

**The Species of the Genus *Chasmogenus* SHARP, 1882
(Coleoptera, Hydrophilidae)
von Franz HEBAUER**

ABSTRACT

The species of the genus *Chasmogenus* SHARP, 1882 are discussed and their male genitalia pictured. A determination key of all known species is presented. The genus now contains 24 species, of which 6 species *Ch. molinai* n. sp., *Ch. molluscus* n. sp., *Ch. paramollis* n. sp., *Ch. rubellus* n. sp., *Ch. rudis* n. sp., and *Ch. szeli* n. sp. from Africa are described as new. *Crephelochares* KUWERT, formerly a subgenus of *Helochares*, is now a subgenus of *Chasmogenus*.

Eine Synopsis aller derzeit bekannten Arten der Gattung *Chasmogenus* SHARP, 1882 wird vorgestellt und in einer Bestimmungstabelle zusammengefaßt. Von den nunmehr 24 Arten werden 6 Arten aus Afrika neu beschrieben: *Ch. molinai* n. sp., *Ch. molluscus* n. sp., *Ch. paramollis* n. sp., *Ch. rubellus* n. sp., *Ch. rudis* n. sp. und *Ch. szeli* n. sp. - *Crephelochares*, bisher Subgenus von *Helochares*, ist nunmehr Subgenus von *Chasmogenus*.

INTRODUCTION

In 1882 SHARP proposed the genus *Chasmogenus* for a new species (*C. fragilis*) from Central America. A few years later, in 1890, KUWERT proposed *Crephelochares* as a new subgenus of *Helochares*, based on the species *livornicus* (described as new) and *mentinotus* (described few years earlier by KUWERT); the latter was later (D'ORCHMONT, 1936) shown to belong in the *Helochares* - subgenus *Hydrobaticus*. In 1919 D'ORCHYMONT synonymized KUWERT's *Crephelochares* with SHARP's *Chasmogenus*, which he downgraded to subgenus of *Helochares* at the same time.

Later, in 1939, D'ORCHYMONT separated the two taxa again and recognized them both as valid subgenera of *Helochares*. This was based on the fact that all species of *Crephelochares* have 9 - segmented antennae, while the species of *Chasmogenus* are showing 8 - segmented antennae; further differences are evident in the simple trilobed aedeagophore of the *Chasmogenus* -species in contrast to the more differentiated one in *Crephelochares*.

Both former subgenera are near allied with each another, but differing so much from other subgenera of *Helochares*, that it was to prove, whether this couple is really belonging to the phylum of *Helochares* or

representing a separate genus. D'ORCHYMONT (1939) called *Crephelochares* the most primitive subgenus of *Helochares*. In 1986 L. A. FERNANDEZ finally separated *Chasmogenus* from *Helochares* by raising it to generic range and defined *Crephelochares* as a synonym to *Chasmogenus*. To avoid further confusion I follow this decision regardless of some doubts, considering *Chasmogenus* as a distinct genus and *Crephelochares* as a subgenus of it. Finally within the genera *Anacaena*, *Crenitis*, *Helophorus* and *Paracymus* in each case there are also existing species groups with 8-segmented antennae and other groups with 9-segmented ones.

While the *Chasmogenus*-group s. str. (which has lost a segment in the antennae-apomorphy - but retained a simple aedeagus - plesiomorphy-) is distributed exclusively in America, the *Crephelochares*-group (which has retained the primitive number of antennae segments - plesiomorphy -, but has a more complex aedeagus - apomorphy -) shows a wide range of distribution over the Old World up to Australia, though is mainly represented in Africa.

Up to now there are recognized 24 species, 6 of them are new to science.

***Chasmogenus* SHARP, 1882**

Biol. Centr. Amer., Col. 1 (2): 73. Type species: *Chasmogenus fragilis* SHARP, 1882, by monotypy. Subgenus *Crephelochares* KUWERT, 1890; Verh. naturf. Ver. Brünn 28 (1889): 38. Type species: *Helochares livornicus* KUWERT, 1890, by subsequent designation (D'ORCHYMONT, 1939a).

DIAGNOSIS

Compared with the genus *Helochares* the species of *Chasmogenus* are characterised by an abbreviated sutural strip upon the elytra as in *Enochrus*. The colour varies from red to black, the body size from 2.5 - 5.4 mm; usually the surface is shining; the maxillary palpi are extremely long and unicolorous clear red; the mesosternum shows medially a longitudinal carina. The strength of the longitudinal series of coarser punctures on elytra can be a useful character to separate near allied species. The general appearance of this genus (fig. 21) is very uniform, so that a certain identification is only possible in the male by dissecting.

BIONOMICS

After annotations on the labels more than 90% of all known records are taken at light. Beyond it there is little known about living conditions and

habitat preference. The Israelian records of *C. livornicus* are out of stagnant water (pond) with decaying plants. WATANABE collected his *C. orbus* in a rice field. Perhaps all known *Helocharae* are recognized as inhabitants of shallow stagnant water, frequently urged to change their places by flying to other pools, when the ponds are drying up .

SYSTEMATICS

List of species and synonymes:

a) Subgenus *Crephelochares* KUWERT, 1890 (rev.)

1. *Ch. abnormalis* (SHARP, 1890) Indochina, Japan,
Malaysia
= *abnormicollis*; ZAITZEV, 1908 (error)
= *ferrugatus* REGIMBART, 1903
= *nigritulus* REGIMBART, 1903
= *regimbarti* KNISCH, 1924)
2. *Ch. africanus* (D'ORCHYMONT, 1937) S-, O-, W. Africa
3. *Ch. livornicus* (KUWERT, 1890) Mediterranean
4. *Ch. luctuosus* (D'ORCHYMONT, 1939) W. Africa
5. *Ch. lycetus* (D'ORCHYMONT, 1939) E-, W. Africa
6. *Ch. mauritiensis* (BALFOUR-BROWNE, 1958) Mauritius,
W. Africa (Congo),
Namibia
7. *Ch. molinai* n. sp.
= *mollis*; (HEBAUER, 1988) (misident.)
8. *Ch. mollis* (REGIMBART, 1903) Madagascar
9. *Ch. molluscus* n. sp. E. Africa
10. *Ch. nitescens* (FAUVEL, 1883) Australis
11. *Ch. orbus* (WATANABE, 1987) Japan,
12. *Ch. paramollis* n. sp. E-, W. Africa
13. *Ch. patrizii* (BALFOUR-BROWNE, 1957) E. Africa
14. *Ch. ruandanus* (BALFOUR-BROWNE, 1957) E. Africa (Ruanda)
15. *Ch. rubellus* n. sp. W. Africa
16. *Ch. rubricollis* (REGIMBART, 1903) Malaysia
= *abnormalis*; KNISCH, 1921 (nec SHARP) (misident.)
17. *Ch. rudis* n. sp. W. Africa (Congo)
18. *Ch. rusticus* (D'ORCHYMONT, 1939) W. Africa
19. *Ch. rutiloides* (D'ORCHYMONT, 1939) W. Africa
20. *Ch. rutilus* (D'ORCHYMONT, 1925) W. Africa
21. *Ch. szeli* n. sp. W. Africa

b) Subgenus *Chasmogenus* SHARP, 1882

22. *Ch. fragilis* SHARP, 1882 Guatemala, Panama
23. *Ch. rufinasus* (KNISCH, 1924) Ecuador
24. *Ch. sapucay* FERNANDEZ, 1986 Paraguay, Argentine

Determination key

- 1 Antennae 8-segmented; aedeagophore simple trilobed. (Fig. 20)
American species. **Subgenus *Chasmogenus* s. str.** 21
- Antennae 9-segmented; aedeagophore more differentiated.
(Figs. 1 - 18) Not American species.
Subgenus *Crephelochares* 2
- 2 Punctuation of pronotum and elytra dense and rather coarse. Dark
red. Size 3.4 mm.- W.Africa (Congo) ***rudis* n. sp.**
- Punctuation of pronotum sparse and fine, that of elytra almost
obsolete 3
- 3 Hind angles of pronotum exactly rectangular. 4
- Hind angles of pronotum distinctly rounded and obtuse 6
- 4 Size 3.3 - 3.5 mm. - Parameres apically not sinuous, widely arched
and evenly curved inward. Median lobe from base to apex straight-
lined strongly narrowed. (Fig. 7). Body shape more parallelsided.
Series of coarser punctures on elytra striking. Colour reddish.
West Africa. ***rusticus* (D'ORCH., 1939)**
- Size 2.5 - 3.2 mm. - Parameres apically sinuous. Elytra always
darker red than pronotum. Body shape more oval. Series of coarser
punctures on elytra hardly visible. 5
- 5 Size 2.8 - 3.2 mm. - Median lobe of aedeagophore straight lined
narrowed, apically broadly cut off, not pointed (Fig. 1). Elytra
distinctly darker than the red pronotum. Surface punctuation very fine.
W. Africa. ***rutilus* (D' ORCH., 1925)**
- Size 2.7 - 3.0 mm. - Median lobe of aedeagophore evenly narrowed
and apically pointed. (Fig. 2). Elytra only a little darker than the red
pronotum. Surface punctuation very fine but still recognizable.
W.Africa. ***rutiloides* (D'ORCH., 1939)**
- Size 2.5 mm. - Surface nearly unpunctured, black, only labrum,
maxillary palpi and tarsi clear. E.Africa (Tanganyika).
***molluscus* n. sp.**

- 6 Each paramere fitted with an acute spine or tooth at the inner side (in mollis very small and distant) _____ 7
 - Parameres without a spine or tooth at the inner side _____ 11
- 7 Size 4.4 - 5.4 mm. - More blackish piceous, laterally rufo-testaceus _____ 8
 - Size 3.3 - 4.0 mm. - More reddish brown, head darker _____ 10
- 8 Each paramere with a large based acute tooth at the inner side ____ 9
 - Each paramere with a narrow and long spine at the inner side. (Fig. 16). Size 4.6 x 2.2 mm.- W. Africa. _____ *luctuosus* (D'ORCH., 1939)
- 9 Size 5.4 mm. - Punctuation of pronotum and elytra similarly dense and fine; the punctural interstices about one and one-half times diameter of punctures. Aed.: (Fig.12.) - Mauritius. _____ *mauritiensis* (BALFOUR-BROWNE, 1958)
 - Size 4.4 - 4.7 mm. - Mediterranean. Punctuation on pronotum and elytra rather coarse and dense. Black, shining. Aed.: Fig.10. _____ *livornicus* (KUWERT, 1890)
- 10 Larger size 4.0 x 1,9 mm. - Punctuation on pronotal disc fine and dense, on elytra obsolete, nearly fading. E. Africa. _____ *lycetus* (D'ORCH., 1939)
 - Smaller size 3.3 x 1.7 mm. Punctuation on elytra and pronotal disc nearly uniformly fine and dense, sometimes a little stronger on pronotum _____ 20
- 11 Parameres sinuated apically. Body shape a little parallel sided ____ 12
 - Parameres evenly curved or truncate apically _____ 13
- 12 Size 4.0 - 4.1 x 2.0 mm. - Castaneous to piceous. Parameres almost as long as median lobe, at the inner side not at all widened. (Fig. 4). Hind angles of pronotum nearly rectangular. Punctuation on surface moderately fine, on pronotum hardly stronger than on elytra. - W.Africa. _____ *szeli* n. sp.
 - Size 3.5 x 1.7 mm. - Piceous to dark red. Parameres subapically

slightly sinuated, at the inner side a little toothlike widened. (Fig. 3).
Pronotum considerably narrowed ahead. - E.Africa.

_____ **patrizii** (BALFOUR-BROWNE, 1957)

- 13 Parameres apically evenly rounded and curved to median lobe ____ 14
- Parameres apically abruptly narrowed or cut off _____ 15

- 14 Tips of parameres narrowed. (Figs. 13,15,18) _____ 18

- Tips of parameres widened. (Fig. 8). Size 3.2 - 4.1 mm.
Indo-China, Japan, Malaysia. _____ **abnormalis** (SHARP, 1890)

- 15 Narrow tips of parameres spinelike prolonged _____ 16

- Narrow tips of parameres very short and obtuse _____ 17

- 16 Tips of parameres more softly narrowed, shorter, reaching not the
terminal lobe of median lobe, a little convex. Ventral endophallic
strut tongue-shaped, pointed. (Fig. 5.) Colour dark maroon to entirely
reddish. - Size 2.5 - 3.5 mm. E.- and W.Africa. _____ **paramollis** n. sp.

- Tips of parameres sharply angled narrowed, longer, always
reaching the terminal lobe of median lobe, straight. Ventral
endophallic strut line-shaped: (Fig. 6.) Size 2.5 - 3.0 mm. Colour
blackish-piceous to dark red, except the black head.
W.Africa (Congo). _____ **molinali** n. sp.

- Narrow tips of parameres very short and obtuse. Colour reddish
maroon. _____ 17

- 17 Size 3.7 - 4.0 mm. - Aedeagophore broad and robust: (Fig. 9). Body
shape oblong, parallelsided; punctation on pronotal disc evidently
coarser than on elytral base. W.Africa. _____ **rubellus** n. sp.

- Size 2.8- 3.2 mm. - Aedeagophore less robust, slender. Narrow tips
of parameres obtuse, parallelsided, much shorter than median lobe.
(Fig.14). Body shape more oval; punctation on elytra same as on
pronotal disc. SE-, W.Africa. _____ **africanus** (D'ORCH, 1937)

- 18 Last third of parameres continuously narrowed. Size 2.7 - 3.8 mm.
Australia, Indonesia _____ 19

- Apical half of parameres evenly thin and sharply pointed, curved
inward; median lobe rather parallelsided. Fig.15. Size 3.7 mm.
E.Africa (Ruanda). _____ **ruandanus** (BALFOUR-BROWNE, 1957)

19 Median lobe of aedeagophore parallelsided, subapically strongly constricted. Parameres apically strongly narrowed but not acutely pointed. (Fig. 18). Size 3.3 - 3.8 mm. Surface shining piceous, laterally rufo - testaceous. Punctuation on pronotum and elytra equally coarse and close. Australia, New Caledonia.

nitescens (FAUVEL, 1883)

- Median lobe of aedeagophore parallelsided, but laterally accompanied by sloping pillars, subapically constricted. Parameres apically acutely pointed. (Fig. 13). Punctuation on pronotal disc denser, coarser than on elytra. Pronotum, forehead and extremities red, elytra and postfrons dark. Size 3.2 - 3.7 mm. Malaysia.

rubricollis (REGIMBART, 1903)

20 Subapical tooth at the inner side of parameres broad; parameres at the outline evenly rounded from base to apex. (Fig. 11). Punctuation on elytra same as that on pronotal disc, uniformly fine and dense. Japan

orbis (WATANABE, 1986)

- Parameres rectangulary narrowed before tips, with a very small tooth at the inner side near the tips. (Fig. 19). Punctuation on elytral base somewhat finer and sparser than on pronotal disc. Colour: blackish piceous to entirely reddish. Madagascar

mollis (REGIMBART, 1903)

21(*) Anterior border of labrum straight. Mentum with fine and wide-spread punctures, anterior excavation semicircular. Punctuation on pronotal disc less fine and less dense than on elytra.

Size 3.1 - 3.8 mm. 21

- Anterior border of labrum sinuated. Mentum with strong and deep punctures, anterior boarder more triangular excavated.

Ecuador *rufinasus* (KNISCH, 1924)

22 Anterior border of mentum large semicircular. Size 3.6 mm x 1.85 mm. Guatemala, Panama. *fragilis* SHARP, 1882

- Anterior boarder of mentum with very small semicircular excavation funnel-shaped. Size 3.1 - 3.8 mm x 1.6 - 1.9 mm.

Paraguay, Argentina. *sapucay* FERNANDEZ 1986

(*) Because no American species were available for examination, this key is following in the subgenus *Chasmogenus* barely the description by their authors respective.

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CBT	Coll. Franck BAMEUL, Talence, France
CFH	Coll. Franz HEBAUER, Deggendorf, Germany
CLV	Coll. T. E. LEILER, Vallentuna, Sweden
MAC	Museo Argentino de Ciencias Naturales "Bernardino Rivadavia", La Plata, Argentina
MCG	Museo Civico di Genova, Italy
MHP	Museum d'Histoire Naturelle Paris (Y. CAMBEFORT), France
MNG	Museum d'Histoire Naturelle Geneve, (I. LOEBL), Switzerland
MKB	Museum Alexander König, Bonn, (H. ROER), Germany
MRB	Musee Royal Hist. nat. belg. Bruxelles, Belgium.
MRT	Musee Royal de l'Afrique Centrale, Tervuren, Belgium.
NCP	National Collection of Insects Plant Protection Research Institute, (R. OBERPRIELER), Pretoria South Africa
NMT	National Science Museum, Tokyo, Japan
TMB	Termesztudományi Múzeum, Budapest, (G. SZEL, O. MERKL) Hungary
ZML	Zoological Museum Lund, (R. DANIELSSON) Sweden

SYSTEMATICS

1. ***Chasmogenus (Crepelochares) abnormalis***
(SHARP, 1890) comb. nov.
Philydrus abnormalis SHARP, Trans. Ent. Soc. London, 1890: 351 (Ceylon: Colombo).
Phylhydrus ferrugatus REGIMBART, Ann. Soc. Ent. France, 72, 1903: 57 (Conchina, (Sumatra) (err. typ.).
Phylhydrus nigrutilus REGIMBART (nec KUWERT, 1890), Ann. Soc. Ent. Fr. 1903: 57. (Indo-China, Sumatra).
Enochrus (Lumetus) abnormicollis ZAITZEV, Hor.Soc. Ent. Ross., XXXVIII, 1908:385.
Helochares (Chasmogenus) Regimbarti KNISCH, in JUNK Col. Cat. 79, 1924: 195.

DIAGNOSIS: *Ch. abnormalis* can be separated from both here and there sympatric species *Ch. rubricollis* (Sumatra, Borneo) and *Ch. orbus* (Japan) with certainty only by the male genitalia. (Fig. 8).

DESCRIPTION: Length, male 3.2 - 3.7 mm, female 3.2 - 4.1 mm. Width, male 1.6 - 2.0 mm, female 1.7 - 2.1 mm. - Oval, moderately convex, shining; dark reddish brown, postfrons black. Maxillary palpi, base of antennae and tarsi testaceous. Head, pronotum and elytra finely and closely punctate, on elytral base slightly finer and sparser than on pronotal disc. Punctural interstices about one to two times diameter of punctures. The longitudinal series of coarser punctures on elytra distinct (inner one as usual recognized at apical portion). Male genitalia with very differentiated and structured median lobe, the sides of that sinuated, deep constricted subapically, widely cut off apically; outline of parameres convex, apically widened at inner side. (Fig. 8). - (See also SATO 1976).

DISTRIBUTION: Orientalis (Sri Lanka, Thailand, Cambodia, Vietnam), Japan (Ryukyus), Malaysia (Sumatra, Java, Celebes, Borneo, Philippines-Luzon).

MATERIAL EXAMINED:

Malaysia: 1972 (T. JACCOUD) 1 * (CFH);

Thailand: Chiang Mai, 320 m, 4.XI.1985 (at light), (P. SCHWENDINGER) 1 * (CFH), 8.IX.1986, 1 *, 1 * (CFH);

Sri Lanka: Inginiyugala, 12.II.70, MUSSARD/BESUCHET/ LÖBL (CFH). (See also WATANABE 1987!).

Type locality: Sri Lanka, Colombo (Holotype *, BML, not seen!)

2. *Chasmogenus (Crephelelochaes) africanus*
(D'ORCHYMONT, 1937) comb. nov.

Helelochaes (Crephelelochaes) africanus D'ORCHYMONT, Mem. Est. Mus. Zool. Univ. Coimbra, ser. I, no. 96 (1936), 1937: 7 (Sambesi).

DIAGNOSIS: Among the smaller African species with rounded hind angles of pronotum (*Ch. patrizii*, *Ch. ruandanus*, *Ch. mollis*) *Ch. africanus* cannot be separated without males from the same locality.

DISTRIBUTION: Africa (Zambezi river, Uganda, Sudan, Ghana, Gambia, Cameroons, Senegal)

DESCRIPTION: Length 2.8 - 3.2 mm. Width 1.5 - 1.6 mm. - Oval, moderately convex, shining, rufo-testaceous to maroon; postfrons usually

darkened. Maxillary palpi, antennae, tarsi and labrum always clear testaceous. Hind angles of pronotum rounded. The whole surface closely and very finely punctate. The punctural interstices about two times diameter of punctural size. Sides of pronotum and elytra obsolete punctate. The longitudinal series of coarser punctures on elytra evident. Aedeagus slender, parallelsided; parameres apically suddenly oblique narrowed to a short obtuse tip. Median lobe parallelsided, apically constricted and truncate, much longer than parameres. (Fig. 14).

MATERIAL EXAMINED:

Ghana: Ashanti region, Kumasi, Nhasu, 330 m, N 6°43', W 1°36', (ENDRÖDY-YOUNGA) 20.V.67: 4 (TMB,CFH), 6.VII.67 1 * (TMB), 16.VI.67, 1 (MNG), 12.VI.67, 1 (CFH);

Gambia: Outside Abuko Nat. Reserve, 26.XI.77, (DANIELSSON) 1 (CFH);

Cameroon: 20 km NW Bangante forest Savannah, 15.I.78 (SAMUELSSON) 1 * (CFH); 25 km WNW Douala, Modeka 18.I.78, 1 * (ZML); (?) Abuko Nat. Res. 18.XI.77 (SAMUELSSON et al.) 2 * (ZML); (?) Outside Abuko 26.II.77 (SAMUELSSON et al.) 2 * (ZML);

Senegal: Parc National Djoudi XI.1988, (TERLUTTER) 2 * (CFH);

Sudan: Prov. Blue Nile, Wad Medani, 23. IX.1975 (BREMER) 2 *, 3 * (TMB, CFH).

Type locality: East Africa, Zambezi river (Holotype *, MRB; seen!)

3. *Chasmogenus (Crepelochares) livornicus* (KUWERT, 1890) comb. nov.

Helochares (Crepelochares) livornicus KUWERT, Verh. Naturf. Ver.Brünn, vol. 28 (1889), 1890: 38 et 327 (Italia: Livorno).

DIAGNOSIS: This is the only European species of the genus, distributed in the Eastern Mediterranean, there sometimes confused with *Cymbiodyta marginella*, but easily to distinguish from that by the longer maxillary palpi, the pentamer tarsi and the male genitalia.

DISTRIBUTION: Mediterranean (Italia, Yugoslavia, Greece, Israel, Narenta)

DESCRIPTION: Length 4.2 -4.7 mm. Width 2.0 - 2.3 mm.- Oval, rather convex, shining black to dark maroon with cleared sides of pronotum and elytra. Maxillary palpi, labrum, antennae and tarsi usually rufo-testaceous, but sometimes heavily infuscate. Hind angles of pronotum rounded. Head and pronotum rather coarsely densely punctate, elytra scattered and more finely punctate. The longitudinal series

of coarser punctures on elytra very distinct. Aedeagus characterised by rounded parameres fitted with a broad and obtuse subapical tooth at the inner side; the median lobe sinuated narrowed from base to apex, there truncate. (Fig. 10).

MATERIAL EXAMINED:

Greece: Vironia, Strimon VIII.. 1987, (H. BUSSLER) 1 * (CFH);

Israel: Hula Nat.Res. 21.III.85 M. Jäch leg. 1 * (CFH), 2 (NMW);

Type locality: Italia, Livorno (Holotype *, paratype 1, in coll. KUWERT MHP; not seen!)

**4. *Chasmogenus (Crephelochares) luctuosus*
(D'ORCHYMONT, 1939.) comb. nov.**

Helochares (Crephelochares) luctuosus D'ORCHYMONT, Bull. Ann. Soc. Ent. Belg. LXXIX, 1939: 164-165.

DIAGNOSIS: This species resembles the East African *Ch. lycetus*, from which it is not distinguishable in the female, also the Mediterranean *Ch. livornicus*. The puncturation especially on pronotum is less coarse and less close than in *Ch. livornicus*.

DISTRIBUTION: Africa (Gabon, Namibia, Cameroons, Congo, Senegal)

DESCRIPTION: Length 4.0 - 4.6 mm. Width 2.0 - 2.3 mm.- Oblong oval, more parallelsided, moderately convex, shining dark maroon to blackish-piceous. Palpi, labrum, antennal base and tarsi entirely rufo-testaceous. Hind angles of pronotum rounded. Punctuation on pronotal disc fine and close, on base and elytra a little more fine and less close. Punctural interstices on elytra about two times diameter of punctural size. The longitudinal series of coarser punctures on elytra very strong. Aedeagus with evenly curved parameres, fitted with a long acute subapical spine at inner side. Median lobe from base to apex strongly narrowed, sides convex. (Fig. 16).

MATERIAL EXAMINED:

Namibia: Nyangana, Okavango 14.-22.I.1985 (H.ROER) 1 * (CFH), 2 * (MKB);

Ghana: Ashanti reg. Kumasi, Nhasu 330m, 18.X.67 (ENDRÖDY-YOUNGA) 1 * (TMB);

Cameroons: 25 km WNW Douala Modoka, 18.I.78 (GÄRDENFORS-HALL-SAMUELSSON) 1 * immature (ZML); 65 km NE Kribi Bidjouka 4.I.78, 2 * (CFH); 65 km NE Kribi Bidjouka, 4.I.1978, 3 (CFH).

Congo-Brazzaville: Sibiti, Soso river 1.XII.63 (BALOGH & ZICSI)

1 * (CFH).

Senegal: Village Sare Sara, 21 km ESE Kolda 6.III.77 (CEDERHOLM et al.) 1 * (ZML).

Type locality: West Africa. Gabon (Holotype * , several paratypes, MRB; not seen!).

5. *Chasmogenus (Crephelochares) lycetus*

(D'ORCHYMONT, 1939) comb. nov.

Helochares (Crephelochares) lycetus D'ORCHYMONT,
Bull. Ann. Soc. Ent. Belg. LXXIX, 1939: 165-166.

DIAGNOSIS: Difficult to separate from the West African *Ch. luctuosus*, but not to confuse with other sympatric species, because of the large size and the characteristic parameres with a small subapical tooth at the inner side.

DISTRIBUTION: Kenya, Tanzania, Transvaal, Angola, Natal.

DESCRIPTION: Length 4.0 mm. Width 1.9 mm. - Oblong oval, moderately convex, shining maroon to piceous. Mouthparts, antennal base and tarsi rufo-testaceous. Hind angle of pronotum rounded. Surface finely closely punctate. The longitudinal series of coarser punctures on elytra distinct. Aedeagus with parameres evenly rounded to apex, fitted with a small subapical tooth at the inner side; median lobe slightly narrowed to apex, there truncate, sides sinuated. (Fig. 17).

MATERIAL EXAMINED (only females):

?Kenya: Nairobi 9.-12.VII.78 (CEDERHOLM) 1 * (CFH).

?Natal: St. Lucia Park Zululand (BRINKMAN) 2 * (NCP, CFH).

?TANZANIA: Uluguru Mts. IV. 1991 (WERNER), 1 * (CFH).

Type locality: E.Africa: Kenya, Taveta, Kilimanjaro (Holotype * , 5 paratypes, Angola MHP; not seen!)

6. *Chasmogenus (Crephelochares) mauritiensis*

(BALFOUR-BROWNE, 1958) comb. nov.

Helochares (Crephelochares) mauritiensis BALFOUR-BROWNE,
Mauritius Inst. Bull. Port Louis 5, 1958: 134 - 147.

DIAGNOSIS: By the large size, the dense puncturation of the entire surface and the male genitalia, resembling *Ch. luctuosus* and *Ch. lyce-*

tus, this species is easily to separate from the only further Malgassic species *Ch. mollis*.

DISTRIBUTION: Malgassis (Mauritius)

DESCRIPTION: Length 5.4 mm. Width 2.6 mm.- Oval, moderately convex. Blackish-piceous; forehead, sides, anterior edge and base of pronotum narrowly rufo-piceous, legs rufo-testaceous. Dorsum densely finely punctate, the punctural interstices about one and one-half times diameter of punctures, shining. Aedeagus characterized by a median lobe strongly narrowed from base to apex, subapically strongly constricted, apically truncate and by parameres more parallelsided, at the end curved inward, subapically fitted with an acute tooth at the inner side. (Fig. 12).

MATERIAL EXAMINED:

Holotype *, Mauritius: Les Mares, 20.X.1957 (J.VINSON), Paratype 1 * same loc. (BML; not seen!).

7. *Chasmogenus (Crephelelochaes) molinai* n. sp.

Helochaes (Crephelelochaes) mollis; HEBAUER 1988
(Namibia, misident.).

DIAGNOSIS: Similar and nearly related to *Ch. mollis*, differing only by the aedeagus (more abrupt narrowed parameres with longer and straighter apical section). Females can not be separated with certainty, though *Ch. molinai* is commonly dark piceous, at least the postfrons, while West African *Ch. mollis* are generally entirely clear reddish.

Holotype: Male, Congo-Brazzaville (Soil-Zoolog. Exp.) Loudima SAGRO, park 11. XII. 1963 light trap (ENDRÖDY-YOUNGA) TMB;

Paratypes: Same data 2 *, 1 * (TMB, CFH). Namibia: Nyangana/Okavango, 14.-22.I.1985 (H. ROER) 1 * (CFH).

ETYMOLOGY: This new species is dedicated to the Bavarian entomologist Hans MUEHLE, Pfaffenhofen, to whom I am indebted for important records in East Africa.

DESCRIPTION: Length 2.6 mm. Width 1.3 mm. - Oblong oval, convex, dark piceous, shining. Legs, antennae, maxillary palpi and labrum rufo-testaceous. Punctuation very fine, little impressed, on head a little more dense than on pronotal disc and base of elytra, there widespread.

The puncture interstices about three to four times diameter of punctures. Sides of pronotum and elytra nearly unpunctured, though the longitudinal series of coarse punctures are rather evident. - Aedeagus of the "mollis-type", but with suddenly and more acute narrowed parameres, with the spinelike apical section longer and straighter, reaching the subapical contracting of the median lobe. Ventral endophallic strut line-shaped: (Fig. 6).

**8. *Chasmogenus (Crephelochares) mollis*
(REGIMBART, 1903) comb. nov.**

Philydrus mollis REGIMBART, Ann. Soc. Ent. Fr. 72, 1903: 32
(Madagascar).

Philydrus abnormalis HUGH SCOTT (nec SHARP), Trans. Linn.
Soc. Lond., vol. 16, 2, 1913: 205 (Aldabra, Seychelles).

DIAGNOSIS: Most similar and related to *Ch. molinae* and *Ch. paramollis* n. sp., only to separate with certainty by the male genitalia. Very variable in size, colour and puncturation. From *Ch. rutilus* it differs by the rounded, not rectangular hind angles of pronotum and by the different aedeagus. Determination ex loco should be successful.

DISTRIBUTION: Madagascar.

DESCRIPTION: Size 2.5 - 3.5 mm. Oval, moderately convex, piceous to clear reddish, shining. Legs, maxillary palpi and antennae always rufo-testaceous. Puncturation on pronotal disc and base of elytra generally equally obsolete or very little impressed. In East African specimens, which are commonly darker, the pronotal puncturation is frequently coarser and more compact than on base of elytra. The longitudinal series of coarser punctures on elytra are weakly impressed but always distinct. The parameres are subapically rectangularly narrowed to a narrow spine fitted with an very small but distinct tooth at the inner side of the tips; the spines does not reach the subapical constriction of the (apically truncate) median lobe. The ventral endophallic strut of median lobe is pencil-shaped: (Fig. 19).

MATERIAL EXAMINED:

Madagascar, Antongil Sud (MOCQUERYS), type series in coll. ALLUAUD and coll. REGIMBART, MHP: Holotype * ; 5 paratypes, Madagascar Sud, Pays Androy Nord (ALLUAUD), 1 paratype: Bassin du Mandrare (ALLUAUD) (seen!).

Type locality: Madagascar.

9. *Chasmogenus (Crephelochares) molluscus* n. sp.

DIAGNOSIS: Most related to the sympatric *Ch. mollis* of same shape and colour, but easily to separate by the nearly unpunctured surface, the rectangular hind angle of pronotum and the smaller size.

DISTRIBUTION: East Africa (Tanganyika).

H o l o t y p e : Female (unicum), East Africa, Tanganyika 2 mls. to Lake Manyara, SE shore, 3150 feet alt. 1.-26.VI.1965 (J. SZUNYOGHY), (TMB).

DESCRIPTION: Length 2.5 mm. Width 1.4 mm.- Short oval, rather convex, shining black; sides of pronotum and elytra narrowly rufo-piceous. Legs, maxillary palpi, antennae and labrum rufo-testaceous. Hind angle of pronotum rectangular! The whole surface nearly unpunctured, even the longitudinal series of coarser punctures hardly visible. Etymology: Derived from the near related *Ch. mollis* in combination with the weak puncturation on the whole surface.

**10. *Chasmogenus (Crephelochares) nitescens*
(FAUVEL, 1883) comb. nov.**

Philydrus nitescens FAUVEL, Rev. Ent. Caen, II, 1883: 354; XXII, 1903: 353.

DIAGNOSIS: This is the only species from Australia and New Caledonia and has the whole surface closely and rather coarsely punctate (except the sides and apex of elytra). The next related species, *Ch. rubricollis* from Malaysia (also *Ch. abdominalis*) show similar male genitalia, but the punctation on the whole surface, especially on elytra is much finer and more scattered.

DISTRIBUTION: New Caledonia, Australia (Queensland).

DESCRIPTION: Length 3.3 - 3.8 mm. Width 1.8 - 2.0 mm.- Oval, moderately convex, shining blackish-piceous; sides of pronotum and of elytra reddish-brown; labrum, palpi, antennal base and tarsi rufo-testaceous. Hind angles of pronotum rounded. The whole surface (except sides and apex of elytra) rather coarsely and closely punctured. The punctural interstices one to two times diameter of punctural size. The three longitudinal series of coarser punctures on elytra evident. Aedeagus with parallelsided, subapically strong constricted and apically truncate median lobe. Parameres simple curved inward, without special markings: (Fig. 18).

Dr. F. HEBAUER

MATERIAL EXAMINED:

Australia: SE NSW Bungonia 16.I.1981 (VOJNITS) 1 (CFH); Queensland, Townsville, 16.-22.III.1965 (BALOGH) 1 * (CFH).

Type locality: New Caledonia (Holotype ? sex, in coll. FAUVEL; not seen!).

11. *Chasmogenus (Crephelochares) orbus*

(WATANABE, 1987) comb. nov.

Helochares (Crephelochares) orbus WATANABE,

Aquatic insects vol. 9 (1987) 1:11-15.

DIAGNOSIS: Distinguishable from the sympatric *Ch. abnormalis* of the same size mainly by the male genitalia; Whereas in *Ch. abnormalis* the parameres are barely obtusely widened at apex, the parameres of *Ch. orbus* are ending abruptly with an acute tooth at the inner side.

DISTRIBUTION: Japan

DESCRIPTION: Length 3.3 mm. Width 1.7 mm.- Oval, moderately convex, head black, labrum, pronotum and legs reddish brown; tarsi, antennae and mouthparts yellowish brown. Posterior angles of pronotum bluntly rectangular. Punctuation on surface uniformly dense, finer on lateral portions. Longitudinal series of coarser punctures on elytra distinct. Aedeagus with a median lobe strongly narrowed from base to apex, outlines convex, parameres apically acutely pointed, with a triangular tooth at the inner side. (Fig. 11).

MATERIAL EXAMINATED:

H o l o t y p e *, Hanetsuku, Tatebayashi-shi, Gumma-ken, Honshu, Japan V.1980 WATANABE leg. (NMT; not seen!).

12. *Chasmogenus paramollis* n. sp.

DIAGNOSIS: Very similar to *Ch. mollis* and *Ch. molinae* n. sp. It cannot be separated from both without the male genitalia. *Ch. mollis* can be excluded far from Madagascar.

DISTRIBUTION: E.Africa (Kenya, Tanzania, Tanganyika, Transvaal), W.Africa (Ghana, Cameroons).

H o l o t y p e : * Tanzania, Usa river 3900 feet alt., 1965, SZUNYOGHY leg., in Termesztudományi Múzeum Budapest.

Paratypes: 40 ex. (males and females, only males certain) in TMB and CFH), same data.

Tanganyika: 2 mls. to Lake Manyara SE shore 3150 ft. alt. 1.-26.VI.65 (J.SZUNYOGHY) 1 (TMB);

Kenya: Tsavo West, M'tito Andei (light), 10.I.91 J. B. HUCHET, 1 (CBT).

Ghana: Kumasi, Ashanti region, Nhasu, 330m, N 6° 43', W 1° 36', (S. ENDRÖDY-YOUNGA) 28.V.67, 15.IX.67, 20.X.67, 18.X.67, 12.VI.67, 4.II.68, 18.V.67, 12.V.67, 11 (CFH, TMB); Western region, Busua, 15 m, N 4° 48', W 1° 56', 26.III.69, 27.III.69, 2 (TMB, CFH), Northern region, Tamak 184m, 11.III.70 1 * (TMB) Damongo 12.VIII.71 1 * (TMB)

Cameroons: 20 km NW Bafia, 5 km N Bayomen 14.I.78 (GÄRDEN-FORSHALL/SAMUELSSON) 1 (ZML); 20 km NW Bangante 15.I.78 (G./S.) 2 * (ZML); 25 km WNW Douala, Modeka 18.I.78, 1 * (ZML).

DESCRIPTION: Length 3.3 mm. Width 1.5 mm.- Oblong oval, moderately convex, shining. Reddish maroon, sides of pronotum and elytra more clearly reddish. Palpi, base of antennae, labrum and tarsi rufo-testaceous. Pronotal disc finely less densely, base of elytra very finely distantly punctured, The longitudinal series of coarser punctures on elytra distinct but fine. Aedeagus with parameres softly but deeply narrowed before apex to a simple spine, which does not reach the terminal lobe of median lobe, apically slightly hooked.

13. *Chasmogenus* (*Crephelochares*) *patrizii*

(BALFOUR-BROWNE, 1957) comb. nov.

Helochares (*Crephelochares*) *patrizii* BALFOUR-BROWNE,

Ann. Mag. nat. Hist. London, (Ser. 11) 14 (120) (1948): 817-833.

DIAGNOSIS: Female specimens cannot be separated from sympatric species with rounded hind angles of pronotum as *Ch. africanus*, *Ch. ruidanensis* and *Ch. molinai*.

DISTRIBUTION: E.Africa (Somalia, Sudan, Kenya, Mozambique, Uganda, Cameroons, Tanzania), S-Africa (Natal, Transvaal).

DESCRIPTION: Length 3.2 - 3.5 mm. Width 1.7 mm.- Oval, moderately convex, shining, rufo-testaceous to blackish-piceous. Labrum, palpi, sides of pronotum, antennae and tarsi always clear. Hind angles of pronotum rounded. Dorsum densely finely punctate. The longitudinal series of coarser punctures evident. Aedeagus very distinct with clearly separated claw-shaped apical portion inclining to the parallelsided, apically truncate median lobe: (Fig. 3).

MATERIAL EXAMINED:

Cameroons: 15 km SE Bafia, Boura, (light), 13.I.1978 1 * (CFH);
Sudan: Prov. Blue Nile, Wad Medani (light) 23.IX.1975 (BREMER)
2 * (CFH);
Kenya: (?) Nairobi 9.-12.VII.78 (CEDERHOLM) 1 * (CFH);
Natal: Chartera Creek 11. XI. 89 (OBERPRIELER) 1 * (NCP); St. Lucia Estuary 13. XI. 89 (OBERPRIELER) 1 * (NCP); Mtunzini 20. IX.82 (OBERPRIELER) 1 * (NCP);
Transvaal: Loskopdam Nat. Res. 9.-13. XI. 81 (MOOLMAN) 1 * (NCP); Nylsvley Nat. Res. XI. 82 (OBERPRIELER) 2 ** (NCP).
Tanzania: Uluguru Mts. IV. 1991 (WERNER) 2 **, 1 * (CFH).
Type locality: E.Africa: Somalia (Holotype *, MCG, paratypes 1 * Mozambique BML, Uganda 1 ; not seen!).

**14. *Chasmogenus (Crepelochares) ruandanus*
(BALFOUR-BROWNE, 1947) comb. nov.**

Helochares (Crepelochares) ruandanus BALFOUR-BROWNE,
Ann. Mag. nat. Hist. London, (Ser. 11) 14 (120) (1948): 817-833.

DIAGNOSIS: In colour, shape and size this species approaches closest *Ch. patrizii*. Among the sympatric species it is difficult to separate too from *Ch. africanus* and *Ch. mollis* without males from the same locality. In contrast to the body shape the male genitalia are very distinct.

DISTRIBUTION: E.Africa (Ruanda, Burundi).

DESCRIPTION: Length 3.3 - 3.7 mm. Width 1.5 - 1.7 mm.- Oblong oval, moderately convex, shining, rufo-testaceous; postfrons piceous. Surface closely and finely punctate. Punctural interstices about two times diameter of punctural size. The longitudinal series of coarser punctures distinct. Aedeagus with parallelsided apically truncate median lobe; parameres basally wide, apical half formed as a slender arm, sharply pointed and curved to the median lobe. (Fig. 15).

MATERIAL EXAMINED:

Burundi: Bujumbura 800m, 12.IV.1985 (H. MÜHLE) 1 * (CFH);
Kenya: (?) Nairobi 9.-12.VII.78 (CEDERHOLM) 1 * (ZML);
Type locality: E.Africa: Ruanda (Holotype Kibuye, unicum, 12.II.1953, MRT; not seen!).

15. *Chasmogenus (Crephelochares) rubellus* n. sp.

DIAGNOSIS: Body shape very similar to that of *Ch. luctuosus* and *Ch. szeli* (both occurring sympatrically), but always smaller and more clear coloured than *Ch. luctuosus*, pronotum commonly less coarse punctured and hind angles more rounded than in *Ch. szeli*. Aedeagus totally different from both species, but similar to the (much smaller) *Ch. africanus*.

DISTRIBUTION: W. Africa (Gambia, Senegal)

H o l o t y p e : Male, W. Africa,

Senegal: Village Sare Sara, 21 km ESE Kolda, at light, 6.III. 1977, Loc. No. 19, UTM 28PEK268191 (CEDERHOLM/DANIELSSON/LARSSON/NORLING/SAMUELSSON), Zoological Museum Lund, Sweden.

P a r a t y p e s : 1 * (same data) CFH; Senegal, 3 km SSW Toubakouta, 10 km S Ziguinchor, 4. III. 1977 (same collectors) 1 * (ZML); Gambia: River Tanji, 3 km SW Brufut, 298. II. 1977, Loc. 9 (same collectors), 1 * (ZML);

Gambia: Outside Abuko Nat. Res. (light), 4.XI.1977 (same coll.) 1 * (CFH).

DESCRIPTION: Length 3.8 mm. Width 1.8 mm.- Oblong oval, parallel-sided, moderately convex, shining; entirely rufo-testaceous, except the piceous postfrons. Maxillary palpi reaching back until the hind angles of pronotum. Punctuation of head, pronotal disc and base of elytra nearly equally fine, little impressed and widespread; the punctural interstices about four times diameter of punctures. The longitudinal series of coarser punctures on elytra distinct, but not striking. Four evident black spots on pronotum forming a rectangle. Aedeagus robust, with wide parameres, subapically strongly but obtusely narrowed to a short rounded appendix. Median lobe parallelsided in the middle portion, strangled softly before truncate apex: (Fig. 9).

Etymology: Latin "ruber" = red.

16. *Chasmogenus (Crephelochares) rubricollis* (REGIMBART, 1903) comb. nov.

Philhydrus rubricollis REGIMBART,

Ann. Soc. Ent. France, 72, 1903: 58 (Sumatra West et Palembang);

Helochares (Chasmogenus) abnormalis KNISCH

(nec SHARP, 1890).

DIAGNOSIS: Apart from the different male genitalia the punctation is distinctly closer on the pronotal disc than on base of elytra and will separate *Ch. rubricollis* from the sympatric *Ch. abdominalis*, which shows equal punctation on the whole surface. From the close related Australian *Ch. nitescens* it differs mainly by the much less coarse punctation on elytra.

DISTRIBUTION: Malaysia (Borneo, Sumatra)

DESCRIPTION: Length 3.2 - 3.8 mm. Width 1.5 - 1.8 mm.- Oblong oval, moderately convex, shining maroon; postfrons and anterior half of elytra diffusely piceous; mouthparts, antennae and tarsi rufo-testaceous. Hind angles of pronotum rounded. Punctation on head and pronotal disc finely closely. Punctural interstices only one and one half times, on base of elytra more than two times diameter of punctural size. The longitudinal series of coarser punctures on elytra very distinct. Aedeagus with rather parallelsided median lobe, laterally accompanied by sloping pillars, subapically strongly constricted, apically truncate. Parameres slightly curved inward, without special markings; rather similar to that of the Australian *Ch. nitescens* : (Fig. 13).

MATERIAL EXAMINED:

Malaysia: (?) 1 * Pahang, Kg. S. Ular pr. Kuantan 13.-18.VII.69 (R. PI-LET) (MNG)

Type locality: Sumatra (Type material unknown, may be lost).

17. *Chasmogenus (Crephelochares) rudis* n. sp.

DIAGNOSIS: Though no male is known up to now, this species is easily to recognize by the short maxillary palpi and by the evident and unusually coarse punctation on the whole surface.

DISTRIBUTION: W.Africa (Congo-Brazzaville).

H o l o t y p e: Female, Congo-Brazzaville, Kindamba, Meya, Bangou forest, 12.XI.63, (BALOGH & ZICSI) (TMB),

Paratype : 1 * same data (CFH).

DESCRIPTION: Length 3.3 mm. Width 1.7 mm.- Broadly oval, moderately convex, shining. Surface entirely reddish, except the piceous post-

frons. Maxillary palpi comparatively short, reaching back only until the middle of pronotum. Punctuation on the whole surface unusually coarse and dense; the punctural interstices on an average only one and half times diameter of punctures. Clypeus shallowly rounded impressed. The longitudinal series of coarser punctures on elytra hardly to recognize.

Etyymology: Latin "rudis" = coarse (punctuation).

**18. *Chasmogenus (Crephelelochaes) rusticus*
(D'ORCHYMONT, 1939) comb. nov.**

Helochaes (Crephelelochaes) rusticus D'ORCHYMONT, Bull. Ann. Soc. Ent. Belg., LXXIX, 1939: 165-166.

DIAGNOSIS: The exact rectangular hind angles of pronotum, the parallelsided body shape and the striking coarse longitudinal series of punctures on elytra make this species easily recognized. *Ch. rutilus* and *Ch. rutiloides* with similar hind angles of pronotum are always of smaller size, with more oval shape and with the longitudinal series of coarser punctures on elytra hardly recognizable.

DISTRIBUTION: W. Africa (Gabon, Ghana).

DESCRIPTION: Length 3.3 - 3.7 mm. Width 1.8 mm.- Oblong oval to parallelsided, moderately convex, shining, entirely reddish, also postfrons; mouthparts, antennae and tarsi rufo-testaceous. Hind angles of pronotum rectangular. Surface nearly equally finely and scattered punctate. The punctural interstices about four times diameter of punctural size. The three longitudinal series of coarser punctures on elytra striking large, nearly regularly arranged. Aedeagus with simply arched parameres, without spine at inner side; median lobe from base to apex evenly straightlined narrowed: (Fig. 7).

MATERIAL EXAMINED:

Ghana: Brong-Ahafo reg., Bui camp, 130 m, N 8° 17' , W 2° 15' , 27.X.65, (ENDRÖDY-YOUNGA) 5 (TMB), 1 * (CFH); Northern region, Banda-Nkwanta, 150 m, N 8° 22' , W 2° 08' , 13.-17.IX.1965 and 14.-18.VIII.65 (ENDRÖDY-YOUNGA) 3 * (CFH), 86 (TMB); Tamale, 30.VIII.70, 3 (TMB), 12.XII.69, 1 (TMB), Kumasi, Ashanti region, Nhyia-su 330 m, 3.II.68; Brong-Ahafo region, Bui camp , alt.130m, 1.-5.XI.65 (ENDRÖDY-YOUNGA) 6 (TMB). (ENDRÖDY-YOUNGA) 1 (TMB);
Type locality: West Africa: Gabon (Holotype * , paratype 1 * MRB; seen!).

**19. *Chasmogenus (Crephelochares) rutiloides*
(D'ORCHYMONT, 1939) comb. nov.**

Helochares (Crephelochares) rutiloides D'ORCHYMONT, Bull. Ann.
Soc. Ent. Belg. LXXIX, 1939: 323.

DIAGNOSIS: Very similar and closely related to *Ch. rutilus*, on average a little smaller but to separate from that only by the male genitalia, where the median lobe in *Ch. rutiloides* is pointed apically, while truncate in *Ch. rutilus*. From *Ch. rusticus* it differs by the smaller size and the longitudinal series of larger punctures on elytra hardly visible, while striking in the former.

DISTRIBUTION: W. Africa (Cameroons, Gabon)

DESCRIPTION: Length 2.7 - 3.0 mm. Width 1.3 - 1.5 mm.- Short oval, moderately convex, shining reddish to maroon. Elytra evidently darker than pronotum. Postfrons piceous, usually well limited. Mouthparts, antennae and tarsi rufo-testaceous. Hind angles of pronotum exactly rectangular. Surface finely to obsolete scattered punctured. Interstices of punctures about four times diameter of punctural size. The longitudinal series of coarser punctures on elytra sometimes hardly visible. Aedeagus with sinuated parameres; median lobe from base to apex strongly narrowed, apically pointed: (Fig. 2).

MATERIAL EXAMINED:

Cameroons: 25 km WNW Doulala, Modeka (light), 18.I.1978, Dec. 1977 - Jan. 1978, (GÄRDENFORSHALL & SAMUELSSON), 1 * (CFH) 6 (ZML); Akonolinga 7.I.78 (G./S.) 17 (ZML); 65 km NE Kribi, Bidjouka 4.I.78 (G./S.) 3 (ZML); 40 km SW Messamena, Somalomo 9.-10.I.78 (G./S.) 2 (ZML); 15 km SE Bafia, Boura 13.I.78 (G./S.) 1 (ZML);
Gabon: Makokou, IV. 1971, (at light), (J. MATEU) 225 ex. (NMG), 6 ex. (CFH);

Gambia: Abuko Nat. Res. 18.XI.77 (GÄRDENFORSHALL/SAMUELSSON) 3 (ZML).

Ghana: Ashanti region, Kumasi, (ENDRÖDY-YOUNGA) 12.VI.67, 1 (TMB) 5.VII.65, 1 (MNG); Kumasi Nhasu 330m, 12.VI.67 (ENDRÖDY-YOUNGA) 7 (TMB); Ashanti reg. Kwadaso, 259m, 9.VI.69 (ENDR.-YOUNGA) 1 (TMB); Western reg. Busua 15m, 27.III.69 (ENDRÖDY-Y.) 1 (TMB);

Congo-Brazzaville: Loudima, Sagro (light trap), 7.XII.1963- 11.XII.1963 (ENDRÖDY-YOUNGA) 1 * (CFH), 5 (TMB); Mt. Fouari res. nr. Gabon 13.XII.63, 2 (TMB), Sibiti, Soso river, 1. XII.63 (BALOGH & ZICSI) 4 (TMB). (See also D'ORCHYMONT 1939!).

Type locality: West Africa: Gabon (Holotype *, coll. D'ORCHYMONT MRB).

20. *Chasmogenus (Crephelochares) rutilus*

(D'ORCHYMONT, 1925) comb. nov.

Helochares (Crephelochares) rutilus D'ORCHYMONT,
Bull. Ann. Soc. Ent. Belg., 65, 1925: 71 (Gabon, Congo belge).

DIAGNOSIS: Up to now there are known only three West African species with exactly rectangular hind angles of pronotum: *Ch. rutilus*, *Ch. rutiloides* and *Ch. rusticus*. *Ch. rutilus* is characterised in the male genitalia by sinuated parameres and a median lobe truncate at apex (not pointed there). From *Ch. rusticus* it differs externally by the smaller size and the longitudinal series of coarser punctures on elytra hardly visible; from *Ch. rutiloides* it differs by the median lobe of aedeagus not pointed at apex.

DISTRIBUTION: W. Africa (Gabon, Congo, Cameroons).

DESCRIPTION: Length 2.8 - 3.2 mm. Width 1.5 - 1.8 mm. - Short oval, moderately convex, shining reddish-maroon; elytra distinctly darker than pronotum; postfrons piceous. Mouthparts, antennae and tarsi rufotestaceous. Hind angles of pronotum exactly rectangular. Surface finely less closely punctured. Punctural interstices about three times diameter of punctural size. The longitudinal series of coarser punctures on elytra hardly visible. Aedeagus with sinuated parameres; median lobe from base to apex straightlined narrowed, apically truncate. (Fig. 1).

MATERIAL EXAMINED:

Cameroons: 20 km S Edea, 5 km N Apouh, (at light), 31.XII.77 (GÄRDENFORSHALL & SAMUELSSON) 4 (ZML, CFH); 25 km WNW Douala, Modoka, 18.I.78 (GÄRDENFORSHALL/SAMUELSSON) 2 (ZML, CFH); 2 km N Campo 2.I.78 (GÄRDENFORSHALL/SAMUELSSON) 1 * (CFH); 40 km SW Messamena, Somalomo 9.-10.I.78 (G./S.) 2 (ZML); Akonolinga 7.I.78 (G./S.) 4 (ZML); 65 km NE Kribi, Bidjouka 4.I.78 (G./S.) 1 (ZML); Abuko Nat. Res. 18.XI.77 (G./S.) 1 (ZML). Congo-Brazzaville; Sibiti, Soso river 1. XII.63 (BALOGH & ZICSI) 1 (TMB), Bouenza cataract 30.XI.63 (ENDRÖDY-YOUNGA) 1 (TMB).

Type locality: West Africa: Gabon (Holotype *, MRB; seen!).

21. *Chasmogenus (Crephelochares) szeli* n. sp.

DIAGNOSIS: Very similar to *Ch. rubellus* and smaller or immature specimens of *Ch. luctuosus*, but with quite different aedeagus. Females are sometimes not to separate. In contrast to the related species, *Ch. szeli* shows a more coarse punctation on pronotum and elytra also almost rectangular hind angles of pronotum, while from *Ch. rusticus* it differs by the less rectangular hind angles of pronotum and by the less striking series of coarser punctures on elytra.

DISTRIBUTION: W. Africa (Ghana).

H o l o t y p e: Male, Ghana: Ashanti region, Kumasi, Nhasu 330 m, N 6° 43' , W 1° 36', (ENDRÖDY- YOUNGA), 12.VI.1967 (TMB, Nr. 225)

P a r a t y p e s: same locality 2 (TMB), 12.V.67, 16. (TMB, CFH), 11 (MNG), 18.V.67, 8 (TMB), 3 (MNG), 16.V.67 1 (TMB), 1 (MNG); 24.VI.67, 8 (TMB), 12.VI.67, 4, 20.V.67, 2, 21.V.67, 4, 18.X.67 (TMB); Bobiri forest res. 320 m (ENDRÖDY-YOUNGA) 1 (TMB); Ghana, Northern region, Tamale 184 m, 8.III.1970, 1 (TMB), Nakpanduri, 75 km S Bakwu, 11. VII.1970, 1 (TMB), Nyankpala, 15 km w Tamale, 21.-31.V.70, 1 (TMB).

Congo - Brazzaville: nr. Gabon 12.XII.63 (ENDRÖDY-YOUNGA) 1. (TMB).

DESCRIPTION: Length 4.1 mm. Width 2.0 mm.- Oblong oval, a little depressed, dark maroon, shining. Tarsae, antennal base, maxillary palpi and forehead rufo-testaceous. Sides of pronotum and elytra diffusely rufo-piceous. Punctation on pronotal disc similar to that on elytral base, moderately fine, sharply impressed and moderately distant. The punctural interstices about two times diameter of punctures. The longitudinal series of coarse punctures on elytra rather evident.- Aedeagus of the "rutilus-type" with sinuated parameres, but much more robust. Median lobe continuously narrowed from base to apically truncate apex, subapically barely constricted: (Fig. 4).

Etymology: This species is dedicated to Dr. Gyözö SZEL, entomologist at the TMB.

22. *Chasmogenus (s. str.) fragilis* SHARP, 1882

Chasmogenus fragilis SHARP, 1882,
Biol. Centr. Amer., Col., 1 (2): 73.

DIAGNOSIS: After FERNANDEZ 1986 this sole Central American species is separated from both South American species mainly by the larger excavation and the sculpture of mentum. Determination ex loco should be sufficient.

DISTRIBUTION: Central America (Guatemala, Panama).

DESCRIPTION: Length 3.6 mm. Width 1.8 mm.- Oblong oval, slightly depressed, shining blackish-maroon; sides of pronotum and elytra paler. Palpi, antennal base and tarsi rufo-testaceous. Maxillary palpi reaching back beyond the mid of pronotum. Menthum anteriorly widely and deeply rounded excavated, scarcely punctured. Hind angles of pronotum obtuse, not rectangular. Head and pronotum finely scattered punctulated, elytra nearly obsolete punctured. Longitudinal series of coarser punctures on elytra evident. Prosternum not carinate. Mesosternum only tectiform.

MATERIAL (not examined):

S. Geronimo, Guatemala, CHAMPION, (Syntype, BML); San Geronimo, Vera Paz, CHAMPION, SHARP coll. 1905 - 333 (Syntype, BML); B. C. A. Col. I 2 (Lectotype, BML).

23 *Chasmogenus* (s. str.) *rufinasus* (KNISCH, 1924)

Helochares (*Chasmogenus*) *rufinasus* KNISCH, 1924,
Wiener ent. Ztg. 41 (4-10): 124.

DIAGNOSIS: After the original description this species seems to be different from the related forms mainly by the mentum deeply triangular excavated anteriorly. Up to now no sympatric species is known.

DISTRIBUTION: S. America (Ecuador)

DESCRIPTION: Length 2.7 mm.- Oblong oval, rather depressed, shining reddish maroon, only maxillary palpi rufo-testaceous. Pronotum rather finely little closely punctured; the puncturation a little more evident than on elytral base. Menthum anteriorly deeply triangular excavated, finely, not closely punctured, shining. Mesosternum weakly carinate. Metasternum with shining middle portion.

Type locality: Ecuador (Guayaquil, E. LEIBFAHRT leg.), 2 Syntypes in Zool. Museum Hamburg (not seen!).

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24. *Chasmogenus (s. str.) sapucay* FERNANDEZ, 1986

Chasmogenus sapucay FERNANDEZ, 1986,
Neotropica 32 (88): 189-193.

DIAGNOSIS: Determination ex loco should be successful.

DISTRIBUTION: S.America (Paraguay, Argentina).

DESCRIPTION: Length 3.1 -3.7 mm. Width 1.6 - 1.9 mm.- Oval. Surface dark maroon; maxillary palpi and antennae rufo-testaceous. Head coarser closer punctured than pronotum, the latter with scattered and little impressed punctures; elytra again sparser and finer punctured than pronotum. The longitudinal series of coarser punctures on elytra little evident. Mentum anteriorly deeply, but not broadly funnel-shaped excavated, this excavation rugosly bordered laterally, with some scattered punctures. Mesosternum with a low longitudinal elevation. Aedeagus simple trilobed, poor differentiated.

MATERIAL (not examined):

H o l o t y p e *, Allotype * coll. AOB no. 8916, Paraguay, Sapucay 7.III.1970 (LUIS GROSSO) (MACN).

Paratypes: 1 *, 5 * (MACN), 1 *, 4 * MCN La Plata, 1 *, 1 * (BML); 1 * Rep. Argentina, prov. Formosa, Clorinda 25.XI.1950 (WILLING-MONROS); 1 es. Paraguay, dep. San Pedro, Carumbe I.1971 (GOLBACH).

Anschrift des Verfassers:

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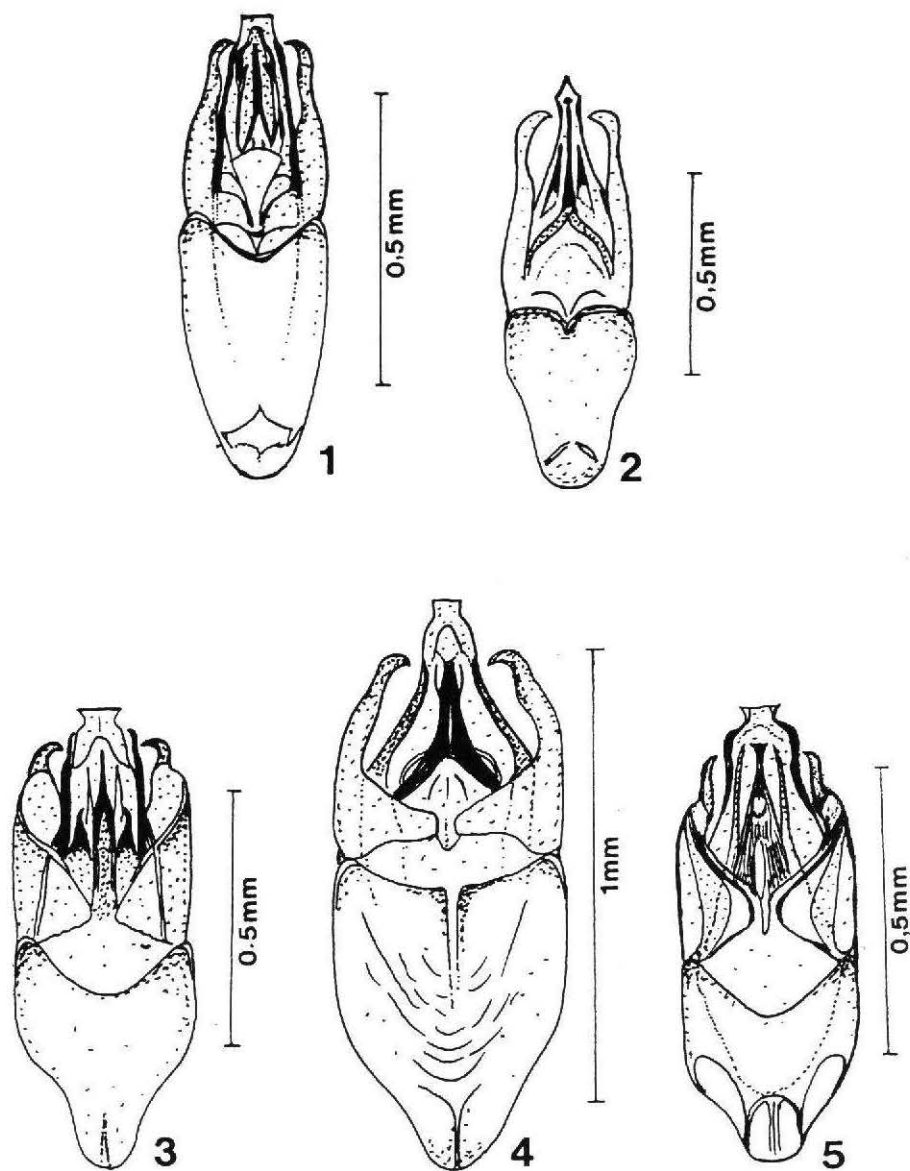
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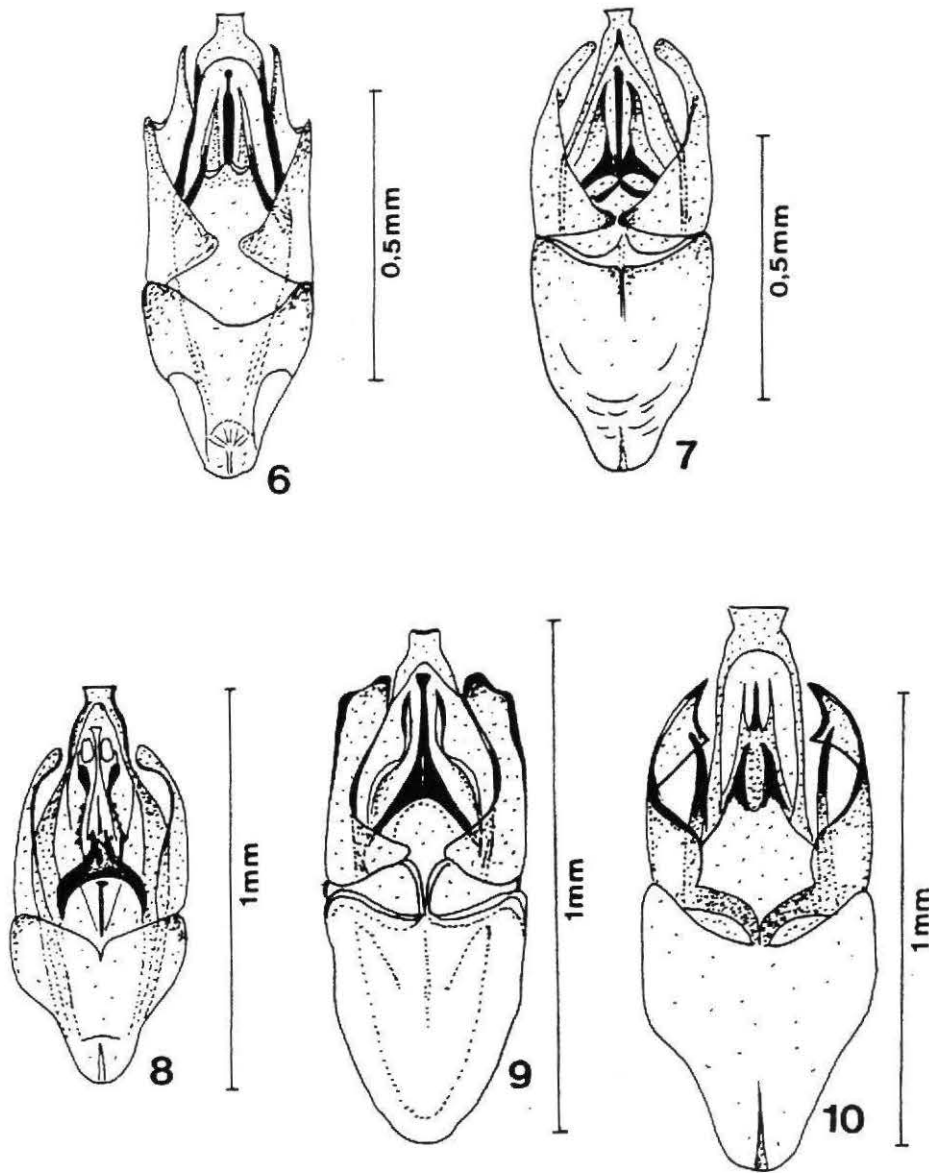
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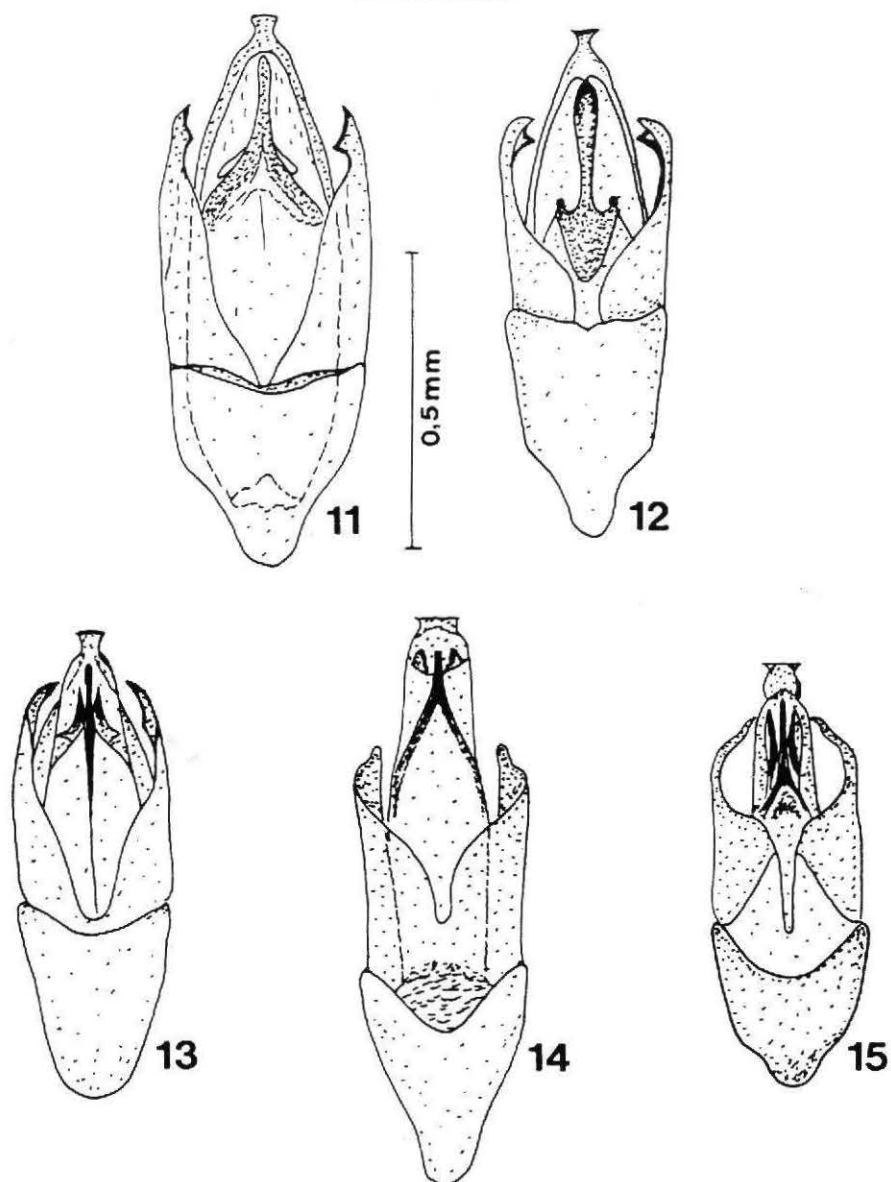


Figs 1 - 5. Male genitalia of *Chasmogenus*: 1 *utilus* (D'ORCH.),
2 *utiloides* (D'ORCH.), 3 *patrizii* (BALFOUR-BROWNE),
4 *szeli* n. sp., 5 *mollis* (REG.), (ventral aspect; original)

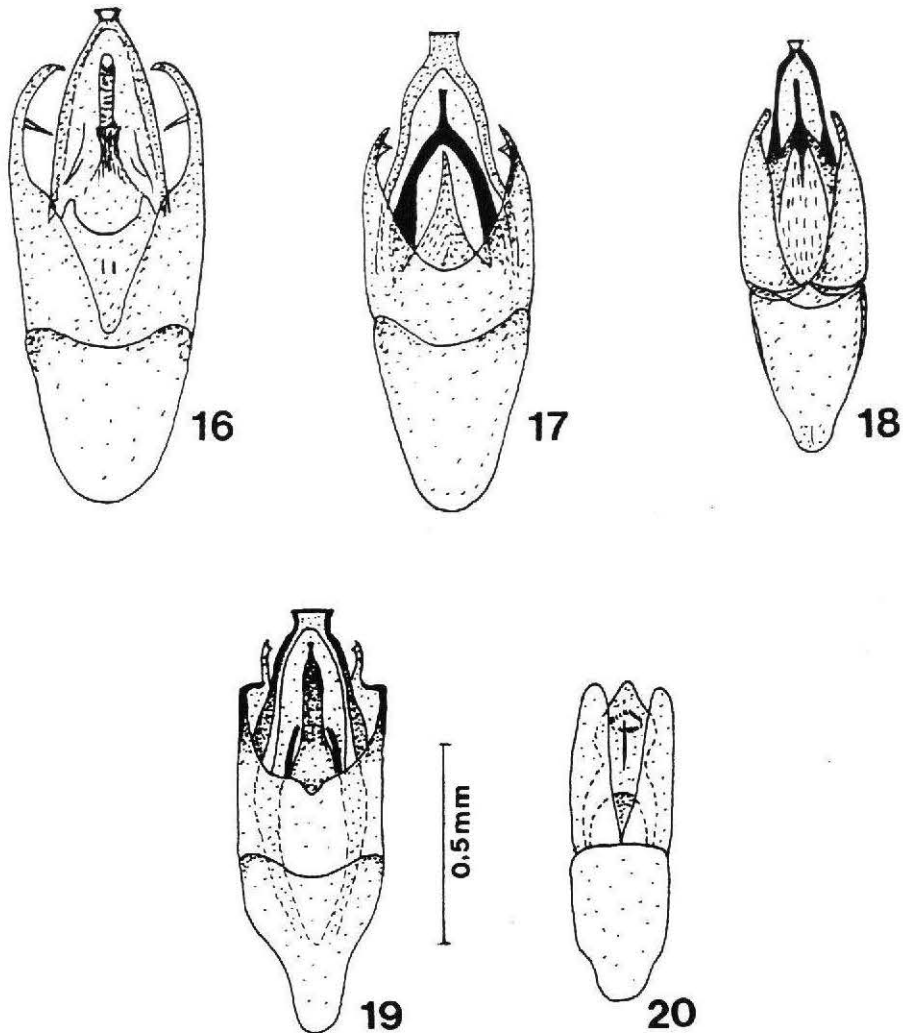


Figs. 6 - 10. Male genitalia of *Chasmogenus*: 6. *molinai* n. sp.,
7. *rusticus* (D'ORCH.), 8. *abnormalis* (SHARP), 9. *rubellus* n. sp.,
10. *livornicus* (KUWERT), (ventral aspect; original)

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Figs 11 - 15. Male genitalia of *Chasmogenus*: 11 *orbus* (WATANABE),
12 *mauritiensis* (BALFOUR-BROWNE), 13 *rubricollis* (REG.),
14 *africanus* (D'ORCH.), 15 *ruandanus* (BALFOUR-BROWNE),
(ventral aspect; redrawn)



Figs 16 - 20. Male genitalia of *Chasmogenus*:
16 *luctuosus* (D'ORCH.), 17 *lycetus* (D'ORCH.),
18 *nitescens* (FAUVEL), 19 *mollis* (REG.),
20 *sapucay* FERNANDEZ,
(ventral aspect; 20 redrawn after FERNANDEZ 1986).

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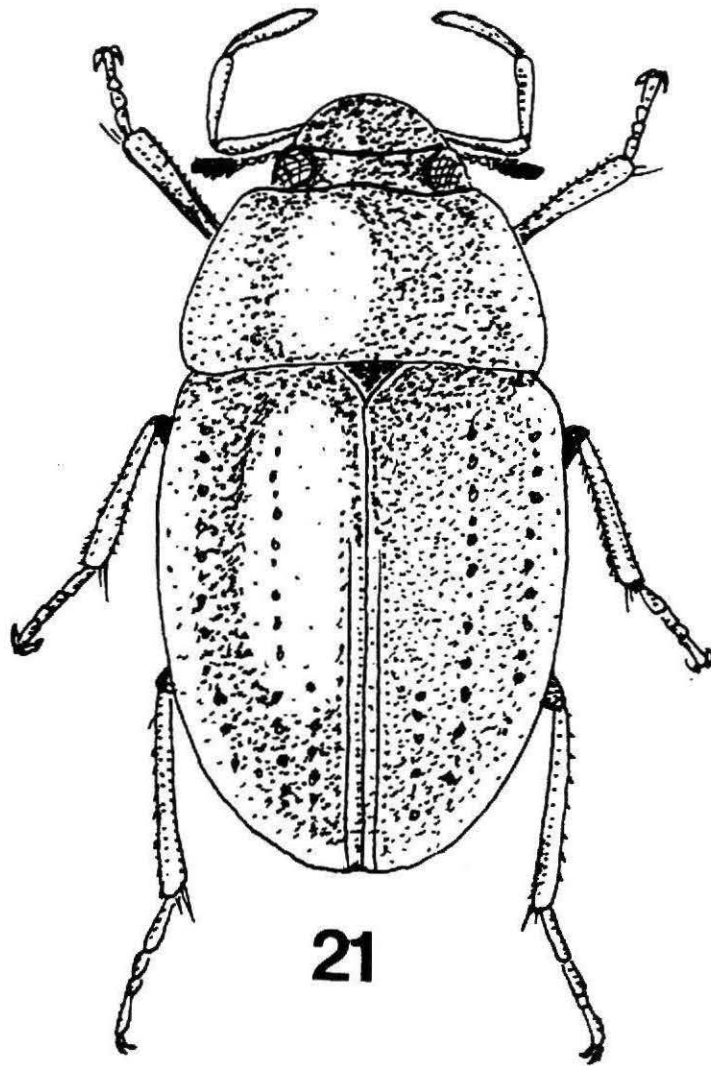


Fig. 21 *Chasmogenus* sp., general aspect.

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Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Acta Coleopterologica](#)

Jahr/Year: 1992

Band/Volume: [8](#)

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