

PROCEEDINGS OF THE  
ENTOMOLOGICAL SOCIETY OF WASHINGTON

VOL. 25

APRIL, 1923

No. 4

DISTRICT OF COLUMBIA DIPTERA: BIBIONIDAE.

BY W. L. McATEE.

The Bibionidae are small to medium-sized chiefly black flies of vacillating flight. They occur only in spring and fall, sometimes very early or very late; the species usually are numerous in individuals. No keys are included in this paper since my "Notes on Nearctic Bibionid Flies"<sup>1</sup> contains a synopsis of all the genera and species. The number (9) of species listed is one less than recorded in the list of New Jersey diptera. (Ann. Rep. N. J. State Mus. 1909, pp. 734-5.) All of the species have been collected on Plummers Island, Md., home of the Washington Biologists' Field Club. *Dilophus spinipes* Say has been collected at Potomac Run, Va., and to the westward of our region, hence should sometimes be collected here. It would seem reasonable to expect here also *Dilophus breviceps* Loew, *Bibio basalis* Loew and *B. rufithorax* Wiedemann.

*Annotated List of Species.*

Genus *Plecia* Wiedemann.

*Plecia heteroptera* Say.—Generally distributed and not rare in its season which as at present known extends from Sept. 23 to Nov. 11.

Genus *Bibio* Geoffroy.

*Bibio abbreviatus* Loew.—A common spring fly that has been collected throughout the region at dates ranging from April 15 to May 10; is known to be attracted to light, and has been taken on the flowers of *Brassica campestris*.

*Bibio albipennis* Say.—Sometimes very abundant; has been collected from May 4 to June 9; however there is only one June record, the latest previous date being May 23; taken on flowers of *Ranunculus bulbosus*.

*Bibio femoratus* Wiedemann.—The largest local species of the genus; generally distributed and on the wing from April 18 to May 7; in copula, April 22 and May 2; comes to light.

*Bibio fraternus* Loew.—Very common; has been collected from April 20 to May 10; in copula April 28; is attracted to light.

*Bibio longipes* Loew.—A common fall species; dates of collection run from Sept. 9 to Nov. 21.

<sup>1</sup>Proc. U. S. Nat. Mus. Vol. 60, 1921, pp. 1-27.

*Bibio slossonae* Cockerell.—Plummers Island, Md., Nov. 18, 1906, Nov. 17, 1907 (McAtee); there is good reason for believing that this form is a northern subspecies of the preceding, and that the specimens here recorded are merely the intergrades that would be expected in a locality where the fauna derives numerous species from the mountain (equivalent faunistically to a northern) region.

Genus *Dilophus* Meigen.

*Dilophus obesulus* Loew.—All specimens are from the vicinity of Plummers Island or from farther up the Potomac River; they were collected from May 4 to 26; and on one occasion each at light, and on flowers of *Opulaster opulifolius*.

*Dilophus serotinus* Loew.—Sometimes abundant; the known season extends from Sept. 28 to Nov. 18; in copula Oct. 19, and 30.

A CONTRIBUTION TO THE BIOLOGY OF N. A. DIPTERA.

By CHARLES T. GREENE, *Bureau of Entomology.*

The immature stages of the Diptera discussed in this paper were reared by the writer at the Eastern Field Station, Falls Church, Va. The material was collected by the writer, except where noted. These descriptions of the immature stages are new to science. *Xylota pigra* was described briefly but no figures given. There were so many good characters on the pupa I thought it worth while describing in detail. All the species treated in this paper pupate in the last larval skin.

The writer has made a distinction between the two pairs of anterior spiracles of the pupa. The small ones located close to the apex are called "*anterior spiracles.*" They are present in the full grown larva and the pupa. A short distance in back of this pair, on the dorsum, is a larger pair which appears only in the pupa and this pair I have called "*antero-dorsal spiracles.*"

*Microdon coarctatus* Loew.

(Plate 6, figs. 1a-b)

*Larva* small, dull, smooth, opaque, milky-white; about one and one-half times longer than wide; height is about three-fourths the width; on the ventral surface, near the lateral edge, but not visible from above, is a row of fine, soft, delicate hairs which entirely encircle the ventral surface. Around the edge near the base are located thirty small cone-like projections arranged in pairs; on the dorsum are numerous others of these same cone-like projections; these cone-like projections are located on a small, short stem with a diameter about equal to the length; the cone portion has the diameter at the base about or nearly equal to the height and the color is yellowish-brown. These cones are very easily knocked off but there is always a definite scar at the point of attachment. Posterior