

arms ending in a rather prominent flattened process. Legs normal, the hind tibial sensory area distinct. Venation as in *apicalis*. Halteres with conspicuously elongated knobs. Length, 2.5 mm.

Type locality: White Heath, Ill., collected by sweeping herbage on bank of the Sangamon River, May 30, 1915 (J. R. Malloch).

This species was noticeable in the net by its very rapid motions, running swiftly up the sides, much more like a phorid than a chloropid, the latter being usually very slow and deliberate in action.

Botanobia (Oscinis) proxima Malloch.

This species is, I am convinced, a synonym of *minor* Adams. I have taken it in numbers in Illinois, and have reared it from volunteer wheat at Urbana.

Genus PSEUDOCHLOROPS Malloch.

This genus was founded upon leg characters which readily separate the genotype from any species of the genus *Chlorops* and point to its much closer affinity with *Chloropsisca*. An examination of a larger number of species of the latter genus than was possible at the time I erected the genus leads me to believe that although the scutellum in the genotype of *Pseudochlorops* is not so conspicuously flattened as that in most species of *Chloropsisca*, its possession of a flattened area bounded by a weak "rim," renders it so unessentially different in structure from *Chloropsisca* that it should not be considered as entitled to distinct generic rank.

Professor Aldrich informs me that the specimens named *Chlorops unicolor* Loew in the U. S. National Museum are misidentified, being *C. integra* Becker. This species therefore goes in *Chloropsisca* and *Pseudochlorops* falls as a synonym of that genus.

A NEW NOCTURNAL SPECIES OF TACHINIDÆ.

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Neophyto nocturnalis n. sp.

General color obscure grayish, head obtusely conical, antennæ very short, wings narrow, slightly infuscated especially bordering veins. Length 6-9 mm. Front in female one and one-third, in male, one-half eye width; cinereous, vitta nearly black; two pairs of orbitals in female, absent in male. Several pairs of smaller bristles, back of the ocellar pair. Frontals (fig. 1) not descending below base of second antennal joint in female, but ending distinctly above same in male. No frontal bristles directed distinctly backward. Antennæ black, third joint in either sex subequal with second, tip of antennæ descending but little below lower

margin of eyes. Arista black, bare, bulbous at extreme base. Facial plate very small, vibrissal angles closely approximated, vibrissæ rather weak, but distinct and strongly cruciate, situated well above oral margin. Cheeks in both sexes nearly as wide as eye-height, the anterior two-thirds occupied by the transverse impression which is greatly expanded and dark brown in color. Posterior part of cheeks and occiput cinereous. Facial ridges practically bare. A row of long, slender, ventrally directed macrochaetae extends on the face from opposite tip of second antennal joint to lower corner of eye, the longest of these subequal in length with arista. Front, on the sides, clothed with short black hairs arranged in more or less regular rows. Proboscis extremely short, labella fleshy, brown, palpi black, bearing a distinct brush of forwardly directed bristles at their tip. Thorax grayish brown, vittæ indistinct, pleuræ cinereous, sternopleurals usually three, many long erect hairs also present near them.

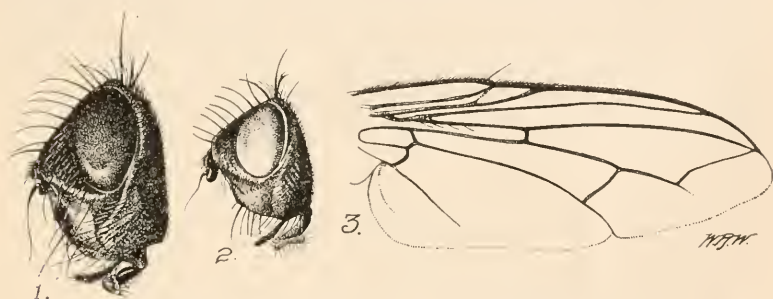


Fig. 1-3. *Neophyto nocturnalis* Walton.

Dorso-central bristles three; sometimes an irregularly placed fourth one present. Scutellum bearing three strong pairs of marginals, apical pair obsolete. Disc of same in the male bearing many long, nearly erect hairs, in addition to a discal pair. Abdomen elongate ovate in female, distinctly elongate and nearly cylindrical in male, slightly marmorate or pseudo-maculate as viewed from the rear. Also traces of a median vitta present in well-preserved specimens. Each segment bearing both discal and marginal macrochaetae although the former are sometimes asymmetrically placed. A slightly metallic sheen apparent on the darker portions of segments. Genitalia in both sexes retracted. Legs, including coxæ black, claws of male elongated, pulvilli fuscous. Wings (fig. 3) narrow, veins distinctly black. Costal spine fully as long as small cross vein. Apical cell closed slightly before costal margin entering same well before tip of wing. Bend of fourth vein distinctly angulated, bearing a wrinkle. Third vein bristly, nearly half way to small cross vein, squamæ yellowish white, head of haltere fuscous. The posterior cross vein in this genus is subject to freakish developments; a specimen of *setosa* Coq. (fig. 2) in the

National Museum collection bears stumps of veins on both the inner and outer sides of this vein while one of the females in the series before me possesses an extra short vein, originating at the middle of the posterior cross vein (which is bent outward at a distinct angle) and running parallel with the fourth vein, before its bend, nearly to posterior border in either wing.

Species described from four specimens, male and female, all collected at electric lights at night, Forest Glen, Md., by Mr. Otto Heidemann, April 19 to 28, 1914.

Structurally this species closely resembles *setosa* Coq., but differs as follows: Wing veins black, wings distinctly smoky, entire body pollinose and much darker in general color. Sides of face in transverse depression much darker brown, abdomen with reflecting spots, head more obtusely conical in side elevation, average size much larger. It is possibly entirely and certainly partially nocturnal in habit of flight. Judging from this fact and the habitus of the fly it seems probable that this genus is parasitic upon nocturnal Coleoptera, possibly *Lachnosterna*.

Mr. R. C. Shannon has previously¹ mentioned the nocturnal habit of this interesting fly.

A FEW NOTES ON THE HABITS OF PARASITIC HYMENOPTERA.

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In the course of several years spent in the study of parasites a number of interesting observations have been made which are of interest to the biological entomologist but have no direct bearing upon any economic problem. A few of these records which are considered worthy of publication have been gathered together to form the present paper.

Among the hymenopterous parasites sexual attraction seems to be a strongly developed instinct. In the Braconidæ under observation there is no courtship, the mating taking place almost immediately. This was first observed and noted for *Sigalphus curculionis* Fitch on April 30, 1908 (W. D. P). The male whenever it came close to the female fanned its wings very rapidly and finally jumped on her back, but was off in a second. A little later it approached again and this time was attached for forty seconds. Observations of other braconids were of the same nature.

Among the Chalcidoidea studied, a very interesting courtship always precedes mating. On June 15th the actions of a pair of

¹ Proc. Ent. Soc. Wash., vol. XVI, 1914, p. 182.