

NEW OR LITTLE KNOWN DIPTERA.

JAS. S. HINE.

NEMOTELUS PALLIPES Say.

This species was described by Say in 1823, but so far as I am aware has not been recognized since. A half dozen specimens taken near Cincinnati, June 12, of last year seem to be this species. There is slight variation, but some of the characters which Say mentioned are conspicuous; in all, the coloration agrees in general and the size corresponds exactly with Say's measurements. Some differences that might be mentioned are the coloration of the legs and ventral segments. The basal three-fourths of all the femora are black, and the middle and posterior tibiæ, except at base and apex, are usually a very dark brown, although there is some variation in the latter case. The front tibiæ are usually yellow, but even here a shade of brown is sometimes present. The rufous coloration of the posterior edges of the middle of the ventral segments is not evident, but the whole venter is a uniform black.

I am inclined to believe that this is Say's pallipes, for it seems that the conspicuous, triangular, white spot above the antennæ is a convincing character. It might be mentioned that this spot is genimate, being separated in the middle by a narrow, black space.

PACHYGASTER MACULICORNIS n. sp.

Black; lower part of front, and face next the eyes with an edging of silvery white pollen; antennæ yellow, third joint on its inner surface with a conspicuous brown spot from which the species is named, also the third joint is transverse, the perpendicular diameter being much the longest, and the slender arista appears to spring from the upper front part, although technically speaking it is apical; as all the extension of this joint is above, the antennæ have the appearance of being turned upward at the tips. Femora except at base and apex, black, remainder of legs and knobs of halteres entirely pale yellow; thorax above clothed with yellow, recumbent pile, giving a metallic appearance if viewed without the aid of a lens; wings hyaline, venation as in *Pachygaster pulcher*, stigma pale; abdomen with short, white hairs. Length $2\frac{1}{2}$ mm. Habitat, Onaga, Kansas. Three female specimens.

We have three specimens procured by exchange from F. F. Crevecoeur. By reading the description of *Zabrachia polita* Coq., I conclude that the species resembles that insect, but the third vein is branched and of the usual length. Again it suggests *Cynipimorpha*, but the scutellum is rounded at the apex. I would place it in *Pachygaster* without hesitation were it not for the antennæ, which seem to agree with Williston's description of the antennæ of *Cynipimorpha minuta*, and are therefore quite different from these organs in *Pachygaster pulcher*. I place it here provisionally.

CRIORHINA UMBRATILIS Will.

So far as I am aware only two specimens, one of each sex, of this species have been mentioned in literature. I have seen four additional female specimens recently; three taken by Chas. Dury at Cincinnati, Ohio, and one taken by E. B. Williamson at Nashville, Tenn. Mr. Dury procured his specimens from the blossoms of thorn apple about the middle of May. *Ceria*, *Specomyia* and other desirable species were taken at the same place. It is quite probable that thorough collecting on these blossoms would yield many specimens which are considered rare. Each of the gentlemen mentioned have donated a specimen of this insect to the university museum.

TROPIDIA MAMILLATA Loew.

Loew described this species in the first century of his North American Diptera, from a male specimen taken in Illinois. The type seems to have remained the only recorded specimen up to the present time. In a collection made by J. C. Bridwell at Baldwin, Kansas, is a male which agrees perfectly with Loew's description. Through the kindness of Mr. Bridwell the specimen is now in the university museum.

PHORANTHA AND ALOPHORA.

I have had much interest in the species of these two genera for some time. They appear in large numbers in late fall, on such flowers as may remain until the middle or last of October, and especially upon the various species of *Aster*. A few specimens have been taken at other seasons, but as a usual thing they are rare, while hundreds of specimens of various species may be taken in October around *Asters*. A small patch of these plants grown on the campus by the Botanical Department were in blossom through October last fall, and Mr. Bridwell procured a large number of specimens belonging to at least six species. Near noon of warm, clear days most specimens were taken.

PHORANTHA BRIDWELLI n. sp.

Head at the vibrissæ longer than at the base of the antennæ, frontal vitta wide, brown, otherwise the front and face yellowish, covered with white pollen, facial ridges bristly below, but not all of the bristles are in the single row on each side; antennæ reaching to the middle of the face, first two joints reddish, third joint and arista brown, second and third joints of nearly equal length; front at narrowest part nearly three times as wide as the distance between the posterior ocelli, ocellar bristles small, cheeks clothed with fine, pale hairs. Thorax dark in ground color, sternum, sides and scutellum thinly gray pollinose, disk yellow pollinose, except four brown, longitudinal vittæ, which extend from the anterior part to beyond the transverse suture, the outer one on each side abbreviated before and extended behind; wing brown, base to humeral cross-vein and apex of second basal cell yellowish, which

color follows the third and fifth longitudinal veins to beyond the anterior cross-vein; subhyaline spaces at apex of costal, base and apical fourth of marginal, apical third of submarginal and disk of first posterior cells; posterior border hyaline; femora and tibiae yellowish, tarsi black. Abdomen without macrochaete, but clothed with short, black hairs; entire outer margin, including the anterior half of the first segment and all of the small posterior segment, pale brown, covered with white pollen, producing a pinkish shade; disk dark purple with a narrow, pollinose dorsal stripe; venter uniform yellowish. Length; whole body, 10 mm., wing 9 mm., width of wing at base, 5 mm. Habitat, Baldwin, Kansas. Two male specimens taken from flowers of willow by Mr. J. C. Bridwell, for whom the species is named.

This is a very striking species, and it is with some hesitation that I locate it in *Phorantha*. Its wide wings and general form suggest *Alophora pulverea*, but the bare sides of front bars it from this genus. Bigot's description of *fenestrata* has been carefully studied and the following differences noted: The coloring of the wings is a conspicuous brown, which color includes the apex, and the discal cell except the lighter margin of the fifth vein, the femora are not fuscous above and the size is larger. Besides, Coquillett in his valuable study of the Tachinidæ, places *fenestrata* under *Alophora*.

The January number of the *American Naturalist* contains an article by Prof. J. H. Comstock and Mr. Chujiro Kochi on "The Skeleton of the Head of Insects," which deserves the closest attention of students of the anatomy of insects. Heretofore our knowledge of this subject has been in a chaotic condition, but this contribution certainly brings together what is known from different sources, combines it with original studies and presents it in such manner that some final conclusions seem safe.—H. O.