malaise trap; B. Klein col. (INPA); Paratypes: 32 males; 1 male Belize, Middlesex, 125m; 25.iv.1965; E. C. Welling col. (CNCI); 2 males Costa Rica, *San Vito de Coto Brus*, Las Cruces, 1200m; 2-9.vii.1982; Malaise trap; B. Gill col. (CNCI); 1 male Panama, *Canal Zone*, Pipeline Road; 22.iii.1982; W. J. Hanson col. (EMUS); 1 male Venezuela, *Bolivar*, 135 km S, 1400m, El Dorado; 20.vii-7.viii.1986; B. Gill (PMAE); 13 males Ecuador, 7 males *Pichincha*, Tinalandia; 14.vi.1976; S. + J. Peck col. (PMAE); 1 male *Pichincha*, Rio Palenque, 49 Km S, Santo Domingos; ii.1975 (PMAE); 3 males *Queredo*, Pichilingue; v.1978; Mendoza col. (USNM); 2 males *Napo*, Huahua Sumaco, km 44 Hollin-Loreta Road; 20.xii.1989; Malaise trap; M. J. Wasbauer & H. Real col. (UCDC); 15 males, Brazil, 3 males *Amazonas*, Manaus, Reserve Ducke, Reserve Campina; glue trap 1m; 1 male Reserve Ducke, glue trap 2m; 15.iv-17.vii.1992; J. Vidal & J. Vidal col.; 1 male *Amazonas*, São Gabriel Cachoeira, Morro Seis Lagos, 800m; 28.ix-6.x.199? (90-93); Malaise trap; J. A. Rafael & J. Vidal col.; 1 male *Pará*, Oriximiná, Mineração Alcoa, Rio Trombetas; 7-25.x.1982; Rafael, Binda & Vidal col.; CDC; Malaise trap (INPA); 6 males *Pará*, Tucuruí, base 4 or Rio Tocantins; 17.vi-17.xii.1985; interception trap (one with banana, feces and meat); 1 male *Pará*, Altamira, Km 18; 23.ix.1985; interception trap; N. Degallier col. (MPEG); 1 male *Rondônia*, 62 Km S SE Ariquemes; 8-20.xi.1994; W. J. Hanson col. (EMUS).

Variation. body dark castaneous; coxae lighter, femora and gaster darker; head strongly coriaceous in the Belize specimen; ocellar triangle much closed to vertex crest; LH 0.97 to 1.04; WF 0.58 to 0.64 X WH; WF 1.06 to 1.23 X HE; OOL 1.18 to 1.46 X WOT; pronotal disc very low anteriorly; propodeal disc 0.59 to 0.75 X as long as wide; declivity with horizontal striae; outer margin of the ramus dorsal of the paramere thinner; ventral ramus of the aedeagus less long and not bidentate apically.

Observations: ocellar triangle is very compact.

Etymology: name refers to the arched pit of the tergite II.

Distribution: Belize, Costa Rica, Panama, Venezuela, Ecuador and Brazil (*Amazonas*, *Pará*, *Rondônia*).

BISULCUS GROUP

This group is characterized by having the tergite II with two median horizontal and linear hairy tufts and nearly touching each other placed in a shallow depression.

There are two species here, one from South America, *D. horizontalis*, sp. n., and another from Caribe, *D. bisulcus* Ashmead, 1893.

D. bisulcus Ashmead, 1893 differs from *D. horizontalis*, sp. n., by having weak texture, pronotal disc ecarinate and dorsal body of the aedeagus with a single lobe. *D. horizontalis*, sp. n., has strong texture, pronotal disc carinate, dorsal body of the aedeagus bilobate.

Key to males of bisulcus group:

1. frons weakly coriaceous, pronotal disc ecarinate, dorsal body of the aedeagus with a single lobe (Fig. 166).....
.....*D. bisulcus* Ashmead, 1893
frons strongly coriaceous, pronotal disc carinate in lateral and anterior margins, dorsal body of the aedeagus with inner and outer lobes and two pairs of apical projections (Fig. 167)*D. horizontalis*, sp. n.

20. *Dissomphalus bisulcus* Ashmead, 1894

(Fig. 166)

Dissomphalus bisulcus Ashmead, 1894: 193, 194; Ashmead, 1895: 786; Dalla Torre, 1898: 558; Kieffer, 1908b: 36, 1914b: 496, 502; Evans, 1964: 46; Gordh & Moczar, 1990: 219.

Description: male: body dark, mandible and legs castaneous. Head: clypeus with the apical margin broadly projected forward, with a small median tooth. Front weakly coriaceous. Vertex straight, with corners rounded; occipital carina partially visible in dorsal view. Mesosoma: pronotal disc with a weak transversal carina. Propodeal disc with weak striae, median carina incomplete behind. Gaster: section transversal elliptical. Tergite II with a subcircular depression, very shallow, large, occupying the two anterior thirds of the length of the tergite and slightly more than the median third

of the width, reaching the anterior margin, with two horizontal and linear median tufts of hairs separated by 0.25 X their length, occupying the half of the width of the depression. Hypopygium short, stalk 1.14 X the hypopygium, the lateral teeth 3.5 X the stalk, posterior margin slightly concave, corners somewhat angulate. Genitalia (Fig. 166): paramere 2 X longer than the basiparamere, base of the dorsal margin much developed; volsella with cuspis short, digitus with the median projection of the upper margin rounded, with two denticles in the distal face; aedeagus with ventral ramus long, but shorter than the dorsal body, laminar, with surface convergent dorsally, base wide and narrowing apically, apex sharpened, base of the inner and outer margins nearly straight, the inner diverging apically and the outer convergent; dorsal body of the aedeagus wide in the base and narrowing apically, in dorsal view, inner and outer margins slightly concave, the outer very convergent, dorsal body with high base and rounded apex, in lateral view, inner surface densely hairy; basiparamere angulate basally in the ventral side; apodema of the aedeagus extending beyond the genital ring.

Examined material: 1 male: Saint Vincent (USNM, holotype).

Observations: I have not described this species in detail because of the bad conditions of the type. This species was originally described from three specimens from the same place. I studied one paratype from USNM and some specimens from BMNH, including material from Grenada, determined as *D. bisulcus*, but a further study has shown that the tergal processes of these specimens are rounded and the tubercles small and very distant one from each other. So, it is possible that all specimens recorded in Grenada belong to a different species (possibly *D. tuberculatus* Ashmead, 1894)

Distribution: Saint Vincent and Grenada.

21. *Dissomphalus horizontalis*, sp. n.

(Figs. 167-169)

Description: male: length of body 3.77mm; LFW 2.23 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible castaneous, apex reddish; clypeus and antenna dark castaneous, basal flagellomeres lighter; palpi pale-castaneous; legs

dark castaneous, midleg and tarsi lighter; wings subhyaline.

Head: mandible wider apically, tridentate. Clypeus subtrapezoidal, median tooth small. First four antennal segments in a ratio of 6:3:2:2.5; segment XI 1.9 X as long as thick; sensilla somewhat dense. Front somewhat strongly coriaceous, shining, punctures shallow, large, dense, separated by 0.5-1.0 X their diameters, frons very convex, stout below, frontal carina 0.4 X length of clypeus. LH 0.98 X WH; WF 0.56 X WH; WF 1.23 X HE; OOL 1.45 X WOT, DAO 0.33 X WOT, posterior ocelli distant from the vertex crest 1.8 X DAO. Vertex slightly convex, the corners rounded; VOL 0.62 X HE.

Mesosoma: thorax somewhat strongly coriaceous, punctures small, not so shallow, separated by 2 X their diameters. Pronotal disc only 0.45 X the mesoscutum, with a anterior transversal carina very strong, lateral margins of the disc carinate, but weak behind. Propodeal disc 0.70 X as long as wide, with a complete median carina, wholly strongly striae. Mesopleurum with a central callus and with subalar groove wide. Pleurosternum with the carina anterior very short. Metacarpus 1.14 X the stigma. Forefemur 2.77 X as long as thick.

Gaster: transversal section subcircular. Tergite II subvertical, with a very shallow subrectangular depression, visible only in lateral profile, occupying less than the median third of the tergite, distant from the anterior margin a third of their lengths, with a pair of horizontal double lines of hairs directed backward, very close each other, separated by 0.25 X their lengths, tergite with additional pair of light spots. Hypopygium with a slender stalk, 0.75 X the hypopygium, the lateral teeth 3 X the stalk, posterior margin straight, corners rounded.

Genitalia (Fig. 167): paramere with apex rounded and a long inner hairs inward, dorsal and ventral margins straight; volsella with cuspis thick; aedeagus with ventral ramus slightly longer than the dorsal body, narrowing slightly apically, forming a thin apex oblique-truncate, outer margin with a conspicuous ramus, 0.2 X the length of the ventral ramus, with thin apex, laterad to the dorsal body, base of the inner margin of the ramus sinuous; dorsal body of the aedeagus complex, very stout basally, apex bilobate, an inner lobe and another lateral, the inner flattened and very

expanded ventrally, very hairy, both in and outside of the ventral margin microserrated, with two microserrated projections directed to the middle of the dorsal margin basally, the inner projection (Fig. 168) directed to the dorsum and widening apically, the apex concave, truncate basally, the apical corner angulate and sharpened, the outer projection (Fig. 169) is in the base of the inner projection and is a group of small teeth, the outer lobe of the dorsal body is a projection outward and V-shaped; apodema of the aedeagus not extending beyond the subtriangular genital ring.

Examined material: Holotype: male Brazil, Rondônia, Ariquemes, Rio Ji-paraná, 2°44'W 61°52'N; 28.x.1986; Malaise trap; J. A. Rafael col. (INPA). Paratypes: 2 males, 1 male Brazil, 1 male Rondônia, Rio Guaporé, opposite mouth of Rio Baures (Bolivia); 23.ix.1964; J.K. Bouseman & L. Lussenhop col. (AMNH); 1 male Bolivia, Beni, Rio Itenez at mouth Rio Baures; 3.x.1964; J.K. Bouseman & L. Lussenhop col. (AMNH).

Variation: anterior transversal carina of pronotal disc concave.

Observations: this species is the only known *Dissomphalus* with lateral margins of pronotal disc areolate; the anterior transversal carina is uncommonly strong, and the frons very convex anteriorly. The ventral ramus of the aedeagus is lateral, dorsal body of the aedeagus complex, with inner and outer lobes and two pairs of apical projections; paramere with a long hair inward, as in *D. cornutus* Evans, 1964, except that in the latter there are more than one hair and are directed outwards.

Etymology: name refers to the horizontal tergal processes.

Distribution: Brazil (Rondônia), Bolivia.

BIFOVEATUS GROUP

This group is characterized by the particular shape of the ventral ramus of the aedeagus, thin and much arched outward medially and apex abruptly angulate, being straight and diverging (Figs. 170, 172-173).

There are three species in this group, *D. bifoveatus* Kieffer, 1906, *D. microculus*, sp. n., and *D. angulatus*, sp. n.. This group occurs from north of Mexico (Durundo) to Costa Rica.

The genitalia of *D. bifoveatus* Kieffer is simi-

lar to the genitalia of *D. microculus*, sp. n., by having the dorsal body of the aedeagus with a projection apical very long and inward, better visible in lateral view, but in the former the ventral margin of this projection is microserrated medially, besides the basiparamere is angulate basally in the ventral side, and there is no tooth in the ventral margin of the paramere (Fig. 172) and the posterior margin of the hypopygium is convex. Externally, *D. microculus*, sp. n., has very small eye (Fig. 50) and the depression of the tergite II is inconspicuous (Fig. 53).

D. angulatus, sp. n., is similar to *D. bifoveatus* by the characters related to the depression of the tergite II, which is large and elliptical, but in *D. bifoveatus* the depression is partially divided medially, but the genitalia of *D. angulatus*, sp. n., does not have expansion in the dorsal body of the aedeagus (Fig. 173).

Key to males of bifoveatus group:

1. clypeus broadly projected forward, with a small median tooth (Fig. 45), depression of the tergite II elliptical with two rounded tufts of hairs (Fig. 48), apex of the dorsal body of the aedeagus without long projection (Fig. 173) *D. angulatus*, sp. n. clypeus subtrapezoidal (Fig. 50) or trapezoidal, depression of the tergite II very shallow (Fig. 53), or conspicuous, with a incomplete median division, apex of the dorsal body of the aedeagus with a very long projection, 0.5 X longer than genitalia (Figs. 170, 172) 2
2. eye small, head much developed behind the eye (Fig. 50), depression of the tergite II extremely shallow, nearly imperceptible, with two very small hairy tufts (Fig. 53), projection of the dorsal body of the aedeagus with ventral margin smooth and with thin apex (Fig. 172)
 *D. microculus*, sp. n.
 depression of the tergite II elliptical, conspicuous, with a median longitudinal partial division, with two conspicuous tufts of hairs, projection of the dorsal body of the aedeagus microserrated medially in ventral margin, apex sharpened (Fig. 170) *D. bifoveatus* Kieffer, 1906

22. *Dissomphalus angulatus*, sp. n.

(Figs. 45-49, 173-174)

Description: male: length of body 3.3 mm; LFW 2.66 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible and clypeus dark castaneous; antenna and palpi castaneous; legs castaneous; wings subhyaline.

Head (Fig. 45): mandible tridentate (Fig. 46). Clypeus with apical margin broadly projected forward, with a small median tooth. First four antennal segments in a ratio of 8:3:3:3.5; antenna rather elongated, segment XI 2.53 X as long as thick; sensilla elongated. Front rather strongly coriaceous, shining, punctures very shallow, large, separated by 0.5-1.5 X their diameters, frontal carina 0.35 X length of clypeus. LH 1.04 X WH; WF 0.62 X WH; WF 1.33 X HE; OOL 1.28 X WOT, DAO 0.35 X WOT, posterior ocelli distant from the vertex crest 1.43 X DAO. Vertex slightly convex, nearly straight, the corners rounded; VOL 0.54 X HE.

Mesosoma (Fig. 47): thorax coriaceous and punctate as the frons. Pronotal disc 0.6 X the length of mesoscutum, with a transversal carina conspicuous and corners somewhat angulate, lateral margins sharp. Propodeal disc 0.76 X as long as wide, with a complete median carina, with a polished area behind the basal triangle; declivity of the propodeum rugulose. Pleurosternum with the posterior groove thin and shallow. Metacarpus 1.33 X the stigma. Forefemur 2.98 X as long as thick.

Gaster (Fig. 48): transversal section subcircular. Tergite II with a elliptical depression, somewhat deep and large, occupying slightly more than the median third of the width of the tergite and slightly more than the third anterior, reaching broadly the anterior margin, with two rounded median hairy tufts, not so small, separated by slightly more than their diameters (Fig. 49), tergite with additional pair of light spots. Hypopygium with a slender stalk, 1 X the hypopygium, the lateral teeth 5 X as long as the stalk, posterior margin straight, with a small median concavity, corners angulate.

Genitalia (Fig. 173): paramere (Fig. 174) with apex truncate and oblique, with four projections low and rounded, corner dorsal somewhat projected, ventral margin evenly somewhat concave and the dorsal margin straight

basally and with a small concavity below the apex; volsella with the base high, cuspis long; aedeagus with ventral ramus much shorter than the dorsal body, slightly lower than the base of the volsella, flattened, thin, wholly arched being the median part outward, apex abruptly angulate outward, rami downward; dorsal body of the aedeagus not so wide laterally, narrowing gradually apically, with surfaces vertical and the apex slightly divergent, base rather widened in dorsal view, ventral margin of the serrated; apodema of the aedeagus not extending beyond the subtriangular genital ring.

Examined material: Holotype: male Costa Rica, *San Vito de Coto Brus*, Las Cruces, 1200m; 17.vii-12.ix.1982; Malaise trap; B. Gill col. (CNCI). Paratypes: 18 males, Costa Rica, 11 males same data as holotype except dates 2.vii-12.ix.1982 (CNCI), 1 male Reserve Monteverde; 1-4.vi.1979; pan trap; J. M. Campbell col. (CNCI), 2 males *Guanacaste*, Monte Verde; 15.xii.1985-5.i.1986; pan trap; A. Forsyth col. (PMAE); 2 males *Monteverde*, 1520m; 25.vi-2.vii.1983; D. H. Lindeman col. (PMAE), 1 male *C. Nara*, NE Quepos; 16.vii.1975; W.J. Hanson col. (EMUS), 1 male *Heredia*, La Selva, Res. Sta.; 11-17.vi.1986; W. Hanson & G. Bohart col. (EMUS).

Variation: body dark castaneous; mandible lighter; vertex more convex and their corners slightly angulate; frontal carina smaller; body slender and in this case the corners of the vertex more broadly rounded and texture weaker; frons somewhat coriaceous; the median tooth of the clypeus of Monteverde specimens with short lateral projection; depression of the tergite II smaller and more shallow, their tufts smaller, subcircular and somewhat inclined.

Observations: this species is the only known within the species with median tergal processes with clypeus with apical margin broadly projected forward.

Etymology: name refers to the very angulate apex of the ventral ramus.

Distribution: Costa Rica.

23. *Dissomphalus microculus*, sp. n.

(Figs. 50-54, 172)

Description: male: length of body 3.37 mm; LFW 2.53 mm.

Color: body dark castaneous; gaster shining; mandible and clypeus dark castaneous; antenna and palpi castaneous; legs castaneous, coxae and femora and hindtibia darker; wings subhyaline.

Head (Fig. 50): mandible tridentate (Fig. 51). Clypeus subtrapezoidal. First four antennal segments in a ratio of 8:3:2.5:3, segment XI 2 X as long as thick; sensilla small, circular and dense. Front rather strongly coriaceous, somewhat shining, punctures shallow, large, separated by 0.5-1.5 X their diameters, frontal carina 0.5 X length of clypeus. LH 1.07 X WH; eye small, WF 1.56 X HE; ocellar triangle compact, OOL 1.39 X WOT, DAO 0.36 X WOT, posterior ocelli distant from the vertex crest 1.75 X DAO. Vertex straight, the corners broadly rounded; occipital carina partially visible in dorsal view; head developed behind the eye, VOL 0.91 X HE.

Mesosoma (Fig. 52): thorax coriaceous, somewhat shining, punctures small, shallow, separated by 0.5-2 X their diameters. Pronotal disc 0.67 X the length of mesoscutum, with a anterior transversal carina weak. Propodeal disc very elongated, 0.9 X as long as wide, with a median carina incomplete behind, with a polished area behind the basal triangle; declivity of the propodeum with median carina poorly defined. Metasternum very elongated. Metacarpus 1.33 X the stigma. Forefemur 3.42 X as long as thick.

Gaster (Fig. 53): transversal section elliptical. Tergite II with a depression extremely shallow, nearly imperceptible, occupying the median third of the width of the tergite and anterior portion without reaching the anterior margin, with two inconspicuous median hairy tufts (Fig. 54), separated by 2.2 X their diameters, distant from the anterior margin of the tergite 3 X their diameters. Hypopygium with a slender stalk, 0.9 X the hypopygium, the lateral tooth 6 X as long as the stalk, posterior margin straight, the corners rounded.

Genitalia (Fig. 172): short, rounded; paramere evenly arched inward, apex oblique-truncate, with a large dorsal projection, hairy, dorsal margin widened, except below the apex, ventral margin with a small tooth below the apex; volsella with a thick cuspis, digitus rather short; aedeagus with ventral ramus long, slightly longer than the dorsal body in dorsal view, flattened, thin, wholly arched being the median part outward, apex

abruptly angulate outward, rami downward; dorsal body of the aedeagus laminar, base wide and narrowing apically in dorsal view, apex with a very large process, 0.5 X longer than the genitalia, abruptly inclined to the basiparamere, in a angle of 45°, such process is straight and thin, its ventral margin wholly smooth; apodema of the aedeagus not extending beyond the subtriangular and short genital ring.

Examined material: Holotype: male Mexico, *Durango*, 24 mi. W, La Cuidad, 700 feet; 12.viii.1964; W.R.M. Mason col. (CNCI). Paratypes: 2 males MEXICO same data as holotype except dates 22.vi-12.viii.1964 (CNCI).

Variation: antenna darker; sensilla more widened; pronotal disc low anteriorly; propodeal disc with a large coriaceous area beside the discal carinae; subalar groove of the mesopleuron more evident; tergite II with depression absent and tufts closer to anterior margin.

Observations: this species has the body elongated, head is more developed behind the eye, than all species studied here. The small eye is similar to that of many species of *Pseudisobrachium*.

Etymology: name refers to the small eye.

Distribution: Mexico (*Durango*).

24. *Dissomphalus bifoveatus* Kieffer, 1906

(Figs. 170-171)

Dissomphalus bifoveatus Kieffer, 1906: 250-251; 1908b: 36; 1914b: 496, 502, Evans, 1962: 67, 76-77; 1964: 45; Gordh & Moczar, 1990: 219.

Redescription: male: body slender; length of body 2.37 mm; LFW 1.77 mm.

Color: body dark castaneous; mandible, clypeus and antenna castaneous; palpi light castaneous; legs castaneous, hindtibia, femora and coxae darker; wings subhyaline.

Head: mandible bidentate. Clypeus trapezoidal. First four antennal segments in a ratio of 6:4:1.5:2, segment XI 1.7 X as long as thick, sensilla elongated. Front coriaceous and shining, punctures shallow, small, separated by 1-2 X their diameters, frontal carina 0.9 X length of clypeus. LH 1.0 X WH; WF 0.59 X WH; WF 1.22 X HE; ocellar triangle broad, despite OOL is only 1.2 X WOT, ocelli small, DAO 0.24 X WOT, posterior

ocelli distant from the vertex crest 1.67 X DAO, angle frontal of ocellar triangle nearly straight. Vertex convex, with corners somewhat angulate; VOL 0.56 X HE.

Mesosoma: thorax coriaceous, punctures small, shallow, separated by 1.5-2 X their diameters. Pronotal disc 0.57 X the length of mesoscutum, with anterior transversal carina. Propodeal disc 0.82 X as long as wide, with a median carina incomplete behind, with a polished area behind the basal triangle; declivity of the propodeum without median carina. Metacarpus 1.5 X the stigma. Forefemur 3.0 X as long as thick.

Gaster: transversal section elliptical. Tergite II with a depression slightly deep and very large, occupying the median third of the width of the tergite, far from the anterior margin, with a partial median division, with two hairy tufts, distant each other their diameters, tergite with additional pair of light spots. Hypopygium with a slender stalk, 0.88 X the hypopygium, the lateral 3.5 X as long as the stalk, posterior margin convex, corners rounded.

Genitalia (Fig. 170): short, rounded; paramere evenly arched inward, the apex oblique-truncate, with a large dorsal projection, dorsal margin widened, except below the apex, ventral margin angulate above; volsella with the thick cuspis, the digitus rather short; aedeagus with ventral ramus long, but shorter than the dorsal body in dorsal view, flattened, thin, wholly arched, with the median part outward, apex abruptly angulate outward, rami downward; dorsal body of the aedeagus laminar, base wide and narrowing apically in dorsal view, apex with a very large process (Fig. 171), 0.6 X as long as the genitalia, abruptly arched to the basiparamere, in a angle of 45°, such process is straight and thin, its ventral margin microserrated in the third median, dorsal body wide in lateral view, with their surfaces very convergent dorsally; apodema of the aedeagus not extending beyond the subtriangular genital ring, which is not so widened.

Examined material: 1 male Nicaragua, *San Marcos*; "39"; Collection Baker, CAS type n°17053 (CASC, holotype). New material: 2 males Mexico, 1 male *Chiapas*, Palenque; 10.ix.1974; G. Bohart & W. Hanson col. (EMUS), 1 male *Morellos*, 6 mi. E Cuernavaca; 1.ix.1974; G. Bohart & W. Hanson col. (EMUS).

Variation: body darker; antenna and mandible dark castaneous; vertex with corners

angulate; ocellar triangle more compact; median carina of the declivity of the propodeum more defined; tufts of hairs of tergite II smaller or larger.

Observation: this species has some uncommon characters, such as long pedicel, propodeal disc long, very thin metapleuron. This species resembles *D. altivolans* Evans 1954 by the tergal processes (Evans 1962), but in *D. bifoveatus* the depression is partially divided and subvertical, and genitalia has a long expansion in the apex of the dorsal body of the aedeagus. The genitalia of *D. altivolans* resembles the genitalia of *D. deformis* Evans, 1969a by the shape of the lobes of the dorsal body of the aedeagus. This species was known only by the holotype, and now it is recorded from Mexico.

Distribution: Mexico (Chiapas, Morelos), Nicaragua.

RASISSIMUS GROUP

This group is characterized by having a very shallow depression of the tergite II, nearly imperceptible, very large, occupying the two median thirds of the width of the tergite and reaching broadly the posterior margin of the tergite I, and half-moon-shaped (Fig. 58), the parameres are deeply divided medially, forming two distinct lobes (Figs. 175, 178).

This group is composed of *D. rasissimus*, sp. n., and *D. bilobatus*, sp. n. It occurs from southern Mexico to Costa Rica.

D. rasissimus, sp. n., has the depression of the tergite II extremely shallow, nearly imperceptible, while in *D. bilobatus*, sp. n., it is slightly less shallow (Fig. 58). In *D. rasissimus* sp. n., the ventral ramus of the aedeagus is long, with a apical projection thin and flattened upward and the dorsal body of the aedeagus is bidentate and its ventral margin has a small basal tooth (Fig. 175), while in *D. bilobatus*, sp. n., the ventral ramus is short, wide with two laminar rami, whose ventral and apical margins are serrated and the dorsal body of the aedeagus is simple and with the ventral margin serrated apically (Fig. 178).

Key to males of rasissimus group:

1. depression of the tergite II very shallow, nearly imperceptible, ventral ramus of the aedeagus long, with a projection thin and

flat apical upward, dorsal body of the aedeagus bidentate, base of the ventral margin with a small tooth (Fig. 175)

..... *D. rasissimus*, sp. n.

depression of the tergite II not so shallow (Fig. 58), ventral ramus short, wide, with two conspicuous and laminar ramus, ventral and apical margins serrated, dorsal body of the aedeagus simple and apex of the ventral margin serrated (Fig. 178)

..... *D. bilobatus*, sp. n.

25. *Dissomphalus rasissimus*, sp. n.

(Figs. 175-177)

Description: male: length of body 3.27 mm; LFW 2.57 mm.

Color: body dark castaneous, gaster lighter; mandible and antenna castaneous; clypeus dark castaneous; palpi and legs light castaneous, hindfemur darker; wings subhyaline.

Head: mandible forming an oblique cutting-edge, without teeth. Clypeus subtrapezoidal. First four antennal segments in a ratio of 7:2.5:2:3; segment XI 2 X as long as thick; sensilla elongated. Front rather strongly coriaceous, somewhat shining, punctures very shallow, not so small, separated by 1.0-1.5 X their diameters, frontal carina 0.33 X length of clypeus. LH 0.96 X WH; WF 0.62 X WH; WF 1.29 X HE; ocellar triangle long, OOL 1.33 X WOT, DAO 0.37 X WOT, posterior ocellus very closed to vertex, distant only 0.65 X DAO. Vertex straight, the corners rounded; VOL 0.42 X HE.

Mesosoma: thorax coriaceous, punctures small, shallow, separated by 1-1.5 X their diameters. Pronotal disc 0.5 X the length of mesoscutum. Propodeal disc 0.73 X as long as wide, with a median carina nearly complete, with a polished area behind the basal triangle; declivity of the propodeum without median carina. Mesopleurum without subalar groove. Metacarpus 1.65 X the stigma. Forefemur 3 X as long as thick.

Gaster: transversal section subcircular. Tergite II with a depression half-moon-shaped very large, occupying two median thirds of the width of the tergite and the anterior half, reaching broadly the anterior margin, but extremely shallow, nearly imperceptible, with two median tubercles with a

pair of tuft of hairs, far from the anterior margin their diameters, separated each other 2.1 X their diameters. Hypopygium with the slender stalk, 0.83 X the hypopygium, the lateral teeth very small, 10 X as long as the stalk, posterior margin straight, corners broadly rounded.

Genitalia (Fig. 175): paramere with a median longitudinal invagination deep, so that becomes bidigitiform, dorsal lobe larger, downward, ventral lobe thin, outer ventral margin with apical hairs, the other margins not hairy; volsella with cuspis somewhat flattened, truncate, digitus very elongated, but rather wide in lateral view, longer than the cuspis, nearly 0.5 X the length of the paramere; aedeagus with ventral ramus (Fig. 177) longer than the dorsal body, laminar, with surfaces subvertical and convex externally, their margins smooth, the rami thin, narrowing slightly apically, apex somewhat truncate and with a projection thin, large, flattened and arched upward; dorsal body of the aedeagus (Fig. 176) straight, laminar, surfaces vertical, ventral margin with a short basal tooth, wide, and the edge with two sharpened teeth slightly downward, dorsal body wide basally in dorsal view; apodema of the aedeagus not extending beyond the subtriangular genital ring.

Examined material: Holotype: male Mexico, *Oaxaca* 6 miles S. Valle Nacional, 2000; 18-20.v.1971; dung & carrion trap; H. F. Howden col. (CNCI). Paratypes: 3 males, 2 males MEXICO, *Chiapas*, San Cristobal Las Casas, 7200 feet; 18-19.vi.1969; Malaise trap (CNCI); 1 male Belize, *Middlesex*, 125m; 12.iv.1965; E. C. Welling col. (CNCI).

Variation: antenna darker from segment III; head darker than mesosoma; body dark castaneous; texture of frons and thorax weaker; vertex slightly convex; declivity of the propodeum nearly polished medially.

Observations: there are some uncommon characters in this species, such as texture of the thorax very different from that of the frons, spiracles of tergite I very large, depression of the tergite II very shallow, perceptible only by the reflex under light and tergite II without additional pair of spots.

Etymology: name refers to the very shallow depression of the tergite II.

Distribution: Mexico (*Chiapas*, *Oaxaca*), Belize.

26. *Dissomphalus bilobatus*, sp. n.

(Figs. 55-59, 178)

Description: male: length of body 2.87 mm; LFW 2.26 mm.

Color: body dark castaneous, mesosoma slightly lighter; mandible and antenna castaneous; clypeus dark castaneous; palpi and legs light castaneous; wings subhyaline.

Head (Fig. 55): mandible forming an oblique cutting-edge, without teeth. Clypeus subtrapezoidal. First four antennal segments in a ratio of 6.5:3:2:3; segment XI 1.93 X as long as thick; sensilla not so elongated, somewhat dense. Front rather strongly coriaceous, somewhat shining, punctures shallow, not so small, separated by 1.0-1.5 X its length, frontal carina 0.23 X length of clypeus. LH 1.0 X WH; WF 0.63 X WH; WF 1.3 X HE; OOL 1.14 X WOT, DAO 0.34 X WOT, posterior ocellus very closed to vertex, distant 0.5 X DAO. Vertex slightly convex, the corners rounded; VOL 0.27 X HE.

Mesosoma (Fig. 56): thorax coriaceous (Fig. 57), punctures small, shallow, separated by 1-1.5 X their diameters. Pronotal disc 0.58 X the length of mesoscutum. Propodeal disc 0.73 X as long as wide, with a median carina absent behind, with a large polished area behind the basal triangle; declivity of the propodeum without median carina. Pleurosternum very convex. Metacarpus 1.6 X the stigma. Forefemur 3.25 X as long as thick.

Gaster: transversal section elliptical. Tergite II (Fig. 58) with a very large depression half-moon-shaped, occupying nearly two median thirds of the width of the tergite and the anterior half, reaching broadly the anterior margin, but very shallow, but perceptible, with two low median tubercles (Fig. 59) with a tuft of hairs, distant from the anterior margin their diameters, separated each other 2.15 X their diameters. Hypopygium with a slender stalk, 1 X the hypopygium, the lateral teeth 5 X as long as the stalk, posterior margin slightly convex, corners rounded.

Genitalia (Fig. 178): paramere with a deep median longitudinal invagination, becoming bidigitiform, dorsal lobe larger, slightly down and inward, apex wide, concave, with the corners rounded, dorsal margin developed and broadly concave, lobe ventral thin, small, with hairy apex,

ventral margin straight and base more developed and hairy apex; volsella with digitus elongated, 0.5 X longer than paramere, upper margin smooth, with some conical basal teeth; aedeagus with ventral ramus slightly shorter than the dorsal body, wide, with the apex wide and truncate, their surfaces divergent dorsally, the rami parallel, ventral part of the apex divided longitudinally, so that each ramus is double and with two ventral margins, the outer lamina small and narrowed apically, and the inner lamina larger, both of them serrated in the ventral and apical margins, basal half of the ramus very thin; dorsal body of the aedeagus not developed, narrowing apically, inner margin straight and parallel and the outer convergent, the apex with a line of three ventral teeth, inner surface of the body ventral hairy; apodema of the aedeagus not extending beyond the subtriangular genital ring.

Examined material: Holotype: male Costa Rica, *San Vito de Coto Brus*, Las Cruces, 1200m; 17.viii-12.ix.1982; Malaise trap; B. Gill col. (CNCI). Paratypes: 6 males Costa Rica same data as holotype except dates 9.vii.-12.ix.1982 (CNCI).

Variation: body lighter or darker, legs darker; texture of body weaker; ocellar triangle longer with angle frontal more obtuse; median lobe of the clypeus larger; notaulus straight; depression of the tergite II not so shallow.

Etymology: name refers to the bilobate paramere.

Distribution: Costa Rica.

LINEARIS GROUP

This group is characterized by having the depression of the tergite II large, deep, embracing broadly the posterior margin of the tergite I (Figs. 64, 66, 74).

This group is composed by *D. linearis*, sp. n., *D. incompletus*, sp. n., and *D. completus*, sp. n., all of them restricted to the Brazilian Amazon.

D. linearis, sp. n., differs from the others by having the ocellar triangle not so close to the vertex crest, clypeus tridentate (Fig. 60), apex of the paramere not invaginated, upper margin of the digitus serrated medially (Fig. 179), the depression of the tergite II not divided, with linear and horizontal tufts (Figs. 64-65), while *D. incompletus*, sp. n., and *D. completus*, sp. n., have the ocellar

triangle very close to the vertex crest, clypeus subtrapezoidal (Fig. 73), apex of the paramere very invaginated medially, forming ventral and dorsal rami, digitus large, serrated only in the base and by a short distance (Figs. 180-181), depression of the tergite II with a median longitudinal division and with small and rounded tufts (Figs. 69, 74).

D. incompletus, sp. n., differs from *D. completus*, sp. n., by having mandible tridentate (Fig. 71), the ventral ramus of the aedeagus without apical teeth and without basal process tridentate (Fig. 181), and depression of the tergite II partial median longitudinal division, not reaching the posterior margin of the tergite I (Fig. 74), while *D. completus*, sp. n., has mandible bidentate, as *D. linearis*, sp. n., the ventral ramus with two apical teeth and with a basal process with three long and sharpened teeth, depression of the tergite II with a median longitudinal division wide and complete (Fig. 69).

Key to males of *linearis* group:

1. ocellar triangle very close to the vertex crest (Figs. 67, 70), about 0.5 X DAO, clypeus subtrapezoidal, apex of the paramere with a deep median invagination, bidigitiform, digitus long and smooth (Figs. 180-181), depression of the tergite II with a median longitudinal division at least partial, with small and rounded tufts (Figs. 69, 74) 2
 ocellar triangle not so close to the vertex crest (Fig. 60), about 1.5 X DAO, clypeus tridentate, apex of the paramere rounded, upper margin of the digitus serrated medially (Fig. 179), depression of the tergite II undivided and with linear and horizontal tufts (Figs. 64-66)
 *D. linearis*, sp. n.
2. ventral ramus with two apical teeth and with a process with three basal, long and sharpened teeth (Fig. 180), depression of the tergite II with a median longitudinal division complete (Fig. 69)
 *D. completus*, sp. n.
 ventral ramus of the aedeagus without apical teeth, without such process (Fig. 181), depression of the tergite II with a median longitudinal division incomplete behind (Fig. 74) *D. incompletus*, sp. n.

27. *Dissomphalus linearis*, sp. n.

(Figs. 60-66, 179)

Description: male: length of body 1.87 mm; LFW 1.48mm.

Color: head black; mesosoma and gaster dark castaneous; clypeus dark castaneous; palpi pale-castaneous; mandible, antenna and legs castaneous; wings subhyaline.

Head (Fig. 60): mandible bidentate (Fig. 61). Clypeus tridentate. First four antennal segments in a ratio of 6:2:1:1.5, segment XI 1.33 X as long as thick, sensilla elongated. Front somewhat strongly coriaceous, shining, punctures small, very shallow, separated by 1-2 X their diameters (Fig. 62), frontal carina 0.5 X length of clypeus. LH 1.02 X WH; WF 0.57 X WH; WF 1.14 X HE; ocellar triangle very compact, OOL 1.4 X WOT; DAO 0.4 X WOT, posterior ocelli distant from the vertex crest 1.43 X DAO. Vertex somewhat concave, the corners rounded, occipital carina partially visible in dorsal view; VOL 0.55 X HE.

Mesosoma (Fig. 63): thorax coriaceous, punctures small, shallow, distant 1-2 X their diameters. Pronotal disc 0.7 X the length of mesoscutum. Propodeal disc short 0.6 X as long as wide, with a median carina nearly complete, with a large polished area behind the basal triangle. Metacarpus 1.45 X the stigma. Forefemur 3.0 X as long as thick.

Gaster (Fig. 64): transversal section subcircular. Tergite II vertical, with a depression large, not so deep, width 0.39 X the width of the tergite, with a small invagination in the upper margin forming two convex lobes, their lateral margins parallel and with a dentiform process inward above the level of the tuft, depression broadly in touch with posterior margin of tergite I, with two linear and horizontal lateral hairy tufts, (Fig. 65), slightly directed toward each other and far from each other by their lengths, tergite II with additional pair of light spots. Hypopygium very short, nearly short as sternite VII, stalk slender, with widened apex, 1.33 X the length of hypopygium, the lateral teeth straight, 4 X as long as the stalk, posterior margin with an invagination, occupying the median third, the lateral thirds straight, corners rounded.

Genitalia (Fig. 179): paramere with rounded apex, their dorsal and ventral inner margins not widened; volsella with cuspis much arched and

with apex truncate; aedeagus not so produced dorsally, in the same level of the genitalia, with ventral ramus slightly shorter than the dorsal body, convergent apically, laminar, wide and inclined with surfaces horizontal, apex sharpened, its inner margin somewhat concave medially and the outer somewhat convex medially; dorsal body of the aedeagus large, stout, apex thin, inner surface hairy, outer surface very concave, lower inner margin serrated; apodema of the aedeagus extending beyond the elliptical genital ring.

Examined material: Holotype: male Brazil, *Amazonas*, Manaus, Reserve 1210; 1.v.1986; Malaise trap; B. Klein col. (INPA). Paratypes: 41 males, Brazil, 20 males *Amazonas*, Manaus, Reserve 1113 (4 males), Reserve 1301 (2 males), Reserve 1208 (4 males) 6.i.1985-31.vii.1986; Malaise trap; B. Klein col. (INPA); 19 males *Amazonas*, Manaus, Reserve Ducke (10 males) or Reserve Campina (7 males); 2.x.1991-29.vii.1992; glue trap 1 or 2 m; J. Vidal & J. Vidal col. (INPA); 2 males *Pará*, Tucuruí, Rio Tocantins, base 4; 17.xii.1985-15.x.1987; interception trap (1 with feces, banana and meat); N. Degalier col. (MPEG).

Variation: body lighter or darker; some specimens smaller; ocellar triangle more compact; there are two morphological patterns of the depression of the tergite II, one with lateral margin of tufts with a conspicuous dentiform process (Fig. 64) and another one which this process is weak (Fig. 66).

Etymology: name refers to the linear tuft of the tergite II.

Distribution: Brazil (*Amazonas*, *Pará*).

28. *Dissomphalus completus*, sp. n.

(Figs. 67-69, 180)

Description: male: length of body 2.63 mm; LFW 1.98 mm.

Color: body dark castaneous, mesosoma lighter; mandible and antenna castaneous; clypeus dark castaneous; palpi pale-castaneous; legs castaneous, hindfemur darker; tegula castaneous; wings subhyaline.

Head (Fig. 67): mandible bidentate. Clypeus subtrapezoidal. First four antennal segments in a ratio of 6.5:2:2:2, segment XI 1.75 X as long as thick; sensilla elongated. Front coriaceous and

shining, punctures small, shallow, separated by 1.5 X their diameters, frontal carina 0.36 X length of clypeus. LH 0.98 X WH; WF 0.59 X WH; WF 1.18 X HE; ocellar triangle long, frontal angle very acute, OOL 1.27 X WOT; DAO 0.36 X WOT, posterior ocelli closed of the vertex crest, distant only 0.42 X DAO. Vertex slightly convex, with corners broadly rounded; VOL 0.36 X HE.

Mesosoma (Fig. 68): thorax coriaceous, punctures small, shallow, separated by 1.5-2.0 X their diameters. Pronotal disc 0.64 X the length of mesoscutum. Notaulus straight. Propodeal disc 0.77 X as long as wide, with a median carina incomplete, absent behind, with a polished area behind the basal triangle; declivity of the propodeum without median carina. Metacarpus 1.67 X the stigma. Forefemur 3.0 X as long as thick.

Gaster (Fig. 69): transversal section subcircular. Tergite II subvertical, with a longitudinal deep depression completely divided by a wide ridge, occupying slightly more than the anterior half of the tergite, reaching the anterior margin, their outer lateral margins divergent anteriorly and the inner convergent, so that they widen anteriorly, its posterior margin rounded, outer margin with a small and rounded projection inward, each side of the depression with a subcircular hairy tuft, placed in the posterior half, tergite without additional pair of spots. Hypopygium with a slender stalk, with apex truncate and dilated, as long as hypopygium, the lateral teeth 3.33 X as long as the stalk, posterior margin straight, corners rounded.

Genitalia (Fig. 180): paramere with a median longitudinal invagination deep, becoming bidigitiform, dorsal ramus larger with apex wide and corners produced and somewhat concave in the ventral half and truncate in the dorsal half, with some outer setae, base of the dorsal ramus widened in the inner dorsal margin, ventral ramus with two thirds of the length of the ramus dorsal, with base widened, narrowing gradually, apex sharpened with some hairs inside; volsella with a thick cuspis, digitus extremely produced apically, longer than the half length of the paramere, base serrated by a short distance; aedeagus with ventral ramus as long as the dorsal body, twisted before the apex and outward, with two sharpened apical teeth, the inner larger, inner margin of the ramus with a median dentiform process, conspicuous and inward, with base widened, basal half of the ramus with a linear series of denticles closed to the

inner margin; dorsal body of the aedeagus with the apical fourth abruptly narrowing, which is thin and with two teeth of the same size, inner surface hairy; apodema of the aedeagus not extending beyond the elliptical genital ring.

Examined material: Holotype: male Brazil, *Pará*, Serra Norte, Station N-5-N-1; 6.x.1988; interception trap (with fruit); N. Degalier col. (MPEG). Paratypes: 2 males BRAZIL, 1 male *Pará*, Serra Norte, Station N-5-N-1; 6.x.1988; interception trap (with fruit); N. Degalier col. (MPEG); 1 male *Pará*, Benevides, Morelândia Farm; 1-2.vii.1988; suspensa trap, 1-6 m; F. F. Ramos col. (MPEG).

Variation: body lighter; hindtibia, femora and gaster darker; antenna more infuscated; tufts of tergal processes nearly rounded.

Observations: although ocellar triangle is compact and long, and head not developed behind the eye; the anterior ocellus is above the top of eye.

Etymology: name refers to the totally divided depression of the tergite II.

Distribution: Brazil (*Pará*).

29. *Dissomphalus incompletus*, sp. n.

(Figs. 70-74, 181)

Description: male: length of body 2.57 mm; LFW 2.00 mm.

Color: body dark castaneous, head nearly black; mandible and antenna castaneous; clypeus dark castaneous; palpi pale-castaneous; legs castaneous, hindfemur darker; wings subhyaline.

Head (Fig. 70): mandible tridentate (Fig. 71). Clypeus subtrapezoidal. First four antennal segments in a ratio of 6:2:1.5:2, pubescence conspicuous, segment XI 1.7 X as long as thick, sensilla conspicuous (Fig. 72). Front coriaceous, shining, punctures very small and shallow, separated by 1.5-2.5 X their diameters, frontal carina 0.5 X length of clypeus. LH 0.97 X WH; WF 0.58 X WH; WF 1.15 X HE; OOL 1.27 X WOT, posterior ocelli close to the vertex crest, distant 0.8 X DAO. Vertex slightly convex, the corners broadly rounded; VOL 0.33 X HE.

Mesosoma (Fig. 73): thorax coriaceous, punctures small, shallow, separated by 2-3 X their diameters. Pronotal disc 0.44 X the length of mesoscutum. Propodeal disc 0.71 X as long as

wide, with a median carina incomplete behind, with a polished area behind the basal triangle; declivity of the propodeum without median carina, nearly polished. Mesopleurum without subalar groove, such area weakly areolate. Metacarpus 1.43 X the stigma. Forefemur 3.14 X as long as thick.

Gaster (Fig. 74): transversal section subcircular. Tergite II subvertical, with a large and deep depression, its width 0.55 X the width of the tergite, with a partial median anterior divided, its upper margin evenly concave in dorsal view, their lateral margins somewhat divergent anteriorly and with a small and rounded process besides the tufts, the depression much developed latero-anteriorly, so that it embraces the posterior margin of the tergite I, with two elliptical and inclined hairy tufts, placed laterally and slightly directed toward each other, separated by 2 X their diameters, tergite II without additional pair of spots. Hypopygium with a slender stalk, its apex dilated, as long as the hypopygium, the lateral teeth 4 X as long as the stalk, posterior margin slightly concave, corners rounded.

Genitalia (Fig. 181): paramere with a median longitudinal invagination deep, becoming bidigitiform, dorsal ramus larger and wider with apex wide, concave and with the corners somewhat sharpened, the dorsal corner more produced with some setae, base of the dorsal ramus narrower than the apex, arched in posterior view, ventral ramus short with the base widened, narrowing apically, with some apical hairs, parameres slightly shorter than the basiparamere; volsella with cuspis thick, apex somewhat truncate, digitus very long, longer than the half length of the paramere, serrated in the base by a short distance; aedeagus with ventral ramus as long as dorsal body, with its apex thin, slightly downward and widening slightly directed to the base, its inner margin very concave apically; dorsal body of the aedeagus with the apical fourth abruptly narrowed to the half of the thickness of the base, apex thin and the inner surface hairy; apodema of the aedeagus not extending beyond the elliptical genital ring.

Examined material: Holotype: 1 male Brazil, *Amazonas*, Manaus, Reserve 1208; 16.vi.1985; Malaise trap; B. Klein col. (INPA). Paratypes: 7 males, Brasil, 7 males *Amazonas*, Manaus, Reserve Ducke (6 males), Reserve Campina (1 male); 15.iv-29.vii.1992; glue trap 1 or 2 m; J. Vidal & J. Vidal col. (INPA).

Variation: body lighter or darker; mesosoma black, head dark castaneous; occipital carina more distant from the crest of vertex.

Etymology: name refers to the partially divided depression of the tergite II.

Distribution: Brazil (Amazonas).

LONGICLYPEUS GROUP

This group is characterized by having the depression of the tergite II transversally elliptical and with two median hairy tubercles (Figs. 80, 86, 92, 96), clypeus unidentate or subtrapezoidal.

This South American group is composed by *D. gigantus*, sp. n., *D. serratus*, sp. n., *D. multicoriaceus*, sp. n., *D. scamatus*, sp. n., and *D. longiclypeus*, sp. n.

D. gigantus, sp. n., and *D. serratus*, sp. n., differ from the other species of this group by having clypeus subtrapezoidal (Figs. 75, 82). *D. gigantus*, sp. n., differs from *D. serratus*, sp. n., by having the ocellar triangle distant from the vertex crest (Fig. 75), while *D. serratus*, sp. n., has the ocellar triangle very close of the vertex crest (Fig. 82). In *D. gigantus*, sp. n., the genitalia has the ventral ramus of the aedeagus narrowing slightly up to the apex, which is very hairy inside (Fig. 182), while in *D. serratus*, sp. n., the ventral ramus is wide, with the inner margin strongly serrated in apical half and with two large apical teeth (Fig. 184).

D. multicoriaceus, sp. n., *D. scamatus*, sp. n., and *D. longiclypeus*, sp. n., are similar by having the frons very strongly coriaceous, the clypeus with a very large median tooth (Figs. 88, 93) and the genitalia with the ventral ramus of the aedeagus with the inner margin excavated medially (Figs. 185-187), as in *D. serratus*, sp. n., but in this case the ramus is strongly serrated (Fig. 184).

D. multicoriaceus, sp. n., differs from *D. scamatus*, sp. n., and *D. longiclypeus*, sp. n., by having the genitalia with the ventral ramus of the aedeagus bidentate apically, dorsal body of the aedeagus with three rounded apical dentiform projections (Fig. 185), the head with the vertex slightly convex (Fig. 93) and the tergite II with small tubercles (Figs. 96, 97), while in *D. scamatus*, sp. n., and *D. longiclypeus*, sp. n., the ventral ramus of the aedeagus is thin apically and somewhat sharpened in the edge, the dorsal body of the

aedeagus without those three apical projections (Figs. 186-187), the tergite II with tubercles not so small as in *D. multicoriaceus*, sp. n. (Fig. 92).

D. scamatus, sp. n., has the genitalia with the ventral ramus of the aedeagus with a series of 5 small ventral teeth in the apex and with median microscales in the ventral surface, the apex of the dorsal body of the aedeagus concave in the outer margin (Fig. 186), tergite II with large tubercles (Fig. 92), while in *D. longiclypeus*, sp. n., the genitalia has the ventral ramus of the aedeagus smooth, without teeth or microscales, the apex of the dorsal body of the aedeagus serrated in the ventral margin apically (Fig. 187), tergite II with tubercles not so large.

Key to males of longiclypeus group:

1. frons strongly coriaceous, clypeus with the median tooth very large, as long the half length of the clypeus, apical margin without lateral projections (Figs. 88, 93), inner margin of the ventral ramus of the aedeagus excavated medially (Figs. 185-187) 3
- frons not strongly coriaceous, clypeus subtrapezoidal (Fig. 75, 82), ventral ramus of the aedeagus with inner margin not excavated (Fig. 182), or if excavated, then the ramus very serrated (Fig. 184) 2
2. ocellar triangle distant from the vertex crest, 2.4 X DAO (Fig. 75), ventral ramus of the aedeagus narrowing up to the apex, very hairy inside (Fig. 182)
 *D. gigantus*, sp. n.
- ocellar triangle very close the vertex crest, 1 X DAO (Fig. 82), ventral ramus of the aedeagus wide, with the inner margin strongly serrated in apical half and with two large apical teeth (Fig. 184)
 *D. serratus*, sp. n.
3. apex of the ventral ramus of the aedeagus bidentate, dorsal body of the aedeagus with three rounded apical dentiform projections (Fig. 185), vertex slightly convex (Fig. 93), tergite II with small tubercles (Fig. 96) *D. multicoriaceus*, sp. n.
- apex of the ventral ramus of the aedeagus thin,

dorsal body of the aedeagus without apical projections (Figs. 186-187), vertex slightly convex or concave (Fig. 88), tergite II with tubercles not so small as above (Fig. 92)

..... 4

4. ventral ramus of the aedeagus with a row of 5 small ventral teeth in the apex, with median microscales in the ventral surface, its inner margin strongly excavated, apex of the dorsal body of the aedeagus concave in the outer margin (Fig. 186), tergite II with large tubercles (Fig. 92)

..... *D. scamatus*, sp. n.

ventral ramus of the aedeagus smooth, without teeth or microscales, its inner margin weakly excavated, apex of the dorsal body of the aedeagus serrated in ventral margin (Fig. 187), tergite II with tubercles not so large..... *D. longiclypeus*, sp. n.

30. *Dissomphalus gigantus*, sp. n.

(Figs. 75-81, 182-183)

Description: male: length of body 6.77 mm; LFW 4.66 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible black, apex reddish; clypeus black; antenna dark castaneous, scape black; palpi castaneous; coxae black, femora and trochanters dark castaneous, tibiae and tarsi castaneous; wings subhyaline.

Head (Fig. 75): mandible bidentate (Fig. 76). Clypeus subtrapezoidal. First four antennal segments in a ratio of 13:3:4.5:5, segment XI 2 X as long as thick, sensilla inconspicuous. Front weakly coriaceous, shining, punctures small, somewhat deep, separated by 0.5-3.0 X their diameters, frontal carina 0.5 X length of clypeus. LH 0.98 X WH; WF 0.63 X WH; WF 1.35 X HE; OOL 1.2 X WOT, posterior ocelli distant from the vertex crest 2.4 X DAO, angle frontal of the ocellar triangle nearly right. Vertex slightly convex, the corners somewhat angulate, temple nearly parallel, occipital carina partially visible in dorsal view; VOL 0.55 X HE.

Mesosoma (Fig. 77): thorax weakly coriaceous, punctures conspicuous, small and somewhat deep, mesoscutum microstriate anteriorly.

Pronotal disc 0.5 X the length of mesoscutum. Notaulus nearly straight. Scutellar groove very thin. Propodeal disc 0.74 X as long as wide, with a complete median carina; propodeum areolate-rugose, except anteriorly. Mesopleurum with a large central callus. Metacarpus 1.27 X the stigma. Forefemur 3.0 X as long as thick.

Gaster (Fig. 80): transversal section subcircular. Tergite II with a deep and large elliptical depression, wider than long, reaching the anterior margin, occupying slightly more than median third of the width of the tergite, with a pair of high hairy tubercles (Fig. 81), far from each other 2.5 X their width, slightly directed toward each other, tergite with additional pair of light spots. Hypopygium (Fig. 183) with a very slender stalk, with apex dilated, 1.1 X the length of hypopygium, the lateral teeth very small, 11 X as long as the stalk, posterior margin straight with a median invagination, corners rounded.

Genitalia (Fig. 182): paramere with apex rounded, dorsal margin slightly more widened medially, except below the apex, convex and rounded in the ventral margin; aedeagus with ventral ramus long, but shorter than the dorsal body, narrowing slightly from the base to the apex, which is thin and rounded, with inner surface hairy in the apex, their margins smooth, the outer convergent apically and the inner diverging; dorsal body of the aedeagus laminar, surfaces vertical, with the apex slightly directed apically in dorsal view, arched slightly downward apically, not in a right angle, inner surface hairy; apodema of the aedeagus extending beyond the elliptical genital ring.

Examined material: Holotype: 1 male Brazil, *Paraná*, São José dos Pinhais, Serra do Mar, Br 277, km 54; 15.xii.1986; Malaise trap; Survey Profaupar (DZPR). Paratypes: 1 male, Surinam, 24.ix.19963; Malaise trap; D. L. Geyskes col. (MCZH); 15 males Brazil, 2 males, *Amapá*, Serra do Návio; 1 male 2.ii.1990; interception trap; N. Degalier col. (MPEG) and 1 male ix.1957; J. Lane col.; Collection J. Lane (MZSP); 1 male *Amazonas*, Manaus, Reserve 1301; 12.vi.1985; Malaise trap; B. Klein col. (INPA); 7 males, *Bahia*, Encruzilhada, 960m; xi.1974; M. Alvarenga col. (CNCI); 1 male, *Distrito Federal*, Brasília, Ecological Reserve of IBGE, 15°55'58" S 47°51'02" W, forest; 17-25.xii.1981; window trap; J. Dalmácio col. (IBGE); 1 male, *São Paulo*, Serra da Bocaina;

xi.1969; M. Alvarenga col (PMAE); 2 males, *Paraná*, Colombo, Embrapa Br 476, km 20; 16-30.ii.1987; Malaise trap; Survey Profaupar (DZPR).

Variation: specimens from Bahia with weaker texture, head more polished, striae of the propodeum not so strong, punctures less conspicuous, striae of the metapleuron weaker; specimens from *Paraná* and *Brasília* with head developed behind the eye, the corners of the vertex angulate and temple parallel, specimens from Bahia and *Amapá* with head not so developed behind the eye and corners of the vertex not so angulate and temple divergent anteriorly; specimens from *Manaus* and one from *Amapá* with frons more coriaceous than the others; genitalia of the specimens from *Amapá* with the apex of the ventral ramus not hairy and one from *Manaus* with posterior margin of hypopygium straight; cuspis with apex truncate.

Etymology: name refers to the large body.

Distribution: Surinam, Brazil (*Amapá*, *Amazonas*, Bahia, Distrito Federal, São Paulo, *Paraná*).

31. *Dissomphalus serratus*, sp. n.

(Figs. 82-87, 184)

Description: male: length of body 3.1 mm; LFW 2.33 mm.

Color: body dark castaneous; mandible and antenna castaneous; clypeus dark castaneous; palpi pale-castaneous; legs castaneous; wings hyaline.

Head (Fig. 82): mandible tridentate. Clypeus subtrapezoidal. First four antennal segments in a ratio of 7:3:2:3, antenna thick, segment XI 1.65 X as long as thick; sensilla elongated. Eye with long hairs (Fig. 83). Front rather strongly coriaceous, somewhat shining, punctures very shallow, large, separated by 1-1.5 X their diameters, frontal carina, 0.5 X length of clypeus, clypeal-frontal suture carinate (Fig. 84). LH 1.0 X WH; WF 0.59 X WH; WF 1.18 X HE; OOL 1.06 X WOT, DAO 0.31 X WOT, ocelli posterior distant from the vertex crest 1 X DAO. Vertex slightly convex, the corners rounded; VOL 0.42 X HE.

Mesosoma (Fig. 85): thorax coriaceous as the frons, punctures small, shallow, separated by 1-2 X their diameters. Pronotal disc 0.5 X the length of

mesoscutum. Propodeal disc 0.71 X as long as wide, with a complete median carina, but weak behind, with striae strong; declivity of the propodeum strongly striate, without median carina. Mesopleurum without subalar groove. Pleurosternum with a posterior groove thin and shallow. Metacarpus long 2.25 X the stigma. Forefemur 2.8 X as long as thick.

Gaster (Fig. 86): transversal section elliptical. Tergite II with a large and somewhat deep elliptical depression, occupying slightly more than the median third of the width of the tergite and less than the anterior half, reaching the anterior margin, with two short median hairy tubercles (Fig. 87), separated by slightly more than their diameters. Hypopygium with a slender stalk, 0.75 X the hypopygium, the lateral teeth 0.5 X longer than the stalk, posterior margin straight with a median invagination, corners angulate.

Genitalia (Fig. 184): paramere with apex not arched inward, wide, oblique-truncate with four small teeth, ventral margin straight and smooth, dorsal margin widened and angulate medially; volsella with a high base, cuspis somewhat flattened; aedeagus with ventral ramus long, much longer than the dorsal body, wide basally, an apical half narrow with their margins parallel, the outer serrated, the edge with two sharpened teeth similar, rami with the outer margin rounded medially and the inner with a median invagination conspicuous, ramus laminar, twisted medially, basal half parallel and apical diverging; dorsal body of the aedeagus very short, simple, base wide and narrowing gradually apically, apex sharpened, downward and divergent; apodema of the aedeagus not extending beyond the subelliptical genital ring. Examined material: Holotype: male Brazil, *Distrito Federal*, *Brasília*, Ecological Reserve of IBGE, cerrado, 15°55'58"S 47°51'02"W; 21-28.xii.1979; window trap; J. Dalmáceo col. (IBGE). Paratypes: 3 males Brazil, same data as holotype except dates 21.xii.1979-12.xi.1981 (IBGE).

Variation: ocellar triangle broader; declivity of the propodeum more irregularly striate and with a median carina hardly defined.

Observation: hairs of the body much longer than the hairs of the others species.

Etymology: name refers to the strongly serrated ventral ramus.

Distribution: Brazil (Distrito Federal).

32. *Dissomphalus multicoriaceus*, sp. n.

(Figs. 93-97, 185)

Description: male: length of body 3.07 mm; LFW 2.40 mm.

Color: head and mesosoma black; gaster dark castaneous; clypeus dark castaneous; palpi pale-castaneous; mandible, antenna and legs castaneous; wings subhyaline.

Head (Fig. 93): mandible tridentate (Fig. 94). Clypeus with apical margin with a very large median tooth, as long as the half length of the clypeus. First four antennal segments in a ratio of 17:5:6:6, segment XI 2 X as long as thick; sensilla elongated. Front strongly coriaceous, shining, punctures shallow, small, separated by 1.5 X their diameters, frontal carina 0.36 X length of clypeus. LH 1.03 X WH; WF 0.61 X WH; WF 1.22 X HE; OOL 1.33 X WOT, DAO 0.39 X WOT, ocellus posterior very close to the vertex, distant 0.6 X DAO. Vertex slightly concave, nearly straight, the corners rounded; VOL 0.39 X HE.

Mesosoma (Fig. 95): thorax coriaceous, punctures shallow, small, separated by 1.5-2.0 X their diameters. Pronotal disc 0.49 X the length of mesoscutum. Propodeal disc 0.72 X as long as wide, with a median carina nearly complete, absent behind, with a polished area behind the basal triangle. Metacarpus long, 2 X the stigma. Forefemur 3.1 X as long as thick.

Gaster (Fig. 96): transversal section elliptical. Tergite II with a depression very shallow, nearly totally divided, the posterior margin with median invagination, occupying the anterior half of the tergite, reaching the anterior margin, as wide as 0.3 X the width of the tergite, with two small median hairy tubercles (Fig. 97), far from each other 3 X their diameters, tergite with additional pair of light spots. Hypopygium with a slender stalk, apex truncate and somewhat dilated, 0.8 X the hypopygium, the lateral teeth 2.67 X as long as the stalk, posterior margin very concave, corners rounded.

Genitalia (Fig. 185): paramere with apex rounded and much arched inward, margin dorsal much developed; aedeagus with ventral ramus as long as dorsal body, apical half narrowing gradually and sinuous, apex with two rounded teeth, the outer very larger, inner margin excavated in the apical half, its basal half with a broad concavity, outer

margin broadly convex; dorsal body of the aedeagus narrowing abruptly in the apical fourth of the aedeagus and with apex twisted and flattened, so that it is inward, with its terminal margin downward and tridentate, the teeth rounded, the median larger; apodema of the aedeagus not extending beyond the elliptical genital ring.

Examined material: Holotype: male Brazil, *Pará*, Altamira; 22.iv.1986; interception trap; N. Degalier col. (MPEG). Paratypes: 9 males Brasil, 1 male *Amapá*, Serra do Návio; 14.v.1991; interception trap; N. Degalier col. (MPEG); 3 males *Amazonas*, Manaus, Reserve 1208 (1 male), Reserve 1301 (2 males); 5.II-30.viii.1986; Malaise trap; B. Klein (INPA); 4 males, *Pará*, being 2 males Altamira and 2 males Tucuruí, Rio Tocantins; 22.iv.1986-15.viii.1987; interception trap (one with feces, banana and carne); N. Degalier col. (MPEG); 1 male *Rondônia*, 62 km SE Ariquemes, 180 m; 17-24.iii.1989; W.J. Hanson col. (EMUS).

Variation: femora darker (specimens from Tucuruí); head and mesosoma dark castaneous (specimen from Manaus); polished area behind the basal triangle coriaceous peripherically; specimen from Manaus with depression of the tergite II nearly totally divided.

Etymology: name refers to the strongly coriaceous body.

Distribution: Brazil (*Amapá*, *Amazonas*, *Pará*, *Rondônia*).

33. *Dissomphalus scamatus* sp. n.

(Figs. 88-92, 186)

Description: male: length of body 3.77 mm; LFW 3.33 mm.

Color: head and mesosoma black; gaster dark castaneous; clypeus dark castaneous; palpi pale-castaneous; mandible, antenna and legs castaneous; wings subhyaline.

Head (Fig. 88): mandible forming an oblique cutting-edge, angulate medially (Fig. 89). Clypeus with a very large median tooth, as long as the half length of the clypeus. First four antennal segments in a ratio of 9:3:3:3.5; segment XI 1.9 X as long as thick; sensilla elongated; pubescence relatively long. Front strongly coriaceous, shining, punctures very shallow and somewhat large, separated by 1-1.5 X their diameters (Fig. 90), fron-

tal carina 0.25 X length of clypeus. LH 1.0 X WH; WF 0.62 X WH; WF 1.25 X HE; OOL 1.0 X WOT, ocellus posterior very close to the vertex crest, distant 0.37 X DAO. Vertex slightly concave, with the corners rounded; VOL 0.36 X HE.

Mesosoma (Fig. 91): thorax strongly coriaceous, punctures shallow and small, separated by 1.5-2 X their diameters. Pronotal disc 0.6 X the length of mesoscutum. Notaulus nearly parallel. Scutellar groove very thin. Propodeal disc 0.76 X as long as wide, with a median carina nearly complete, weak behind, with a polished area behind the basal triangle; declivity of the propodeum with a median carina poorly defined. Metacarpus very long, 2.67 X the stigma. Forefemur 3.0 X as long as thick.

Gaster (Fig. 92): transversal section elliptical. Tergite II with very shallow and elliptical horizontal depression, occupying the median half of the tergite and the anterior half, reaching the anterior margin, its posterior margin invaginated medially, with a pair of conspicuous, elliptical and inclined tubercles, far from each other their smallest diameters, densely covered by hairs, tergite without additional pair of spots. Hypopygium with a slender stalk, apex dilated, 0.67 X the hypopygium, the lateral teeth 4 X the stalk, posterior margin straight, corners rounded.

Genitalia (Fig. 186): paramere with apex somewhat irregularly truncate with the corners rounded, dorsal margin evenly widened except by the small concavity below the apex; aedeagus with ventral ramus as long as the dorsal body, laminar, with surfaces somewhat convergent dorsally, narrowing slightly up to the sharpened apex and with a row of 5 small rounded ventral teeth apically, irregularly separated, median area of the ventral surface microscaled, the rami downward, outer margin slightly broadly convex and with a small concavity below the apex, base of the inner margin straight, with a inner apical excavation and with its lower corner angulate; dorsal body of the aedeagus narrowing apically, apex slightly dilated, with a median invagination, nearly bidentate, its inner surface densely hairy; apodema not extending beyond the subtriangular genital ring.

Examined material: Holotype: male Brazil, *Paraná*, Jundiá do Sul, Farm Monte Verde; 29.xii.1986; Malaise trap; Survey Profaupar (DZPR). Paratypes: 13 males Brazil, 4 males

Paraná, Colombo, Embrapa, Br 476, km 20; 2.ii-7.xii.1987; Malaise trap; Survey Profaupar (DZPR); 9 males, *Paraná*, as data as holotype except dates 13.x.1986-12.i.1987 (DZPR).

Variation: body lighter; antenna lighter distally; texture weaker and punctures more evident; median carina of the declivity of the propodeum absent; posterior margin of the depression of the tergite II straight medially; tubercles closer.

Observations: although OOL/WOT is 1.0, ocellar triangle is not so broad because the head is slightly developed behind the eye, then OOL is small and anterior ocellus is below the top of eye.

Etymology: name refers to the microscyles of the ventral ramus of the aedeagus.

Distribution: Brazil (*Paraná*).

34. *Dissomphalus longiclypeus* sp. n.

(Fig. 187)

Description: male: length of body 3.57 mm; LFW 2.5 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible, palpi and antenna castaneous; clypeus black; legs light castaneous; wings subhyaline.

Head: mandible forming an oblique cutting-edge, somewhat angulate medially. Clypeus with a very large median tooth, as long as the half length of the clypeus. First four antennal segments in a ratio of 8:3:3:3; segment XI 2.19 X as long as thick; basal sensilla rounded. Front strongly coriaceous, punctures very shallow and large, separated by 1-1.5 X their diameters, frontal carina 0.31 X length of clypeus. LH 1.02 WH; WF 0.65 X WH; WF 1.48 X HE; OOL 1.37 X WOT, DAO 0.34 X WOT, ocellus posterior very close to the vertex crest, distant 0.95 X DAO. Vertex slightly convex, the corners rounded; VOL 0.52 X HE.

Mesosoma: thorax somewhat strongly coriaceous, punctures conspicuous, not so shallow, small, separated by 1.5-2 X their diameters. Pronotal disc 0.5 X the length of mesoscutum. Mesoscutum with two small anterior calli. Notaulus wider behind. Propodeal disc 0.72 X as long as wide, with a complete median carina, weak behind, with a polished area behind the basal triangle; declivity of the propodeum areolate-rugose, with

a median carina poorly defined. Pleurosternum very convex. Metacarpus long, 2.23 X the stigma. Forefemur 3.3 X as long as thick.

Gaster: transversal section subcircular. Tergite II with a depression subcircular, not so shallow, occupying the median third of the width of the tergite and the anterior half of the tergite, not reaching the anterior margin, with a pair of median hairy tubercles not so large, subcircular, far from each other about their larger diameters, tergite with additional pair of light spots. Hypopygium with a slender stalk, apex dilated, 0.78 X the hypopygium, the lateral teeth 3.5 X the stalk, posterior margin straight, corners rounded.

Genitalia (Fig. 187): paramere with apex irregularly truncate, with the corners rounded, dorsal margin evenly widened except by the small concavity below the apex; aedeagus with ventral ramus long, but shorter than the dorsal body, laminar, with their surfaces somewhat convergent dorsally, narrowing slightly up to thin apex, their surfaces smooth, without teeth and scales, the rami slightly downward, its outer margin slightly broadly convex and with a small concavity below the apex, the inner margin straight basally and excavated in the apical half, with its lower corner somewhat angulate, the ramus parallel; dorsal body of the aedeagus narrowing apically, its ventral margin serrated apically, somewhat sinuous below, its inner surface with a longitudinal band densely hairy; apodema not extending beyond the subtriangular genital ring.

Examined material: Holotype: male Ecuador, *Napo*, Huahua Sumaco, Km 44 Hollin-Loreta Road; 15-22.xii.1989; Malaise trap; M. & J. Wasbauer col., H. Real (UCDC). Paratypes: 2 male Ecuador, same data as holotype except dates 15-22.xii.1989 (UCDC).

Variation: body dark castaneous; mandible, clypeus, legs and palpi lighter; legs darker; ocellar triangle more compact, OOL 1.46 X WOT; head longer; notaulus evenly wide; mesoscutum without anterior calli; declivity of the propodeum without median carina.

Etymology: name refers to the long clypeus.

Distribution: Ecuador.

ULCERATUS GROUP

This group is characterized by having the

basal portion of the dorsal margin of the paramere much developed, digitus wide medially, cuspis elongated, ventral ramus with inner margin sinuous basally, wide and narrowing apically, but different ways (Figs. 188, 190-192).

This group is composed of *Dissomphalus concavatus*, sp. n., *D. ulceratus* Evans 1969a, *D. rectilineus*, sp. n., and *D. dentiformis*, sp. n. It is restricted to the central-eastern region of South America.

Dissomphalus concavatus, sp. n., differs from the others by having the dorsal margin of the paramere evenly much developed, apex broadly widened and with four rounded denticles (Fig. 188), hypopygium with posterior margin very concave and stalk with the base much widened (Fig. 189).

D. ulceratus Evans 1969a, *D. rectilineus*, sp. n., and *D. dentiformis*, sp. n., are similar and differ from *D. concavatus*, sp. n., by having the dorsal margin of the paramere much more developed basal than apically, the apex very concave medially with the corners much produced, becoming dentiform (Figs. 190-192). It has the posterior margin of the hypopygium straight medially, its stalk with base not widened.

D. dentiformis, sp. n., and *D. ulceratus* are similar by having the vertex with the corners broadly rounded and the ocellar triangle broad and not so closed to the vertex crest (Fig. 109), but differ by the tergal processes, in *D. ulceratus* the hairy tufts are large, subcircular, very closed each other and placed in a deep depression, while in *D. dentiformis*, sp. n., the depression is more shallow and the hairy tufts are smaller and more separated each other (Fig. 111).

Key to males of ulceratus group:

1. dorsal margin of the paramere evenly much developed, its apex broadly widened with four rounded denticles (Fig. 188), hypopygium with its posterior margin very concave, stalk with base widened (Fig. 189) *D. concavatus*, sp. n.
- dorsal margin of the paramere much more developed basally, apex very concave, with the corners much produced, becoming dentiform (Fig. 190-192), posterior margin of the hypopygium straight, stalk with base not widened 2

2. clypeus trapezoidal with large median tooth, vertex very angulate in the corners, ocellar triangle compact (Fig. 102)
 *D. rectilineus*, sp. n.
 clypeus subtrapezoidal with small median tooth, vertex with corners broadly rounded, ocellar triangle broad (Fig. 109) 3
3. tergal processes with hairy tufts large, subcircular, very close, separated each other by about 0.25 their diameter, depression deep
 *D. ulceratus* Evans, 1969a
 depression of the tergite II more shallow and with hairy tufts small and slightly inclined, separated each other by about 1.0 X their diameter, and more distant from each other (Fig. 111) *D. dentiformis*, sp. n.

35. *Dissomphalus concavatus*, sp. n.

(Figs. 98-101, 188-189)

Description: male: length of body 3.17 mm; LFW 2.23mm.

Color: head black; mesosoma and gaster dark castaneous; mandible and clypeus dark castaneous; palpi light castaneous; antenna and legs castaneous; wings subhyaline.

Head (Fig. 98): mandible tetrudentate (Fig. 99). Clypeus subtrapezoidal. First four antennal segments in a ratio of 7:2.5:2.2; segment XI short, 1.39 X as long as thick; sensilla elongated. Front coriaceous, shining, punctures large, shallow, separated by 0.5-2.0 X their diameters, frontal carina 0.42 X length of clypeus, with a frontal linear depression before the anterior ocellus. LH 0.98 X WH; WF 0.62 X WH; WF 1.37 X HE; OOL 1.08 X WOT; DAO 0.38 X WOT; posterior ocelli distant from the vertex crest 1.2 X DAO. Vertex slightly convex, with a median depression, the corners rather angulate, temple nearly parallel, occipital carina partially visible in dorsal view; VOL 0.53 X HE.

Mesosoma: thorax coriaceous, punctures shallow, separated by 1-2 X their diameters. Pronotal disc 0.7 X the length of mesoscutum, low anteriorly. Propodeal disc short, 0.54 X as long as wide, with a median carina incomplete behind, with

a polished area behind the basal triangle. Pleurosternum with groove thin and short. Metacarpus 1.5 X the stigma. Forefemur 3X as long as thick.

Gaster (Fig. 100): transversal section nearly circular. Tergite II with a pair of hairy tufts backward and inclined, somewhat large (Fig. 101), distant from the anterior margin of the tergite their diameters and separated each other by slightly more than their diameters, area around them slightly depressed, tergite with additional pair of light spots. Hypopygium (Fig. 189) with stalk 0.8 X the hypopygium, the lateral teeth very arched inward, 4 X as the stalk, posterior margin very strongly concave, corners rather angulate.

Genitalia (Fig. 188): paramere with apex truncate, slightly oblique, with the corners very angulate, but without teeth, ventral margin straight, the dorsal wholly much developed, being slightly more basally, with a small concavity below the apex; aedeagus with ventral ramus short, wide, laminar, with surfaces horizontal, margins smooth, its outer margin narrowing apically, slightly concave, apex wide, weakly concave, oblique and with the inner corner sharpened and the outer rounded, inner margin slightly produced medially; dorsal body of the aedeagus wide laminar, parallel, the dorsal margin very arched downward, not in a right angle, the ventral margin straight, dorsal body with basal dorsal projections inward, its inner surface with band of hairs; apodema of the aedeagus extending beyond the subtriangular genital ring.

Examined material: Holotype: male Brazil, *Paraná*, Telêmaco Borba, Reserve Samuel Klabin; 1-29.ix-15.xii.1986; Malaise trap; Survey Profaupar (DZPR). Paratypes: 31 males, BRASIL, 1 male *Distrito Federal*, Brasília, Ecological Reserve of IBGE, 15°55'58" S 47°51'02" W, forest; 21-28.x.1982; window trap; J. Dalmácio col. (IBGE); 30 males *Paraná*, all from Survey Profaupar and Malaise trap; 15 males São José dos Pinhais, Serra do Mar, BR 277, km 54; 24.xi.1986-7.xii.1987; 4 males Telêmaco Borba, Reserve Samuel Klabin; 1-29.ix-15.xii.1986; 7 males Ponta Grossa, Vila Velha, Reserve IAPAR, Br 376; 12.x.1987-22.ii.1988; 1 male Jundiá do Sul, Farm Monte Verde; 13.X.1986; 2 males Colombo, Embrapa, Br 476, km 20; 21.ix-5.x.1987; 1 male Fenix, Reserve Station ITCF; 10.XI.1986 (DZPR).

Variation: antenna with first and third segments darker; frontal carina stronger; linear depression of the frons absent; frons less coriaceous; median depression of the vertex weaker; subalar groove of the mesopleuron undefined; tuft of tergite II in a shallow depression and closer or more rounded.

Etymology: name refers to the very concave posterior margin of the hypopygium.

Distribution: Brazil (Distrito Federal, Paraná).

36. *Dissomphalus rectilineus*, sp. n.

(Figs. 102-108, 190)

Description: male: length of body 3.67 mm; LFW 2.77 mm.

Color: head and mesosoma black; gaster dark castaneous; castaneous; clypeus dark palpi pale-castaneous; mandible, antenna and legs castaneous; wings subhyaline.

Head (Fig. 102): mandible tridentate (Fig. 103). Clypeus trapezoidal. First four antennal segments in a ratio of 16:7:5:6; segment XI 2.07 X as long as thick; sensilla elongated. Front rather strongly coriaceous, punctures large, shallow, separated by 0.2-1.5 X their diameters, frontal carina bifurcate behind, 0.37 X length of clypeus, with a frontal linear depression before the anterior ocellus. LH 0.99 X WH; WF 0.64 X WH; WF 1.43 X HE; OOL 1.23 X WOT, DAO 0.38 X WOT, ocellus posterior closed to the vertex crest, distant 1.0 X DAO. Vertex slightly convex, the corners angulate, temple parallel; VOL 0.5 X HE.

Mesosoma (Fig. 104): thorax coriaceous, not so shining, punctures small, shallow, separated by 1.5-2 X their diameters. Pronotal disc 0.7 X the length of mesoscutum, anterior margin sharp. Propodeal disc 0.72 X as long as wide, with a median carina nearly complete, with a coriaceous area behind the basal triangle. Metacarpus 1.89 X the stigma. Forefemur 3 X as long as thick.

Gaster (Fig. 105): transversal section elliptical. Tergite II with a depression rounded, large and very shallow, with a median longitudinal division nearly complete and occupying more than the median half of the width of the tergite and the anterior half, reaching the anterior margin, with a pair of tufts of hairs directed backward, distant from the anterior margin of the tergite their diameter,

separated each other by 2 X their diameters, tergite with additional pair of light spots. Hypopygium with a slender stalk, apex somewhat dilated and rounded, 1.0 X the hypopygium, the lateral teeth 4 X as long as the stalk, posterior margin straight, corners rounded.

Genitalia (Fig. 190): paramere with apex concave, much produced at the corners, tooth-shaped, dorsal margin with the base extremely more developed; aedeagus with ventral ramus nearly as long as the dorsal body, wide basally, narrowing slightly and gradually, apex sharpened, parallel, base of the inner margin sinuous and apex divergent, the outer margin smooth, convergent and with a broad and shallow concavity below the apex, their surfaces plan and inclined, ventral surface slightly directed outward; dorsal body of the aedeagus wide laminar, parallel, dorsal margin much arched downward apically, but not in a right angle, ventral margin straight, with basal dorsal projections outward, its surface densely hairy; apodema of the aedeagus extending beyond the subtriangular genital ring.

Examined material: Holotype: Brazil, male *Paraná*, São José dos Pinhais, Serra do Mar, BR 277, km 54; 23.x.1987; Malaise trap; Survey Profaupar (DZPR). Paratypes: 70 males, Brasil, 9 males *Rio de Janeiro*, Silva Jardim; VIII.1974; F. M. Oliveira col. (CNCI); 2 males *Rio de Janeiro*, Mangaratiba; vii.1969; M. Alvarenga col. (CNCI); 1 male *Rio de Janeiro*, Pico da Tijuca (alt. 1000m); 3.v.1933; Collection Arlé, Bethylidae n°5, proc. 994 (MNRJ); 5 males *Rio de Janeiro*, Rio de Janeiro; ii.1972; M. Alvarenga col. (PMAE); 7 males *Rio de Janeiro*, Represa Rio Grande; ii-V.1973; F. M. Oliveira col. or M. Alvarenga col. (PMAE); 10 males *São Paulo*, Serra da Bocaina; xi.1969 and iii.1979; M. Alvarenga col. (PMAE, MCZH); 1 male *São Paulo*, Serra da Bocaina, São José do Barreiro; 13-17.i.1969; G. Porter col. (MCZH); 3 males *São Paulo*, São Carlos, Canchim Farm, forest; 2.ix.1988-29.x.1990; suspensa trap; L. A. Joaquim col. (DCBU); 32 males *Paraná*, all from Survey Profaupar, Malaise trap (DZPR); 3 males Antonina, Reserve Sapitanduva; 25.viii.1986-15.vii.1987; 13 males São José dos Pinhais, Serra do Mar, BR 277, km 54; 9.ii.1987-4.i.1988; 1 male Telêmaco Borba, Reserve Samuel Klabin; 8.ix.1986; 1 male Ponta Grossa, Vila Velha, Reserve IAPAR, Br 376; 26.x.1987; 14 males Jundiá

do Sul, Farm Monte Verde; 11.viii.1986-19.i.1987.

Variation: body lighter; legs darker; antenna and gaster lighter; clypeus subtrapezoidal; antennal segments shorter; sensilla more conspicuous and less elongated; ocelli smaller; frons weakly to strongly coriaceous; frontal carina not bifurcate behind; punctures of the frons smaller; linear depression of the frons absent; median lobe of clypeus more or less developed; pronotal disc with transversal carina since weak to strong; mesoscutum with two small anterior calli; declivity of the propodeum not areolate-rugose; depression of the tergite II deeper and broadly fused; tufts closer or smaller and in some specimens from Paraná not inclined (Fig. 106); cuspis with apex truncate. In the specimens from Rio de Janeiro the tufts of hairs of the tergite II are large, subcircular or rounded and placed in a depression deep with their anterior margin and posterior invaginated medially (Fig. 107-108). The specimens from Paraná the depression are shallow with tufts small and inclined (Fig. 105). The specimens from São Paulo present the depression and tufts with intermediary size and shape, so that there is a trend of the specimens from south to north of increasing the deepness and the size of the depression and increasing the size of the tufts.

Etymology: name refers to the straight posterior margin of the hypopygium.

Distribution: Brazil (Rio de Janeiro, São Paulo, Paraná).

37. *Dissomphalus ulceratus* Evans, 1969a

(Fig. 191)

Dissomphalus ulceratus Evans, 1969a: 15, Gordh & Moczar, 1990: 226.

Description: male: length of body 2.37 mm; LFW 1.80 mm.

Color: head nearly black; mesosoma and gaster dark castaneous; mandible and antenna castaneous, pedicel lighter; clypeus dark castaneous; palpi pale-castaneous; legs castaneous, coxae and femora darker; wings subhyaline.

Head: mandible tridentate. Clypeus low and subtrapezoidal, with median carina low. First four antennal segments in a ratio of 5.5:2:2:2, segment XI 1.8 X as long as thick; sensilla slightly

elongated. Front weakly coriaceous, shining, punctures shallow, somewhat large, separated by 0.5-1.0 X their diameters, frontal carina 0.37 X length of clypeus. LH 1.02 X WH; WF 0.64 X WH; WF 1.35 X HE; ocellar triangle somewhat broad, OOL 1.1 X WOT, DAO 0.3 X WOT, posterior ocelli distant from the vertex crest 1.6 X DAO. Vertex slightly convex, the corners rounded; VOL 0.62 X HE.

Mesosoma: thorax weakly coriaceous, punctures small, not so shallow, separated by 1-2 X their diameters. Pronotal disc 0.77 X the length of mesoscutum, with transversal anterior carina poorly defined. Notaulus straight. Propodeal disc 0.75 X as long as wide, with a complete median carina, with a large polished area behind the basal triangle. Mesopleurum with subalar groove undefined. Metacarpus 1.58 X the stigma. Forefemur 3.33 X as long as thick.

Gaster: transversal section elliptical. Tergite II with a elliptical depression large, occupying a median half of the width of the tergite and the anterior half, not reaching the anterior margin, with two elliptical, inclined and very large hairy tufts, occupying nearly all depression, far from each other less than 0.25 X their larger diameters, tergite without additional pair of spots. Hypopygium with a slender stalk, 1.0 X the hypopygium, the lateral teeth 5 X as long as the stalk, posterior margin straight, corners rounded.

Genitalia (Fig. 191): short; paramere with apex slightly widened with the corners much produced, teeth-shaped, dorsal margin much widened basally; aedeagus slender with ventral ramus shorter than the dorsal body, but conspicuous, narrowing slightly from the base to the sharpened apex, their margins smooth, except the base of the inner margin sinuous, rami laminar with the inner surface concave and convergent ventrally in posterior view; dorsal body of the aedeagus flattened, their inner surfaces totally directed each other, slightly twisted apically, densely hairy; apodema of the aedeagus extending beyond the subtriangular genital ring.

Examined material: 2 males Argentina, 2 males *Tucumán*, Horco Molle, San Xavier Mts; 3.iv-7.v.1966; L. Stange col. (holotype and paratype) (FIML). New material: 1 male Argentina, *Jujuy*, Postage Lozano; 29.x-4.xi.1968; C. Porter col. (MCZH).

Variation: notaulus more divergent anteriorly; scutellar groove thinner.

Observations: this species was known only by the holotype-locality; now it is recorded for the first time in Jujuy.

Distribution: Argentina (Tucumán, Jujuy).

38. *Dissomphalus dentiformis*, sp. n.

(Figs. 109-111, 192)

Description: male: length of body 2.47 mm; LFW 1.83 mm.

Color: body dark castaneous; mandible and antenna castaneous; clypeus somewhat dark castaneous; palpi and legs light castaneous, forecoxa darker; wings hyaline.

Head (Fig. 109): mandible tridentate. Clypeus subtrapezoidal. First four antennal segments in a ratio of 5:2.5:2:2; segment XI 1.4 X as long as thick; sensilla rounded. Eye densely hairy. Front somewhat coriaceous, shining, punctures shallow, not so large, separated by 1 X their diameters, frontal carina 0.56 X length of clypeus. LH 1.0 X WH; WF 0.62 X WH; WF 1.33 X HE; ocellar triangle broad, OOL 0.82 X WOT, DAO 0.3 WOT, posterior ocelli distant from the vertex crest 1.11 DAO. Vertex slightly convex, the corners somewhat broadly rounded; VOL 0.56 X HE.

Mesosoma (Fig. 110): thorax weakly coriaceous, punctures small, shallow, separated by 1-1.5 X their diameters. Pronotal disc 0.55 X the length of mesoscutum. Mesoscutum with two small anterior calli. Propodeal disc 0.79 X as long as wide, with a median carina thin and complete, weak behind, with a large polished area behind the basal triangle. Pleurosternum very convex, with a thin posterior groove. Metacarpus 1.67 X the stigma. Forefemur 3.14 X as long as thick.

Gaster: transversal section circular. Tergite II (Fig. 111) with a deep and large elliptical depression, occupying the half median of the width of the tergite and less than the anterior half, reaching the anterior margin, with a pair of large subcircular median hairy tufts of hairs, separated each other by their diameters, tergite with additional pair of light spots. Hypopygium with a slender stalk, 0.9 X the hypopygium, the lateral teeth 7 X as long as the stalk, posterior margin straight, corners somewhat angulate.

Genitalia (Fig. 192): paramere with apex concave, much produced in the corners, teeth-shaped, dorsal margin with a base extremely more developed; aedeagus with ventral ramus long, but shorter than the dorsal body, wide basally, narrowing slightly and gradually, apex sharpened, divergent, the inner margin sinuous basally and slightly divergent, the outer margin smooth and with a broad and shallow concavity below the apex, their surfaces plan and inclined, ventral surface slightly directed outward; dorsal body of the aedeagus very long, wide laminar, parallel, dorsal margin much arched downward apically, but not in a right angle, ventral margin straight, with a basal dorsal projections outward, surface hairy; apodema of the aedeagus extending beyond the subtriangular genital ring.

Examined material: Holotype: male Brazil, *Distrito Federal*, Brasília, Ecological Reserve of IBGE, 15°55'58" S 47°51'02" W, swamp; 24.iv-8.v.1981; J. Dalmácio col. (IBGE). Paratypes: 15 males, BRAZIL, same data as holotype except dates 19.x.1979-9.xii.1982 (IBGE).

Variation: body lighter; ocelli smaller; ocellar triangle broader; punctures more shallow, more sparse or more conspicuous; median lobe of the clypeus larger; sensilla more conspicuous distally; texture of the frons weaker or stronger; eye more densely hairy; frons with linear depression weak; pleurosternum without posterior groove; tergite II with depression more shallow, and not reaching posterior margin of the tergite I.

Etymology: name refers to the teeth-shaped apex of the paramere type.

Distribution: Brazil (Distrito Federal).

UNITUS GROUP

This group is characterized by having tergite II with a median depression not so large, rounded, nearly totally covered by a pair of joined tufts of long hairs directed backward (Fig. 116).

This group is composed by *D. unitus*, sp. n. and *D. delgatus*, sp. n. It occurs from southern Mexico to Venezuela.

D. unitus, sp. n., differs from *D. delgatus*, sp. n., by having clypeus trapezoidal, texture of the body strong, ocellar triangle distant from the vertex crest, head developed behind the eye (Fig. 112), scutellar groove widened medially (Fig. 114), hairy

tufts of the tergite II joined or nearly so (Fig. 116), while *D. delgatus*, sp. n., has clypeus without lateral projections, ocellar triangle not so distant from the vertex crest, head not so developed behind the eye and hairy tufts of the tergite II joined only behind. There are some differences in the genitalia, in *D. unitus*, sp. n., the ventral ramus of the aedeagus is thinner apically and more developed, the basal projection of the digitus is more sharpened and the basiparamere is angulate medially in the ventral side (Fig. 193), while in *D. delgatus*, sp. n., the ventral ramus of the aedeagus is wider apically and short, the basal projection of the digitus is rounded and the basiparamere is rounded medially in the ventral side (Fig. 195).

Key to males of unitus group:

1. clypeus trapezoidal, ocellar triangle ocellar distant from the vertex crest 2 X DAO (Fig. 112), hairy tufts of the tergite II wholly joined or nearly so (Fig. 116), ventral ramus of the aedeagus with apex thin and developed, basal projection of the digitus sharpened and basiparamere angulate medially ventrally (Fig. 193) ...
 *D. unitus*, sp. n.
- clypeus with a small median tooth, ocellar triangle distant from the vertex crest 1 X DAO, tufts of the tergite II joined only behind, apex of the ventral ramus of the aedeagus wide and short, basal projection of the digitus rounded and basiparamere rounded medially ventrally (Fig. 195) ...
 *D. delgatus*, sp. n.

39. *Dissomphalus unitus*, sp. n.

(Figs. 112-116, 193-194)

Description: male: length of body 4.33 mm; LFW 2.99 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible and antenna castaneous; clypeus dark castaneous; palpi light castaneous; legs pale-castaneous; tegula dark castaneous; wings subhyaline.

Head (Fig. 112): mandible bidentate (Fig. 113). Clypeus trapezoidal. First four antennal segments in a ratio of 9:3:3:4, segment XI 2.0 X as

long as thick; sensilla elongated. Eye parallel. Front somewhat weakly coriaceous, shining, punctures shallow, large, separated by 1-1.5 X their diameters (Fig. 114), frontal carina thick, 0.36 X length of clypeus. LH 1.03 X WH; WF 0.65 X WH; WF 1.35 X HE; OOL 1.27 X WOT, DAO 0.34 X WOT, posterior ocelli distant from the vertex crest 2 X DAO. Vertex slightly convex and with a median depression, the corners rounded; VOL 0.55 X HE.

Mesosoma (Fig. 115): thorax rather strongly coriaceous, punctures shallow, not so small, conspicuous, separated by 1-3 X their diameters. Pronotal disc 0.8 X the length of mesoscutum. Propodeal disc 0.72 X as long as wide, with a complete median carina, weak behind, strongly striate, with a coriaceous area behind the basal triangle. Metacarpus 1.33 X the stigma. Forefemur 3.6 X as long as thick.

Gaster (Fig. 116): transversal section elliptical. Tergite II with a shallow and large depression, occupying the median third of the width of the tergite and the anterior half, slightly distant from the anterior margin, totally covered by a pair of joined tufts of long hairs directed backward, tergite without additional spots. Hypopygium (Fig. 194) with a slender stalk, 1.33 X the length of hypopygium, the lateral teeth 4 X as long as the stalk; posterior margin with three small concavities.

Genitalia (Fig. 193): paramere with apex much arched inward, broadly truncate, paramere with a concavity below the apex; volsella with digitus long, with upper margin smooth and basal projection sharpened; aedeagus with ventral ramus slightly longer than the dorsal body, inner margin sinuous and parallel, the outer with a broad median concavity, much thinner and diverging apically; dorsal body of the aedeagus with two pairs of apical lobes, the outer laminar, with rounded apex, the inner lobe elliptical, stout, with inner surface densely hairy; apodema of the aedeagus extending beyond the elliptical genital ring.

Examined material: Holotype: male Costa Rica, *San Coto de Vito Brus*, Las Cruces, 1200m; 2-9.ix.1982; Malaise trap; B. Gill col. (CNCI), Paratypes: 55 males; 3 males México, 1 male, *Chiapas*, San Cristobal de Las Casas, 2400m, 18.vi.1969, Malaise trap (CNCI); 1 male *Vera Cruz*; 13.vii.1966; J.S. Bucket, M. R. & R. C. Gardner col. (UCDC); 1 male *Vera Cruz*, Catemaco; 6.ix.1974; W. Hanson & G. Bohart col. (EMUS);

4 males, Belize, 3 males, Middlesex, 125m, 18.iii.-1.iv.1965, E. C. Welling col. (CNCI); 1 male *Rosario*, San Juancio Mts, 1720-1970m, rain forest; 17.vii.1930 (MCZH); 1 male Guatemala, *Izabel*, Las Escobas, 200m; vi.1987; Malaise trap; Starkey col. (PMAE); 34 males, Costa Rica: 12 males, *San Coto de Vito Brus*, Las Cruces, 1200m; 2.vii-12.ix.1982; Malaise trap; B. Gill col. (CNCI), 1 male, *Heredia*; Biol. Sta. La Selva, near Puerto Viejo, Sarapiquí, 18.ii.1985, L. Herman col.; # 2124; (AMNH); 8 males, *Heredia*, Biol. Sta. La Selva, 10.43° N 84.02° W; 26.vi-11.vii.1993; B. V. Brown & D. H. Feener col. (LACM); 2 males Biol. Sta. La Selva; 11-17.vi.1986 W. Hanson & G. Bohart col. (EMUS); 2 males *Monteverde*, Puntarenas; 20-24.vi.1986; W. Hanson & G. Bohart col. (EMUS); 1 male *Monteverde*; 1-3.ii.1972; H. M. Powell col. (UCDC); 5 males *Monteverde*, being 2 males 1520m; 18.vi-9.vii.1983; D. Lindeman col. (PMAE); 1 male *Turrialba*, CATIE; 26-29.vi.1986; W. Hanson & G. Bohart col. (EMUS); 1 male *Carthago*, Bravlio, Carrillo NP, 400m, tropical rain forest; 10-11.iv.1985; Malaise trap; H. Goulet col. (PMAE); 1 male *Alajueta*, Peñas Blancas; 7.vii.1987; Malaise trap; E. Cruz col. (PMAE); 13 males Panamá, 1 male *Chirique*, Hartmens Farm; 28.vi.-3.vii.1981 (PMAE); 3 males *Ojo de Agua*; 30.vi-14.vii.1982; B. Gill col. (PMAE); 9 males *Chirique*, La Fortana Dam, 1200m, rain forest; 14.vi.16.vii.1982; B. Gill col. (PMAE)

Variation: body dark castaneous; ocellar triangle closer to the vertex crest; OOL 0.64 to 0.81 X WOT; LH 1.00 to 1.05 X WH; WF 0.57 to 0.65 X WH and WF 1.00 to 1.38 X HE; tufts of tergite II almost joined.

Etymology: name refers to the totally fused tufts of the tergite II.

Distribution: Mexico (Chiapas, Vera Cruz), Belize, Guatemala, Costa Rica and Panama.

40. *Dissomphalus delgatus*, sp. n.

(Fig. 195)

Description: male: length of body 2.09 mm; LFW 1.5 mm.

Color: body dark castaneous, gaster lighter; clypeus dark castaneous; mandible, antenna, palpi and legs castaneous, hindfemur darker; wings subhyaline.

Head: mandible bidentate. Clypeus with a small median tooth. First four antennal segments in a ratio of 6:2:1.3:2; segment XI 1.8 X as long as thick; sensilla inconspicuous. Front weakly coriaceous, shining, punctures very small, shallow, separated by 1.5-2 X their diameters, frontal carina 0.38 X length of clypeus. LH 1.0 X WH; WF 0.61 X WH; WF 1.2 X HE; OOL 1.7 X WOT, DAO 0.34 X WOT, posterior ocelli distant from the vertex crest 1.07 X DAO. Vertex slightly convex, the corners broadly rounded; VOL 0.44 X HE.

Mesosoma: thorax weakly coriaceous, punctate as frons. Pronotal disc 0.67 X the length of mesoscutum, with a transversal anterior carina. Mesoscutum with a pair of anterior calli. Propodeal disc 0.7 X as long as wide, with an incomplete median carina, with striae weak, with a large polished area behind the basal triangle; declivity of the propodeum with a median carina weak, present only in the upper third. Mesopleurum without subalar groove. Metacarpus 1.14 X the stigma. Forefemur thin, 4 X as long as thick.

Gaster: transversal section elliptical. Tergite II with a not so large and deep rounded depression, occupying hardly the median third of the width of the tergite and less than the anterior half, not reaching the anterior margin, with a pair of hairy tufts partially joined behind; tergite with additional pair of light spots. Hypopygium with a slender stalk, 1.25 X the hypopygium, the lateral teeth 6 X as long as the stalk, posterior margin straight, corners rounded.

Genitalia (Fig. 195): paramere with apex oblique-truncate, with the dorsal corner produced, dorsal margin nearly straight, developed; aedeagus with ventral ramus much shorter than the dorsal body, laminar, surfaces convergent dorsally and somewhat concave externally, wide, narrowing apically, apex rounded, inner margin straight, basally more developed and sinuous, the outer convergent, the rami parallel; dorsal body of the aedeagus large, laminar, surfaces vertical, but somewhat concave internally, wide and more developed dorsally, where the margin is high, with the basal corner concave and margin much produced and sharpened, in lateral view the dorsal body is parallel basally and somewhat diverging apically, inner surface hairy; apodema of the aedeagus extending beyond the subtriangular genital ring.

Examined material: Holotype: male Venezuela, *Aragua*, Rancho Grande, wet forest, 1100 m; 25-26.i.1978; light trap black; J. B. Heppner col. (USNM).

Observations: this species is known only by the holotype.

Etymology: name refers to the slender apex of the ventral ramus.

Distribution: Venezuela.

APERTUS GROUP

This group is characterized by having a pair of hairy tufts very large and rounded in tergite II, placed in a very shallow depression.

This group is composed of *D. apertus* Kieffer, 1914a, *D. subpilosus*, sp. n., and *D. parvus*, sp. n. It is broadly distributed, ranging northeast of the USA to Bolivia.

D. apertus Kieffer, 1914a differs from the other species of this group by having tergite II with tufts totally surrounded by long hairs, clypeus with a median carina very high, while *D. subpilosus*, sp. n., and *D. parvus*, sp. n., have the tergite II with tufts not surrounded by hairs. The genitalia of *D. apertus* is similar to the genitalia of *D. subpilosus*, sp. n., by having the ventral ramus of the aedeagus wide and the margin of the inner lobe of the dorsal body of the aedeagus hairy, but in *D. apertus* this lobe is much more developed and wholly sinuous, with margins very sinuous too (Fig. 196).

D. subpilosus, sp. n., has clypeus and mandible tridentate, genitalia with ventral ramus of the aedeagus wide with apex oblique-truncate and dorsal body of the aedeagus with inner lobe serrated in the margin and the outer lobe with a basal projection of the upper margin large and inward (Fig. 197), resembling the pattern of *altivolans* group, while *D. parvus*, sp. n., has mandible bidentate, clypeus trapezoidal, genitalia with ventral ramus of the aedeagus bidentate apically and with dorsal body of the aedeagus with outer lobe reduced to a small and sharpened tooth (Fig. 198).

Key to males of apertus group:

1. tergite II with tufts totally surrounded by long hairs, clypeus with a very high median carina, ventral margin of inner lobe of the

dorsal body of aedeagus large and sinuous (Fig. 196) *D. apertus* Kieffer, 1914a
tergite II with tufts surrounded only by some hairs, clypeus with low median carina, ventral margin of inner lobe of the dorsal body of aedeagus arched (Fig. 197) or straight (Fig. 198), but never sinuous 2

2. mandible tridentate, clypeus tridentate, ventral ramus of the aedeagus wide with apex oblique-truncate, margins of the dorsal body of the aedeagus with inner lobe serrated and the outer lobe with a basal projection of the upper margin large and inward (Fig. 197) *D. subpilosus*, sp. n.
mandible bidentate, clypeus trapezoidal, ventral ramus of the aedeagus bidentate apically and with dorsal body of the aedeagus with outer lobe reduced to a small and sharpened tooth (Fig. 198) *D. parvus*, sp. n.

41. *Dissomphalus apertus* Kieffer, 1914a

(Fig. 196)

Dissomphalus apertus Kieffer, 1914a: 60-61, 1914b: 496, 499; Evans, 1954: 295, 306-307, 1962: 68, 75; Krombein, 1963: 263; Evans, 1964: 45, 1978: 40, 41, 42-43; Krombein, 1979: 1217; Gordh & Moczar, 1990: 218.

Psilobethylus foveolatus Brown & Cheng, 1951:143-146, Krombein, 1979: 1217.

Dissomphalus foveolatus (Brown & Cheng) Evans, 1954: 306-307 (genus combination); Krombein, 1963: 263; Evans, 1978: 42 (synonym designation).

Redescription: male: length of body 3.30 mm; LFW 2.23 mm.

Color: head black, mesosoma nearly black; gaster dark castaneous; mandible, palpi and antenna castaneous, pedicel lighter; clypeus and legs dark castaneous, tarsi light castaneous; wings hyaline.

Head: mandible tridentate. Clypeus tridentate, with a median carina very high in profile with a right angle apically. First four antennal segments in a ratio of 14:5:5:5, segment XI 2 X as long as thick, sensilla elongated. Front coriaceous, shining, punctures shallow, large, separated by 0.5-

1.5 X their diameters, frontal carina 0.57 X length of clypeus. LH 1.02 X WH; WF 0.6 X WH; WF 1.3 X HE; OOL 1.33 X WOT, DAO 0.33 X WOT, posterior ocelli distant from the vertex crest 2.0 X DAO. Vertex slightly convex, nearly straight, the corners rounded; VOL 0.8 X HE.

Mesosoma: thorax coriaceous, punctures small, separated by 1-2 X their diameters. Pronotal disc 0.56 X the length of mesoscutum, with a carina transversal anterior, extending to lateral margins anteriorly. Notaulus straight. Propodeal disc 0.74 X as long as wide, with a complete median carina, with strong striae, with a small coriaceous area behind the basal triangle. Metacarpus 1.29 X the stigma. Forefemur 4.0 X as long as thick.

Gaster: transversal section subcircular. Tergite II nearly vertical, with a very shallow depression, visible only in dorso-posterior view, with a pair of very large and rounded tufts densely covered by hairs, tufts very closed, far from each other less than 0.5 X their diameter, wholly surrounded by spread hairs directed to the tufts; tergite with additional pair of light spots. Hypopygium with the stalk 1.0 X the hypopygium, the lateral teeth 4 X the stalk, posterior margin straight, corners rounded.

Genitalia (Fig. 196): paramere with apex rounded; aedeagus with ventral ramus much shorter than the dorsal body, wide, margins smooth, the inner slightly divergent and the outer slightly convergent, apex wide and oblique-truncate inward, with the outer corner somewhat angulate and the inner rounded; dorsal body of the aedeagus with two pairs of apical lobes, the outer wide, with apex rounded, inner surface concave, convergent dorsally, dorsal margin with a rounded expansion, inward, the inner lobe membranous, much developed, their margins very sinuous, and serrated with rounded denticles, inner surface densely hairy; apodema of the aedeagus extending beyond the elliptical genital ring.

Redescription: female: length of body 1.87 mm.

Color: body castaneous, median segments of the gaster darker; mandible, clypeus, antenna and palpi castaneous; eye black; legs light castaneous.

Head: coriaceous and densely punctate, punctures large, deep, separated by 0.2-0.5 X their diameters and absent in a median longitudinal band in the frons. Mandible wider apically,

quadridentate, the lower two large. Clypeus subtrapezoidal, with a median carina very high, angled just in apical margin. First four antennal segments in a ratio of 7:2:1:1, segment XI 2 X as thick as long. Eye subcircular, as long as wide, with about 9 facetes, distant from the base of the mandible its length. LH 1.36 X WH, head with sides parallel, slightly convex. Vertex straight, the corners rounded, occipital carina visible in dorsal view. Gena 0.4 X LH.

Mesosoma: coriaceous, with lateral of the pronotal disc microstriate; pronotum, propodeal disc, propleuron, mesonotum, mesopleuron, pleurosternum with punctures separated by 2-3 X their diameters, larger in the propodeal disc; pronotal disc 1.2 X as long as wide. Mesonotum 0.37 X the length of pronotal disc, posterior margin slightly convex and slightly embraced by the propodeum. Propodeal disc not so elongated, maximum width 1.2 X the minimum. Pleurosternum with posterior margin produced. Metasternum lozenge, with a median carina complete. Forefemur 2.66 X as long as thick, tibia median without spurs.

Gaster: petiole long and coriaceous; gaster nearly polished, apical sternites microstriate, punctures small and sparse; median longitudinal line of the tergites without hairs. Transversal section elliptical. Valves elongated, with apex rounded and hairy.

Examined material: 6 males and 1 female; 3 males and 1 female United States of America, 1 male, *Pennsylvania*, Highspire, 3.viii.1909; W. S. Fisher col. (USNM); 1 male *North Carolina*, Smoky Mts, Bryson City, Deep CR, 700m; 25.viii.1930; Carpenter col. (MCZH); 1 male, *North Carolina*, Salisbury; J. C. Pinckney Collection; reared from *B. brachialis* (USNM); 1 female, Ohio, Bucyrus, Crawford Co.; 2.x.1970; R. F. Wilkey col. (*D. foveolatus*); 2 males, Mexico, *Vera Cruz*, Cordoba; 1.i.1941; G. E. Bohart col. (CASC); 1 male, Belize, "6"; paratype n° 372.1, Cornell University (paratype of *D. rufipalpis* Kieffer 1910b, CUIC). New material: 19 males; 9 males United States of America, 4 males *Missouri*, Columbia, Boone County; 31.vii-24.viii.1967; Malaise trap; F. D. Parker col. (USNM, MCZH); 31.vii-24.viii.1967; Malaise trap; F. D. Parker col. (USNM, MCZH); 1 male, *Maryland*, P. G. County, Camp Springs; 7.ix.1979; Malaise trap; G. F. Hevel col. (USNM); 1 male, *Illinois*, Champaign Co.,

Brown Field Woods; 2.ix.1966; A. R. Unzicker col.; "pit-fall" (MCZH); 1 male *New York*, South Hill, Ithaca; 3.viii.1957; H. E. Evans col. (MCZH); 1 male, *Nebraska*, Saunders Co., 6.5 miles South Wahoo; 14.viii.1973; G. F. Hevel col. (USNM); 1 male, *Virginia*, Vienna; J. C. Bridwell Collection; 21.viii.1932 (USNM); 1 male, *Pennsylvania*, York Co., 4 East miles Delta; 29.viii.1981; G. F. & J. F. Hevel col. (USNM); 5 males, México, 1 male, *Chiapas*, San Cristobal de Las Casas, 2400 m; 1-12.vii.1969; Malaise trap (CNCI), 1 male *Chiapas*, Palenque; 10.ix.1974; G. Bohart & W. Hanson col. (EMUS), 2 males *Jalisco*, Puerto Vallarta; 25.i.-8.xii.1984; G. E. Bohart col. (EMUS), 1 male *Quintana Roo*, Filipe Carrillo Pto.; 10-14.x.1986; sweeping (EMUS); 1 male, Honduras, La Ceiba, 18.xi.1916; F. J. Dyer col. (USNM); 1 male Guatemala, *Zacapa*, above San Lourenzo, 2300m, wet forest; xi.1986; M. Sharkey col. (PMAE); 3 males Costa Rica, *Guanacaste*, S. Cañas, 14 km South; 17.ii.1989-11.i.1991 (EMUS).

Variation: body lighter; head dark castaneous; texture of body varies in intensity, mainly at frons; head less developed behind the eye; frons with a linear depression since anterior ocellus to nearly frontal carina; upper tooth of the mandible not wide or partially divided; median carina of the clypeus not projected beyond the apical margin of the clypeus and in one specimen with this carina low, lateral teeth of clypeus vary in size too much; propodeum without coriaceous posterior area; declivity of the propodeum with weaker texture, without striae and with median longitudinal depression weak; tuft of the tergite II less hairy.

Observation: this species is easily recognized by its tergal processes. The low carina of the clypeus of one specimen from Cordoba (Mexico) is notable, because this high carina is one of the most peculiar characters of this species. Evans (1978) considered *D. foveolatus* as junior synonym of *D. apertus*. Indeed, these species differ each other only by the size of the dark spot of the gaster in females. Its known neotropical distribution was Vera Cruz (Mexico), now it is recorded for the first time to Costa Rica, Guatemala, Belize, Honduras, Mexico (Chiapas, Jalisco, Quintana Roo) and in nearctic region from the United States of America (Nebraska, Maryland).

Distribution: United States of America (New Mexico, Texas, Florida, Missouri, Illinois,

New York, Nebraska, Maryland, Pennsylvania, North and South Carolina, Ohio, New Jersey, Delaware, DC, Virginia, Kansas), Mexico (Vera Cruz, Chiapas, Jalisco, Quintana Roo), Belize, Honduras, Guatemala and Costa Rica.

42. *Dissomphalus subpilosus*, sp. n.

(Fig. 197)

Description: male: body slender; length of body 3.29 mm; LFW 2.19 mm.

Color: body black, gaster dark castaneous; mandible, antenna and palpi castaneous; clypeus dark castaneous; legs castaneous; wings hyaline.

Head: mandible tridentate. Clypeus flat, tridentate, median carina incomplete apically. First four antennal segments in a ratio of 13:4:4:5; segment XI 1.5 X as long as thick; sensilla inconspicuous. Front coriaceous, somewhat shining punctures small, shallow, separated by 0.5-2 X their diameters, frontal carina 0.67 X length of clypeus. LH 1.0 X WH; WF 0.59 X WH; WF 1.11 X HE; ocellar triangle somewhat broad, OOL 0.8 X WOT, DAO 0.37 X WOT, posterior ocelli distant from the vertex crest 1.5 X DAO. Vertex slightly convex, the corners rounded; head developed behind the eye, VOL 0.51 X HE.

Mesosoma: thorax coriaceous, punctures small, shallow, separated by 1-3 X their diameters. Pronotal disc 0.56 X the length of mesoscutum, with a anterior transversal carina strong, extending to lateral margins anteriorly. Notaulus straight, widening behind. Propodeal disc 0.69 X as long as wide, with a complete median carina, propodeum wholly striate. Mesopleurum without subalar groove. Metacarpus 1.43 X the stigma. Forefemur 3.16 X as long as thick.

Gaster: transversal section subcircular. Tergite II vertical, with a very shallow depression, occupying the median third of the width and of the length of the tergite, distant from the anterior margin, with a pair of rounded and very large tufts densely covered by short hairs, far from each other 0.75 X their diameters, surrounded by some hairs inward and longer than those of the tufts, tergite with a median longitudinal band of hairs behind the tufts, tergite with additional pair of light spots. Hypopygium with a stalk not so slender, posterior margin straight, corners rounded.

Genitalia (Fig. 197): paramere with apex hardly arched, oblique-truncate; ventral ramus of the aedeagus conspicuous, shorter than the dorsal body, margins smooth and parallel, apex oblique-truncate and with the corners rounded, laminar, with surfaces subhorizontal, divergent laterally, downward; dorsal body of the aedeagus with two pairs of lobes, the outer large, ventral margin smooth and narrowing apically, dorsal margin much produced inward basally, surfaces subvertical, somewhat divergent ventrally and very concave internally, the inner lobe small, inner margin serrated up to the apex and the dorsal smooth, inner surface densely hairy and somewhat convex; apodema of the aedeagus extending beyond the subtriangular genital ring.

Examined material: Holotype: 1 male, Brazil, *Ceará*, Barbalha; v.1969; M. Alvarenga col. (AMNH). Paratype: male Bolivia, *Beni*, 20 km W Laranjeiras 3-5.viii.1964; J. K. Bouseman & J. Lussenhop col. (AMNH).

Variation: body wholly lighter; ocelli smaller, DAO 0.29 X WOT.

Observation: a species of peculiar distribution, with two collected specimens from very distant regions.

Etymology: name refers to the tufts of the tergite II surrounded by fewer hairs than in *D. apertus*.

Distribution: Brazil (*Ceará*), Bolivia.

43. *Dissomphalus parvus*, sp. n.

(Fig. 198)

Description: male: length of body 2.67 mm; LFW 1.83 mm.

Color: head and mesosoma black; gaster dark castaneous; mandible and palpi castaneous; clypeus, antenna and legs dark castaneous, trochanters, tibiae and tarsi lighter; wings subhyaline.

Head: mandible bidentate. Clypeus trapezoidal. First four antennal segments in a ratio of 5:2:2:2; segment XI short, 1.4 X as long as thick; sensilla rounded. Front somewhat strongly coriaceous, somewhat shining, punctures shallow, rather large, separated by 0.5-1.5 X their diameters, frontal carina, 0.5 X length of clypeus, clypeus-frontal suture carinate. Head as wide as long; WF 0.55 X WH; WF 1.16 X HE; OOL 1.4 X WOT, DAO 0.4 X WOT, posterior ocelli distant from the

vertex crest 1 DAO. Vertex slightly convex, the corners rounded; VOL 0.55 X HE.

Mesosoma: thorax less coriaceous than frons, shining, punctures shallow, small, separated by 2 X their diameters. Pronotal disc 0.5 X the length of mesoscutum, with a carina transversal anterior strong, extending to lateral margins anteriorly. Notaulus straight. Propodeal disc 0.69 X as long as wide, with a median carina strong, incomplete behind, with a small coriaceous area behind the basal triangle. Metacarpus 1.33 X the stigma. Forefemur 2.82 X as long as thick.

Gaster: transversal section subcircular. Tergite II vertical, with a very shallow depression, occupying the median third of the width of the tergite and slightly the anterior third, with a pair of very large rounded tufts, densely covered by short hairs directed backward, separated by 0.35 X their diameters, surrounded by a few hairs inward, tergite with additional pair of light spots. Hypopygium with a slender stalk, 2 X the hypopygium, the lateral teeth 5 X as long as the stalk, posterior margin slightly concave, corners rounded.

Genitalia (Fig. 198): paramere apex hardly arched, much developed, with a dorsal projection, 0.5 X the length of the paramere; aedeagus with ventral ramus large, nearly as long as dorsal body, laminar, with surfaces vertical, transversal section divergent dorsally, wide basally, slightly thinner medially, apex with two large teeth upward, rami divergent, margins smooth, the inner diverging and with a broad median concavity, the outer convergent, rami wider basally; dorsal body of the aedeagus with two pairs of apical lobes, the outer reduced to a wide basal tooth and sharpened apically and slightly backward, the inner lobe large, laminar, surfaces vertical, with dorsal subtriangular expansion, another apical below and another one basal, margin ventral wholly serrated with denticles small and sharpened, inner surface densely hairy; apodema of the aedeagus not extending beyond the elliptical genital ring.

Examined material: Holotype: male Brazil, *Amazonas*, Estirão do Equador, Rio do Javari; x.1979; M. Alvarenga col. (PMAE). Paratype: 1 male Brazil, same data as holotype (PMAE).

Variation: clypeus darker; antenna lighter; mandible darker; frons more densely punctate; declivity of the propodeum weakly striate and median carina very weak.

Etymology: name refers to the low carina of the clypeus.

Distribution: Brazil (Amazonas).

ALTIVOLANS GROUP

It is characterized by having the digitus serrated with rounded teeth in the upper margin, ventral ramus wide and short, much shorter than the dorsal body and with a median-basal projection upward, the dorsal body of the aedeagus bilobate, being the inner lobe semicircular, the rounded portion downward, which is much produced, laminar with inner surface and wholly ventral margin hairy, the outer lobe with dorsal margin much produced inward basally and nearly reaching (Fig. 200), the depression of the tergite II varies in size too much.

This group is composed of *D. altivolans* Evans, 1954 *D. deformis* Evans, 1969a, *D. megomphalus* Evans, 1979, *D. subdeformis*, sp. n., and *D. lanceolatus*, sp. n. It is broadly distributed, ranging from north of the USA to north of Argentina, including some islands of Caribe.

D. altivolans Evans, 1954 differs from the other species of this group by having the depression of the tergite II very small and rounded, distant from the posterior margin of the tergite I, with two small hairy tufts, while *D. deformis* Evans, 1969a, *D. megomphalus* Evans, 1979, *D. subdeformis*, sp. n., and *D. lanceolatus*, sp. n., have the depression of the tergite II very large with large tufts of hairs (Figs. 120, 122, 124). These four species differ among them by the ventral ramus of the aedeagus and the depression of the tergite II. In *D. megomphalus* the apex of the ventral ramus of the aedeagus is broadly truncate and oblique (Fig. 202), the depression of the tergite II is very wide, shallow, and very large hairy tufts completely joined (Fig. 121). In *D. deformis* the apex of the ventral ramus of the aedeagus is rounded (Fig. 201), the depression of the tergite II is very wide, not so deep, and very large hairy tufts but separated by hairs (Fig. 120). while *D. subdeformis*, sp. n., and *D. lanceolatus*, sp. n., have the depression of the tergite II similar, slightly wide, but deep and very elongated, with their margins sharpened and their tufts not so large (Figs. 122, 124), in *D. subdeformis*, sp. n., the apex of the ventral ramus

of the aedeagus is oblique, broad and slightly concave with the inner corner somewhat produced (Fig. 203) and in *D. lanceolatus*, sp. n., the ventral ramus of the aedeagus narrowing in the very sharpened apex (Fig. 204). Besides, *D. lanceolatus*, sp. n., differs from the other species by having the dorsal body of the aedeagus more narrowed apically and apex somewhat thin and truncate, while in others the apex of the dorsal body of the aedeagus is more rounded and slightly wider.

Key to males of altivolans group:

1. depression of the tergite II very small and rounded, distant from the posterior margin of tergite I, with two small hairy tufts, apex of the ventral ramus of the aedeagus rounded (Fig. 199)
 *D. altivolans* Evans, 1954
- depression of the tergite II very large, with large hairy tufts (Figs. 120-122, 124), shape of the apex of the ventral ramus variable (Figs. 201-204) 2
2. depression of tergite II very wide, not so deep, with large hairy tufts (Fig. 120), sometimes joined or subcircular (Fig. 121) 3
- depression of tergite II slightly wide, deep and elongated, with margins sharpened and tufts not so large and elliptical (Figs. 122, 124) 4
3. apex of the ventral ramus of the aedeagus rounded (Fig. 201), tufts of the depression of the tergite II separated, space between them hairy (Fig. 120)
 *D. deformis* Evans, 1969a
- apex of the ventral ramus of the aedeagus oblique (Fig. 202), tufts of the depression of the tergite II joined (Fig. 121)
 *D. megomphalus* Evans, 1979
4. apex of the ventral ramus of the aedeagus oblique, broad and slightly concave with the inner corner somewhat produced (Fig. 203) *D. subdeformis*, sp. n.
- ventral ramus of the aedeagus much narrowed apically, apex sharpened (Fig. 204)
 *D. lanceolatus*, sp. n.

44. *Dissomphalus altivolans* Evans, 1954

(Figs. 199-200)

Dissomphalus altivolans Evans, 1954: 294, 307-308; 1962: 68, 76; 1964: 45; 1967: 16; 1978: 40, 41-42; Krombein, 1979: 1217; Gordh & Moczar, 1990:218.

Dissomphalus nigrescens Evans, 1954: 294, 308-309; 1962: 68, 75-76; 1964: 45; 1978: 40, 41, 47-48, Krombein, 1979:1217, Gordh & Moczar, 1990: 224, *syn. n.*

Redescription: male: length of body 2.83 mm; 2.1 LFW mm.

Color: body dark castaneous, gaster lighter; clypeus dark castaneous; mandible, palpi, antenna and legs light castaneous; wings hyaline.

Head: mandible tridentate. Clypeus tridentate. First four antennal segments in a ratio of 6:3:2:2, segment XI 1.5 X as long as thick; sensilla inconspicuous. Front coriaceous, somewhat shining, punctures shallow and very small, separated by 2-3 X their diameters, frontal carina 0.18 X length of clypeus. LH 1.03 X WH; WF 0.58 X WH; WF 1.15 X HE; ocellar triangle broad, OOL 0.85 X WOT, posterior ocelli distant from the vertex crest 1.5 X DAO. Vertex slightly convex, the corners broadly rounded; VOL 0.6 X HE.

Mesosoma: thorax coriaceous, punctures shallow and small, separated by 0.5-2.0 X their diameters. Pronotal disc 0.63 X the length of mesoscutum, with transversal anterior carina. Notaulus straight. Propodeal disc 0.73 X as long as wide, with a complete median carina, thin behind, with striae weak, with a polished area behind the basal triangle; declivity of the propodeum without median carina. Pleurosternum with a very short anterior carina, 0.1 X the length of pleurosternum. Metacarpus absent. Forefemur 3.1 X as long as thick.

Gaster: transversal section subcircular. Tergite II nearly vertical, with a median concavity not so large and somewhat deep, width 0.32 X the width of the tergite, with a pair of lateral subcircular tufts densely covered by short hairs, far from each other by their diameters, slightly directed toward each other, tergite with additional pair of light spots. Hypopygium with a slender stalk, posterior margin somewhat concave, corners rounded.

Genitalia (Fig. 199): paramere with apex

slightly arched inward, rounded, paramere uncommonly long, 1.67 X longer than the basiparamere; volsella with the basal projection of the digitus sharpened; aedeagus with ventral ramus much shorter than the dorsal body, its margins smooth, the inner parallel and straight, the outer slightly convergent, with surfaces horizontal, apex rounded, basal margin with a median invagination; dorsal body of the aedeagus with two pairs of apical lobes, the outer (Fig. 200) wide, with the rounded apex, inner surface concave, convergent dorsally, its dorsal margin with a rounded expansion inward, the inner lobe membranous, serrated in the margin with small and rounded denticles, its inner surface densely hairy; apodema of the aedeagus hardly extending beyond the elliptical genital ring.

Redescription: female: length of body 1.73 mm.

Color: body castaneous, median third of the gaster, margins and carinae darker; mandible and clypeus castaneous; antenna pale-castaneous, scape castaneous; palpi pale-castaneous; eye black; legs castaneous, lighter distally.

Head: wholly coriaceous, punctures small, shallow and separated by 1-2 X their diameters, but absent in a median longitudinal band in the frons, punctures of the genas closer. Mandible wider apically, tetradentate, the lower two large and sharpened. Clypeus trapezoidal, with a median carina complete, high, angled just in apical margin. First four antennal segments in a ratio of 12:3:1.5:1.5, segment XI 2 X as thick as long. Eye subcircular, as long as wide, with about 10 facets, distant from the base of the mandible its length. LH 1.33 X WH, head with sides parallel and convex Vertex slightly concave, the corners rounded, carinae occipital visible in dorsal view. Gena 0.36 X LH.

Mesosoma: coriaceous, with the lateral of the pronotal disc and lower portion of the declivity of the propodeum microstriate; pronotal disc, mesonotum, propodeal disc, propleuron and pleurosternum with punctures small, shallow and separated by 2-3 X their diameters; pronotal disc short, 0.8 X as long as wide. Mesonotum 0.4 X the length of pronotal disc, its posterior margin slightly convex and slightly embraced by the propodeum. Propodeal disc with its maximum width 1.2 X the minimum. Pleurosternum with posterior margin produced. Metasternum lozengey. Forefemur 2.33 X as long as thick; midtibia without spurs.

Gaster: with petiole long and coriaceous,

gaster nearly polished, slightly microstriate in the apical segments. Gaster 1.5 X the mesosoma, transversal section elliptical.

Examined material: 6 males, 2 females; 4 males, 2 females United States of America, 2 males *Alabama*, Tallulah; airplane trap 7-170 m; P. A. Glick col. (USNM, holotype and paratype); 1 male *Texas*, Denison, peach orchard; 15.vi.1938 (type *D. nigrescens*, n° 62278, USNM, junior synonym); 1 male *Louisiana*, Opelousas; 15.vi.1897; G. R. Pilate col. (USNM, paratype of *D. nigrescens*); 1 female, *Arizona*, Phoenix, peach orchard; 9.vii.1937 (USNM); 1 female, *Texas*, Bexar County, peach orchard; 12.ix.1940 (USNM); 3 males Mexico, 1 male, *Jalisco*, Puerto Vallarta, sea level; 31.xii.1970; P. H. & M. Arnaud col. (CASC); 1 male, *Sonora*, Hermosillo; 12.viii.1959; light trap black; W. L. Nutting & F. G. Werner col. (MCZH). New material: 3 males, 1 male Mexico *Chiapas*, 16°58'N 91°47'W; 8-11.xi.1978; J. Rawlins col. (CNCI); 1 male Honduras, La Ceiba; 6.viii.1916; sweeping; F. J. Dyer col. (USNM); 1 male Guatemala, *Zacapa*, below San Lourenzo; xi.1986, 750m; M. Sharkey col. (PMAE).

Variation: LH 0.95 to 1.02 X WH; median carina of the propodeum shorter (Evans 1954); paratype with ocellar triangle broader; specimens from South of Mexico and Guatemala with stronger texture.

Observations: *D. altivolans* resembles *D. apertus* in many features, although the aedeagus and tergal processes are different (Evans 1954). Elongated claws and metacarpus of the fore wing absent are uncommon. There are variations in the sculpture of the propodeum and in the length of the serrated margin of the aedeagus, so these characters are not good to difference this species from *D. nigrescens*. A study of the genitalia and tergal processes of the both species pointed out they belong to the same species. *D. altivolans* is recorded to the first time in Guatemala, Honduras Mexico (Chiapas).

Distribution: United States of America (South Carolina, Texas, California, Illinois, Indiana, Arizona, Alabama, Arkansas, Louisiana, Missouri), Mexico (Sinaloa, Jalisco, Sonora, Chiapas), Honduras and Guatemala.

45. *Dissomphalus deformis* Evans, 1969a

(Figs. 117-120, 201)

Dissomphalus deformis Evans, 1969a: 13,

14-15; Gordh & Moczar, 1990: 221.

Redescription: male: length 3.34 mm; LFW 2.18 mm.

Color: head and mesosoma nearly black; gaster dark castaneous; mandible light castaneous; clypeus dark castaneous; palpi pale-castaneous; antenna and legs castaneous; wings hyaline.

Head (Fig. 117): mandible tridentate (Fig. 118). Clypeus tridentate. First four antennal segments in a ratio of 6:3:2:2.5; segment XI 2 X as long as thick; sensilla elongated. Front coriaceous, shining, punctures shallow, separated by 0.5-1.5 X their diameters, with a linear depression between frontal carina and anterior ocellus, frontal carina 0.66 X length of clypeus LH 1.0 X WH; WF 0.58 X WH; WF 1.13 X HE; ocellar triangle broad, OOL 1.0 X WOT, DAO 0.33 X WOT, posterior ocelli distant from the vertex crest 1.6 X DAO. Vertex somewhat straight, the corners rounded; VOL 0.61 X HE.

Mesosoma (Fig. 119): thorax coriaceous, punctures shallow, separated by 1-2 X their diameters. Pronotal disc 0.6 X the length of mesoscutum, with a transversal anterior carina strong. Propodeal disc 0.71 X as long as wide, with a complete median carina, propodeum wholly strongly striate. Metacarpus 1.13 X the stigma. Forefemur 3 X as long as thick.

Gaster (Fig. 120): transversal section circular. Tergite II vertical, with a large and deep concavity, its width 0.47 X the width of the tergite, with a pair of elliptical and large tufts densely short-haired, distant each other 0.4 X their diameters, with hairs around tufts, except below, tergite with a median band of hairs behind. Hypopygium with a slender stalk, 1.1 X the hypopygium, the lateral teeth 7 X as long the stalk, posterior margin somewhat concave, corners hardly angulate.

Genitalia (Fig. 201): paramere with apex slightly arched inward, somewhat sharpened; volsella with a cuspis thin, basal projection of the digitus somewhat sharpened and upper margin high; aedeagus with ventral ramus much shorter than the dorsal body, wide, their margins smooth, nearly parallel, apex broadly rounded with outer margin inclined, its ventral surface very convex, slightly downward; dorsal body of the aedeagus complex, bilobate, inner lobe semicircular, the rounded portion downward, which is much produced, laminar and divergent dorsally with the inner surface and the ventral margin hairy, margin serrated with small and

rounded denticles, the outer lobe wide, but much less wider than the inner lobe, with the apex rounded, their inner surface somewhat concave and convergent dorsally, its dorsal margin much produced inward basally and nearly reaching each other; basiparamere somewhat angulate medially in the ventral side; apodema of the aedeagus not extending beyond the triangular genital ring, with ventral median rounded ventral calli.

Examined material: 13 males; 3 males Argentina, *Salta*, Oran, Abra Grande; 8-15.ii.1967; Malaise trap; R. Golback col. (FIML, holotype and paratypes). New material: 12 males; 2 males Argentina, *Salta*, Camp. Jakúlica, Ca. Aguas Blancas; x.1968; C. Porter col. (MCZH); 1 male, Bolivia, Beni, Cavinás; I.1922, Bioexpedition Mulford; WmMMann col. (USNM).

Variation: body darker; texture, carinae and striae slightly weaker; transversal anterior carina of the pronotal disc weaker; notaulus nearly straight; the tufts of tergite II more haired between them.

Observations: Parapsidal furrow developed. It is recorded for the first time in Bolivia.

Distribution: Argentina (*Salta*), Bolivia.

46. ***Dissomphalus megomphalus*** Evans, 1969a
(Figs. 121, 202)

Dissomphalus megomphalus Evans, 1979: 277, 279; Gordh & Moczar, 1990: 223.

Redescription: male: length 3.64 mm; LFW 2.55 mm.

Color: head and mesosoma black; gaster dark castaneous; clypeus dark castaneous; palpi light castaneous; mandible, antenna and legs castaneous; wings hyaline.

Head: mandible tridentate. Clypeus tridentate. First four antennal segments in a ratio of 12:4:4.5:4.5; segment XI 2.5 X as long as thick; sensilla elongated. Front coriaceous, shining, punctures shallow, large, separated by 0.2-1.0 X their diameters, with a linear depression between frontal carina and anterior ocellus, frontal carina 0.5 X length of clypeus LH 1.05 X WH; WF 0.6 X WH; WF 1.16 X HE; OOL 1.18 X WOT, DAO 0.42 X WOT, posterior ocelli distant from the vertex crest 1.43 X DAO. Vertex slightly convex, the corners rounded; VOL 0.42 X HE.

Mesosoma: thorax coriaceous, punctures shallow, separated by 0.5-2 X their diameters. Pronotal disc 0.61 X the length of mesoscutum, with a transversal anterior carina strong. Propodeal disc 0.7 X as long as wide, with a complete median carina, propodeum wholly strongly striate. Metacarpus 1.08 X the stigma. Forefemur 2.75 X as long as thick.

Gaster (Fig. 121): transversal section subcircular. Tergite II vertical, with a large and deep concavity, its width 0.5 X the width of the tergite, with two elliptical and large tufts densely short-haired, completely joined, tergite with a median band of hairs behind. Hypopygium with a slender stalk, 1.1 X the hypopygium, the lateral teeth 7 X as long the stalk, posterior margin somewhat concave, corners hardly angulate.

Genitalia (Fig. 202): paramere with apex slightly arched inward, somewhat sharpened; volsella with a cuspis thin, basal projection of the digitus somewhat sharpened and upper margin high; aedeagus with ventral ramus much shorter than the dorsal body, wide, narrowing weakly apically, their margins smooth, the inner parallel and the outer convergent, apex oblique-truncate with the inner corners somewhat sharpened, its ventral surface very convex, slightly downward; dorsal body of the aedeagus complex, bilobate, inner lobe semicircular, the rounded portion downward, which is much produced, laminar and divergent dorsally with the inner surface and ventral margin hairy, margin serrated with small and rounded denticles, the outer lobe wide, but much less wider than the inner lobe, with the apex rounded, their inner surface somewhat concave and convergent dorsally, its dorsal margin much produced inward basally and nearly reaching each other; basiparamere somewhat angulate medially in the ventral side; apodema of the aedeagus not extending beyond the triangular genital ring, with ventral median rounded ventral calli.

Examined material: 10 males, Ecuador, *Napo*, Limoncocha, Rio Napo; 17.i-28.ix.1974; Malaise trap; B. A. Drummond III col. (LACM, USNM, FSCA, paratypes). New material: 10 males; 1 male, PERU, Puerto Bermudez, Rio Pichis.; 12-19.vii.1920 (CUIC); 8 males, BRAZIL, 1 male, *Pará*, Oriximiná, Mining Alcoa, Rio Trombetas; 7-15.x.1982; Malaise trap, CDC; Rafael, Binda & Vidal col. (OSUC); 2 males, *Pará*, Serra Norte,

Igarapé Azul-Serraria; 1.vii.1985; Malaise trap; F. F. Rames col. (MPEG); 1 male, *Pará*, Monte Alegre, cerrado; 16-20.i.1992; Malaise trap; A. L. Henriques col. (MPEG); 1 male, *Pará*, Bragança, Ajuruteua-Magau; 25.xi.1988; Gorayeb & equipe col. (MPEG); 1 male, *Ceará*, Barbalha; v.1969; M. Alvarenga col. (AMNH).

Variation: body darker; texture, carinae and striae slightly stronger or weaker, with the lateral of the pronotal disc somewhat areolate below; frontal linear depression absent or weaker; transversal anterior carina of the pronotal disc weaker; apex of the ventral rami with angulate corner.

Observations: this species is promptly recognized by the very large hairy tufts. Parapsidal furrow developed. This species is recorded for the first time in Peru and Brazil.

Distribution: Equador, Peru and Brazil (*Pará*, *Ceará*).

47. *Dissomphalus subdeformis*, sp. n.

(Figs. 122-123, 203)

Description: male: length of body 3.63 mm; LFW 2.37 mm.

Color: head and mesosoma black; gaster dark castaneous; clypeus dark castaneous; palpi light castaneous; mandible, antenna and legs castaneous, hindfemur darker; wings hyaline.

Head: mandible tridentate. Clypeus tridentate. First four antennal segments in a ratio of 6.5:2.5:2.5:3; segment XI 2 X as long as thick; sensilla somewhat rounded. Front coriaceous, shining, punctures shallow, separated by 0.5-1.5 X their diameters, frontal carina 0.6 X length of clypeus LH 1.0 X WH; WF 0.58 X WH; WF 1.17 X HE; ocellar triangle broad, OOL 0.88 X WOT, DAO 0.35 X WOT, posterior ocelli distant from the vertex crest 1.0 X DAO. Vertex slightly convex, the corners rounded; VOL 0.58 X HE.

Mesosoma: thorax coriaceous, punctures shallow, separated by 1-2 X their diameters. Pronotal disc 0.6 X the length of mesoscutum, with anterior transversal carina strong. Parapsidal furrow complete, weak anteriorly. Propodeal disc 0.78 X as long as wide, with a complete median carina, propodeum wholly strongly striate. Pleurosternum with an anterior carina extremely short, reduced to a stub. Metacarpus 1.25 X the stigma. Forefemur

3.1 X as long as thick.

Gaster (Fig. 122): transversal section circular. Tergite II vertical, with a large and deep depression, their margins sharpened, except the anterior, rather narrow and elongated, occupying hardly the median third of the width of the tergite and slightly more than anterior half, not reaching the anterior margin, with a pair of elliptical lateral hairy tufts (Fig. 123), separated by 1 X their diameters, directed slightly toward each other, tergite with additional pair of light spots. Hypopygium with a slender stalk, 1 X the hypopygium, the lateral teeth 5 X as long as the stalk, posterior margin slightly concave, corners rounded.

Genitalia (Fig. 203): paramere with apex slightly arched inward, somewhat sharpened; volsella with a cuspis thin, digitus wide; aedeagus with ventral ramus shorter than the dorsal body, wide, narrowing slightly to the apex, their margins smooth, the inner diverging and the outer convergent and broadly slightly concave medially, its ventral surface very convex, inclined downward apically, and produced upward medially; dorsal body of the aedeagus with two pairs of apical lobes, the inner lobe shorter than the ventral ramus and semicircular, the rounded portion downward, which is much produced, laminar and divergent dorsally with the inner surface dense hairy, margin serrated with small and rounded denticles, outer lobe wide, but much less wider than the inner lobe with apex rounded, inner surface somewhat concave and convergent dorsally, its dorsal margin much produced inward basally and nearly reaching, this projection not so wide and rounded; median ventral portion of the basiparamere with a small angulate projection; apodema of the aedeagus extending beyond the triangular genital ring, with two ventral median rounded calli.

Examined material: Holotype: male Venezuela, *Barinas*, Rio Caparo, Research Sta., 32 km E, El Cornern, seasonal forest; light trap black; 3-5.ii.1978; J.B. Heppner col. (USNM). Paratypes 23 males; 1 male Guatemala, Escuintla; 20.viii.1975; N. L. H. Krauss col. (USNM); 1 male El Salvador, San Salvador, 0-20m; 14.viii.1975; N. L. H. Kraus col. (USNM); 3 males Nicaragua, 1 male 50 km E Matagalpa, El Cayolar, 800m; 20.xi.1981; J. M. Maes, S. Hue & Palacios col. (SEAN); 1 male Leon, 16.xi.1989; Sifrijol & J.

Tiller col. (SEAN); 1 male El Recreo, Zelaya; X.1984; J. M. Maes col. (MZSP); 5 males COSTA RICA, 2 males *Guanacaste*, Sta. Cañas; 8-18.iii.1988 and 10.ii.1991; F. D. Parker col. (EMUS); 1 male *Guanacaste*, 6 miles S and 6 W Cañas, Taboga, 10°19'N 85°9'W; 2-8.ii.1967; R. W. Matthews col. (MCZH); 1 male San Isidro de General, 700-800m; viii.1980; N. L. H. Krauss col. (AMNH); 1 male La Lola, on cacao; 22.vi.1957; M. J. Steizer col.; M.S.51.350 (USNM); 2 males Panama, 1 male *Canal Zone*, Barro Colorado; 24.vii.1963; D. Q. Cavagnaro & M. E. Irwin col. (CASC); 1 male *Canal Zone*, FlatRock, above Juan Mina, 5 miles after Chagres River, A567; 24.viii.1918; H. Morrison col. (USNM); 1 male Curaçao, Coral Specht, 3 km E, Willemstad, near the coast; light trap black; 9.ii.1987; W. E. Steiner & J. M. Swearingen col. (USNM); 2 males Trinidad & Tobago, Trinidad, Curepe; being 1 male 28.iii.1978; Malaise trap (CNCI) and 1 male xii.1977; W. Mason col. (PMAE); 3 males Venezuela, 1 male *Zulia*, El Tucuco, Sierra de Perija, mountain forest; 28-29.i.1978; light trap black; J. B. Heppner col. (USNM); 1 male *Guarico*, Hato Masaguaral, 44 km S Calabozo; 11-19.v.1985; Menke & Carpenter col. (USNM); 1 male *Bolivar*, Luepa, 10 km N, Gran Sabana, 1500 m., rain forest; 26.vi-11.vii.1987; FIT; Malaise trap; S. & A. Peck col. (PMAE); 1 male Surinam, *Kwatta*, road to sea mangrove forest; 6-9.iii.1964; D. C. Geijskes col. (MCZH); 5 males Colombia, 1 male *Valle*, Mun. Candelaria, Farm San Luis (1010m.), dried tropical forest; 25-28.vii.1975; Malaise trap; R. C. Wilkerson col. (FSCA. *D. megomphalus*, paratype); 4 males Tol. Armero; 26.i-5.ii.1977; Malaise trap; E. L. Peyton col. (2 males) and Peyton & Suarez col. (2 males) (USNM).

Variation: tergite II wholly lighter; mandible lighter; linear depression of the frons absent; texture of the thorax weaker; notaulus slightly arched; depression of the tergite II wider and the tufts less elliptical.

Etymology: name refers to the hairy tufts of the tergite II similar to those of *D. deformis*, but smaller.

Distribution: Surinam, Venezuela, Colombia, Panama, Costa Rica, Nicaragua, El Salvador, Guatemala, Trinidad & Tobago, Curaçao.

48. *Dissoomphalus lanceolatus* sp. n.

(Figs. 124-125, 204)

Description: male: length of body 3.33 mm; LFW 2.4 mm.

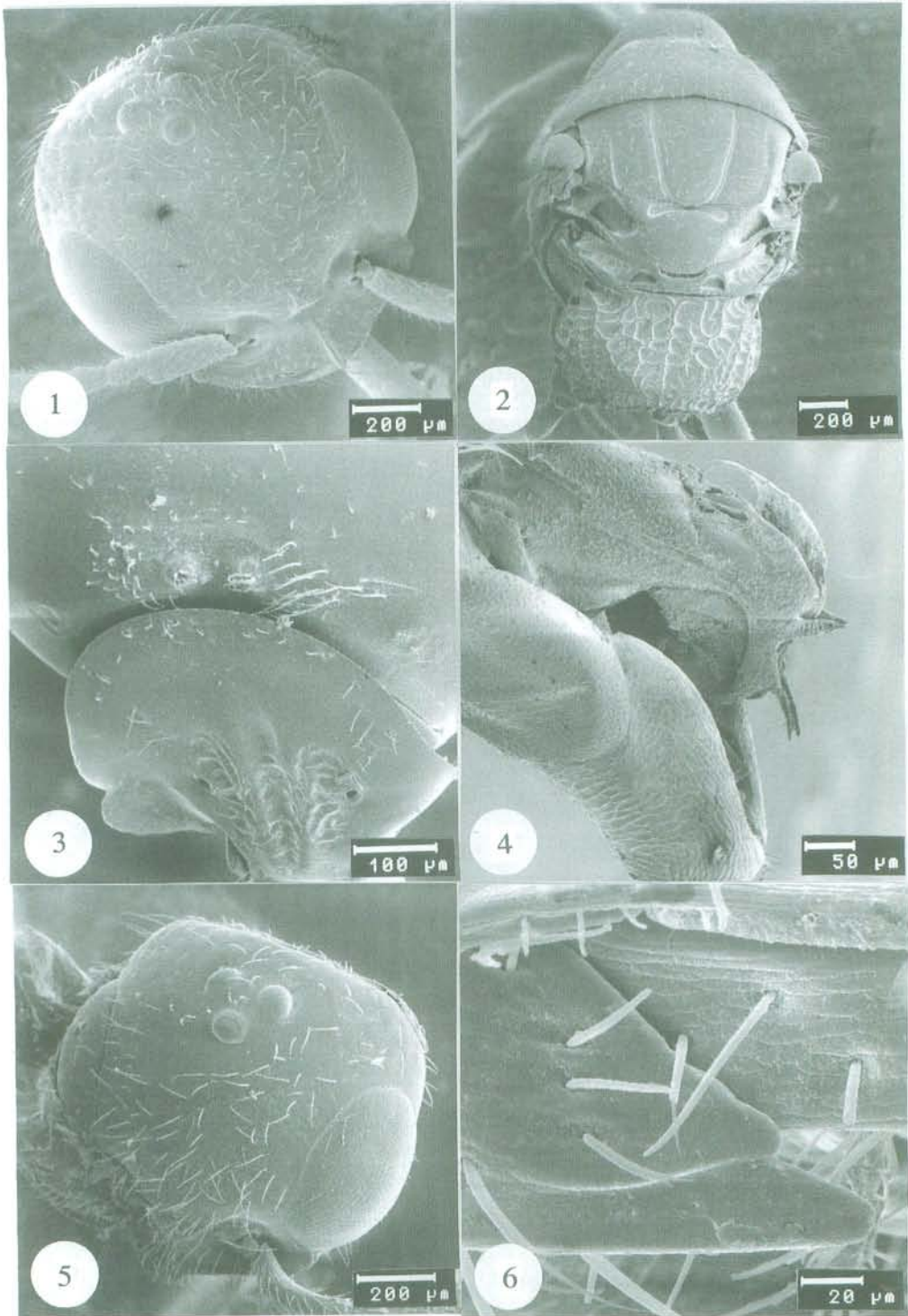
Color: head and mesosoma black; gaster dark castaneous; clypeus dark castaneous; palpi light castaneous; mandible, antenna and legs castaneous; wings subhyaline.

Head: mandible tridentate. Clypeus tridentate. First four antennal segments in a ratio of 3:1:1:1; segment XI 2 X as long as thick; sensilla somewhat rounded. Front coriaceous, shining, punctures shallow, separated by 0.5-1.5 X their diameters, frontal carina 0.5 X length of clypeus. LH 1.04 X WH; WF 0.59 X WH; WF 1.17 X HE; ocellar triangle broad, OOL 1.0 X WOT, DAO 0.36 X WOT, posterior ocelli distant from the vertex crest 0.9 X DAO. Vertex slightly convex, the corners rounded; VOL 0.52 X HE.

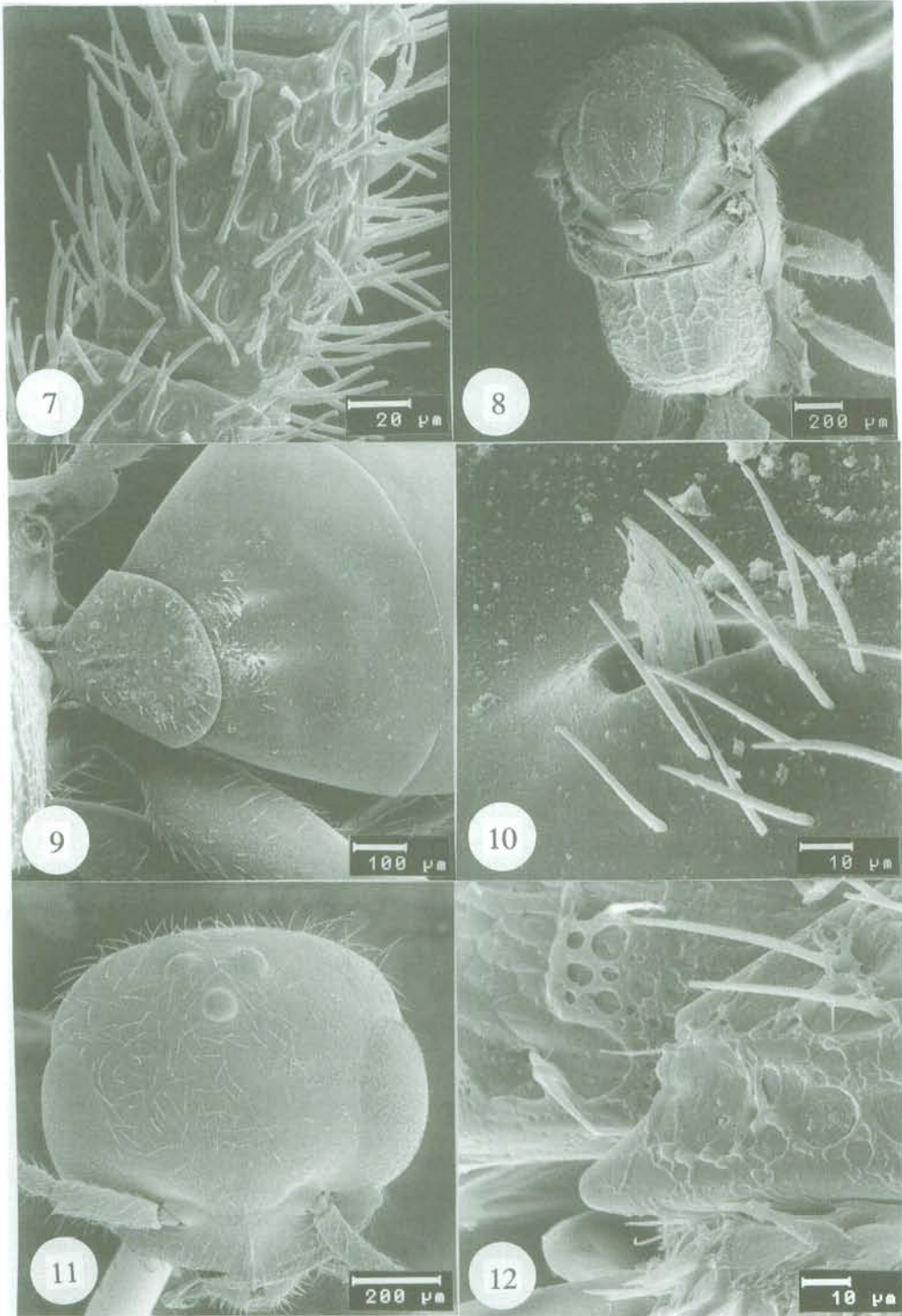
Mesosoma: thorax somewhat coriaceous, punctures shallow, separated by 1-2 X their diameters. Pronotal disc 0.55 X the length of mesoscutum, with a anterior transversal carina strong. Notaulus straight. Parapsidal furrow complete, weak anteriorly. Propodeal disc 0.72 X as long as wide, with a median carina absent behind, with strong striae, with a polished area behind the basal triangle; declivity of the propodeum without median carina. Mesopleurum without subalar groove. Pleurosternum with a carina anterior very short, reduced to a stub. Metacarpus 1.7 X the stigma. Forefemur 2.9 X as long as thick.

Gaster (Fig. 124): transversal section subcircular. Tergite II vertical, with a large and deep depression, their margins sharpened, except the anterior, rather narrow and elongated, occupying hardly the median third of the width of the tergite and slightly more than the anterior half, not reaching the anterior margin, with a pair of elliptical lateral hairy tufts (Fig. 125), separated by 1 X their diameters, directed slightly toward each other, tergite with additional pair of light spots. Hypopygium with a slender stalk, 1.1 X the hypopygium, the lateral teeth 6 X as long as the stalk, posterior margin somewhat concave, corners slightly angulate.

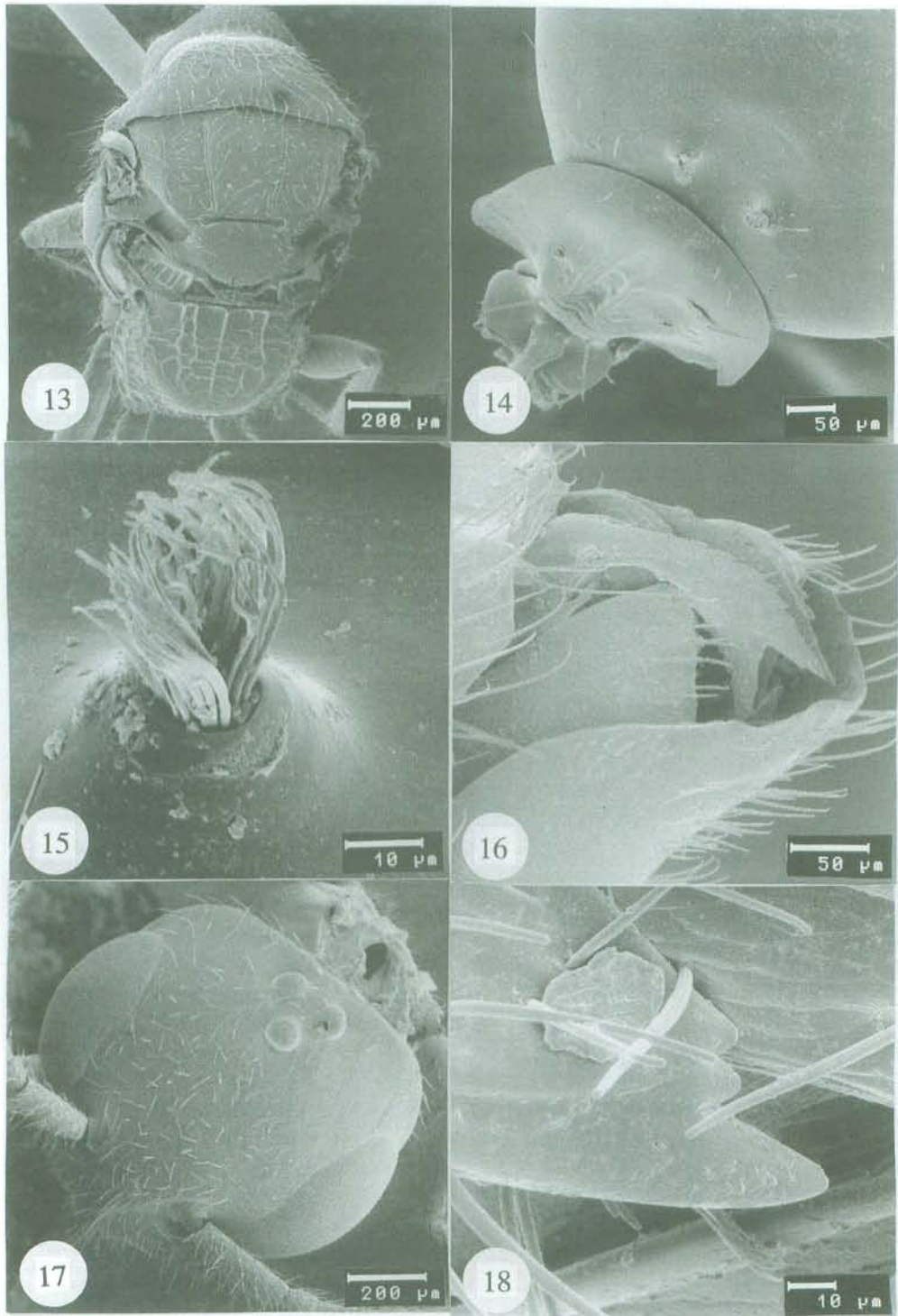
Genitalia (Fig. 204): paramere with apex



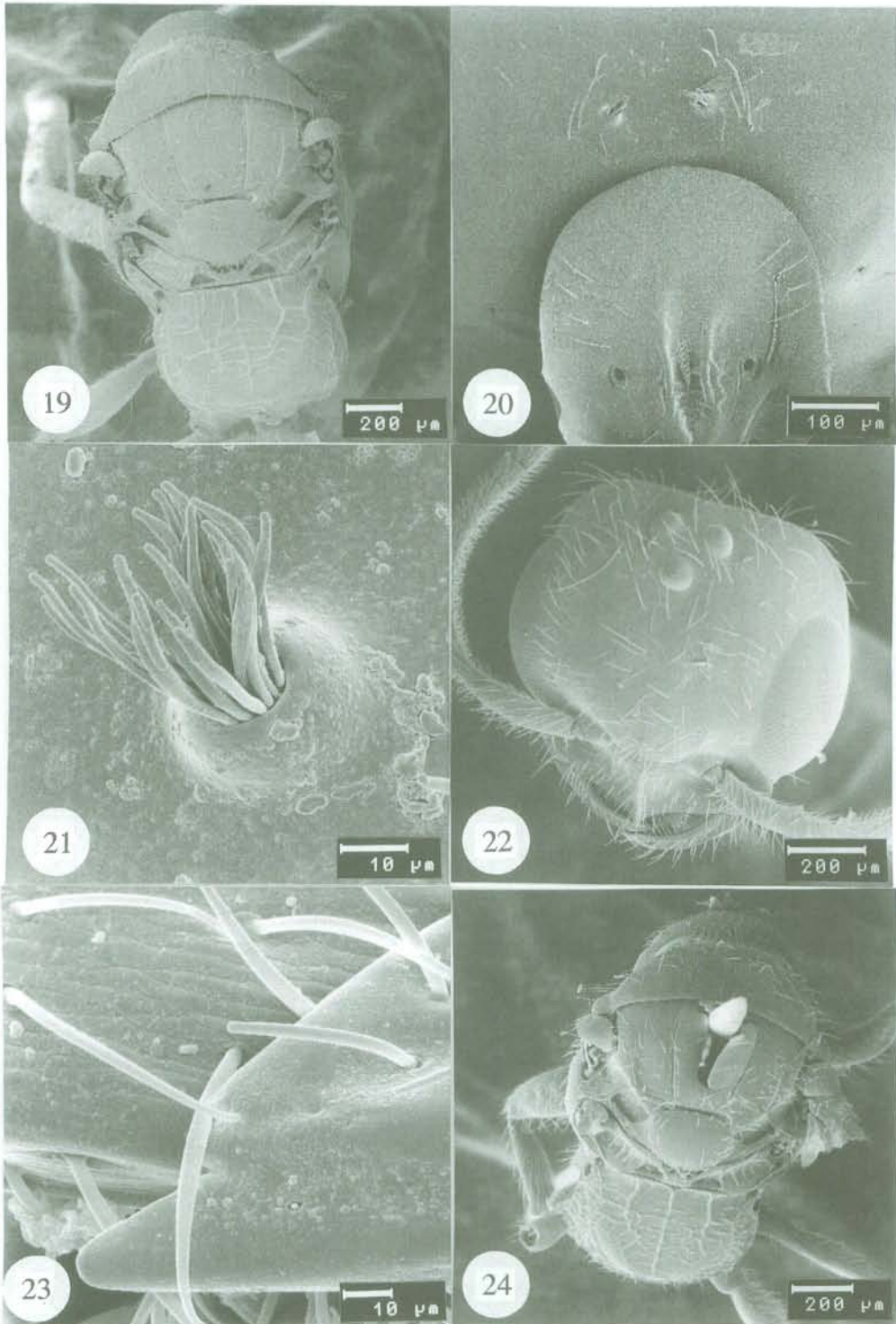
Figs. 1-6. males. 1-4. *D. stellatus*, sp.n. 1. head, dorsal view. 2. mesosoma, dorsal view. 3. gaster, postero-dorsal view. 4. genitalia, lateral view. 5-6. *D. basidentatus*, sp.n. 5. head, dorsal view. 6. mandible, frontal view.



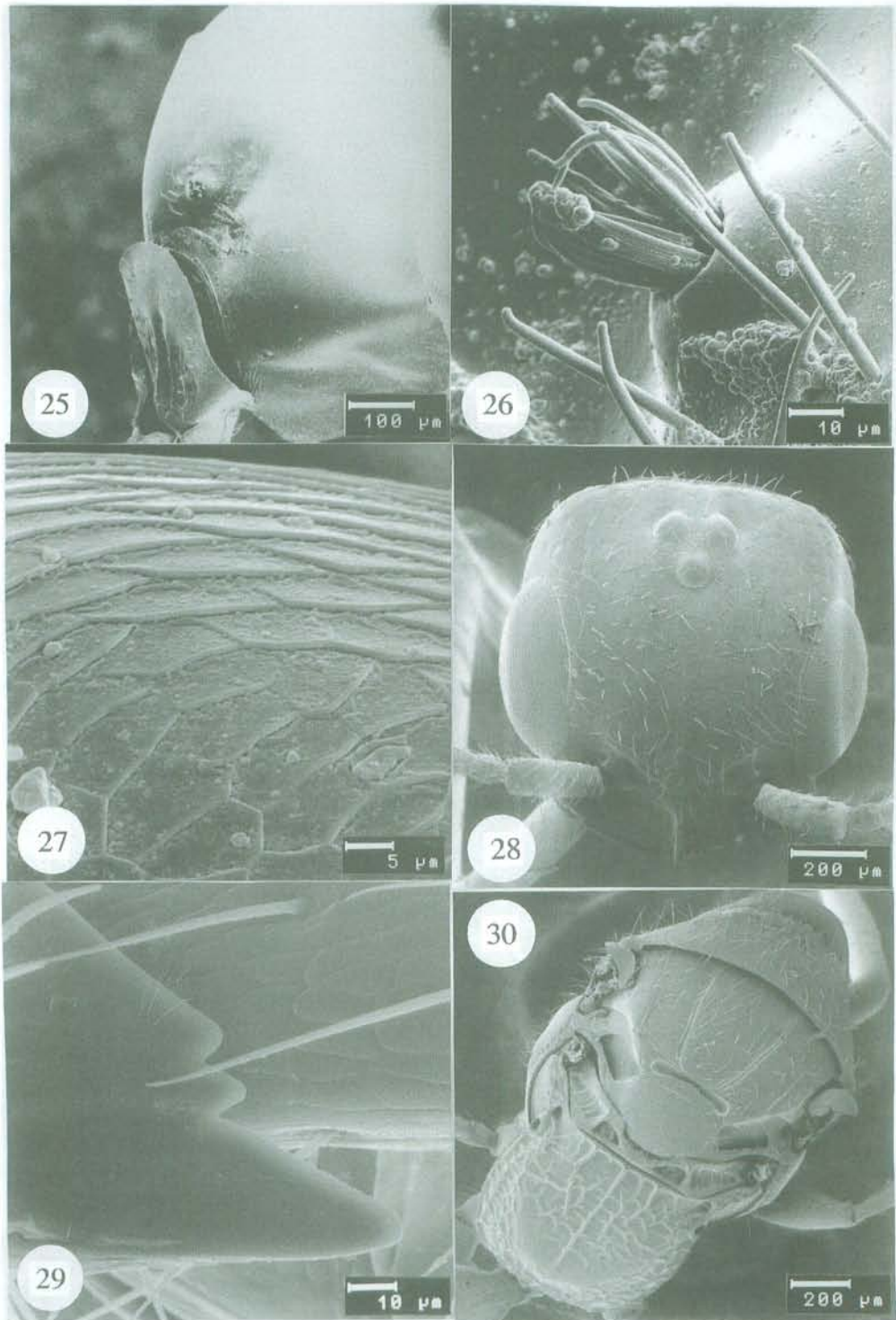
Figs. 7-12. males. 7-10. *D. basidentatus*, sp.n. 7. sensilla, frontal view. 8. mesosoma, dorsal view. 9. gaster, dorsal view. 10. tubercle, lateral view. 11-12. *D. bisserratus*, sp.n. 11. head, dorsal view. 12. mandible, frontal view.



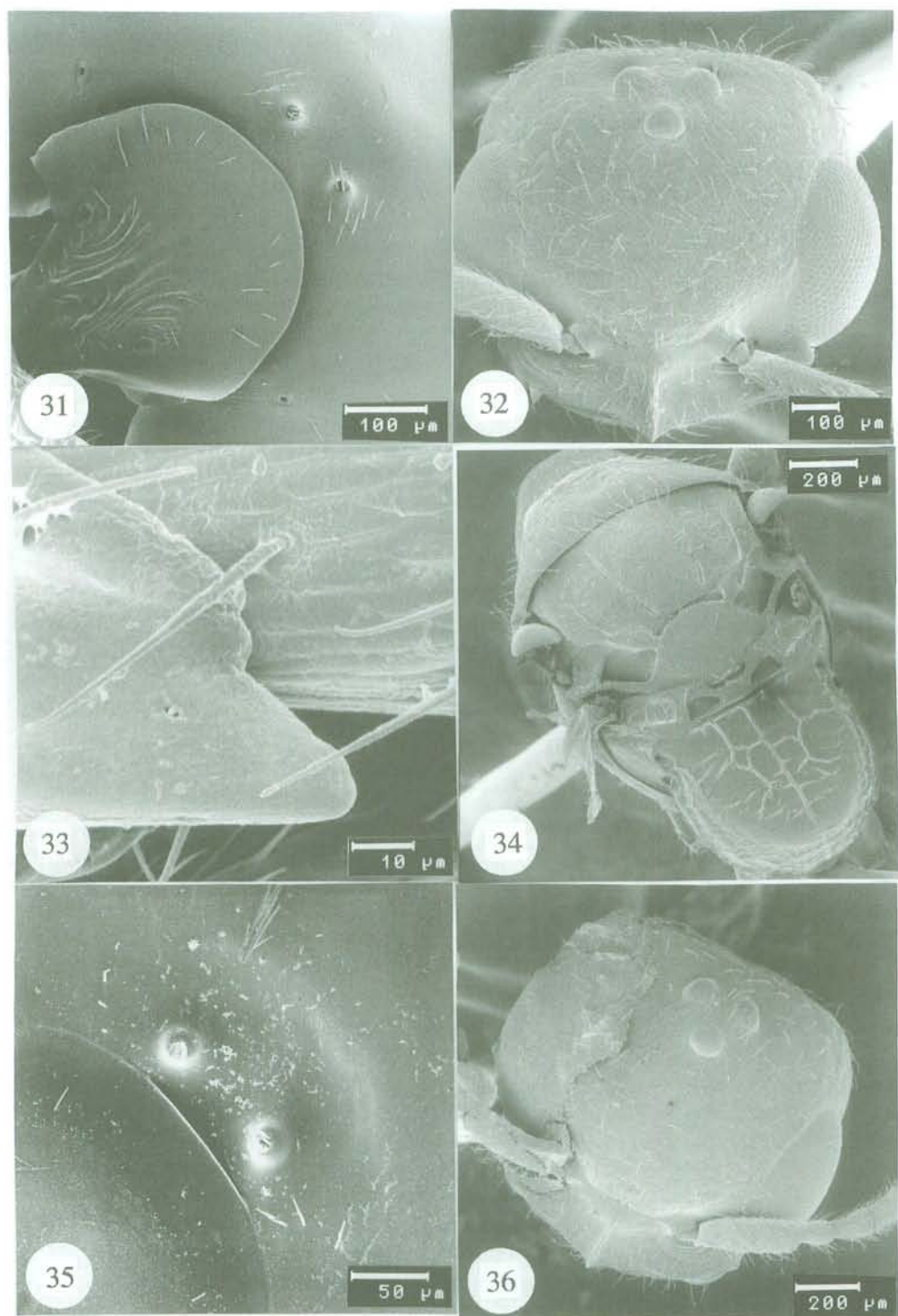
Figs. 13-18. males. 13-16. *D. bisserratus*, sp.n. 13. mesosoma, dorsal view. 14. gaster, dorsal view. 15. tubercle, latero-dorsal view. 16. genitalia, lateral view. 17-18. *D. polidentatus*, sp.n. 17. head, dorsal view. 18. mandible, frontal view.



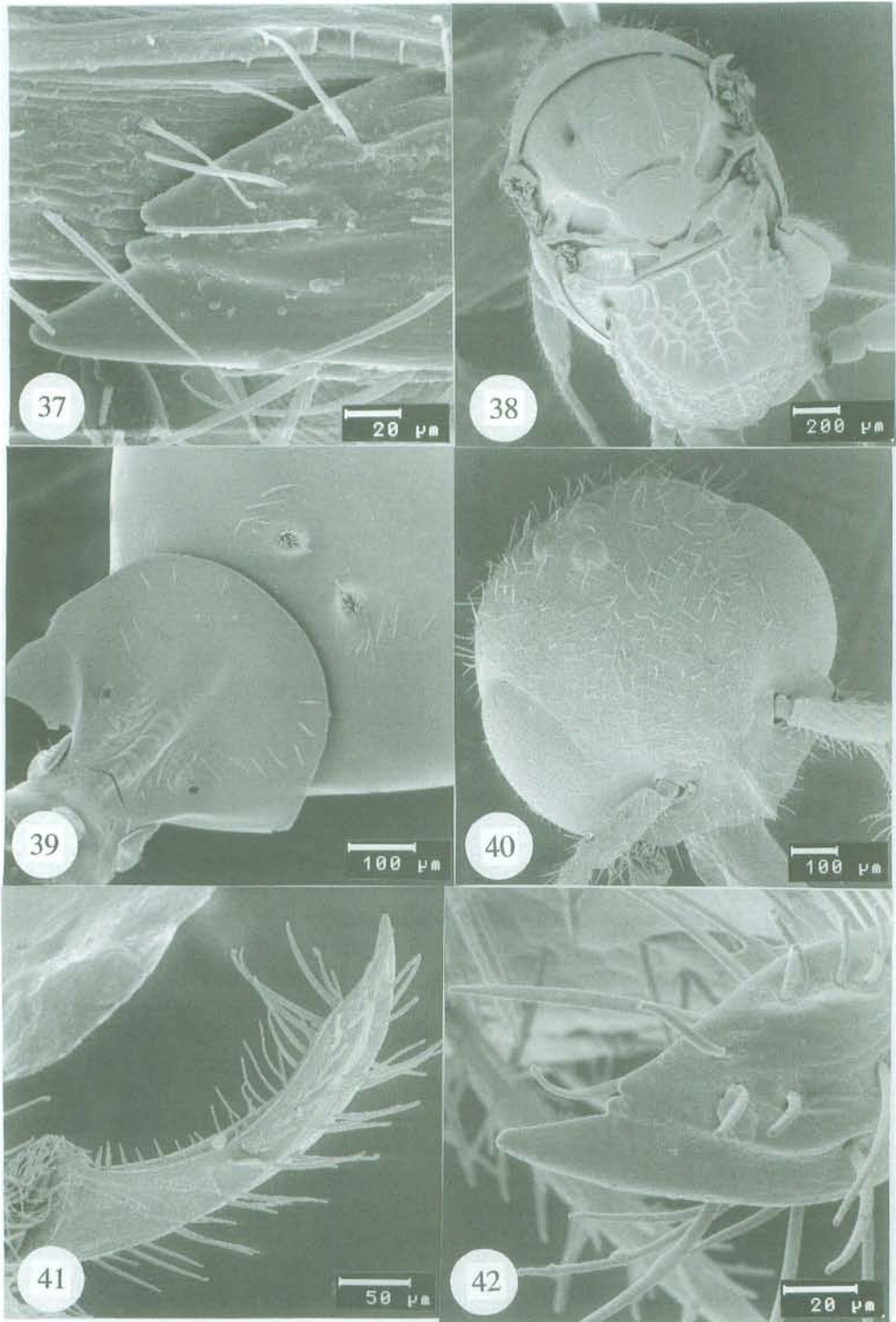
Figs. 19-24. males. 19-21. *D. polidentatus*, sp.n. 19. mesosoma, dorsal view. 20. gaster, dorsal view. 21. tubercle, dorsal view. 22-24. *D. bifurcatus*, sp.n. 22. head, dorsal view. 23. mandible, frontal view. 24. mesosoma, dorsal view.



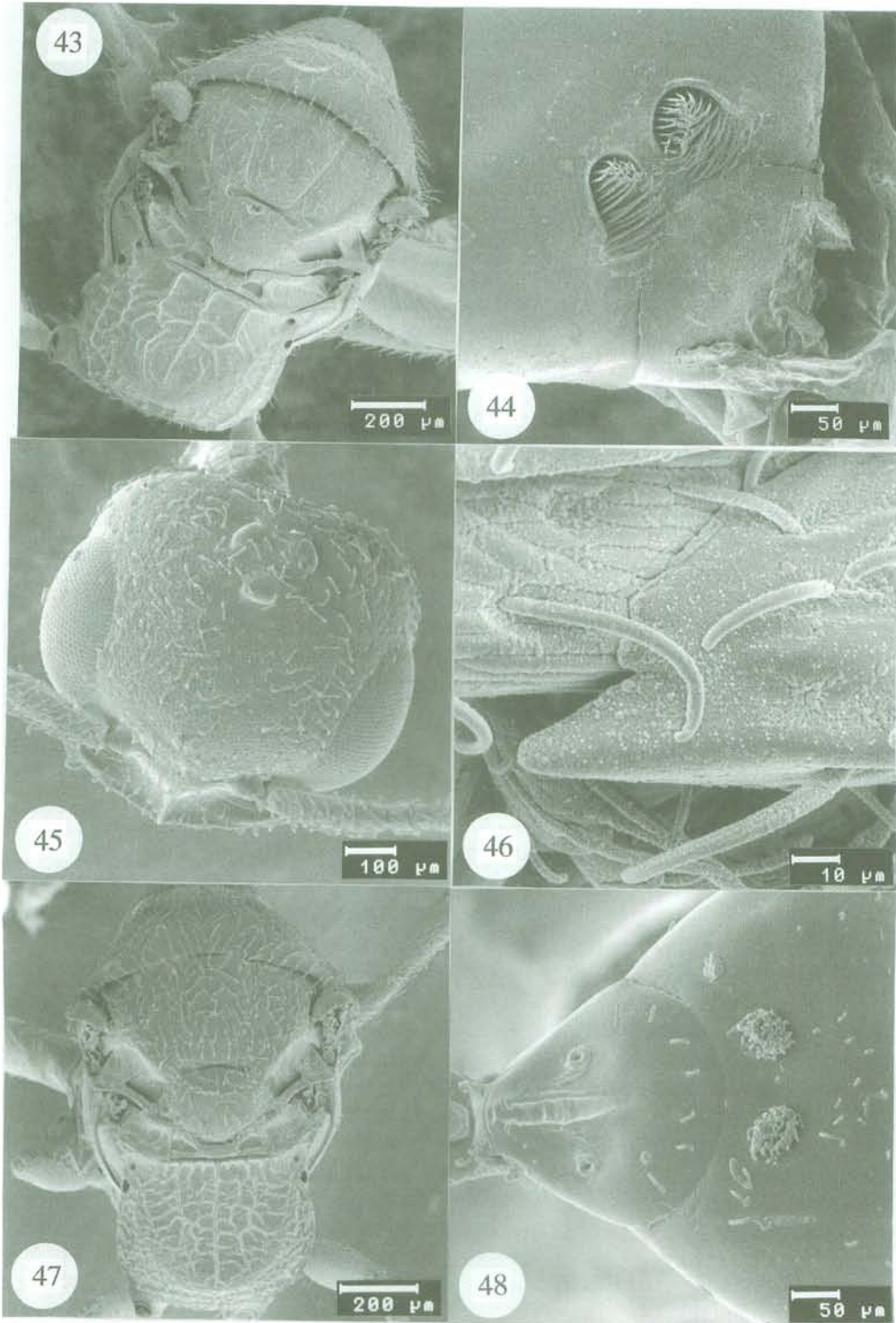
Figs. 25-30. males. 25-27. *D. bifurcatus*, sp.n. 25. gaster, latero-dorsal view. 26. tubercle, latero-dorsal view. 27. paramere, latero-dorsal view. 28-30. *D. dilatatus*, sp.n. 28. head, dorsal view. 29. mandible, frontal view. 30. mesosoma, dorsal view.



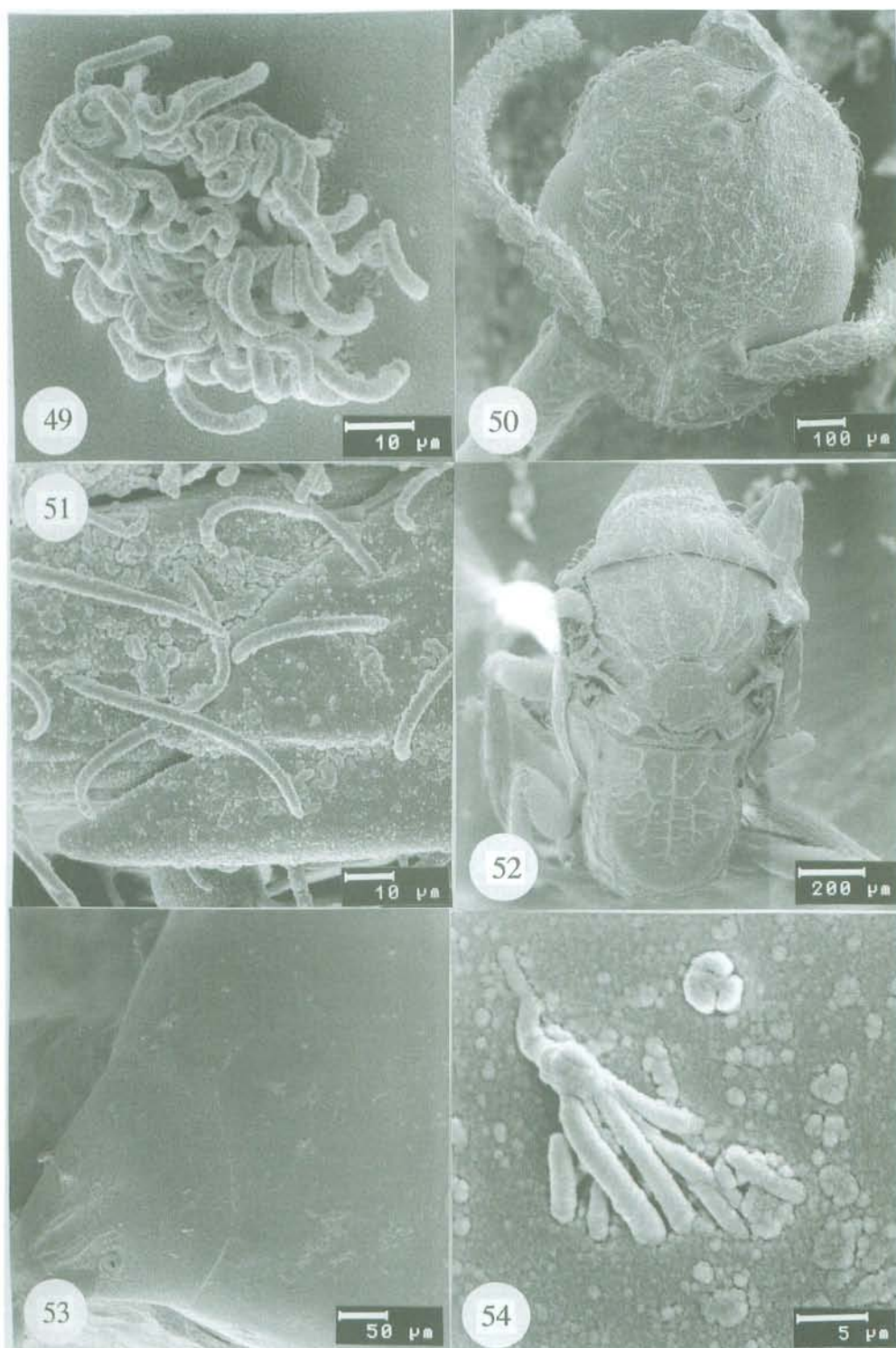
Figs. 31-36. males. 31. *D. dilatatus*, sp.n., gaster, dorsal view. 32-35. *D. strictus*, sp.n. 32. head, dorsal view. 33. mandible, frontal view. 34. mesosoma, dorsal view. 35. gaster, dorsal view. 36. *D. digitatus*, sp.n., head, dorsal view.



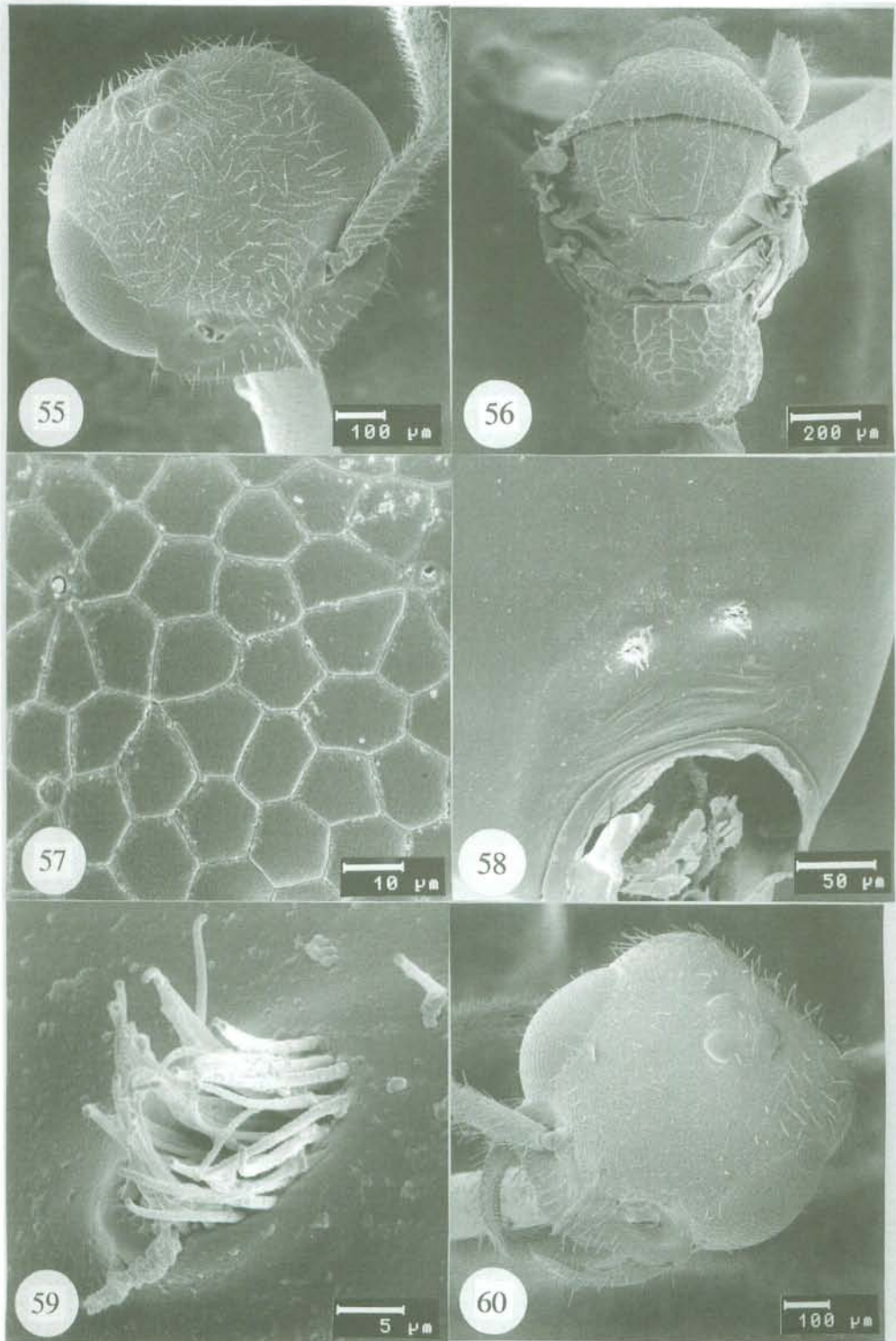
Figs. 37-42. males. 37-39. *D. digitatus*, sp.n. 37. mandible frontal view. 38. mesosoma, dorsal view. 39. gaster, dorsal view. 40-42. *D. curvijoveatus*, sp.n.. 40. head, dorsal view. 41. mandible, dorsal view. 42. mandible, frontal view.



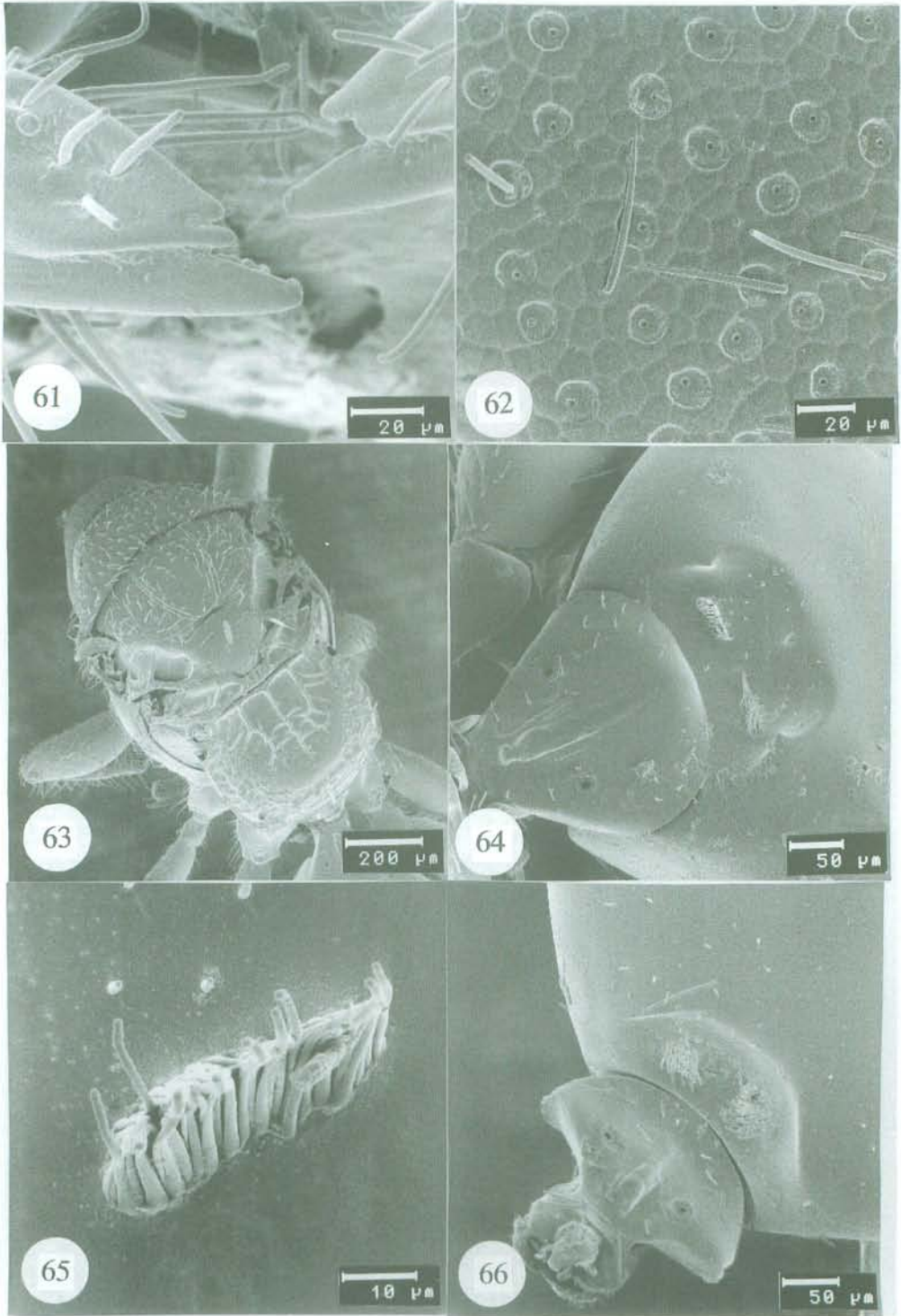
Figs. 43-48. males. 43-44. *D. curvifoveatus*, sp.n.. 43. mesosoma, dorsal view. 44. gaster, dorsal view. 45-48. *D. angulatus*, sp.n. 45. head, dorsal view. 46. mandible, frontal view. 47. mesosoma, dorsal view. 48. gaster, dorsal view.



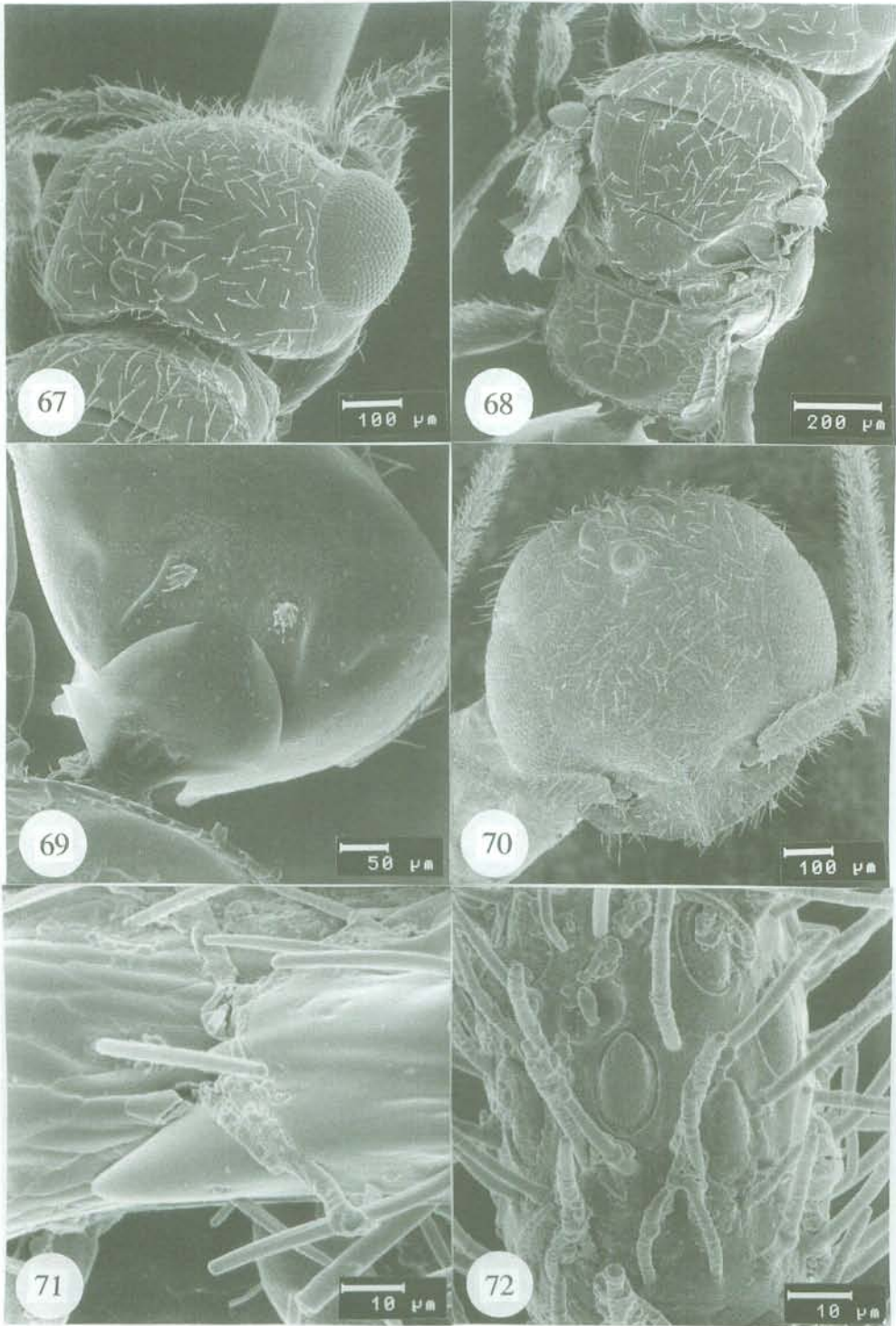
Figs. 49-54. males. 49. *D. angulatus*, sp.n., tuft, latero-dorsal view. 50-54. *D. microculus*, sp.n. 50. head, dorsal view. 51. mandible, frontal view. 52. mesosoma, dorsal view. 53. gaster, dorsal view. 54. tuft, dorsal view.



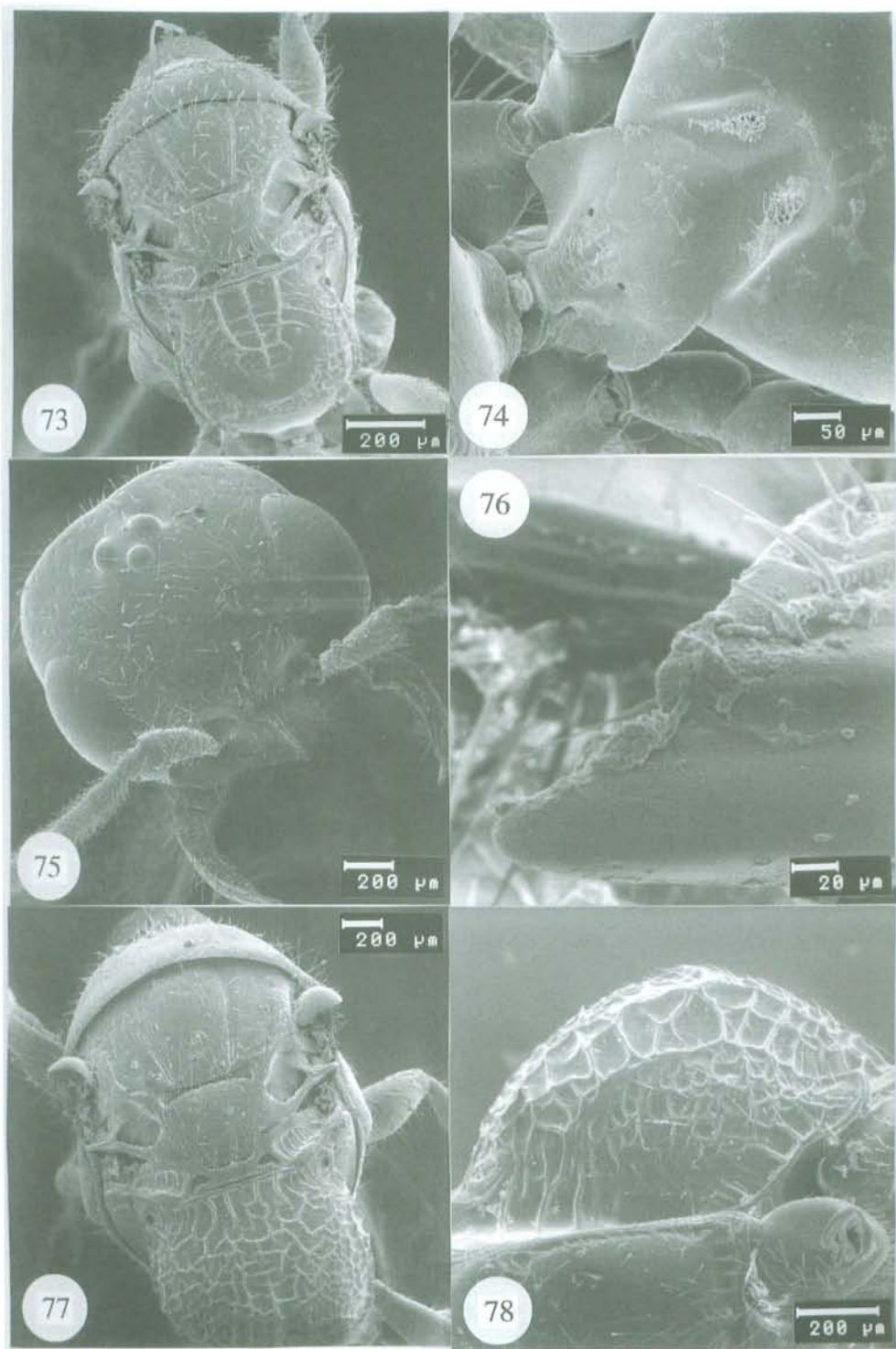
Figs. 55-60. males. 55-59. *D. rasissimus*, sp.n. 55. head, dorsal view. 56. mesosoma, dorsal view. 57. texture of scutellum, dorsal view. 58. gaster, postero-dorsal view. 59. tubercle, latero-dorsal view. 60. *D. linearis*, sp.n., head, dorsal view.



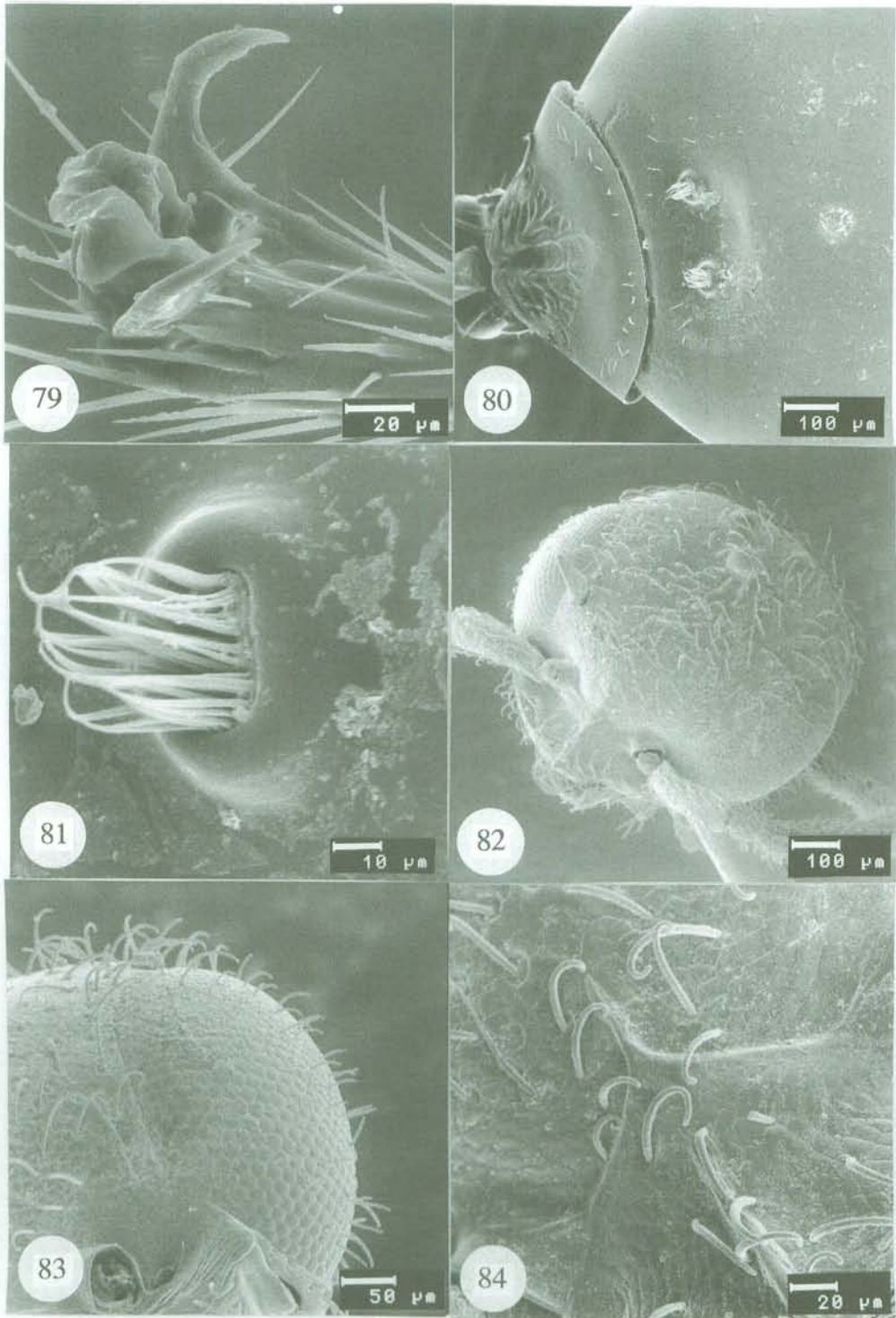
Figs. 61-66. males, *D. linearis*, sp.n. 61. mandible, frontal view. 62. texture of head, dorsal view. 63. mesosoma, dorsal view. 64. gaster, dorsal view. 65. tuft, dorsal view. 66. gaster, postero-dorsal view.



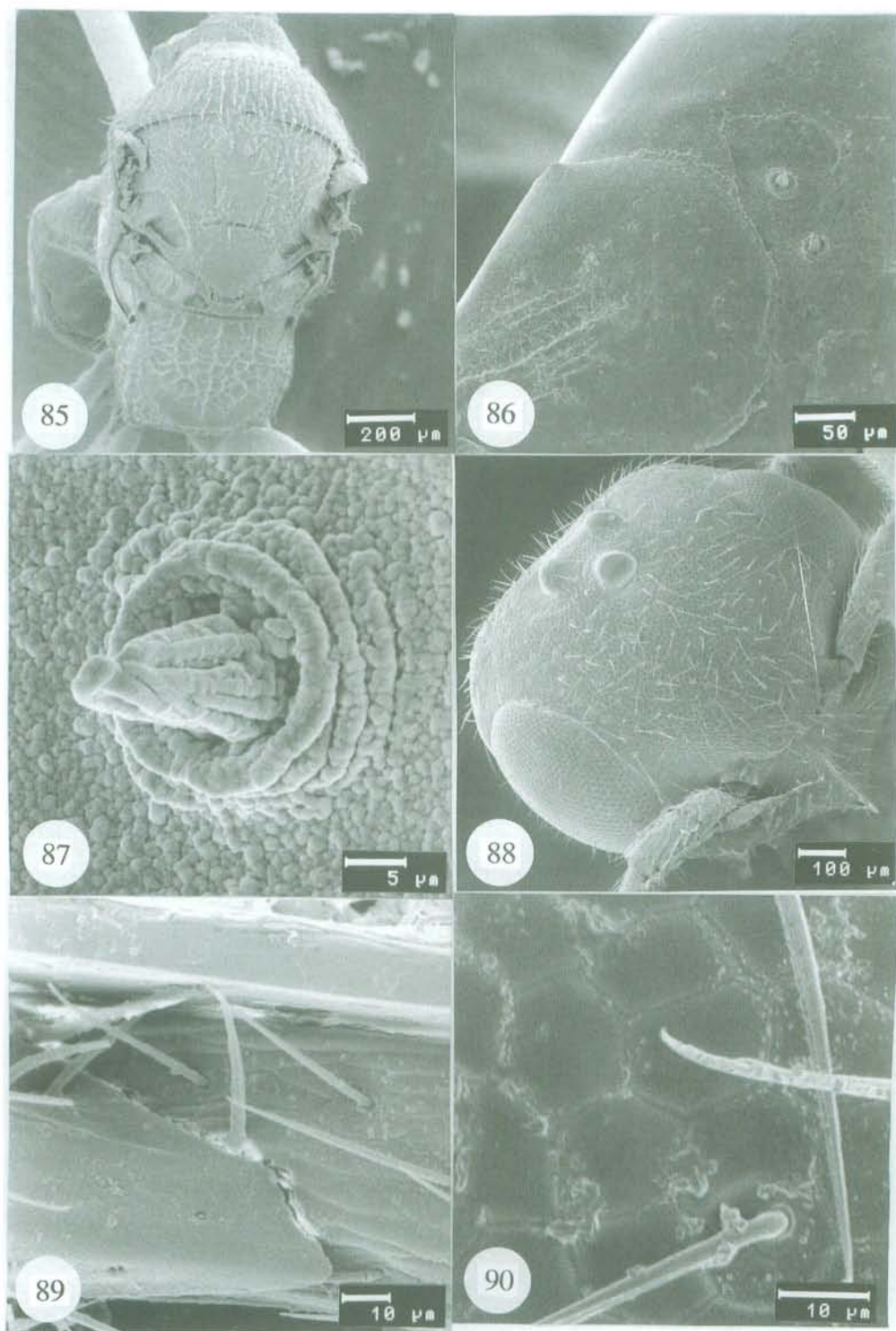
Figs. 67-72. males. 67-69. *D. completus*, sp.n. 67. head, postero-dorsal view. 68. mesosoma, dorsal view. 69. gaster, dorsal view. 70-72. *D. incompletus*, sp.n. 70. head, dorsal view. 71. mandible, frontal view. 72. sensilla, frontal view.



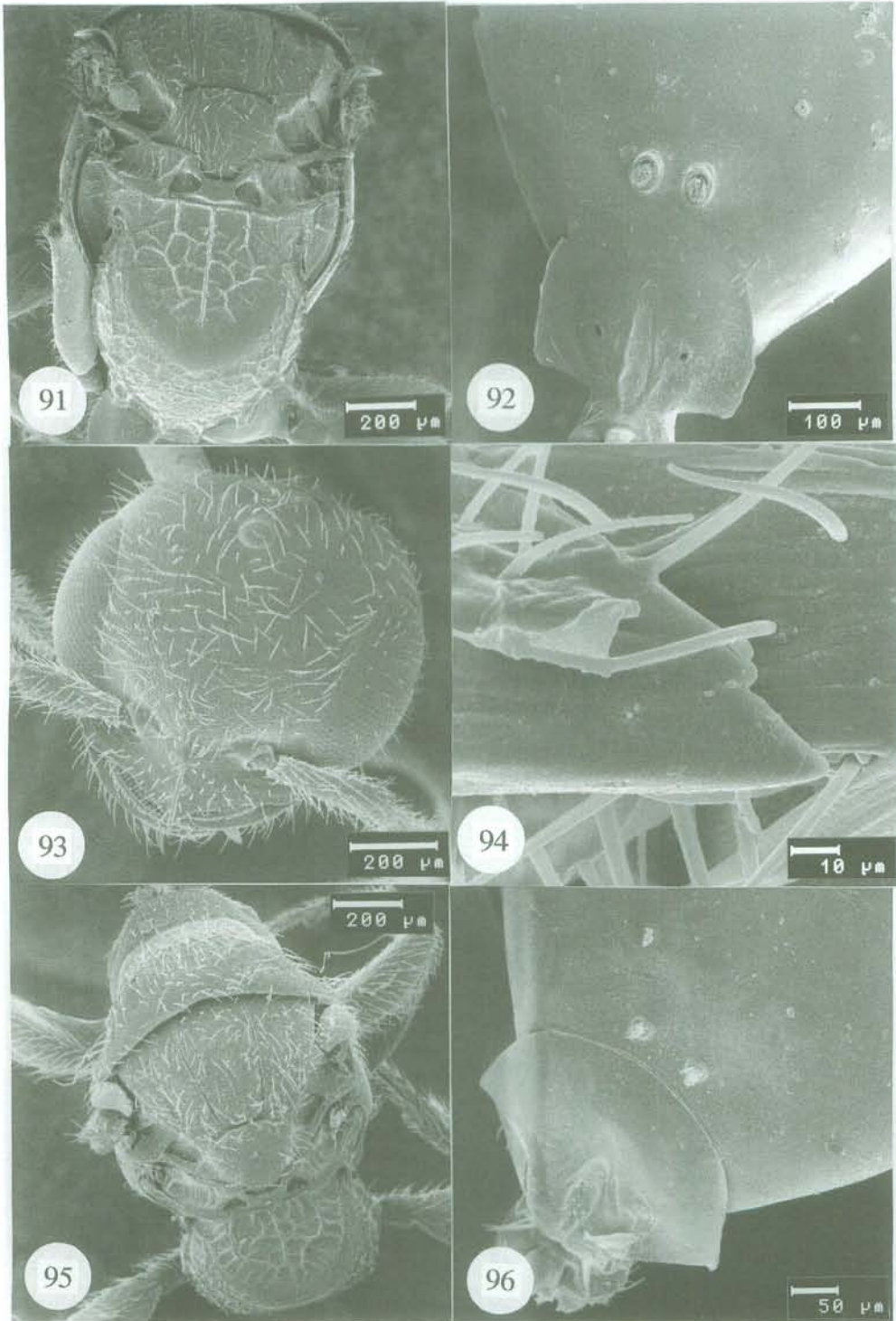
Figs. 73-78. males. 73-74. *D. incompletus*, sp.n. 73. mesosoma, dorsal view. 74. gaster, dorsal view. 75-78. *D. gigantis*, sp.n. 75. head, dorsal view. 76. mandible, frontal view. 77. mesosoma, dorsal view. 78. metapleuron, lateral view.



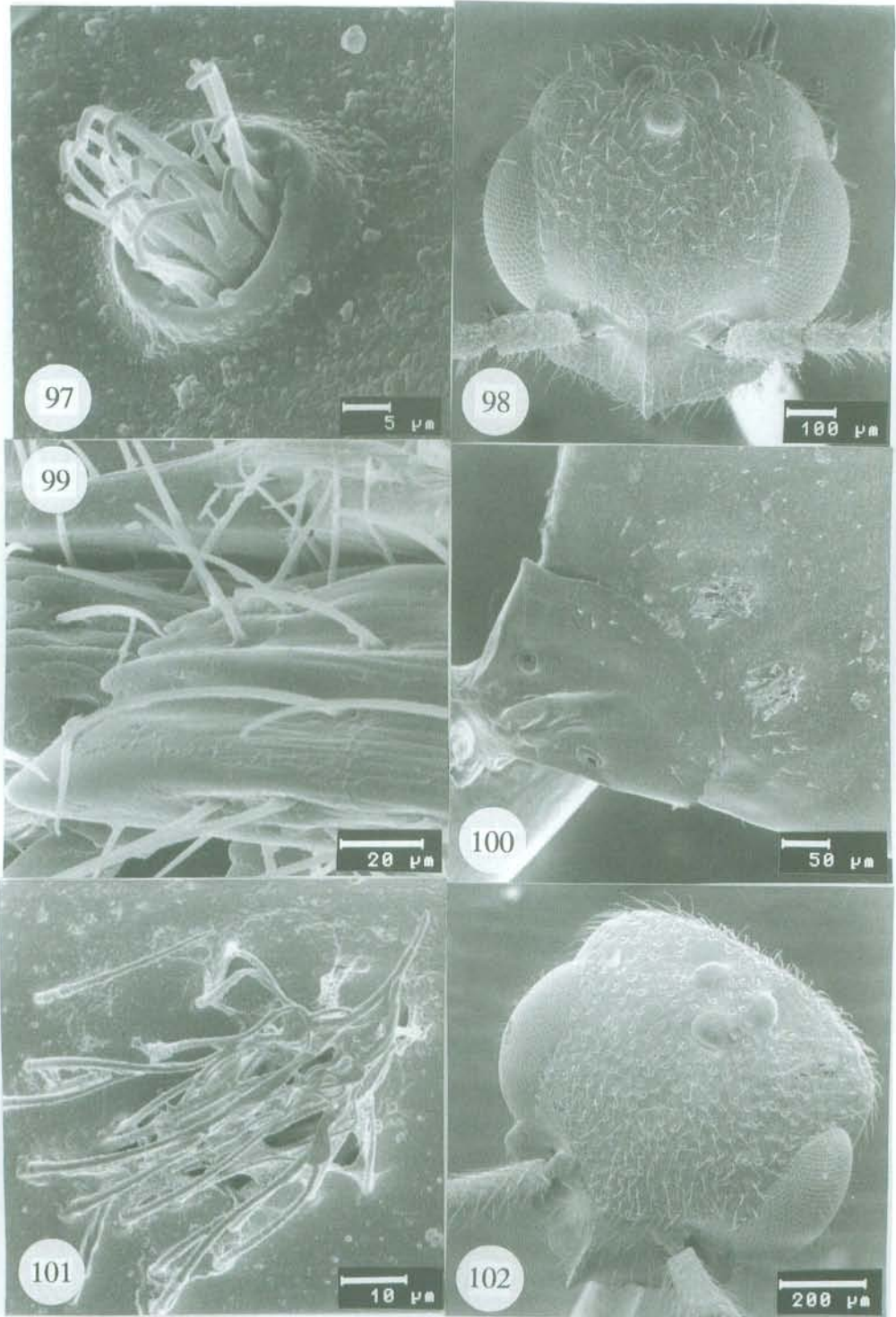
Figs. 79-84. malcs. 79-81. *D. gigantus*, sp.n. 79. claw, lateral view. 80. gaster, dorsal view. 81. tubercle, latero-dorsal view. 82-84. *D. serratus*, sp.n. 82. head, dorsal view. 83. cyc, frontal view. 84. clypeal-frontal suture, dorsal view.



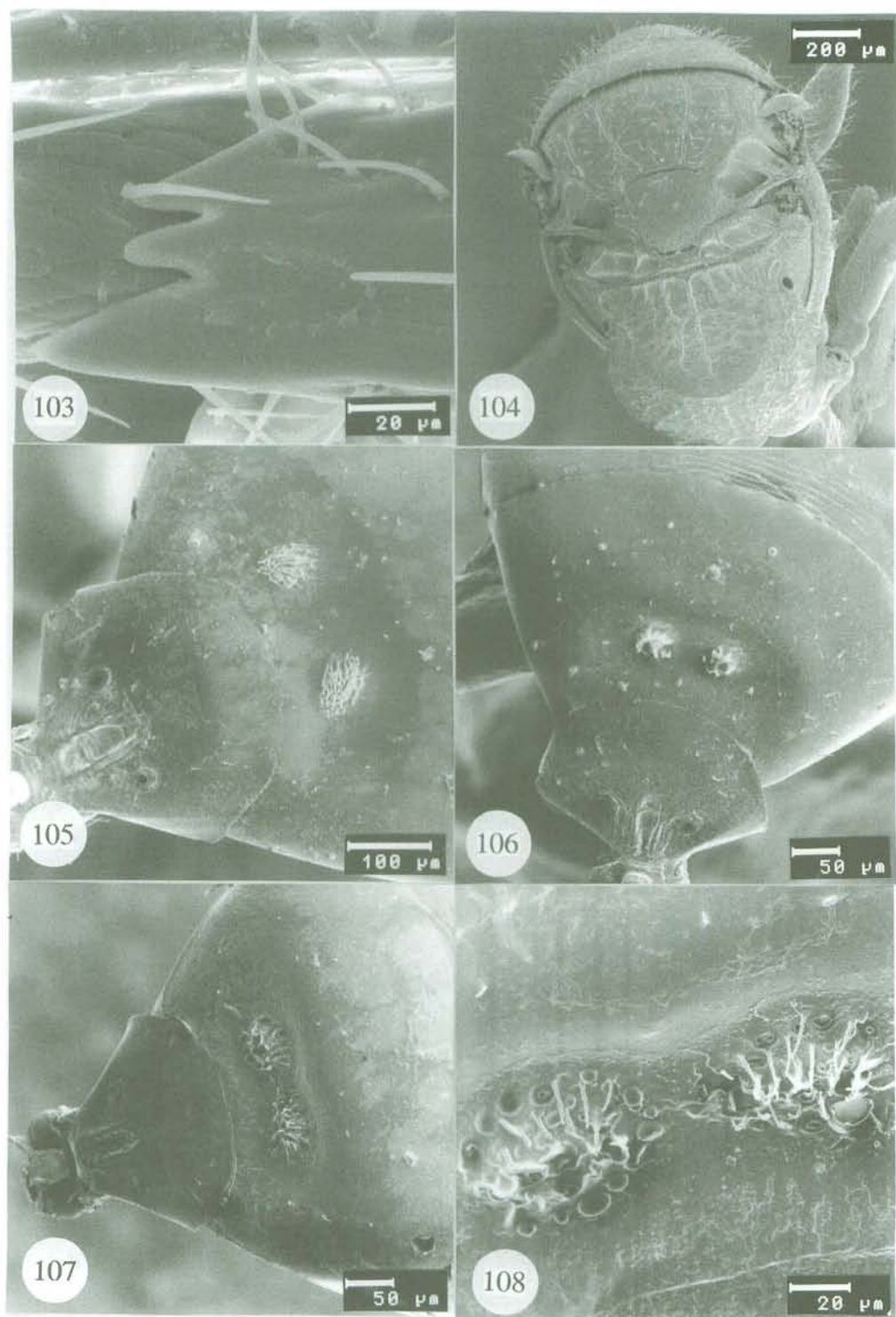
Figs. 85-90. males. 85-87. *D. serratus*, sp.n. 85. mesosoma, dorsal view. 86. gaster, dorsal view. 87. tubercle, dorsal view. 88-90. *D. scamatus*, sp.n. 88. head, dorsal view. 89. mandible, frontal view. 90. texture of head, dorsal view.



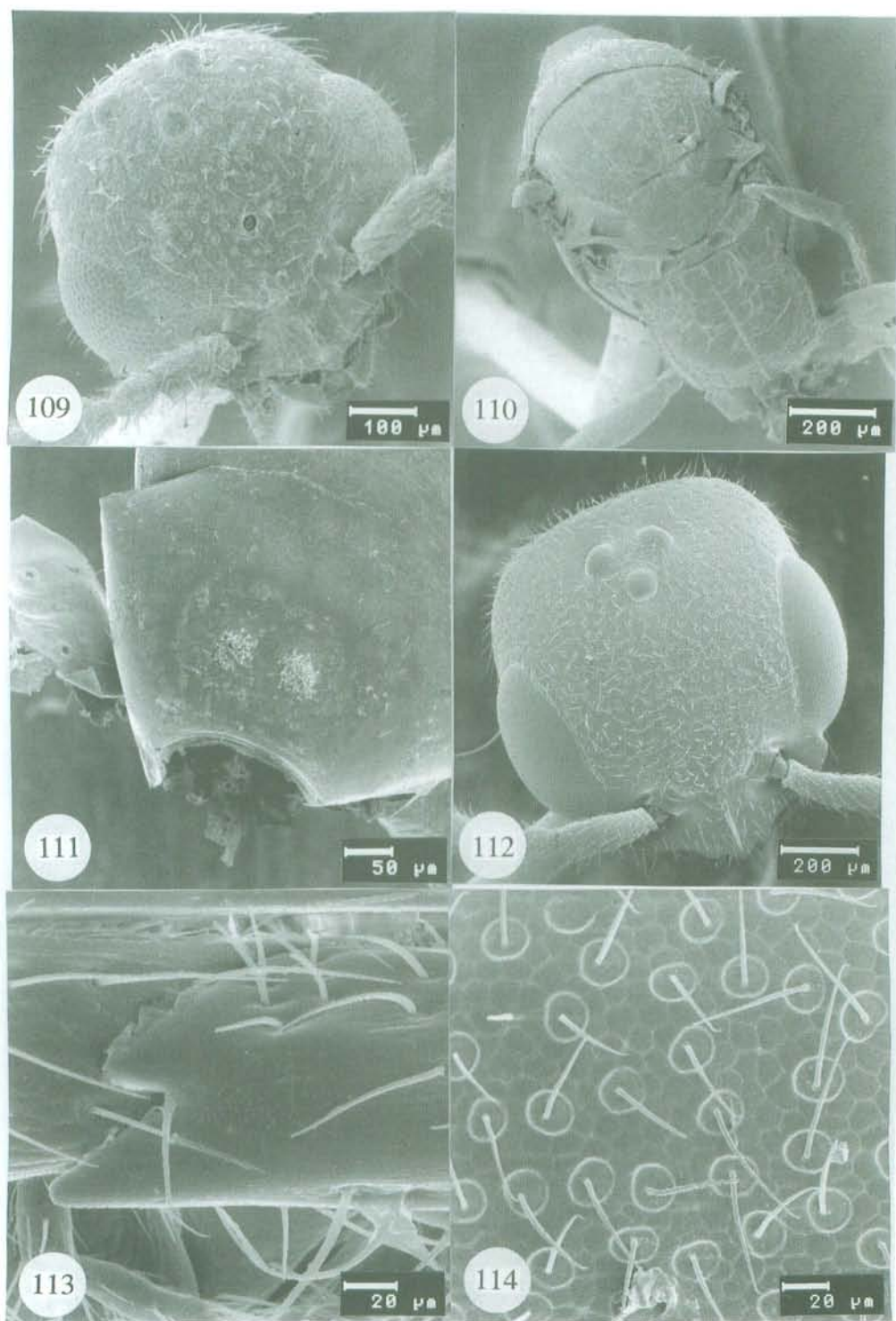
Figs. 91-96. *D. scamatus*, sp.n. 91. mesosoma, dorsal view. 92. gaster, dorsal view. 93-96. *D. multicoriaceus*, sp.n. 93. head, dorsal view. 94. mandible, frontal view. 95. mesosoma, dorsal view. 96. gaster, dorsal view.



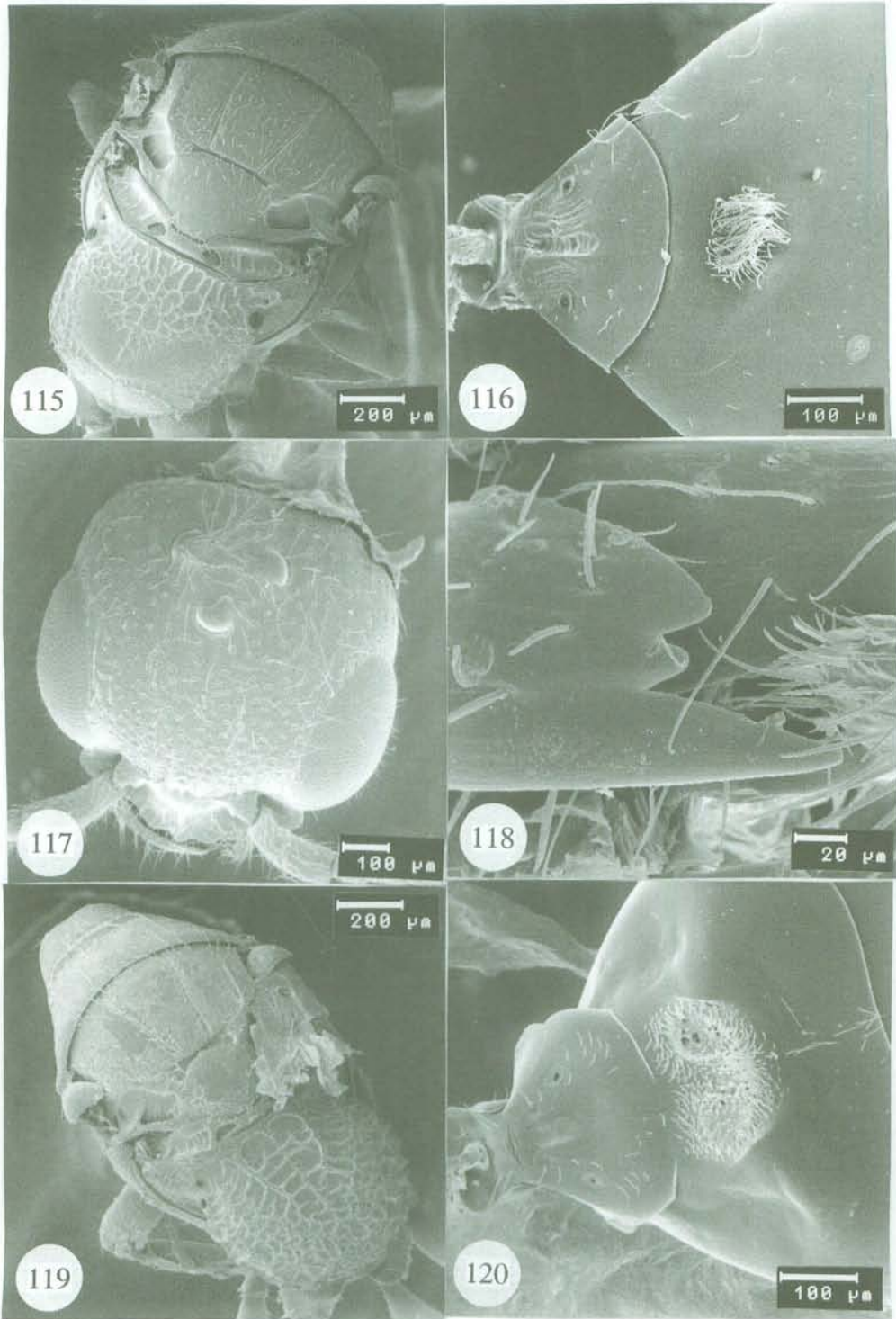
Figs. 97-102. males. 97. *D. multicoriaceus*, sp.n., tubercle, latero-dorsal view. 98-101. *D. concavatus*, sp.n. 98. head, dorsal view. 99. mandible, frontal view. 100. gaster, latero-dorsal view. 101. tuft, dorsal view. 102. *D. rectilineus*, sp.n., head, dorsal view.



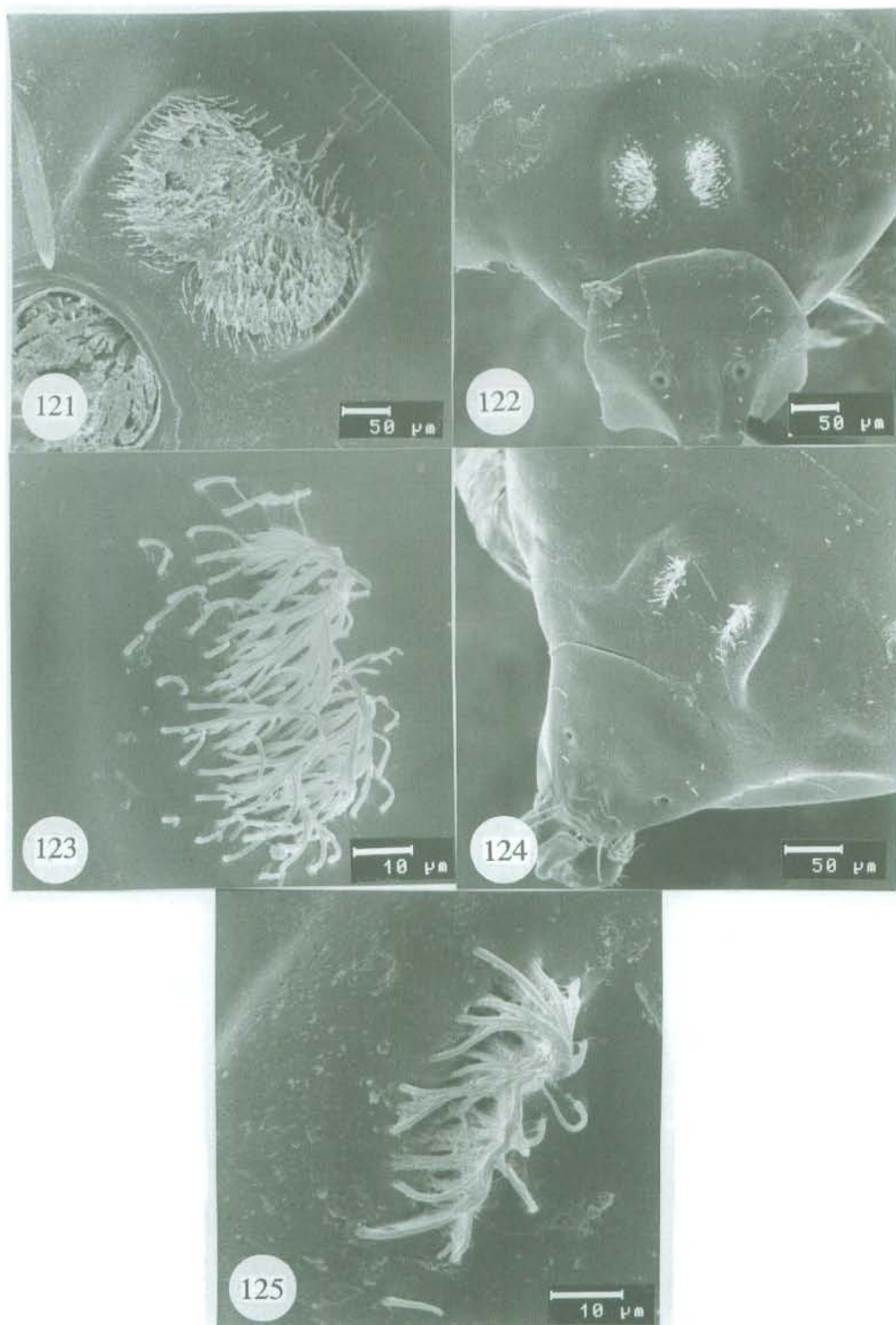
Figs. 103-108. males, *D. rectilineus*, sp.n. 103. mandible, frontal view. 104. mesosoma, dorsal view. 105-107. gaster, dorsal view. 108. tuft, dorsal view.



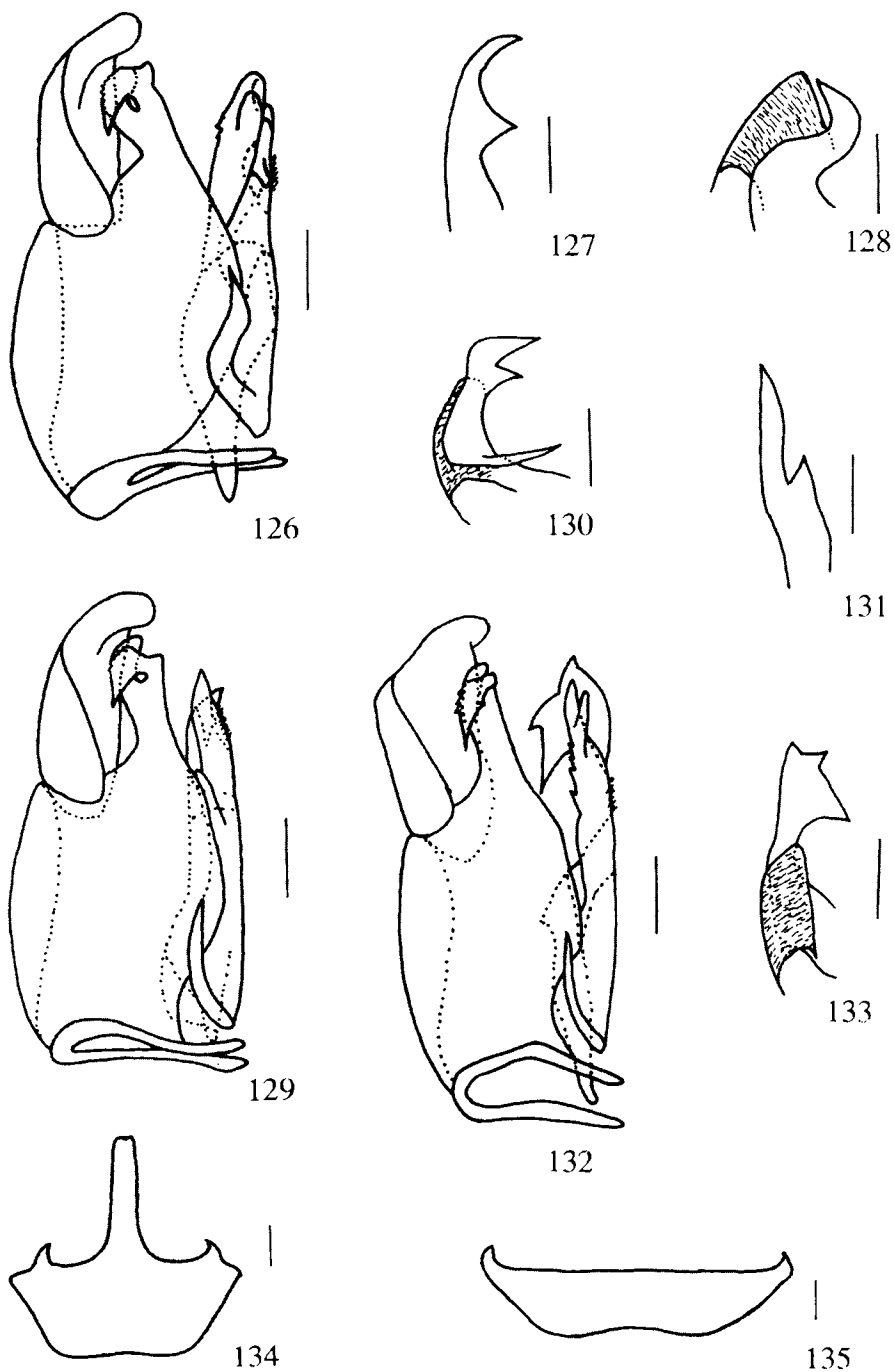
Figs. 109-114. males. 109-111. *D. dentiformis*, sp.n. head, dorsal view. 110. mesosoma, dorsal view. 111. gaster, dorsal view. 112-114. *D. unitus*, sp.n. 112. head, dorsal view. 113. mandible, frontal view. 114. texture of head, dorsal view.



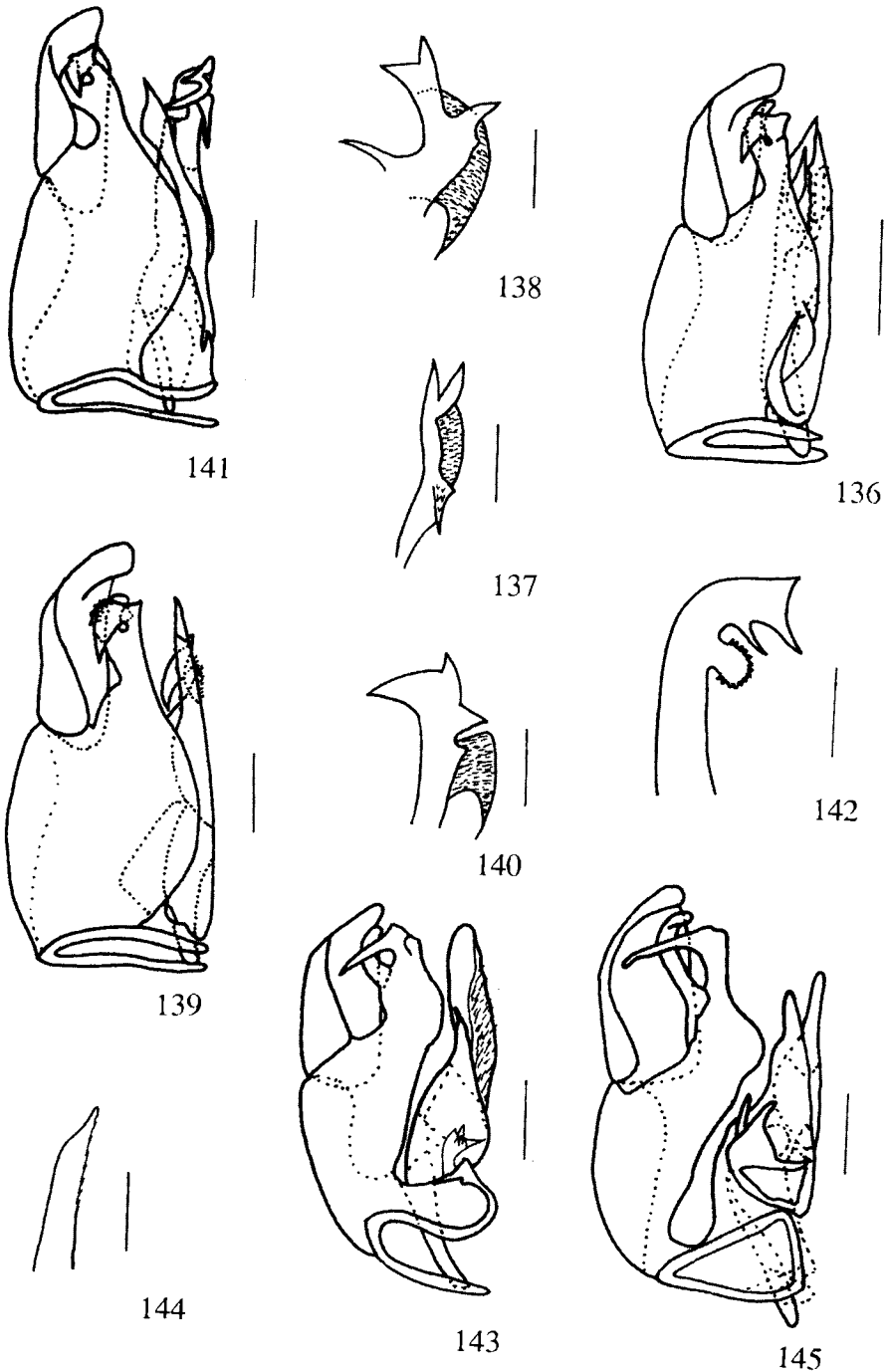
Figs. 115-120. males 115-116. *D. unitus*, sp.n. 115. mesosoma, dorsal view. 116. gaster, dorsal view. 117-120. *D. deformis*, Evans. 117. head, dorsal view. 118. mandible, frontal view. 119. mesosoma, dorsal view. 120. gaster, dorsal view.



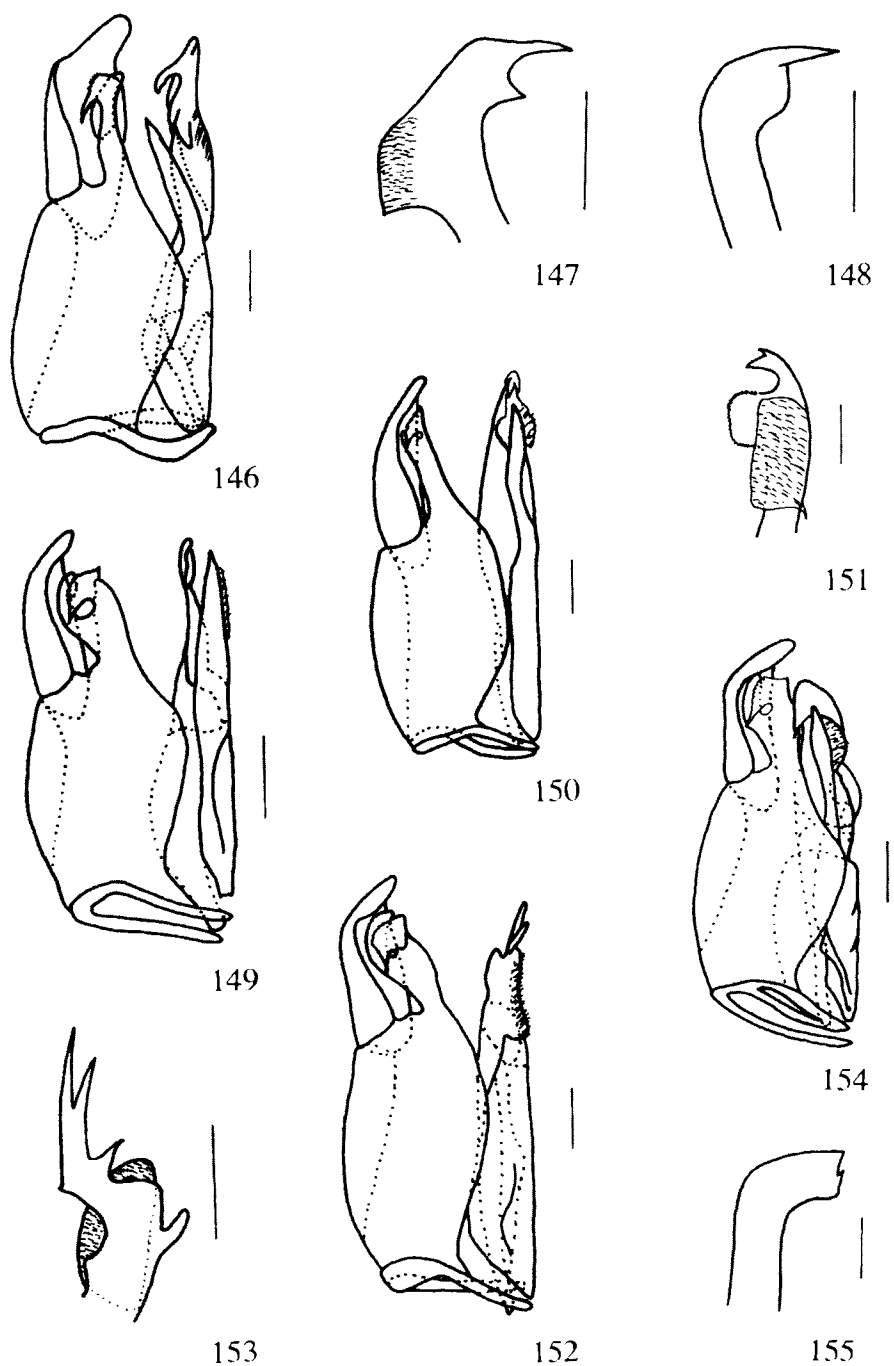
Figs. 121-125. males. 121. *D. megomphalus*, Evans, tuft, dorsal view. 122-123. *D. subdeformis*, sp.n. 122. gaster, dorsal view. 123. tuft, dorsal view. 124-125. *D. lanceolatus*, sp.n. 124. gaster, dorsal view. 125. tuft, dorsal view.



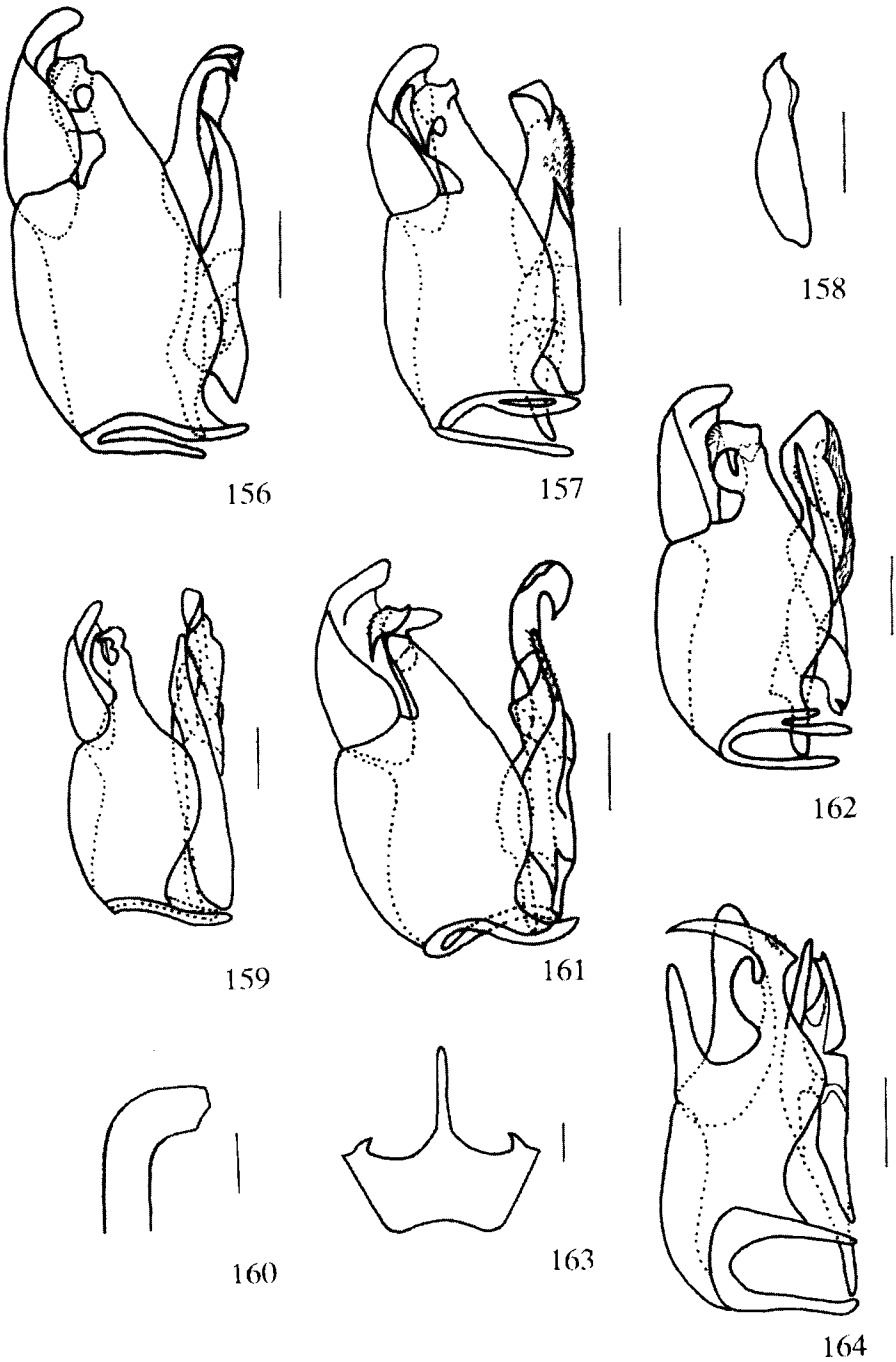
Figs. 126-135. males. 126-128. *D. bicarinatus*, sp.n. 126. genitalia, ventral view. 127. ventral ramus, lateral view. 128. outer lobe of dorsal body of aedeagus, lateral view. 129-131. *D. largidentatus*, sp.n. 129. genitalia, ventral view. 130. outer lobe of dorsal body of aedeagus, lateral view. 131. ventral ramus, lateral view. 132-135. *D. tortuosus*, sp.n. 132. genitalia, ventral view. 133. outer lobe of dorsal body of aedeagus, lateral view. 134. hypopygium, ventral view. 135. sternite VII, ventral view. (scale bars = 100 μ m)



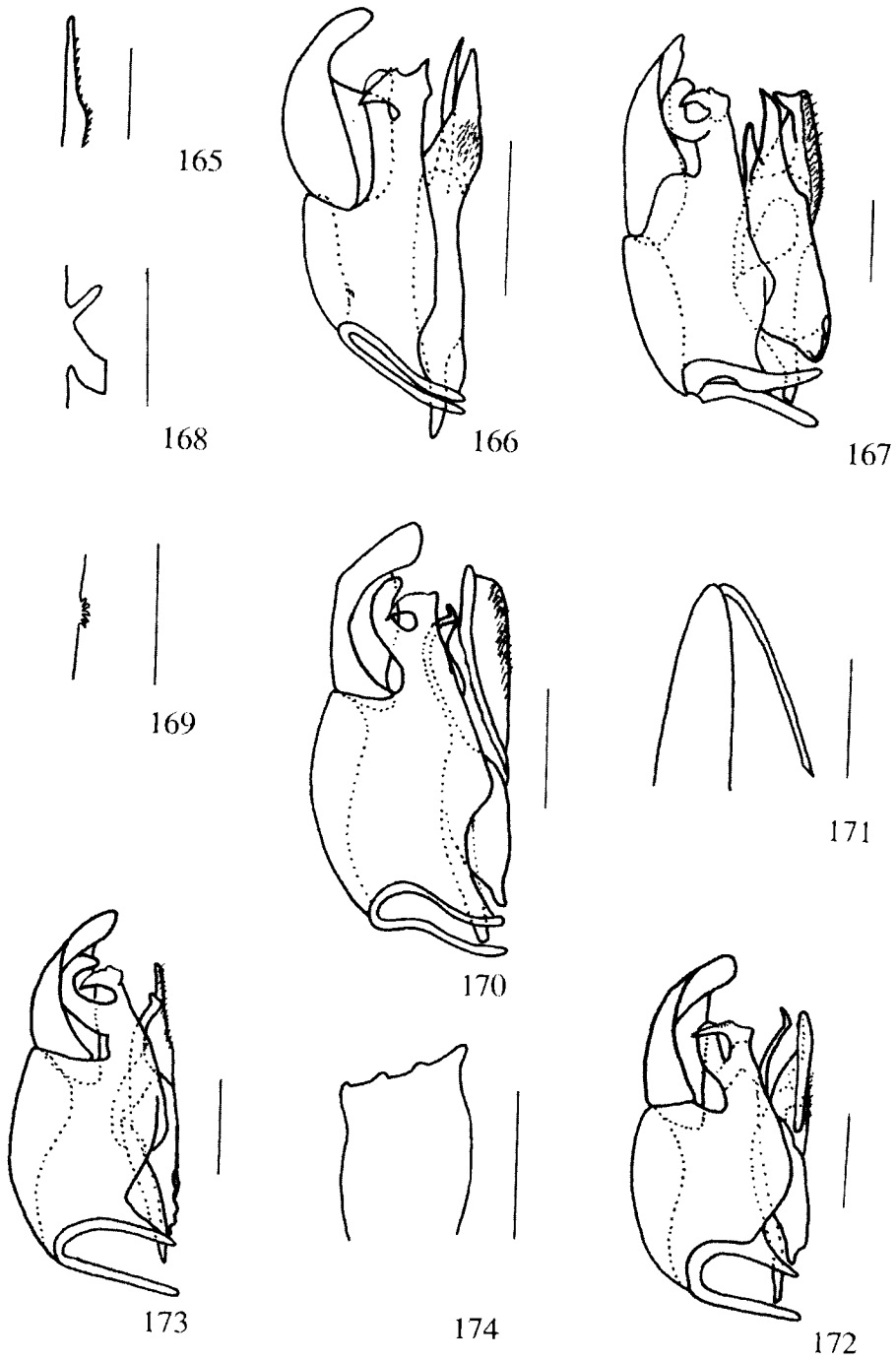
Figs. 136-145. males. 136-138. *D. stellatus*, sp.n. 136. genitalia, ventral view. 137. outer lobe of dorsal body of aedeagus, dorsal view. 138. outer lobe of dorsal body of aedeagus, lateral view. 139-140. *D. scavatus*, sp.n. 139. genitalia, ventral view. 140. outer lobe of dorsal body of aedeagus, lateral view. 141-142. *D. rotundus*, sp.n. 141. genitalia, ventral view. 142. outer lobe of dorsal body of aedeagus, lateral view. 143-144. *D. cerutus*, sp.n. 143. genitalia, ventral view. 144. apex of ventral ramus, lateral view. 145. *D. basidentatus*, sp.n., genitalia, ventral view.



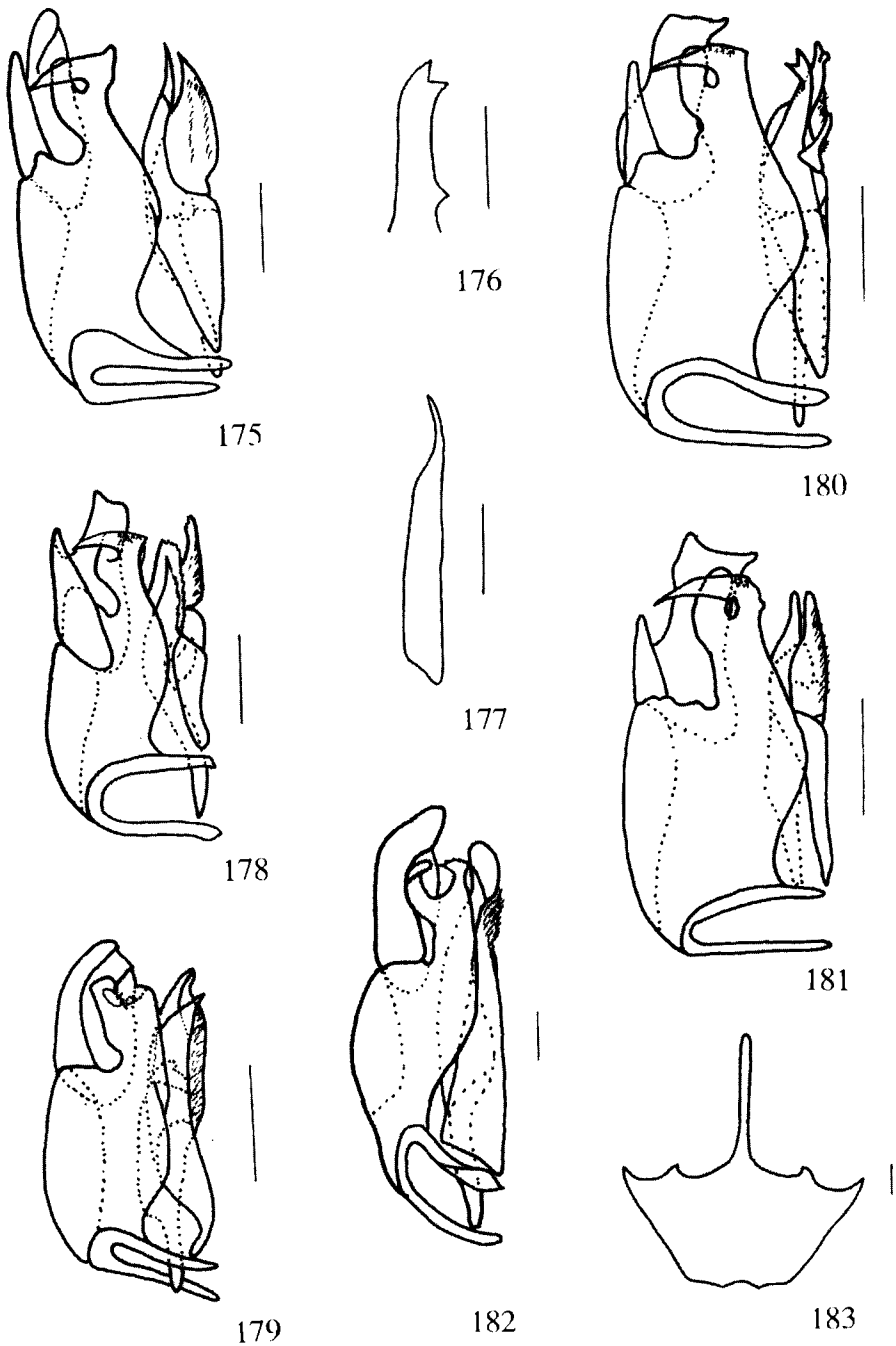
Figs. 146-155. males. 146-148. *D. plamus*, sp.n. 146. genitalia, ventral view. 147. outer lobe of dorsal body of aedeagus, lateral view. 148. median lobe of dorsal body of aedeagus, lateral view. 149. *D. bisserratus*, sp.n., genitalia, ventral view. 150-151. *D. extrarramis*, sp.n. 150. genitalia, ventral view. 151. outer lobe of dorsal body of aedeagus, lateral view. 152-153. *D. polidentatus*, sp.n. 152. genitalia, ventral view. 153. outer lobe of dorsal body of aedeagus, lateral view. 154-155. *D. bifurcatus*, sp.n. 154. genitalia, ventral view. 155. outer lobe of dorsal body of aedeagus, lateral view.



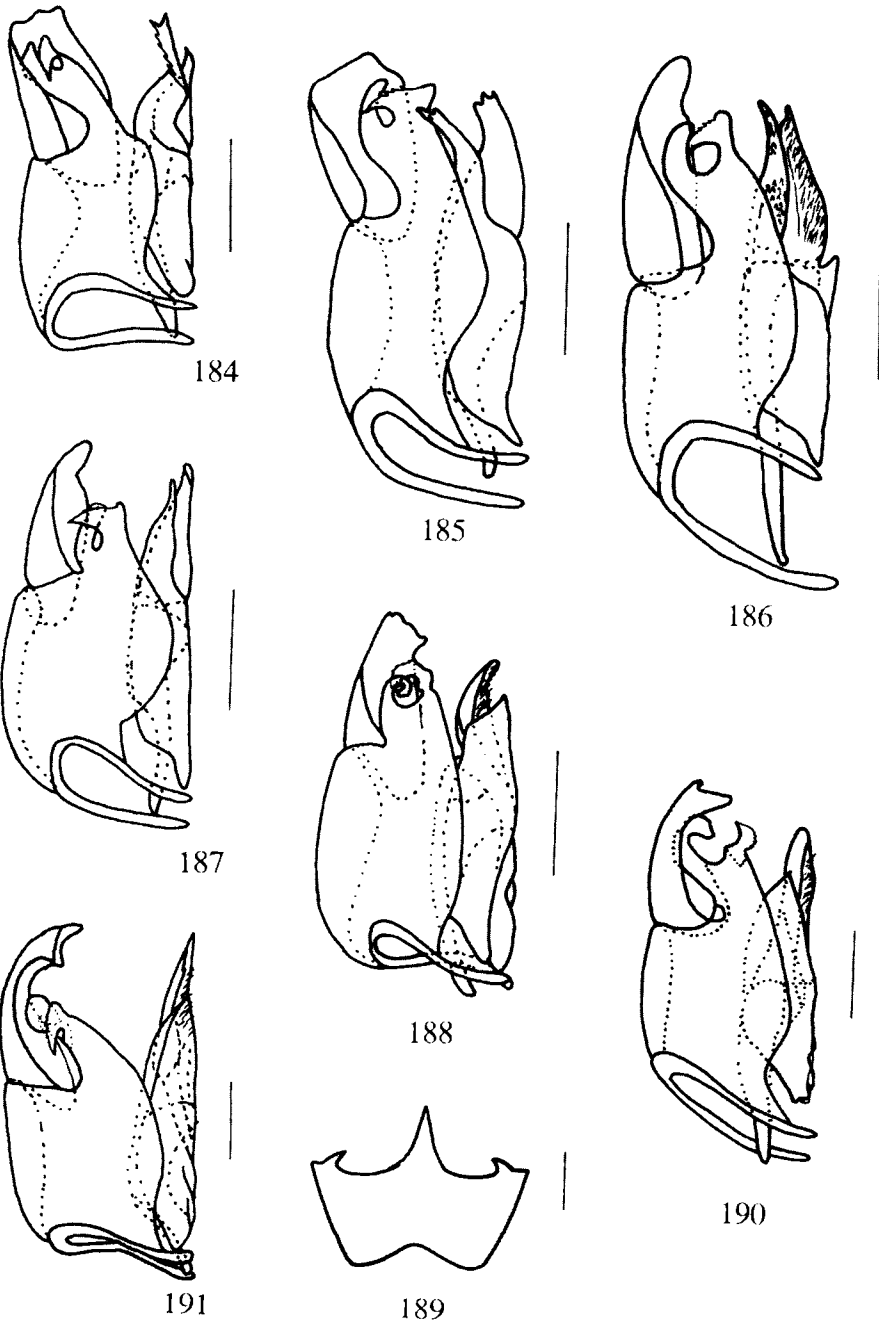
Figs. 156-164. males. 156. *D. triangularis*, sp.n., genitalia, ventral view. 157-158. *D. dilatatus*, sp.n. 157. genitalia, ventral view. 158. ventral ramus, latero-ventral view. 159-160. *D. strictus*, sp.n. 159. genitalia, ventral view. 160. outer lobe of dorsal body of aedeagus, lateral view. 161. *D. digitatus*, sp.n., genitalia, ventral view. 162-163. *D. vallensis* Evans, sp.n. 162. genitalia, ventral view. 163. hypopygium, ventral view. 164. *D. curvifoveatus*, sp.n., genitalia, ventral view.



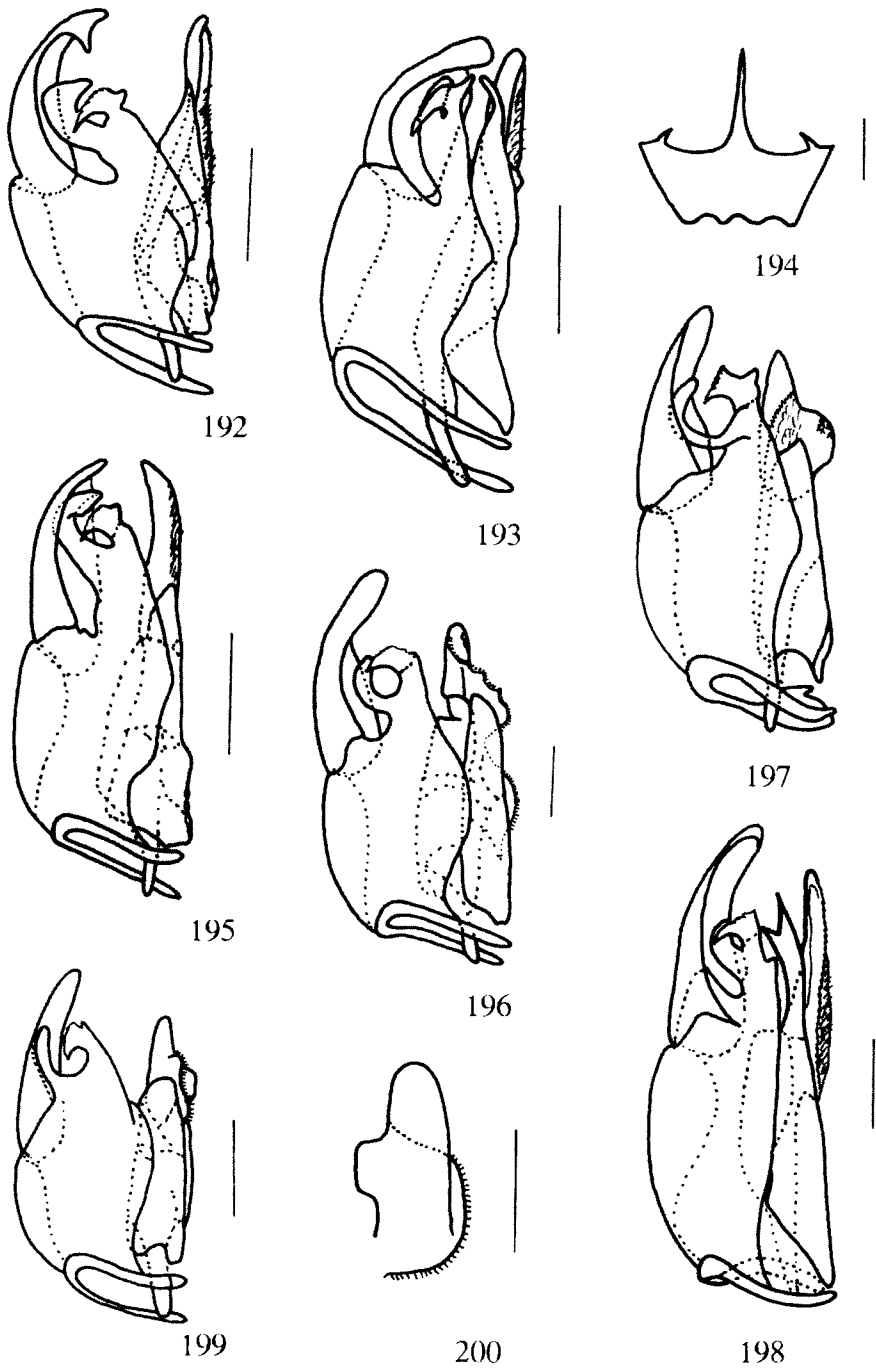
Figs. 165-174. males. 165. *D. curvifoveatus*, sp.n., apex of ventral ramus, latero-ventral view. 166. *D. bisulcus*, Ashmead., genitalia, ventral view. 167-169. *D. horizontalis*, sp.n. 167. genitalia, ventral view. 168. inner projection of aedeagus, ventral view. 169. outer projection of aedeagus, ventral view. 170-171. *D. bifoveatus*, Kieffer. 170. genitalia, ventral view. 171. outer lobe of dorsal body of aedeagus, lateral view. 172. *D. microculus*, sp.n., genitalia, ventral view. 173-174. *D. angulatus*, sp.n. 173. genitalia, ventral view. 174. paramere, lateral view.



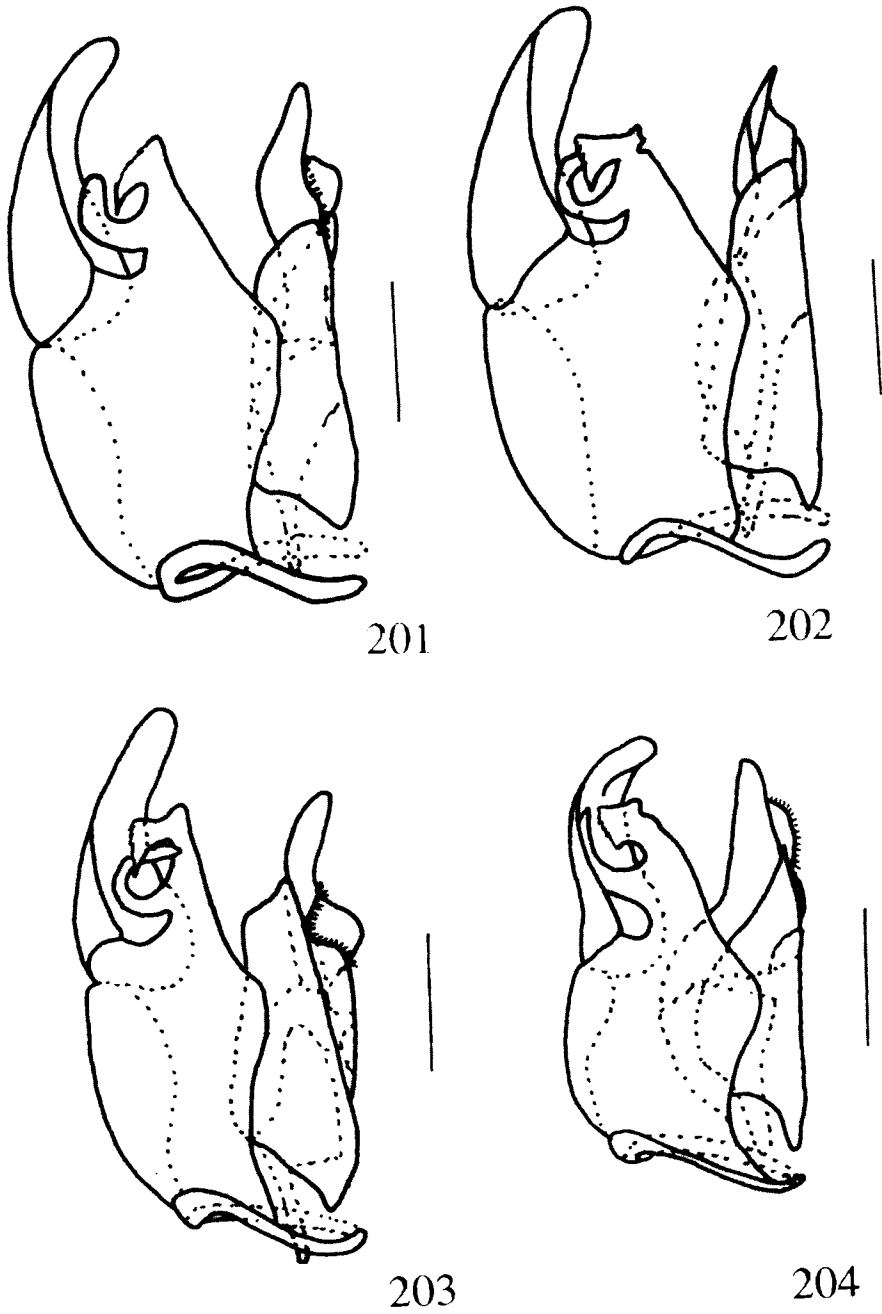
Figs. 175-183. males. 175-177. *D. rasissimus*, sp.n. 175. genitalia, ventral view. 176. outer lobe of dorsal body of aedeagus, lateral view. 177. ventral ramus, lateral view. 178. *D. bilobatus*, sp.n., genitalia, ventral view. 179. *D. linearis*, sp.n., genitalia, ventral view. 180. *D. completus*, sp.n., genitalia, ventral view. 181. *D. incompletus*, sp.n., genitalia, ventral view. 182-183. *D. gigantus*, sp.n. 182. genitalia, ventral view. 183. hypopygium, ventral view.



Figs. 184-191. males. 184-187. genitalia, ventral view. 184. *D. serratus*, sp.n. 185. *D. multicoriaceus*, sp.n. 186. *D. scamatus*, sp.n. 187. *D. longicypeus*, sp.n. 188-189. *D. concavatus*, sp.n. 187. genitalia, ventral view. 189. hypopygium, ventral view. 190. *D. rectilineus*, sp.n., genitalia, ventral view. 191. *D. ulceratus* Evans, genitalia, ventral view.



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204. *D. lanceolatus*, sp.n.

slightly arched inward, somewhat sharpened; volsella with digitus wide; aedeagus with ventral ramus much shorter than the dorsal body, base wide and narrowing to the sharpened apex, inner and outer margins smooth, the inner straight and parallel, the outer very convergent, the rami convex ventrally, inclined downward, median-apical portion produced upward, the rami parallel; dorsal body of the aedeagus complex, bilobate, the lobes with surfaces vertical, inner lobe semicircular, short, slightly higher than ventral ramus, the rounded portion downward, which is much produced, laminar, with the inner surface densely hairy and margin serrated with small and rounded denticles, outer lobe wide, narrowing apically, much less wider than the inner lobe, with apex truncate, dorsal margin produced inward basally and nearly reaching, this projection with the lateral margins inclined and apical margin straight; median ventral of the basiparamere with a small angulate projection; apodema of the aedeagus extending beyond the triangular genital ring, ventral median rounded calli.

Examined material: Holotype: 1 male Brazil, *São Paulo*, Pariquera-açu; 27.xi.1986; Möricke (UFES). Paratypes: 2 males BRAZIL, 1 male, *Ceará*, Barbalha; v.1969; M. Alvarenga col (AMNH); 1 male *Paraná*, Curitiba; ii.1965; R. Marinoni col. (DZPR).

Variation: head and mesosoma lighter; legs darker; texture of body and punctures weaker; scutellar groove wider; parapsidal furrow incomplete; posterior polished area of propodeal disc larger.

Etymology: name refers to the sharpened apex of the ventral ramus.

Distribution: Brazil (*Ceará*, *São Paulo*, *Paraná*).

ACKNOWLEDGMENTS

I thank A. Eiras and P. Gallo (UFSCar) for the gold vaporization of the insects used for SEM; Marcelo A. P. Silva (USP) for the supervision of SEM; P. Senna (UFSCar) for the loan of microscopy used to illustrate the genitalia; CAPES for the scholarship and financial aid; all curators for the loan of the specimens recorded in the text and by the duplicates given; M. T. Tavares (Fefiara), Nelson W. Perito (IBSP) and Carlos R. F. Brandão (MZSP) for several suggestions; Angélica M. Pen-

teado-Dias (UFSCar) for the laboratory facilities; W. Aragão (UFES) for his help in the elaboration of the names of new species. I specially thank K. V. Krombein for his help during my visit to USNM, J. T. Huber for his help during my visit to CNCI, E. Quinter for his help during my visit to AMNH, P. Perkins and S. Cover for their help during my visit to MCZH, B. Dias and J. Dalmáceo for his help during my visit to IBGE, and K. Zanol for his help during my visit to DZPR. I also thank A. Polaszek (CABI Bioscience) and an anonymous reviewer for their careful and useful reading of this manuscript. Finally, I thank H. S. Sá for his hardworking in testing all keys here presented.

REFERENCES

- Ashmead, W.H. 1893. Monograph of the North American Proctotrypidae. *Bulletin of the United States National Museum* 45:1-472.
- Ashmead, W.H. 1894. Report on the Cynipidae, part of the Braconidae, the Ichneumonidae, the Proctotrypidae, and part of the Chalcididae. Part III. *Journal of Linnean Society of London, Zoology* 25:188-254.
- Ashmead, W.H. 1895. Report on the parasitic Hymenoptera of the Island of Grenada, comprising the families Cynipidae, Ichneumonidae, Braconidae and Proctotrypidae. *Proceedings of the Zoological Society of London*: 742-812.
- Ashmead, W.H. 1904. Classification of the fossorial, predaceous and parasitic wasps, or the superfamily Vespoidea. *The Canadian Entomologist* 34:268-273.
- Brown, W.L. & F.Y. Chen. 1951. *Psilobethylus* in the New World (Hymenoptera, Bethyilidae). *Psyche* 58:141-148.
- Dalla Torre, C.G. de. 1898. Catalogus Hymenopterum hucusque descriptorum systematicum et synonymicum. Chalcididae et Proctotrupidae. *Suptibus Guilelmi Engelmann* 5: 1-598.
- Eady, R.D. 1968. Some illustrations of microsculpture in the Hymenoptera. *Proceedings of the Royal Entomological Society of London (A)* 43(3-6):66-72.
- Evans, H.E. 1954. The North American species of *Dissomphalus* (Hymenoptera, Bethyilidae). *Proceedings of the Entomological Society of Washington* 56(6):288-309.
- Evans, H.E. 1962. Further studies on the genus *Dissomphalus* in the United States, Mexico, and Greater Antilles (Hymenoptera, Bethyilidae). *Proceedings of the Entomological Society of Washington* 64(2):65-78.
- Evans, H.E. 1964. A synopsis of the American Bethyilidae (Hymenoptera, Aculeata). *Bulletin of the Museum of Comparative Zoology, Harvard Univ.*, 132(1):1-222.
- Evans, H.E. 1966. Further studies on Neotropical Pristocerinae (Hymenoptera, Bethyilidae). *Acta Hymenopterologica* 2(3):99-117.
- Evans, H.E. 1967. Notes on Mexican and southwestern U.S. Bethyilidae (Hymenoptera): Part I, Pristocerinae. *Entomological News* 78(1):13-23.

- Evans, H.E. 1969a. The genera *Apenesia* and *Dissomphalus* in Argentina and Chile (Hymenoptera, Bethyloidae). *Breviora* 311:1-23.
- Evans, H.E. 1969b. West Indian wasps of the subfamily Pristocerinae (Hymenoptera, Bethyloidae). *Proceedings of the Entomological Society of Washington* 71(4):514-530.
- Evans, H.E. 1969c. Bredin-Archbold Smithsonian Biological Survey of Dominica: Bethyloidea (Hymenoptera). *Smithsonian Contributions to Zoology* 3:1-14.
- Evans, H.E. 1978. The Bethyloidae of America North of Mexico. *Memoirs of the American Entomological Institute* 27:1-332.
- Evans, H.E. 1979. The genus *Dissomphalus* in Northwestern South America (Hymenoptera, Bethyloidae). *Proceedings of the Entomological Society of Washington* 81(2):276-284.
- Gordh, G. & L. Moczar 1990. A catalog of the world Bethyloidae (Hymenoptera). *Memoirs of the American Entomological Institute* 46:1-364.
- Harris, R.A. 1979. A glossary of surface sculpturing. *Occasional Papers in Entomology* 28:1-31.
- Huber, J. T. & M. J. Sharkey 1993. Structure, p. 13-59. In: H. Goullet & J. T. Huber (eds.) *Hymenoptera of the world: an identification guide to families*. Ottawa, Agriculture Canada Publications, vii + 668p.
- Kieffer, J.J. 1904. Description de nouveaux Dryininae et Bethylinae. *Annali del Museo Civico di Storia Naturale di Genova, serie 3, 1(4):351-412*.
- Kieffer, J.J. 1906. Beschreibung neuer Proctotrypiden aus Nord- und Zentralamerika. *Berliner Entomologische Zeitschrift* 50:237-290.
- Kieffer, J.J. 1908a. Nouveaux proctotrypidés et cynipides d'Amérique. *Annales de la Société Scientifique de Bruxelles* 32:7-64.
- Kieffer, J.J. 1908b. Bethyloidae. Fascicule 76 In: P. Wytzman: *Genera Insectorum*, 76:1-50 + 3 plates.
- Kieffer, J.J. 1910a. Description de nouveaux microhyménoptères du Brésil. *Annales de la Société Entomologique de France* 78:287-348.
- Kieffer, J.J. 1910b. Description de nouveaux béthylides (Hyménoptères). *Annales de la Société Entomologique de France* 79:31-56.
- Kieffer, J.J. 1911. Nouveaux béthylides et dryinides exotiques du British Museum de Londres. *Annales de la Société Scientifique de Bruxelles* 35:200-233.
- Kieffer, J.J. 1914a. Trois nouveaux Béthylides. *Bulletin de la Société Entomologique de France* 83:60-61.
- Kieffer, J.J. 1914b. Bethyloidae. *Das Tierreich* 41:1-595.
- Krombein, K.V. 1963. Natural history of Plummers Island, Maryland. XVII. Annotated smooth of the wasps (Hymenoptera: Bethyloidea, Scolioidea, Vespoidea, Pompiloidea, Sphecoidea). *Proceedings of the Biological Society of Washington* 76:255-280.
- Krombein, K.V. 1979. Superfamily Bethyloidea. In: K.V. Krombein et al. *Catalog of Hymenoptera in America North of Mexico*. Vol. 2. Smithsonian Institution Press, Washington. 1203-1251.
- Matsuda, R. 1971. Morphology and evolution of the insect thorax. *Memoirs of the Entomological Society of Canada* 76:1-439.
- Olmi, M. 1984. A revision of the Dryinidae (Hymenoptera). *Memoirs of the American Entomological Institute* 37:1-1913.
- Richards, O.W. 1977. *Hymenoptera, introduction and key to families*. 2nd ed. Handbooks for the Identification of British Insects. London, Royal Entomological Society of London, 100p.
- Snodgrass, R. G. 1941. The male genitalia of Hymenoptera. *Smithsonian Miscellaneous Collections* 99(14):1-86.



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