(*Rev. Zool. afr.*, 98, 3). (*A paru le 28 septembre 1984*).

Description of two new West-African species of the genus *Borysthenes* Stal with notes on *Borysthenes mlanjensis* Muir

(*Homoptera, Fulgoroidea, Cixiidae*)

BY Jan VAN STALLE.*

INTRODUCTION

Borysthenes species are small and delicate *Fulgoroidea*. They are characterized within the *Cixiidae* by the presence of a subantennal process (subfam. *Bothriocerini*), and R forking close to the basal cell of the tegmina; these are rather broad, appreciably exceed the length of the abdomen, and have a small (closed) clavus. In many respects they recall small *Derbidae*, especially because of the subantennal process, the small clavus, and their slightly built habitus.

About 15 *Borysthenes* species have hitherto been described. All of these, except one, occur in the Oriental region. *Borysthenes mlanjensis* Muir is the only Afrotropical species, leaving a great geographical gap between its type locality (Mount Mlanje, Malawi - endemic ?) and its closest Oriental allies.

Our knowledge of the African *Borysthenes* species is presently based on only 10 specimens from three localities, representing three species. Two of these are described below, and it is clear that many more

* Koninklijk Belgisch Instituut voor Natuurwetenschappen, Vautierstraat 31, 1040 Brussel.

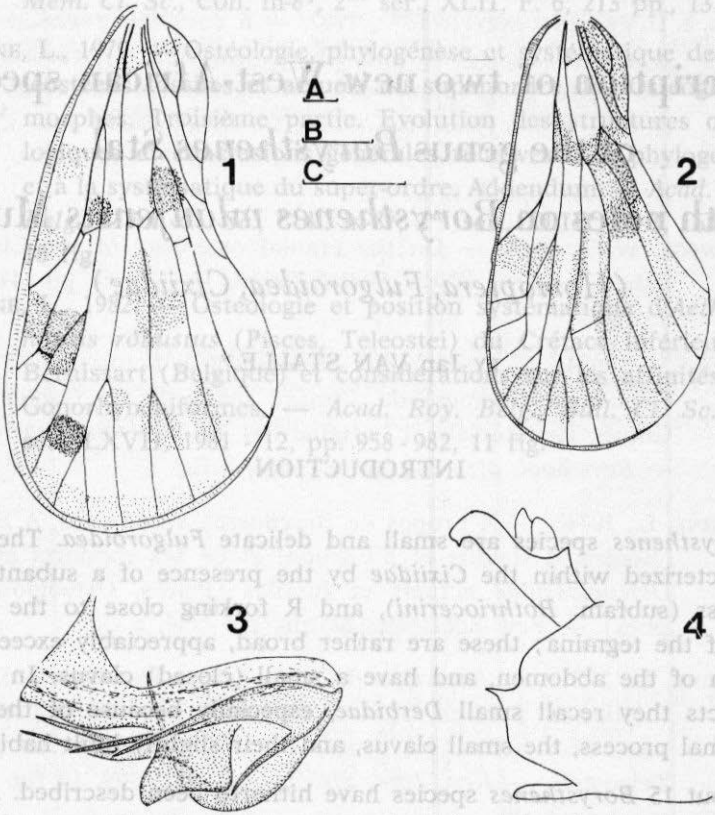

Fig. 1. — *Borysthenes mlanjensis* Muir. - 1. left tegmen.
Fig. 2-4. — *Borysthenes mambilensis* n. sp. - 2. left tegmen; - 3. aedeagus, left lateral view; - 4. pygofer and anal segment.
Scales: A: fig. 4; B: fig. 3; C: fig. 1 and 2. — A, B: 0.1 mm; C: 1 mm.

species of the Oriental and Afrotropical region are awaiting description. This lack of information is probably not mainly due to their rarity, but to their minute representation in entomological collections, because of their small and delicate habitus.

The three species treated in this paper can be distinguished as follows:

1.-a. Tegmina provided with brown roundish spots (fig. 1); a roundish well-defined spot between R and M near the outer apical angle ..... *Borysthenes mlanjensis* Muir

b. Tegmina not coloured as described above 2

2.-a. Aedeagus with six spines and a lamelliform process along its left side (fig. 3); apical lobe of the anal segment short (fig. 4) ..... *Borysthenes mambilensis* n. sp.

b. Aedeagus with five spines, devoid of a lamelliform process (fig. 5 & 6); apical lobe of the anal segment longer (fig. 9) ..... *Borysthenes garambensis* n. sp.

The author wishes to express his sincere gratitude to Dr. H. André (Tervuren) and Dr. Linnavuori (Raisio, Finland) for the honour of examining their collections. The material studied below is deposited in the collections of the Koninklijk Museum voor Midden-Afrika (Tervuren) and the private collection of Dr. Linnavuori.

LIST OF SPECIES

Borysthenes mlanjensis Muir (fig. 1)

Borysthenes mlanjensis Muir, F., 1923, Ann. Mag. Nat. Hist., sér. 9, 11: 559.

Material examined. - 1 ♀ paratype, Malawi, Mount Mlanje, 20.I.1913 (S.A. Neave) (Koninklijk Museum voor Midden-Afrika, Tervuren).

Borysthenes mlanjensis was described on four females. One paratype remains in the collections of the Tervuren Museum. The left tegmen of this specimen is illustrated (fig. 1). The male of this species is unknown.

Borysthenes mambilensis n. sp. (fig. 2-4)

Material examined. - Holotype ♂ : Nigeria, NE State, nr. Mambila, 2.VIII.1973 (Coll. Linnavuori).

Paratypes. - 3 ♂, 1 ♀, same locality (Coll. Linnavuori, 1 ♂ in Tervuren).

Description. - Colour stramineous, mesonotum somewhat darker. Tegmina hyaline, provided with brown marks as illustrated in fig. 2. Hind tibiae with six spines apically; first segment of hind tarsi with seven teeth, second with five.

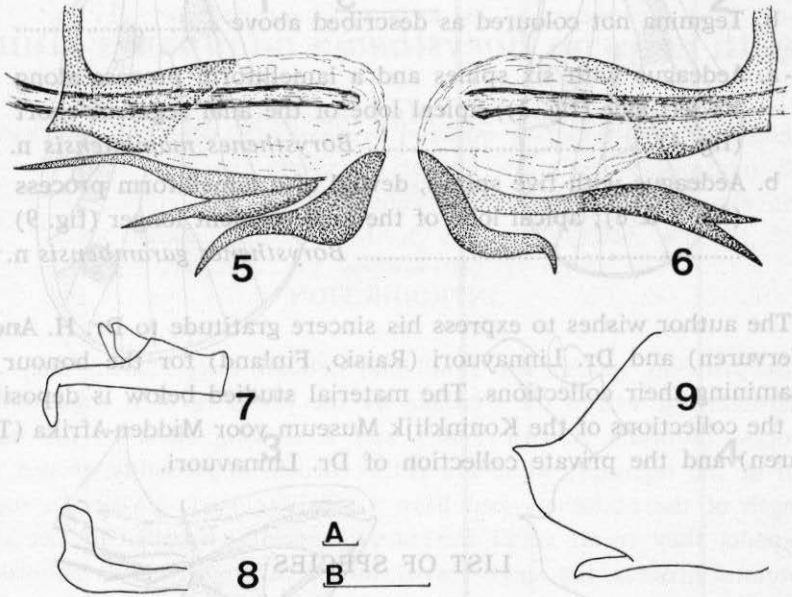

Fig. 5-9. — *Borysthenes garambensis* n. sp. - 5. aedeagus, left lateral view; - 6. aedeagus, right lateral view; - 7. anal segment; - 8. right genital style; - 9. pygofer.
Scales: A: fig. 7, 8, 9; B: fig. 5 and 6. - 0.1 mm.

Total length : 5 mm.

Male genitalia : anal segment (fig. 4) symmetrical, with two small apical lobes, one on each side. Pygofer (fig. 4) with a small spine halfway along its lateral margin. Genital styles like those of *Borysthenes garambensis* n. sp. Aedeagus (fig. 3) provided with six spinose processes along its ventral margin, five of which pointing inwards, the sixth curved upwards along the right side and pointing dorsally.

Borysthenes garambensis n. sp. (fig. 5 - 9)

Material examined. - Holotype ♂ : Zaïre, Parc Nat. Garamba, Pidigala, 23.IV.1952 (H. De Saeger) (Koninklijk Museum voor Midden-Afrika, Tervuren).

Description. Colour stramineous, mesonotum somewhat darker. Tegmina mutilated, but right one with a colour pattern similar to that of *B. mambilensis* n. sp. Hind tibiae with six spines apically, first tarsi with seven to eight teeth, second with five teeth.

Total length : 4.5 mm.

Male genitalia : anal segment (fig. 7) symmetrical, apically deflexed into two slender lobes. Pygofer (fig. 9) with a broad lobe, tapering distally. Genital styles (fig. 8) apically curved over about 90 degrees. Aedeagus (fig. 5 & 6) provided with five spines, inserted apically and running inwards along the ventral margin; three of these along the left side and two along the right side, one of which provided with a two-pronged apex. The two most apically implanted spines are grown together at their base.

SUMMARY

Two West-African Cixiidae (*Homoptera, Fulgoroidea*) are newly described: *Borysthenes mabilensis* n. sp. (Nigeria) and *B. garambensis* n. sp. (Zaïre). Additional notes are added on *Borysthenes mlanjensis* Muir.

REFERENCES

MUIR, F., 1923. — New species of Fulgorids (Homoptera). — *Ann. Mag. Nat. Hist.*, ser. 9, 11 : 553 - 561.