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CONTRIBUTIONS TO THE STUDY OF THE FAUNA OF MOZAMBIQUE

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CONTRIBUTIONS TO THE STUDY OF THE FAUNA OF MOZAMBIQUE

A trip made by M.P. Lesne (1928-1929)

26th note - the Palpicornia

A. d'orchymont

The Palpicornia reported from Mozambique by M.P. Lesne and J. Surcouf include 48 different forms, falling into 27 genera or subgenera. Of these forms, 17 also exist in Madagascar -- they are marked with an asterisk -- and all the known genera or subgenera except Costernum are represented in this large island. Three forms are found in tropical Asia or even in the island regions still further east. These are Coelostoma Horni, a species until now only sporadically distributed in Africa and described from Ceylon, Heloclares (s. str.) pallens, very common in Africa and in Indo-Malaysia, and Paracymus punctillatus minor (atomus m.), much less common.

LIST OF SPECIES

1. Hydraena (s. str.) sp.

One ♀ of Zambeze : regions of Chemba, Lower Sangadze (P. Lesne, 1929), with the mid tibiae slightly incurvate, the hind straight, the last joint of the maxillary palps relatively long and thin, and the two small divergent silks of the 7th ventral segment peculiar to the female sex. It is impossible to characterize the species to which this unique specimen belongs, without ♂♂ of the same region. In fact, I know no Hydraena which are more difficult to

identify that those of tropical Africa, especially since they are so small that dissection and comparison of the aedeagi are extremely difficult.

2. Spercheus Cerisyi Guérin-Meneville.

Zambeze : Nova Chupanga near Chemba, 1929 (P. Lesne and J. Surcouf); Canxixe, 1924 (J. Surcouf). Both sexes represented .

3. Sp. senegalensis Castelnau .

Zambeze : Nova Chupanga, Chemba and Inhacoro near Chemba, December 1928, January, February and end of August 1929 (P. Lesne and J. Surcouf). Mozambique : Beira, December and Tambara, January (P. Lesne). Both sexes are again represented.

4. Sp. Gerardi A . d'Orchymont .

Zambeze : Nova Chupanga near Chemba, March 27, 1929 (P. Lesne). A single, and for this reason somewhat doubtful, ♀.

5. Hydrochus niloticus Sharp.

Zambeze : Nova Chupanga near Chemba, 1929 (P. Lesne). A good series, of which 5 ♂♂ have been dissected to compare the aedeagus, which was found to conform to that of the type (Stockholm Museum).

6. H. albicans Regimbart, var.

Zambeze : Nova Chupanga near Chemba, 1929 (P. Lesne). 9. specimens, ♂♂ and ♀♀ . Compared with a paratype from the Paris Museum, of ♀ sex (protuberant mesocerci), these specimens have the 3rd interstice of the elytra very narrow and costiform, which is not the case with the typical specimen, and the median tubercle between the eyes is furrowed longitudinally .

In albicans type this tubercle is whole. The median lobe of the aedeagus extends in a very long flagellum.

7. Coelostoma (s. str.) rufitarse Bohemian.

Mozambique : environs of Vila Pery, banks of the Mzingaze at the foot of the Cabeça de Velho, May 20, 1929 (P. Lesne). A single ♀ whose identification is somewhat dubious in the absence of ♂♂.

8. C (s.str.) rutarum A. d'Orchymont.

Mozambique : environs of Vila Pery as above , 1 ♂.

9. C (s. str.) phalacroides rubrocinctum Regimbart.

Zambeze : Nova Chupanga near Chemba, 1 ♀ . Mozambique: Vila Pery and environs of Vila Pery as above, May 20, 1929 (P. Lesne), 1 ♂ , 1 ♀ ; Beira 2 ♂♂, 2 ♀♀ (P. Lesne).

10. C (s. str.) rhomphea A. d'orchymont.

Zambeze : Nova Chupanga, 1928 (J. Surcouf), 1 ♂ ; Chemba, 1928 (P. Lesne), 1 dubious ♀ . Mozambique : Beira, 1928 (P. Lesne), 1 ♀ , also dubious.

11. C (s. str.) Lesnei n.sp.¹

This species, taken so far by Knisch and by myself for punctulatum Klug², is quite distinct from it by its very different aedeagus. The form is also elongate.

1. This species is described at the same time in an overall work on the non-American Coelostoma (s.str.) which is to appear in the Mémoire du Musée Royal d'Histoire naturelle of Belgium.

2. Peculiar to Madagascar. All the specimens of continental Africa named punctulatum belong to other species.

The punctation of the top including that of the scutellum is uniformly and densely distributed, moderately fine.

The pronotum is normally transverse, its length in the middle approximately $1/2$ the base. The top, which is not very shiny because of the dense sculpture, is uniformly black, except for a very narrow transparently brownish or rust band, not always very apparent, around the pronotum and the elytra.

The process of the mesothorax is rounded on its longitudinal section, and the middle of the metasternum, fairly broadly without pubescence, forms a kind of long pentagon whose base lies against the hind coxae and the lateral sides of which are badly delineated and are invaded by the dense pubescence of the metasternum itself. Setiferous pores spaced from the mid femora with a very short, gilded hair, those of the hind femora much finer, like their hair, which is also a little longer and recumbent.

But it is the aedeagus (fig. 1) which alone makes it possible to recognize the species with certainty. This organ is relatively wide with respect to its length; the parameres have a membranous lower part and end in a very much flattened and fairly wide blade, obtusely angular at the tip, which was found after dessication in all the preparations.

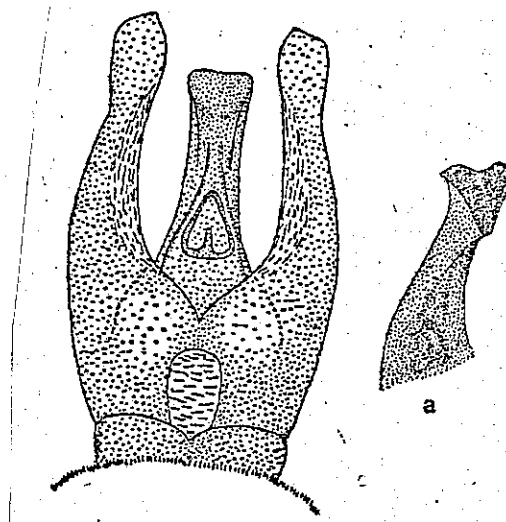


Fig1. Coelostoma Lesnei sp.n. Ventral face of the aedeagus X50. The base of the median lobe seen transparently. a : the extremity of the median lobe seen dorsally and slightly from the side.

The most original feature of this aedeagus is the median lobe, strongly incurvate from top to bottom, wide at the base, then considerably thinned, to broaden out again, though very little, near the extreme summit, where, examined ventrally, there is a slight notching. The ventral orifice or gonopore lies very far from this summit, near the basal broadening. Dorsally, the extremity of the median lobe has quite a different appearance : Here it forms a protuberance ending in a triangle which

which is furrowed longitudinally in the middle and joined to the body itself of the median lobe by a kind of rachis or small carina. The whole is vaguely reminiscent of the extremity of the proboscis of an ordinary fly, with straight instead of rounded edges.

Type : Mozambique, Beira, 1928 (P. Lesne): ♂ 6,3X3,9 mm (head lowered), Paris Museum.

A few paratypes, not collected by Messrs. Lesne and Surcouf, a list which will be given in the overall work mentioned in the footnote.

12. C. subtile A. d'Orchymont

Mozambique : Bas Pungue, Ponto do Pungue, end of May 1924 (P. Lesne), 1 ♂ ; environs of Vila Pery, banks of the Mzingaze (foot of the Cabeça de Velho), May 20, 1929 (P. Lesne) 5 ♂♂
1 ♀ .

This species forms the transition to the aberrant Coelostoma and probably already belongs to that series : the prosternum is dentate in the middle, anteriorly, and the first ventral segment is longitudinally carinate at the base, in the middle. But the mid femora are sparsely pubescent on their lower face, except narrowly along the anterior edge, where the pubescence is densely waterproof.

13. C. Horni Régimbart.

Mozambique : environs of Vila Pery, banks of the Mzingaze (at the foot of the Cabeça de Velho), 1929 (P. Lesne), 1 ♂ .

This aberrant Coelostoma, described from Ceylon, is found in Africa with the same aedeagus. I have seen another ♂ from Upper Senegal (Badoumbé, Nodier).

14. Sphaeridium caffrum Castelnau.

Mozambique : Lurenço Marquez, August 3, 1929 (P. Lesne),
2 ♂♂ ; Vila Pery, 2 ♂♂, 2 ♀♀ .

15. Cercyon (Ercyon) aphodioides A. d'Orchymont.

Southwestern Africa : Swakopmund, August 20, 1929
(P. Lesne).

6 Specimens.

16. * C. (s. str.) hova Régimbart.

Zambeze : Chiramba, mid-January 1929 (P. Lesne), 1 specimen. A species described from Madagascar, but existing also on the island of Mauritius.

17. * C. (s. str.) dieganus Regimbart.

Zambeze : Nova Chupanga near Chemba, January 1929
(P. Lesne), 2 specimens.

18. C. (s. str.) aethiops knisch.

Zambeze : Nova Chupanga near Chemba, January 1929, 9 specimens. Mozambique : Haut Sangadze, Inhafune near Canxixe, July 28, 1928 (P. Lesne), 1 specimen.

19. Costernum Jeanneli A. D'Orchymont, var

Zambeze : Nova Chupanga near Chemba, February 1929
(P. Lesne), 1 specimen.

The bottom is identical to that of the type, but the series of punctures of the elytra are less impressed at the base near the scutellum, the sutural space is slightly wider and the suture is less raised.

20. * Paracymus chalceus Regimbart.

Mozambique: Bas Mouira, bed of a river branch channel which is drying up, April 29, 1929 (P. Lesne), 1 specimen; Beira December 1928 (P. Lesne), 2 specimens.

21. * P. punctillatus minor Regimbart.

Zambeze : Bas Sangadze, ponds, August 23, 1929 (P. Lesne)
1 specimen.

22. Helocharges (Hydrobaticus)? Blaesus A. d'Orchymont.

Mozambique : Environs of Vila Fery, banks of the Mzingaze
at the foot of the Cabeça de Velho, May 20, 1929 (P. Lesne),
1 ♂ ♀.

The aedeagus of this single ♂ is not absolutely
identical to that of the type, but is nonetheless not
sufficiently different to consider the specimen as distinct.
H. blaesus was described from Kalahari (Transvaal Museum).

23. Helochares (Crepelochares) africanus sp.n

This new species can be seen at once to differ from
livornicus Kuwer,¹ the oldest species, by its much smaller
size, its reddish coloring, and above all the aedeagus (fig:2)
examined in all the ♂♂ whose parameres are not at all
pointed at the end, but on the contrary end interbally in a
short, rounded protuberance; these parameres do not have a
strong dentiform extension on the inner side before the end.

In mollis (Regimbart) of Madagascar, the parameres have,
in the place of the rounded interno-terminal extension, a long
sinuous appendage, with parallel sides triangularly incised
at the end.

H. (Crepelochares) rutilus (Knisch), A. d'orchymont, of
Gabon, has the posterior angles of the pronotum very angular

1 This species is known to me only from Leghorn in Italy, and
only from the types of Kuwert, very kindly communicated by R.
Oberthur. The forms formerly named Livornicus, either by Knisch
or by myself, belong to other species, as the study of the
aedeagus has shown.

in africanus these angles are rounded. In rutilus again the extremity of the parameres ends in a hook whose tip points toward the median lobe.

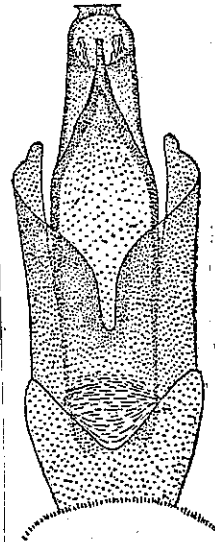


Fig. 2 Helochares (Crephelochares) africanus sp.n Ventral face of the aedeagus. X100.

The species of Asia and of the Indian Archipelago (abnormalis Sharp, ferrugatus Regimbart, nigritulus Regimbart, rubricollis Regimbart), of New Caledonia (nitescens Fauvel), and of Australia (nitescens) have not all been definitively distinguished, except for abnormalis, of which I have seen two ♂♂ paratypes from which the aedeagi had been extracted. But from the experience I already have of the subgenus, they are different from the African species.

The coloring of the top, that of the feet and of the palps--- the latter entirely -- is, africanus, of a reddish testaceous color, only turning somewhat brown on the postfrons between the eyes. The punctation of the head is very fine and quite close together, that of the pronotum and of the elytra is almost as fine although a little less close especially on the last. The systematic series of larger punctures are quite visible on the pronotum and the elytra. The last ventral segment has a shallow depressed median sinus, at the posterior edge, which does not however form a true semi-circular notch.

The species is sufficiently defined by its aedeagus.

Type. - Zambeze : Nova Chupanga near Chemba, August 9, 1928 (P. Lesne), Paris Museum, ♂ , 2.9. X 1.5. mm.

Paratypes. - Like the type, same date and also January 1929, 5 ♂♂ , 3 ♀♀ .

Contrary to what I previously thought, the subgenus Crephelechares, whose antennae are always 9 - jointed and whose aedeagus is always fairly complicated, is not really synonymous with the American subgenus Chasmogenus Sharp. All the species of this neighboring subgenus that I have seen have 8- jointed antennae (5+3) and a trilobate aedeagus which is much simpler than in Crephelechares, without marked differentiations.

24. * H. (s.str.) longipalpis (Murray).

Zambeze : Nova Chupanga near Chemba, May 1928; Tambara, February 1929 (P. Lesne).

25. * H. (s.str.) pallens (W. M. Leay).

Zambeze : Nova Chupanga near Chemba, January 1929;
Lower Sangadze, ponds, August 23, 1929 (P. Lesne) .

26. * H. (Agraphydus)? punctatellus (Regimbart) .

Zambeze: Middle Sangadze, Catcheré near Moulima, April 26, 1929; Nhacatete Dango-Nhamasi, April 13, 1929; Mozambique: Vila Pery, April 1929 and environs. Banks of the Mzingaze at the foot of the Cabeça de Velho, May 20-21, 1929 (P. Lesne).
Some dozen specimens of both sexes .

This species, from the rare specimens of Madagascar known so far, all of which I have seen, is extremely difficult to define, even the aedeagus, little differentiated, of simply trilobate form, is not conclusive .

The type, from Diego Suarez, is ♀ . Size, 2.4 X 1.2 mm.

The paratype, of the same origin, a ♂ , size :
2.3 X 1.1. mm; is not perfectly identical : the middle of its pronotum is as though unpolished, with the punctation less deep, faded, the elytra also unpolished, with the punctation of the disk yet more faded. The aedeagus, which is protuberant and turgescient, has the parameres regularly thinned beyond the middle, with the extremity narrowly rounded, almost pointed

These two typical specimens have 9- jointed antennas (3 to 5 very short, difficult to count).

The second paratype (forest of the east coast of Madagascar), apparently a ♀ , was already designated by Regimbart himself as " stockier, " and thus not conforming .

One ♂ and three ♀♀ of Tananarive (my coll.) are not perfectly identical to the type either, nor even to another. The aedeagus of the single ♂ has the parameres less attenuated, depressed, and remaining wider to the extremity, which is more broadly rounded. The punctation of the head, in these four specimens, is sometimes stronger, sometimes finer than in the type, the second joint of the maxillary palps is variable as to length and as to thickness toward the end, the form is more or less stocky as in the second ♀ of Regimbart, the sculpture of the pronotum and of the elytra is sometimes as dense, sometimes more spaced than in the type, and the large pores of the systematic series of the elytra are variable as to strength?

Lastly, in the subjects collected by Mr. Lesne, these pores are larger than in the type and the parameres of the ♂ are less attenuated, their extremity less narrowly rounded; but as the organ is not in a state of turgescence, the comparison with the ♂ paratype may bring out non-existent differences. This applies also to the preceding ♂, from Tananarive.

These different identifications will therefore necessarily remain surrounded with doubt until the reception of more abundant material from Madagascar.

27. Enochrus (s. str.) cribrosus (Regimbart).

Mozambique :Environs of Vila Pery, banks of the Mzingaze at the foot of the Cabeça de Velho, May 20-21, 1829 (P. Lesne),

2 ♀♀.

These females have been compared with the type of Fort Dauphin (Madagascar), also a ♀. They have the same short

wide shape, the same relatively strong and dense sculpture, the same brevity of the maxillary palps the last joint of which is only slightly shorter than the preceding and the lowered process of the mesosternum, but in the type this latter appears broken or abnormal. Here too we would have to have ♂♂, and from both regions, to be absolutely certain of the specific attribution.

28. * E. (Methydrus) parvulus (Kuwert).

Zambeze : Nova Chupanga near Chemba, January and August 1928- 1929; Mozambique : Environs of Vila Pery, Banks of the Kzingaze, at the foot of the Cabeça de Velho, May 20-21, 1929 (P. Lesne).

29. * Thysanarthria atriceps (Regimbart).

Zambeze : Nova Chupanga near Chemba, in January 1929, a single specimen.

30. * Sternolophus (Neosternolophus) angolensis (Erichson)

Zambeze : Chemba, December 1928 (J. Surcouf) and Nova Chupanga near Chemba, end of August and February 1929 (P. Lesne).

31. S. (s.str.) Solieri Castelnau.

Zambeze : Nova Chupanga near Chemba, March 1929; Lower Sangadze, Calamo, ponds, June-August 1929 (P. Lesne).

32. * Hydrophilus ellipticus Fabricius (not Regimbart).

Zambeze : Nova Chupanga near Chemba, March 1929 (♀); Mozambique : Vila Pery, December 1929 (P. Lesne) (♂♀).

33. * Neohydrophilus cultrifer (Regimbart).

Mozambique; Beira, P. Lesne (♂♂ ♀♀).

34. *N. Wehnckei* (P. d'Oliv.).

Mozambique : Vila Pery, December 1929 (P. Lesne) (♀).

35. *Hydrous (Temnopterus) aculeatus* (Solier).

Zambeze: Canxixe (J. Surcouf, 1927), Tambara, February 1929 (P. Lesne).

36. * *Amphiops globus* Erichson.

Zambeze : Nova Chupanga near Chemba, November 1928 (J. Surcouf), January, June (P. Lesne).

37. *A. senegalensis* (Castelnau).

Zambeze : Chemba, December 1928 (J. Surcouf) , ♂♂ .

38. *A. lasioides* Regimbart .

Zambeze : Nova Chupanga near chemba, August 9, 1928 (P. Lesne), (♀); Mozambique : Beira, December 1928(P.Lesne 2 ♂♂ , 1 ♀ .

39. *Berosus (s.str.) australis* (Peringuey).

Zambeze: Canxixe, December 1926 and 1927 (J. Surcouf), 1 ♂ , 2 ♀♀ .

40. *B. (s.str.) Lesnei sp.n.*

Resembles, as to coloring, *nigriceps* (Fabricius) (*immaculicollis* Fairmaire) : head metallic, pronotum yellow without spots, elytra also light, with only a few small, vague spots. But the pronotum is more strongly and more densely punctate and the elytra are crossed by fairly narrow and deep punctate striae, and the interstriae are not very visibly pubescent .

The head, of an iridescent or coppery black, is covered with a punctation as strong and as dense as that of the pronotum and the eyes are very convex and protuberant.

The pronotum is relatively small, scarcely wider than the head including the eyes, transverse, longer in the middle than on the sides, moderately convex, with the anterior angles rounded but indicated, the posterior completely rounded .

The posterior edge advances in the middle, toward the scutellum in a regular curve. The sculpture of the disk is composed of confluent punctures which are drawn out slightly lengthwise toward the front .

Scutellum of the same light coloring as that of the elytra , with a few more or less confluent points. Elytra wider at the base than the pronotum in its greatest width, the humeral angles slightly protuberant, crossed, without counting the shortened juxtascutellar series, by ten fairly narrow, sunken punctate striae, the eighth and especially the ninth and tenth coupled to a very fine longitudinal carina. The punctation of the interstriae is finer than the striae, arranged in one almost regular longitudinal series .

The sutural angle is rounded in both sexes .

Mentum with a few large punctures . Prosternum tectiform in the middle . Mesosternum with a long and fine black cariniform line in the middle. Anterior part of the metasternum higher, forming a process with sides converging in a single point toward the back and excavated before this, this process forming a declivitous but not perpendicular prop for the hind femora . The fifth ventral segment, in both ♂ and ♀, has at the end a notch twice-as large as deep, the sides of which project slightly and the bottom of which is slightly advanced and has in the middle a triangular microscopic incision .

Ventral abdominal segments without indentations on the lateral edges .

♂ . Fore tarsi apparently tetramerous with the basal joint swollen, longer than wide . The nails are fairly long, and non-dentate. The aedeagus is still slightly immature in the two specimens received, but the lanceolate median lobe appears to extend slightly beyond the extremity of the parameres .

♀ . Anterior tarsi normally pentamerous, not swollen at the base. No grain on the top (head, pronotum, elytra), which remains relatively shiny, as in the ♂ .

Type. - Zambeze: Nova Chupanga near Chemba, September 1929 (P. Lesne), ♂, 3.2 X 1.5 mm (head extended). Paris Museum .

Paratype. - Like the type, 1 ♂, 3 ♀♀ ,
It is my pleasure to dedicate this species to P. Lesne .

41. B. (s.str.) Nessus sp. u.

This *Berosus* resembles *Neumanni* Knisch, but is smaller, the coarse punctation of the pronotum is more spaced with a few very fine punctures in the intervals, the interstriae of the elytra more convex and narrower, the striae punctures larger and deeper .

Head of a metallic black, iridescent or coppery, the eyes convex and protuberant, the sculpture of the disk fairly rough, composed of relatively large punctures and of other finer ones, less numerous, intercalated; the sutures lie in a relatively deep depression , especially the sagittal.

Pronotum fairly short, relatively less small than in Neumanni, transverse, slightly wider than the head including the eyes, the sides convergent toward the front, the anterior angles rounded but indicated, the posterior completely and widely rounded. Disk of a reddish testaceous coloring, with, in the middle, a vague brownish geminate longitudinal streak, its large punctures larger than on the head.

Elytra convex and swollen after the middle, wider at the base than the pronotum, with, not counting the juxta-scutellar, ten narrow, sunken striae, whose very large punctures --much larger than those of the pronotum-- extend well beyond the stria toward the outside. The coloring is the same as that of the pronotum; in the normally colored specimens with the humeral calus, a chevron beyond the middle, two intermediate punctations on the second and third, on the sixth and seventh interstriae, and a small puncture at the level of the base of the chevron on the eighth stria, of a brownish black . The disk is smooth between the striae except for a few extremely fine punctures almost imperceptible, disposed lengthwise and forming a single series, more apparent on the first and third interstriae than elsewhere .

Mentum with a few large punctures. Mesosternum with cariniform median longitudinal line. Metasternum with a raised process, with sides convergent toward the rear, doubly projecting here, excavate in the middle, forming a perpendicular prop for the hind femora. Last ventral segment, in both sexes, with a terminal notching two times wider than deep,

dentiform on either side, and the edge of which bears in the middle two very small, separated teeth.

Lateral edges of all the ventral segments, in both ♂ and ♀, provided with a longitudinal row of very fine overflowing indentations, very close together and pointed at the end (visible conveniently only when the abdomen is detached and glued to a white background).

♂. Anterior tarsi tetramerous but not thickened at the base. Aedeagus: median lobe greatly elongated, longly attenuated to the terminal point, the parameres almost half as short and extended exteriorly in a long arista almost as long as the paramere itself.

♀. Anterior tarsi pentamerous, the basal joint very short, the following two scarcely longer, the fourth a little longer, the fifth-- without the nails -- almost as long as the preceding four together.

Type. Zambeze: Nova Chupanga near Chemba, January 1929 (P. Lesne), ♂, 3.2 X 1.8 mm (Paris Museum).

Paratypes. Zambeze: Like the type, December 1928 and January 1929; ♂♂ and ♀♀, 12 specimens, environs of Chiramba, February 1929, 1 specimen; Sijal, 1 specimen; Ancoaze, 1 specimen (P. Lesne).

42. B. (s.str.) Neumanni Knisch.

Zambeze: Canxixe, December 1926 (J. Surcouf), 1 specimen.

43. *B. (s.str.) vitticollis Boheman.

Zambeze: Nova Chupanga near Chemba, April 1929 (P. Lesne)

♂, ♀♀.

44. *B. (Enopurus) cuspidatus Erichson, 1843.

B. bispinosus Boheman, 1851 (♂).

B. cuspidatus Boheman, 1851 (♀) .

Zambeze : Nova Chupanga near Chemba, and Chemba, September and December 1928, January and March 1929 (J. Surcouf and P. Lesne); Canxixe, December 1926 (J. Surcouf); Mozambique : Beira, December 1928 (P. Lesne), 23 specimens in all.

45. B. (E.) furcatus Boheman .

Zambeze : Canxixe, December 1925 (J. Surcouf), 1 specimen.

46. B. (E.) tetracanthus Regimbart.

Mozambique: Beira, December 1928; environs of Beira, beach of Ponta Gea, February 1928 (P. Lesne), 2♀♀ which have been compared and found to conform to the types, very kindly put at my disposal by Mr. Lesne .

47. Regimbartia nilotica (Sharp).

Two ♂♂, whose aedeagus has been taken and compared, from Zambeze : Tambara, May 1929 (P. Lesne); Canxixe, December 1927 (J. Surcouf).

48. Globaria sp .

Zambeze : Nova Chupanga, in the light, September 1928 (J. Surcouf) , 1 ♀. Unidentifiable without ♂♂ from the same region .