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NEW AND INTERESTING AFRICAN DERBIDAE (HOMOPTERA, FULGOROIDEA)

BY

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(With 165 textfigures)

INTRODUCTION

The African species of the family *Derbidae* have recently been revised by SYNAVE (1972); additional notes were made by LINNAVUORI (1973), SYNAVE (1979) and VAN STALLE (1982). In this paper 80 species are listed, 47 of which are described as new to science. The majority belongs to the *Cenchreini*, which represent the smallest species of the family.

The major part of the material dealt with below was collected by Prof. Dr. J. T. MEDLER (Ife, Nigeria) in Nigeria. Additional material was collected by Dr. R. LINNAVUORI (Raisio, Finland) in the Sudan, the Central African Republic, Cameroon, Nigeria, Togo and Ivory Coast, and by Dr. R. DESMIER DE CHENON (Versailles, France) in Ivory Coast. Finally, the opportunity has been taken to list new species from Angola, Zaire and South Africa.

Except when indicated otherwise, the material studied in this paper, including the material of Dr. DESMIER DE CHENON, remains in the collections of the Koninklijk Belgisch Instituut voor Natuurwetenschappen.

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LIST OF SPECIES

TRIBUS ZORAIDINI

Genus Lydda WESTWOOD

Lydda mayumbensis SYNAVE

Lydda mayumbensis SYNAVE, H., 1966, Bull. Inst. r. Sci. nat. Belg., 42, n° 31, p. 4, fig. 9-12.

Material examined. — 1 ♂, Nigeria, Ikom-Obudu, 25-VI-1973 (Coll. Linnavuori).

Genus Proutista KIRKALDY

Proutista fritillaris (BOHEMAN)

Derbe fritillaris BOHEMAN, C.H., 1837, Handl. Svensk. Vet. Akad., 58, p. 227, pl. VII, fig. 8-9.

Material examined. — 1 ♂ 1 ♀, Central African Republic, Bossangoa-Bossembélé, 2-VI-1973; 3 ♀, La Maboke, 9-VI-1973; 1 ♀, Cameroon, Abong-Mbang, 13-VI-1973; 1 ♀, Ayos-Yaoundé, 14-VI-1973; 8 ♂ 3 ♀, Buea-Kumba, 27-VI-1973; 2 ♂ 4 ♀, Nigeria, Kagoro forest, 30-VIII-1973; 3 ♂, Dumbi, 3-VIII-1973; 1 ♂, Ikom-Obudu, 23-VI-1973; 2 ♂ 2 ♀, Ijebu-Ode-Ore, 14-VII-1973; 1 ♂ 2 ♀, Ife, 14-VIII-1973; 2 ♀, Olokemeji forest, 9-VII-1973; 1 ♂, Sapoba forest, 2-IX-1973; 1 ♂ 2 ♀, Aliade-Oturkpo, 31-VIII-1973; 1 ♂, nr. Makurdi, 30-VIII-1973; 1 ♀, Wamba-Lafia, 30-VIII-1973; 1 ♂, Togo, nr. Langabou, 12-IX-1973; 1 ♂ 3 ♀, Ivory Coast, Maraoue, 13-X-1973; 5 ♂ 5 ♀, Mount Tonkoui, 22-X-1973; 2 ♂ 2 ♀, Odienne-Madinani, 24-X-1973; 1 ♀, nr. Touba, 23-X-1973; 1 ♂ 1 ♀, Abengourou, 20-IX-1973; 2 ♂, Kiriao, 17-X-1973 (Coll. K.B. I. N. and Coll. Linnavuori).

Comments. — *Proutista fritillaris* (BOHEMAN) is probably very common on the African continent south of the Sahara. This species was already recorded from many localities in Africa. It is now first recorded from the Central African Republic, Togo and Ivory Coast.

Zorabana n. gen.

Head with eyes much narrower than pronotum; vertex 1.5 times as long as broad, small and hollowed out, lateral margins straight and converging anteriorly; anterior margin straight, posterior margin with a V-shaped incision (Fig. 3). Frons (Fig. 1) with lateral carinae raised, meeting eachother in lower part and gradually widening in the upper half, convex in lateral view and angulately meeting with vertex (Fig. 2). Subantennal process absent; antennae with first segment short, cylindrical, second segment round, longer than broad. Clypeus longer than frons, feebly tricarinate and gently curved distally (fig. 2); rostrum distinctly surpassing the posttrochanters. Pronotum and mesonotum tricarinate. Tegmina (Fig. 4) long and slightly widening distally, *Sc* + *R* forked in middle; *Cu* with two branches reaching margin; clavus open, common claval vein prolonged behind *Cu* 2; M with 6 branches, *M1* bifurcate. Wings longer than half the length of tegmina.

The gender is feminine.

Type species. — *Zorabana maculata* n. sp.

Diagnosis. — The genus *Zorabana* is characterised by the combination of the following features : head narrower than pronotum, frons with gradually widening lateral carinae in the upper part, tegmina with *M1* bifurcate, other median branches simple. Concerning the general habitus, it remembers to the genera *Diostrombus* UHLER, *Proutista* KIRKALDY and *Helcita* STÅL. From the genera *Diostrombus* and *Proutista* it differs by the shape of the frons and *M1*, which is simple in the two latter. From the genus *Helcita* it differs in respect of the third median branch, which is bifurcated in the genus *Helcita*.

Zorabana maculata n. sp.

(Fig. 1 to 7)

Material examined. — Holotype ♂ — Nigeria, Zaria, 2-IV-1973 (Coll. Linnavuori).

Paratypes. — 1 ♂ 2 ♀, same locality (♂ Coll. K. B. I. N., 2 ♀ Coll. LINNAVUORI); 1 ♂, Nigeria, Zaria Samaru, 10-VII-1973; 1 ♀, Zaria Samaru, 6-VII-1967; 1 ♀, Wamba-Lafia, 30-VIII-1973 (Coll. LINNAVUORI); 8 ♀, Ile-Ife, V-1973 (Coll. K. B. I. N.).

Description. — General colour of head, pro- and mesonotum, abdomen and legs stramineous. A brown spot on lateral margins of clypeus; irregular dark markings on abdomen. Tegmina (Fig. 4) hyaline, with six dark spots along costal margin. Additional dark spots along

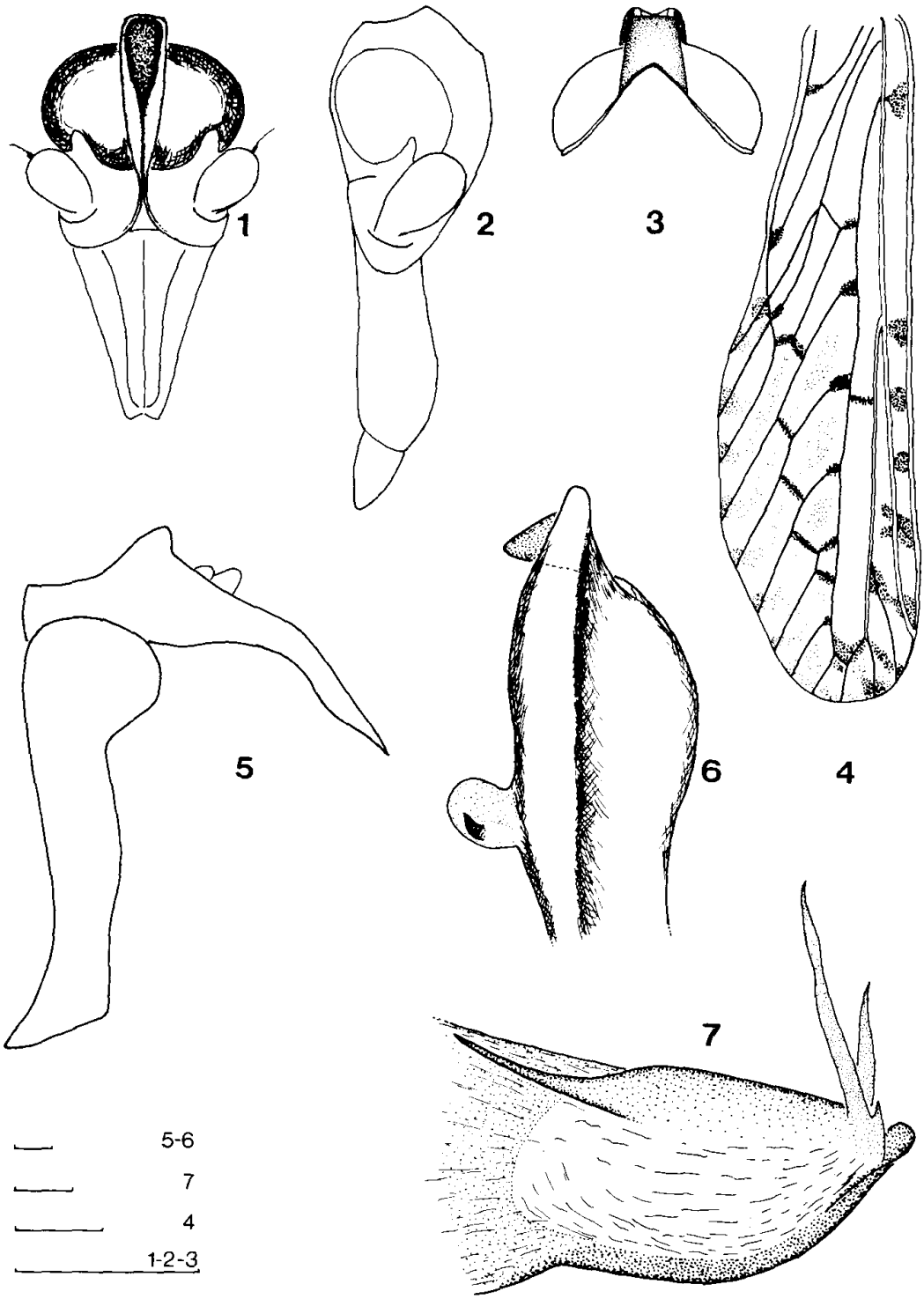


Fig. 1 to 7. — *Zorabana maculata* n. sp.
1 : head, frontal view; 2 : head, lateral view; 3 : vertex; 4 : tegmen;
5 : anal segment and pygofer; 6 : left genital style; 7 : aedeagus.
Scale Fig. 5, 6, 7 : 0.1 mm; others : 1 mm.

transversal veins, proximal and distal ends of median branches and common claval vein. Indistinct dark infumations in median cells.

Male genitalia : anal segment (Fig. 5) with lateroapical angles strongly produced and tapering. Dorsolateral angles of pygofer (Fig. 5) with a subcircular lobe, posterior lateral margins straight. Genital styles (Fig. 6) long, with a ventral ridge from base to apex. Aedeagus (Fig. 7) laterally compressed and asymmetrical, with two slender spines at apex directed dorsally, a strong spinose process along dorsal margin on left side directed cephalically, and a shorter one emerging from dorsal part of base on right side and directed caudally. Lateral parts of aedeagus membraneous, dorsal and ventral margin strongly sclerotised.

Total length of body : 4-4.5 mm.

Total length of tegmina : 8 mm.

Etymology. — The name is an allusion to the dark markings on the tegmina.

Comments. — As indicated on some labels, this species is probably associated with the banana tree. It has hitherto been recorded from three localities (Ile-Ife, Wamba-Lafia and Zaria) and its range seems to be rather limited.

Genus Diostrombus UHLER

Diostrombus dilatatus (WESTWOOD)

Derbe dilatata WESTWOOD, J. O., 1851, Ann. Mag. Nat. Hist. (2) 7, p. 209.

Material examined. — 2 ♀, Ivory Coast, Korghogo-Ferkéssé-Dougou, 25-X-1973 (Coll. LINNAVUORI).

Diostrombus gowdei DISTANT
(Figs. 8 to 10)

Diostrombus gowdei DISTANT, W. L., 1914, Ann. Mag. Nat. Hist. (8), 13, p. 419.

Material examined. — 3 ♂ 20 ♀. Zaire, Utuhe, 14-VI-1953, alt. 800 m (Coll. K. B. I. N.).

Comments. — The genital styles of the male specimens are asymmetrical. This feature is not presented in the description given by SYNAVE (1972).

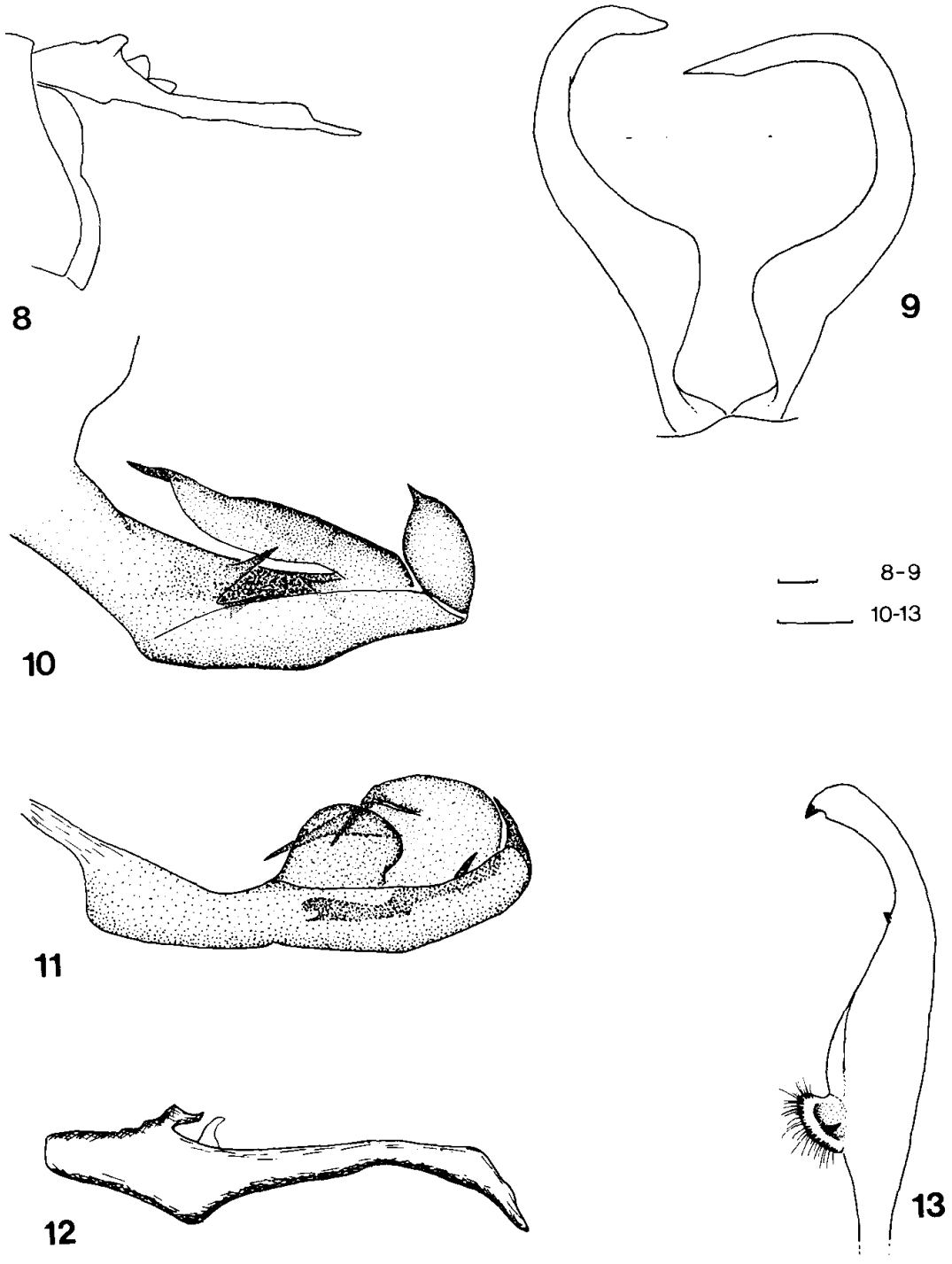


Fig. 8 to 10. — *Diostrombus gowdei* DISTANT
8 : anal segment and pygofer; 9 : genital styles, ventral view; 10 : aedeagus.

Fig. 11 tot 13. — *Diostrombus rufus* MUIR
11 : aedeagus; 12 : anal segment; 13 : left genital style.
Scale : 0.2 mm.

Diostrombus apicalis (HAGLUND)

Thracia apicalis HAGLUND, C. J. E., 1899, Ofv. Svenska Vet. Akad. Förh., 56, p. 64.

Material examined. — 1 ♂ 1 ♀, Central African Republic, Mbaiki, 9-VI-1973; 2 ♂ 3 ♀, La Maboke, 9-VI-1973; 1 ♀, Cameroon, Yaoundé, 14-VI-1973; 1 ♀, Buea-Kumba, 26-X-1973; 1 ♂ 2 ♀, Nigeria, Isebu — Ode-Ore, 14-VII-1973; 1 ♂ 3 ♀, nr. Ahoada, 5-VII-1973; 3 ♂, Togo, nr. Langabou, 12-IX-1973; 2 ♀, Ivory Coast, Foro Foro, 28-IX-1973; 1 ♀, nr. Touba, 23-X-1973 (Coll. K. B. I. N. and Coll. LINNAVUORI).

Comments. — This species is known from Zaire and the Central African Republic. Its range now extends into Cameroon, Nigeria, Togo and Ivory Coast.

Diostrombus rufus MUIR
(Figs. 11 to 13)

Diostrombus rufus MUIR, F., 1928, Ann. Mag. Nat. Hist. (10), I, p. 514, fig. 22, 22a.

Material examined. — 1 ♂, Nigeria, Zaria, 2/3-VIII-1973; 1 mutilated specimen, nr. Shaki, 4-XI-1973 (Coll. LINNAVUORI).

This species was described by MUIR from a female captured in Njala (Sierra Leone). In 1934 he described the male but did not figure the male genitalia. Acording to SYNAVE (1972), this specimen was lost and therefor he was not able to figure the male genitalia; he also listed three females from Zaire and the Central African Republic. I had the opportunity to compare these females with the material mentioned above and they belong to the same species. The characters of the male genitalia also fit with those given by MUIR (1934).

Male genitalia : anal segment (Fig. 12) long, with a tapering apex. Dorsolateral angles of pygofer strongly produced. Genital styles long and gently curved (Fig. 13), in lateral view with a small tooth in the bend. Aedeagus (Fig. 11) with an apical spine directed dorsally, a small lateral spine on left side, and two strong spinose processes dorsally, curved cephalically and directed to right side.

Diostrombus grahami (DISTANT)

Drona grahami DISTANT, W. L., 1907, Ann. Mag. Nat. Hist. (7), 19, p. 404.

Material examined. — 1 ♂, Central African Republic, La Maboke, 9-VI-1973 (Coll. K. B. I. N.).

Diostrombus sibitensis SYNAVE

Diostrombus sibitensis SYNAVE, H., 1972, Etudes Cont. afr., fasc. 2, p. 55, figs. 111-114.

Material examined. — 1 ♂, Nigeria Mbiama, 5-VII-1973 (Coll. K. B. I. N.).

Comments. — This species is known from Zaire; its range now extends into Nigeria.

Diostrombus brunnipes n. sp.
(Figs. 14 to 16)

Material examined. — Holotype ♂ — Ethiopia, Gembi nr Agaro, 15-VI-1963 (Coll. LINNAVUORI).

Paratypes. — 2 ♂ 1 ♀, same locality (Coll. LINNAVUORI, 1 ♂ in coll. K. B. I. N.).

Description. — Frons gently rounded, not produced. General colour yellow. Genital styles and lower surface of abdomen brown to black. Tibiae and tarsi of fore- and middlelegs and last segment of the

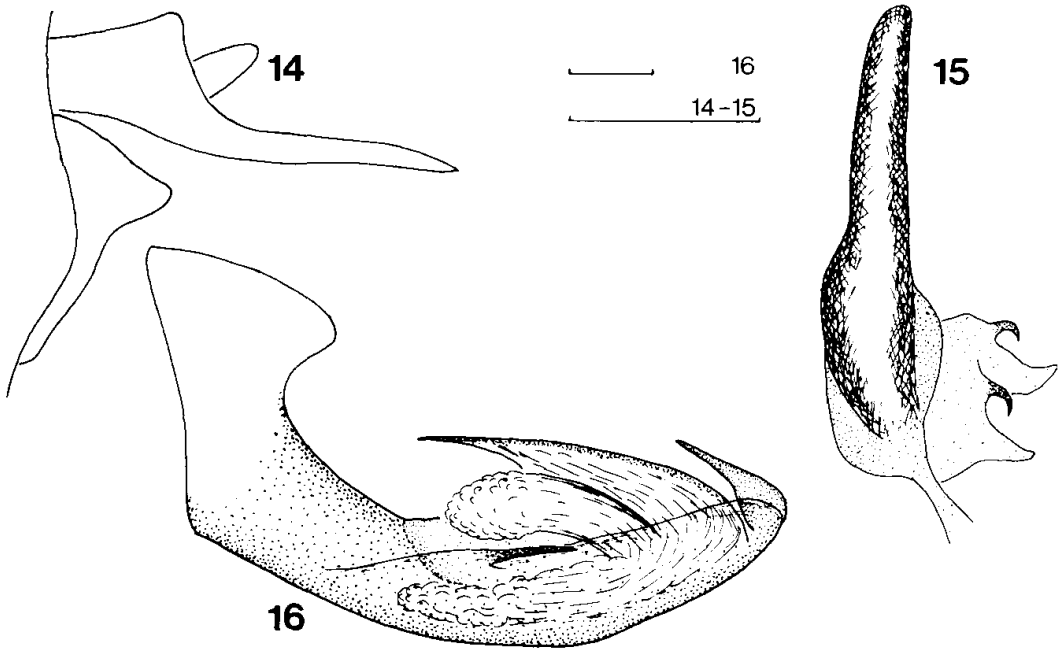


Fig. 14 to 16. — *Diostrombus brunnipes* n. sp.
14 : anal segment and pygofer; 15 : right genital style; 16 : aedeagus.
Scale Fig. 16 : 0.1 mm; others : 0.5 mm.

posttarsi coloured with brown. Tegmina hyaline, without distinct traces of a brown colouring; veins brown.

Male genitalia : anal segment (Fig. 14) long, with lateroapical angles tapering and strongly protruding caudally. Dorsolateral angles (Fig. 14) of pygofer produced into a triangular lobe. Genital styles (Fig. 15) long and gently curved in ventral view. Aedeagus (Fig. 16) armed with three spinose processes : two apical spines running cephalically and a third small spine (hardly visible) on left side directed caudally.

Total length : 10 mm.

Diagnosis. — In the key of SYNAVE (1972), this species runs to *Diostrombus grahami* (DISTANT). It is also related to *Diostrombus sibitensis* SYNAVE, but differs from booth of them in the structure of the aedeagus and the genital styles.

Etymology. — The name is an allusion to the brown tibiae and tarsi of the fore- and midlegs.

Diostrombus gangumis n. sp.
(Figs 17 & 18)

Material examined. — Holotype ♂ — Nigeria, Gangume forest reserve, 10-VII-1970 (H. Roberts) (Coll. LINNAVUORI).

Paratypes. — 1 ♂ 1 ♀, same locality (Coll. K. B. I. N.); 2 ♂, same locality (Coll. LINNAVUORI).

Description. — Frons strongly produced in profile (Fig. 18), ochreous in upper part, whitish in lower part; clypeus yellow. Pronotum, mesonotum, abdomen and legs yellow, but pronotum somewhat paler. Abdomen in dorsal view with a broadly U-shaped black mark, usually consisting of three black spots on each side of the median line. Tegmina and wings with a pattern of black markings resembling those of *Diostrombus dedegwanus* SYNAVE.

Male genitalia: pygofer, genital styles and anal segment similar to those of *Diostrombus dedegwanus* SYNAVE. Aedeagus (Fig. 18) resembling that of the latter but differing from it by the shape of the basal spinose process.

Etymology. — The name refers to the type locality.

Diostrombus zairensis n. sp.
(Figs. 19 to 22)

Material examined. — Holotype ♂ — Zaire, Eala, III-1935 (Coll. K. B. I. N.).

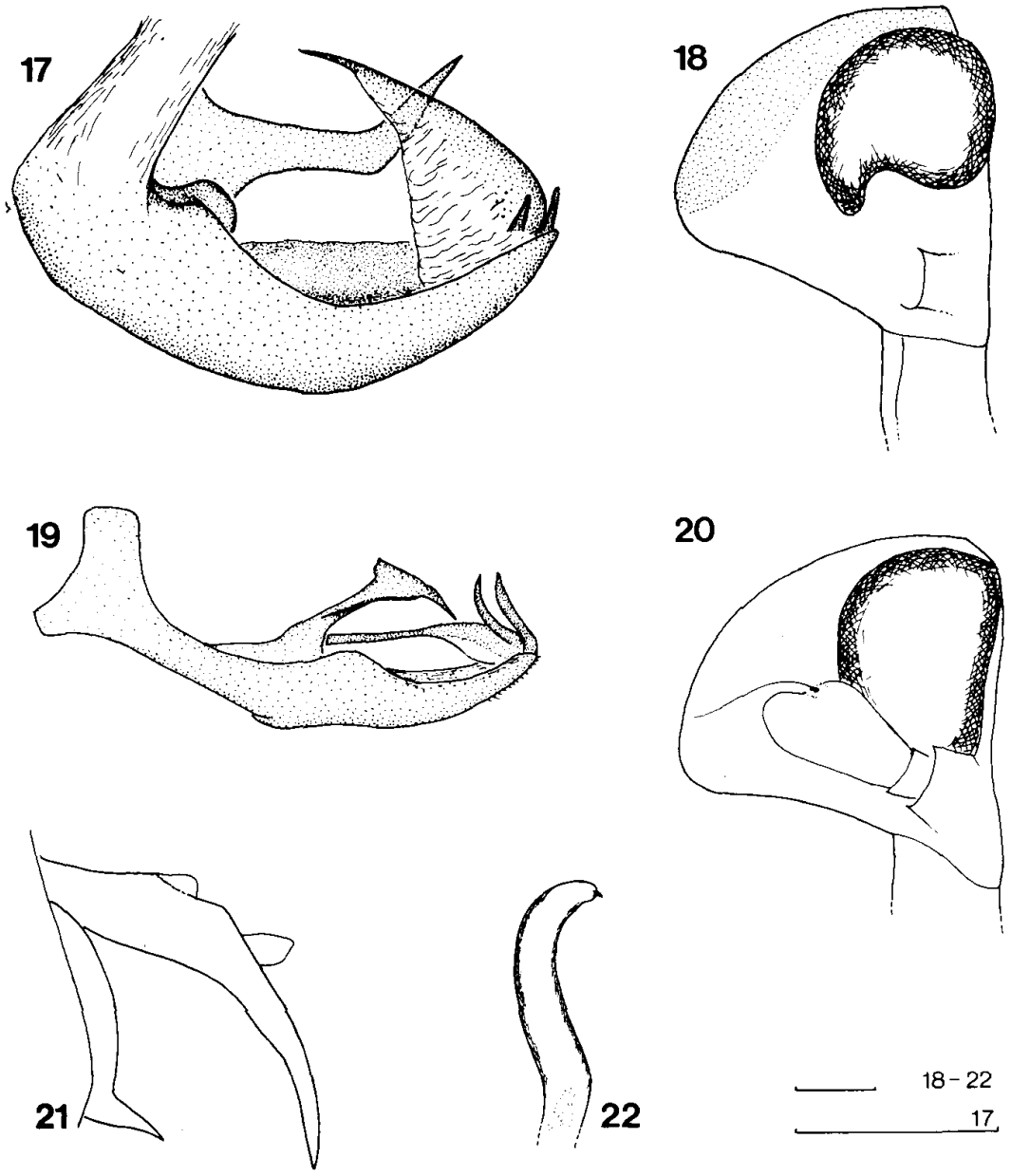


Fig. 17 and 18. — *Diostrombus gangumis* n. sp.
17 : aedeagus; 18 : head, lateral view.

Fig. 19 to 22. — *Diostrombus zairensis* n. sp.
19 : aedeagus; 20 : head, lateral view; 21 : anal segment and pygofer; 22 : genital style.
Scale Fig. 17 : 0.5 mm; others : 0.1 mm.

Description. — Frons (Fig. 20) strongly produced in profile, major part yellow, and whitish in lower part. Clypeus yellow, fumated with brown. Pronotum, mesonotum, abdomen and legs partly yellow. Pronotum with brown marks on the posterior and lateral parts. Abdomen partly coloured with brown. Legs with the fore- and middlecoxae brown. Tegmina hyaline, with distinct brown marks at base.

Male genitalia : anal segment (Fig. 21) with lateroapical angles strongly produced caudally and tapering. Posterior lateral margins of pygofer straight, with an acute spinose process at base. Genital styles (Fig. 22) with a broad appendix along outer margin, gently curved inwards in ventral view. Aedeagus (Fig. 19) with 4 spinose processes : two subequal spines inserted apically and running dorsally; a third spinose process inserted apically and directed cephalically, broad basally and abruptly narrowing in a slender distal part; a fourth spinose process inserted dorsally near base of aedeagus and directed dorsocaudally, with a very typical apex resembling the head of a bird. Possibly the apex of the third aedeagal spine is damaged.

Total length : 9 mm.

Diagnosis. — In the key of SYNAVE (1972), this species runs to *Diostrombus alcmena* FENNAH. It differs from this species by the form of the fourth aedeagal spine and by the colour of the tegmina.

Etymology. — The name refers to the type locality.

Diostrombus incompletus n. sp.
(Figs. 23 to 26)

Material examined. — Holotype ♂, Cameroon, Kumba-Mamfé, 23-VI-1973 (Coll. LINNAVUORI).

Description. — Frons (Fig. 24) circular in profile, broader basally than near vertex. General colour of animal yellow, a dark longitudinal streak present on the mesofemora. Tegmina missing.

Male genitalia : posterior lateral margin and ventral border of the pygofer straight. Genital styles (Fig. 25 & 26) as illustrated, with a spine apically on inner side. Anal segment missing. Aedeagus (Fig. 23) with six spines : a small one arising apically from right side and running dorsally, four large ones arising from the dorsal and left side, and a very small spine inserted dorsally near the basal part of the aedeagus.

Length : not measurable because the holotype is fairly mutilated.

Diagnosis. — This species is characterised by the form of the aedeagus.

Etymology. — The name refers to the mutilated specimen. The presence however of the body and the male genitalia enables us to give an adequate description.

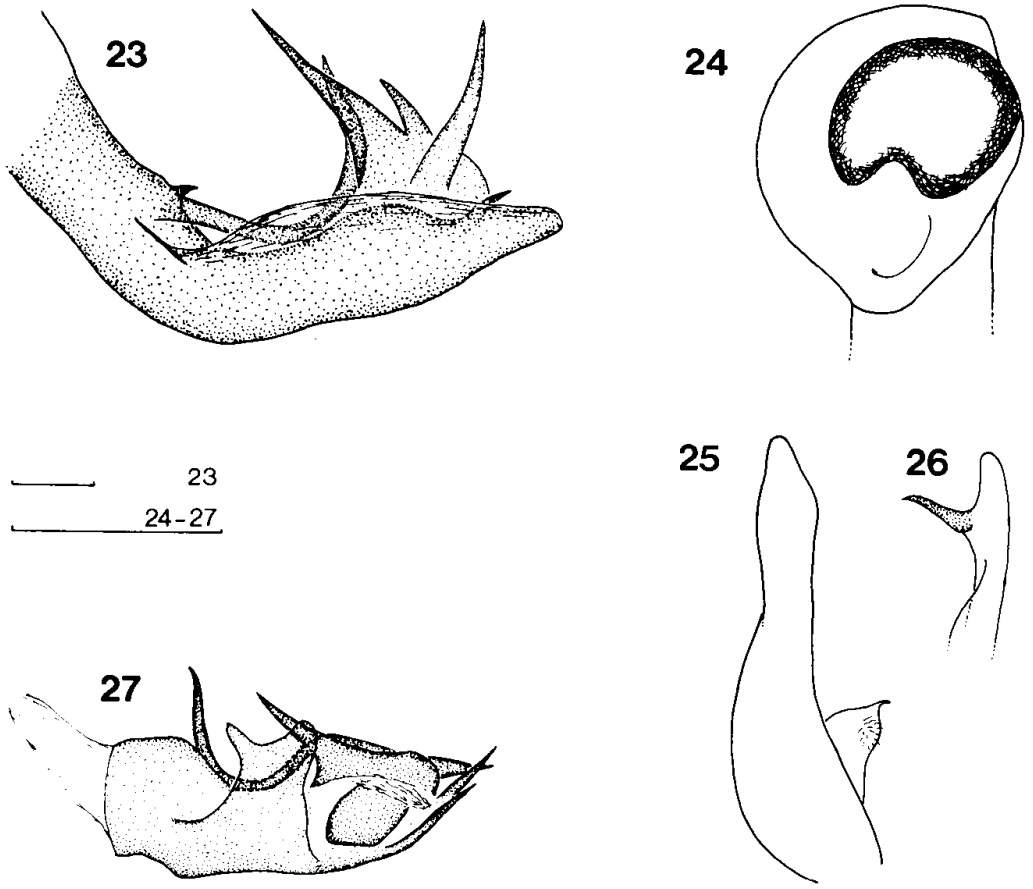


Fig. 23 to 26. — *Diostrombus incompletus* n. sp.
23 : aedeagus; 24 : head, lateral view; 25 : right genital style; 26 : apex of genital style.

Fig. 27. — *Pamendanga laestrygon* FENNAH
27 : aedeagus.
Scale Fig. 23 : 0.1 mm; others : 0.5 mm.

Genus Pamendanga DISTANT

Pamendanga laestrygon FENNAH
(Fig. 27)

Pamendanga laestrygon FENNAH, R. G., 1958, Bull. I. F. A. N., t. XX, 2, p. 496, fig. 9 (1-3).

Material examined. — 2 ♂, Nigeria, Ile-Ife, VI-1973 (Coll. K. B. I. N.).

Comments. — *Pamendanga laestrygon* was described from Dahomey, but unfortunately, the type material is damaged and the male genitalia are missing. These were figured by FENNAH (1958), but can be interpreted in different ways and thus need a more accurate description. I found two males in the collections of the Brussels museum which pro-

bably belong to this species. The anal segment, lateral margins of the pygofer, and genital styles are similar to those illustrated by FENNAH. The general pattern, form, and implantation of the spines seems the same, but as already mentioned, the drawings can be interpreted in different ways, and it is impossible to decide wether the differences are of specific value, or, are due to the personal interpretation of the writer.

Pamendanga bispinosa n. sp.
(Figs. 28 to 30)

Material examined. — Holotype ♂ — Nigeria, Umuhaia, IV-1973 (Coll. K. B. I. N.).

Description. — Frons, vertex, pro- and mesonotum ochreous. Clypeus and abdomen fumated with brown; legs pale ochreous. Tegmina (Fig. 28) dark brown with pale spots divided as figured.

Male genitalia : anal segment rather short; posterior lateral margins of pygofer straight; genital styles (Fig. 29) moderately long. Aedeagus (Fig. 30) with two long spinose processes inserted apically on left side and directed cephalically. Lower spine with a tooth on about halfway its length.

Total length : 11 mm.

Diagnosis. — In SYNAVE's key, this species runs to *Pamendanga nealei* DISTANT. It differs from it by the colouring of the tegmina and the form of the male genitalia.

Etymology. — The name refers to the numbers of spines on the aedeagus.

Pamendanga fuscinervis n. sp.
(Figs. 31 to 34)

Material examined. — Holotype ♂ — Nigeria, Ile-Ife, VI-1973 (Coll. K. B. I. N.).

Description. — Colour of frons, antennae, vertex and legs pale brown. Pronotum, mesonotum and abdomen darker. Tegmina (Fig. 34) dark brown with a series of pale spot along costal margin and in median sector. Veins dark brown except for apical part of *R* which is whitish.

Male genitalia : anal segment long (Fig. 32); dorsolateral angles of pygofer (Fig. 32) strongly produced into a triangular lobe. Genital styles (Fig. 33) with apex turned back, a small appendix at their outer margin, and an incomplete longitudinal streak along outer surface. Aedeagus (Fig. 31) with a rounded apex; right side spineless, left side and dorsal margin with six spinose processes : four spines along the dorsal border directed cephalically of which one is bifurcated; one spine along the left

lateral side, and one near the ventral margin, bifurcated halfway along its length.

Total length : 11 mm.

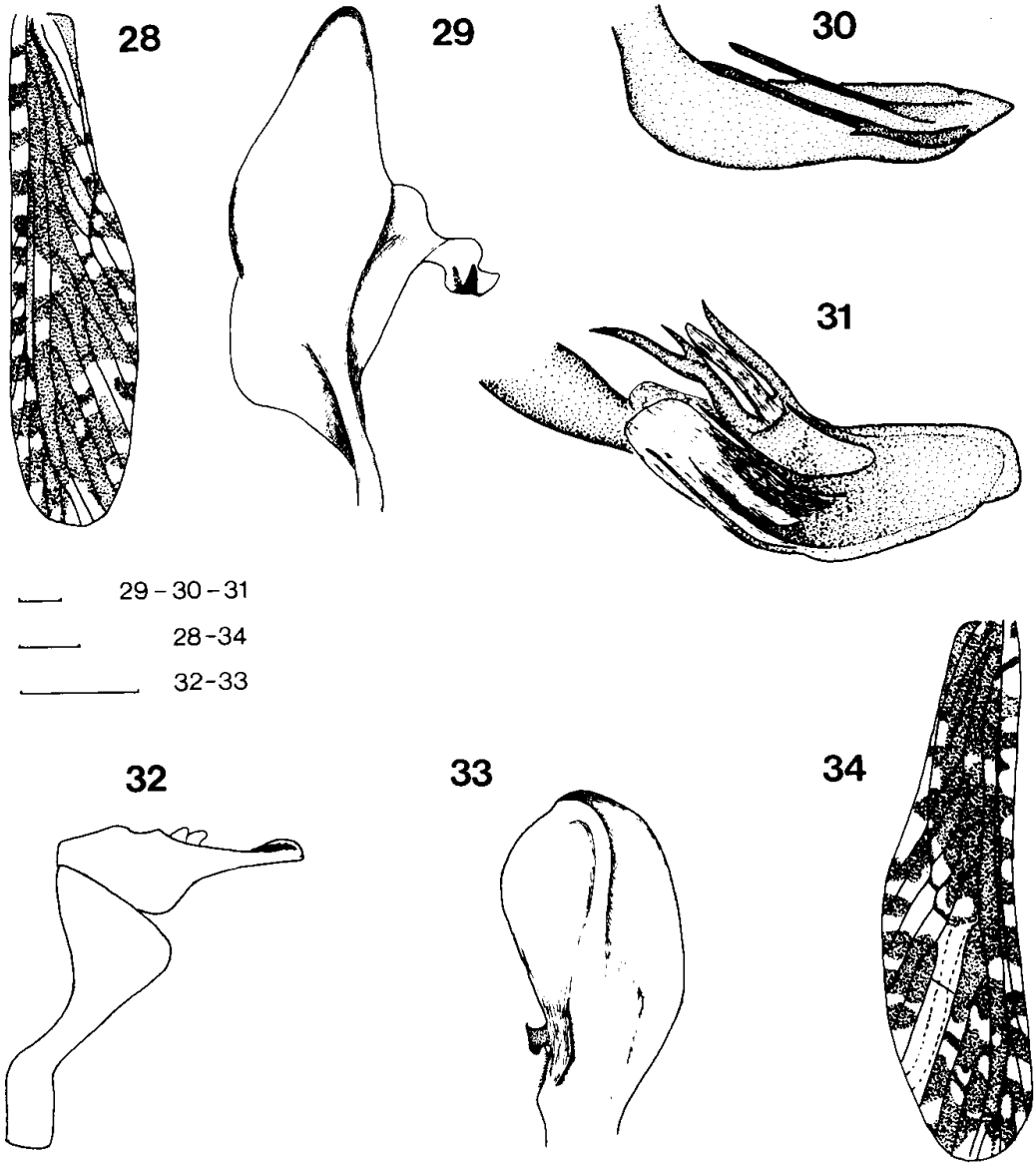


Fig. 28 to 30. — *Pamendanga bispinosa* n. sp.
28 : tegmen; 29 : right genital style; 30 : aedeagus.

Fig. 31 to 34. — *Pamendanga fuscipennis* n. sp.
31 : aedeagus; 32 : anal segment and pygofer; 33 : left genital style; 34 : tegmen.
Scale Fig. 29, 30, 31 : 0.1 mm; Fig. 32, 33 : 0.5 mm; Fig. 28, 34 : 1 mm.

D i a g n o s i s . — In SYNAVE's key, this species runs to number 6 : *Pamendanga nealei* DISTANT and *P. laestrygon* FENNAH. It differs from booth of them by the colour of the tegmina and by the shape of the aedeagus.

E t y m o l o g y . — The name refers to the dark veins of the tegmina.

Genus Zoraida KIRKALDY

Zoraida ugandensis DISTANT

Zoraida ugandensis DISTANT, W. L., 1914, Ann. Mag. Nat. Hist. (8), 13, p. 416.

Material examined. — 1 ♂, Nigeria, gangume forest reserve, 10-VII-1970 (H. ROBERTS) (Coll. LINNAVUORI).

Zoraida carpenteri MUIR
(Figs. 35 to 38)

Zoraida carpenteri MUIR, F., Ann. Mag. Nat. Hist. (10), 1, p. 524, fig. 36.

Material examined. — 1 ♂, Nigeria, Benin-Ore, 6-VII-1973 (Coll. K. B. I. N.).

Description. — Colour stramineous; antennae almost six times as long as broad, cylindrical, with a reddish oblong streak. Abdomen with a V-shaped dark spot, lateral portions brown. Tegmina hyaline, stramineous, with minute dark points along the apical two-thirds of the costal margin.

Male genitalia : anal segment (Fig. 37) moderately long, lateroapical angles strongly produced caudally and gradually narrowing to a tapering apex. Pygofer with a truncated medioventral process as illustrated (Fig. 38), lateral margins damaged. Genital styles as figured (Fig. 35). Aedeagus (Fig. 36) curved in the basal part; flagellum consisting of several lamelliform processes, dorsally produced into a tapering spinose process, with oblong ridges on left side.

Comments. — This species was described by MUIR on a single male (Kigezi, Uganda). He made an accurate description of the external features and published an illustration of the genital styles, which are typical for each species of the genus *Zoraida* KIRKALDY. Unfortunately the holotype was lost, and Dr. SYNAVE did not have the opportunity to figure the male genitalia, by the lack of further material. In the collections of Dr. LINNAVUORI, we found one more male which could be referred to this species. The colour as well as the shape of the genital styles agree with the description and illustration given by MUIR (1928). Additional figures of the anal segment, pygofer and aedeagus are given in this paper.

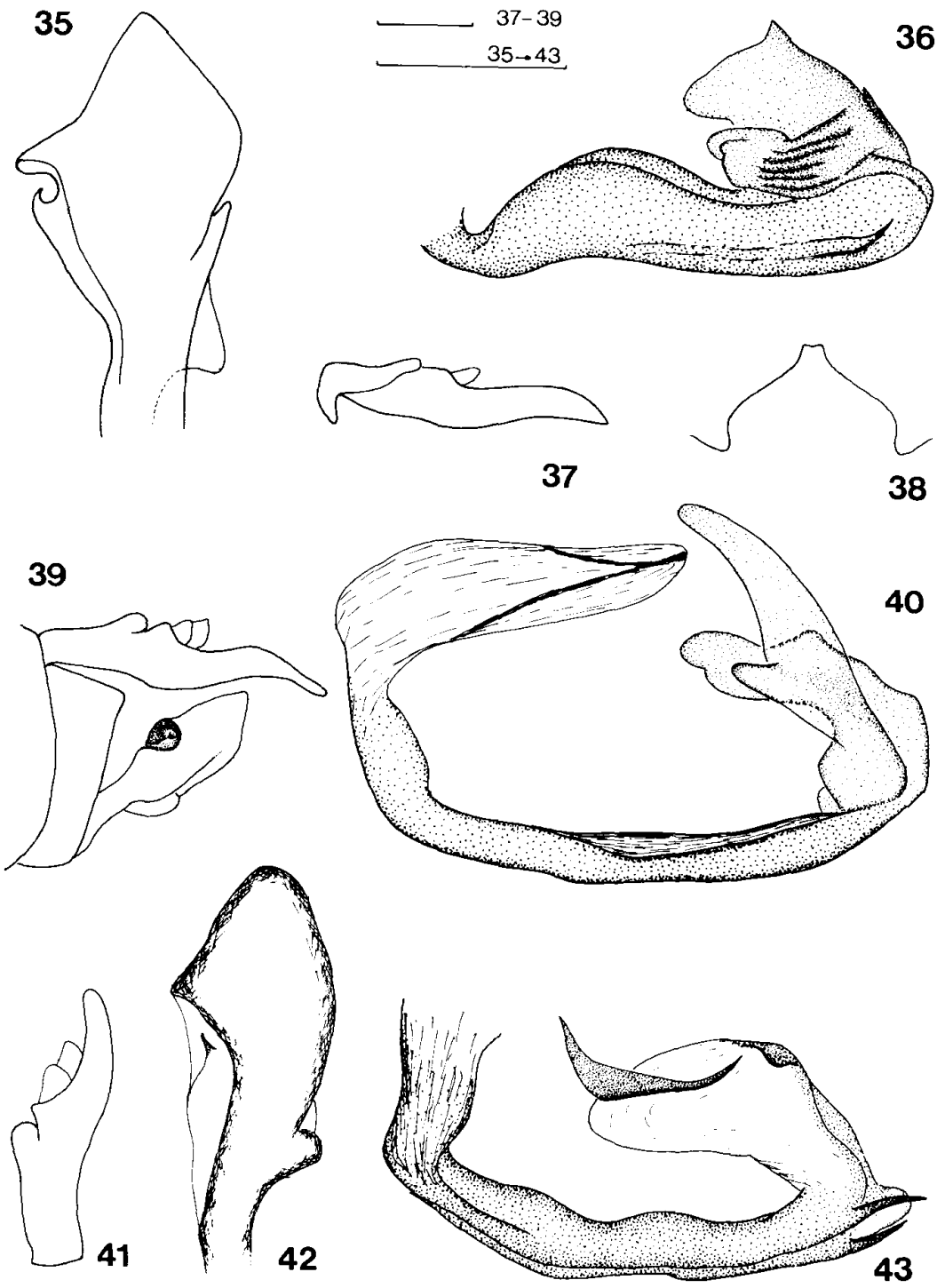


Fig. 35 to 38. — *Zoraida carpenteri* MUIR
35 : left genital style; 36 : aedeagus; 37 : anal segment;
38 : medioventral process of pygofer.

Fig. 39 and 40. — *Zoraida aenea* n. sp.
39 : anal segment, pygofer, and genital style; 40 : aedeagus.

Fig. 41 to 43. — *Zoraida zairensis* n. sp.
41 : anal segment; 42 : left genital style; 43 : aedeagus.
Scale : 0.5 mm.

Zoraida (Peggiopsis) aenea n. sp.
(Figs. 39 & 40)

Material examined. — Holotype ♂, Nigeria, Ile-Ife, VI-1973 (Coll. K. B. I. N.).

Paratypes. — 2 ♀, same locality (Coll. K. B. I. N.).

Description. — General colour ivory white, mesonotum fumated with brown, abdomen with black spots dorsally and laterally. Frons strongly convex in lateral view, long and flattened, about seven times as long as broad Tegmina hyaline, costal, subcostal and radial cell fumated with brown; veins brown; *M* with five sectors, first sector with three branches reaching the inner margin.

Male genitalia : anal segment (Fig. 39) moderately long, with a dorsal lobe and deflexed distally. Dorsolateral angles of pygofer rectangular, posterior lateral margins straight. Genital styles as illustrated (Fig. 39). Aedeagus (Fig. 40) tubular, with an apical flagellum consisting of several lamelliform lobes.

Total length : 14 mm.

Diagnosis. — In SYNAVE's key, this species runs to *Zoraida* (*Peggiopsis*) *distanti* MUIR. It differs from the latter by the colour of the tegmina and the structure of the male genitalia.

Zoraida (Zoraida) zairensis n. sp.
(Figs. 41 to 43)

Material examined. — Holotype ♂ — Zaire, Mabolo, route Likati, VIII-IX-X-1950 (Coll. K. B. I. N.).

Description. — Vertex and carinae of frons yellowish, these almost straight in lateral view. Lower part of genae and clypeus dark brown. Pronotum and mesonotum dark brown and shiny, lateral carinae and hind margin of mesonotum yellow. Abdomen brown. Legs yellow, protibiae fumated with brown. Tegmina damaged and partly missing, hyaline, veins and costal cell dark brown.

Male genitalia : anal segment short (Fig. 41). Dorsolateral angles of pygofer acutely produced, posterior lateral margins straight, ventrally with a broad median process. Genital styles as illustrated (Fig. 42). Aedeagus (Fig. 43) long and tubular; dorsal margin of stem sinuated, with two small apical spines running caudally. A flagellum arising from apical part and directed cephalically, with a stout spinose process distally.

Total length : 18 mm.

Diagnosis. — This species is closely related to *Zoraida boulardi* SYNAVE. *Zoraida zairensis* n.sp. bears two apical spines on the aedeagus instead of one, and has a stout spinose process on the flagellum.

Zoraida flavocostata DISTANT

Zoraida flavocostata DISTANT, W. L., 1914, Ann. Mag. Nat. Hist. (8), 13, p. 415.

Material examined. — 2 ♂, Nigeria, Ilora, VIII-1974 (Coll. K. B. I. N.).

Zoraida boulardi SYNAVE

Zoraida boulardi SYNAVE, H., 1972, Etudes Cont. afr., fasc. 2, p. 94, Fig. 205-209.

Material examined. — 1 ♀, Togo, nr Langabou, 12-IX-1973 (Coll. K. B. I. N.).

Comments. — This species is known from one male (Boukoko, Centr. Afr. Rep.). Its distribution range now extends into West Africa.

Zoraida evansi DISTANT

Zoraida evansi DISTANT, W. L., 1914, Ann. Mag. Nat. Hist. (8), 13, p. 417.

Material examined. — 1 ♂, Nigeria, Benin-Ore, 6-VII-1973; 1 ♂, Ikom-Obudu, 25-VI-1973; 1 ♂, nr Okundi, 28-VI-1973 (Coll. LINNAVUORI).

Comments. — This species is recorded from Ghana.

Zoraida aburiensis MUIR

Zoraida aburiensis MUIR, F., 1918, Ent. Monthl. Mag., 54, p. 206.

Material examined. — 1 ♀, Central African Republic, La Maboke, 9-VI-1973 (Coll. K. B. I. N.).

Zoraida sinuosa (BOHEMAN)

Derbe sinuosa BOHEMAN, C. H., 1837, Handl. Svenska Vet. Akad., 58, p. 225, pl. VII, fig. 1 and 2.

Material examined. — 1 ♀, Nigeria, Olokemeji forest, 9-VII-1973 (Coll. LINNAVUORI).

Zoraida nigeriensis SYNAVE

Zoraida nigeriensis SYNAVE, H., 1979, Bull. Inst. r. Sci. nat. Belg., Ent., 51, 6, p. 17, fig. 53-58.

Material examined. — 1 ♂, Upper Volta, Yendéré, 26-X-1973 (Coll. LINNAVUORI).

TRIBUS CENCHREINI

Genus Malenia HAUPT

Malenia dardanus (FENNAH)

Eocenchrea dardanus FENNAH, R. G., 1958, Bull. I. F. A. N., t. 20, 2, p. 499, fig. 11.

Material examined. — 1 ♂, Nigeria, Mbiana, 5-VII-1973 (Coll. K. B. I. N.).

Comments. — This species is recorded from Ivory Coast.

Malenia caerulea n. sp.
(Figs. 44 to 46)

Material examined. — Holotype ♂ — Nigeria, Ile-Ife, 30-XII-1971 (Coll. K. B. I. N.).

Description. — Frons and clypeus yellowish brown; frons with broadest part at level of subantennal process, concave in upper part, twice as long as broad along widest part, and lateral carinae strongly elevated; median carina absent. Lateral parts of head yellow. Vertex, pronotum, mesonotum and abdomen brown; legs yellowish brown, hind legs more yellowish. Tegmina and wings hyaline, with a blue appearance on their surface.

Male genitalia : anal segment short (Fig. 46). Genital styles (Fig. 45) with a spinose process along their inner margin. Aedeagus (Fig. 44) tubular, with a broad flagellum reflected cephalically above aedeagus, and two

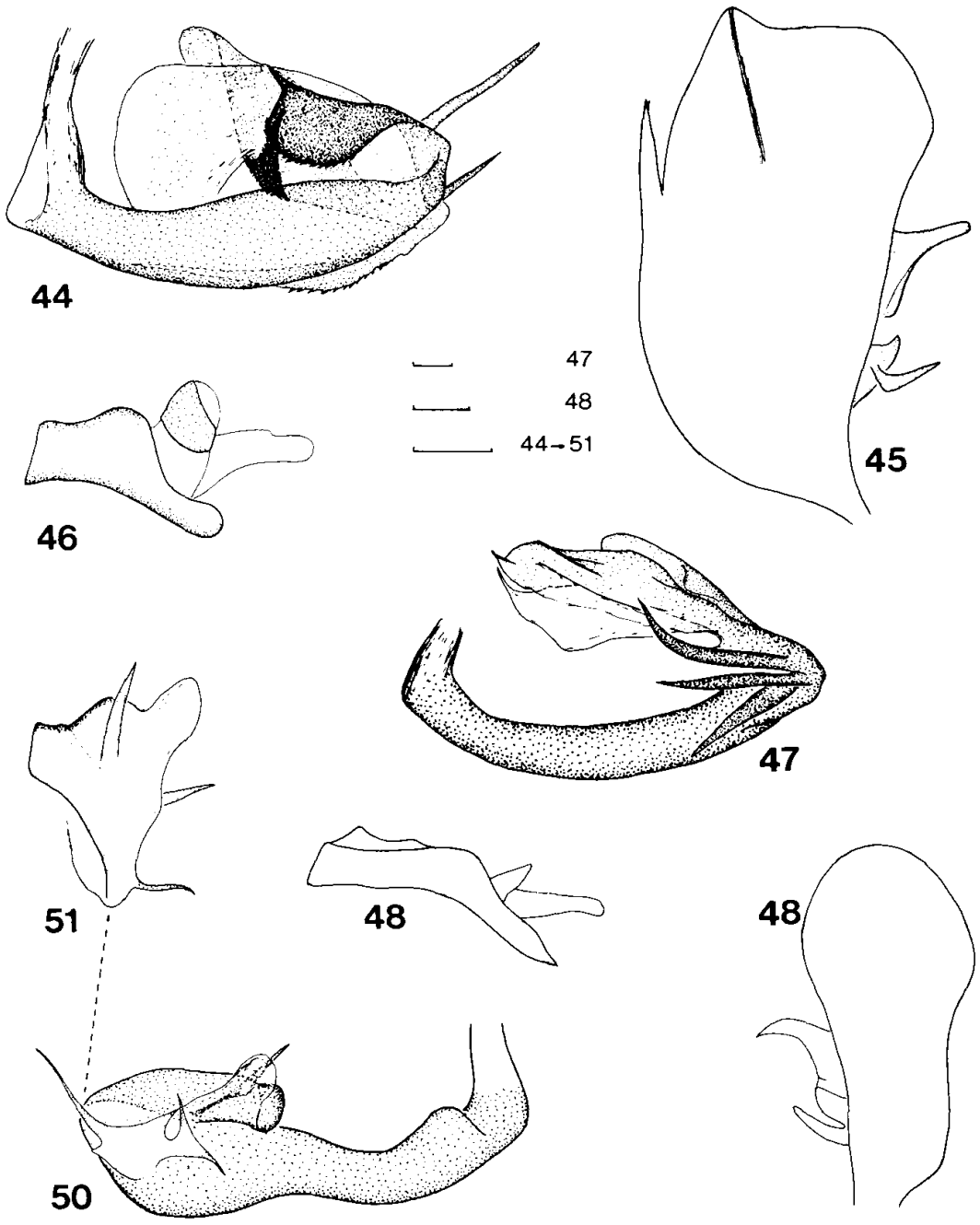


Fig. 44 to 46. — *Malenia caerulea* n. sp.
44 : aedeagus; 45 : right genital style; 46 : anal segment.

Fig. 47. — *Malenia flavicephala* n. sp.
47 : aedeagus.

Fig. 48 to 51. — *Malenia consimilis* n. sp.
48 : anal segment; 49 : left genital style; 50 : aedeagus; 51 : apex of aedeagus dorsal view.
Scale : 0.1 mm.

slender spines inserted near apex and running caudally; a third short spine on inner side of right lobe of flagellum, and a broad lamelliform process on left side, directed cephalically, and minutely denticulated along its ventral margin, dorsally terminating in a short spine.

Total length : 4 mm.

Diagnosis. — *Malenia caerulea* is the only known species with a blue appearance on the tegmina, and a spine along the inner margin of the genital styles. It is also easily distinguished from other species by the shape of the aedeagus.

Etymology. — the name refers to the blue appearance on the tegmina and wings.

Malenia flavicephala n. sp.
(Fig. 47)

Material examined. — Holotype ♂ — South Africa, Transvaal, Letaba Valley, Tzaneen Dist., 10/31-XII-1958 (A. L. CAPENER) (Coll. K. B. I. N.).

Paratype. — 1 ♀, same locality (Coll. K. B. I. N.).

Description. — Head, pronotum and legs yellowish. Mesonotum, abdomen and tegmina dark brown. Frons longer than broad (33 : 24), widest part at level of subantennal processes and then slightly converging in upper part. Lateral carinae poorly elevated, median carina absent.

Male genitalia : genital styles with a blunt lobe along their outer margin. Aedeagus with an apical flagellum reflected cephalically and three apical spines on left side (Fig. 47). One more spine along ventral margin of aedeagal shaft, also directed cephalically.

Total length : 5.5-6 mm.

Diagnosis. — *Malenia flavicephala* n.sp. is distinguished from other species by the general colour and the shape of the male genitalia.

Etymology. — The name refers to the yellow head and pronotum, contrasting with the brown colour of the mesonotum and tegmina.

Malenia consimilis n. sp.
(Figs. 48 to 51)

Material examined. — Holotype ♂ — Central African Republic, La Maboke, 6/9-VI-1973 (Coll. LINNAVUORI).

Description. — Colour stramineous throughout. Frons subparallel, lateral keels elevated, more than twice as long as broad (37:16). Tegmina hyaline.

Male genitalia : anal segment (Fig. 48) slender and rather short. Genital styles simple (Fig. 49). Aedeagus (Fig. 50 and 51) with a small and poorly sclerotised flagellum on right side, bearing three dorsal and one ventral spine.

Total length : 4 mm.

Diagnosis. — *Malenia consimilis* n. sp. is distinguished from other species by the shape of the male genitalia.

Etymology. — The name refers to its external resemblance with many other *Malenia* species.

Malenia kivuensis n. sp.
(Figs. 52 to 54)

Material examined. — Holotype ♂ — Zaire, Kivu, nr. Rumangabo 5-X-1953 (J. VERBEKE) (Coll. K. B. I. N.).

Description. — Head and legs ivory white, mesonotum and abdomen brown. Tegmina milky hyaline, veins concolorous. Lateral carinae of frons strongly elevated.

Male genitalia : anal segment (Fig. 54) moderately long. Genital styles (Fig. 53) as illustrated. Aedeagus (Fig. 52) with a apical flagellum reflected cephalically, bearing a small slender spine on left side and two apical spinose processes. Aedeagal shaft on left side with a slender spine halfway along its length, running cephalically.

Total length : 5 mm.

Diagnosis. — Regarding the shape of the frons and the general structure of the aedeagus, this species is related to *Malenia pitho* (FENNAH). It differs from the latter by the shape and implantation of the aedeagal spines and by the form of the genital styles.

Etymology. — The name refers to the type locality.

Malenia minuta n. sp.
(Fig. 55 & 56)

Material examined. — Holotype ♂ — Nigeria, Ile-Ife, 20-V-1970 (Coll. K. B. I. N.).

Description. — Head, mesonotum and legs orange to ochreous, pronotum somewhat paler. Abdomen pale brownish. Tegmina hyaline,

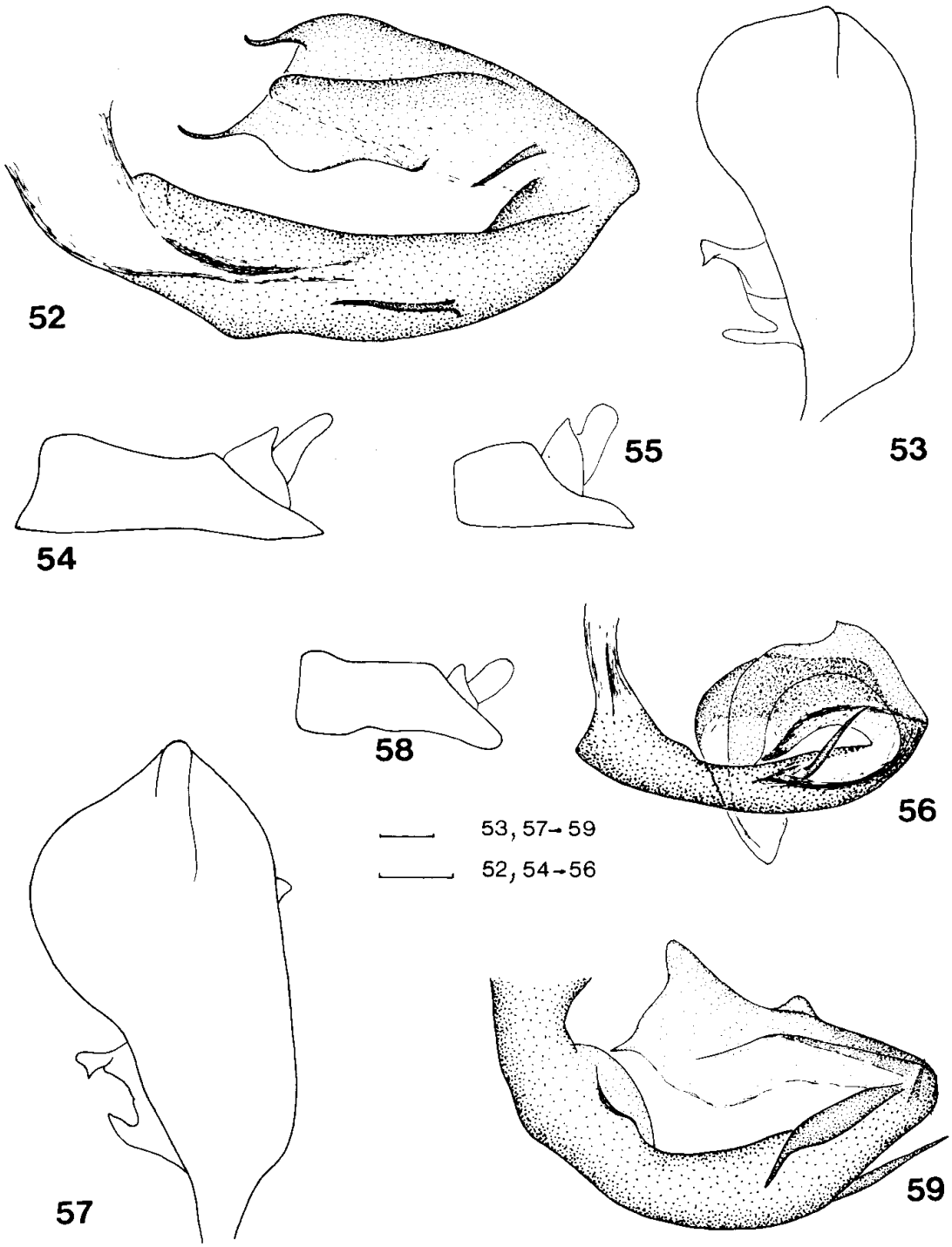


Fig. 52 to 54. — *Malenia kivuensis* n. sp.
52 : aedeagus; 53 : left genital style; 54 : anal segment.

Fig. 55 and 56. — *Malenia minuta* n. sp.
55 : anal segment; 56 : aedeagus.

Fig. 57 to 59. — *Malenia striata* n. sp.
57 : left genital style; 58 : anal segment; 59 : aedeagus.
Scale : 0.1 mm.

fumated with brown. Frons twice as long as broad, lateral carinae strongly elevated; median carina absent.

Male genitalia : anal segment (Fig. 55) short. Genital styles missing. Aedeagus with a broad flagellum, first reflected dorsally and then recurved beneath level of aedeagal shaft (Fig. 56), the latter with a thin spine inserted on left side and directed dorsocaudally.

Total length : 3-3.5 mm.

Diagnosis. — The species is characterised by the small size and the shape of the male genitalia.

Etymology. — The name refers to its small bodily size.

Malenia striata n. sp.
(Fig. 57 to 59)

Material examined. — Holotype ♂ — Nigeria, Obudu cattle ranch, 16/18-VIII-1973 (Coll. LINNAVUORI).

Paratypes. — 1 ♂ 3 ♀, same locality (Coll. LINNAVUORI, 1 ♂ in Coll. K. B. I. N.).

Description. — Colour stramineous, abdomen brown. Tegmina hyaline, with a brown translucent longitudinal streak, covering subcostal and radial cell. Frons rather narrow, more than twice as long as broad (39 : 16), lateral carinae elevated.

Male genitalia : anal segment (Fig. 58) short. Genital styles (Fig. 57) as illustrated, with a small lobe along their inner margin. Aedeagus (Fig. 59) with a spine on left side directed cephalically, a ventral spine running caudally, and a spinose process on right side directed dorsally.

Total length : 5 mm.

Diagnosis. — This species is characterised by the oblong streak on the tegmina and by the shape of the male genitalia.

Etymology. — The name is an allusion to the longitudinal mark on the tegmina.

Malenia bicolor n. sp.
(Figs. 60 & 61)

Material examined. — Holotype ♂ — Nigeria, Obudu cattle ranch 16/18-VIII-1973 (Coll. LINNAVUORI).

Paratypes. — 13 ♂ 15 ♀, same locality (coll. LINNAVUORI, 5 spec. in coll. K. B. I. N.).

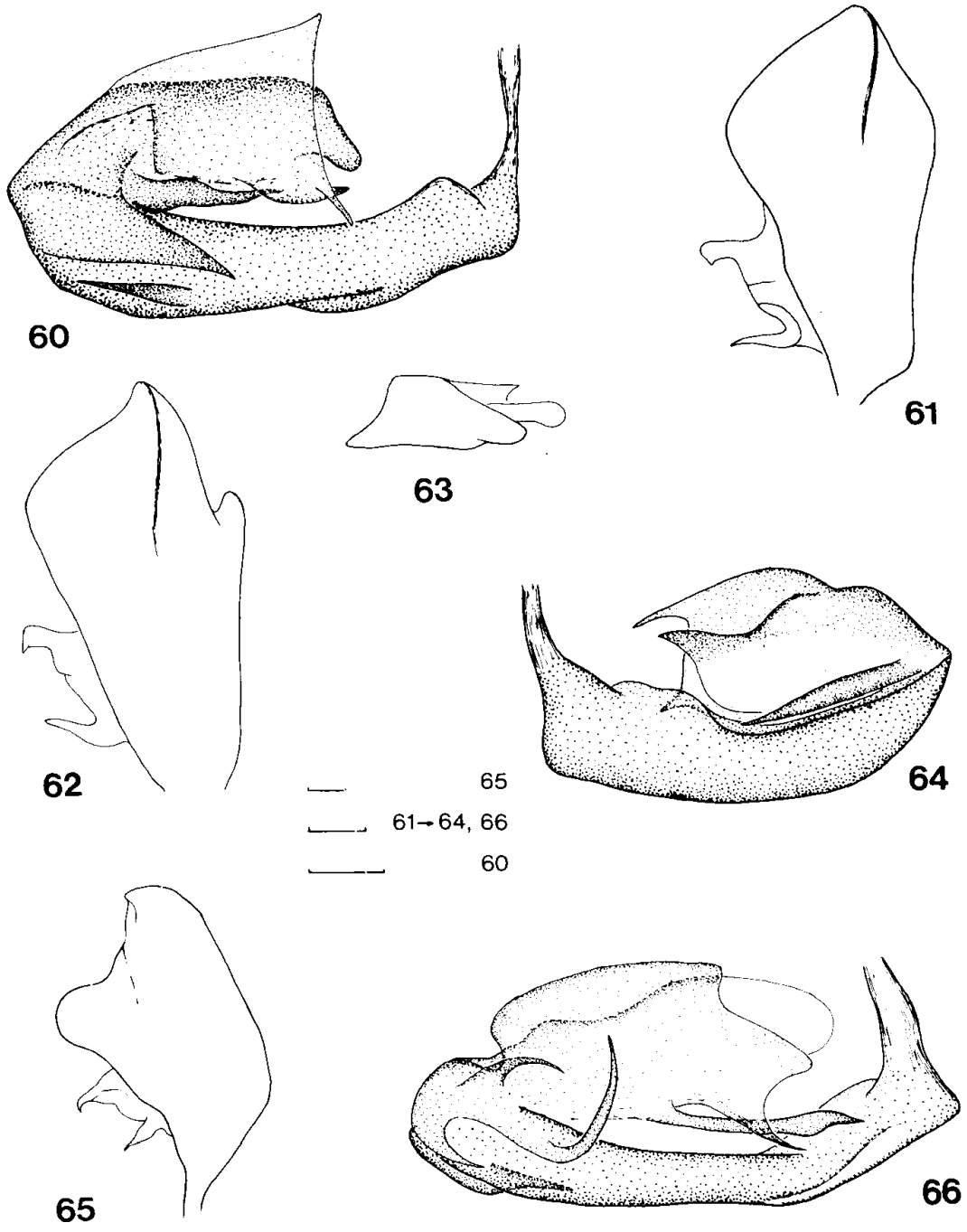


Fig. 60 and 61. — *Malenia bicolor* n. sp.
60 : aedeagus; 61 : left genital style.

Fig. 62 to 64. — *Malenia montana* n. sp.
62 : left genital style; 63 : anal segment; 64 : aedeagus.

Fig. 65 and 66. — *Malenia monticola* n. sp.
65 : left genital style; 66 : aedeagus.
Scale : 0.1 mm.

Description. — Colour stramineous. Frons only slightly narrowing at level of antennae, twice as long as broad, lateral carinae elevated; median carina absent. Abdomen fumated with brown. Tegmina hyaline, costal and outer apical part fumated with brown.

Male genitalia : genital styles simple (Fig. 61). Anal segment missing. Aedeagus (Fig. 60) with three apical spines, two directed cephalically and one running caudally.

Total length : 4 mm.

Diagnosis. — This species is characterised by the shape of the male genitalia.

Etymology. — The name refers to the general colour (stramineous and brown) of the insect.

Malenia montana n. sp.
(Figs. 62 to 64)

Material examined. — Holotype ♂ — Cameroon, Mt. Cameroon, 18-VI-1973 (Coll. LINNAVUORI).

Paratypes. — 1 ♂, Nigeria, Obudu Cattle ranch, 18-VIII-1973 (Coll. K. B. I. N.); 1 ♂ Ivory Coast, Mt. Tonkoui, 22-X-1973 (Coll. LINNAVUORI).

Description. — Head, pronotum and legs stramineous. Frons brown between keels, more than twice as long as broad (42 : 18), lateral margins elevated and almost parallel. Mesonotum and abdomen brown. Tegmina hyaline.

Male genitalia : anal segment (Fig. 63) short, genital styles (Fig. 62) with a small blunt process along their inner margin. Aedeagus (Fig. 64) with a single spine on left side directed cephalically.

Total length : 5 mm.

Diagnosis. — This species is characterised by the shape of the male genitalia.

Etymology. — The name refers to the capture site.

Comments. — This species seems to have an interesting distribution, as it occurs in several West African montaneous areas.

Malenia monticola n. sp.
(Figs. 65 & 66)

Material examined. — Holotype ♂ — Cameroon, Mt. Cameroon, 18-VI-1973 (Coll. LINNAVUORI).

Description. — General colour stramineous. Frons twice as long as broad, lateral carinae strongly elevated.

Male genitalia : anal segment long, genital styles (Fig. 65) with a blunt lobe along their outer margin. Aedeagus (Fig. 66) with a short spine, two hook-like spines on right side and a long spinose process arising from ventral portion of flagellum. One more short apical spine on left side running cephalically.

Total length : 5-5.5 mm.

Diagnosis. — The species is characterised by the shape of the male genitalia.

Etymology. — the name refers to the capture site.

Malenia flava n. sp.

(Fig. 67 to 70)

Material examined. — Holotype ♂ — Nigeria, Katsina CRH, 5-IX-1970 (Coll. K. B. I. N.).

Paratypes. — 1 ♂ 15 ♀, same locality (Coll. K. B. I. N.); 1 ♂, nr. Abakaliki, Norcap, 29-VI-1973 (Coll. LINNAVUORI).

Description. — Colour stramineous throughout, tegmina slightly fumated with brown. Frons fairly broad, less than twice as long as wide (37:23), lateral carinae not or poorly elevated.

Male genitalia : anal segment (Fig. 68) long, genital styles (Fig. 70) with a blunt lobe along outer margin. Aedeagus (Fig. 67, 69) tubular, with two short apical spines on left side and three longer spinose processes on right side. Three more lamelliform processes present, emerging from apex and directed cephalically, two of them facing right side and one on left side. One of these apically terminating in a tapering spinose process.

Total length : 5-5.5 mm.

Diagnosis. — This species belongs to the group of *Malenia aburiensis* MUIR. It differs from these by the shape of the aedeagus.

Etymology. — The name refers to the yellow colour of the animal.

Malenia flavescens n. sp.

(Figs. 71 & 72)

Material examined. — Holotype ♂ — Nigeria, Ikom-Obudu, 25-VI-1973 (Coll. LINNAVUORI).

Paratypes. — 1♂ 1 ♀, Kagoro forest, 29/30-VIII-1973 (Coll. K. B. I. N.).

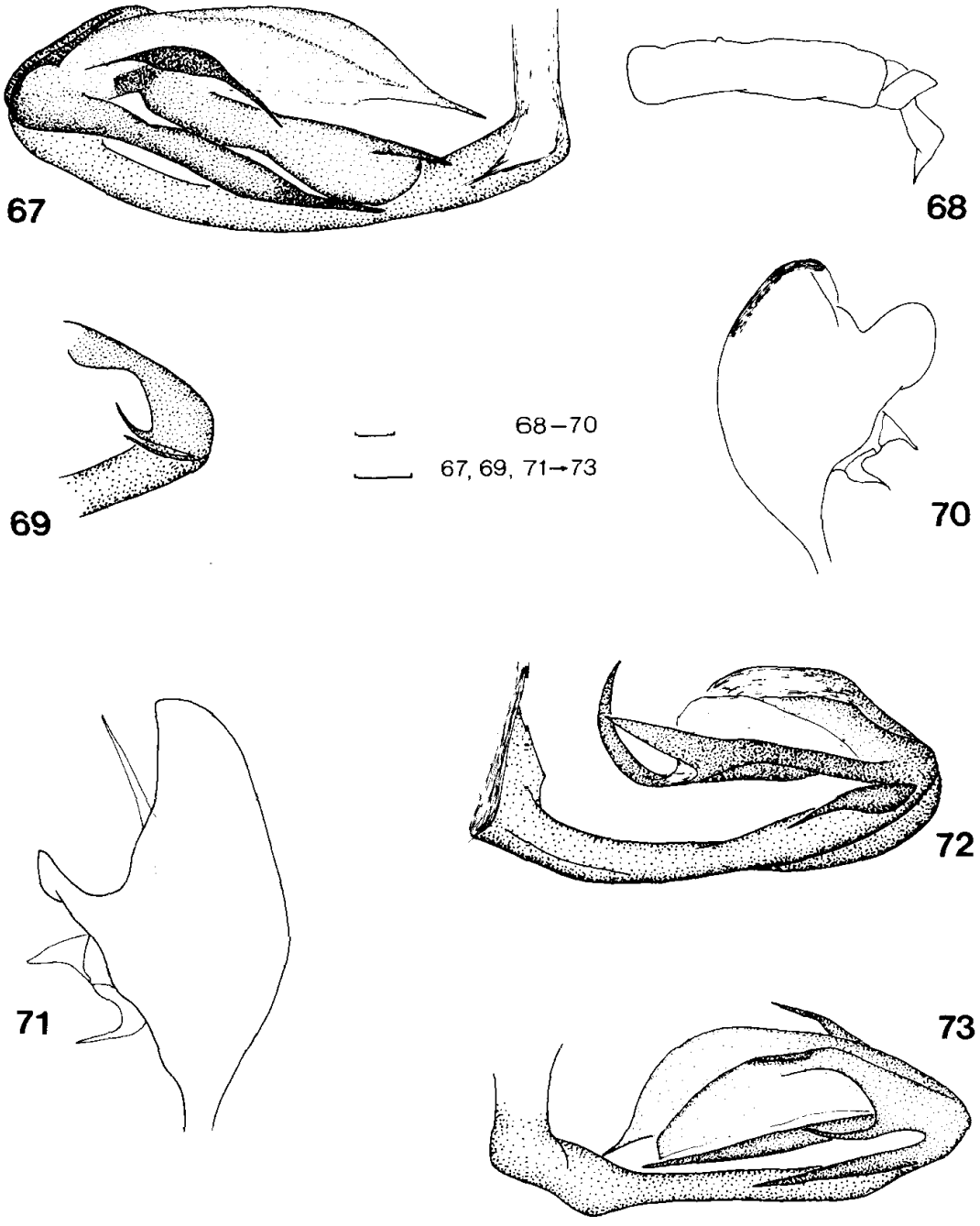


Fig. 67 to 70. — *Malenia flava* n. sp.
67 : aedeagus; 68 : anal segment; 69 : apex of aedeagus, left lateral view;
70 : right genital style.

Fig. 71 and 72. — *Malenia flavescens* n. sp.
71 : left genital style; 72 : aedeagus.

Fig. 73. — *Malenia cocos* n. sp.
73 : aedeagus.
Scale : 0.1 mm.

Description. — General colour stramineous, tegmina hyaline. Frons resembling that of *Malenia flava* n.sp., lateral carinae almost not elevated; median carina absent.

Male genitalia : anal segment long; genital styles (Fig. 71) with a blunt lobe and a long spine along their outer margin. Aedeagus (Fig. 72) with an apical flagellum reflected cephalically, distally terminating in a straight spine and a long upcurved spinose process. Aedeagal shaft with a single spine on left side and two more spines on right side.

Total length : 4.5-5 mm.

Diagnosis. — *Malenia flavescens* n.sp. is the only known species with genital styles as illustrated. It is also characterised by the shape of the male genitalia.

Etymology. — The name refers to the yellow colour of the animal.

Malenia cocos n. sp.
(Fig. 73)

Material examined. — Holotype ♂ — Ivory Coast, Abengourou, XI-1975 (Coll. R. DESMIER DE CHENON).

Paratypes. — 3♂ 5 ♀, same locality (Coll. DESMIER, 2 spc. in Coll. K. B. I. N.); 1 ♂, Daloa, XI-1975 (Coll. DESMIER).

Description. — General colour stramineous. Tegmina hyaline, slightly fumated with brown. Frons less than twice as long as broad (34:22), lateral keels poorly elevated.

Male genitalia : anal segment long, genital styles with a blunt lobe along their outer margin. Aedeagus (Fig. 73) tubular, with a flagellum consisting of two lamelliform processes and five spines : a long and a short one on left side, one along dorsal margin, and finally, a straight long spine inserted on right side and a short spine (shortest of all) curved upwards.

Total length : 4.5-5 mm.

Diagnosis. — This species is closely related to *Malenia longispina* SYNAVE and *Malenia aburiensis* (MUIR). It differs from *M. longispina* by the presence of an additional spine on the left side. It is distinguished from *M. aburiensis* by the proportions of the longest spine, and by the shape of the shortest spine on the right side, which is shorter and curved dorsally in *M. cocos* n.sp.

Etymology. — As indicated on the labels, the insect was captured on the Cocos tree.

Malenia angolensis n. sp.
(Figs. 74 & 75)

Material examined. — Holotype ♂ — Angola, R. D. L. Calundo, 19-XII-1954 (E. LUNA DE CARVALHO et A. DE BARROS MACHADO) (Coll. K. B. I. N.).

Description. — Colour of the animal pale brown. Frons (Fig. 74) longer than broad (45 : 32) widest part at base, then strongly narrowing at level of antennae and slightly widening in upper part. Lateral carinae strongly elevated between eyes, median part strongly depressed. Ventral portion of frons with a transversal ridge and two lateral depressions.

Male genitalia : anal segment moderately long, genital styles resembling those of *Malenia quinquespinosa* SYNAVE. Aedeagus (Fig. 75) almost symmetrical, with five spines apically; two long ones on each side and a short median one along dorsal margin. One more stout spinose process emerging from apex and directed cephalically with a dorsal tooth on about halfway its length.

Total length : 4 mm.

Diagnosis. — This species is closely related to *Malenia quinquespinosa* SYNAVE. It differs from it by the shape of the aedeagal spines.

Etymology. — The name refers to the type locality.

Malenia furcifera n. sp.
(Figs. 76 to 78)

Material examined. — Holotype ♂ — Ivory Coast, Mt. Tonkoui 15/22-X-1973 ,Coll. LINNAVUORI).

Paratypes. — 1 ♂ 1 ♀, same locality (♂ in Coll. K. B. I. N.).

Description. — General colour stramineous. Frons twice as long as broad, widest part at level of subantennal processes, brown between keels. Vertex yellow, with two submedian brown spots. Major part of mesonotum brown, carinae and posterior border yellow. Legs yellow. Tegmina hyaline, slightly fumated with brown; veins yellow.

Male genitalia : anal segment (Fig. 77) moderately long. Genital styles (Fig. 78) with two apical teeth. Aedeagus (Fig. 76) tubular; left side with a flattened ventral spinose process directed caudally, right side with a triangular denticulated process and a blunt lobe near base.

Total length : 6 mm.

Diagnosis. — This species is easily distinguished by its bodily size and the unusual shape of the male genitalia.

Etymology. — The name refers to the apex of the genital styles.

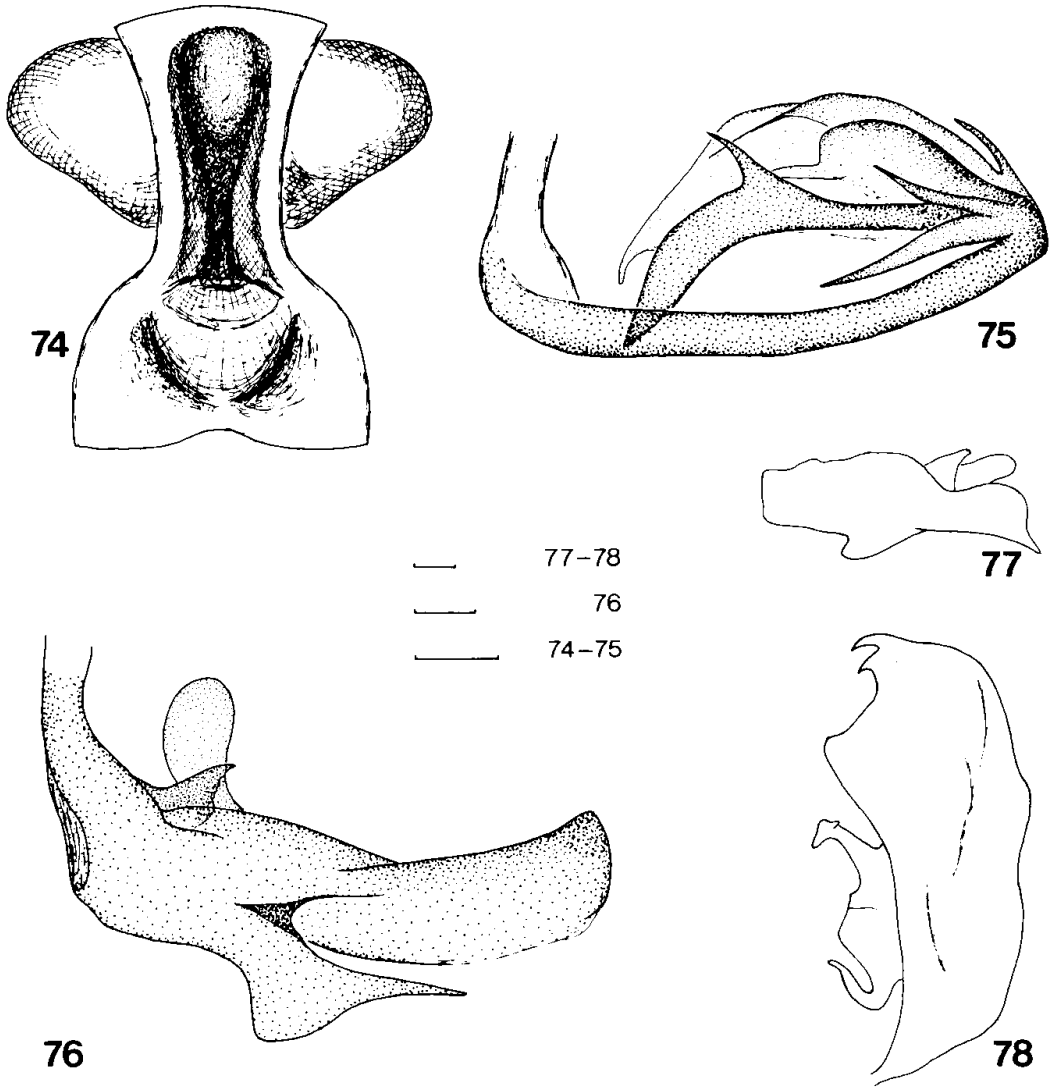


Fig. 74 and 75. — *Malenia angolensis* n. sp.
74 : frons; 75 : aedeagus.

Fig. 76 to 78. — *Malenia furcifera* n. sp.
76 : aedeagus; 77 : anal segment; 78 : left genital style.
Scale : 0.1 mm.

Patara nigeriensis SYNAVE

Patara nigeriensis SYNAVE, H., 1971, Bull. Inst. r. Sci. Nat. Belg., Ent., 47, 39, p. 15, figs. 29 to 32.

Genus Patara WESTWOOD

Material examined. — 1 ♀, Nigeria, Obudu cattle ranch, 18-VIII-1973; 2 ♀, nr. Okundi, 28-VI-1973 (Coll. LINNAVUORI).

Patara armata n. sp.
(Figs. 79 to 81)

Material examined. — Holotype ♂ — Nigeria, Obudu cattle ranch, 16/18-VIII-1973 (Coll. LINNAVUORI).

Description. — Colour uniformously brown. Tegmina hyaline, fumated with brown. Head convex in profile (Fig. 81); antennae cylindrical, about twice as long as broad; subantennal processes poorly developed.

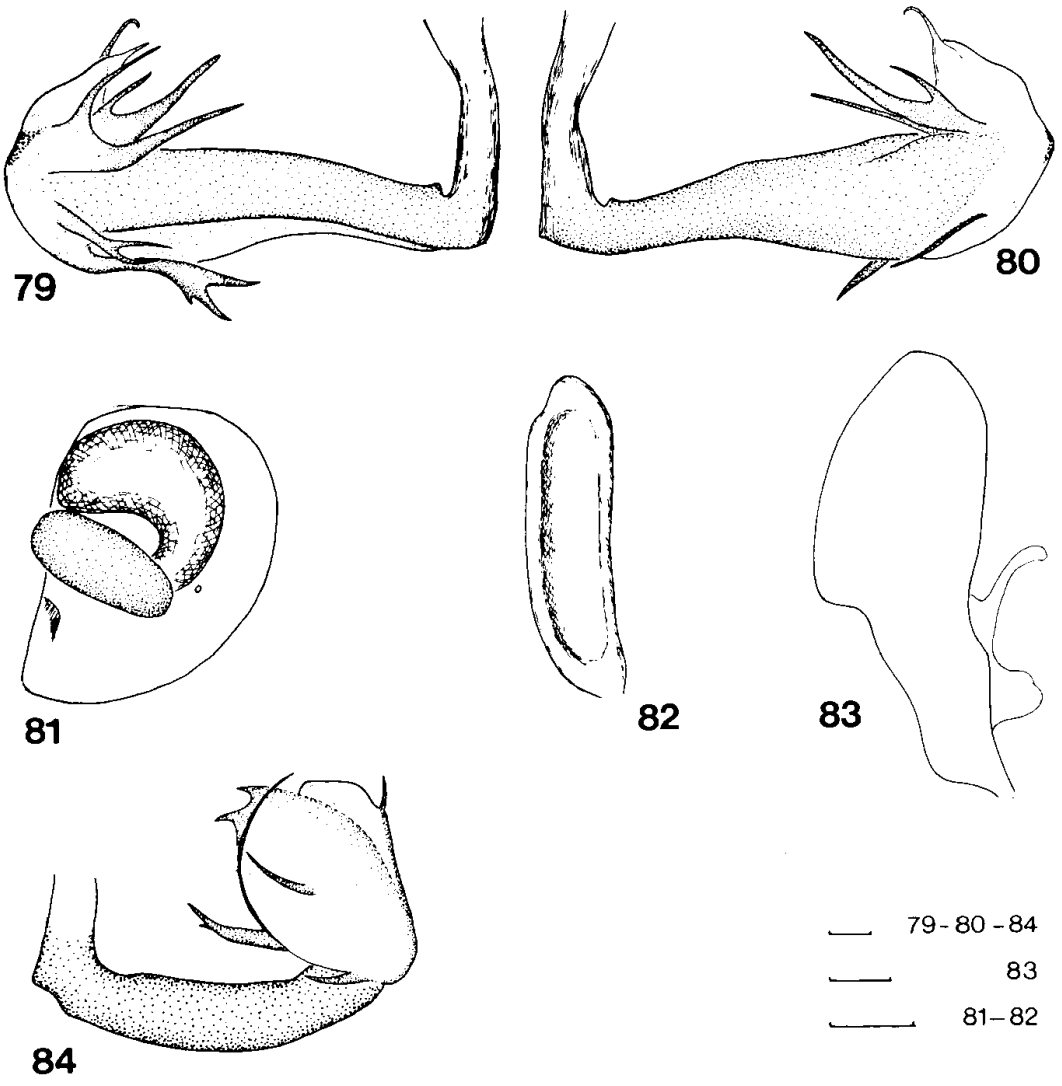


Fig. 79 to 81. — *Patara armata* n. sp.
79 . aedeagus, right lateral view; 80 : aedeagus, left lateral view; 81 : head, lateral view.

Fig. 82 to 84. — *Patara mambilae* n. sp.
82 : antenna; 83 : right genital style; 84 : aedeagus.
Scale : 0.1 mm.

Male genitalia : genital styles resembling those of *Patara kivuensis* SYNAVE. It differs from it by the shape of the aedeagal spines and by the form of the antennae.

Etymology. — The name is an allusion to the numerous spines on the aedeagus.

Patara mambilae n. sp.
(Figs. 82 to 84)

Material examined. — Holotype ♂ — Nigeria, Mambila, 23-VIII-1973 (Coll. LINNAVUORI).

Description. — Colour yellow. Antennae brown (Fig. 82), flattened (probably due to desiccation), four times as long as broad. Tegmina hyaline (apical part missing), fumated with brown, especially along borders; veins yellow.

Male genitalia : anal segment short. Genital styles as illustrated (Fig. 83). Apical part of aedeagus (Fig. 84) directed dorsally, with a small spine along its caudal margin, two slender spines on left side, a long and slender spine emerging from its base and gently curved dorsally, two apical teeth, and a small spine on right side; finally, a two-pronged spine emerging from base of flagellum and running cephalically.

Total length : 4.5 mm.

Diagnosis. — The species is characterised by its long antennae and by the shape of the male genitalia.

Etymology. — The name refers to the type locality.

Patara pusilla n. sp.
(Figs. 85 to 87)

Material examined. — Holotype ♂ — Nigeria, Ile-Ife, VI-1973 (Coll. K. B. I. N.).

Paratypes. — 3 ♂ 5 ♀, same locality (Coll. K. B. I. N.).

Description. — General colour yellowish. Distal part of meso- and metatibiae with a brown ring (protibiae missing). Antennae (Fig. 87) flattened, provided with a dorsal ridge, more than three times as long as broad. Subantennal process absent. Tegmina (Fig. 85) hyaline, with a dark spot on *Cu* and several indistinct brown suffusions divided as follows : a transverse band extending from bifurcation of common claval vein to costal margin; a brown spot along costal margin near bifurcation of *Sc* and *R*; a brown suffusion on inner apical cell and from apex of clavus to *M1*; finally, brown markings along the embranchements of *M* and along the subapical and apical transverse veinlets.

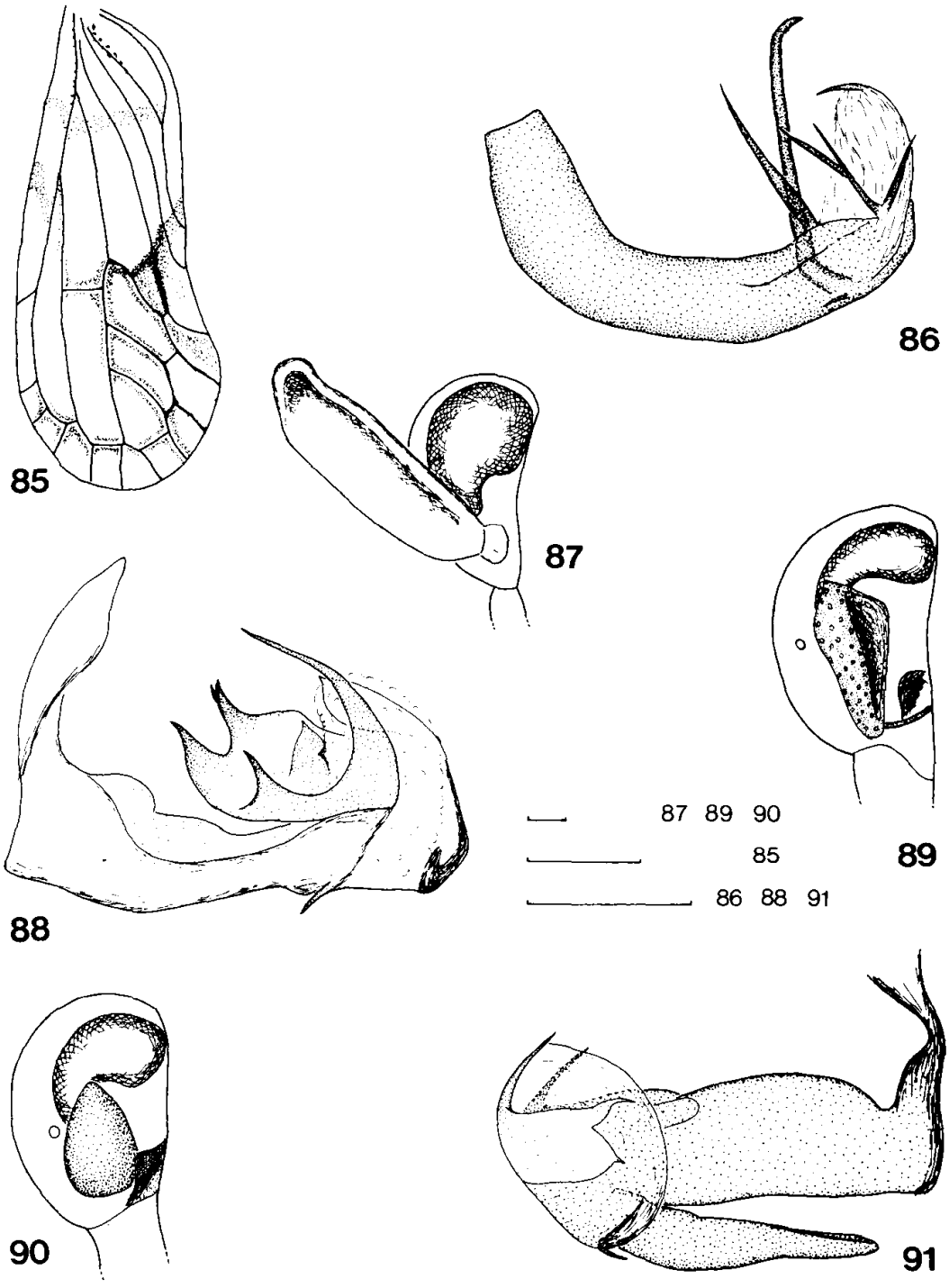


Fig. 85 to 87. — *Patara pusilla* n. sp.
85 : tegmen; 86 : aedeagus; 87 : head with antennae, lateral view.

Fig. 88 and 89. — *Patara tuberculata* n. sp.
88 : aedeagus; 89 : head with antennae, lateral view.

Fig. 90 and 91. — *Patara ovata* n. sp.
90 : head, lateral view; 91 : aedeagus.
Scale Fig. 85 : 1 mm; others : 0.1 mm.

Male genitalia : anal segment short with lateroapical angles only slightly produced. Aedeagus (Fig. 86) with seven spines divided as follows : a short and slightly curved spine on apex of flagellum, three slender spines inserted dorsally near apex of aedeagus and a fourth also inserted dorsally but more cephalically than the three others. A spine implanted apically on right side near ventral margin and running dorsally, subapically bended through about 90 degrees. Finally, a small spinose process (hardly visible) inserted near base of former and directed cephalically.

Total length : 3-3.5 mm.

Diagnosis. — This species is distinguished by the shape of antennae and aedeagus, and by the colour of the tegmina.

Etymology. — The name is an allusion to its small size.

Patara tuberculata n. sp.
(Figs. 88 & 89)

Material examined. — Holotype ♂ — Nigeria, Umuhaia, 11-IX-1975 (Coll. K. B. I. N.).

Description. — Frons, vertex, pronotum, mesonotum and abdomen dark brown; clypeus and legs yellow. Antennae (Fig. 89) dark brown, second segment large, widening in distal part; subantennal process present. Tegmina dark brown, distal half of costal margin and apical border coloured with red.

Male genitalia : anal segment short. Genital styles resembling those of *Patara radiata* SYNAVE. Aedeagus (Fig. 88) with a flattened spinose process on right side and a stout spine on left side directed cephalically, dorsally with four short tubercle-like spines, one of which is bifurcate. A short spine along ventral margin on about one third of apex.

Total length : 3.5-4 mm.

Diagnosis. — This species is distinguished by the colour of the tegmina, the shape of the antennae, and the form of the aedeagus.

Etymology. — The name refers to the tubercle-like spines on the aedeagus.

Patara ovata n. sp.
(Figs. 90 & 91)

Material examined. — Holotype ♂ — Nigeria, Ile-Ife, 25-VIII-1970 (Coll. K. B. I. N.).

Description. — Colour ivory white throughout. Tegmina milky hyaline. Second segment of antennae ovoid; subantennal process present (Fig. 90).

Male genitaia : anal segment very short. Aedeagus (Fig. 91) dorsolaterally compressed, covered on right side with a semicircular membraneous sheat and provided with spines inserted as follows : two thin dorsal spines, a slender ventral spine inserted on right side and running over apex to left side, and a large oblong process with a blunt apex running along the ventral margin.

Total length : 3.5-4 mm.

Diagnosis. — This species is distinguished by the ovoid antennae, the uniform colour and the shape of the aedeagus.

Etymology. — The name refers to the ovoid antennae.

Patara recurvata n. sp.
(Figs. 92 & 93)

Material examined. — Holotype ♂ — Nigeria, Obudu cattle ranch, 2-III-1971 (Coll. K. B. I. N.).

Paratype. — 1 ♀, same locality (Coll. K. B. I. N.).

Description. — Frons gently rounded in profile; antennae simple, second segment almost twice as long as broad (1 : 1.9); subantennal process present. General colour yellow. Tegmina (Fig. 92) with proximal part pale yellowish, white at level of apex of clavus, and brown in distal portion; veins yellow except for apical transverse veinlets which are dark brown.

Male genitalia : anal segment long, lateroapical angles not produced. Genital styles like those of *Patara apicemaculata* SYNAVE. Aedeagus (Fig. 93) long and tubular, with an apical flagellum and four spines divided as follows : a long and slender spine arising apically on left side and directed cephalically; three spines arising from right side : two short ones, and a long one directed dorsally and then recurved caudally; finally, a small tooth along dorsa margin of fagellum and another on apex of aedeagus.

Total length : 5-5.5 mm.

Diagnosis. — This species is distinguished by the colour of the tegmina and the aedeagal armature.

Etymology. — The name « *recurvata* » refers to the typically recurved aedeagal spine.

Patara rusticola n. sp.
(Fig. 94 to 96)

Material examined. — Holotype ♂ — Nigeria, Obudu cattle ranch, 21-III-1971 (Coll. K. B. I. N.).

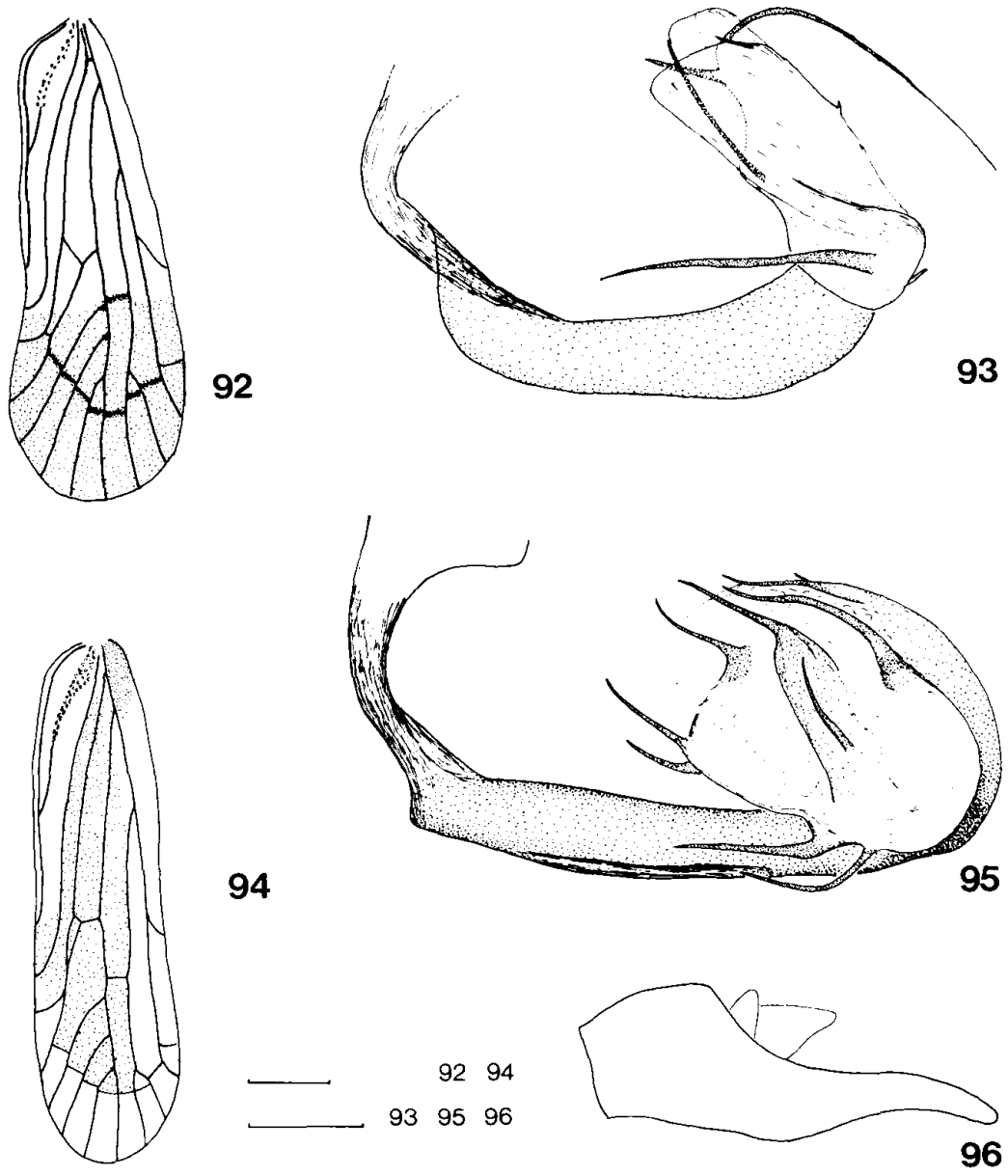


Fig. 92 and 93. — *Patara recurvata* n. sp.
92 : right tegmen; 93 : aedeagus.

Fig. 94 to 96. — *Patara rusticola* n. sp.
94 : right tegmen; 95 : aedeagus; 96 : anal segment.
Scale Fig. 92, 94 : 1 mm; others : 0.1 mm.

D e s c r i p t i o n . — Frons, mesonotum and abdomen brown; clypeus, antennae, pronotum and legs yellowish. Antennae flattened (probably due to desiccation), triangular, almost as broad as long. Tegmina (Fig. 94) milky hyaline along borders; radial cell, median sectors, cubital cell, base of subcostal cell and apex of clavus fumated with brown. Veins whitish, except for *M, Cu,* and distal part of *R,* which are brown.

Male genitalia : anal segment short (Fig. 96), with strongly produced lateroapical angles. Aedeagus (Fig. 95) long and tubular, with a large

apical flagellum, armed with nine slender spines on left side and one short spine on right side close to dorsal margin.

Total length : 5.5-6 mm.

Diagnosis. — This species distinguished by the colour of the tegmina and by the form of the aedeagus.

Etymology. — The name refers to the surroundings where it was captured (cattle ranch).

Genus Amania SYNAVE

Amania quadrispinosa n. sp.
(Figs. 97 to 99)

Material examined. — Holotype ♂ — Ivory Coast, Mt. Tonkoui, 22-X-1973 (Coll. LINNAVUORI).

Description. — General colour brown, legs paler. Tegmina hyaline, slightly fumated with brown, a few indistinct spots in outer apical cells; veins concolorous, except for proximal part of costal margin, *Sc*, *R*, *M* and *Cu*, which are brown.

Male genitalia : anal segment (Fig. 97) short, slightly asymmetrical in dorsal view. Genital styles as illustrated (Fig. 98). Aedeagus (Fig. 99) with a thin and membraneous flagellum and four apical spines.

Total length : 5-5.5 mm.

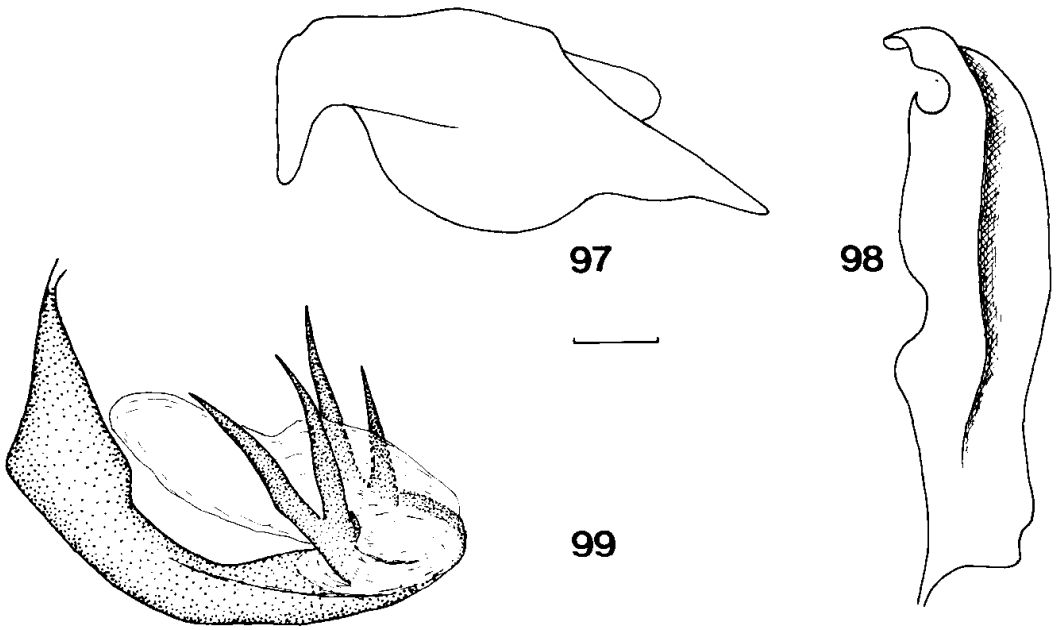


Fig. 97 to 99. — *Amania quadrispinosa* n. sp.
97 : anal segment; 98 : left genital style; 99 : aedeagus.
Scale : 0.1 mm.

Diagnosis. — The genus *Amania* was established by SYNAVE (1972) and hitherto contained one species, namely *Amania angustifrons* (MELICHAR), recorded from Amani, Tanzania, and from which the male is unknown. *Amania quadrispinosa* n. sp. is distinguished from the latter by the absence of a transverse band and by the different colour of the veins.

Etymology. — The name refers to the number of aedeagal spines.

Genus Paraphenice MUIR

Paraphenice neavei MUIR

Paraphenice neavei MUIR, F., 1918, Ent. Monthl. Mag., 54, p. 235.

Material examined. — 3 ♀, Nigeria, nr. Okundi, 28-VI-1973; 1 ♂, Olokemeji forest, 9-VII-1973; 1 ♂, Ijebu-Ode-Ore, 14-VII-1973; 1 ♀, Ife, 14-VIII-1973; 1 ♂ 3 ♀, Kagoro forest, 30-VIII-1973 (Coll. LINNAVUORI).

Paraphenice decellei SYNAVE

Paraphenice decellei SYNAVE, H., 1968, Ann. Mus. Roy. Afr. Centr., in 8°, n° 165, p. 451, fig. 9-12.

Material examined. — 1 ♀, Ivory Coast, Man. 21-X-1973 (Coll. LINNAVUORI).

Paraphenice angusta n. sp.
(Figs. 100 to 103)

Material examined. — Holotype ♂ — Nigeria, Ilora, 14-IV-1975 (Coll. K. B. I. N.).

Description. — Head, pronotum and legs pale yellowish. Mesonotum reddish brown, abdomen red. Tegmina (Fig. 100) brown with hyaline markings divided as illustrated. Costal margin white, major part of veins orange, except for proximal part of median and cubital embranchements, and transverse veinlets, which are brown.

Male genitalia : anal segment (Fig. 101) broad, moderately long, and flattened apically. Pygofer (Fig. 101) with dorsolateral angles protruding, posterior lateral margins slightly concave, with a blunt and rather asym-

metrical medioventral process (Fig. 102). Genital styles as illustrated (Fig. 101). Apex of aedeagus (Fig. 103) quadrate and slightly upcurved dorsally, with a series of spinose processes directed cephalically : a two-pronged spine along ventral margin, three spinose processes along dorsal border and a fourth flattened lamelliform process curved dorsally; behind these a vesicular and minutely denticulated process communicating on right side with a membraneous vesicle.

Total length : 7.5 mm.

D i a g n o s i s . — The species is characterised by the colour of the tegmina and the shape of the male genitalia.

E t y m o l o g y . — The name refers to the general habitus of the species.

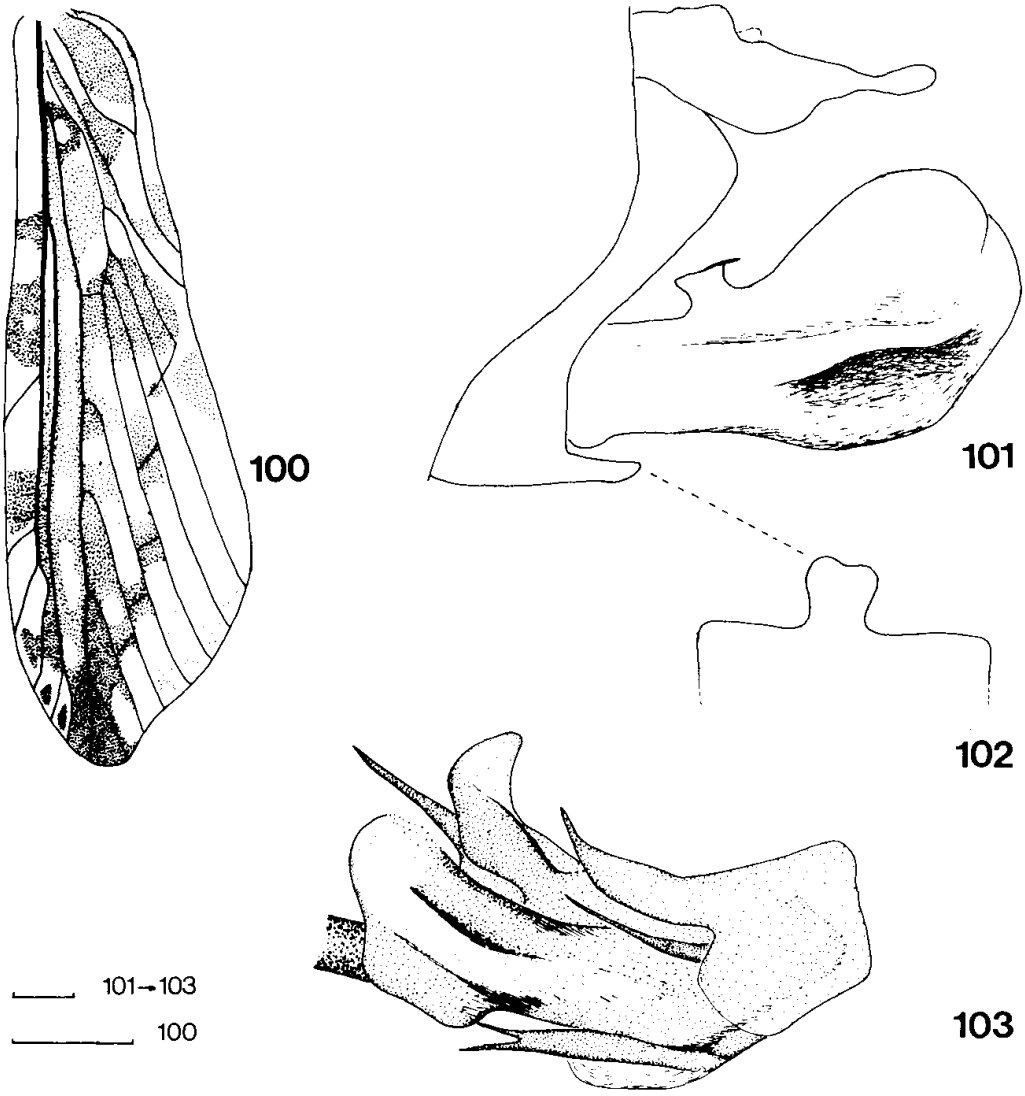


Fig. 100 to 103. — *Paraphenice angusta* n. sp.
100 : tegmen; 101 : anal segment, pygofer and genital style;
102 : medioventral process of pygofer; 103 : aedeagus.
Scale Fig. 100 : 1 mm; others : 0.1 mm.

Paraphenice hyalina n. sp.
(Figs. 104 to 107)

Material examined. — Holotype ♂ — Nigeria, Ile-Ife, 28-II-1970 (Coll. K. B. I. N.).

Description. — Head and legs pale yellowish to white; pronotum ivory white; mesonotum and abdomen yellow. Tegmina (Fig. 104) hyaline with translucent markings as figured and a brown spot along apex.

Male genitalia : anal segment short, pygofer with a parallel-sided and symmetrical medioventral process (Fig. 106). Genital styles as illustrated (Fig. 107), deflexed apically. Aedeagus (Fig. 105) with six lamelliform spinose processes and one thin spine, all inserted apically and running cephalically.

Total length : 6.5-7 mm.

Diagnosis. — The species is characterised by the hyaline tegmina and the shape of the male genitalia.

Etymology. — The name refers to the hyaline tegmina.

Genus Phenice WESTWOOD

Phenice bicornis MUIR

Phenice bicornis MUIR, F., 1930, Ann. Mag. Nat. Hist. (10), 5, p. 81, fig. 2, 3.

Material examined. — 1 ♂, Ivory Coast, Maraoué, 13-X-1973 (Coll. LINNAVUORI).

Phenice stellulata BOHEMAN

Phenice stellulata BOHEMAN, C. H., 1838, Handl. Svenska Vet. Akad., 58, p. 228, pl. VII, fig. 12, 16.

Material examined. — 2 ♂ 1 ♀, Central African Republic, La Maboke, 9-VI-1973; 1♂, Togo, Atakpamé-Bena, 12-IX-1973 (Coll. LINNAVUORI).

Phenice distincta n. sp.
(Figs. 108 to 111)

Material examined. — Holotype ♂ — Nigeria, Ilora, 4-IV-1975 (Coll. K. B. I. N.).

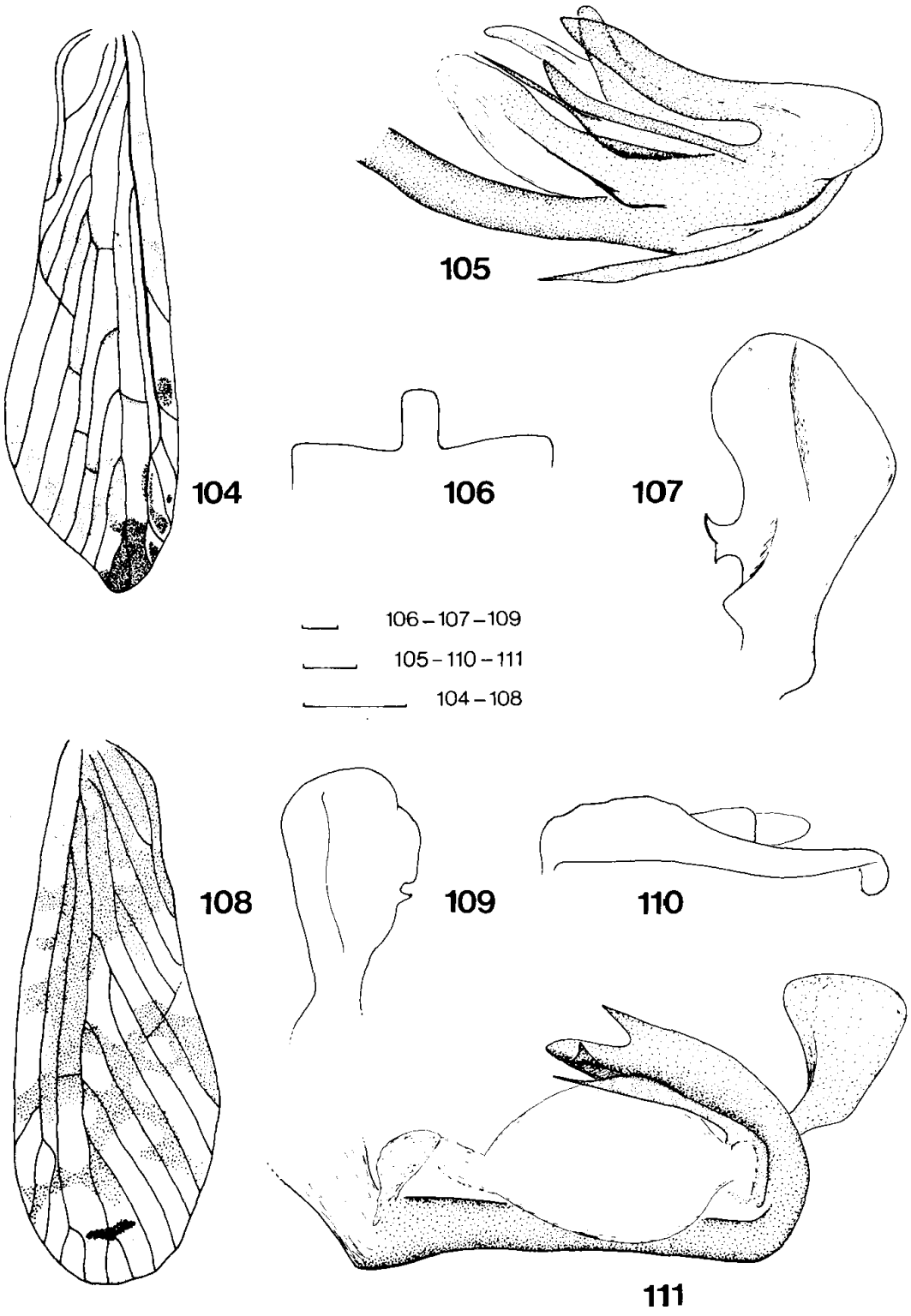


Fig. 104 to 107. — *Paraphenice hyalina* n. sp.
104 : tegmen; 105 : aedeagus; 106 : medioventral process of pygofer;
107 : left genital style.

Fig. 108 to 111. — *Phenice distincta* n. sp.
108 : tegmen; 109 : right genital style; 110 : anal segment; 111 : aedeagus.
Scale Fig. 104, 108 : 1 mm; others : 0.1 mm.

Description. — Head, pronotum, mesonotum and abdomen pale yellowish, legs whitish. Antennae short, less than twice as long as broad (24 : 15). Tegmina (Fig. 108) infuscate, with hyaline areas as illustrated, and a dark spot near apex. *R*, *M* and distal part of *Sc* yellow. Major part of wings fumated with brown; veins brown.

Male genitalia : anal segment (Fig. 110) short, slightly deflexed apically. Genital styles (Fig. 109) as figured, acute and incurved apically. Aedeagus (Fig. 111) with a membraneous vesicle, and three processes inserted apically : a slender spinose process running cephalically and minutely denticulated apically along its dorsal surface; a second concave spine, bearing two small teeth near apex, and a third lamelliform process, narrow at base and abruptly widening distally.

Total length : 6.5 mm.

Diagnosis. — This species is distinguished by the colour of the tegmina and the shape of the male genitalia.

TRIBUS OTIOCERINI

Genus Pyrrhoneura KIRKALDY

Pyrrhoneura nigeriensis n. sp.
(Figs. 112 to 115)

Material examined. — Holotype ♂ — Nigeria, Obudu cattle ranch, 23-III-1971 (Coll. K. B. I. N.).

Description. — Frons almost straight in profile, slightly convex; vertex triangular. Antennae (Fig. 113) long and flattened, more than three times as long as broad, widest part at middle narrowing towards apex, margins thickened. General colour of animal ivory white, antennae and abdomen fumated with brown. Tegmina (Fig. 114) hyaline, partly fumated with brown along costal and apical margin, and a brown spot between commisural border and common claval vein; veins dark brown, except *Sc* + *R*, distal part of *Cu*, proximal portion of *Cu2* and *Cu3*, and apical veins which are hyaline.

Male genitalia : anal segment (Fig. 112) short; dorsolateral angles of pygofer rounded and slightly produced, posterior lateral margins straight. Genital styles with a small appendix along their outer margin. Aedeagus (Fig. 115) tubular, with an apical flagellum bearing three spines directed cephalically : two along dorsal margin and one facing left side.

Total length : 8 mm.

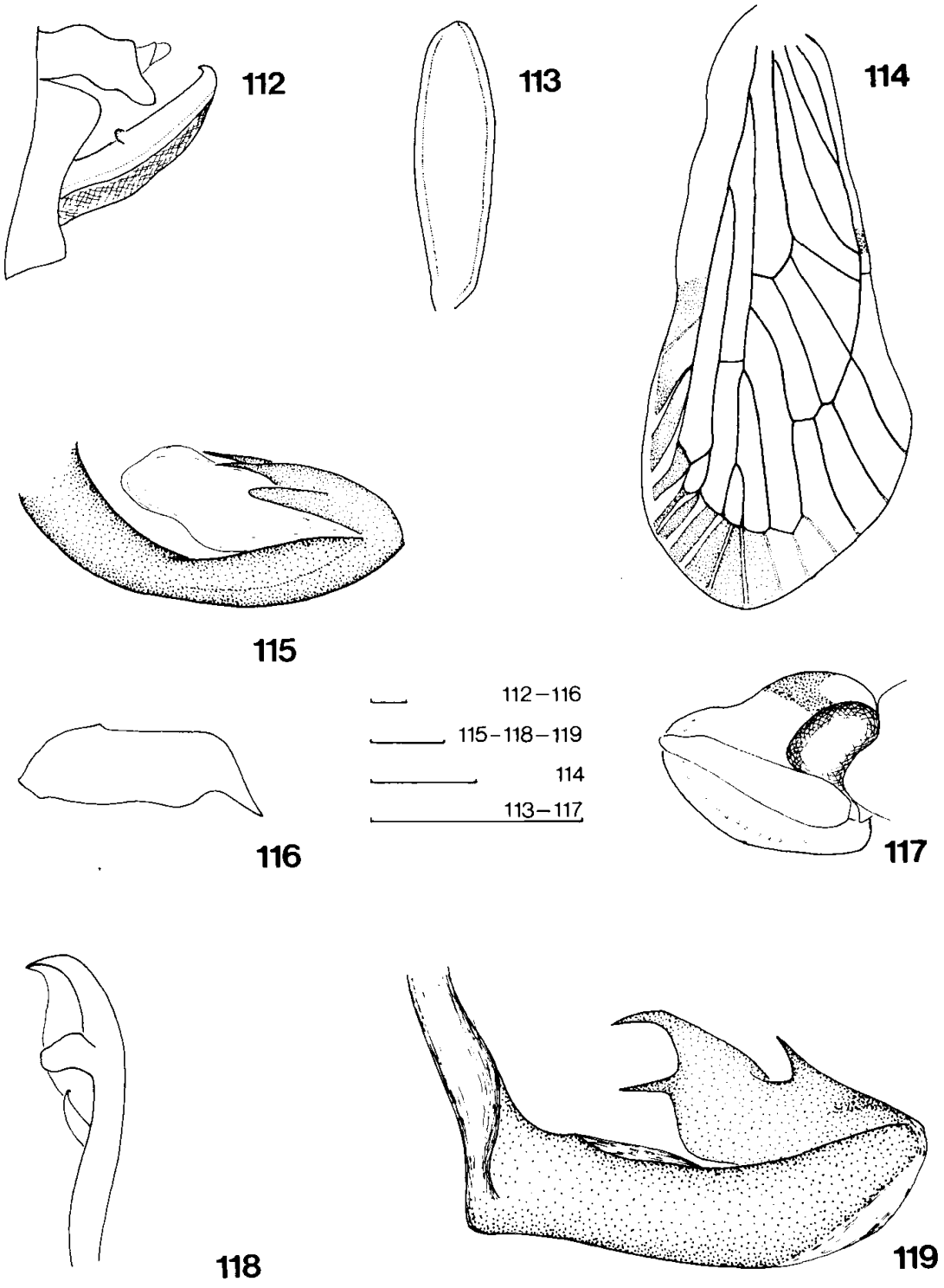


Fig. 112 to 115. — *Pyrrhoneura nigeriensis* n. sp.
112 : anal segment, pygofer and genital style; 113 : antenna;
114 : left tegmen; 115 : aedeagus.

Fig. 116 to 119. — *Robigus pattersoni* MUIR
116 : anal segment; 117 : head, lateral view; 118 : genital style; 119 : aedeagus.
Scale Fig. 113, 114, 117 : 1 mm; others : 0.1 mm.

Diagnosis. — This species differs from *Pyrrhoneura mlanjensis* MUIR (Nyassaland) by the colour of the tegmina, the shape of the antennae and the body length. The male of *Pyrrhoneura mlanjensis* is unknown.

Genus Robigus DISTANT

Robigus pattersoni MUIR
(Figs. 116 to 119)

Robigus pattersoni MUIR, F., 1918, Ent. Month. Mag., 54, p. 241.

Material examined. — 1 ♂, Ivory Coast, Maraoue, 13-X-1973 (Coll. K. B. I. N.).

Comments. — For unknown reasons, this species was not included in the monography of Dr. SYNAVE. It was described by MUIR on one male from Aburi (Ghana). We discovered one male in the collection of Dr. LINNAVUORI which could be identified as *Robigus pattersoni* MUIR. : the characters agree with the descriptions given by MUIR; however, this specimen has an additional brown spot above the eye (Fig. 117), and the tegmina are fairly mutilated. The anal segment, genital styles, and aedeagus are illustrated in this paper (Figs. 116, 118 and 119). The latter is symmetrical, with three spines on each side.

Genus Mysidioides MATSUMARA

Mysidioides africana MUIR

Mysidioides africana MUIR, F., 1923, Ann. Mag. Nat. Hist. (9), II, p. 560.

Material examined. — 1 ♂, Ivory Coast, Maraoue, 13-X-1973 (Coll. K. B. I. N.); 1 ♀, Dajo-Ibake, 10-X-1976 (Coll. DESMIER).

Genus Kamendaka DISTANT

Kamendaka ugandensis MUIR

Kamendaka ugandensis MUIR, F., 1928, Ann. Mag. Nat. Hist. (10), 1, p. 506, fig. 10 a-b, 11.

Material examined. — 2 ♂ 2 ♀, Central African Republic, La Maboke, 9-VI-1973; 1 ♂, Cameroon, Mt. Cameroon, 18-VI-1973; 1 ♂, 3 ♀, Nigeria, Kagoro forest, 7-VIII-1973; 1 ♀, Ibadan 22-VII-1968 (J. C.

DEEMING (Coll. LINNAVUORI); 1 ♂ 2 ♀, Obudu, 27-IX-1973; 1 ♀, the Sudan, Equatoria, Aloma plateau, Yei-Iwatoka road, 13-IV-1963, 1 ♀, Ethiopea, Gembi nr. Agaro, 15-VI-1963; 1 ♀, Cameroon, Kumba-Mamfé, 23-VI-1973 (Coll. K. B. I. N.).

Comments. — This species was previously known from Uganda, Zaire and Kenya. Its range now extends into the Sudan, Ethiopia, the Central African Republic, Cameroon and Nigeria.

Kamendaka ifeana SYNAVE

Kamendaka ifeana SYNAVE, H., 1971, Bull. Inst. r. Sci. nat. Belg., 47, 39, p. 16, Fig. 33-38.

Material examined. — 1 ♀, Nigeria, Owena, IX-1974 (Coll. K. B. I. N.); 1 ♂, Ikom-Obudu, 25-VI-1973; 4 ♀, Cameroon, Kumba-Mamfé, 23-VI-1973; 1 ♂, Togo, Bena, 12-IX-1973 (Coll. LINNAVUORI).

Kamendaka izzardi SYNAVE

Kamendaka izzardi SYNAVE, H., 1972, Etudes Cont. afr., fasc. 2, p. 202, fig. 486-491.

Material examined. — 1 ♂, Nigeria, Ilora, VIII-1974 (Coll. K. B. I. N.).

Kamendaka minor MUIR

Kamendaka minor MUIR, F., 1928, Ann. Mag. Nat. Hist. (10), I, p. 508, fig. 14 a, b.

Material examined. — 1 ♂, Nigeria, nr. Mbiana, 5-VIII-1973 (Coll. K. B. I. N.).

Kamendaka hyalina SYNAVE

Kamendaka hyalina SYNAVE, H., 1972, Etudes Cont. afr., fasc. 2, p. 209, fig. 509-514.

Material examined. — 1 ♂, Nigeria, Makurdi, 30-VII-1973; 1 ♂, Olokemeji forest, 9-VII-1973; 5 ♂ 3 ♀, Kagoro forest, 7-VIII-1973 (Coll. K. B. I. N. & Coll. LINNAVUORI).

Comments. — This species was hitherto recorded from one male (the Sudan, Maradi-Ibba).

Kamendaka albomaculata MUIR

Kamendaka albomaculata MUIR, F., 1926, Ann. Mag. Nat. Hist., (9), 104, p. 230, fig. 4-6.

Material examined. — 1 ♂, Nigeria, nr. Okundi, 28-VI-1973 (Coll. LINNAVUORI); 1 ♀, Iboke, on *Elaeis guineensis*, 2-X-1976 (Coll. DESMIER).

Kamendaka pseudalbomaculata MUIR

Kamendaka pseudalbomaculata MUIR, F., 1928, Ann. Mag. Nat. Hist. (10), 1, p. 505, fig. 9, 9b.

Material examined. — 1 ♀., Cameroon, Ayos-Yaoundé, 14-VI-1973) (Coll. K. B. I. N.); 1 ♀, Nigeria, Lagos, Ikoyi park, 19-I-1973 (J. C. DEEMING) (Cool. LINNAVUORI).

Kamendaka camerunensis n. sp.
(Figs. 120 & 121)

Material examined. — Holotype ♂ — Cameroon, Abong-Mbang — Ayos, 13-VI-1973 (Coll. LINNAVUORI).

Description. — Frons gently rounded in profile, not protruding, with an indistinct notch near junction with vertex. General colour yellowish. Tegmina hyaline (partly damaged and missing), veins concolorous.

Male genitalia : anal segment short (Fig. 121), lateroapical angles moderately long and tapering, deflexed ventrally. Genital styles like those of *Kamendaka ifeana* SYNAVE. Aedeagus (Fig. 120) with four long spines of subequal length, inserted apically and directed cephalically.

Total length : 6 mm.

Diagnosis. — In SYNAVE's key, this species runs to number 6 (*Kamendaka ifeana* SYNAVE and *K. izzardi* SYNAVE). The genitalia show that it is closely related to *Kamendaka ifeana* SYNAVE. However, in *Kamendaka camerunensis* n. sp. the lateroapical angles of the pygofer are longer, and the spinose processes of the aedeagus have a different form. Also, the colour of this species is totally different : *Kamendaka camerunensis* bears hyaline tegmina instead of dark brown tegmina, as is the case with *Kamendaka ifeana*.

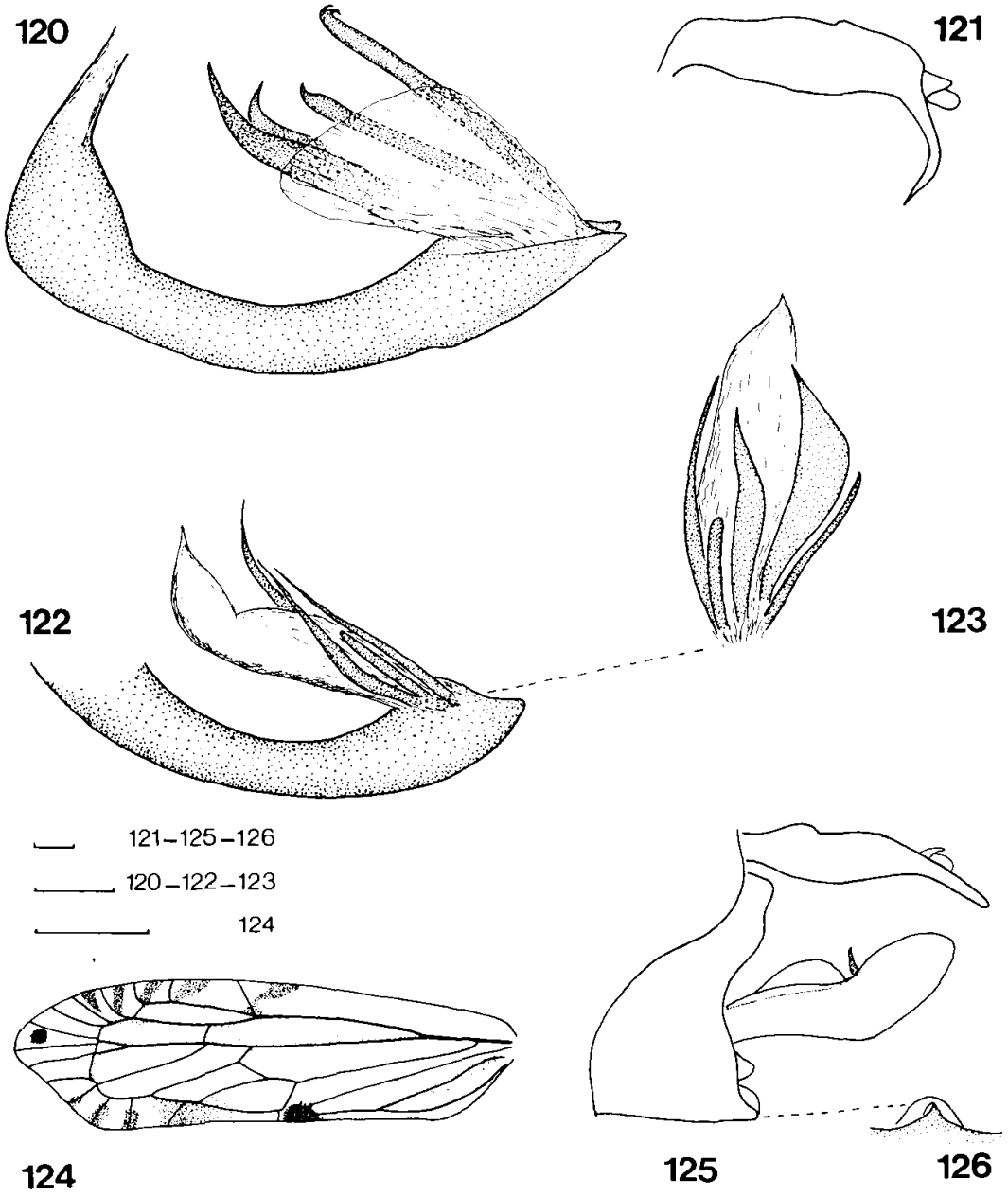


Fig. 120 and 121. — *Kamendaka camerunensis* n. sp.
120 : aedeagus; 121 : anal segment.

Fig. 122 to 126. — *Kamendaka pulcher* n. sp.
122 : aedeagus; 123 : apex of aedeagus, dorsal view; 124 : tegmen;
125 : anal segment, pygofer and genital style; 126 : medioventral process of pygofer.
Scale Fig. 124 : 1 mm; others : 0.1 mm.

Kamendaka pulcher n. sp.
(Figs. 122 to 126)

Material examined. — Holotype ♂ — Nigeria, Benin, 1-IV-1975 (Coll. K. B. I. N.).

D e s c r i p t i o n . — Frons rounded in profile, without a notch. Vertex, frons and lateral parts of pronotum white, frons with a yellow streak at level of eyes. Clypeus, pronotum, mesonotum, abdomen and legs yellow. Tegmina (Fig. 124) hyaline, with a black spot on apex of clavus and tegmina, and a series of short brown streaks along distal portion : five along costal margin between apical veins and three along inner border covering apical vein. *M*, *Cl 1*, and a indistinct streak near apex yellow.

Male genitalia : anal segment (Fig. 125) moderately long. Pygofer short dorsally, longer ventrally, dorsolateral angles rectangular, posterior lateral margin irregularly sinuated, ventrally with a doubled medioventral process (Fig. 126). Aedeagus (Fig. 122 & 123) with an apical membraneous flagellum and five spinose processes running cephalically.

Total length : *5* mm.

D i a g n o s i s . — *Kamendaka pulcher* n. sp. is separated from other species by the colour of the tegmina and the shape of the male genitalia.

Kamendaka punctata n. sp.
(Figs. 127 to 131)

M a t e r i a l e x a m i n e d . — Holotype ♂ — Nigeria, Ile-Ife, 7-VII-1972 (Coll. K. B. I. N.).

D e s c r i p t i o n . — Frons, vertex and pronotum white; frons slightly convex in profile, not protruding, without a notch near junction with vertex, but with a small dark spot just below middle. Clypeus mesonotum, abdomen and legs yellow. Tegmina (Fig. 127) and wings milky hyaline, first with six distinct dark spots; one between *Sc* + *R* and *M*, one between *M* and *Cu*, one near apex of clavocorial suture, one near common claval vein, one between *Cl1* and *Cl2* and one on apex of tegmina. Besides these, the tegmina are coloured in the distal half with a series of paler brown suffusions as illustrated (Fig. 127). Veins white, *R* and *M* yellow.

Male genitalia : anal segment (Fig. 131) short with blunt lateroapical angles. Dorsoapical angles of pygofer (Fig. 131) produced into a tapering spinose process; posterior lateral margins straight and ventral border with a medioventral process (Fig. 129). Genital styles rather short (Fig. 130). Aedeagus tubular (Fig. 128), with an apical membraneous flagellum and a stout apical spine directed dorsocephalically.

Total length : 5-5.5 mm.

D i a g n o s i s . — In SYNAVE's key, this species runs to *Kamendaka hyalina SYNAVE*. It differs from the latter by the shape of the male genitalia and the colour of the tegmina.

E t y m o l o g y . — The name refers to the dark point-like spots on the tegmina.

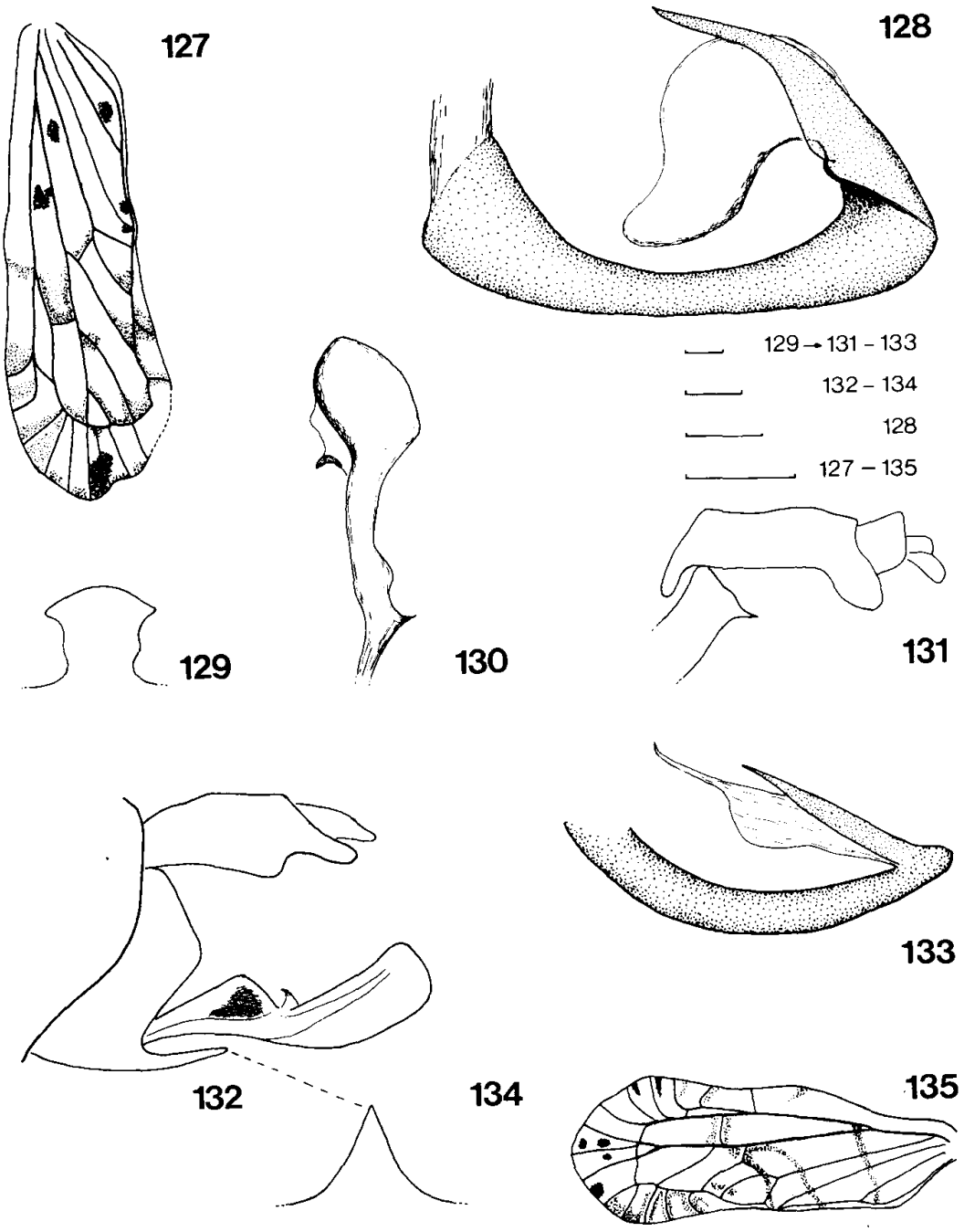


Fig. 127 to 131. — *Kamendaka punctata* n. sp.
127 : right tegmen; 128 : aedeagus; 129 : medioventral process of pygofer;
130 : left genital style; 131 : anal segment and dorsal part of pygofer.

Fig. 132 to 135. — *Kamendaka transversistriata* n. sp.
132 : anal segment, pygofer and genital style; 133 : aedeagus;
134 : medioventral process of pygofer; 135 : left tegmen.
Scale Fig. 127, 135 : 1 mm; others : 0.1 mm.

Kamendaka transversistriata n. sp.
(Figs. 132 to 135)

Material examined. — Holotype ♂ — Nigeria, Ile-Ife, IX-1971 (Coll. K. B. I. N.).

Paratypes. — 1 ♂, same locality; 1 ♀, same locality, 29-XIII-1970; 1 ♀, Udo FR, 11-IV-1975 (Coll. K. B. I. N.).

Description. — Frons slightly convex in profile, without a notch, meeting the vertex in a rather sharp edge. Colour ivory white, an indistinct brown streak on frons at level of eyes; legs partly tinged with brown. Tegmina milky hyaline with six dark spots in apical cells and brown markings divided as follows : a transverse band extending from claval veins to bifurcation of *Sc* + *R* and *M*; a second and third band extending respectively from middle and apex of common claval vein to embranchment of *M1*; indistinct suffusions on four inner apical veins and on transverse veinlet between *R* and *M*, and finally, three more indistinct marks along costal margin.

Diagnosis. — This species is separated from other *Kamendaka* species by the different colour of the tegmina and by the shape of the male genitalia.

Etymology. — The name is an allusion to the transverse bands on the tegmina.

Kamendaka frontistriata n. sp.
(Fig. 136 to 141)

Material examined. — Holotype ♂ — Nigeria, Udo FR, 11-IV-1975 (Coll. K. B. I. N.)

Description. — Frons and pronotum pale yellowish; first gently rounded in profile with two brown streaks (Fig. 137) : one at level of eyes continuing on pronotum and one on junction with clypeus continuing on lateral parts of mesonotum. Clypeus and mesonotum yellowish brown. Legs yellowish, protibiae, protarsi and upper part of profemora black, mesotarsi, distal part of mesofemora and proximal portion of mesotibiae dark brown. Tegmina (Fig. 138) milky hyaline, with some indistinct brownish suffusions and five dark spots divided as follows : one between claval veins, one on apex of common claval vein, one on proximal part of median cell, one in costal cell near furcation of *Sc* and *R* and finally, one spot covering the middle apical cell.

Male genitalia : anal segment (Fig. 139) long, apical angles tapering and strongly deflected ventrally. Medioventral process of pygofer (Fig.

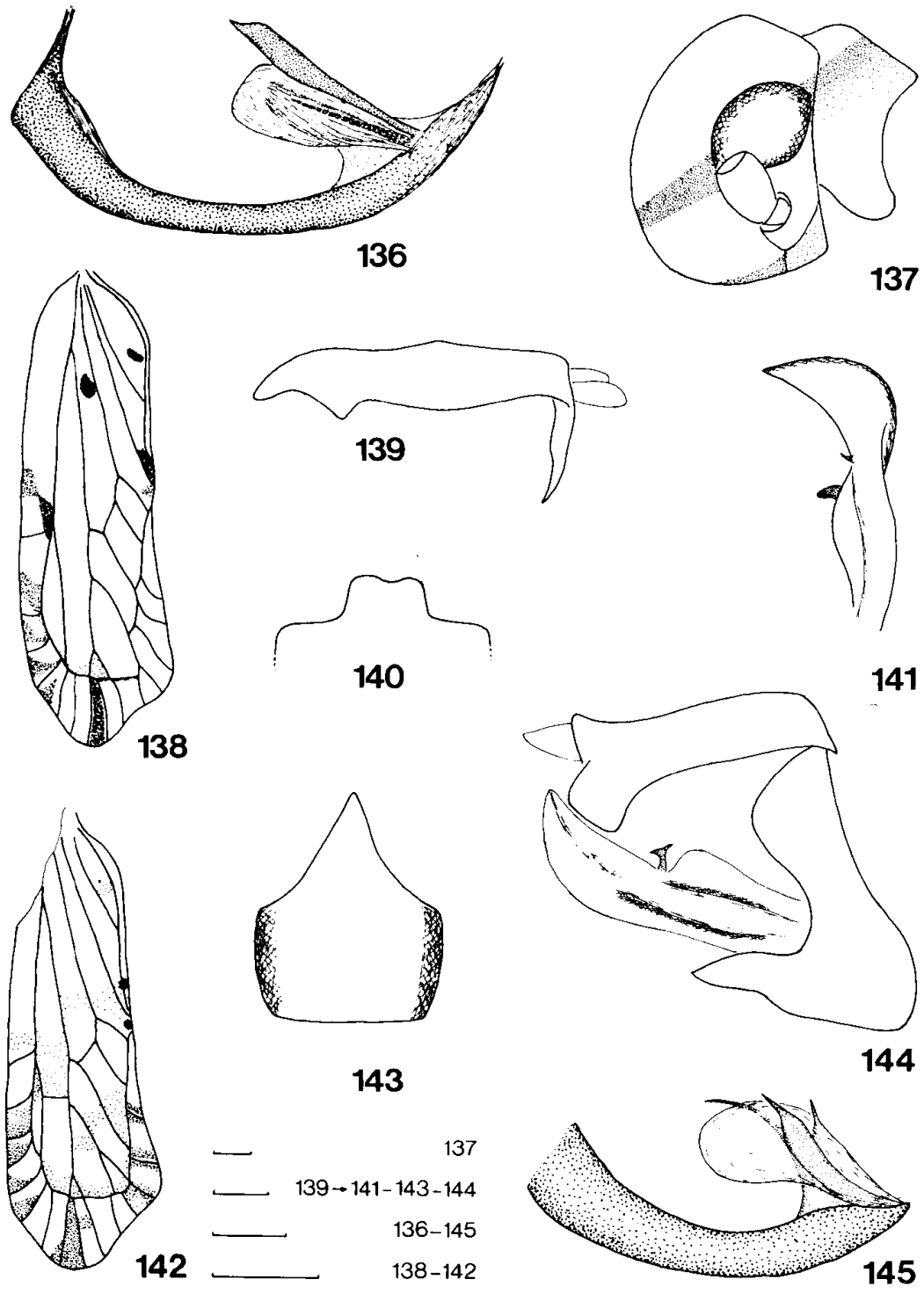


Fig. 136 to 141. — *Kamendaka frontistriata* n. sp.
136 : aedeagus; 137 : head, lateral view; 138 : tegmen; 139 : anal segment;
140 : medioventral process of pygofer; 141 : genital style.

Fig. 142 to 145. — *Kamendaka triangularis* n. sp.
142 : tegmen : 143 : medioventral process of pygofer;
144 : anal segment, pygofer and genital style; 145 : aedeagus.
Scale Fig. 138, 142 : 1 mm; others : 0.1 mm.

140) quadrate and shallowly incised apically. Genital styles as illustrated (Fig. 141), with a small spinose process along their outer margin and a stout spine along their inner border. Aedeagus (Fig. 136) tubular and tapering apically, with a subapical membraneous flagellum and two spinose processes directed cephalically.

Total length : 6 mm.

Diagnosis. — This species is characterised by the brown streaks on the frons, the colour of the tegmina, and the shape of the male genitalia.

Etymology. — The name refers to the brown streaks on the frons.

Kamendaka triangularis n. sp.
(Figs. 142 to 145)

Material examined. — Nigeria, Ile-Ife, 20-II-1973 (Coll. K. B. I. N.).

Description. — Frons slightly convex in profile, angulately meeting with vertex (like *Kamendaka hyalina* SYNAVE). Frons, vertex pronotum and legs ivory white, frons with a brown streak on one third of base. Abdomen yellowish. Tegmina (Fig. 142) milky hyaline, with indistinct dark suffusions and two dark spots along commisural suture near junction with common claval vein, and a series of brown marks along apical veinlets; veins pale.

Male genitalia : anal segment (Fig. 144) with blunt lateroapical angles; pygofer with dorsolateral angles protruding and convex (Fig. 144) and a large triangular medioventral process (Fig. 143). Genital styles as illustrated (Fig. 144). Apical flagellum of aedeagus (Fig. 145) provided with three spinose processes : a broad one on left side, a slender one on right side and a short one along membraneous part of flagellum.

Total length : 5-5.5 mm.

Diagnosis. — This species is characterised by the marks on the tegmina, the triangular medioventral process of the pygofer, and the form of the aedeagus.

Etymology. — The name refers to the triangular process of the pygofer.

Kamendaka gashakae n. sp.
(Figs. 146 to 148)

Material examined. — Holotype ♂ — Nigeria, Gashaka, 26-III-1970 (Coll. K. B. I. N.).

Description. — Frons gently convex in profile, angulately meeting with vertex. General colour yellow. Tegmina (Fig. 146) with a series of dark suffusions as figured.

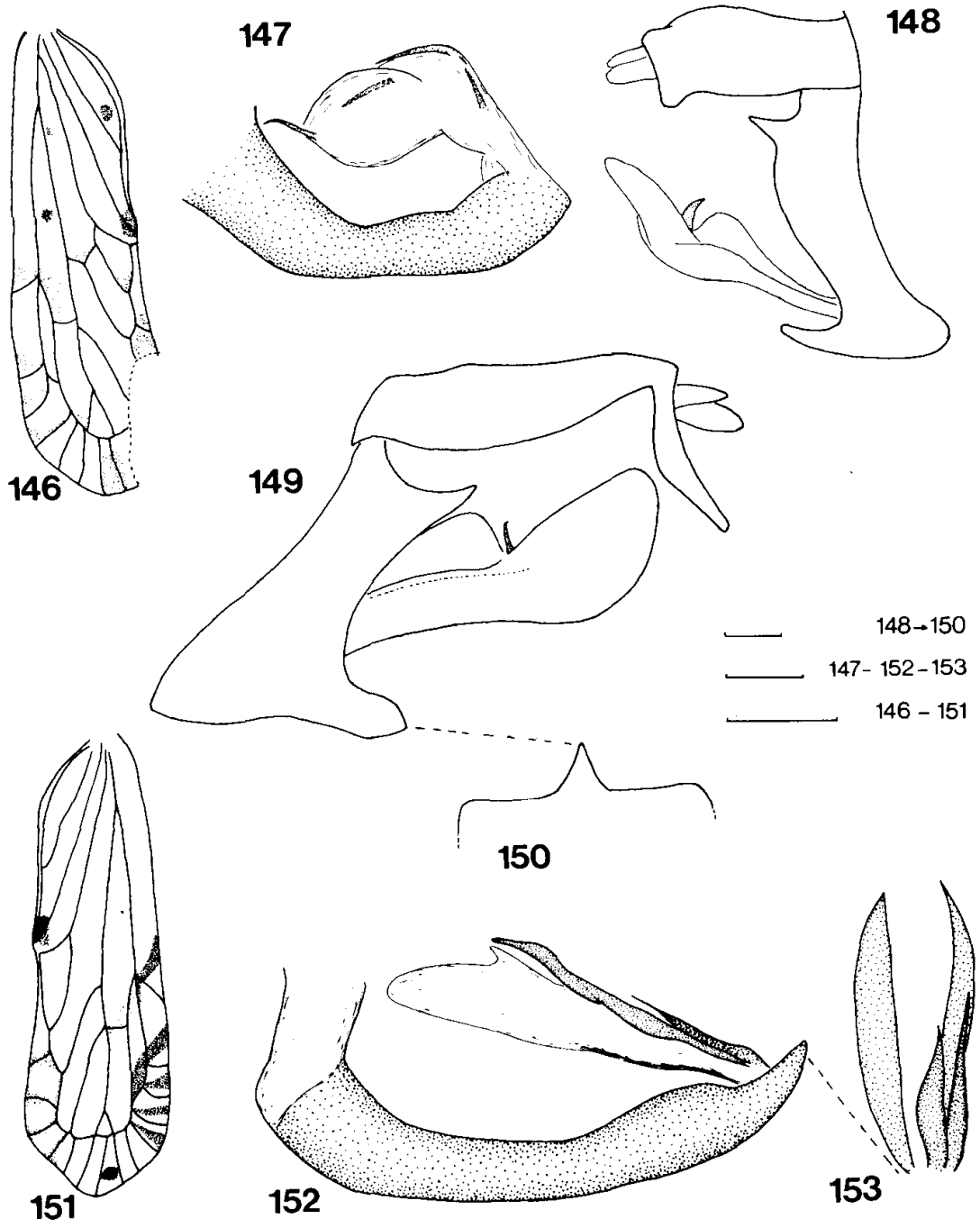


Fig. 146 to 148. — *Kamendaka gashakae* n. sp.
146 : left tegmen; 147 : aedeagus; 148 : anal segment, pygofer and genital style.

Fig. 149 to 153. — *Kamendaka elaeis* n. sp.
149 : anal segment, pygofer and genital style; 150 : medioventral process of pygofer; 151 : right tegmen; 152 : aedeagus; 153 : apical spines of aedeagus, dorsal view.
Scale Fig. 146, 151 : 1 mm; others : 0.1 mm.

Male genitalia : anal segment (Fig. 148) moderately long. Pygofer (Fig. 148) with dorsolateral angles produced into a triangular process; the medioventral process is damaged and could not be figured. Genital styles as illustrated (Fig. 148). Aedeagus laterally compressed, with a membra-

neous flagellum at apex recurved cephalically, bearing four spines : three on right side and one on apex (Fig. 147).

Total length : 5-5.5 mm.

D i a g n o s i s . — This species is easily characterised by the structure of the male genitalia.

E t y m o l o g y . — The name refers to the type locality.

Kamendaka elaeis n. sp.
(Figs. 149 to 153)

M a t e r i a l e x a m i n e d . — Holotype ♂ — Ivory Coast, Iboké, 18-IX-1976 (Coll. DESMIER).

D e s c r i p t i o n . — Frons and vertex ivory white, first with a yellow spot at level of eyes, gently convex in profile and angulately meeting with vertex. Clypeus, antenae, pronotum, mesonotum and legs yellow, abdomen brown above and yellow beneath. Tegmina (Fig. 151) milky hyaline, with a dark spot on apex of clavus and each tegmen; five brown well defined marks along outer apical veins and some indistinct translucent infumations; a yellow, well defined spot on apex of radial cell. Wings milky hyaline, distal part of veins coloured with brown.

Male genitalia : anal segment (Fig. 149) rather long and narrowing distally, apical angles abruptly produced ventrally in a well-developed and rather narrow lobe. Pygofer (Fig. 149) with dorsolateral angles produced into a small spinose process, posterior lateral margins almost straight, and medioventrally with a small triangular process (Fig. 150). Genital styles as illustrated (Fig. 149). Aedeagus long (Fig. 152 & 153), slender and tubular, with an apical flagellum and four apical spines directed cephalically.

Total length : 5-5.5 mm.

D i a g n o s i s . — The aedeagus of *Kamendaka elaeis* n.sp. resembles that of *Kamendaka hargreavesi* MUIR and *K. minor* MUIR. *K. elaeis* differs from them by the colour of the tegmina, the shape of the aedeagal spines and the medioventral process of the pygofer.

E t y m o l o g y . — The name refers to the host-plant where it was found upon : *Elaeis guineensis.*

Kamendaka velata n. sp.
(Figs. 154 to 158)

M a t e r i a l e x a m i n e d . Holotype ♂ — Nigeria, Obudu, 27-IX-1973 (Coll. K. B. I. N.).

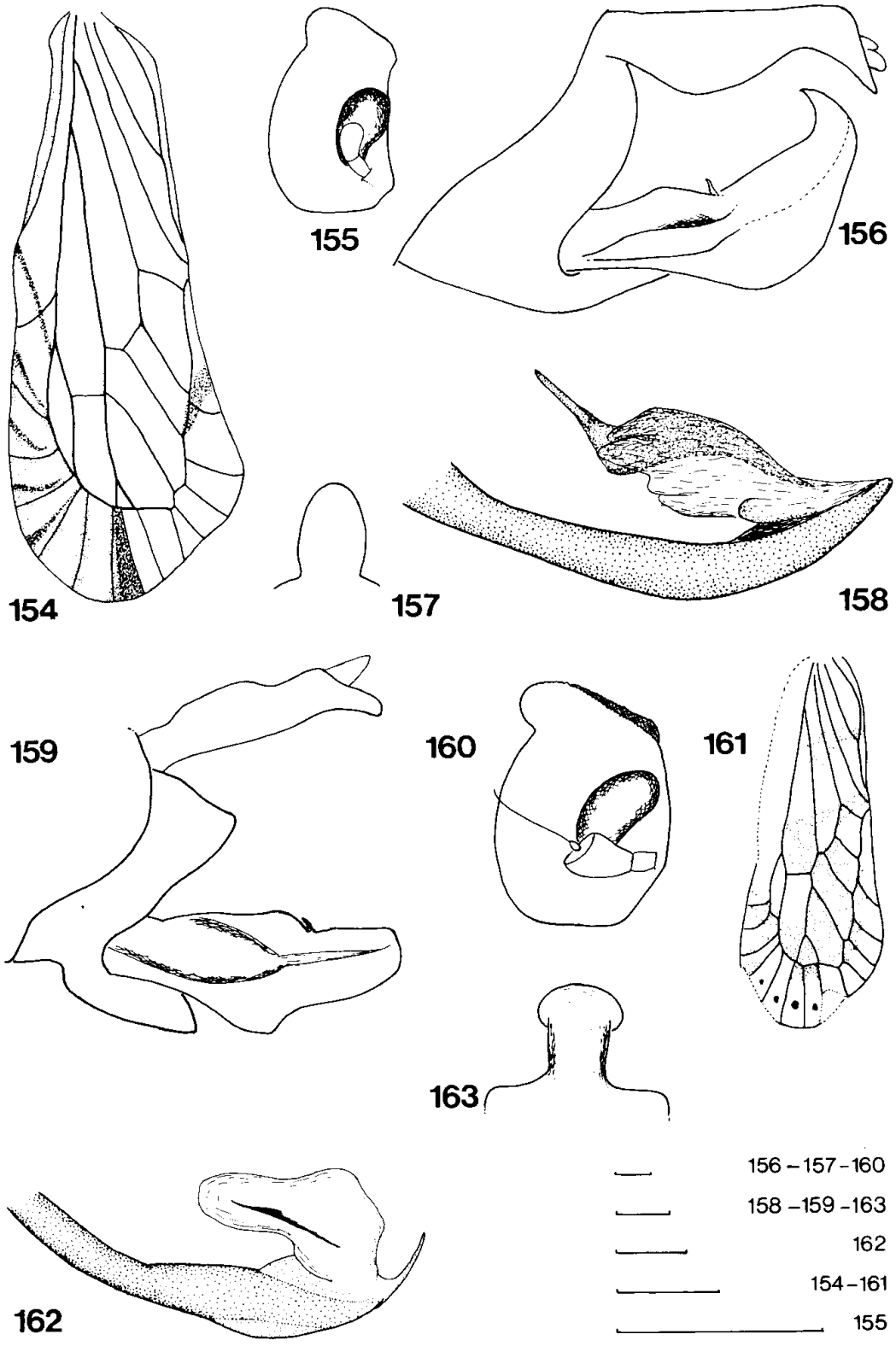


Fig. 154 to 158. — *Kamendaka velata* n. sp.
154 : tegmen; 155 : head, lateral view; 156 : anal segment, pygofer and genital style; 157 : medioventral process of pygofer; 158 : aedeagus.

Fig. 159 to 163. — *Kamendaka octoguttata* n. sp.
159 : anal segment, pygofer and genital style; 160 : head, lateral view; 161 : left tegmen; 162 : aedeagus; 163 : medioventral process of pygofer.
Scale Fig. 154, 155, 161 : 1 mm; others : 0.1 mm.

Paratypes. — 6 ♂ 2 ♀, same locality (Coll. K.B. I. N.).

Description. — Frons angulately rounded in profile, with a distinct notch (Fig. 155) near junction with vertex. General colour ivory white. Tegmina (Fig. 154) and wings milky hyaline, outer apical veins bordered with yellow and brown marks, middle apical cell fumated with brown. An additional brown streak extending from middle of costal margin to bifurcation of Sc and R, and finally, an indistinct streak (absent in some paratypes) along the inner apical cell reaching *M1*.

Male genitalia : anal segment (Fig. 156) moderately long. Pygofer (Fig. 156) with convex lateral margins and a blunt medioventral process (Fig. 157). Aedeagus (Fig. 158) with a single spinose process directed cephalically and slightly bended to right side.

Total length : 6-6.5 mm.

Diagnosis. — In SYNAVE's key, this species runs to *Kamendaka straminea* MUIR. It differs from the latter by the shape of the vertex, the colour of the tegmina, and the form of the male genitalia.

Kamendaka octoguttata n. sp.

(Figs. 159 to 163)

Material examined. — Holotype ♂ — Nigeria, Fashola, XI-1974 (Coll. K.B. I. N.).

Paratypes. — 1 ♂ 1 ♀, same locality (Coll. K. B. I. N.).

Description. — Frons with a stout notch near junction with vertex (Fig. 160). Colour ivory white. Tegmina (Fig. 161) hyaline, each provided with four apical dark spots, fumated with brown along an indistinct transverse band near base, and along apical portion of tegmina behind apex of clavus.

Male genitalia : anal segment (Fig. 159) moderately long, with short and blunt lateroapical angles. Pygofer (Fig. 159) with dorsolateral angles produced into a rectangular edge, posterior lateral margins slightly sinuated, and with a trapezoid medioventral process (Fig. 163). Genital styles as illustrated (Fig. 159), in ventral view with a hook-shaped proces halfway along its length. Shaft of aedeagus (Fig. 162) slightly compressed dorsoventrally, apex produced into a slender spinose process, a membraneous flagellum arising subapically and reflected cephalically.

Total length : 4.5-5 mm.

Diagnosis. — This species resembles *Kamendaka ugandanensis* MUIR. It differs from it by the aedeagal armature and the colour of the tegmina.

Etymology. — The name is an allusion to the eight spots along the apex of the tegmina.

TRIBUS RHOTANINI

Genus Muiralevu ZELAZNY

Muiralevu africanus (MUIR)

Levu africanum MUIR, F., 1926, Ann. Mag. Nat. Hist. (9), 18, p. 233.

Material examined. — 1 ♀, Central African Republic, La Maboke, 9-VI-1973; 1 ♀, Cameroon, Kumba, 28-VI-1973; 9 ♂, Nigeria, Benin, 1-IV-1975; 2 ♂, Umuhaia, 10-IV-1975; 14 ♂, 1 ♀, Onya, 1-IV-1975; 1 ♂, Ivory Coast, Mt. Tonkoui, 22-X-1973 (Coll. K. B. I. N. & Coll. LINNAVUORI).

Muiralevu curvispinosus n. sp.
(Fig. 164)

Material examined. — Holotype ♂ — Central African Republic, La Maboke, 6/9-VII-1973 (Coll. LINNAVUORI).

Paratypes. — 1 ♂, same locality; 4 ♂, Nigeria Ebubu nr. Bori, 2-VII-1973 (Coll. LINNAVUORI, 1 ♂ in Coll K. B. I. N.).

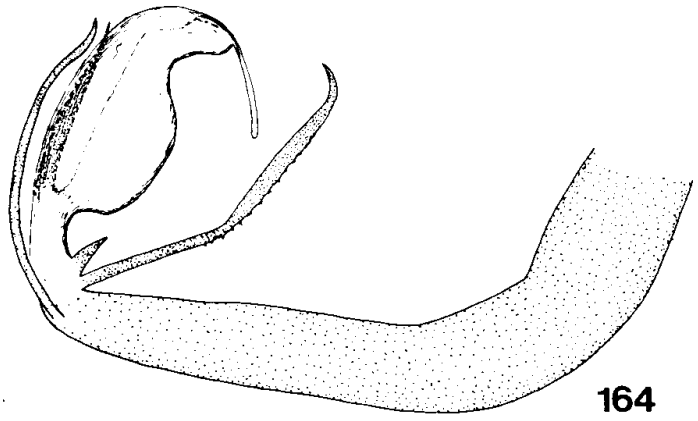
Description. — General habitus, colour and size like *Levu africanum* MUIR.

Male genitalia : anal segment, pygofer and genital styles similar to those of *Muiralevu africanus*. Aedeagus (Fig. 164) with two subequal apical spines, and a membraneous flagellum with a recurved spinose process along apex. Behind these, a long and slender spine, minutely denticulated along its ventral margin and slightly curved upwards in middle and near apex. Finally, one more small spine near base of latter.

Total length : 5.5-6 mm.

Diagnosis. — This species has the same colour and habitus as *Muiralevu africanus* (MUIR), hitherto the only known African species of the genus. Also, the basic pattern of the male genitalia and especially of the aedeagus is the same. However, the following differences can be mentioned : the ventral margin of the aedeagus is not minutely denticulated; the apical spines of *Muiralevu curvispinosus* n. sp. are shorter, and the denticulated spine is slightly sinuated, and not straight, as is the case with *Muiralevu africanus*.

Etymology. — The name refers to the curved denticulated process of the eadeagus, which is typical for this species.



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165

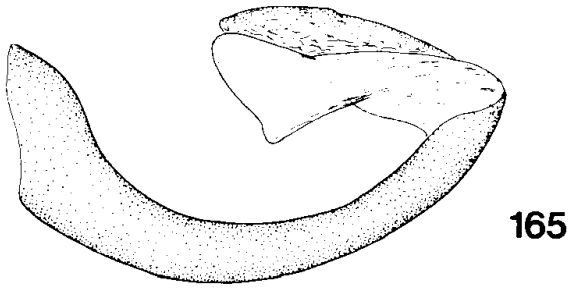

Fig. 164 .— *Muiralevu curvispinosus* n. sp.
164 : aedeagus.

Fig. 165. — *Muiralevu inermis* n. sp.
165 : aedeagus.
Scale : 0.1 mm.

Muiralevu inermis n. sp.
(Fig. 165)

Material examined. — Holotype ♂ — Cameroon, Abong-Mbang/Ayos, 13-VI-1973 (Coll. LINNAVUORI).

Description. — General appearance and colour like that of *Muiralevu africanus* (MUIR), but somewhat larger.

Male genitalia : anal segment, pygofer and genital styles similar to those of *Muiralevu africanus* and *M. curvispinosus*. Aedeagus (Fig. 165) tubular, spineless, with a slightly sclerotised apical flagellum.

Total length : 7-7.5 mm.

Diagnosis. — This species is very similar to *Muiralevu africanus* and *Muiralevu curvispinosus*. While the two proceeding species can not be distinguished from one another on external features, *Muiralevu inermis*

can be separated from them by its larger size. However, the aedeagus remains the principal distinguishing character.

Etymology. — The name refers to the spineless aedeagus.

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SUMMARY

In this paper, 80 African Derbidae (Homoptera, Fulgoroidea) are listed, 47 of which are described as new to science : *Zorabana maculata* n. gen et n. sp., *Diostrombus brunnipes* n. sp., *D. gangumis* n. sp., *D. zairensis* n. sp., *D. incompletus* n. sp., *Pamendanga bispinosa* n. sp., *P. fuscinervis* n. sp., *Zoraida (Peggiopsis) aenea* n. sp., *Z. (zoraida) zairensis* n. sp., *Malenia caerulea* n. sp., *M. flavicephala* n. sp., *M. consimilis* n. sp., *M. kivuensis* n. sp., *M. minuta* n. sp., *M. striata* n. sp., *M. bicolor* n. sp., *M. montana* n. sp., *M. monticola* n. sp., *M. flava* n. sp., *M. flavescens* n. sp., *M. cocos* n. sp., *M. angolensis* n. sp., *M. furcifera n.* sp., *Patara armata* n. sp., *P. mambilae* n. sp., *P. pusilla* n. sp., *P. tuberculata* n. sp., *P. ovata* n. sp., *P. recurvata* n. sp., *P. rusticola* n. sp., *Amania quadrispinosa* n. sp., *Paraphenice angusta* n. sp., *P. hyalina* n. sp., *Phenice distincta* n. sp., *Pyrrhoneura nigeriensis* n. sp., *Kamendaka camerunensis* n. sp., *K. pulcher* n. sp., *K. punctata* n. sp., *K. transversistriata* n. sp., *K. frontistriata* n. sp., *K triangularis* n. sp., *K. gashakae* n. sp., *K. elaeis* n. sp., *K. velata* n. sp., *K. octoguttata* n. sp., *Muiralevu curvispinosus* n. sp. and *M. inermis* n. sp. From *Diostrombus rufus* MUIR, *Pamendanga laestrygon* FENNAH, *Zoraida carpenteri* MUIR and *Robigus pattersoni* MUIR, the males are redescribed and the genitalia are figured.

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