

African Derbidae (Homoptera, Fulgoroidea): taxonomic notes with descriptions of new species collected mainly from coconut

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An annotated list of the African Derbidae described since Synave's 1973 monograph is given, with some corrections and additions to that work together with a revision of the genus *Robigus* from Africa. The following new species are described: *Diostrombus schuilingi* sp. nov., *D. mkurangai* sp. nov., *Zorabana vipaku* sp. nov., *Patara minazi* sp. nov., *P. chambeziensis* sp. nov., *Paraphenice mawai* sp. nov., *Phenice pongwei* sp. nov., *Robigus magawai* sp. nov., *Robigus synavei* sp. nov. (= *R. tortrinotatus* sensu Synave, 1973), *Kamendaka ukutu* sp. nov. All of these new species with the exception of *R. synavei* were collected from coconut. The following new synonymies are made: *Proutista fritillaris* (Boheman) = *P. tessellata* (Westwood) syn. nov., *Diostrombus abdominalis* (Distant) = *D. moerensis* Synave syn. nov., *Paraphenice dissimilis* Synave = *Pamendanga fuscinervis* Van Stalle syn. nov., *Zoraida fuligipennis* Muir = *Z. nigeriensis* Synave syn. nov., *Platocera africana* Muir, omitted in error from Synave (1973), is described and figured. *Proutista moesta* (Westwood) is recorded from Africa for the first time.

KEYWORDS: Homoptera, Auchenorrhyncha, Africa, Fulgoroidea, Derbidae, plant-hoppers, cocunut.

Introduction

Among the 20 recognized families of the planthopper superfamily Fulgoroidea, the Derbidae is one of the largest with over 1000 species described. The group is distributed predominantly in the tropical and subtropical regions of the world. In Africa, the Derbidae is one of the best known of the planthopper families with over 200 species now described south of the Sahara. The fauna was monographed by Synave in 1973 but recent studies by Van Stalle (1984, 1986) show that the fauna is considerably larger than envisaged earlier.

The current work has arisen from collections of Auchenorrhyncha received from Tanzania for identification by the CAB International Institute of Entomology (CIE) (formerly Commonwealth Institute of Entomology), London. The insects had been collected by Dr M. Schuilng of the National Coconut Development Programme, Tanzania, as part of a survey to find the vector of lethal disease of coconut palms. This disease has been responsible for severe losses in mainland Tanzania for at least 30 years. The disease is very similar to lethal yellowing of palms in the Caribbean and Florida. Recently, mycoplasma-like organisms (MLO) have been found to be associated with this disease in Tanzania (Nienhaus *et al.*, 1982). Auchenorrhyncha are frequently found to be vectors of MLO diseases. In the southern USA and Florida a cixiid planthopper *Myndus crudus* Van Duzee is now implicated as vector of lethal yellowing in that region after many years of investigation (Howard *et al.*, 1983). It is possible that Auchenorrhyncha are implicated in transmission of lethal yellowing in Tanzania and trials have been conducted with various homopteran insects.

Among the samples submitted the Derbidae were the most numerous with 18

species represented. Other planthopper families represented included the Meenoplidae (one species), Tropiduchidae (one species), Delphacidae (one species), Nogodinidae (one species), Achilidae (one species) and Cixiidae (one species). Some Cicadellidae and Cercopidae were collected from coconuts but were not as frequent as Derbidae. Only two species of Auchenorrhyncha were actually found breeding on coconuts (nymphs of both species being found); the delphacid *Nesodryas antiope* Fennah, originally described as feeding on coconuts from the Seychelles and Mascarenes (Fennah, 1964), and the tropiduchid *Tambinia verticalis* Distant (see Wilson, 1986). A review of the Auchenorrhyncha fauna of coconut and other palms is being prepared (Wilson, in press).

Lepesme (1947) lists 23 derbid species found on coconuts and oil-palm in Africa and 19 from Asia. The list from Africa is taken largely from Hargreaves (1937) who sampled from coconut and oil-palm in Sierra Leone. The insects collected were submitted to the Imperial Bureau of Entomology (that became the CIE) who passed the Fulgoroidea to Frederick Muir for description. Over 35 species have now been collected on palms in Africa. Of the 18 derbid species submitted for identification on this occasion, no less than 12 (66%) were found not to be included in the monograph on the African species (Synave, 1973) or in papers then in preparation (now published) by Van Stalle (1984, 1986). This high percentage of undescribed species from a single area reinforces the view of Van Stalle (1986) that the fauna is considerably larger than previously thought.

The large numbers of both species and individual derbids on coconut fronds is intriguing since the nymphal stages are exclusively fungus-feeders and are found under bark, in rotting wood and other similar habitats. The adults do appear to feed from coconut fronds. Mating pairs of *Proutista moesta* (Westwood) were observed under coconut fronds in Sulawesi together with feeding adults (unpublished observation). It is possible that many derbids use the horizontally held large leaves of coconuts and other plants to congregate for mating.

In preparing this paper the undetermined derbid accessions of the BMNH were studied and some additional specimens were found for the species here described from Tanzania. The opportunity has been taken to correct some errors and omissions from Synave's 1973 monograph.

Abbreviations of depositories:

- BMNH British Museum (Natural History), Cromwell Road, London, SW7 5BD, UK.
- IRSNB Institut Royal des Sciences Naturelles de Belgique, Rue Vautier 29, 1040 Brussels, Belgium.
- UM University Museum, Parks Road, Oxford, OX1 3PW, UK.
- MNHN Muséum National d'Histoire Naturelle, 45, Rue de Buffon, Paris, France.
- MRAC Musée Royal de l'Afrique Centrale, 1980 Tervuren, Belgium.
- USNM National Museum of Natural History, Washington, DC 20560, USA.

Annotated list of African Derbidae since Synave, 1973 including the description of new species

All species described up to and including 1972 are covered by the monograph of Synave (1973) with the exceptions of *Platocera africana* Muir and *Robigus patternsoni*

Muir that were omitted by error. *Robigus pattersoni* was figured by Van Stalle (1984) (see also below). Van Stalle (1984) erroneously records Synave (1973) as "1972". There might be some confusion on the publication date of Van Stalle (1984). The reprint gives 31 December 1983 but the work was not published until autumn 1984. Van Stalle (1986) erroneously gives 1983 (1983 a in his bibliography) as the publication date.

The order of genera follows that in Synave (1973). Keys to tribes and genera will be found in that monograph but a key to *Robigus* species is given in this paper. A list of species described since Synave's monograph is given for each genus.

***Proutista* Kirkaldy**

***Proutista fritillaris* (Boheman)**

(Figs 1–5)

Derbe fritillaris Boheman, 1838: 227.

Derbe tessellata Westwood, 1851: 209. HOLOTYPE ♂: labelled Sierra Le[one] or S. Afr. (Hem. Type 491 UM) [examined MRW and J. Van Stalle]. Syn. nov.

This species is common and widespread in equatorial Africa, especially West and Central Africa (Synave, 1973; Van Stalle, 1984). Synave included *P. tessellata* (Westwood) as 'incertae sedis'. Without dissection the form of the ♂ genitalia, particularly the characteristic ♂ parameres (Fig. 4), can be seen to be identical with that of *P. fritillaris*. Accordingly the synonymy is made here. To aid comparison with *P. moesta*, the tegmen and both ♂ and ♀ genitalia are shown in Figs 1–5.

***Proutista moesta* (Westwood)**

(Figs 6–12)

Derbe moesta Westwood, 1851: 209.

This common and widespread Asian species has not been found previously in Africa. The collections submitted from Tanzania contained a long series of the species. To facilitate identification in the future, drawings of the tegmen and ♂ and ♀ genitalia are given (Figs 6–12).

Material examined. 9 ♂, 7 ♀, Tanzania; Sotele, ii.1985, ex coconut, M. Schuiling. (BMNH).

Comments. This appears to be the first record of an Asian derbid species in Africa. The same survey of coconuts has recently revealed the presence of an Indian tropiduchid planthopper *Tambinia verticalis* Distant breeding commonly on coconut in Zanzibar (Wilson, 1986). This also may have been recently introduced. Another argument for its recent introduction is the absence of the species in older collections such as the British Museum (Natural History) and also Brussels, Tervuren, and Paris (J. Van Stalle, personal communication).

***Diostrombus* Uhler**

A large genus with over 30 described species from Africa. Three species were collected commonly from coconut in Tanzania. Of these only one had been described, *D. abdominalis* (Distant) and the other two are described below.

***Diostrombus abdominalis* (Distant)**

Phenice abdominalis Distant, 1907: 195. HOLOTYPE ♀ (not ♂ as stated by Distant): Durban, South Africa (BMNH) [examined].

Diostrombus moerensis Synave, 1973: 63. HOLOTYPE ♂: Tanganyika, Moero (MRAC) [not examined]. Syn. nov.

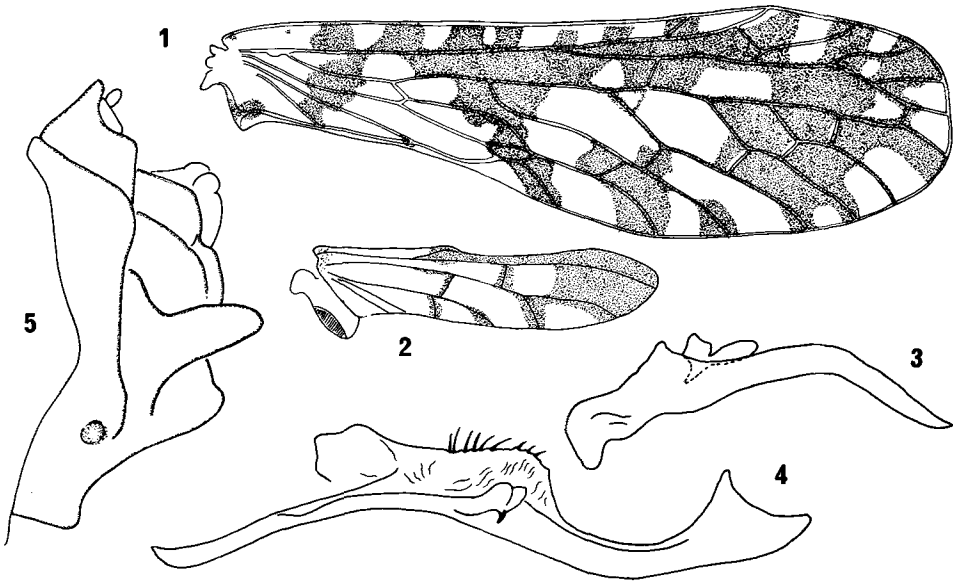


FIG. 1–5. *Proutista fritillaris*: (1) forewing; (2) hindwing; (3) male genitalia, anal segment, lateral view; (4) male paramere, dorsal view; (5) female genitalia, lateral view.

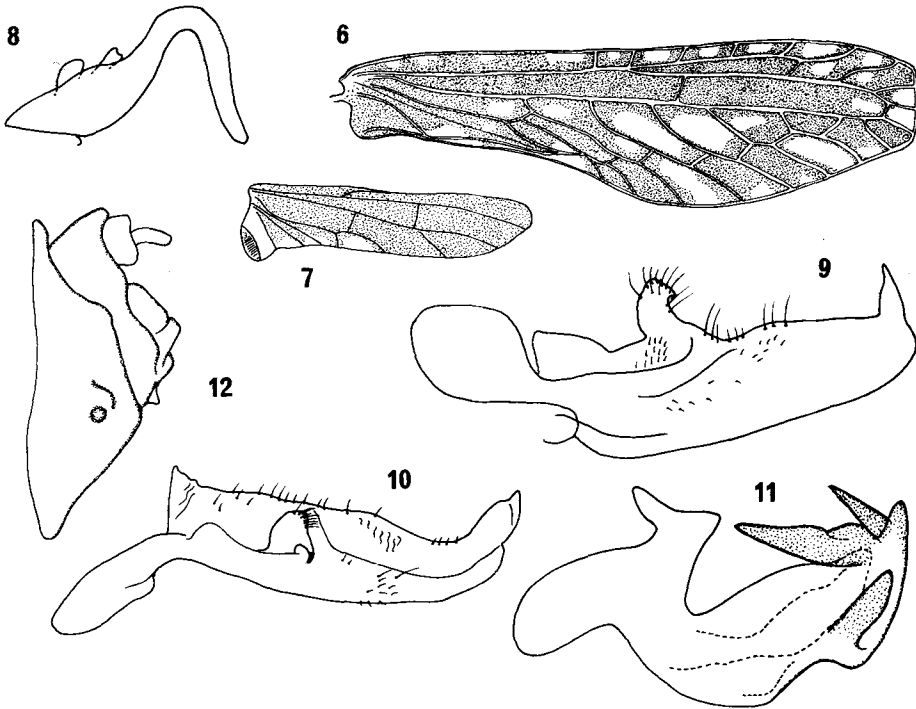


FIG. 6–12. *Proutista moesta*: (6) forewing; (7) hindwing; (8) anal segment of male, lateral view; (9) male paramere, lateral view; (10) male paramere, dorsal view; (11) aedeagus, left lateral view; (12) female genitalia, lateral view.

A long series collected on coconut palms from Chambezi (Tanzania) compared well with illustrations and the description of *D. moerensis* Synave (1973). However, comparison of ♀ specimens with the holotype ♀ of *D. abdominalis* showed the two to be synonymous.

Figures of the ♂ genitalia may be found under *D. moerensis* in Synave (1973: 64). Harris (1937) reported this species causing "yellowing of the foliage of young coconuts". The specimens he submitted for identification are present in the BMNH collection and their identity is confirmed.

Distribution. East and South Africa.

Material studied. Various localities: Tanzania, Mozambique, Botswana, Malawi (BMNH).

***Diostrombus gowdeyi* Distant**

Diostrombus gowdeyi Distant, 1914: 419.

Diostrombus gowdei Synave, 1973: 40 [misspelling]; Van Stalle, 1984: 5 [misspelling].

***Diostrombus brunnipes* Van Stalle**

Diostrombus brunnipes Van Stalle, 1984: 8. Type-locality: Ethiopia.

***Diostrombus gangumis* Van Stalle**

Diostrombus gangumis Van Stalle, 1984: 9. Type-locality: Nigeria.

***Diostrombus incompletus* Van Stalle**

Diostrombus incompletus Van Stalle, 1984: 11. Type-locality: Cameroon.

***Diostrombus zairensis* Van Stalle**

Diostrombus zairensis Van Stalle, 1984: Type-locality: Zaire.

***Diostrombus rufus* Muir**

Diostrombus rufus Muir, 1934: 514; ♂ genitalia figured by Van Stalle, 1984: 7.

***Diostrombus schuilingi* sp. nov.**

(Figs 13–22)

Diagnosis. The shining black coloration of the thorax, together with characters of the male genitalia serve to separate this species from others of the genus.

Description. Head and thorax shining black (Figs 13, 14), antennae pale brown, eyes, apical portion of rostrum and legs pale yellow-white. Carinae of head and mesonotum yellow, but in some specimens mesonotal carinae black. Abdomen black but with ventral intersegmental membranes bright red. Wings hyaline veins yellow-brown, some with darker pigmentation (Figs 15, 16).

Face smoothly rounded in front of eyes (Fig. 13).

♂ Genitalia (Figs 17–21); parameres (Figs 20, 21) short, in lateral view more or less twice as long as broad with rounded apex. Aedeagus (Fig. 17) with two long apical spines from left side, the upper one thicker, about half the length of the lower thin anteriorly directed spine (Fig. 17). A posteriorly directed long spine arising from left side at base, strongly serrated on ventral margin. Pygofer with ventral margin produced (Fig. 18), anal segment with apex pointed (Fig. 19).

♀ Genitalia (Fig. 22): distinct processes absent.

Length: ♂/♀ 7.2–7.5 mm.

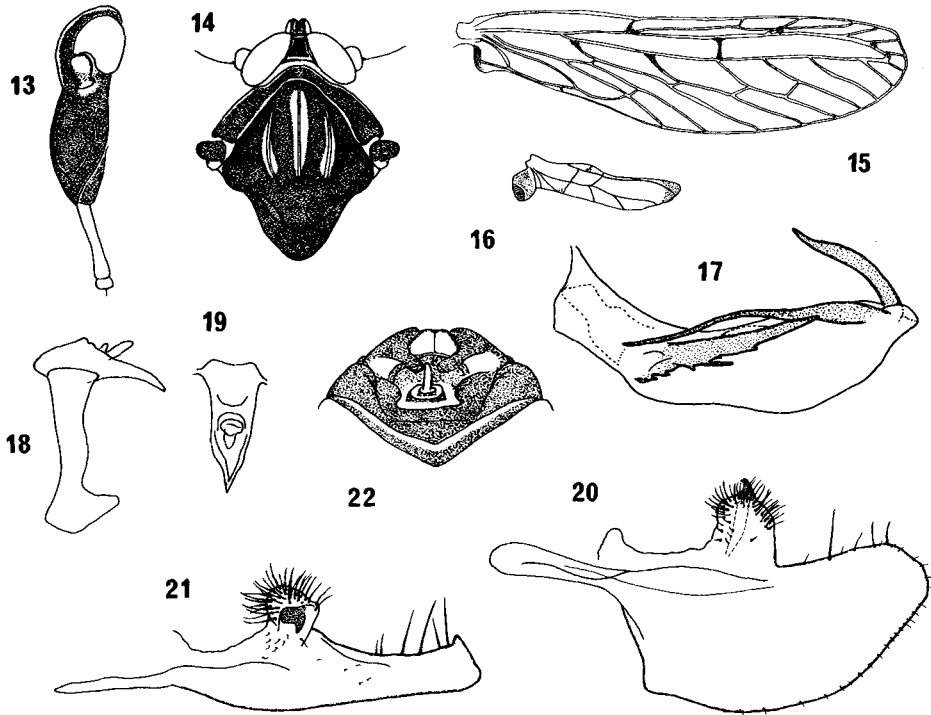


FIG. 13–22. *Diostrombus schulingi* sp. nov.: (13) head, lateral view; (14) head, vertex, mesonotum, dorsal view; (15) forewing; (16) hindwing; (17) aedeagus, left lateral view; (18) pygofer, lateral view; (19) anal segment, dorsal view; (20) paramere, lateral view; (21) paramere, dorsal view; (22) female genitalia, dorsal view.

HOLOTYPE. ♂, Tanzania: Sotele, iv 1984, M. Schuling coll. on coconut, CIE A15996 (BMNH).

PARATYPES. 24 ♂, 25 ♀, same data as holotype. (BMNH; IRSNB; MNHN; MRAC; USNM.)

Comments. This species is named in recognition of the collector of almost all the material used in this study; Dr Mark Schuling.

***Diostrombus mkurangai* sp. nov.**

(Figs 23–33)

Diagnosis. The coloration of the forewings, head and thorax together with the male and female genitalia separate this species from others in the genus.

Description. Head, thorax and abdomen pale yellow, thorax with orange markings as shown (Fig. 24). Face yellow with brown striations on frons (Fig. 23). Legs pale yellow. Abdomen in females with dark brown markings as shown (Figs 32, 33). Wings with costal margin of forewing brown, remainder of forewing with dark brown markings along veins as shown (Fig. 25).

Head smoothly rounded in front of eyes.

♂ Genitalia (Figs 27–31): pygofer (Fig. 27) with dorsal lateral projections acutely projected. Anal segment long, sharply pointed at apex (Fig. 28). Parameres long, in lateral view (Fig. 29) truncate at apex. In dorsal view with sharply pointed inwardly directed process arising from apex (Fig. 31). In lateral view aedeagus (Fig. 30) with apex sharply pointed, a lower posterior directed short thin process arising ventrally.

Dorsally two long processes directed anteriorly, one process almost reaching the base of the aedeagus.

♀ Genitalia (Figs 32, 33): in lateral view paired triangular shaped processes projecting below the anal tube.

Length: ♂/♀ 8.2–8.8 mm.

HOLOTYPE. ♂, Tanzania: Mkuranga, iv.1984, M. Schuiling coll. on coconut, CIE A 15996 (BMNH).

PARATYPES. 33 ♂, 25 ♀, same data as holotype (BMNH; IRSNB; MNHN; MRAC; USNM); 1 ♂, 2 ♀, Tanzania: Bagamoyo, viii.1934, W. V. Harris, on young coconuts (BMNH); 1 ♂, 3 ♀, Mozambique: Mossuril, Lunga, ix–viii. 1967, on coconut, CIE A1907 (BMNH).

Comments. All specimens studied were taken from leaves of coconut. It should be noted that several of the male specimens dissected had the very long process of the aedeagus broken.

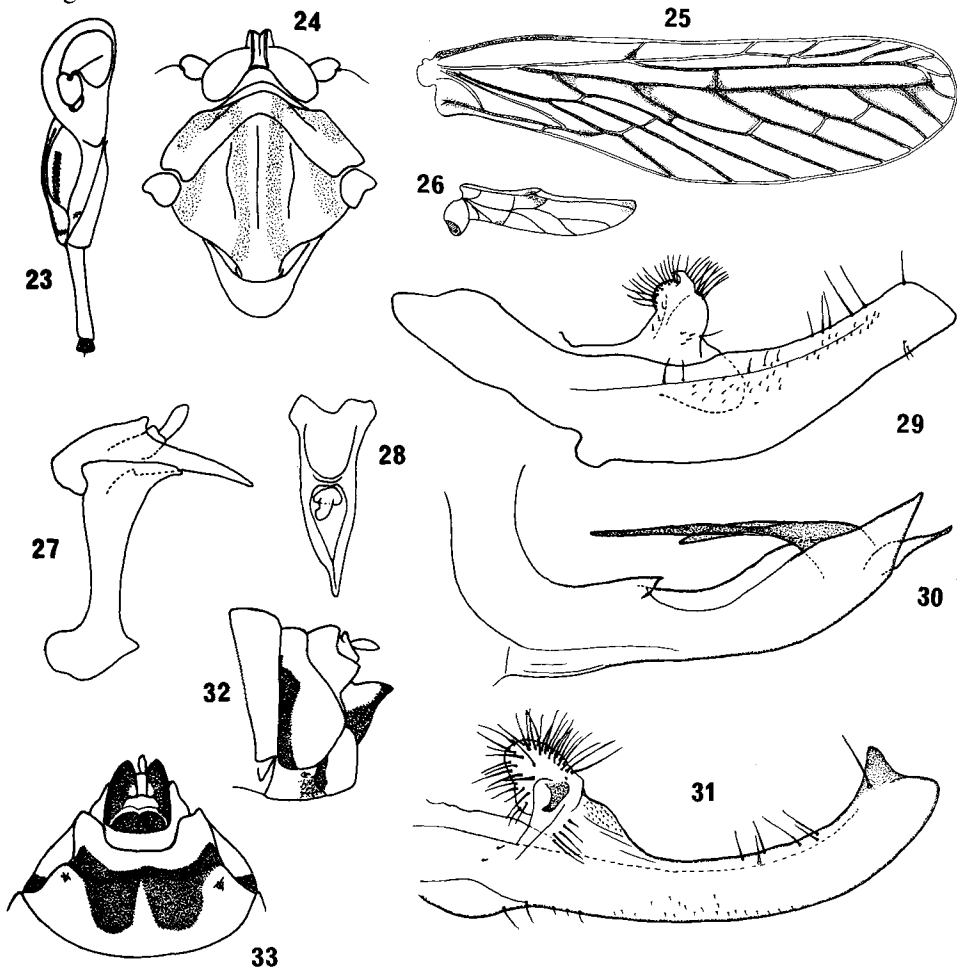


FIG. 23–33. *Diostrombus mkurangai* sp. nov.: (23) head, lateral view; (24) head, vertex, mesonotum, dorsal view; (25) forewing; (26) hindwing; (27) male pygofer, lateral view; (28) anal segment, dorsal view; (29) paramere, lateral view; (30) aedeagus, left lateral view; (31) paramere, dorsal view; (32) female genitalia, lateral view; (33) female genitalia, ventral view.

Zorabana Van Stalle

Zorabana Van Stalle, 1984: 3.

This genus was described by Van Stalle (1984) for the new species *Z. maculata* from Nigeria; a second species has been collected from coconut palm and is described here. Two related but distinct species are now known in Africa, one from West Africa and one from East Africa.

Zorabana maculata Van Stalle

(Figs 42–44)

Zorabana maculata Van Stalle, 1984: 3. Type-locality: Nigeria.

A series from the type-locality has been examined (BMNH). The ♀ genitalia have been figured (Fig. 44) for they differ markedly from those of *Z. vipaku* described below. The ♂ aedeagus is also figured for comparison (Figs 42, 43), both in right and left views. Only the left side was figured by Van Stalle (1984).

Zorabana vipaku sp. nov.

(Figs 34–41)

Diagnosis. Closely resembles *Z. maculata* in general appearance but differs markedly in structural aspects of both the ♂ and ♀ genitalia. The dorso-lateral angles of the pygofer are acute in *vipaku*, but rounded in *maculata*. The apical spines of the aedeagus are similar in length in *vipaku* (Figs 37, 38) but differ markedly in length in *maculata* (Figs 42, 43). In the ♀ the posterior processes (viewed ventrally) are widely separated in *vipaku* (Fig. 41) but much closer together and longer in *maculata* (Fig. 44).

Description. Conforms to generic description (Van Stalle, 1984). The following is supplementary to that description.

Coloration. Head and thorax pale yellow brown with some darker markings (Fig. 34). Wings with veins very pale yellow-brown with dark brown markings covering veins as shown (Figs 35, 36). Abdominal segments darker dorsally, pale below.

♂ Genitalia (Figs 37–40): anal segment strongly tapered but roundly truncate at apex (Fig. 40), pygofer with dorso-lateral angle produced into triangular acute lobe (Fig. 40), posterior lateral margin produced, parameres (Fig. 39) with apex inwardly directed, aedeagus laterally compressed and asymmetrical. Two apical processes directed dorsally, viewed from left, a strong antero-ventrally directed spine arising halfway along its length (Fig. 37). Viewed from right (Fig. 38) a dorsally directed short spine arising from dorsal part of aedeagus.

♂ Genitalia: distinct posterior processes protruding from ventral surface (Fig. 41).

Length: ♂/♀ 8.2–8.8 mm.

HOLOTYPE. ♂, Tanzania: Chambezi, iv.1984, on coconut, M. Schuiling, CIE A15996 (BMNH).

PARATYPES. 3 ♂, 8 ♀, same data as holotype (BMNH; IRSNB); 1 ♀, Tanzania: Maramba, April 1984, on coconut, M. Schuiling (BMNH).

Pamendanga Distant**Pamendanga bispinosa** Van Stalle

Pamendanga bispinosa Van Stalle, 1984: 13. Type-locality: Nigeria.

Pamendanga obliterata Van Stalle

Pamendanga obliterata Van Stalle, 1983: 157. Type-locality: Cameroon.

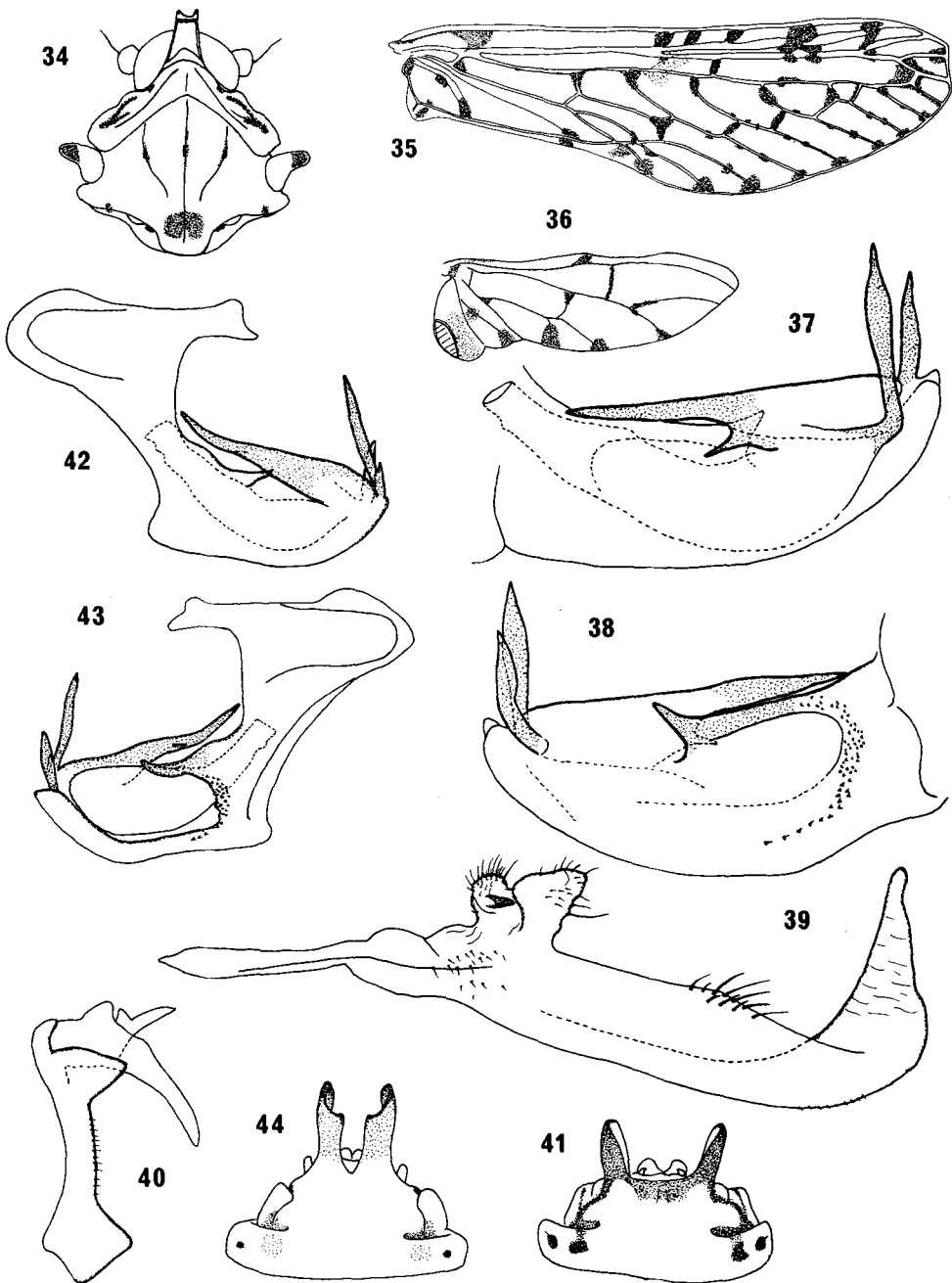


FIG. 34-41. *Zorabana vipaku* sp. nov.: (34) head, vertex, mesonotum, dorsal view; (35) forewing; (36) hindwing; (37) aedeagus, left lateral view; (38) aedeagus, right lateral view; (39) paramere, dorsal view; (40) pygofer, lateral view; (41) female genitalia, ventral view.

FIG. 42-44. *Zorabana maculata*: (42) aedeagus, left lateral view; (43) aedeagus, right lateral view; (44) female genitalia, ventral view.

***Pamendanga fuscinervis* Van Stalle**

Pamendanga fuscinervis Van Stalle, 1984: 13. Type-locality: Nigeria.

The type-specimen has been re-examined by Van Stalle (personal communication) and found to be identical with *Paraphenice dissimilis* Synave (1968). (See under *Paraphenice* for synonymy.)

Zoraida* Kirkaldy**Zoraida (Neozoraida) carpenteri* Muir**

Zoraida carpenteri Muir, 1928: 524.

Zoraida carpenteri 'incertae sedis' Synave, 1973: 90; Van Stalle, 1984: 15; (redescribed and figured).

***Zoraida (Peggiopsis) aenea* Van Stalle**

Zoraida (Peggiopsis) aenea Van Stalle, 1984: 17. Type-locality: Nigeria.

***Zoraida (Zoraida) bouchneri* Synave**

Zoraida (Zoraida) bouchneri Synave, 1982: 48. Type-locality: Central African Republic.

***Zoraida (Zoraida) fuligipennis* Muir**

Zoraida fuligipennis Muir, 1928: 520.

Zoraida (Z.) nigeriensis Synave, 1979: 17. HOLOTYPE ♂, Nigeria, Ile-Ife, IRSNB [examined J. Van Stalle]. Syn. nov.

Zoraida fuligipennis Muir was listed by Synave (1973: 111) as "incertae sedis" since the single remaining specimen (a ♀) of the type-series was so badly damaged. It consists of a complete forewing and the abdomen only. These fragments have been compared with the holotype and some other specimens of *Z. nigeriensis* Synave by Van Stalle (personal communication), who considered the specimens to be conspecific, and the synonymy is included here.

Figures of the ♂ genitalia may be found under *Z. nigeriensis* in Synave (1979: 17).

***Zoraida zairensis* Van Stalle**

Zoraida zairensis Van Stalle, 1984: 17. Type-locality: Zaire.

***Malenia* Haupt**

A large genus in Africa with 46 described species. Synave included 27 species in his 1973 monograph. Nineteen species have been described since. Judging by the species represented in the BMNH accessions many more remain to be described. The majority of species appear localized in their distribution and are distinguishable only by details of the male aedeagus.

***Malenia angolensis* Van Stalle**

Malenia angolensis Van Stalle, 1984: 30. Type-locality: Angola.

***Malenia bicolor* Van Stalle**

Malenia bicolor Van Stalle, 1984: 24. Type-locality: Nigeria.

***Malenia brachycara* Van Stalle**

Malenia brachycara Van Stalle, 1986: 244. Type-locality: Ivory Coast.

Malenia caerulea Van Stalle

Malenia caerulea Van Stalle, 1984: 19. Type-locality: Nigeria.

Malenia cocos Van Stalle

Malenia cocos Van Stalle, 1984: 29. Type-locality: Ivory Coast.

Malenia complicata Van Stalle

Malenia complicata Van Stalle, 1982: 10. Type-locality: Mount Cameroon.

Malenia consimilis Van Stalle

Malenia consimilis Van Stalle, 1984: 21. Type-locality: Central African Republic.

Malenia cydippe Linnavuori

Malenia cydippe Linnavuori, 1973: 114. Type-locality: Sudan.

Malenia exigua Van Stalle

Malenia exigua Van Stalle, 1986: 244. Type-locality: Ivory Coast.

Malenia flava Van Stalle

Malenia flava Van Stalle, 1984: 27. Type-locality: Nigeria.

Malenia flavescens Van Stalle

Malenia flavescens Van Stalle, 1984: 27. Type-locality: Nigeria.

Malenia flavicephala Van Stalle

Malenia flavicephala Van Stalle, 1984: 21. Type-locality: South Africa.

Malenia furcifera Van Stalle

Malenia furcifera Van Stalle, 1984: 30. Type-locality: Ivory Coast.

Malenia kivuensis Van Stalle

Malenia kivuensis Van Stalle, 1984: 22. Type-locality: Zaire.

Malenia minuta Van Stalle

Malenia minuta Van Stalle, 1984: 22. Type-locality: Nigeria.

Malenia montana Van Stalle

Malenia montana Van Stalle, 1984: 26. Type-locality: Cameroon.

Malenia monticola Van Stalle

Malenia monticola Van Stalle, 1984: 26. Type-locality: Cameroon.

Malenia pseudonigripes Van Stalle

Malenia pseudonigripes Van Stalle, 1986: 243. Type-locality: Ivory Coast.

Malenia striata Van Stalle

Malenia striata Van Stalle, 1984: 24. Type-locality: Nigeria.

***Patara* Westwood**

This is another large genus represented in Africa by 28 described species. Seven African species had been described up to 1973, since then 21 species have been described by Van Stalle (1982, 1984, 1986) and Synave (1979).

Two species were found on coconut in Tanzania and are described below.

***Patara acantha* Van Stalle**

Patara acantha Van Stalle, 1986: 244. Type-locality: Ivory Coast.

***Patara albibaltea* Van Stalle**

Patara albibaltea Van Stalle, 1986: 245. Type-locality: Ivory Coast.

***Patara appendiculata* Van Stalle**

Patara appendiculata Van Stalle, 1982: 7. Type-locality: Mount Cameroon.

***Patara armata* Van Stalle**

Patara armata Van Stalle, 1984: 32. Type-locality: Nigeria.

***Patara compaginata* Van Stalle**

Patara compaginata Van Stalle, 1986: 245. Type-locality: Ivory Coast.

***Patara complanata* Van Stalle**

Patara complanata Van Stalle, 1986: 245. Type-locality: Ivory Coast.

***Patara costalis* Synave**

Patara costalis Synave, 1979: 247. Type-locality: Nigeria.

***Patara hyalina* Synave**

Patara hyalina Synave, 1979: 24. Type-locality: Nigeria.

***Patara leopoldi* Van Stalle**

Patara leopoldi Van Stalle, 1982: 7. Type-locality: Mount Cameroon.

***Patara mambilae* Van Stalle**

Patara mambilae Van Stalle, 1984: 33. Type-locality: Nigeria.

***Patara monstrosa* Synave**

Patara monstrosa Synave, 1979: 20. Type-locality: Nigeria.

***Patara ovata* Van Stalle**

Patara ovata Van Stalle, 1984: 35. Type-locality: Nigeria.

***Patara pusilla* Van Stalle**

Patara pusilla Van Stalle, 1984: 33. Type-locality: Nigeria.

***Patara quadrispinosa* Synave**

Patara quadrispinosa Synave, 1979: 24. Type-locality: Nigeria.

***Patara radiata* Synave**

Patara radiata Synave, 1979: 24. Type-locality: Nigeria.

Patara recurvata Van Stalle*Patara recurvata* Van Stalle, 1984: 36. Type-locality: Nigeria.***Patara rusticola*** Van Stalle*Patara rusticola* Van Stalle, 1984: 36. Type-locality: Nigeria.***Patara taiensis*** Van Stalle*Patara taiensis* Van Stalle, 1986: 245. Type-locality: Ivory Coast.***Patara trispinosa*** Synave*Patara trispinosa* Synave, 1979: 26. Type-locality: Nigeria.***Patara tuberculata*** Van Stalle*Patara tuberculata* Van Stalle, 1984: 35. Type-locality: Nigeria.***Patara unimaculata*** Van Stalle*Patara unimaculata* Van Stalle, 1982: 10. Type-locality: Mount Cameroon.***Patara minazi*** sp. nov.

(Figs 45–51)

Diagnosis. Distinguished from other *Patara* species by markings of the forewings and male aedeagus structure.

Description. Body almost entirely pale yellow, but with prominent black spot on lateral tergites of thorax, just below the insertion of wings. Abdomen in male darker yellow, with genital segment pale whitish yellow. Forewings with markings as shown (Fig. 46), costal margin dark brown, this suffusion continuing to about half length, then continuing across wing towards apex but with costal margin pale yellow. Apical cell dark brown (Fig. 46). Hind margin of forewing suffused pale brown. Veins mostly pale yellow. Some pale red markings on veins at the margins in some specimens.

Antennae with second segment approx one and a half times width.

♂ Genitalia as shown in Figs 48–51.

Length: ♂/♀ 3.9–4.2 mm.

HOLOTYPE. ♂, Tanzania: Chambezi, iv.1984, M. Schuling coll., ex coconut, CIE A16319 (BMNH).

PARATYPES. 19 ♂, 7 ♀ same data as holotype (BMNH; IRSNB; MRAC).

Patara chambeziensis sp. nov.

(Figs 52–56)

Diagnosis. Distinguished from other *Patara* species by structure of male aedeagus and by forewing markings.

Description. Body mostly pale whitish yellow, antennae darker, dirty yellow, mesonotum in some specimens with orange patches laterally, extending to tegulae, abdomen in some ♀♀ with red marked intersegmental membranes, abdomen darker yellow in some specimens. Forewing with veins suffused with dirty yellow, brown pigmentation as shown (Fig. 53).

Antennae with segment almost four times as long in width in ♂, two times in ♀.

♂ Genitalia as shown in Figs 54–56.

Length: ♂/♀ 3.8–4.0 mm.

HOLOTYPE. ♂, Tanzania: Chambezi, viii.1984, M. Schuiling coll., ex coconut, CIE A16319 (BMNH).

PARATYPES. 3 ♂, 6 ♀, same data as holotype (BMNH; IRSNB).

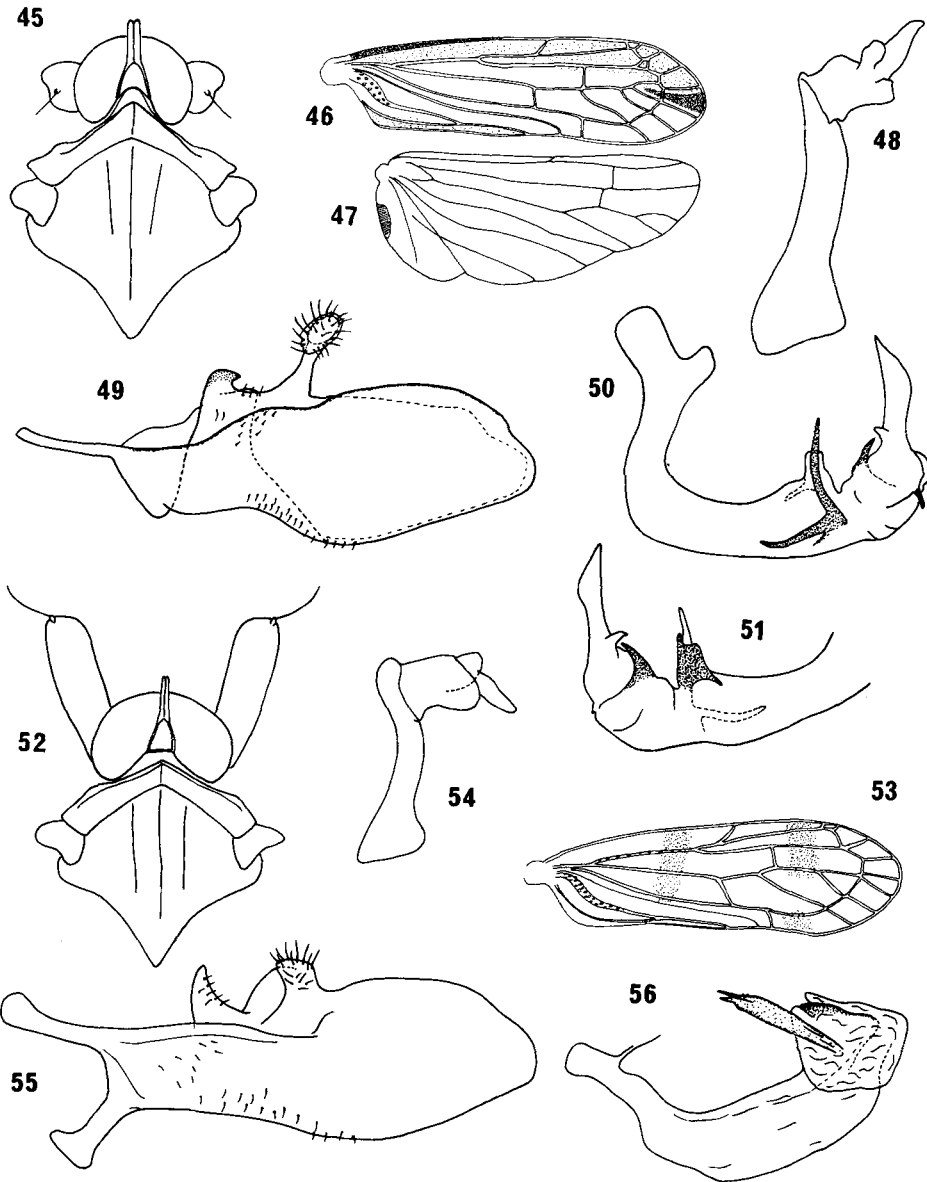


FIG. 45-51. *Patara minazi* sp. nov.: (45) head, vertex, mesonotum, dorsal view; (46) forewing; (47) hindwing; (48) pygofer, lateral view; (49) paramere, lateral view; (50) aedeagus, left lateral view; (51) aedeagus, right lateral view.

FIG. 52-56. *Patara chambeziensis* sp. nov.: (52) head, vertex, mesonotum, dorsal view; (53) forewing; (54) pygofer, lateral view; (55) paramere, lateral view; (56) aedeagus, left lateral view.

Amania* Synave**Amania quadrispinosa* Van Stalle**

Amania quadrispinosa Van Stalle, 1984: 38. Type-locality: Ivory Coast.

***Paraphenice* Muir**

This genus differs from the similar *Phenice* by the possession of sub-antennal flanges that are absent in *Phenice*. Ten African species have been described since 1973, there being presently 19 species known from Africa. Species described since 1973 are listed below. The majority of species are rather similar in external appearance, differing principally on the characters of the male genitalia.

***Paraphenice allantiferens* Van Stalle**

Paraphenice allantiferens Van Stalle, 1986: 249. Type-locality: Ivory Coast.

***Paraphenice angusta* Van Stalle**

Paraphenice angusta Van Stalle, 1984: 39. Type-locality: Nigeria.

***Paraphenice bicondita* Van Stalle**

Paraphenice bicondita Van Stalle, 1986: 249. Type-locality: Ivory Coast.

***Paraphenice confinis* Van Stalle**

Paraphenice confinis Van Stalle, 1986: 248. Type-locality: Ivory Coast.

***Paraphenice couturieri* Van Stalle**

Paraphenice couturieri Van Stalle, 1986: 251. Type-locality: Ivory Coast.

***Paraphenice dissimilis* Synave**

Paraphenice dissimilis Synave, 1968: 168. Type-locality: Sudan.

Pamendanga fuscinervis Van Stalle, 1984: 13. HOLOTYPE ♂, Nigeria, (IRSNB) [examined J. Van Stalle]. Syn. nov.

Van Stalle (personal communication) has informed me that he has compared the holotypes of *P. fuscinervis* and *P. dissimilis* and found them to be conspecific. He suggested the synonymy be included here.

***Paraphenice hyalina* Van Stalle**

Paraphenice hyalina Van Stalle, 1984: 41. Type-locality: Nigeria.

***Paraphenice incisa* Van Stalle**

Paraphenice incisa Van Stalle, 1986: 248. Type-locality: Ivory Coast.

***Paraphenice minilobata* Van Stalle**

Paraphenice minilobata Van Stalle, 1986: 249. Type-locality: Ivory Coast.

***Paraphenice mawae* sp. nov.**

(Figs 57–65)

Diagnosis. The coloration is similar to many other species, and the processes of the male genitalia are the only reliable way of separating this species from others. The lateral processes of the female 7th sternite resemble those found in *P. carpentieri* Muir

known only from females. However, in *P. carpentieri* the processes are longer and more pointed than in *P. mawae*.

Description. Head, pronotum and legs pale yellow, mesonotum and abdomen brown marked, forewings with costal margin white, remainder of wing marked with brown as shown (Fig. 59).

♂ Genitalia (Figs 60–64): pygofer with small conical median ventral process, anal segment lobed at apex (Fig. 64), parameres large, in profile (Fig. 60) with rounded ventral margin, a deep cleft at apex. Aedeagus strongly asymmetrical with well-developed processes as shown (Figs 61, 62).

♀ Genitalia: 7th sternite with short blunt lateral processes (Fig. 65).

Length: ♂/♀ 6.6–7.2 mm.

HOLOTYPE. ♂, Tanzania: Chambezi, iv.84, M. Schuiling coll. on coconut, CIE A15996 (BMNH).

PARATYPES. 31 ♂, 9 ♀, same data as holotype (BMNH; IRSNB; MRAC; MNHN).

Phenice Westwood

The genus is distinguished from *Paraphenice* by the absence of sub-antennal flanges. A number of species resemble the coloration of *Paraphenice* species. Eleven species are now known from Africa, five having been described since 1973. A further new species collected from coconut is described here.

Phenice brocha Van Stalle

Phenice brocha Van Stalle, 1986: 251. Type-locality: Ivory Coast.

Phenice distincta Van Stalle

Phenice distincta Van Stalle, 1984: 41. Type-locality: Nigeria.

Phenice ifeana Synave

Phenice ifeana Synave, 1984: 29. Type-locality: Nigeria.

Phenice macarangae Van Stalle

Phenice macarangae Van Stalle, 1986: 252. Type-locality: Ivory Coast.

Phenice medleri Synave

Phenice medleri Synave, 1979: 30. Type-locality: Nigeria.

Phenice pongwei sp. nov.

(Figs 66–75)

Diagnosis. Related to *P. stellulata* (Boheman) and *P. medleri* Synave (1979) but differing in details of the male aedeagus.

Description. Antennae, vertex, carinae of face and rostrum pale yellow, frons red, black towards tip (Fig. 66). Legs pale whitish yellow. Pronotum and mesonotum pale yellow laterally, brown dorsally with carinae of mesonotum pale yellow. Abdomen pale brown dorsally, reddish ventrally and intersegmental membranes. Genital segment pale brown in ♀. In ♂ parameres are darker brown with red anal segment. Forewings marked in brown (Fig. 67), veins pale red, brighter towards costal margin. Hindwings suffused pale brown.

♂ Genitalia (Figs 69–75): aedeagus strongly asymmetrical, as shown (Figs 72, 73),

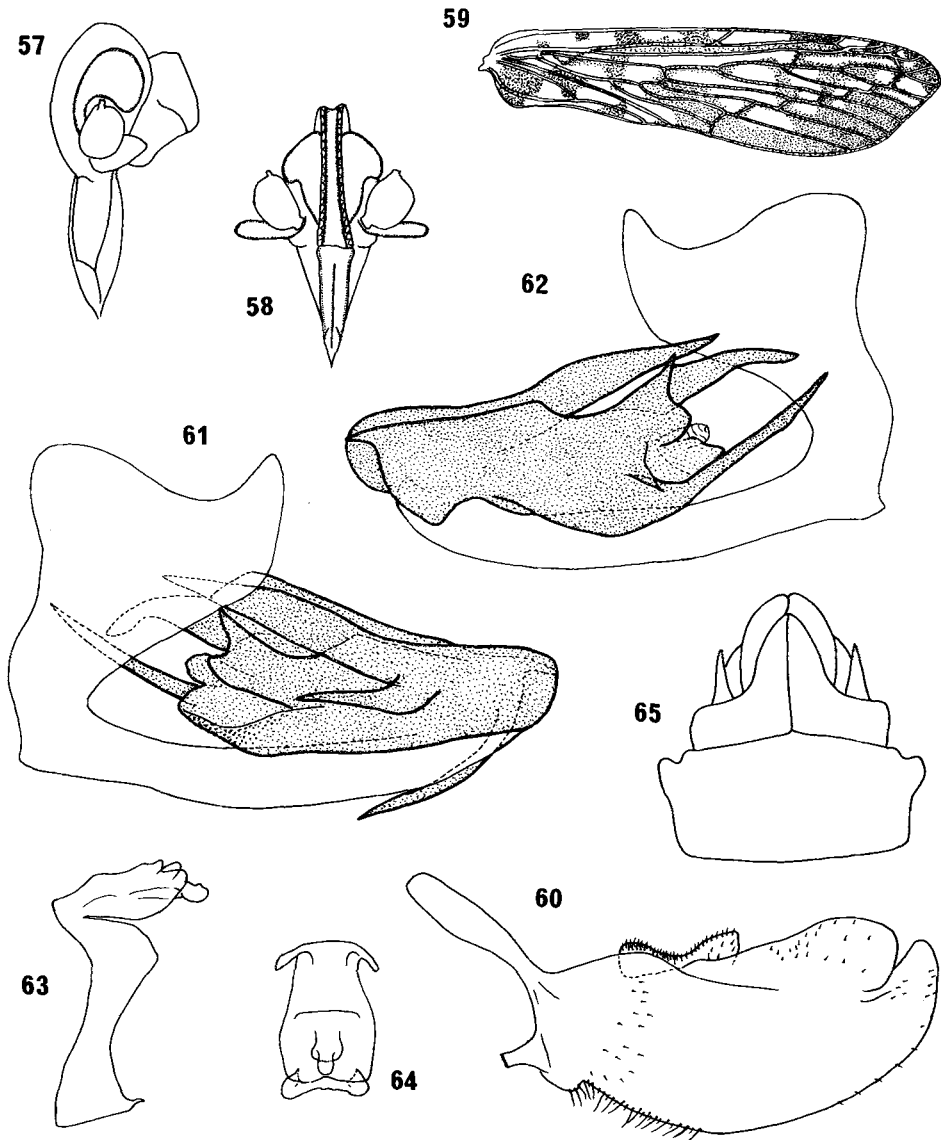


FIG. 57–65. *Paraphenice mawae* sp. nov.: (57) head, lateral view; (58) face; (59) forewing; (60) paramere, lateral view; (61) aedeagus, left lateral view; (62) aedeagus, right lateral view; (63) pygofer, lateral view; (64) anal segment, dorsal view; (65) female genitalia, ventral view.

pygofer with large median process arising from the ventral margin (Figs 69, 70). Anal segment quadrate with lateral margins produced at apex, apical margin concave (Fig. 71). Parameres (Figs 74, 75) with large inwardly directed process from ventral margin (Fig. 75).

Length: ♂/♀ 6.0–6.9 mm.

HOLOTYPE. ♂, Tanzania: Pongwe, iv.1984, M. Schuiling coll., ex coconut, CIE A15996 (BMNH).

PARATYPES. 8 ♂, 13 ♀, same data as holotype (BMNH; IRSNB).

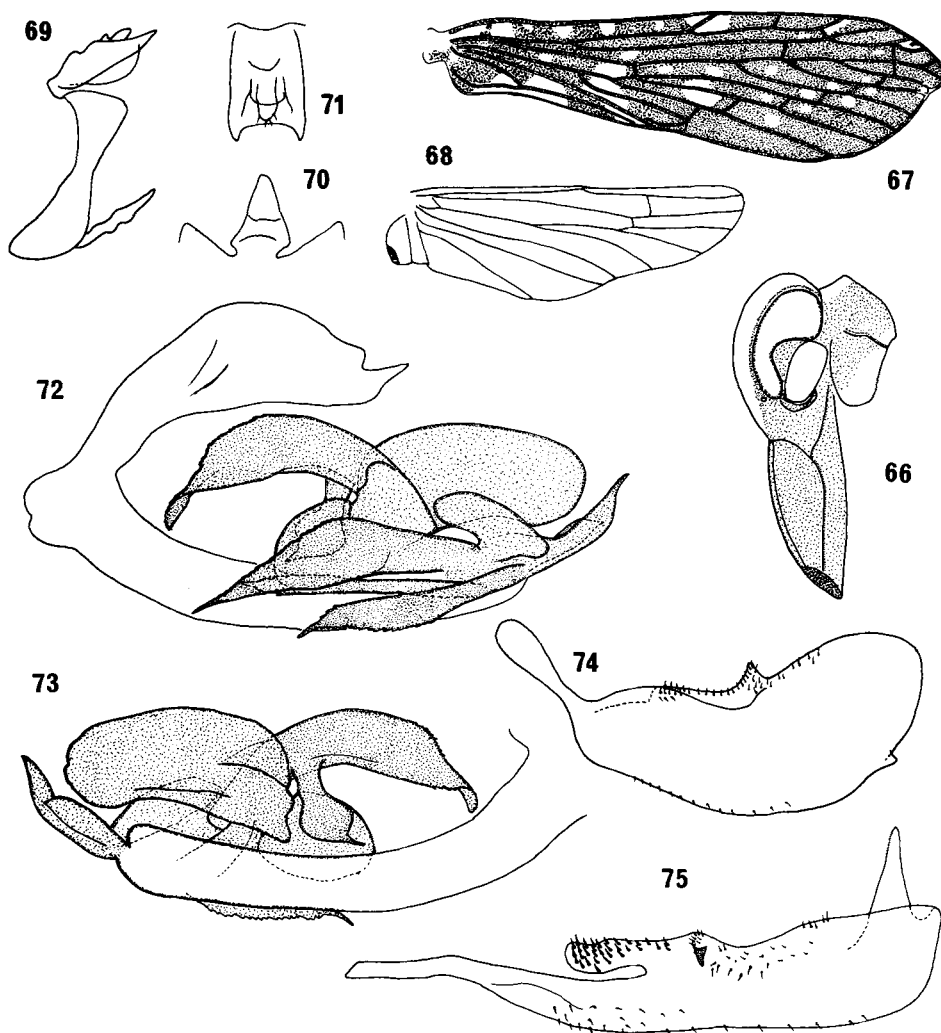


FIG. 66–75. *Phenice pongwei* sp. nov.: (66) head, lateral view; (67) forewing; (68) hindwing; (69) pygofer, lateral view; (70) median process of pygofer; (71) anal segment, dorsal view; (72) aedeagus, left lateral view; (73) aedeagus, right lateral view; (74) paramere, lateral view; (75) paramere, dorsal view.

Robigus Distant

The genus *Robigus* was described by Distant (1911) for an Indian species *R. sanguineus* Distant. Muir (1918) described *R. pattersoni* from West Africa, noting female specimens of another species from East and Southern Africa. *Robigus tortrinotatus* was described by Muir (1926) from a ♂ and ♀ from East Africa (Nyasaland). Muir appears to have forgotten his earlier description of *pattersoni* for he states that *R. tortrinotatus* was the first of the *Nicerta–Robigus–Leptaleocera* group of genera to be reported from Africa. Synave (1973) redescribed what he thought was *R. tortrinotatus* (see below under *R. synavei* sp. nov.), but in that monograph *pattersoni* was omitted by error. Van Stalle (1984) pointed out the omission and redescribed the species.

The collection from Tanzania contained a long series of a *Robigus* species. This species has been compared with the types of both *pattersoni* and *tortrinotatus* and differs markedly from both. It has also been found that the species described and figured by Synave (1973) as *tortrinotatus* was wrongly determined and represents a fourth *Robigus* species. These two new species are described here and the other two species figured for comparison.

Among the otiocerine genera in Africa *Robigus* is most distinctive in coloration with the attractive bright red markings on the forewings (Figs 76, 88, 93, 94) and head (Figs 95–97). The four African species do not closely resemble the type-species *R. sanguineus*, particularly in the shape of the head, the length of the antennae, and the coloration of the forewing. There is sexual dimorphism in the antennal length of many Derbidae, including the African *Robigus* species, the males possessing a larger antennal scape (Fig. 96).

Some Oriental species of *Nicerta* and *Leptaleocera* closely resemble African *Robigus* species. A thorough study of these Oriental genera and species will be needed before a better generic placing of the African *Robigus* species is achieved.

Two species-pairs may be distinguished in the African *Robigus*. The two West African species, *pattersoni* and *synavei*, have similar male genitalia and almost identical forewing red markings. The East and South African species, *tortrinotatus* and *magawai*, are also closely related to each other in the form of male genitalia but the forewing patterns additionally separate the species.

Key to *Robigus* species

- | | |
|--|----------------------------|
| 1. Forewing with three separated red spots towards costal margin (Fig. 76), male aedeagus in lateral view with two apical spines (Figs 80, 85) | 2 |
| – Forewing without these markings, male aedeagus with single broad spine at apex (Figs 90, 100) | 3 |
| 2. Male aedeagus in lateral view three-spined (Fig. 80) | <i>R. pattersoni</i> |
| – Male aedeagus in lateral view two-spined (Fig. 85) | <i>R. synavei</i> sp. nov. |
| 3. Forewing with pronounced zig-zag red markings (Fig. 88) | <i>R. tortrinotatus</i> |
| – Forewing with red markings more or less straight (Figs 93, 94) | <i>R. magawai</i> sp. nov. |

Robigus pattersoni Muir

(Figs 76–81)

Robigus pattersoni Muir, 1918: 241. HOLOTYPE ♂, Ghana, Gold Coast (BMNH) [examined].

Described by Muir (1918) from one ♂ collected in Ghana (Aburi). Omitted in error by Synave (1973) and redescribed by Van Stalle (1984) on the basis of a ♂ from the Ivory Coast. The form of the ♂ genitalia is distinctive (Figs 77–81). The pattern of the red markings on the forewing (Fig. 76) is very similar in both species and *R. synavei* sp. nov. described below.

Other material studied. 1 ♂, Ivory Coast: Maraoue, 12–13.x.1973, Linnavuori (IRSNB); 1 ♂, 1 ♀, Ivory Coast: Taï, G. Couturier, 5.ix.1979 (BMNH).

Distribution. West Africa.

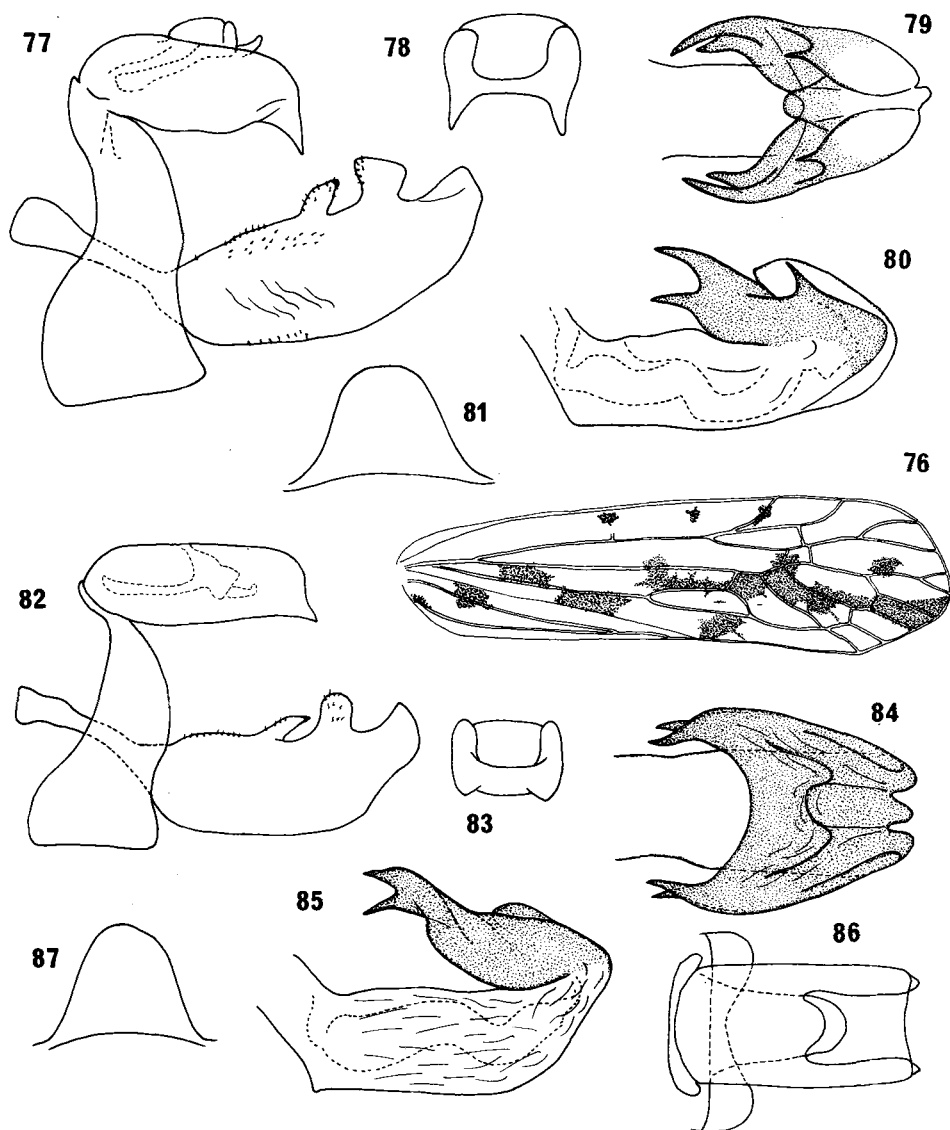


FIG. 76–81. *Robigus pattersoni*: (76) forewing; (77) male genitalia, lateral view; (78) anal segment processes, end view; (79) aedeagus, dorsal view; (80) aedeagus, lateral view; (81) female genitalia, pregenital plate.

FIG. 82–87. *Robigus synavei* sp. nov.: (82) male genitalia, lateral view; (83) anal segment processes, end view; (84) aedeagus, dorsal view; (85) aedeagus, lateral view; (86) anal segment, dorsal view; (87) female genitalia, pregenital plate.

***Robigus tortrinotatus* Muir**

(Figs 88–92)

Robigus tortrinotatus Muir, 1926: 231. LECTOTYPE ♂ (here designated), South Africa: Nyasaland, 20.iii.1924, C. Smee (BMNH) [examined].

Described by Muir from (1926) from a ♂ and ♀ from southern Africa. The male genitalia are characteristic (Figs 89, 90, 91), as is the pattern of red markings of the forewing (Fig. 88). The shape of the ♀ pregenital plate appears characteristic (Fig. 92).

Other material studied. PARALECTOTYPE, ♀, Nyasaland, Chiromo, R. C. Wood (BMNH); 1 ♀, South Africa: Wylies Poort, 5km north, 21–22.iii.1954, A. J. T. Janse (Transvaal Museum); 1 ♀, S. Africa: Rustenburg, i.1958, D. W. Rorke (Transvaal Museum); 9 ♂, 15 ♀ various localities in Mozambique (MNHN).

Distribution. East and South Africa.

Comments. Synave misidentified this species (1973:185). The description and illustration he gave refer to *R. synavei* sp. nov. (see below).

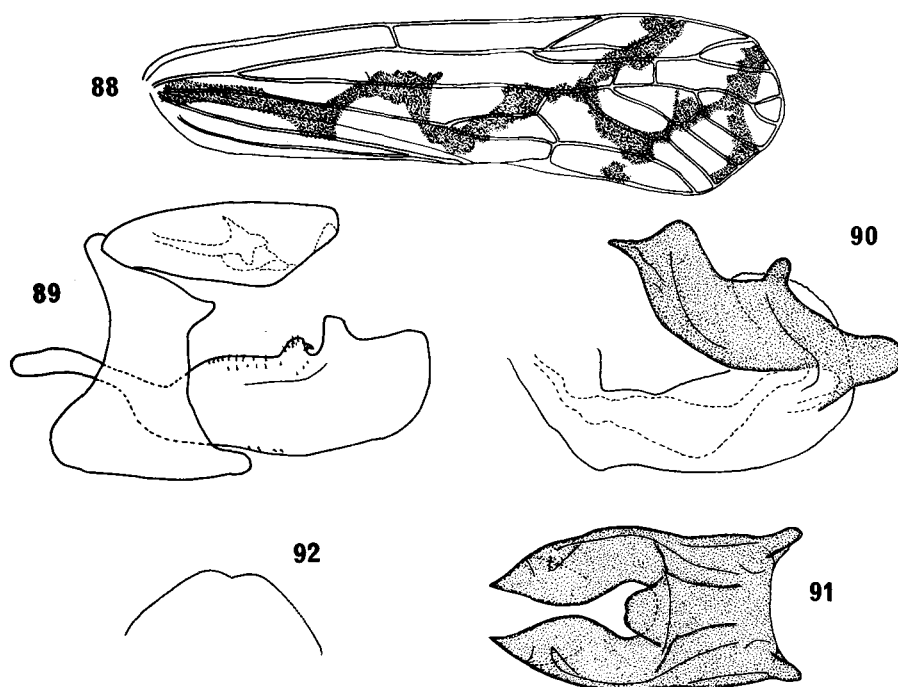


FIG. 88–92. *Robigus tortrinotatus*: (88) forewing; (89) male genitalia, lateral view; (90) aedeagus, lateral view; (91) aedeagus, dorsal view; (92) female genitalia, pregenital plate.

***Robigus synavei* sp. nov.**

(Figs 82–87)

Robigus tortrinotatus Synave, 1973: 185 [misidentification].

Synave (1973) did not examine the type-specimen of *tortrinotatus* but based his interpretation of the species on a specimen (in BMNH?) said to have compared with the type. However, the ♂ genitalia Synave figured (1973: 186) are those of a new species

and not those of *tortrinotatus*. The forewing figured by Synave is also not that of *tortrinotatus*, but neither is it that of *synavei* as recognized here. The forewing red markings of *synavei* and *pattersoni* are very similar with three distinct small spots on the costal edge (Fig. 76). These markings are not represented in Synave's drawing.

Specimens listed under '*tortrinotatus*' studied by Synave have been re-examined. In addition, a ♂ and ♀ (from the same locality) were found in the BMNH accessions.

Diagnosis: forewing markings resemble *pattersoni*. Male aedeagus (Figs 84, 85) also resembles that found in *pattersoni*, but a dorsally directed sub-apical spine is present in *pattersoni* (Fig. 80), lacking in *synavei*. The male pygofer has the anal segment with apical corners produced into spines that are short in *synavei* (Figs 82, 83) and longer in *pattersoni* (Figs 77, 78).

Description. Overall, as other African species. Forewing markings very similar to that of *pattersoni* (shown in Fig. 76).

♂ Genitalia: as shown in Figs 82–86.

♀ Genitalia: pregenital plate rounded in profile (Fig. 87).

Length: ♂/♀ 7.2–8.4 mm.

HOLOTYPE. ♂, West Africa, H. E. Box, 1943–1944; H.1235, (BMNH).

PARATYPES. 1 ♀, same data as holotype (BMNH); 1 ♂, Zaire: Mayumbe, Banga, 28.vi.1924, A. Collart (IRSNB); 1 ♂, Central African Republic: Toukoulou, 16, viii.1965, M. Boulard (MNHN).

***Robigus magawai* sp. nov.**

(Figs 93–102)

Diagnosis. The red forewing markings are characteristic (Figs 93, 94). The male genitalia resemble those of *tortrinotatus* but the aedeagus in *magawai* (Figs 100, 101) lacks the dorsally directed process present in *tortrinotatus* (Fig. 90).

Description. Generally as other African species; ♂ and ♀ forewings differ in extent of red markings, those in ♀ being more extensive (Fig. 93) than in ♂ (Fig. 94).

♂ Genitalia: as shown in Figs 98–101.

♀ Genitalia: pregenital plate triangular, rounded apically (Fig. 102).

Length: ♂/♀ 6.9–7.5 mm.

HOLOTYPE. ♂, Tanzania: Magawa, iii.1984, M. Schuiling, ex coconut, (BMNH).

PARATYPES. 17 ♂, 25 ♀, same data as holotype (BMNH; IRSNB; MRAC; MNHN; USNM); 1 ♂, South Africa: Bell-Marley, Durban, Natal (BMNH); 1 ♀, Mozambique: Haut Sangadze, infahoune pres Canxixe, P. Lesne 1928, Juin (MNHN).

Comments. This species was collected in large numbers from coconut palms in Tanzania.

***Platocera* Muir**

Platocera Muir, 1913: 44.

Only one species, *P. africana* Muir, is known in Africa. The genus and species were omitted erroneously by Synave (1973). Jan Van Stalle pointed out the omission (personal communication).

Among the African otiocerine Derbidae *Platocera* is distinguished from *Mysidiodes* in Synave's key to genera (1973: 183). Both genera have a forewing in which *M* separates after the *Sc* + *R* bifurcation (Fig. 104). In other otiocerine genera, for example, *Robigus* (Fig. 88), *Pyrrhoneura* and *Kamendaka*, *M* separates before the *Sc* + *R* bifurcation. Sub-antennal processes are present in *Mysidiodes* spp. but absent in *Platocera*. The second antennal segment in African *Mysidiodes* spp. is globular while in *P. africana* it is large, elongate and flattened (Fig. 103).

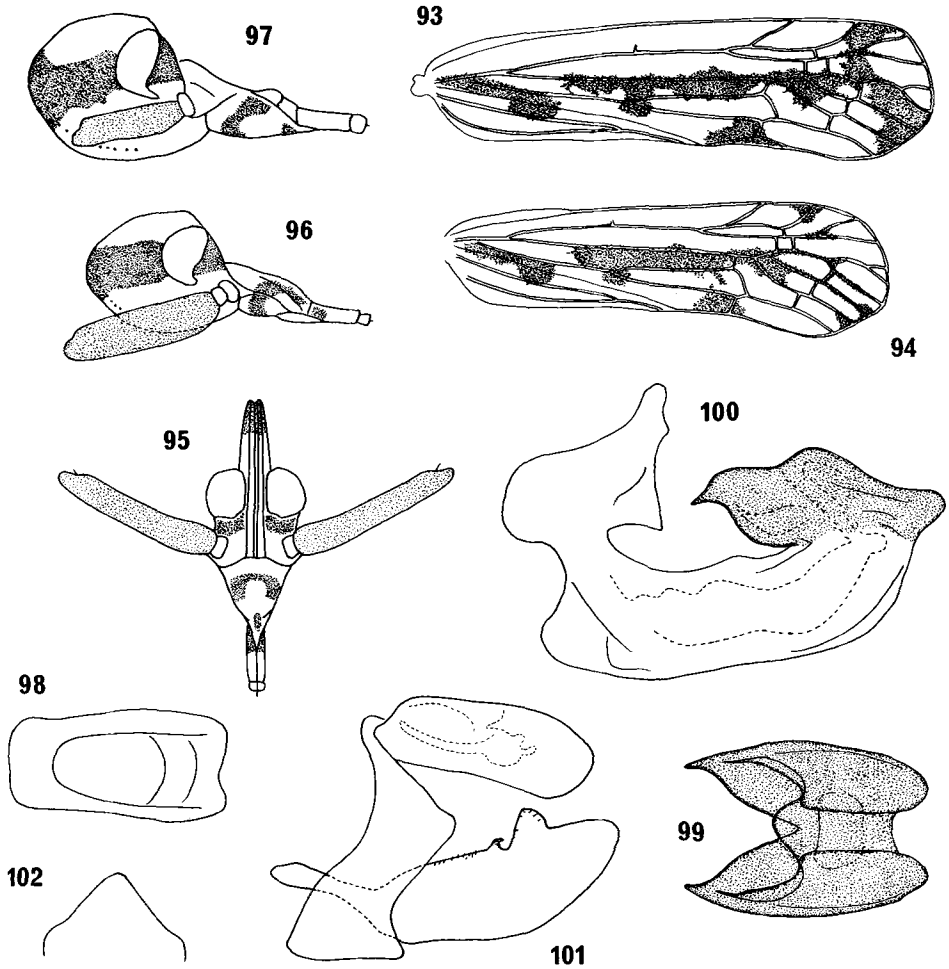


FIG. 93–102. *Robigus magawai* sp. nov.: (93) forewing ♀; (94) forewing ♂; 95 head, ♂, face; (96) head, ♂, lateral view; (97) head, ♀, lateral view; (98) anal segment of male, dorsal view; (99) aedeagus, dorsal view; (100) aedeagus, lateral view; (101) male genitalia, lateral view; (102) female pregenital plate

***Platocera africana* Muir**

(Figs 103–109)

Platocera africana Muir, 1928:510, HOLOTYPE ♂, South Africa, Pondoland, (BMNH) [examined].

In describing this species Muir (1928: 510) figured only the external appearance of the ♂ genitalia. In order that the species might be recognized in future the forewing (Fig. 104), head (Fig. 103) and ♂ genitalia (Figs 105–109) have been figured.

Comments. Known only from the holotype.

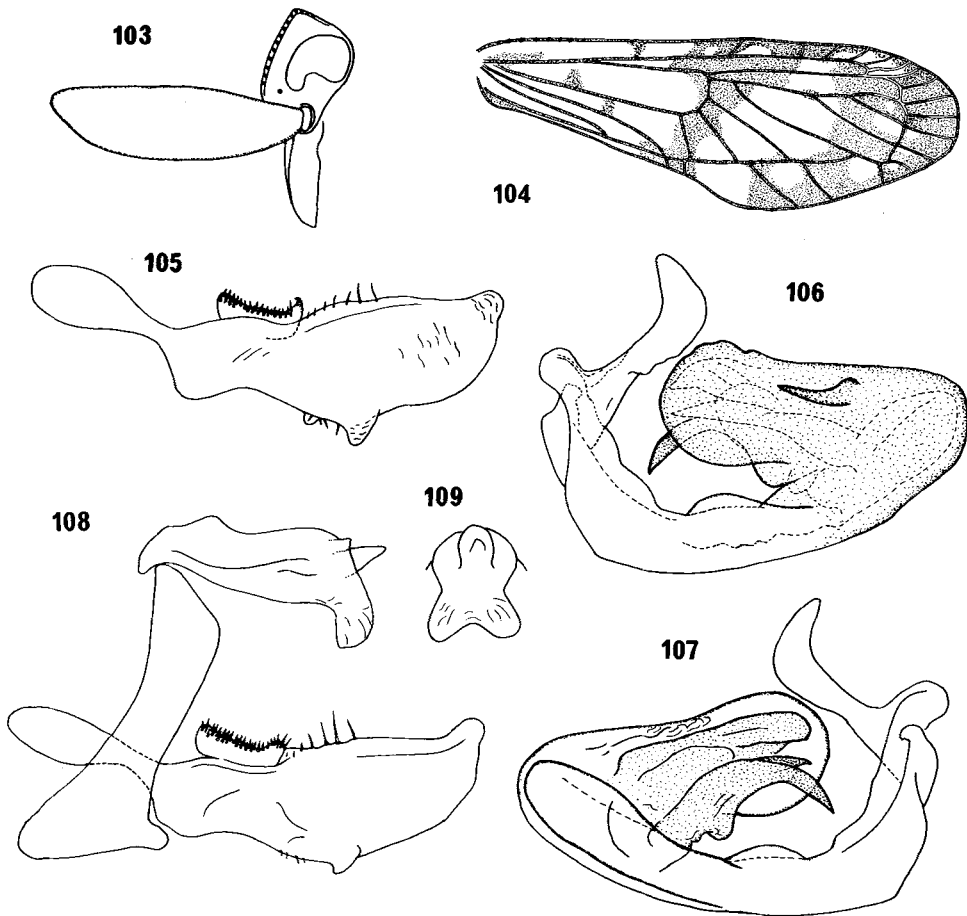


FIG. 103–109. *Platocera africana*: (103) head, lateral view; (104) forewing; (105) paramere, lateral view; (106) aedeagus, left lateral view; (107) aedeagus, right lateral view; (108) male genitalia, lateral view; (109) anal segment, end view.

***Kamendaka* Distant**

This is a genus represented by a large number of African species. Twenty-six African species have been described, 13 since 1973. Two species were found in the collection from Tanzania, from the same locality. These are *K. kordofana* Synave and a closely related but separate new species *K. ukutu*, described here.

Kamendaka camerunensis Van Stalle*Kamendaka camerunensis* Van Stalle, 1984: 47. Type-locality: Cameroon.***Kamendaka discicara*** Van Stalle*Kamendaka discicara* Van Stalle, 1986: 254. Type-locality: Ivory Coast.***Kamendaka elaeis*** Van Stalle*Kamendaka elaeis* Van Stalle, 1984: 55. Type-locality: Ivory Coast.***Kamendaka frontistriata*** Van Stalle*Kamendaka frontistriata* Van Stalle, 1984: 51. Type locality: Nigeria.***Kamendaka gashakae*** Van Stalle*Kamendaka gashakae* Van Stalle, 1984: 53. Type-locality: Nigeria.***Kamendaka maculiferens*** Van Stalle*Kamendaka maculiferens* Van Stalle, 1986: 254. Type-locality: Ivory Coast.***Kamendaka octoguttata*** Van Stalle*Kamendaka octoguttata* Van Stalle, 1984: 254. Type-locality: Nigeria.***Kamendaka pulcher*** Van Stalle*Kamendaka pulcher* Van Stalle, 1984: 49. Type-locality: Nigeria.***Kamendaka punctata*** Van Stalle*Kamendaka punctata* Van Stalle, 1984: 49. Type-locality: Nigeria.***Kamendaka taiensis*** Van Stalle*Kamendaka taiensis* Van Stalle, 1986: 253. Type-locality: Ivory Coast.***Kamendaka transversistriata*** Van Stalle*Kamendaka transversistriata* Van Stalle, 1984: 51. Type-locality: Nigeria.***Kamendaka triangularis*** Van Stalle*Kamendaka triangularis* Van Stalle, 1984: 53. Type-locality: Nigeria.***Kamendaka velata*** Van Stalle*Kamendaka velata* Van Stalle, 1984: 55. Type-locality: Nigeria.***Kamendaka ukutu*** sp. nov.

(Figs 110–118)

Diagnosis. Closely resembles *K. kordofana* Synave but generally less heavily pigmented and paler species. In the ♂ genitalia there are several differences between the species; the median lobe of the pygofer rounded in *kordofana* (Fig. 122), squarely truncate in *ukutu* (Fig. 114); the anal tube in *ukutu* with apex having divergent thin paired processes (Fig. 113), whereas these processes are thicker and more or less parallel in *kordofana* (Fig. 121); the aedeagus differs in several respects in the lengths of the processes, also the lower serrate process arising from the apex in *kordofana* (Fig. 124) appears to be almost absent in *ukutu* (Fig. 118).

Description. Overall colour, pale yellow, mesonotum orange, head vertex and lateral keels of face marked with brown (Fig. 110). Forewings with orange and darker markings as shown (Fig. 111).

♂ Genitalia: as shown in Figs 112–118.

Length: ♂/♀ 4.5–5.1 mm.

HOLOTYPE ♂. Tanzania: Chambezi, iv.1984, M. Schuiling coll, ex coconut, CIE A15996 (BMNH).

PARATYPES. 19 ♂, 7 ♀, same data as holotype (BMNH, IRSNB, MRAC).

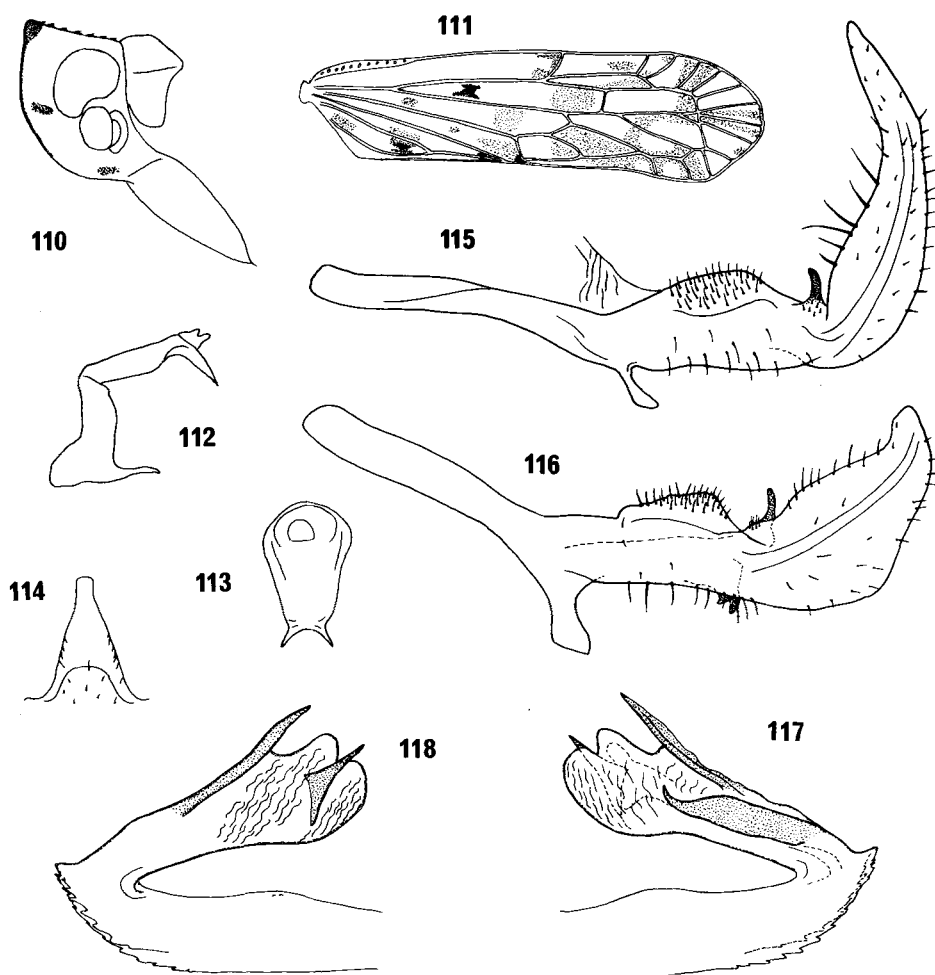


FIG. 110–118. *Kamendaka ukutu* sp. nov.: (110) head, lateral view; (111) forewing; (112) pygofer, lateral view; (113) anal segment; (114) median process of pygofer; (115) paramere, dorsal view; (116) paramere, lateral view; (117) aedeagus, left lateral view of apex; (118) aedeagus, right lateral view of apex.

***Kamendaka kordofana* Synave**

(Figs 119–124)

Kamendaka kordofana Synave, 1973: 205. HOLOTYPE ♂, Sudan, Kordofan, (Coll. Linnavuori) [not examined].

The collection from Tanzania contained both this species and the similar *ukutu* sp. nov. (see above). The species was described from Kordofan, Sudan, from where Linnavuori (1973) also found this species describing it as 'endemic' (to Sudan?). Illustrations of head (Fig. 119) and male genitalia (Figs 120–124) are given.

Material studied. 18 ♂, 17 ♀, Tanzania, Chambezi, (BMNH, some deposited IRSNB).

Distribution. Sudan, Tanzania.

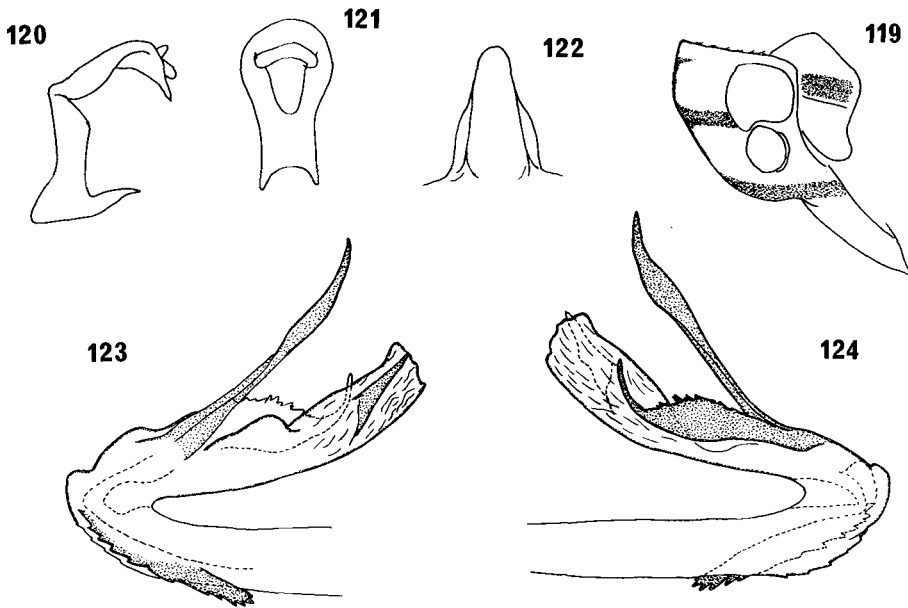


FIG. 119–124. *Kamendaka kordofana*: (119) head, lateral view; (120) pygofer, lateral view; (121) anal segment; (122) median process of pygofer; (123) aedeagus, right lateral view of apex; (124) left lateral view.

***Muiralevu* Zelazny**

Muiralevu Zelazny, 1981: 233.

***Muiralevu africanus* (Muir)**

Levu africana Muir, 1926: 233; Zelazny, 1981: 233 (transfer to *Muiralevu*).

***Muiralevu curvispinosus* Van Stalle**

Muiralevu curvispinosus Van Stalle, 1984: 58. Type-locality: Central African Republic.

***Muiralevu inermis* Van Stalle**

Muiralevu inermis Van Stalle, 1984: 59. Type-locality: Cameroon.

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