Papéis Avulsos de Zoologia

MUSEU DE ZOOLOGIA DA UNIVERSIDADE DE SÃO PAULO

ISSN 0031-1049

Papéis Avulsos de Zool., S. Paulo 40(24): 369-386

28.VI.1999

NEW DISSOCHAETUS SPECIES AND NOMENCLATURAL NOTES ON SOME NEOTROPICAL SPECIES OF CHOLEVINAE (COLEOPTERA, LEIODIDAE)

PEDRO GNASPINI

ABSTRACT

The following four species are described: Dissochaetus amazonicus, sp. n. and Dissochaetus cupulatus, sp. n. from forests in Amazonas state, Brazil, Dissochaetus liliae, sp. n., from caves in Minas Gerais and Goiás states, Brazil, and Dissochaetus navarretei, sp. n., from Mexico; the so far unknown male of Dissochaetus immaculatus Pic is described, and the female lectotype of the species is designated; Dissochaetus murrayi lamiensis Salgado-Costas is synonymized with the nominal subspecies Dissochaetus murrayi Reitter; the type locality of Dissochaetus geayi Portevin, formerly belonging to French Guyana, presently belongs to Brazil; and Dasypelates obscurus Pic is synonymized with Falkocholeva cribellata (Fairmarie & Germain).

Keywords: Coleoptera, Leiodidae, Cholevinae, *Dissochaetus*, *Dasypelates*, *Falkocholeva*.

Introduction

As presently understood, the genus Dissochaetus is characterized by having

Recebido para publicação em 26.XI.96 e aceito em 20.VIII.97.

Departamento de Zoologia, Instituto de Biociências, Universidade de São Paulo, Caixa Postal 11461, 05422-970, São Paulo, SP, Brasil. e-mail: gnaspini@ib.usp.br.

a long and serrate apical metatibial spur, which is longer than the first metatarsomere. The genus includes 31 species (see Gnaspini, 1991 for references and checklist); one of them has a recently described second subspecies (Salgado-Costas, 1991). Herein I discuss the validity of this subspecies, describe the male of an alleged troglobitic species (the only one known for the genus), describe four new species; and define one synonymy within the genus *Falkocholeva*.

METHODS AND MATERIALS

The specimens used in this study were either preserved in 70% alcohol or as dried specimens mounted on cards fixed on entomological pins. To dissect the genitalia, the specimens were relaxed in boiling water. Some structures with much adhered tissue were cleaned for a few minutes in hot 10% KOH. The dissected specimens were afterwards mounted as previously cited, and the genitalia were mounted in PVA on a microslide, attached to the same pin.

The types or representatives of the species studied herein are deposited in the following collections: Centro de Estudios en Zoologia, Universidad de Guadalajara, Guadalajara (CZUG), Field Museum of Natural History, Chicago (FMNH), Instituto Nacional de Pesquisas da Amazônia, Manaus (INPA), Museo Argentino de Ciencias Naturales "Bernardino Rivadavia", Buenos Aires (MACN), Museu de Zoologia da Universidade de São Paulo, São Paulo (MZSP), and Stewart B. Peck collection, Ottawa (SBPC). Other collections cited in the text are: José Maria Salgado-Costas collection, León (JMSC), Museo Nacional de Historia Natural, Santiago (MNNC), Museum National d'Histoire Naturelle, Paris (MNHN), and The Natural History Museum, London (BMNH).

In the lists of studied material, when not otherwise noted, data such as locality and collector are the same as for the previously cited specimen(s).

Systematics

I follow here the suprageneric classification proposed by Newton & Thayer (1992).

Family Leiodidae Fleming, 1821 Subfamily Cholevinae Kirby, 1837 Tribe Anemadini Hatch, 1928 Subtribe Nemadina Jeannel, 1936

Dissochaetus amazonicus, sp. n.

(figs. 1 - 7)

Holotype, male (INPA). Type locality and data: Brazil: Amazonas: Reserva Ducke, km 26 of AM-010, 13.ix.1977, pitfall trap 13, J. Arias col. 16 male and 7 female paratypes (INPA) with the same data.

Other paratypes (INPA, except when noted): Brazil: Amazonas: 90km NE of Manaus, WWF-INPA Reserve (km 41), 05.i.1991, in *Bactris gastoniana*, # 5, Henderson & Pardini col., 1 male (MZSP); 21.i.1991, in *Bactris acanthocarpa*, # 34b, Henderson & Pardini col., 1 male (MZSP); Reserva Ducke, km 26 of AM-010, 13.ix.1977, J. Arias col., 1 male; pitfall trap 1, 3 males and 5 females (MZSP); pitfall trap 11, 4 males and 1 female; pitfall trap 12, 3 males and 1 female (FMNH), 2 males (MZSP); pitfall trap 14, 12 males and 2 females; pitfall trap 15, 5 males and 8 females (INPA), 3 males and 5 females (MZSP); pitfall trap 16, 15 males and 3 females (INPA), 7 males and 3 females (MZSP); pitfall trap 17, 6 males and 8 females (INPA), 4 males and 3 females (SBPC); Reserva Ducke, km 26 of AM-010, 27.ix.1977, pitfall trap 7, carrion pitfall trap primary forest, B.C. Ratcliffe col., 2 males and 1 female; 22.xi.1977, pitfall trap 20, carrion pitfall trap primary forest, 1 male; pitfall trap 6, 1 male.

Other material tentatively assigned to the species (INPA): BRAZIL: Amazonas: Reserva Ducke, km 26 of AM-010, 13.ix.1977, pitfall trap 3, B.C. Ratcliffe col., 1 female; 20.x.1977, pitfall trap 10, carrion pitfall trap primary forest, 1 female; 01.xi.1977, pitfall trap 3, 1 female; 08.xi.1977, pitfall trap 10, carrion pitfall trap primary forest, 1 female; 22.xi.1977, pitfall trap 12, 1 female; 03.i.1978, pitfall trap 11, dung pitfall trap primary forest, 1 female; 03.i.1978, pitfall trap 15, 1 female; 17.i.1978, pitfall trap 14, 1 female.

Diagnosis and Description. Length: 2.45 mm; width: 1.25 mm. Winged. Color reddish brown, becoming lighter from mid-penultimate antennal segment onwards. Eyes large (diameter more than twice as large as distance between eye and antenna socket). Antennae (fig. 4) normal, 1.9 times as long as pronotum; proportions of length of each segment and that of the 1st from 2nd to 11th: 0.8, 0.7, 0.45, 0.5, 0.35, 0.55, 0.25, 0.5, 0.55, 0.95; proportions of length and width of each segment of the club, from 7th to 11th: 0.9, 0.5, 0.75, 0.8, 1.5. Palp (fig. 3) elongate, with last segment almost as long as penultimate. Pronotum (fig. 1) transverse, 1.8 times as wide as long. Elytra (fig. 1) together 1.35 times as long as wide; with dense transverse strigae. Flying wings fully developed. Male protarsi expanded (fig. 2), first protarsomere as wide as the maximum width of

tibia; proportions of length and width of each segment, from 1st to 5th: 1.4, 1.3, 2.0, 2.0, 4.8. Genital segment (fig. 5) complete, slightly wider than long; ventral lobes elongate, bearing several internal short setae; lateral lobes bearing several long setae. Aedeagus (figs. 6-7) with elongate median lobe bearing 3 (occasionally 2) pairs of lateral subterminal hairs; parameres thin, reaching beyond apex of median lobe, and bearing 2 terminal setae, inserted close to each other; internal sac armed with several small teeth and 2 pairs of claw-like spines, lacking flagellum, and bearing a basal bulb.

Etymology. The name is derived from Latin for "from the Amazon", referring to the geographical distribution of the species.

Discussion. The species can be easily distinguished from all others by the characters of the aedeagus (especially the armature of the internal sac) and the genital segment (especially the large number of long setae at the lateral lobes, and the fringe of setae at the ventral lobes, which are separated from each other). Telling by the shape of the median lobe, the long spines in the armature of the internal sac, and the basal bulb, this species seems to be close to *D. murrayi* Reitter 1884 and *D. liliae*, sp.n., both from Brazil.

Dissochaetus cupulatus, sp. n.

(figs. 8 - 14)

Holotype, male (MZSP). Type locality and data: Brazil: Amazonas: 90km NE of Manaus, WWF-INPA Reserve (km 41), 05.i.1991, in *Bactris gastoniana*, # 5, Henderson & Pardini col.

Diagnosis and Description. Length: 2.2 mm; width: 1.15 mm. Winged. Color dark brown, lighter on the tip of last antennal segment. Eyes large (diameter more than twice as large as distance between eye and antenna socket). Antennae (fig. 11) normal, 1.9 times as long as pronotum; proportions of length of each segment and that of the 1st from 2nd to 11th: 0.8, 0.75, 0.4, 0.55, 0.35, 0.65, 0.25, 0.6, 0.6, 1.05; proportions of length and width of each segment of the club, from 7th to 11th: 1.1, 0.6, 0.95, 0.95, 1.7. Palp (fig. 10) elongate, with last segment shorter than penultimate. Pronotum (fig. 8) transverse, twice as wide as long. Elytra (fig. 8) together 1.35 times as long as wide; with dense transverse strigae. Flying wings fully developed. Male protarsi expanded (fig. 9), first protarsomere 0.95 times as wide as the maximum width of tibia; proportions of

length and width of each segment, from 1st to 5th: 1.55, 1.7, 2.4, 2.4, 5.6. Genital segment (fig. 12) complete, slightly wider than long; ventral lobes broad, curved inwards, bearing a few long setae; lateral lobes bearing a few long and short setae. Aedeagus (figs. 13-14) with elongate median lobe bent ventrally distally and lacking apical hairs; parameres thin, broader at apex, reaching beyond apex of median lobe, and bearing 2 terminal setae, inserted close to each other; internal sac armed with small teeth, lacking flagellum and bearing a basal bulb.

Etymology. The name is derived from Latin for "bearing a dome", referring to the dome-like projection at the tip of the median lobe.

Discussion. The species can be easily distinguished from all others by the characters of the aedeagus (especially the dome-like projection at the tip of the median lobe) and the genital segment. Telling by the shape of the ventral lobes of the genital segment, this species seems to be close to *D. hetschkoi* Reitter 1884, from Brazil and Venezuela.

Dissochaetus liliae, sp. n.

(figs. 15 - 21)

Holotype, male (MZSP). Type locality and data: Brazil: Minas Gerais: Lapa dos Borges, 24.i.1992, L.S. Horta. 1 male paratype (MZSP) with the same data.

Other paratypes (MZSP, except when noted): Brazil: Minas Gerais: Lagoa Santa, Gruta da Dobra, 20.vii.1995, L.S. Horta, 4 males; Matozinhos, Gruta dos Irmãos Piriá, 15.xii.1991, 2 females; 30.xi.1992, 2 males; Matozinhos, Gruta Nossa Casa, 26.ix.1992, 1 female; 26.ix.1992, in haematophagous bat guano pile, 1 male and 1 female; Matozinhos, Gruta Peri Peri II, 26.xi.1992, in bat guano, 2 males and 1 female; Matozinhos, Sumidouro da Foto Aérea, 05.xii.1995, 1 male and 1 female (MZSP), 2 males and 1 female (SBPC); Pedro Leopoldo, Lapa Vermelha I, 29.x.1995, in bat guano and liver baited trap, 5 males and 2 females; Goiás: Pirinópolis, Gruta dos Ecos, 03.x.1993, D.P. Zeppelini, 1 male and 2 females.

Diagnosis and Description. Length: 2.45 mm; width: 1.2 mm. Winged. Color dark brown, lighter on the tip of last antennal segment. Eyes large (diameter more than twice as large as distance between eye and antenna socket). Antennae (fig. 18) normal, 1.75 times as long as pronotum; proportions of length of each

segment and that of the 1st from 2nd to 11th: 0.9, 0.75, 0.55, 0.55, 0.45, 0.7, 0.25, 0.6, 0.6, 1.15; proportions of length and width of each segment of the club, from 7th to 11th: 0.9, 0.45, 0.7, 0.65, 1.3. Palp (fig. 17) elongate, with last segment shorter than penultimate. Pronotum (fig. 15) transverse, 1.95 times as wide as long. Elytra (fig. 15) together 1.4 times as long as wide; with dense transverse strigae. Flying wings fully developed. Male protarsi expanded (fig. 16), first protarsomere 0.85 times as wide as the maximum width of tibia; proportions of length and width of each segment, from 1st to 5th: 1.7, 1.25, 1.75, 2.4, 5.3. Genital segment (fig. 19) complete, as wide as long; ventral lobes triangular, bearing a few long setae; lateral lobes bearing a few long setae. Aedeagus (figs. 20-21) with elongate median lobe bearing 3 pairs of lateral subterminal hairs; parameres thin, reaching beyond apex of median lobe, and bearing 2 terminal setae, inserted close to each other; internal sac armed with small teeth, a granulated dorsal area distally when everted, four long ventral and two long dorsal spines somewhat less distally placed, lacking flagellum, and bearing a basal bulb.

Etymology. The species is named for Lilia de Senna Horta, in recognition of her extensive collections from Minas Gerais caves.

Discussion. The species can be easily distinguished from all others by the characters of the aedeagus (especially the granulated dorsal area of the internal sac) and the genital segment. Telling by the shape of the median lobe, the long spines in the armature of the internal sac, and the basal bulb, this species seems to be close to *D. murrayi* Reitter 1884 and *D. amazonicus* sp. n., both from Brazil; moreover, the shape and armature of the ventral lobes of the genital segment resemble those of *D. murrayi*.

Dissochaetus navarretei, sp. n.

(figs. 22 - 28)

Holotype, male (MZSP). Type locality and data: Mexico: Morelos: Tlayacapan, San José de los Laureles, 30.vi-05.viii.1990, J.L. Navarrete & G. Quiroz, ex NTP-80 pulpo, #442. 5 male and 4 female paratypes (MZSP) with the same data.

Other paratypes (CZUG, except when noted): Mexico: Morelos: Tlayacapan, San José de los Laureles, 03-30.vi.1990, J.L. Navarrete & G. Quiroz, ex NTP-80 pulpo, #391, 6 males and 3 females; 30.vi-05.viii.1990, #432, 1

male and 2 females; 05.viii-08.ix.1990, #542, 1 female; 08.ix-29.ix.1990, #621, 2 males and 3 females (SBPC).

Diagnosis and Description. Length: 3.25 mm; width: 1.5 mm. Winged. Color dark brown, lighter on the tip of last antennal segment. Eyes large (diameter more than twice as large as distance between eye and antenna socket). Antennae (fig. 25) normal, 1.65 times as long as pronotum; proportions of length of each segment and that of the 1st from 2nd to 11th: 0.7, 0.7, 0.5, 0.5, 0.4, 0.65, 0.3, 0.6, 0.6, 0.85; proportions of length and width of each segment of the club, from 7th to 11th: 1.1, 0.65, 1.0, 0.9, 1.55. Palp (fig. 24) elongate, with last segment shorter than penultimate. Pronotum (fig. 22) transverse, 1.85 times as wide as long. Elytra (fig. 22) together 1.45 times as long as wide; with dense transverse strigae. Flying wings fully developed. Male protarsi expanded (fig. 23), first protarsomere 1.35 times as wide as the maximum width of tibia; proportions of length and width of each segment, from 1st to 5th: 1.1, 1.05, 1.15, 1.75, 3.2. Genital segment (fig. 26) complete, wider than long; ventral lobes small, subtriangular, bearing several long and short setae; lateral lobes bearing several long setae. Aedeagus (figs. 27-28) with broad median lobe lacking apical hairs; parameres broad, reaching far beyond apex of median lobe, and bearing 2 terminal setae, inserted close to each other; internal sac armed with a distal crown of small teeth, bearing a very short flagellum inserted on a basal bulb.

Etymology. The species is named for José Luis Navarrete Heredia, in recognition of his collections from Mexico.

Discussion. The species can be easily distinguished from all others by the characters of the aedeagus (especially the very broad and short [i.e., projecting only slightly beyond the articulation of parameres] median lobe, and the very broad parameres) and the genital segment (especially the very short lateral lobes). The broad parameres resemble those of *D. mexicanus* Jeannel 1936, also from Mexico.

Dissochaetus geayi Portevin 1903

Dissochaetus geayi Portevin 1903b:329. Dissochaetus geayi, Jeannel 1936:153.

Type: 1 female (MNHN - not seen). Type locality and data: Brazil: Amapá:

Igarapé Lunier (ex Rivière Lunier, French Guyana), 1889, Geay.

Remarks. At the time when the specimen was collected and described, the Lunier river belonged to the French Guyana. Afterwards this region was transferred to Brazil (see, e.g., Stephens & Traylor, 1985; Paynter & Traylor, 1991).

Dissochaetus immaculatus Pic 1928

(figs. 29 - 35)

Dissochaetus maculatus var. immaculatus Pic 1928:3. Dissochaetus immaculatus, Jeannel 1936:152.

Syntypes: 1 female (MNHN - not seen), 1 female (MACN - seen). Type locality and data: Argentina: Jujuy: Cueva Iturbe, 10.xi.1919, Weiser.

Remarks. Although Pic (1928) stated that the types were deposited in Pic's and Bruch's collections, which were respectively incorporated into the MNHN and MACN collections, Jeannel (1936) only listed and examined the female syntype in MNHN collection. When examining material from MACN, I found 1 male and 3 females (one labeled 'syntype') with the same collection data. Therefore, herein I designate the female lectotype and describe the male of the same collection.

Lectotype, female (here designated) (MACN): Argentina: Prov. Jujuy: Cueva Iturbe, 10.xi.1919, Weiser.

The female syntype in MNHN, probably with same data, was not examined. Other material examined: 1 male, 2 females (MACN), same data.

Diagnosis and Description of the Male. Length: 2.85 mm; width: 1.45 mm. Winged. Color dark reddish brown, including last antennal segment. Eyes large (diameter about twice as large as distance between eye and antenna socket). Antennae (fig. 32) normal, 1.8 times as long as pronotum; proportions of length of each segment and that of the 1st from 2nd to 11th: 0.9, 0.8, 0.55, 0.5, 0.5, 0.7, 0.35, 0.6, 0.65, 1.1; proportions of length and width of each segment of the club, from 7th to 11th: 1.0, 0.65, 0.85, 0.9, 1.55. Palp (fig. 31) elongate, with last segment shorter than penultimate. Pronotum (fig. 29) transverse, 1.9 times as wide as long. Elytra (fig. 29) together 1.3 times as long as wide; with dense transverse strigae. Flying wings fully developed. Male protarsi expanded (fig. 30), first protarsomere 1.1 times as wide as the maximum width of tibia; proportions of length and width of each segment, from 1st to 5th: 1.05, 1.3, 1.4,

1.75, 4.7. Genital segment (fig. 33) complete, as wide as long; ventral lobes broad, bearing several long and short setae; lateral lobes bearing a few long setae. Aedeagus (figs. 34-35) with elongate median lobe with a long ventral anterior projection and bearing 4 pairs of lateral subterminal hairs; parameres thin, reaching a little beyond apex of median lobe, and bearing 2 short terminal setae, inserted close to each other; internal sac armed with small teeth, bearing a long flagellum inserted on a tubular basal piece.

Remarks. Telling by the shape of the median lobe, the long flagellum and its typical basal pieces, this species seems to be close to *D. maculatus* Portevin 1903, *D. vanini* Gnaspini 1991, and *D. villosus* Szymczakowski 1961, from southern Brazil.

Biological Notes: Jeannel (1936) stated that the species could be cavernicolous (probably meaning troglobitic) because its eyes were smaller than those of the other Bolivian species (in his words - he probably referred to *D. brunneicollis* (Portevin 1907) and *D. curtus* Portevin 1903, with which, together with *D. mexicanus* Jeannel 1936, he defined the 'curtus group'). The MACN material studied herein shows normal eyes, maybe only slightly reduced, but still within normal limits. Therefore, the species lacks troglomorphisms and probably it is not cave-restricted, as previously thought.

Dissochaetus murrayi Reitter 1884

Dissochaetus Murrayi Reitter 1884: 39.

Dissochaetus Murrayi, Portevin 1903a: 161 (as new).

Dissochaetus Murrayi, Hatch 1928:163.

Dissochaetus Murrayi, Jeannel 1936:154.

Dissochaetus murrayi, Szymczakowski 1961: 157.

Dissochaetus murrayi, Szymczakowski 1963: 680.

Dissochaetus murrayi, Gnaspini 1991: 331.

Dissochaetus murrayi, Salgado-Costas 1991: 212.

Dissochaetus murrayi, Gnaspini 1993: 552.

Dissochaetus calcaratus Portevin 1921: 536 (syn. by Jeannel 1936: 154).

Dissochaetus calcaratus, Hatch 1928:163.

Dissochaetus murrayi ssp. lamiensis Salgado-Costas 1991: 213, syn. n.

Types: D. murrayi (MNHN - not seen). Type locality: Brazil: Santa Catarina:

Blumenau. *D. calcaratus* (MNHN - not seen). Type locality: BRAZIL: Bahia. *D. murrayi lamiensis* (JMSC - not seen). Type locality: BRAZIL: Rio Grande do Sul: Porto Alegre (Lamí).

Remarks. When studying cavernicolous specimens from several Brazilian regions, I noticed a large variation in the number of apical setae of the median lobe, of the internal setae of the ventral lobes of the genital segment, and of the spines in the armature of the internal sac (Gnaspini, 1991; unpubl. data). Therefore, because: (1) the pattern described in *D. murrayi lamiensis* (Salgado-Costas, 1991) may be included in the specific variation noted in Gnaspini (1991); and (2) the distribution of *D. murrayi lamiensis* is sympatric with that of the nominal subspecies [one should bear in mind that the subspecies concept implies non-sympatric distribution of the subspecific populations (Mayr & Ashlock, 1991:43-44)], I understand that *D. murrayi lamiensis* should be considered to be a synonym of the nominal subspecies.

Falkocholeva cribellata (Fairmarie & Germain) 1859 (figs. 36 - 42)

Choleva cribellata Fairmarie & Germain 1859: 353.

Falkocholeva cribellata, Jeannel 1936:158.

Falkocholeva cribellata, Jeannel 1962: 519.

Falkocholeva cribellata, Szymczakowski 1965: 246.

Choleva falklandica Waterhouse 1879: 531 (syn. by Jeannel 1962: 519).

Falkocholeva falklandica, Hatch 1928:208.

Falkocholeva falklandica, Jeannel 1936:158.

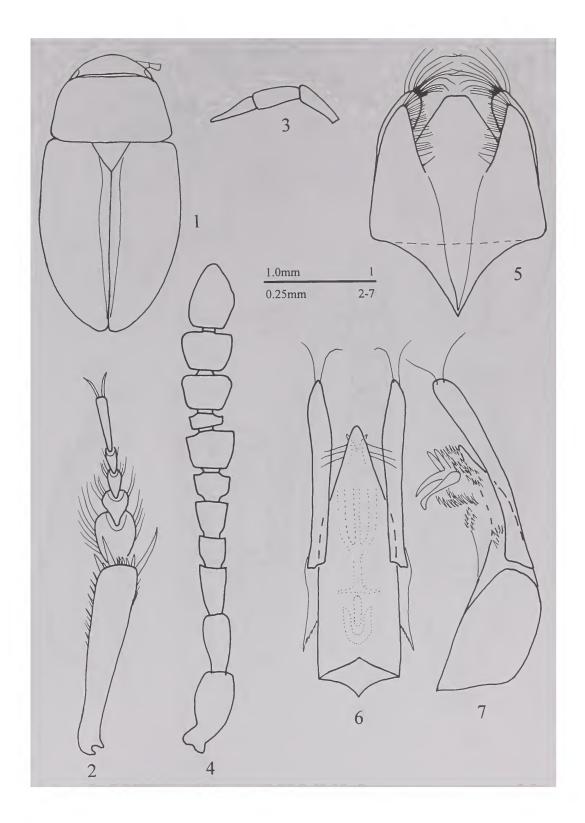
Falkocholeva falklandica subsp. Edwardsi Jeannel 1936: 158 (syn. by

Szymczakowski 1965: 246).

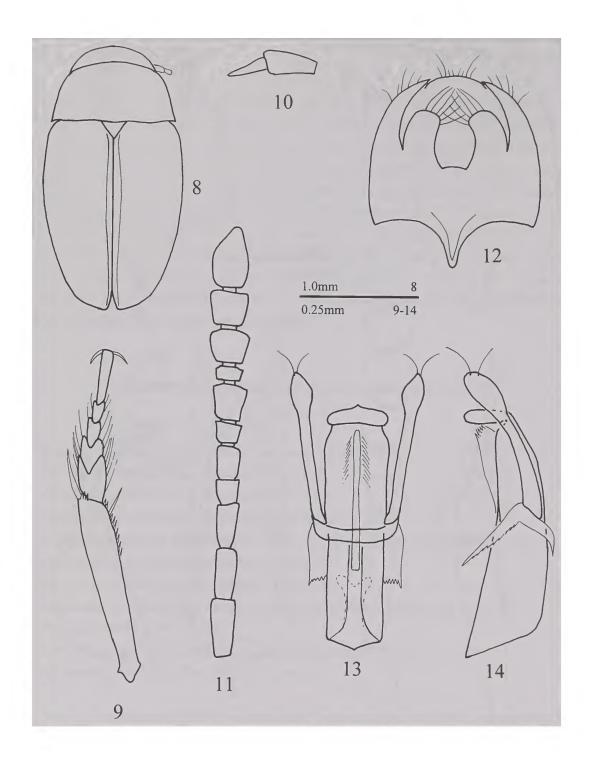
Falkocholeva falklandica subsp. edwardsi, Jeannel 1957: 54.

Dasypelates obscurus Pic 1928: 2, syn. n.

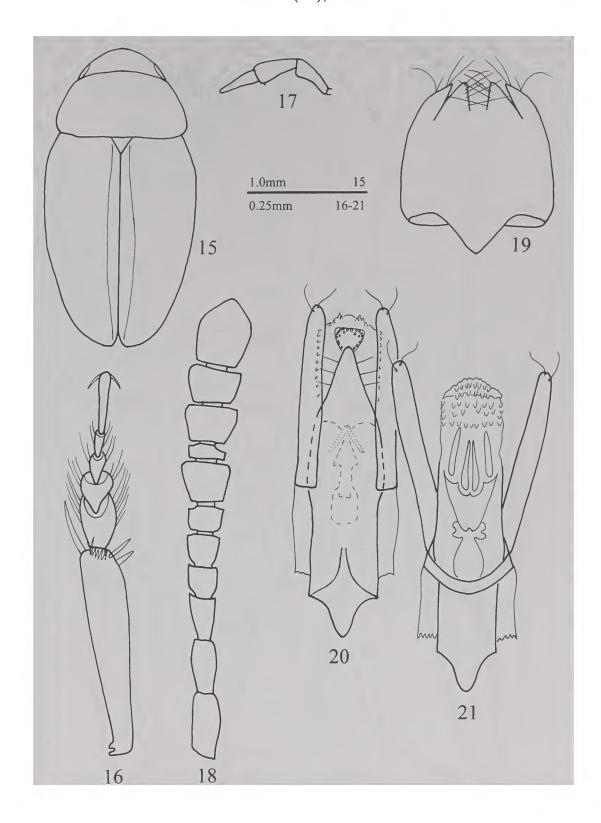
Types: *C. cribellata* (MNNC - not seen). Type locality: Chile: Concepción. *C. falklandica* (BMNH - not seen). Type locality: Falkland Islands. *F. falklandica edwardsi* (MNHN and BMNH - not seen). Type locality: Argentina: Rio Negro: Bariloche. *D. obscurus* (MNHN and MACN - MACN syntypes seen). Type locality: Argentina: Santa Cruz: Valle Tunel.



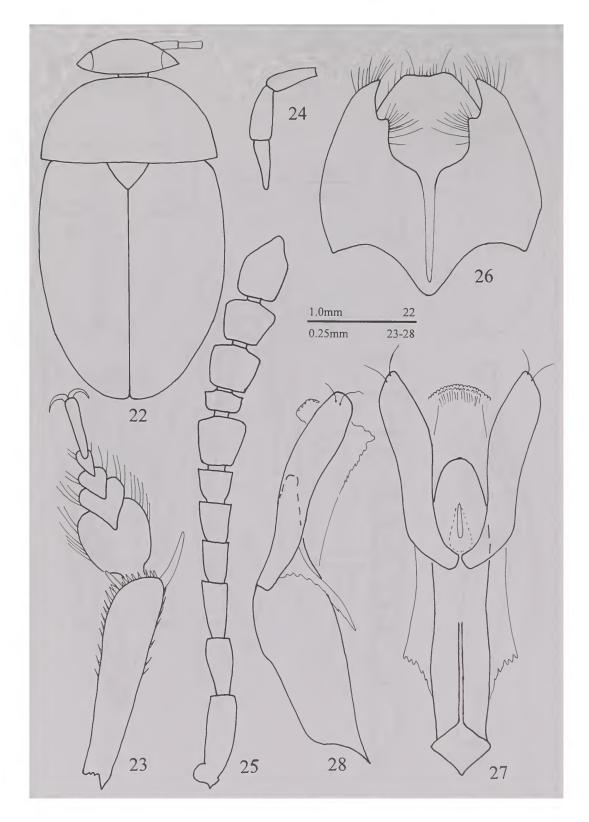
Figures 1-7. *Dissochaetus amazonicus*, sp. n., male. 1, habitus, dorsal view; 2, protarsus and protibia, dorsal view; 3, maxillary palp; 4, antenna; 5, genital segment, ventral view; 6-7, aedeagus, dorsal and right lateral views respectivelly.



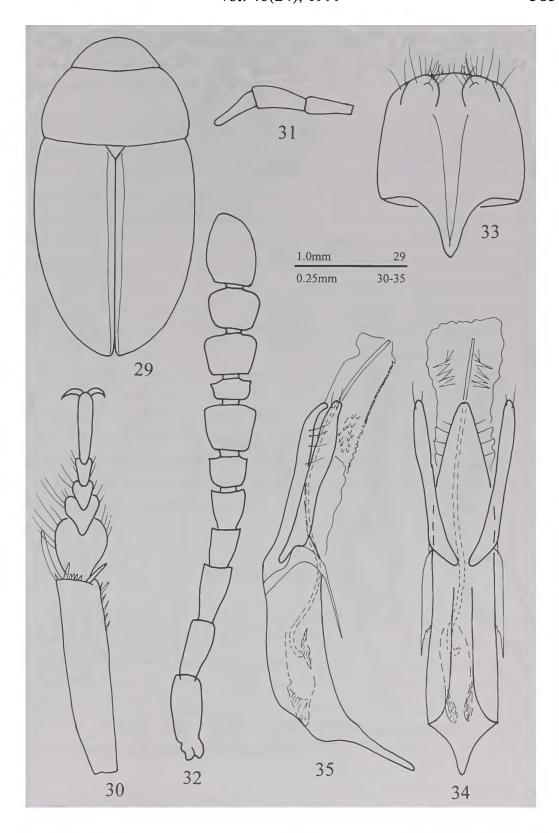
Figures 8-14. *Dissochaetus cupulatus*, sp. n., male. 8, habitus, dorsal view; 9, protarsus and protibia, dorsal view; 10, maxillary palp; 11, antenna; 12, genital segment, ventral view; 13-14, aedeagus, dorsal and right lateral views respectivelly.



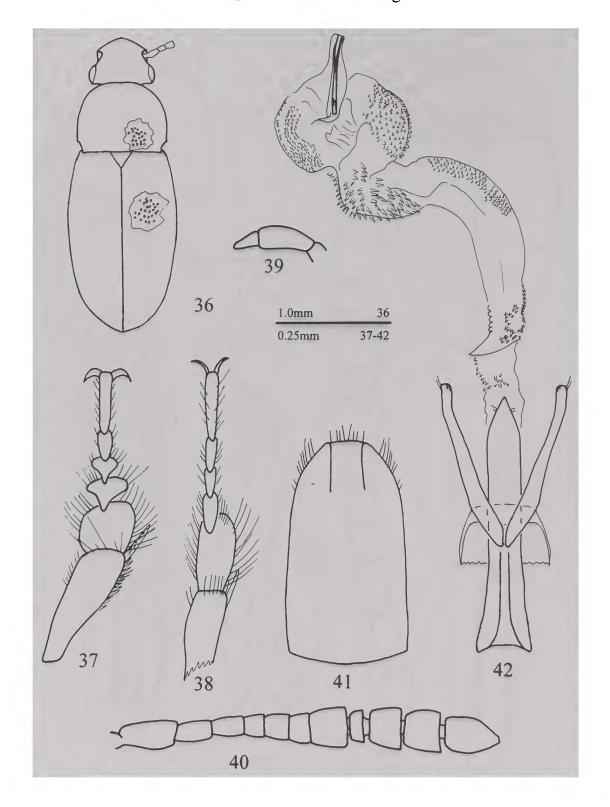
Figures 15-21. *Dissochaetus liliae*, sp. n., male. 15, habitus, dorsal view; 16, protarsus and protibia, dorsal view; 17, maxillary palp; 18, antenna; 19, genital segment, ventral view; 20-21, aedeagus, dorsal and ventral views respectivelly.



Figures 22-28. *Dissochaetus navarretei*, sp. n., male. 22, habitus, dorsal view; 23, protarsus and protibia, dorsal view; 24, maxillary palp; 25, antenna; 26, genital segment, ventral view; 27-28, aedeagus, dorsal and left lateral views respectivelly.



Figures 29-35. *Dissochaetus immaculatus* Pic, male. 29, habitus, dorsal view; 30, protarsus and protibia, dorsal view; 31, maxillary palp; 32, antenna; 33, genital segment, ventral view; 34-35, aedeagus, dorsal and left lateral views respectivelly.



Figures 36-42. Falkocholeva cribellata (Fairmarie & Germain), male (of Dasypelates obscurus Pic - MACN). 36, habitus, dorsal view; 37, protarsus and protibia, dorsal view; 38, mesotarsus and mesotibia tip, dorsal view; 39, maxillary palp; 40, antenna; 41, genital segment, ventral view; 42, aedeagus, dorsal view, with internal sac fully everted.

Material examined (of *D. obscurus*): Argentina: Gob. Santa Cruz: Valle Tunel, Dr. Witte, 3 females labeled "types"; idem, 1 male and 5 females; Tierra del Fuego, Gomez, 1933 (?), 1 female.

Remarks. When examining material from MACN, I found 3 syntypes and 7 specimens of Dasypelates obscurus Pic. It is noteworthy that D. obscurus is not present in Jeannel's extensive revision (1936, and thereafter) neither as a species of Dasypelates nor as a synonym, although it appears at the same page (Pic, 1928:2-3) of the description of Dissochaetus immaculatus, cited by Jeannel (1936). Although I did not examine the type of Falkocholeva cribellata, after dissection of the genitalia of one male of the series from MACN, and comparison with data from Jeannel (1936, 1962), I believe that D. obscurus should be considered to be a synonym of F. cribellata by having: pronotum and elytra deeply punctuated (fig. 36); pronotum deeply emarginated at angles (fig. 36); 7th and 9th-11th antennomeres large, resulting in a pronounced club beginning with the 7th antennomere (fig. 40); last palpal segment much shorter (less then a half) than penultimate (fig. 39); first three protarsomeres and first mesotarsomere expanded in males (figs. 37-38); genital segment tubular and long (fig. 41); aedeagus with median lobe bearing two pairs of short setae at apex, two short setae at the tip of the straight parameres, and a large internal sac lacking flagellum and bearing a very spiny region with a valve at the connection with the ejaculatory channel (fig. 42).

ACKNOWLEDGEMENTS

I would like to thank Dr. A.O. Bachmann (MACN), J.L. Navarrete-Heredia (Universidad de Guadalajara, Mexico), and L.S. Horta (Grupo Bambuí de Pesquisas Espeleológicas, Minas Gerais, Brazil) for allowing me to study their material. I also thank the critical remarks made on the manuscript by Dr. A.F. Newton Jr. (Field Museum of Natural History, Chicago) and the reviewers. The author has a research fellowship from Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq).

REFERENCES

- Fairmaire, L. & P. Germain 1859. Révision des Coléoptères du Chili. Revue et Magazin de Zoologie Pure et Appliquée, 11: 350-356.
- Gnaspini, P. 1991. Brazilian Cholevidae (Coleoptera), with emphasis on cavernicolous species. I. Genus *Dissochaetus*. Giornale Italiano di Entomologia, 5: 325-340.
- Gnaspini, P. 1993. Brazilian Cholevidae (Coleoptera), with emphasis on cavernicolous species. III. *Dissochaetus* larvae, with description of a new feature. Revista Brasileira de Entomologia, 37(3): 545-553.
- Hatch, M.H. 1928. Silphidae II. In: S. Schenkling (ed.). Coleopterorum Catalogus, Pars 95. W. Junk, Berlin. pp. 63-244.
- Jeannel, R. 1936. Monographie des Catopidae. Mémoires du Muséum National d'Histoire Naturelle (Paris) (N.S.), 1: 1-433.
- Jeannel, R. 1957. Sur quelques Catopides, Liodides et Camiarides du Chili (Coleoptera). Revista Chilena de Entomología, 5: 41-65.
- Jeannel, R. 1962. Les Silphidae, Liodidae, Camiaridae et Catopidae de la Paléantarctide occidentale, pp. 481-525. In: C. Delamare Deboutteville & E. Rapoport (eds.). Biologie de l'Amérique Australe. Vol. 1, Études sur la Faune du Sol. Centre National de la Recherche Scientifique, Paris. 657 pp.
- Mayr, E. & P.D. Ashlock 1991. Principles of Systematic Zoology. McGraw Hill, 475pp.
- Newton Jr. A.F. & M.K. Thayer 1992. Current classification and family-group names in Staphyliniformia (Coleoptera). Fieldiana, Zoology, 67: 1-92.
- Paynter Jr., R.A. & M.A. Traylor Jr. 1991. Ornithological gazetteer of Brazil. Harvard University, 789pp. (2v.)
- Pic, M. 1928. Notes et descriptions. Mélanges exotico-entomologiques, 51: 1-36.
- Portevin, G. 1903a. Clavicornes nouveau du groupe des Nécrophages. Annales de la Société Entomologique de France, 72: 156-168, pl. 2.
- Portevin, G. 1903b. Rémarques sur les Nécrophages du Muséum et description d'espèces nouvelles. Bulletin du Muséum National d'Histoire Naturelle, 9: 329-336.
- Portevin, G. 1921. Note sur quelques Silphidae et Liodides de la collection Grouvelle. Bulletin du Muséum National d'Histoire Naturelle, Paris, 27: 535-538.
- Reitter, E. 1884. Bestimmungs-Tabellen der europaischen Coleoptera XII. Necrophaga. Verhandlungen des Naturforschenden Vereines in Brünn, 23: 3-122.
- Salgado-Costas, J.M. 1991. Nota sobre algunos *Dissochaetus* (Coleoptera, Catopidae) de Brasil y Argentina. Bulletin et Annales de la Société Royale Belge d'Entomologie, 127: 211-215.
- Stephens, L. & M.A. Traylor Jr. 1985. Ornithological gazetteer of the Guianas. Harvard University, 123pp.
- Szymczakowski, W. 1961. Espèces néotropicales nouvelles ou peu connues de la famille Catopidae (Coleoptera). Polskie Pismo Entomologiczne, 31(14): 139-163.
- Szymczakowski, W. 1963. Catopidae (Coleoptera) récoltés au Brésil par J. Mráz. Acta Entomologica Musei Nationalis Pragae, 35: 667-680.
- Szymczakowski, W. 1965. The zoological results of Gy. Topal's collectings in South Argentina 16. Catopidae et Colonidae (Coleoptera). Annales Historico-Naturales Musei Nationalis Hungarici, pars zool. 57: 245-252.
- Waterhouse, F.H. 1879. Descriptions of new Coleoptera of Geographical interest, collected by Charles Darwin. Transaction of the Linnean Society of London, 14: 530-534.



