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CHETONEURA CAVERNAE N. GEN., N. SP. FROM BATU CAVES, MALAYA (Diptera: Mycetophilidae)

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By courtesy of Bishop Museum, Hawaii, I have received two specimens of Mycetophilid fly, collected in Batu Caves, near Kuala Lumpur, Malaya, by personnel of the United States Army Medical Research Unit. These specimens belong to an undescribed species related to the genera *Orfelia* A. Costa and *Keroplatus* Bosc., but show certain peculiarities which make it necessary to erect a new genus. The resemblance to *Keroplatus* lies entirely in the flattened male antennae and reduced mouthparts; in other characters the species is a typical *Orfelia*. In the absence of both vein R_4 and the median ocellus, it resembles the subgenus *Tylparua*, and the wing is, in fact, virtually identical with that of the Hawaiian *O. cratericola*, even to the presence of a vein-like fold in the subcostal cell. The male terminalia, however, are more of the type seen, for example, in the other Hawaiian subgenus, *Trigemma*, as is also the arrangement of tibial setulae. Generally, it appears likely that *Chetoneura* is a recent derivative from *Orfelia*, but has diverged to an extent that makes its inclusion in that genus too inconvenient. It might, perhaps, be regarded as a link with *Keroplatus*, but if, as seems possible, it is a cavernicolous species, the resemblance may be entirely convergent.

Chetoneura n. gen.

(Chetos – want, need; neuron – nerve, sinew.)

Type species: *C. cavernae* n. sp.

A Keroplatine genus, intermediate between the genera *Orfelia* and *Keroplatus*.

Antenna broken in both specimens examined, but presumably 16-segmented; flagellar segments flattened and approximately square in lateral view in ♀; ♂ (fig. 1b) with flagellar segments much more flattened and hairy than in ♀, expanded on ventral side, with ventral processes sub-triangular on segments 3–8. Ocelli 2 in number, well separated from eye-margins. Lower frons hairy. Mouthparts reduced to little more than a pair of small labella and the palps; the latter with only a single, small, sub-spherical segment. (See "Note" below.)

Mesonotum uniformly clothed with short setae. Anepisternite with a few small setae at its dorsal margin; no spiracular setae (the ♀ specimen has, on 1 side only, 1 small seta behind spiracle but ventral to usual position); pleurotergite bare. Metanotum with strong bristles dorsally and apically.

Legs with the setulae of tibiae and tarsi arranged in rows of more or less uniform

prominence. Apex of hind tibia with a single long spur and internal and external combs; mid tibia similar but lacking the external comb; fore tibia without combs or spurs, though with a small apical spine.

Wing (fig. 1a) with venation as in *Orfelia* but R_{4+5} unbranched, very strong, and setulose on the apical portion. Costa terminating near apex of wing at about 2/3 of the distance from R_{4+5} to M_1. Sc short, ending in costa opposite origin of Rs, with a vein-like fold branching from it and terminating free in subcostal cell. Anal vein weak, extending about half way to margin. Setulae absent from M and its branches, present on Cu_1 along about the basal 2/3.

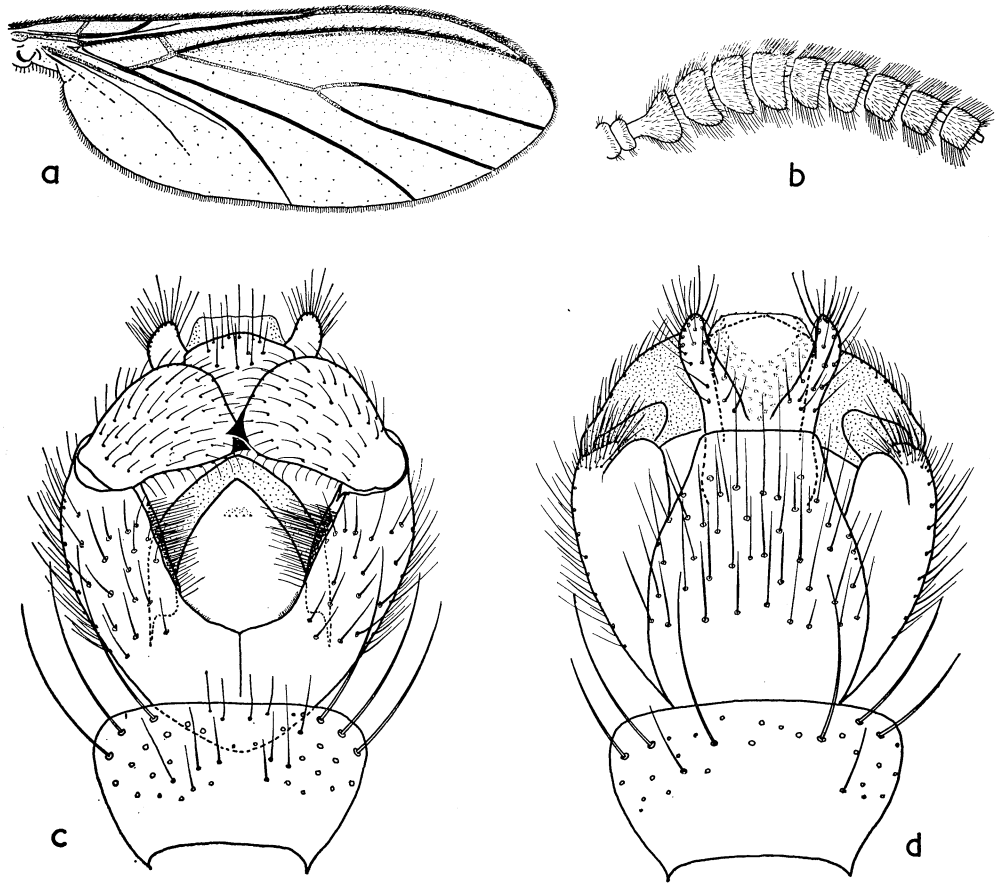

Fig. 1. *Chetoneura cavernae* Colless, n. sp., ♂ structures. a, wing; b, basal segments of antenna; c, terminalia, ventral view; d, terminalia, dorsal view.

Male terminalia (fig. 1c, 1d) without obvious modification of tergite VIII. Tergite IX large, tapering; segment X borne at its apex. Female terminalia with tergites VIII to X and the cerci small and inconspicuous; sternite VIII very large and prominent, divided longitudinally into 2 apparently separate lobes.

Chetoneura cavernae Colless, n. sp.

Types: ♂ holotype and ♀ allotype (BISHOP 3168) Batu Caves, Cavern C, Loc. 5, Black Cascade, from 3 : 00 p. m., Lite trap. 9. XII. 1959.

Type locality: Batu Caves, Selangor, Malaya.

Male: Antenna (fig. 1b) dark-brown, with profuse setae of the same colour; segments I and II paler than flagellum. Eyes scarcely emarginate around antennal bases, and with dense, unusually long pubescence. Labella sparsely-haired, yellow-brown. Remainder of head dark-brown with inconspicuous silvery pubescence.

Thorax and legs brown, except for broad silvery-pubescent areas postero-dorsally on metanotum and pleurotergites: together, these form a conspicuous pale band posteriorly across thorax. Wing (fig. 1a) with slight brownish tinge, and distinct brown infuscation along anterior margin, fading posteriorly to vein R_{4+5}; also, the latter vein very narrowly bordered with strong brown infuscation. Wing length 3.0 mm.

Hind tibia with a row of 5–6 short spines internally towards apex and a sparse row of similar external spines on apical 2/3; mid-tibia similar, but external spines more profuse, forming a complete row; fore-tibia with a few apical spines only.

Abdomen with 8 segments, excluding terminalia, dark brown with many black hairs. Terminalia (fig. 1c, 1d) with prominent tergite IX, truncate apically where it joins segment X; the latter with 2 narrow hairy dorsal lobes, connected by membrane, and a sclerotised sternite with a patch of quite strong setae towards its apex. Sternite IX not recognizable as such, apparently fused with bases of coxites; the latter also fused, with a faint suture-line at junction. Coxite with profuse setae on internal surface, and a rounded apico-dorsal lobe. Style stout, with a thorn-like apical spine. Mesosome forming a broad V-shaped band, curved ventrally towards coxites.

Female: Ornamentation and structure resembling ♂ in most features. Antenna with shorter setae. Fore tibia with several short spines externally on the apical 1/3. Wing length 3.6 mm, the anterior brown infuscation a little stronger. Abdomen with 7 segments visible dorsally, excluding terminalia.

Note: The fact that the apical 1/2 of the antenna has been broken off, in both specimens, raises some doubt as to whether the palps are really one-segmented, or whether they too have suffered breakage. However, I have mounted the head of the allotype in balsam and close examination at high magnification has produced no evidence to support the latter alternative.