

## Descriptions of Mascarene Fulgoroidea (Homoptera)

by

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The Cixiids *Brixia decepta* spec. nov. and *B. fuscata* spec. nov. from Mauritius are described. *B. rodriguezii* Muir, *B. viridis* Muir and the Ricaniid *Tarundia straminea* Muir, all from Rodrigues, are redescribed.

Accounts of Mascarene Cixiidae and Ricaniidae respectively have been given recently by Williams (1975*a, b*) and Williams & Fennah (1980). The present paper supplements those accounts by describing two new Cixiids from Mauritius and by re-describing two Cixiids and a Ricaniid from Rodrigues.

### Family CIXIIDAE Spinola

#### *BRIXIA* Stål

#### *Brixia decepta* spec. nov., Figs 1-5

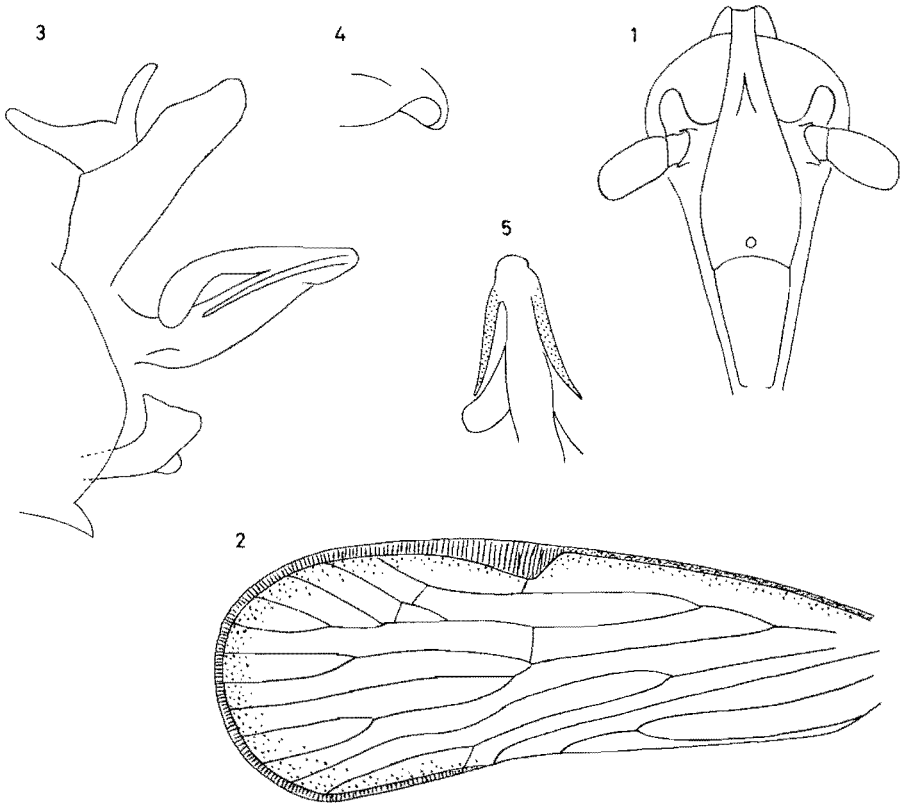
Overall length 5.5-6.0 mm. Vertex narrow, its lateral margins not distinctly offset where merging with those of frons. Frons with disc wide and flat; lateral margins much elevated. Tegmina with Sc+R fork and Cu<sub>1</sub> fork before level of junction of claval veins; R with four apical branches.

Castaneous, with narrow fuscous bands over lateral carinae of mesonotum. Tegmina hyaline; costal margin, stigma, and apical margin fuscous; longitudinal veins, except on clavus, wholly or partly fuscous; corium variably suffused fuscous adjacent to costal and apical margins.

Anal segment of male bilaterally symmetrical, without prominent lateroapical angles; ventral margin nearly straight in profile. Aedeagus prominently keeled ventrally along its entire length except near apex; a large spine directed cephalad on each side at apex.

MATERIAL EXAMINED. MAURITIUS: ♂ Holotype, Mt Cocotte, 15.xii.73, J. R. Williams. Paratypes, 1 ♂ same data as holotype, 1 ♀ same data as holotype but 3.xii.75. Holotype and paratypes in British Museum (Nat. Hist.).

This species has a superficial resemblance to *B. venulosa* Williams but is easily separated from it by the male genitalia. It is also a somewhat larger insect and the pigimentary pattern is sufficiently different to catch the eye.



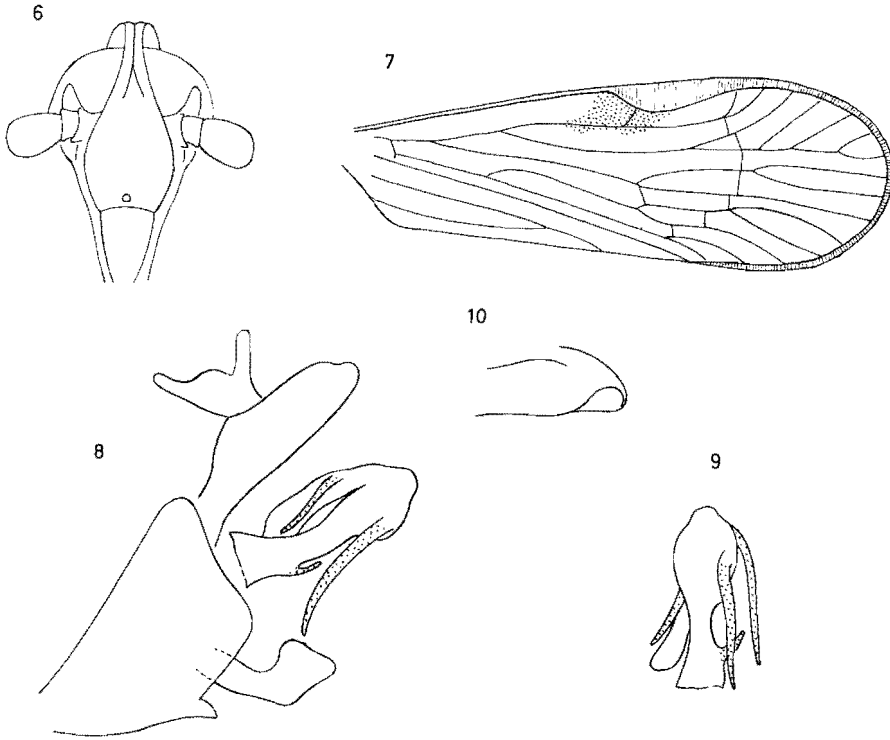
Figs 1–5. *Brixia decepta* spec. nov. 1. Head, face view. 2. Tegmen. 3. Anal segment, aedeagus, and genital style of male, from the left. 4. Extremity of anal segment of male, oblique view. 5. Aedeagus, from below.

***Brixia fuscata* spec. nov., Figs 6–10**

Overall length c. 5.5 mm. Vertex narrow, longer in midline than wide at base; lateral margins more or less straight, converging distad, feebly offset from lateral margins of frons. Frons with disc wide and flat, its lateral margins moderately raised and strongly convex in face view. Tegmina with  $Cu_1$  fork slightly before level of  $Sc+R$  fork, both well before level of junction of claval veins;  $R$  with four or five apical veins.

More or less uniformly fuscous. Tegmina hyaline but with a dark tint; stigma, apical margin and costal cell adjacent to stigma, fuscous.

Anal segment of male bilaterally symmetrical, without prominent lateroapical angles, ventral margin nearly straight in profile. Aedeagus with a short ventral spur near base directed laterad to the right, a long ventral spur near apex directed cephalad,



Figs 6–10. *Brixia fuscata* spec. nov. 6. Head, face view. 7. Tegmen. 8. Anal segment, pygofer, aedeagus and genital style of male, from the left. 9. Aedeagus, from below. 10. Extremity of anal segment of male, oblique view.

and a long spine at apex directed cephalad on the right side; flagellum with a large spine near middle.

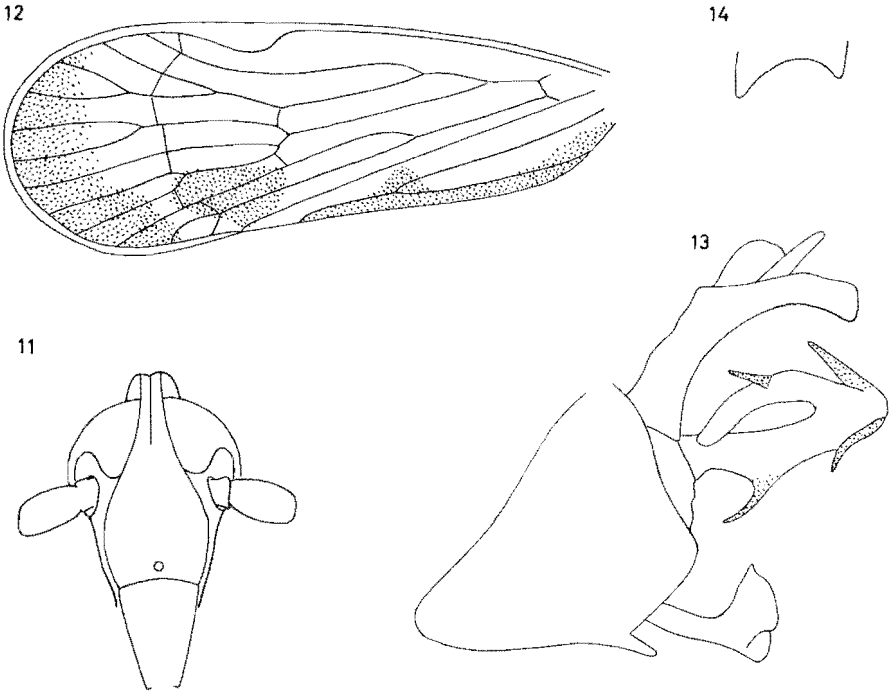
**MATERIAL EXAMINED.** MAURITIUS: ♂ Holotype, Mt Cocotte 15.xii.73, J. R. Williams. In British Museum (Nat. Hist.).

A drab species distinguished by the structure of the male genitalia. The wide frons with its convex lateral margins also helps characterize this species. The unique type has vein R with five branches on one tegmen and four on the other.

*Brixia rodriguezi* Muir, Figs 11–14

***Brixia rodriguezi*** Muir, 1925: 464.

Overall length 5,5–6,0 mm. Vertex usually a little longer than wide, lateral margins feebly to distinctly convex. Frons with disc wide and flat, lateral margins not



Figs 11–14. *Brixia rodriguezii* Muir. 11. Head, face view. 12. Tegmen. 13. Anal segment, pygofer, aedeagus and genital style of male, from the left. 14. Extremity of anal segment of male, ventral margin, from behind.

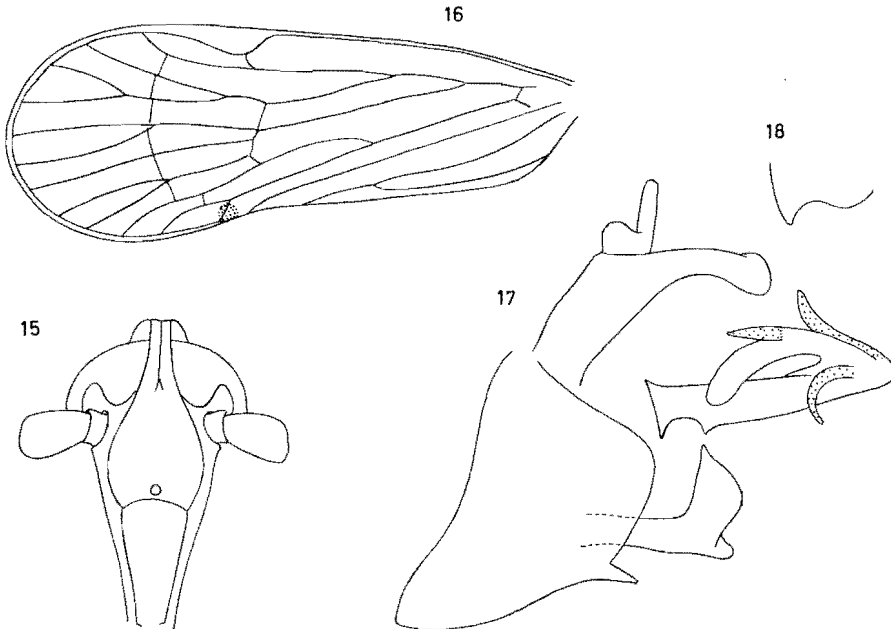
greatly elevated except proximally where diverging. Tegmina with Sc+R fork, and usually Cui fork also, distinctly before level of junction of claval veins; R with three apical veins.

Ochraceous. Tegmina hyaline tinged ochraceous, sometimes without other pigmentation but typically patterned dark fuscous as follows: over distal parts of apical cells forming a wide apical border, large patch between apex of clavus and  $M_1$ , along hind margin of clavus to end of common claval vein and over junction of claval veins.

Anal segment of male usually slightly asymmetrical, the left lateroapical angle more prominent than the right; in profile with its ventral margin entirely concave. Aedeagus with a large ventral spur in basal half on the right directed ventrocephalad, a spine at apex on the left directed cephalad, a spine at apex on the right directed laterocephalad, and a spine on flagellum near midway. Genital style in profile pointed apically but not prominently so.

**MATERIAL EXAMINED.** RODRIGUES: Grande Montagne 59 ♂ 37 ♀ ii.80, J. R. Williams & H. Dove. 9 ♂ 6 ♀ deposited in British Museum (Nat. Hist.).

Muir described this species from three males, one female, and two specimens without abdomens. His type, and undissected male, is in the British Museum and some of the author's specimens were kindly compared with it by Dr R. G. Fennah. The large number of specimens now examined has revealed the variable pigmentation of individuals and emphasized the caution necessary when characterizing *Brixia* species by tegminal pattern alone. Most individuals of *B. rodriguezii* have a distinct or at least a discernible tegminal pattern as illustrated but a small minority have no pattern at all.



Figs 15-18. *Brixia viridis* Muir. 15. Head, face view. 16. Tegmen. 17. Anal segment, pygofer, aedeagus and genital style of male, from the left. 18. Extremity of anal segment of male, ventral margin, from behind.

*Brixia viridis* Muir, Figs 15-18

***Brixia viridis*** Muir, 1925: 465.

Overall length 5.5-6.0 mm. Vertex usually a little longer than wide, pit-like, lateral margins very feebly to distinctly convex. Frons with disc wide and flat, lateral margins not greatly elevated except proximally where diverging. Tegmina with Sc+R fork distinctly before, and Cu<sub>1</sub> fork near, level of junction of claval veins; R with three apical veins.

Stramineous, vertex and sides of head around eyes sometimes tinged castaneous. Tegmina clear hyaline with a small, sharply demarcated black spot at margin at apex of clavus.

Anal segment of male asymmetrical, narrow apically with the left side formed into a blunt point; in profile with its ventral margin straight at first, then markedly concave. Aedeagus with a short, broad, keel-like spur ventrally on the right, a large hook-like spine at apex on the left directed cephalad and curving ventrad, a spine at apex on the right directed laterocephalad, and a spine on flagellum near midway. Genital style in profile prominently pointed at apex.

**MATERIAL EXAMINED.** RODRIGUES: Grande Montagne 3 ♂ 2 ♀ ii.80, J. R. Williams & H. Dove. 1 ♂ 1 ♀ deposited in British Museum (Nat. Hist.).

Muir described this species from one female. It is close to *B. rodriguezii* in the structure of the male genitalia and the configuration of the head, while both species are of the same size and have tegminal vein R with three branches. It differs from *rodriguezii* in tegminal pigmentation and the sharply defined dark spot near the apex of the clavus appears to be diagnostic, enabling individuals to be readily separated from those of *rodriguezii* that lack the typical fuscous pattern on the tegmina. The male genitalia differ from *rodriguezii* in the profile and apical configuration of the anal segment, the drawn-out point of the genital style, and by the armature of the aedeagus, namely the low keel-like ventral spur and the strongly curved left apical spine.

## Family RICANIIDAE Amyot & Serville

### *TARUNDIA* Stål

#### *Tarundia straminea* Muir, Figs 19–25

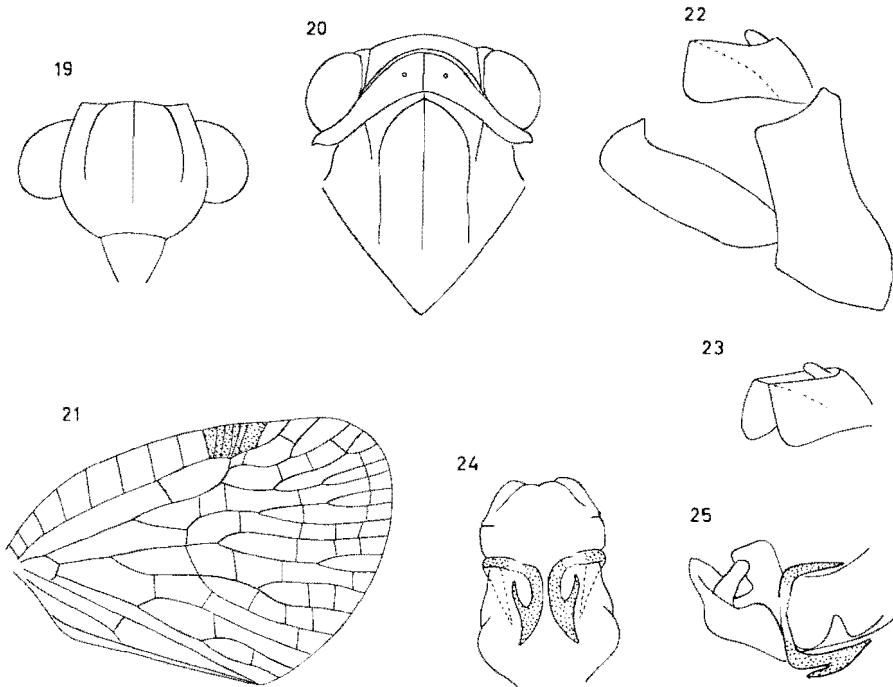
***Tarundia straminea*** Muir, 1925: 472.

Body length (dry specimens) 4.5–5.0 mm; tegmen 6.5–7.0 mm. Frons a little broader than long in median line. Vertex with anterior margin convex. Mesonotum with lateral carinae curving broadly to meet angulately at median line; anterolateral carinae distinct, closely approaching lateral carinae before ending well before middle of mesonotum. Tegmina roundedly angular apically; costal cell with one transverse vein; M forking before Sc+R and Cu<sub>1</sub>; transverse veins in distal half irregularly arranged, not forming distinct lines; one transverse vein between claval vein and claval suture. Wings with a narrow lobe on anterior margin. Basal metatarsal segment with two outer spines and six slightly smaller spines between them.

Anal segment of female in dorsal view truncate apically, lateral margins straight and diverging from apex before incurving roundedly to base. Third valvulae of ovipositor with apices truncate to slightly convex in profile and bearing three rows of teeth. Posterior ventral margin of pregenital sternite slightly produced in middle.

Anal segment of male with foliate ventrolateral lobes not projecting beyond apical margin. Pygofer with dorsolateral angles moderately acute, not strongly produced caudad. Aedeagus with both arms of lateral biramose processes sharply pointed and directed cephalad, one arm simple and lying on upper surface of aedeagus, the other with a large barb near its apex and lying on under surface of aedeagus.

**MATERIAL EXAMINED.** RODRIGUES: Grande Montagne 24 ♂ 32 ♀ ii.80, J. R. Williams & H. Dove. 6 ♂ 6 ♀ deposited in British Museum (Nat. Hist.).



Figs 19–25. *Tarundia straminea* Muir. 19. Head, face view. 20. Head and thorax, dorsal view. 21. Tegmen. 22. Anal segment, pygofer and genital style of male, from the side. 23. Anal segment of male, oblique view. 24. Aedeagus, from below. 25. Aedeagus, from the side.

The characters common to this species and to the three Mauritian *Tarundia* species have already been described (Williams & Fennah 1980). The above supplementary description is of characters that are diagnostic in Mascarene *Tarundia*.

#### REFERENCES

- MUIR, R. 1925. On some Fulgorids (Hemiptera — Homoptera) from the island of Rodriguez. *Transactions of the Entomological Society of London* **1924**: 463–474.
- WILLIAMS, J. R. 1975a. The Cixiidae (Fulgoroidea: Homoptera) of Mauritius. *Journal of Natural History* **9**: 169–204.
- 1975b. Cixiidae (Fulgoroidea: Homoptera) from Réunion Island. *Journal of Natural History* **9**: 669–680.
- WILLIAMS, J. R. & R. G. FENNAH. 1980. Ricaniidae (Hemiptera: Fulgoroidea) from Mauritius, with a description of *Trysanor cicatricosus* spec. nov., gen. nov. *Journal of the Entomological Society of Southern Africa* **43**: 7–22.

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