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Two new species of *Cyrtorhinus* Fieber (Hem.-Het., Miridae) from East Africa and Madagascar

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Introduction

In their revision of the genus *Cyrtorhinus* and the related genera *Mecomma* Fieber, *Tytthus* Fieber and *Fieberocapsus* Carvalho & Southwood, Carvalho & Southwood (1955) reduced the number of *Cyrtorhinus* species to five. A sixth was described from New Guinea by Woodward (1957). In the present paper, two new species, one from Kenya and the other from Madagascar, are described.

Members of the genus *Cyrtorhinus* feed on eggs of Delphacidae (Homoptera, Fulgoroidea) including many serious pests (Usinger, 1939; Carvalho & Southwood, 1955).

Cytorhinus Fieber

Fieber, 1858, p. 313. Type-species, *Capsus elegantulus* Mayer-Dür, a synonym of *Capsus caricis* Fallén

Cyrtorhinus rectangulus sp.n. (Fig. 1–9)

Colour. Head except for two obscure transverse triangular grayish-white spots adjacent to eyes, pronotum and scutellum jet black; eyes reddish brown; antennae entirely black; clavus along inner margin dark smoky, near external margin together with discal area of corium, cuneus and membrane from dusky to dark brown; costal area light fuscous; veins black; underside of body smoky; basal three segments of rostrum and bases of coxae light fuscous; last rostral segment black; apical half of coxae and basal parts of femora pale brown, apical half of femora, tibiae and tarsi dusky. Pubescence dark golden.

Measurements (mm). Head, length 0·28, width across eyes 0·80, width of vertex 0·33; pronotum, median length 0·57, width at base 1·06, width at apex 0·52; scutellum, median length 0·57, width at base 0·61; cuneus, length along outer margin 0·80, width at base 0·41; hemelytra, length 3·46; antennae, lengths of segments I, II, III and IV 0·47, 1·61, 1·23 and 0·50, respectively; rostrum, length 1·13; body, length 4·32.

Structure. Body elongate, hemelytra extended well beyond apex of abdomen, length of second antennal segment more than 1½ times width of pronotum at base, 3·4 times length of first antennal segment; pronotum bell-shaped, basal margin slightly concave; cuneus with width at base half its length; rostrum reaching apex of mesocoxae; spiculum of aedeagus elongate at base, apex narrowed gradually, pointed, turned at right-angle to its stem; right clasper simple, having subrectangular head with a broad beak-like extension, teeth-like structures on main discal area, outer margin thick, rounded, not flat; left clasper, apex curved (Fig. 7) and viewed differently shows elongate narrow ridges (Fig. 6).

Material. Holotype ♂ (29, L.S.T. (N)). KENYA: Nairobi, Muguga, 24.iv.68 (*E. S. Brown*). Paratypes. 3 ♂♂ (29, L.S.T. (N)) 22.iv.68, 1 ♂ (7, L.S.T. (N)) 1.v.69, 1 ♂ (29, L.S.T. (N)) 31.iii.68, 2 ♂♂ (29A, L.S.T. (N)) 1.iv.68, with other data as for holotype. All material deposited in the British Museum (Natural History).

Comments. This species runs to *C. caricis* in the key by Carvalho & Southwood (1955, p. 36), but differs distinctly in the shape of the spiculum of the aedeagus, and in both claspers. Superficially it also resembles *C. melanops* Reuter, the only other African species of *Cyrtorhinus,* but differs in the structure of the male genitalia, coloration and in the ratio of the length of antennal segment II to the basal width of the pronotum. It is characterised by the right-angled spiculum of the aedeagus (Fig. 8 & 9).

Cyrtorhinus caricisoides sp.n. (Fig. 10–18)

Colour. Very similar to that of *C. rectangulus,* except in having a small ring at apex of antennal segment I and a similar area at base of antennal segment II creamy white.

Measurements (mm). Male and (female): head, length 0·33 (0·28), width 0·76 (0·74), width of vertex 0·31 (0·33); pronotum, median lenth 0·55 (0·50), width at base 1·00 (0·9), width at apex 0·47 (0·52); scutellum, median length 0·47 (0·43), width at base 0·55 (0·61); cuneus, length along outer margin 0·89 (0·47), width at base 0·34 (0·28); hemelytra, length 3·55 (2·56); antennae, length of segments I, II, III and IV, 0·38 (0·28), 1·28 (0·90), 1·18 (0·66) and 0·38 (0·47), respectively; rostrum, length 1·00 (1·00); body, length 4·44 (3·34).

Structure. Body elongate, pronotum bell-shaped, basal margin slightly concave; cuneus of male elongate, ratio width at base to length as 1:2·34, hemelytra extended well beyond apex of abdomen; length of second antennal segment of male almost 1½ times width of pronotum at base and 3·4 times length of first antennal segment; spiculum of aedeagus sinuate, its apex like a beak, very similar to that of *C. caricis* (Fig. 17 & 18); left clasper similar in both species; right clasper with outer margin entire, not constricted as in *C. caricis,* bearing eight teeth distributed along its length. Female K structure similar to K structure of *C. caricis.*

Material. Holotype ♂ (91). MADAGASCAR: Ice de Tananarive, Stat. d'élev. Antoicabe, on trefoil, vi. 62 (*J. Laurent*): Paratype. 1 ♀ (98). MADAGASCAR: Tananarive, rural de Bevalala, Centre d'Apprentissage, on ground-nut, vi. 62 (*J. Laurent*). Both deposited in the British Museum (Natural History).

Comments. In the key by Carvalho & Southwood (1955, p. 36), this species runs to *C. caricis* which it resembles in the shape of spiculum of aedeagus and both claspers. It differs in the outline of, and the more numerous marginal teeth on, the right clasper. It is characterised by the elongate cuneus of the male and the smaller first antennal segment.

KEY TO THE SPECIES OF *Cyrtorhinus*

1 Second antennal segment about twice as long as pronotal width at base (1·5 : 0·8) 2
— Second antennal segment noticeably less than twice as long as pronotal width at base (1·5 : 1·0 to 0·8 : 0·7) 3
2 Colour chiefly fulvous, apex of first antennal segment pale ..... *fulvus* Knight
— Colour pale yellow green, apex of first antennal segment dark . *cumberi* Woodward
3 Antennal segment II about 1½ times width of pronotum at the base (1·35 : 1·0 to 1·50 : 1·0) (except in female of *C. caricisoides* where antennal segment II as long as width of pronotum); right clasper of male not bifid 4
— Antennal segment II only slightly longer than width of pronotum at the base (1·11 : 1·00 to 1·26 : 1·00); right clasper of male bifid 6
4 Spiculum of aedeagus with straight base and gradually narrowed apex bent at right-angle to the stem; right clasper of male with teeth on discal area ..... *rectangulus* sp. n.
— Spiculum of aedeagus sinuate at apex, resembling a beak; right clasper with teeth along its outer margin 5

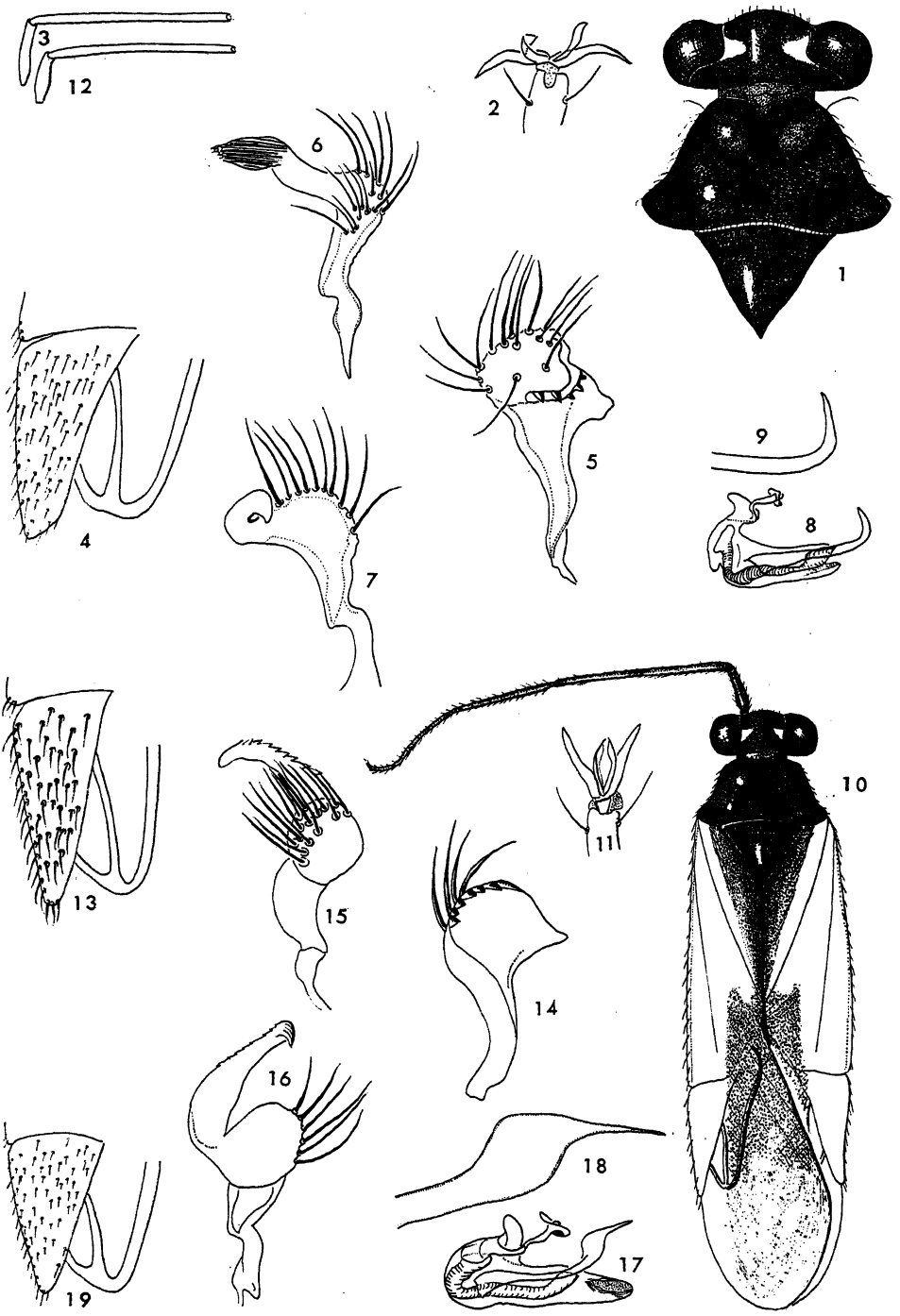

Fig. 1–9.—*Cyrtorhinus rectangulus* sp.n. 1, head and thorax; 2, hind claw; 3, antennal segments I–II; 4, cuneus; 5, right clasper; 6–7, left clasper; 8, aedeagus; 9, apex of spiculum.

Fig. 10–18.—*Cyrtorhinus caricisoides* sp.n. 10, dorsal view of body; 11, hind claw; 12, antennal segments I–II; 13, cuneus of male; 14, right clasper; 15–16, left clasper; 17, aedeagus; 18, apex of spiculum.

Fig. 19.—*C. caricis*, cuneus of male.

5 Cuneus of both sexes short (Fig. 19); right clasper with outer margin sinuate bearing four teeth closely located ..... *caricis* (Fallén)
— Cuneus (at least of male) elongate; right clasper with outer margin entire bearing eight teeth distributed along its length ..... *caricisoides* sp. n.
6 Basal segment of antenna entirely black; pronotum and scutellum entirely black; head except for obscure triangular pale areas adjacent to eyes black, spiculum of aedeagus hastate ..... *carvalhoi* Woodward
— Basal segment of antenna pale at apex; pronotum and scutellum often partially pale; head generally with wide areas adjacent and posterior to eyes pale; spiculum of aedeagus half arrow-head-shaped at apex 7
7 Small species (under 3·0 mm); tibiae entirely yellow ..... *lividipennis* Reuter
— Larger species (over 3·5 mm); tibiae generally infuscate especially at base ..... *melanops* Reuter

Summary

Cyrtorhinus rectangulus from Kenya and *C. caricisoides* from Madagascar are described as new. A key is given for the eight species of *Cyrtorhinus.*

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