SOME MIMETIC FLIES, WITH THE DESCRIPTION OF TWO NEW SPECIES FROM NORTH AMERICA (SYRPHIDÆ; DIPTERA).

By F. M. Hull

University, Miss.

I have recently had occasion to mention the similarity of the lateral aspect of Cerioid flies to that of certain Hymenoptera. Since that time, I find two additional species that prove to be undescribed and are here presented. A Eumenid wasp, *Eumenes bollii* Cress., was discovered among the material from Dilley, Texas, from which *P. reinhardi* Hull was taken and is considered to be probably the "model" of that species. The resemblance, while not exact, is very striking. (Figs. e, f). In at least eight respects, the similarity between them is notable. (1) Position of abdomen; (2) simulation of folded wings; (3) pendulous antennæ; (4) apical segments of antennæ contrastingly colored; (5) pleural markings; (6) general coloration; (7) position of wings; (8) pedicellate abdomen. *C. aldrichi*, n. sp. laterally viewed, greatly resembles *Spilomyia longicornis* Loew.

Cerioides aldrichi n. sp. (Plate 9, fig. 4)

Characterized by fairly large size, yellow scutellum, posteriorly bifid, large yellow spots in anterior corners of second abdominal segment and the prominent silver-tipped style. Not closely related to any North American species. Predominating colors, yellow and black.

Length 17 mm. *Female*. Vertex yellow, the deep black of the upper section of front and of vertex encroaching upon the yellow and dividing it narrowly in the middle . The divided surfaces of the yellow spots rounded. Lower front and entire face, save for a narrow basal margin to the antennifer and a narrow median stripe, shining yellow. Cheeks very broadly, and a slender margin along the front of the epistoma, deep black. The facial stripe is dark brown and has within itself a slender stripe. Antennifer and antennæ black, the third joint a very deep brown, with a curious lighter brown pubescence. The antennifer is about one third the length of the first antennal joint, and the first joint is a little longer than the second joint. The second and third joints are about equal. The style is long, about two thirds the length of the third joint.

Thorax and pleuræ jet black; a large brilliant pale yellow spot on humeri, a smaller one just before the base of the wing, a spot on mesopleuræ, sternopleuræ, and a short, similarly colored stripe on the dorsum on either side posteriorly. Scutellum shining yellow, sharply margined with black and with a median notch posteriorly. The exceedingly short pile of the scutellum is largely black. Halteres light brown. Squamæ pale yellow.

Abdomen black, the second, third and fourth segments with wide, bright yellow posterior margins, and the last two segments with thick, prominent lunulate pollinose markings. The second segment on either side with an exceedingly large, pale yellow spot. This spot extends toward the middle in its own anterior corner, but is rounded off and does not meet, and the spot is elongated posteriorly in a medial oblique direction almost to the yellow posterior margin of the segment. Thus, the lateral margin of the second segment is black from the posterior corner almost to the anterior corner. Venter black, with prominent yellow cross bands. Legs largely light brownish-yellow, the tibiæ distally and the hind femora on the outer half with a darker brownish area. Coxæ black. Trochanters dark brown. Wings infuscated along the anterior edge, more yellowish on the basal two-thirds of the margin.

One female, Susanville, California (July). W. J. Chamberlin collector. Type in the collection of the author.

A fairly large species not related to any North American form with which I am acquainted. In fact, with the broad abdomen basally, the very short antennifer and large conspicuous yellow spots on the base of the abdomen the species must approach the somewhat generalized hypothetical type described by Shannon (Insecutor Inscitiæ Menstruus, xiii, p. 49). Its short antennifer precludes placing the species in *Tenthredomyia.* I do not believe that a subgeneric assignment should be made upon it, lacking a male specimen, and also in view of the fact that there is a slight antennifer, it seems best to consider it as a highly aberrant *Cerioides*.

Tenthredomyia ancoralis Coq.

One male. Las Cruces, New Mexico. July (F. M. Hull) on flowers of privet.

Tenthredomyia abbreviata Loew.

Several specimens, males and females, near Ames, Ia., July 19 (F. M. Hull).

Tenthredomyia tridens Loew.

A large series collected by A. Spuler at Toppenish, Wash., July 22 to August 1.

Tenthredomyia mime n. sp. (Plate 9, fig. 1)

An odd species, of bluish black coloration with ivory white markings. The color, together with the entirely dark wings, with their blue and purple irridescence, makes it a very unique member of the North American *Cerioidini*. It bears a striking resemblance to a bluish-black species of wasp.

Length 15 mm. including antennæ. *Female*. Vertex ivory white, the upper occiput on either side and the front and region about occelli black, the latter with a V-shaped intrusion posteriorly into the white of the vertex. Antennifer, its base, and a short space below broadly extending to the eyes and continued medially as a narrow facial stripe, black. The face with a large, white triangle on either side and a small, white spot on the margin of the eyes just opposite the antennifer together with a pair of similar smaller spots just above the base of the antennifer. The median black stripe of the face is connected with the black oral margin and the cheeks are broadly and entirely black. Antennæ entirely black. The antennifer equal in length to the first and second joints and these latter segments of equal length. The third segment slightly longer than the second. The style quite short.

The thorax entirely black save for a white spot on the humeri, and mesopleuræ, and a smaller one before the base of

[June

the wing and again on the sternopleuræ. The scutellum broadly whitish with a narrow brownish rim posteriorly and anteriorly. Halteres and squamæ light brown.

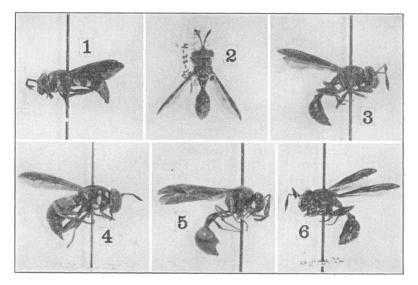
Abdomen black, with a large, oblong white spot in the anterior corners of the second segment, a white posterior margin on the second and third segments, the former noticeably thinned in the middle and wider in the posterior corners. On the posterior margin of the fourth segment there is only a minute median white spot.

Legs black, with the narrow apices of the femora, the basal third of the tibiæ and the hind femora basally, narrowly light-brownish to yellow. Wings entirely dark, with bluish and purplish reflections, the infuscation slightly diluted on the extreme posterior edge.

Type, a female, Tallulah, Louisiana. This remarkable species mimics certain of the bluish wasps. Type in the collection of the author.

EXPLANATION OF PLATE 9.

- Fig. 1. Tenthredomyia mime n. sp.
- Fig. 2. Polybiomyia festiva Hull.
- Fig. 3. Polybiomyia reinhardi Hull, showing ventral abdominal concavity.
- Fig. 4. Cerioides aldrichi n. sp.
- Fig. 5. A species of wasp, *Eumenes bollii* Cress., which P. *reinhardi* greatly resembles.
- Fig. 6. Polybiomyia reinhardi Hull, showing pollinose lunulæ of abdomen.



Hull—Mimetic Flies



BioMed Research International

Zoology





Hindawi

Submit your manuscripts at http://www.hindawi.com





International Journal of Genomics





The Scientific World Journal



Journal of Signal Transduction

Genetics Research International



Anatomy Research International



International Journal of Microbiology



Biochemistry Research International



Advances in Bioinformatics



Enzyme Research



International Journal of Evolutionary Biology



Molecular Biology International



Journal of Marine Biology