

SOME TERTIARY INSECTS (HYMENOPTERA) FROM COLORADO.

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THE species described below are in the University of Colorado Museum. For the photographs I am indebted to Professor Hugo Rodeck. Although the specimens represent undescribed species, they differ little from species still living in America.

Plectiscidea lanhami sp. n. (Ichneumonidae).

Pl. I, Fig. 1.

Anterior wing nearly 4 mm. long; hyaline, with light reddish stigma and very pale nervures; stigma very large, subtriangular, its base about 2 mm. from base of wing; radial cell very deep, short, triangular, but the lower corner obtuse, not sharply angulate, the descending portion of radius about equal in length to apical margin of stigma; a very small triangular areolet; basal nervure curved, meeting the oblique nervulus; discocubitus also curved, meeting the first brachial cell at its apical upper corner; the two sides of the short first brachial oblique and nearly parallel.

Antennae long and slender, very pale; head, mesonotum and metathorax (which is broadly truncate, not produced) dark brown or black, the rest of thorax colorless as preserved, probably yellow in life. Length to end of abdomen about 5 mm., not counting the slender ovipositor, which is about 1 mm. long; abdomen clavate, petiolate, reddish brown, darkest at base; petiole gently curved, not much shorter than next two segments together; first three sutures conspicuously pallid.

Green River Eocene, Station A., along Scott's trail, 100 ft. or more above the rim, north of DeBeque, Colorado.

It is partly overlapped by a specimen of the fly *Plecia winchesteri* Ckll.

It was found by Urless Lanham and John Player, of the University of Colorado Museum.

This seemed to be very near to *Porizon*, but it was sent to the U. S. National Museum, where Mr. R. A. Cushman kindly examined it. He states that it is definitely not *Porizon*, but it looks like a species of *Plectiscini*, and possibly should go in

the genus *Plectiscus*. In that case, having an areolet, it would go in *Plectiscidea* Viereck (*Plectiscus* auctt.), not *Helictes*, which it seems is to be called *Plectiscus*, following a designation by Westwood.

Tylocomnus creedensis sp. n. (Ichneumonidae).

Pl. I, Fig. 2.

Length 14 mm., anterior wing 9; width of head 2 mm., of thorax 3, of abdomen 2.3; vertex, sides of thorax, and metathorax, dark as preserved, with dorsum of thorax pallid; abdomen with first segment dark, and the part beyond with four dark bands, the last weak; legs red; wings hyaline, faintly dusky, nervures light brown; venation essentially as in *T. pimploides* Brues from Florissant, but that has a larger areolet and more slender radial cell. The areolet, as in *T. pimploides*, is triangular, petiolate above. The basal nervure is conspicuously basad of nervulus; discoidal cell long and narrow, squarely truncate at end, its upper side with an angular bend. No exerted ovipositor.

Miocene shales at Creede, Colorado, collected by Allan Caplan.

Very close to the Florissant *T. pimploides*, but evidently a different species; less robust, and differing in details of the venation. It is an excellent specimen, with the wings outspread. The antennae appear to reach about as far as the end of the stigma. The thorax is elongated, and the abdomen has no slender petiole.

Pepsis aritula sp. n. (Psammocharidae).

Pl. I, Fig. 3.

Length 20 mm.; length of abdomen 11.4 mm.; width between wing bases 4.3 mm.; width of abdomen 5 mm.; length of hind femur 3.7 mm.; base of wing to end of stigma 8.8 mm.; color as preserved light brown throughout; wings hyaline, with dark veins, but anal cell fuliginous; hind part of metathorax with many transverse grooves, as in modern *Pepsis*. Venation so far as visible in accord with *Pepsis*, but the apical part of wing not preserved. The lower end of basal nervure is more basad of the nervulus than usual, the distance being about equal to the basal side of the first discoidal cell, and the base of the first

discoidal is conspicuously longer than that of the first cubital (they are about equal in modern *Pepsis*).

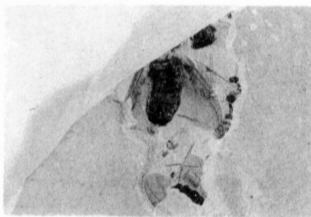
Miocene shales of Florissant, Colorado. (H. D. MacGinitie).

It is noteworthy that the submedian cell is hardly at all contracted at the end, a point of agreement with *Pepsis*, but not a generic character. In *Hemipogonius scudleri* Ckll. it is abruptly and strongly contracted, much as in *Macromeris violacea* Lepeletier.

Protazteca hendersoni (Cockerell) (Formicidae).

In my opinion, this is undoubtedly the same as the later described *P. elongata* Carpenter, both being from the Miocene of Florissant. Carpenter discusses the matter in Bull. Mus. Comp. Zool. LXX (1930), pp. 42-43. It is proper to add that Carpenter informs me that he has seen a few specimens of *P. quadrata* Carpenter with heads only about 2.5 mm. long, contrary to the statement in his paper, which mentions only 3.6 mm. for the female. *P. hendersoni* was described as having the head slightly over 2 mm. long, rather small, whereas *P. quadrata* is said to have the head very large.

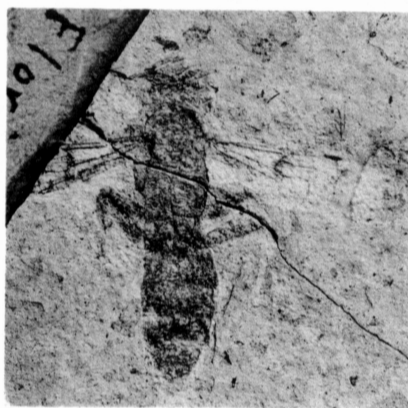
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Fossil Hymenoptera From Colorado

- FIG. 1. *Plectiscidea lanhami*
- FIG. 2. *Tylocomnus creedensis*
- FIG. 3. *Pepsis avitula*