

## Dr. Jan Bechyné expedition to French Guinea, 1951.

### HYDROPHILIDAE

by J. Balfour-Browne

I am greatly indebted to Dr. Jan Bechyné for an opportunity to study the small collection of Hydrophilidae obtained on his journey. Although relatively few in number of specimens 40 species are represented of which 5 remain undetermined and no fewer than 12 species are hitherto undescribed. Eight are described below; two, which were also present in a collection from Mount Nimba have recently been described elsewhere and two species of *Enochrus* have also been described elsewhere in a paper dealing with the meracus-group.

Once again it is to be regretted that the collecting technique employed was not that to obtain species of the Hydraenidae which are more particularly to be found in the gravels at the edges of the streams and not among water-plants; as a consequence of this special habitat normal net collecting rarely produces these small beetles.

No fewer than 4 further species of the large genus *Coelostoma* are hereinafter described. More interesting is the presence of two species of *Enochrus*, both ascribed with some doubt to the nominate subgenus. Addition of species to this genus has shewn that the characters hitherto accepted as subgeneric criteria are not fully valid and a re-appraisal is clearly required of phylogenetic characters on which groups, whether named or not, should be based.

The occurrence of the genus *Chaetarthria* is interesting as being the first species from Africa south of the Sahara of this widely distributed genus, where both the other genera of the subfamily, *Thysanarthria* and *Hemisphaera* occur. I have not followed Crowson in regarding the Hydrochinae as of family status.

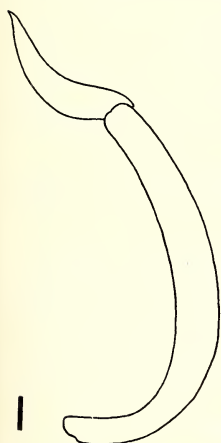
### HYDROCHINAE

#### *Hydrochus obnatus* sp. n.

Black, more or less metallic, but not distinctly so; head and pronotum closely, almost rugosely, punctate; pronotal foveae fairly distinct; elytra

with 2nd, 4th, 6th and 8th interseries distinctly longitudinally costate; tibiae short and stout.

**H e a d** black, without metallic sheen; labrum quite transverse; clypeus weakly gibbous, closely, almost rugosely, punctate, the interstices about one-half the diameter of the punctures, shining; frons not very distinctly tri-sulcate, the median furrow subobsolete, punctate as on clypeus; palpi piceous. **P r o n o t u m** black, greenish-violaceous, quadrate, about as long as wide at anterior edge, base only slightly narrower than apex; sides almost straight in anterior half, subsinuate in posterior half; anterior angles marked by a rather prominent flat-topped tubercle; posterior angles obtuse; closely almost rugosely punctate, the punctural interstices irregular, punctures sometimes almost contiguous; dorsal foveae fairly shallow but distinct, the antero-lateral most marked. **E l y t r a** elongate-ovate, broadest at two-thirds from base; shoulders prominent; black



with metallic violaceous sheen on costate 2nd, 4th, 6th and 8th interseries; serial punctures large, well impressed, wider than the interseries, separated longitudinally by about their own diameter; costa of 2nd interseries uniform from base to top of apical declivity, thence gradually lower and fading out before apex; costa of 4th interseries most marked, with a low elevated boss at top of apical declivity; costa of 6th interseries narrower and more sharply tectiform at base, progressively declining almost from base to apex; costa of 8th interseries high at shoulder and behind middle, in some specimens almost obsolete, but usually distinct though low, at middle of length.

**V e n t e r** rufo-piceous. **L e g s** rather short, tibiae noticeably short and rather stout; femora piceous, tibiae and tarsi rufo-testaceous; apex of last tarsal segment piceous. **A e d e a g u s** elongate; basal piece about four times length of parameres, rather strongly and regularly curved.

**H o l o t y p e** ♂, French Guinea: Région Kindia Mt. Gangan, 800 m, 20. V. 1951,  $2.673 \times 1.036$  mm.

**P a r a t y p e s**: 2 ♀, same data as holotype; 1 ♂, Région Kindia, Pastoria, 22. V. 1951; 3 specimens, Kindia, 24. V. 1951.

This little species does not resemble any of the described African species. It is of the size and form of the European *H. carinatus* (Germar) but differs by the much more copiously and sharply punctate head and pronotum, the tuberculate anterior angles of the pronotum, the much more

prominent elytral costae, the more explanate sides of the elytra and the distinctly shorter and stouter tibiae. There are, in fact a number of African species known to me, but not yet described, which may be said to belong to a "carinatus-group"; all of these species appear to be very closely related. It is hoped, in a subsequent paper, to furnish descriptions and a key to all the African species available.

### SPHAERIDIINAE

#### **Sphaeridium thomsoni** d'Orchymont

*Sphaeridium pictum* J. Thomson, 1858, Arch. Entom., 2 : 40 (nec Ménétrés, 1832).

*Sphaeridium thomsoni* d'Orchymont, 1919, Ann. Soc. ent. Fr., 88 : 118.

This is a widely distributed species through East and West tropical Africa.

N'Zérékoré, 7. VII. 1951. 8 specimens.

#### **Sphaeridium ortivum** d'Orchymont

*Sphaeridium ornatum* Marcuzzi, 1943, Ann. Mus. Civ. Stor. nat. Genova 61 : 109, pl. 4, fig. 8 (nec Boheman, 1851).

*Sphaeridium ornatum ortivum* d'Orchymont, 1943, Bull. Mus. Roy. Hist. nat. Belg. 19, No. 39 : 9.

*Sphaeridium ortivum* J. Balfour-Browne, 1948, Entomologist 81 : 242.

Only recently has this species been recognised as distinct from *ornatum* Boheman. It appears to be principally a West African species but, like others, it will probably be found to be widely spread in both East and West tropical Africa.

N'Zérékoré, 6.-9. VII. 1951. 10 specimens.

#### **Sphaeridium caffrum** Castelnau

*Sphaeridium caffrum* Castelnau, 1840, Hist. Nat. Ins. 2 : 60.

Fouta Djallon, Dalaba, 1200 m, 13. VI. 1951, 3 specimens; same locality but 19. VI. 1951, 5 specimens; Région Kindia, Cassia, 27. V. 1951, 1 specimen; Région Kindia, Mt. Gangang, 500 m, 5. V. 1951, 2 specimens; same locality but 29. V. 1951, 1 specimen; Kindia, 28. VI. 1951, 1 specimen.

#### **Sphaeridium senegalense** Castelnau

*Sphaeridium senegalense* Castelnau 1840, Hist. nat. anim. Art., 2 : 61.

*Sphaeridium senegalense* J. Balfour-Browne 1951, Exped. S.W. Arabia, 1937-8, 1 No. 16 : 207.

A short series of specimens, most of them shewing the colour pattern of the specimen I recently selected as neotype.

Sudan français : Bamako, 20. VII. 1951, 5 specimens.

French Guinea : Region Kindia, Mt. Gangan, 500 m, 29. V. 1951, 4 specimens.

**Dactylosternum abdominale** (Fabricius)

*Sphaeridium abdominale* Fabricius 1792, Ent. Syst. 1 : 79.

French Guinea : Conakry, Camayenne, 17. IV. 1951, 1 specimen.

**Coelostoma** (s. str.) **dolum** J. Balfour-Browne

*Coelostoma* (s. str.) *dolum* J. Balfour-Browne 1950, Occ. Pap. Nat. Mus. S. Rhodesia No. 16 : 385 fig. 32.

Described a few years ago on four specimens from Northern Rhodesia the specimens before me agree well with the type series, the aedeagus being in complete accord. I have recently mentioned the species as occurring on Mont Nimba, exemplified by a single male in that instance.

French Guinea : Region Kindia, Mt. Gangan, 500 m, 6. V. 1951, 3 specimens.

**Coelostoma** (s. str.) **phalacroides rubrocinctum** Régimbart

*Coelostoma phalacroides* Régimbart 1903, Ann. Soc. ent. Fr. 72 : 44.

*Coelostoma rubrocinctum* Régimbart 1906, Ann. Soc. ent. Fr. 75 : 269.

The continental subspecies of the Madagascan *C. phalacroides* Rég. was so classified by d'Orchymont (1936, Mem. Mus. roy. Hist. nat. Belg. (2), 7 : 21, fig. 12). It is of very widespread occurrence in tropical Africa from Ethiopia to Zululand.

French Sudan : Bamako, 20. VII. 1951.

French Guinea : Region Kindia, Mt. Gangan, 500 m, 6. V. 1951, 4 specimens; Kindia, 24. V. 1951, 1 specimen, 28. VI. 1951, 1 specimen.

**Coelostoma** (s. str.) **rutarum** d'Orchymont

*Coelostoma rutarum* d'Orchymont 1936, Mem. Mus. roy. Hist. nat. Belg. (2) 7 : 16, fig. 7.

French Sudan : Bamako, 20. VII. 1951, 3 specimens.

**Coelostoma** (s. str.) **ambiguum** sp. n.

This new species, somewhat a giant in the genus, is very much of the form and sculpture of *C. rufitarse* Boheman but with the elytral punctuation becoming rather more separated towards the sides and posteriorly, more



as in *C. insolitum* J. B. B. The aedeagus of this new species is, however, very distinct, particularly of the very broad median lobe without latero-

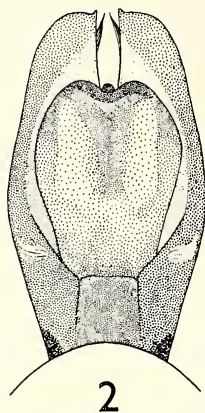


Fig. 2. *Coelostoma* (s. str.) *ambiguum* sp. n. Aedeagus, dorsal view.

basal expansions and the shallowly emarginate apex. The species should be fairly readily recognised by the unusually large size.

Holotype ♂, French Guinea: Région Kindia, Mt. Gangan, 500 m, 6. V. 1951, 7.62 × 4.26 mm.

Paratype: 1 ♀, French Guinea: Kindia, 11. V. 1951.

***Coelostoma* (s. str.) *tortuosum* sp. n.**

Extremely closely related to *C. ambiguum* sp. n. but slightly smaller and narrower and with the elytral punctation finer and slightly denser.

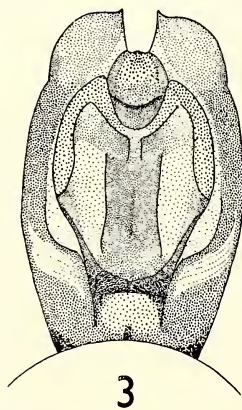


Fig. 3. *Coelostoma* (s. str.) *tortuosum* sp. n. Aedeagus, dorsal view.

The aedeagus is on the same plan as that of *C. ambiguum* with the sides of the median lobe strongly incurved apically on the dorsal side, the apex more deeply emarginate.

Holotype ♂, French Guinea: Région Kindia, Mt. Gangan, 750 m, 3. V. 1951.  
Paratypes: 1 ♂, 1 ♀, same data as Holotype; 1 ♂ Fouta Djallon, Dalaba, 1200 m, 11. VI. 1951.

***Coelostoma* (s. str.) *protervum* sp. n.**

Related to *C. lesnei* d'Orch. from Mocambique and Southern Rhodesia and also to *C. conradi* d'Orch. from Ukerewe Island, Victoria Nyanza, this species is of about the same size as the latter, the same form of labrum, similar in the rather strong dense punctation and of the same general shape

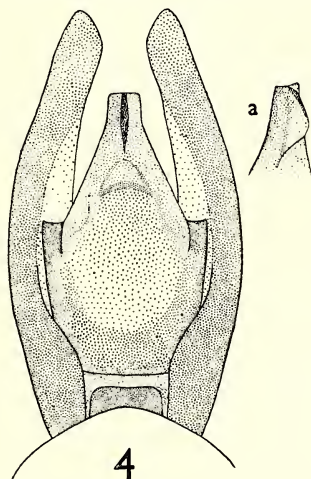


Fig. 4. *Coelostoma* (s. str.) *protervum*, sp. n. Aedeagus, dorsal view; (a) apex viewed obliquely.

but differs from both the related species in the structure of the aedeagus, the parameres being relatively narrower, the apex attenuate to a rather sharply pointed apex, the median lobe being truncate and not inflated, the subapical dorsal carina not widening at all at the apex.

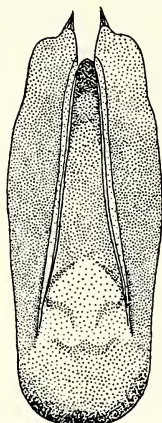
Holotype ♂, French Guinea, Kindia Region, Mt. Gangan, 500 m, 6. V. 1951.

Paratypes: 1 ♂, 1 ♀, Haute Volta, Banfora, XII. 1930 – IV. 1931 (Mission Alluaud et Chappuis, Paris Museum); 2 ♂, 4 ♀, same data as holotype; 1 ♂, 1 ♀ same locality as holotype but 750 m, 3. VI. 1951.

***Coelostoma* (s. str.) *bechynei* sp. n.**

Apparently related to *C. phalacroides* Rég. but a little larger and a little more strongly punctured; of essentially the same shape and degree of convexity; differing in having the posterior pronotal angles more rec-

tangulate so that the sides are straighter in the posterior half, the elytral apices black or with, at most, a vague reddish tinge, the sutural stria deeper and stronger. The aedeagus differs from that of the compared species in that the apex, after the subapical gonopore is not convergent to a sharp



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Fig. 5. *Coelostoma* (s. str.) *bechynei* n. sp., Aedeagus, dorsal view.

point but parallel-sided with the apex rounded; the parameres are broader throughout, the apices obliquely truncate and externally sinuate, not regularly attenuate to the apex as in *C. phalacroides*. These differences are outside the range of variation known to occur in *phalacroides-rubrocinctum* and appear to justify the status of the material as a distinct species.

Holotype ♂, French Guinea: Kindia Region, Mt. Gangan, 500 m, 6. V. 1951.

Paratypes: ♂, ♀, same data as holotype.

#### *Coelostoma* (s. str.) sp.

A single ♀ which differs from all the seven species mentioned above cannot be determined in the absence of males taken at the same time. Mt. Gangan, 500 m, 18. V. 1951.

#### *Cercyon* (s. str.) *tigreanus* Gemminger & Harold

*Cercyon limbatum* Roth, 1851, Arch. f. Naturg. 17 : 123 (nec Mannerheim, 1843).

*Cercyon tigreanus* Gemminger & Harold, 1868, Cat. Col. 2 : 499.

Described from Abyssinia and, hitherto, not recorded from elsewhere. The three specimens before me are entirely similar to Abyssinian speci-

mens taken by Omer-Cooper (vide d'Orchymont, 1948, Proc. zool. Soc. Lond. 117 : 724).

N'Zérékoré, 5. VII. 1951, 1 ex.; Fouta Djallon, Dalaba, 1200 m, 13. VI. 1951, 2 ex.

**Cercyon (s. str.) sturmi** Roth

*Cercyon sturmi* Roth, 1843, Arch. f. Naturg. 17 : 123.

*Cercyon* (s. str.) *bisignatus* d'Orchymont, 1937, Bull. Ann. Soc. ent. Belg. 77 : 460.

*Cercyon* (s. str.) *sturmi* d'Orchymont, 1939, Bull. Ann. Soc. ent. Belg. 79 : 359.

Described from Abyssinia (Tigré) this species was re-described in 1937 as a new species from the Belgian Congo, Togo and Angola. d'Orchymont subsequently synonymised *bisignatus* with *sturmi* Roth after examination of Roths specimens.

Fouta Djallon, Dalaba, 1200 m, 13.-14. VI. 1951, 1 ♂.

**Cercyon (s. str.) styphelus** d'Orchymont

*Cercyon* (s. str.) *styphelus* d'Orchymont, 1939, Bull. Ann. Soc. ent. Belg. 79 : 360.

Described originally from Belgian Congo: Stanleyville and Cameroons, with a specimen also from Togo, the species appears to be widely distributed in West Africa. d'Orchymont compared the species only with *sturmi* and described the aedeagus as "le lobe médian plus étroit, plus longuement atténué au bout, plus pointu à l'apex;" in fact the apex of the median lobe is drawn out into a much more acute point after an abrupt attenuation shortly before and the parameres are noticeably obliquely truncated with the outer angle acute whereas in *sturmi* they are apically rounded.

Fouta Djallon, Dalaba, 1200 m, 9. VI. 1951, 1 ♂; same locality but 13-14. VI. 1951, 3 ♂, 3 ♀.

**Cercyon (s. str.) minax** J. Balfour-Browne

*Cercyon* (s. str.) *minax* J. Balfour-Browne, 1958, Mém. Inst. franç. Afr. noire No 53: 174.

A good series of this very small species only recently described on three specimens from Mont Nimba. Many of the specimens have the pronotum somewhat infusate but with a narrow pale margin and the elytra showing an infusate clouding towards the side behind the shoulder, which is always pale; this infuscation has very vague margins and is rarely very distinct.



Fouta Djallon, Dalaba, 1200 m, 13–14. VI. 1951, 23 specimens; Région Kindia, Mt. Gangan, 700 m, 26. V. 1951, 2 specimens; Kindia 24. V. 1951, 1 specimen.

**Cercyon (s. str.) pictus** Régimbart

*Cercyon pictus* Régimbart, 1907, Ann. Mus. Civ. Stor. nat. Genova (III) 3, (43): 56.

N'Zérékoré, 7. VI. 1951, 1 specimen.

**Cercyon (s. str.) spp.**

Two specimens, a ♂ labelled Fouta Djallon, Dalaba, 1200 m, 16. VI. 1951 and a ♀ from the same locality dated 13–14. VI. 1951, are clearly representatives of different species, neither of which is known to me and have almost certainly not been described. I am not prepared to describe either of these species on the single specimens available.

**Pachysternum capense** (Mulsant)

for references see J. Balfour-Browne, 1950, Expl. Parc. Nat. Albert, fasc. 63: 41.

Fouta Djallon, Dalaba, 1200 m, 19. VI. 1951. 1 specimen.

**Chaetarthriinae**

**Chaetarthria polita** J. Balfour-Browne

*Chaetarthria polita* J. Balfour-Browne, 1958, Mém. Inst. franç. Afr. noire No 53: 186.

A single ♂ specimen named as a paratype of the species, recently described. This is the first species of the genus reported from Africa although *Thysanarthria atriceps* (Régimbart) is widely distributed in the continent.

Région Kindia: Damakanya, 29–30. IV. 1951, 1 ♂ paratype.

**Hydrophilinae**

*Laccobius gracilis* Motschulsky.

for references see J. Balfour-Browne, 1950, Expl. Parc. nat. Albert fasc. 63: 54.

Région Kindia: Damakanya, 29–30. IV. 1951. 1 ♀.

***Helochares* (s. str.) *pallens* (MacLeay)**

for references see J. Balfour-Browne, 1950, loc. cit.: 59.

Région Kindia, Mt. Gangan, 800 m, 20. V. 1951. 1 specimen.

***Helochares* (*Hydrobaticus*) *densepunctus* Régimbart**

*Helochares densepunctus* Régimbart, 1907, Ann. Mus. Civ. Stor. nat. Genova (III) 3. (43): 48.

*Helochares* (*Hydrobaticus*) *densepunctatus* Knisch, 1924, Coleopt. Cat. Junk, 79 : 193.

*Helochares* (*Hydrobaticus*) *densepunctus* d'Orchymont, 1939, Bull. Ann. Soc. ent. Belg. 79 : 300, fig. 4.

Described originally from Portuguese Guinea: Bolama this species is also found in East Africa whence it is reported by d'Orchymont and I have myself also seen specimens from Ukerewe Island (Conrads leg.). The aedeagus of the present male agrees well with the figure furnished by d'Orchymont except that the distal portion of the fused parameres appears not to be quite so long. The Ukerewe Island specimens are similar in this respect.

Kindia, II. V. 1951. 1 ♂.

***Helochares* (*Hydrobaticus*) *rusticus* J. Balfour Browne**

*Helochares* (*Hydrobaticus*) *rusticus* J. Balfour-Browne, 1952, Bull. Inst. franç. Afr. noire 14: 132.

This species was recently described from material from Ivory Coast, Upper Volta and Dahomey. The species was compared with *dolus* d'Orchymont but it is, in fact, very much more similar to *densepunctus* Régimbart, agreeing almost exactly in the details of serial and interserial puncture size and density. So close is the resemblance that it is extremely doubtful if the two can be separated except by the difference in the shape of the median lobe which, in the present species is markedly racquet-shaped with diverging rods whilst in *densepunctus* it is parallel-sided with a stout median rod. The female is larger and broader than the male but of precisely similar sculpture and is only associated with it as they come from the same locality.

Région Kindia, Damakanya, 29–30. IV. 1951, 1 ♂, 1 ♀.

***Helochares* (*Hydrobaticus*) *camerounensis* d'Orchymont**

*Helochares* (*Hydrobaticus*) *camerounensis* d'Orchymont, 1939, Bull. Ann. Soc. ent. Belg. 79 : 303, fig. 6.

Compared with *densepunctus* Régimbart by the describer owing to the non-striiform elytral series composed of alternating larger and smaller punctures. However this statement is only true of the apical part of the internal and of the external series. The basal part of the four internal series is composed largely of punctures of one size only with here and there a much smaller puncture becoming visible when the intervals allow. The aedeagus is very characteristic.

Kindia, 4. VI. 1951, 1 ♂, 2 ♀. Région Kindia, Mt. Gangan, 500 m, 3. VI. 1951, 1 ♀. Région Kindia, Damakanya, 29–30. IV. 1951, 1 ♀.

***Helochaeres (Hydrobaticus) sp.***

A single female of which firm determination is not possible without males taken at the same time. It appears to be nearly related to the recently described *rugipennis* J. Balfour-Browne from the French Sudan by the distinctly doubly punctate sides of head and the pronotum but differs distinctly in the strongly linear arrangement of interserial punctures of the elytra which are basally as strong as the serial punctures so that the elytra appear to be about 20-seriate-punctate; apically the interserial punctures are fine but remain distinctly linear in arrangement; the sides external to the 10th series are strongly, densely irregularly punctate.

Région Kindia, Mt. Gangan, 550 m, 16. V. 1951, 1 ♀.

***Helochaeres (Hydrobaticus) sp.***

A further single female of which definite determination is not possible. It is almost certainly a specimen of a species known to me from the Ivory Coast but not yet described. Males from the same locality as this female are essential for certain identification.

Fouta Djallon, Dalaba, 1200 m, 24. VI. 1951, 1 ♀.

***Enochrus* (s. str.) *pellax* J. Balfour-Browne**

*Enochrus* (s. str.) *pellax* J. Balfour-Browne, 1958, Proc. R. ent. Soc. (B.) 27 : 50, fig. 1.

This pair are named in the original description as paratypes of this species which, in spite of its absence of a ciliate emargination at the apex of the fifth ventrite, appears to belong to what I have termed the meracus-group, most of the species of which, possessing the ciliate emargination of the fifth ventrite must be, for the present, treated as belonging to the sub-genus *Methydrus*, although in most of them the 3rd and 4th segments of the maxillary palpi are subequal.

Fouta Djallon, Dalaba, 1200 m, 1 ♂, 22. VI. 1951, 1 ♀ 16. VI. 1951.

***Enochrus* (s. str.) *mediastinus* sp. n.**

Black, the head on either side in front of the eyes, the sides of the pronotum and of the elytra widely testaceous, palpi testaceous with apex of distal segment infusate, legs testaceous; 3rd and 4th segments of maxillary palpi subequal; mesosternal lamina strongly elevated, anteriorly nearly vertically declivous, posteriorly progressively lower, broad basally, narrow at the keel.

Head black, labrum anteriorly and sides of clypeus rufotestaceous, almost uniformly and quite densely punctate, punctural interstices about equal to diameter of punctures; maxillary palpi about as long as antennae, 2nd, 3rd and 4th segments in length as 11:9:9; Pronotum distinctly transverse, distinctly broader at base than at apex, sides (in dorsal aspect) distinctly rounded, basal angles rounded rectangulate; sides distinctly margined, margin continued excessively finely fully across base and apex; punctate as on head; systematic punctures not noticeably larger or more distinct than general punctation. Scutellum densely punctate. Elytra black with broad lateral rufo-testaceous band inwardly very poorly delimited; sutural length equal to combined width immediately behind scarcely marked shoulders; punctate as on pronotum; posteriorly on the declivity about 8 longitudinal series of slightly larger punctures can be

discerned which, near the top of the declivity have diminished to the size of the general punctation; systematic punctures not discernible. Venter rufo-piceous; mentum anteriorly strongly punctate; prosternum flat at middle, in middle of anterior edge bluntly mucronate; mesosternal lamina bulbous at base, anteriorly abruptly but not vertically declivous, with a low free keel progressively lower posteriorly towards intercoxal process; metasternum posteriorly with oval median glabrous area; 5th ventrite in middle of posterior edge entire, without trace of ciliate emargination. Aedeagus simply trilobate, median lobe shorter than parameres, dorsal ramus much longer than ventral ramus, median lobe about as wide as long attenuate apex of parameres. Legs rufo-testaceous, intermediate femora with short hydrofuge pubescence only near anterior edge and basally with

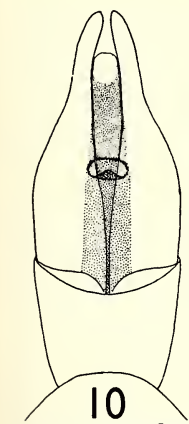


Fig. 10. *Enochrus*  
(s. str.) *mediastinus*  
sp. n. Aedeagus,  
ventral view.

setiferous punctures; posterior femora entirely glabrous, strongly shining with a longitudinal reticulation.

Holotype ♂, Kindia, 4. VI. 1951.

Paratype: 1 ♂ Kindia, 11. V. 1951. ♀ Unknown.



The position of this species is uncertain. The possession of longitudinal series of larger punctures on the declivity might be taken to attach the species to *Holcophilydrus* Knisch, but these punctures are easily overlooked and are so indistinct that it appears better to treat the subequal 3rd and 4th segments of the maxillary palpi as the major character which will place the species in the nominate subgenus. The very unusual character of the femora calls for special mention. No described species is known to me in the genus in which either meso- or metafemora are virtually without hydrofuge pubescence. I have, however, an undescribed Madagascan species before me at the present time in which the 5th ventrite is entire, the elytra with more distinct serial rows of punctures on the declivity, and the 3rd and 4th maxillary palpal segments subequal, in which the mesofemora are clothed normally with hydrofuge pubescence but the metafemora have only a very indistinct narrow anterior border of hydrofuge pubescence, being otherwise strongly punctured with a fine seta in each puncture. The aedeagi of these two species are quite different but they may be assumed to be related in the other special characters they possess in common.

***Enochrus (Methydrus) bechyni* sp. n.**

Elongate-oval, black, sides of pronotum broadly and elytra narrowly, labrum and anterior portion of clypeus reddish; strongly shining; prosternum nearly flat; mesosternal lamella high, laminiform, antero-ventral angle rectangulate; metasternum in middle between mesocoxae strongly compressed and elevated, continuing the line of the ventral edge of mesosternal lamella; 5th ventrite with distinct ciliate emargination.

Head piceous, anterior part of clypeus and labrum reddish; anterior edge of clypeus shallowly angulately emarginate at middle leaving a small portion of preclypeus visible; regularly, fairly densely punctate, punctures slightly smaller than an eye-facet and separated by a space from one to one and one-half times their diameter; lateral systematic punctures of frons few, about twice size of general punctation. Pronotum black, sides widely and base and apex very narrowly rufescent, delimitation of rufous portion sharp; punctured as densely but much more finely than head, interstices at least three times diameter of punctures; strongly shining; systematic punctures very distinct; sides in lateral aspect, straight, anterior and posterior angles approximately equally rounded, margined, margin continued extremely finely across base and apex. Scutellum black, finely punctate. Elytra black, sides, more narrowly than pronotum, reddish; strongly shining; punctured as on pronotum; longitudinal systematic punc-



tures fairly distinct, of well separated large shallow punctures. Venter black, coxae and abdomen rufo-piceous; mentum closely coarsely punctate transversely sub-rugose; maxillary palpi with 2nd, the level of mesosternal lamella and continuing sternum almost flat, middle of anterior edge very obtusely angulate; mesosternal lamella high, thin, anterior edge vertical, anterior angle bluntly mucronate, ventral edge quite horizontal; metasternum in the middle between mesocoxae strongly compressed and elevated into a lamina continuing the level of mesosternal lamella and continuing across median embossed part of sternum as a fine ridge; 5th ventrite apically with a median ciliate emargination. Legs rufo-testaceous, femora, except at "knees" piceous and clothed with hydrofuge pubescence; claws simple and alike in both sexes. Aedeagus as figured (fig. 6).

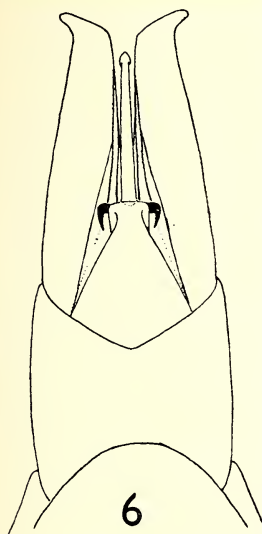


Fig. 6. *Enochrus*  
(*Methydus*) *bechynei* sp. n.  
Aedeagus, ventral view.

Holotype ♂, Fouta Djallon, Dalaba, 1200 m, 22. VI. 1951,  $6.40 \times 3.22$  mm. Paratypes: 13 specimens, same data as holotype: 1 ♂, British Cameroons: Victoria, VI. 1949, (B. Malkin leg.), 1 ♂, 1 ♀, British Cameroons: Mamfe, 7–11. I. 1949, "rain forest, clear stream, gravel and sand" (B. Malkin leg.).

This large species is scarcely to be distinguished in dorsal aspect, from *E. (Methydus) alberti* J. Balfour-Browne from the Albert National Park, both sculpture and colour being almost identical and the two species are also similar in the development of a lamina on the anterior part of the metasternum. The new species may be distinguished from *alberti* by the flat prosternum, subrogosely punctate mentum, form of aedeagus and simple tarsal claws of the male.

I take this opportunity to describe two further species of the *ellipsoideus* - group which have recently been seen and to furnish a key to the five species now known to comprise the group. One of the new species was identified by Régimbart himself as *ellipsoideus* yet it is remarkably distinct from that species, and, indeed, from all the others by the longitudinal carina of the metasternum and by the form of the aedeagus.

#### Key to species of *ellipsoideus*-group

1. Anterior median portion of metasternum at most roundly tectiform      2
- 1' Anterior median portion of metasternum strongly laterally com-

- pressed, laminate, and continuing line of keel of mesosternal lamina 3
- 2 General punctuation of elytra at top of apical declivity quite distinct, here about half the size of systematic punctures; general punctuation of sides of pronotum quite distinct, denser  
**ellipsoideus** (Régimbart)
- 2' General punctuation of elytra at top of apical declivity very fine and not very distinct, here about one-quarter or less the size of systematic punctures; general punctuation of sides of pronotum very fine, sparser.  
**uellensis** sp. n.
- 3 General punctuation of thorax and elytra almost totally obsolete, visible only under highest magnification except in scutellar region; elytral apices more attenuate; anterior lamina of metasternum continued to apex as a distinct low shining carina  
**nitidus** sp. n.
- 3' General punctuation of thorax and elytra less obsolete, visible at medium magnifications; elytral apices more rounded; anterior lamina of metasternum not at all continued as a carina in posterior half of metasternum 4
- 4 Basal angles of pronotum rounded rectangulate; metasternum shorter, length evidently less than half anterior width; run on aedeagus with median lobe aciculate  
**bechynei** sp. n.
- 4' Basal angles of pronotum widely-rounded; metasternum longer, as long as half its anterior width; aedeagus with median lobe ampullate.  
**alberti** J. B. B.

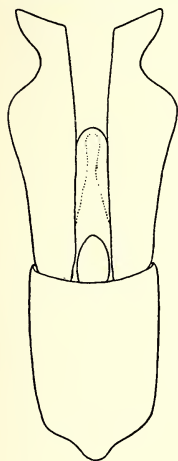
***Enochrus* (*Methydrus*) *nitidus* sp. n.**

*Enochrus* (*Lumetus*) *ellipsoideus* Régimbart, Knisch 1921, Arch. Naturg. 85 A8 (1919): 69. nec Régimbart.

Strongly shining, black, general punctuation of pronotum and elytra very fine and obsolete; metasternum anteriorly strongly laterally compressed into a lamina at intermesocoxal process, the lamina continued as a low carina the full length of metasternum.

Head black, anteriorly vaguely castaneous, finely but distinctly punctate, punctural interstices about twice diameter of punctures; frons near eyes on each side with a group of much larger punctures; 3rd and 4th segments of maxillary palpi of equal length, wholly rufous. Pronotum black, sides widely, apex narrowly rufescent, the rufescent portion not sharply delimited; extremely finely very obsoletely punctulate, towards sides with distinct but small anterior and mediolateral systematic punc-

tures; sides margined, the margin continued excessively finely along base and apex. Scutellum punctulate as on pronotum. Elytra nearly twice as long at suture as combined width at base, apices markedly attenuate rounded; generally punctulate as on pronotum but a little more



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Fig. 8. *Enochrus* (Methydrus) *nitidus* sp. n. Aedeagus, ventral view.

distinctly and more closely in scutellar region; systematic series distinct, composed of large distinct well separated punctures. Venter black, mentum strongly and thickly punctate; prosternum longitudinally roundly tectiform in middle line; anterior edge at middle widely obtuse-angulate, not produced into a small mucro; mesosternal lamina high, strongly compressed, anterior edge vertical, keel horizontal; metasternum in middle anteriorly strongly laterally compressed into a distinct lamina continuing line of mesosternal lamina and continuing the whole length of metasternum as a low shining carina; 5th ventrite apically emarginate, the emargination ciliate. Legs piceo-castaneous; femora normally pubescent; anterior and intermediate claws simple, (posterior tarsi missing). Aedeagus as figured (fig. 8).

Holotype ♂, Cameroon: Lolodorf, (L. Conradt, 95), 5.325 × 2.775 mm, *Philhydrus ellipsoideus* Rég. (Régimbart det.); *Enochrus (Lumetus) ellipsoideus* Rég. (Knisch det.). Unique. (In the Deutsches Entomologisches Institut, Berlin: Friedrichshagen).

This new species, identified by both Régimbart and Knisch as *ellipsoideus* is very readily distinguished therefrom by the morphology of the metasternum. It is related, by the laminate compressed anterior portion of that sclerite, to *bechynei* and *alberti* J. B. B. but differs from both those species by the continuation of this lamina as a carina for the entire length of the metasternum.

#### *Enochrus (Methydrus) uellensis* sp. n.

Strongly shining, black, general punctuation of pronotum and elytra very fine; metasternum anteriorly in middle simply tectiform.

Head black, anteriorly somewhat castaneous; finely, densely and evenly punctate, punctural interstices about one and one-half times diameter of punctures; frons near eyes on each side with an irregular group of much coarser punctures; 3rd and 4th segments of maxillary palpi subequal, wholly rufous. Pronotum black, sides quite broadly, apex very narrowly rufescent, rufescent portion quite sharply delimited; very finely

and not very densely punctulate, towards sides even more finely and sparsely and with distinct antero-lateral and lateral systematic punctures; sides margined, margin continued finely across base and apex. Scutellum punctulate as on disc of pronotum. Elytra nearly half again as long at suture as width across base; generally finely punctulate, rather more distinctly and a little more closely in sutural region than towards

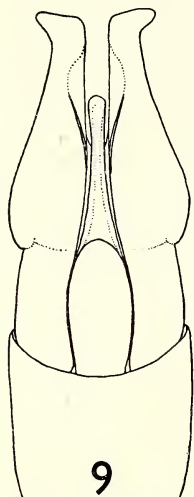


Fig. 9. *Enochrus*  
(*Methydus*) *uellensis*  
sp. n. Aedeagus,  
ventral view.

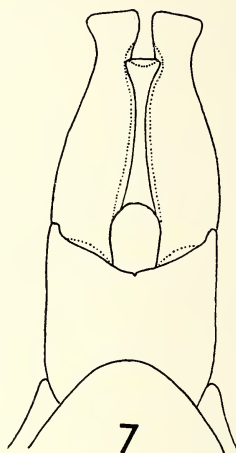


Fig. 7. *Enochrus*  
(*Methydus*) *ellipsoideus*  
(Régimbart). Aedeagus,  
ventral view.

sides and apex; systematic series very distinct. Venter black, structurally precisely as in *ellipsoideus*. Aedeagus as figured (fig. 9).

Holotype ♂, Belgian Congo: Haut Uélé: Moto, 1923 (L. Burgeon),  
6.375 × 3.150 mm. (In the Congo Museum, Tervuren).

Paratype: 1 ♀, same data as holotype.

By the structure of the metasternum and aedeagus this species is clearly most closely related to *ellipsoideus* (Régimbart), (fig. 7), possessing, in common with that species, a rounded metasternum and elongate dorsal ramus of the median lobe of the aedeagus, but this ramus is not dilated and truncate at the apex, the ventral ramus is a much more elongate-oval plate, the parameres are inflated at about the middle of their outer face and more emarginate at the side just before the apex. The very fine sparse subobsolete punctation of the sides of pronotum and sides and apex of elytra resembles the sculpture of *nitidus* sp. n. That species is, however, much smaller and immediately distinguishable by the anterior laminate median portion of metasternum continued right to the apex as a fine carina.



***Enochrus (Methydus) natalensis* (Gemminger & Harold)**

for references see J. Balfour-Browne, 1950, Expl. Parc. Nat. Albert, (Miss G. F. de Witte 1933/5) fasc. 63: 60.

A single female, mesocerci seen, which appears to belong to this widely distributed species. The elytral punctuation is, however, rather sparser and finer than usual.

Bamako, 20. VII. 1951, 1 ♀.

***Enochrus (Methydus) merops* J. Balfour-Browne**

*Enochrus (Methydus) merops* J. Balfour-Browne, 1958, Proc. R. ent. Soc. Lond. (B), 27: 54, fig. 3.

This small species has recently been described, along with others of the meracus-group, characterised by the mesosternal lamina low and regularly arcuate, without a mucro. The species is widely distributed in West Africa as far south as Angola.

Fouta Djallon, Dalaba, 1200 m, 22. VI. 1951, 3 ♂, 3 ♀, comprising Holotype and paratypes.

***Sternolophus* (s. str.) *solieri* Castelnau**

*Sternolophus solieri* Castelnau, 1840, Hist. Nat. Ins. 2: 54.

Région Kindia, Mt. Gangan 500 m, 3. VI. 1951, 16 specimens.

***Berosus (Enoplurus) furcatus* Boheman**

*Berosus furcatus* Boheman, 1851, Ins. Caffr. 1: 590.

Bamako, 20. VII. 1951, 1 ♀.

***Berosus* (s. str.) *neumanni* Knisch**

*Berosus* (s. str.) *neumanni* Knisch, 1922, Arch. Naturg. 88, A, 5: 112.

Bamako, 20. VII. 1951, 1 ♀.

***Berosus* (s. str.) *australis* (Péringuey)**

*Spercheus australis* Péringuey, 1892, Trans. S. Afr. Phil. Soc. 6: 23.

*Berosus* (s. str.) *australis* d'Orchymont, 1929, Bull. Ann. Soc. ent. Belg. 69: 42: 1936, Ann. Transvaal Mus. 17: 114.

Fouta Djallon, Mt. Gangan, 500 m, 6. V. 1951, 1 ♂.

***Berosus* (s. str.) *luteus* sp. n.**

Short-oval; griseo-testaceous; head black; pronotum black, anterior edge and sides narrowly griseo-testaceous; elytra griseo-testaceous, much blotched with black; head and pronotum densely and quite strongly punctate, not rugose; elytra distinctly striate, striae uniformly punctured, intervals flat, wider than striae, rather irregularly uniseriate punctate; venter black, side margins of ventrites 3–5 very obsoletely crenulate.

Head black, feebly metallic; closely and quite strongly but not



rugosely punctate, punctures slightly smaller on clypeus, interstices about one-half diameter of punctures; vertex with a short median longitudinal carina. *Pronotum* transverse, black, anterior edge and sides griseo-testaceous; punctured as on frons but slightly more strongly and anteriorly on disc a weak tendency to linear rugosity appears in certain aspects; anterior angles widely rectangulately rounded; sides straight; posterior angles obtusely rounded; base in middle slightly lobate-truncate; black area feebly cupreous. *Scutellum* piceous, closely punctured. *Elytra* griseo-testaceous marbled with black, outlines of black areas ill-defined and black areas tending to form transverse bands behind base and in front of, at, and behind middle; distinctly striate, striae punctate and of nearly uniform impression on both sides; interstriae flat, evidently wider than striae and rather irregularly uniseriate punctate with punctures about one-half size of striae punctures; shining in both sexes; sutural angles rectangular; scutellar striole very distinct. *Venter* black or piceous; mentum and submentum strongly shining with a few fine punctures towards sides; mesosternal lamina forming a uniformly low tectiform ridge right to base; base of metasternum with a short carina at middle giving place to an elongate glabrous impression on raised portion of sternum; sides of raised portion meeting posteriorly at an acute angle; ventrites black, apical margin of 1-4 finely denticulate; side margins of 3-5 obsoletely crenulate; apex of 5th ventrite abruptly emarginate, base of emargination at middle with two small teeth. *Legs* moderately elongate, basal segment of anterior tarsi of male not the least dilated; femora slender; pubescent area of middle and posterior femora shorter on anterior than on posterior edge, the apex very obliquely truncate; intermediate and posterior tibiae piceous. *Aedeagus* with ventral apex of parameres drawn out into an elongate hair-like "arista" about as long as basal portion; median lobe not distinctive.

Holotype ♂, Région Kindia, Mt. Gangan, 500 m, 6. V. 1951,  $3.92 \times 1.76$  mm (extended).

Paratypes: 4 ♂, 6 ♀, same data as holotype; 2 ♀, Région Kindia, Damakanya, 29-30. IV. 1951.

This little species is a member of the *australis*-group, from all the known species of which, except *B. simplicipes* m. from the Nimba Mountains (J. Balfour-Browne, 1958, in press), it is readily distinguished by the quite undilated basal segment of the anterior tarsus of the male, the two basal segments being also subequal in length. From *simplicipes* the new species may be readily distinguished by the colour-pattern, by the smaller, non-rugose punctures of head and pronotum, by the uniform elytral striae and by the obsolete crenulations at the sides of the 3rd to 5th ventrites.

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Artikel/Article: [Dr. Jan Bechyne expedition to French Guinea, 1951. Hydrophilidae. 302-320](#)