

A NEW GENUS OF THE FAMILY ACHILIXIIDAE (HOMOPTERA)

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Bebaiotes gen. nov.Type *B. bucaensis* Muir.

Body considerably compressed laterally; tegmina when at rest steeply tectiform with the apical margins closely pressed together. The second claval vein subparallel to the commissure and terminating in the apex of clavus, the hind margins beyond clavus produced but do not overlap when at rest. Sc and R forking about one-third from base, M joining stalk at base, Mf about level with the apex of clavus, M with five apical veins, 1, 2, 2a, 3, 4, M₁ and 2 forking near to Mf, 3 and 4 forking much nearer to apex. The lateral areas of the basal sternites (the third or second and third) produced into a rounded process bearing three hemispherical or cuplike depressions.

The male genitalia are of interest as they bear certain features of the Meenoplinae, whereas *Achilixius* does not, but in its chief features it agrees with the family type. The pygofer is small, laterally compressed, margin entire. Anal segment fairly large, apex rounded, dorsal surface concave, anus near base. Genital styles flat, fairly broad, apex truncate, the basal apodeme short, free, the apodeme of the penis being connected to it a little distance from its apex. Aedeagus complex, consisting of dorsal, median and ventral pieces, all more or less acuminate, the base connected to a transverse bar which is fixed to the pygofer.

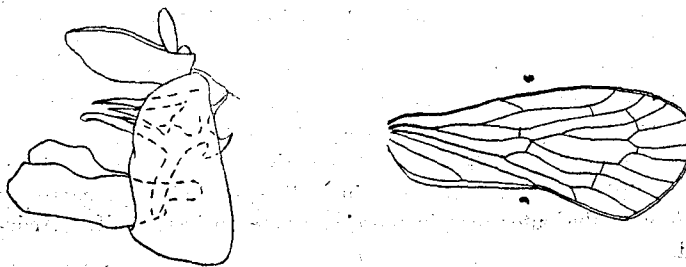


Fig. 1.—*B. bucaensis* Muir. (a) right side view of ♂ genitalia; (b) right tegumen.

Vertex longer than wide; face narrow, long, no median carina; clypeus tricarinate, labrum reaching beyond hind coxae, apical segment long, thin. Antennae terete, first joint a little longer than broad, second joint about twice the length of first. Pronotum tricarinate, hind margin straight; mesonotum tricarinate. Legs fairly thin and long, hind basitarsus about as long as the other two together. Eyes with a deep antennal sinus, lateral ocelli present, median ocellus absent.

The family Achilixiidae was erected for a genus consisting of four species of Malay insects.¹ One of these, *A. tubulifer* (Mel.), was placed by Melichar in the Derbidae but it cannot be retained in that family. For a time I hesitated as to whether it could be placed in the Cixiidae or Achilidae, but a more thorough study of the families of Fulgoroidea demonstrated that the genus must form a distinct family. It is therefore interesting to find two species in Ecuador which

1.—Philippine Journal Science 22 (5) 1923, p. 483.

form a new genus containing characteristics of the family. Further research is likely to increase the family considerably.

Types in the H. S. P. Exp. Stn. collection.

***Bebaiotes bucayensis* sp. n.**

Male. Length 3.8 mm.; tegmen 6 mm. Vertex and frons long and narrow, sides subparallel, lateral carinae not contiguous, no median or transverse carinae on vertex or on frons, base of vertex shallowly emarginate. Pygofer small, sunk into preceding segments, structure as in generic description.

Brown; carinae of thorax and head yellow, the yellow on vertex and frons joining across and forming a series of four brown spots; a series of small yellow spots along the hind margin of prothorax; legs lighter than body. Tegmina light brown or yellowish, veins light, whitish over cross veins and apical cross veins; fuscous between claval veins, around the light cross veins, in subcostal cells and along the sides of the apical veins. Wings fuscous with dark veins.

Female. Similar in color and structure to the male. Ovipositor incomplete, styles small.

Described from four males and one female from Bucay, Ecuador, 1,000 feet elevation (F. X. Williams 10 X 22). Type No. 1097.

***Bebaiotes nigrigaster* sp. n.**

Male. Length 3 mm.; tegmen 5.3 mm. This species differs from *bucayensis* by having the lateral carinae of vertex converge to the apex where they meet and keep in contact to near the apex of frons, making the vertex triangular and the frons linear to near the apex. Experience with other fulgoroids indicates that this difference cannot be considered as of generic value.

Head, thorax, legs, basal abdominal segments and genitalia yellow; rest of abdomen black. Tegmina yellow with a "T"-shape black mark, the transverse portion of T stretching from apex of M_1 to apex of Cu_1 , the upright fading out on basal half of tegmen. Wings fuscous with dark veins.

Pygofer small, sunk into preceding segments; anal segment about as wide as long or a little longer, nearly round in outline; genital styles narrower than in *bucayensis* with the outer margin more excavate on basal half. Aedeagus not examined.

Female. Length 3 mm.; tegmen 5 mm. Similar in color to the male. Ovipositor incomplete, styles small.

Described from one male and one female from Bucay, Ecuador, 1,000 feet elevation (F. X. Williams 7, X, 22). Type No. 1098.

SYNOPSIS OF THE GENUS *CHRYSOTOXUM* WITH NOTES AND DESCRIPTIONS OF NEW SPECIES (SYRPHIDAE, DIPTERA)*

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For several years specimens of the genus *Chrysotoxum* have been accumulating in my collection and many specimens received for determination are on hand. Other work has prevented a study of the specimens until just recently. The results are quite interesting and a table of species and notes are appended. The fact that I have specimens determined by a number of specialists in Diptera,

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