

**Notes and Descriptions of *Ceratocombus***  
(Hemiptera: Cryptostemmatidae)

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Several interesting cryptostemmatids have come to hand during the past two years, both from my own collecting and from material submitted for identification. The new records and species of *Cryptostemma* have been described elsewhere (Usinger, Ent. News, 56: 238-241, 1945). In the present paper a new record is given for *Ceratocombus vagans* McAtee and Malloch, and new species of *Ceratocombus* are described from Puerto Rico and Hawaii. I am indebted to E. C. Zimmerman and R. I. Sailer for the opportunity to study the Hawaiian specimens. These are of particular interest because they represent the first collection of Cryptostemmatidae from the Hawaiian Islands.

***Ceratocombus (Xylonannus) vagans* McAtee and Malloch, 1925**

This species was originally described from Maryland with paratypes from Washington, D.C., Virginia, New York, Florida and Panama. Barber (1939)\* reported it from Puerto Rico. Uhler's *niger* (1904) from New Mexico was doubtfully referred here by McAtee and Malloch and they suggested that Champion's *panamensis* (1900) may prove to be the same when the type is studied in this connection. I am now able to add Georgia to the list and record another locality for Puerto Rico.

One macropterous female and numerous nymphs were taken amidst loose frass beneath the bark of a decaying tree near the summit of Brasstown Bald (approximately 4500 feet elev.), Georgia, Sept. 10, 1944 (R. L. Usinger).

Both macropterous and brachypterous specimens were very abundant on the ground beneath leaf mold and numerous small fruits of a fallen Sierra palm near the summit of El Yunque, Puerto Rico, April 29, 1945 (R. L. Usinger).

***Ceratocombus (Xylonannus) hawaiiensis* Usinger, new species**

Suboval in form and rather uniformly brownish to castaneous in color.

Head one-third broader, eyes included, than long, 12::9. Eyes one-fourth as wide as interocular space, 2::8. Vertex smooth, moderately convex.

\* Dates in parentheses refer to the bibliography at the end of the paper. [Ed.].  
Proc. Haw. Ent. Soc., Vol. XII, No. 3, May, 1946.

Clypeus broad, parallel-sided and slightly inflated. Rostrum surpassing posterior coxae, the proportion of segments 2:9½:7½. Antennal proportions 2:5½:9:9.

Pronotum over twice as broad across humeral angles as long on median line, 17::8, and slightly shorter than head, 8::9. Disk only moderately convex, smooth, the anterior collar marked by a transverse impression laterally behind eyes, briefly transversely foveate anteriorly at middle. Lateral margins feebly rounded, sinuate at anterior constriction. Posterior margin broadly, deeply concave.

Scutellum broader than long, 9::7, subflattened and impressed with two minute foveae near middle; sides nearly straight to acute apex.

Hemelytra presumably complete, the distance from tip of clavus to apex of membrane greater than distance from base of corium to tip of clavus, 16::14. Venation as in *vagans* McAtee and Malloch, but with the two apical cells equal in size.

Under surface as in *vagans*, the male genitalia agreeing with the illustrations of McAtee and Malloch and with Puerto Rican specimens of *vagans*.

Color uniformly pale brown, the hemelytra translucent, the eyes reddish, anterior portion of head and appendages pale. Under surface brown to ochraceous.

Size: Length 1.3 mm., width (pronotum) 0.5 mm. (hemelytra) 0.62 mm.

Holotype, macropterous female, Waipahee, Kauai, T. H. Jan. 13, 1944, under bark of dead tree (N. L. H. Krauss). Allotype, male, and one female paratype, macropterous, same data as type. The holotype and allotype are deposited in B. P. Bishop Museum, Honolulu, T. H.

*Hawaiiensis* is similar to *vagans* in every way except for the form and proportions of the head and pronotum. These proportions differ strikingly in the two forms of *vagans* as follows: brachypterous form—head scarcely broader than long, 11::10; eyes small, one-fourth as wide as interocular space, 2::8; pronotum strongly convex, nearly parallel-sided, less than twice as broad as long; macropterous form—head distinctly broader than long, 10½::8; eyes larger, nearly half as wide as interocular space, 2½::6; pronotum twice as broad as long, 14::7.

In *hawaiiensis* the eyes are small as in brachypterous *vagans* while the head is relatively broad as in macropterous *vagans*. The pronotum is even wider than in macropterous *vagans* and has convex side margins in contrast to concave margins in *vagans*. In general appearance the head of *hawaiiensis* is more robust and less strongly narrowed in front of the eyes and the pronotum is broad with sides convex. These characteristics served to distinguish *hawaiiensis* from the long series of specimens of *vagans* which I studied in the U. S. National Museum collection.

### **Ceratocombus (Ceratocombus) yunquensis** Usinger, new species

Elongate-oval, attenuated anteriorly, the surface above opaque, black, distinctly marked with a yellow longitudinal fascia on inner half of each corium, these fasciae almost or quite joining an arcuate fascia which crosses apices

of coria and base of membrane. Hairs on upper surface, except head, very short and sparse, confined to margins and to veins of hemelytra.

Head broader than long, 12::9; the eyes, seen from above, about one-third as wide as interocular space,  $2\frac{1}{2}$ ::7; eyes touching anterolateral angles of pronotum; ocelli contiguous with inner margins of eyes; surface smooth, impunctate, naked and slightly convex basally; transversely wrinkled and beset with long, curved hairs apically. A long bristle behind each ocellus and another near front of eyes. Rostrum reaching to middle of intermediate coxae, the proportion of segments 3:8:7. Antennae as long as head, pronotum, and scutellum together, the proportion of segments as  $2\frac{1}{2}$ :5:10:9.

Pronotum over twice as broad behind as long on median line, 18::8, and slightly shorter than head, 8::9½; anterior collar obscure except near depressed anterolateral angles, lateral margins straight, with a prominent, anterolaterally directed bristle at anterior fourth; front margin slightly concave, hind margin broadly concave.

Scutellum broader at base than long, 12::9, feebly convex, the sides sinuate, subacute at apex.

Hemelytra complete, very long and broadened apically, the membrane almost as long as corial margin and four-fifths as wide. Corial margin scarcely arcuate, the disk subflattened laterally, convex on inner two-thirds, apex narrowly deflected beyond brief fracture. Venation as figured by McAtee and Malloch for *areolatus* except that the outer vein emanating from discal cell does not curve outward toward cuneal fracture but continues straight to wing margin.

Color dull to glossy black above with ochraceous anterior two-thirds of head, a bright yellow fascia arising at base of corium and continuing along inner corium, occupying the greater part of inner corium between emboliar and clavial sutures. The yellow extends to embolium and outer clavus at extreme base. Apically the fascia narrows abruptly or is briefly interrupted before transverse apical fascia. The latter arises at and just beyond sub-apical fracture. It does not reach apex of corium at lateral margin but extends broadly inward and crosses apical margin of corium on inner half, thence continuing across base of membrane. Membrane pale smoky white along outer margin. Rostrum and first two antennal segments pale, apical antennal segments brown. Under surface of head reddish-ochraceous, elsewhere brownish with pale pubescence, the legs pale with brown at middle of coxae and femora.

Size: Length 1.7 mm., width (pronotum) 0.52 mm. (hemelytra) 0.8 mm.

Holotype, female, and two female paratypes, Sierra palm forest, El Yunque, Puerto Rico, April 29, 1945 (R. L. Usinger). These specimens were taken beneath leaf mold and numerous small fruits of a fallen Sierra palm in company with the much more abundant *Ceratocombus vagans*. The holotype is deposited in the U. S. National Museum.

*Yunquensis* is closely related to *fasciatus* Uhler from Grenada and St. Vincent, but differs from that species in hemelytral markings and in its larger size. It runs to *brasiliensis* Reuter in McAtee and Malloch's key, but that species lacks the distinctive yellow fasciae. *Bifenestratus* Poppius (1910) from the island of Guadeloupe also belongs near here but lacks the distinctive markings of *yunquensis*.

## REFERENCES

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