

TWO NEW SPECIES OF BORBORIDÆ FROM TEXAS.

BY J. R. MALLOCH.

Leptocera (= *Limosina*) **mittelli**, new species.

Male: Black, shining, but not glossy. Third joint of antennæ, face, and cheeks more or less distinctly reddish brown. Legs brownish. Wings smoky; veins brown. Halteres brownish yellow.

Frons about as long as broad, opaque except on orbits; 3 outwardly directed, orbital bristles present; the center rows consist of 4 bristles each which are of about equal length; antennæ normal in size and shape; arista nearly bare, in length about $1\frac{3}{4}$ the width of frons; cheek about equal in height to the width of third antennal joint; vibrissa strong, situated slightly above mouth margin; posterior to the vibrissa there is a short bristle situated about midway from lower margin to eye margin, and the usual marginal bristles are distinct; face concave; eyes elongate oval. Mesonotum with only one pair of prescutellar, dorso-central bristles, and the disk thickly covered with short setulæ; pleuræ glossy; sterno-plura with two bristles neither of which is exceptionally long; scutellum with four marginal bristles and the disk covered with short setulæ. Abdomen with numerous surface hairs; hypopygium large, its surface covered with short hairs. Legs covered with short hairs; mid tibia with four to five bristles on the dorsal surfaces, the pair at about apical third strongest, and one ventral bristle at below middle; basal joint of hind tarsus barely longer than broad; second distinctly longer than broad. Wings with first costal division two-thirds as long as second; second subequal with third, or slightly shorter; basal section of third vein not half as long as last section of second; outer cross vein upright, at slightly more than its own length from inner; last section of third vein straight, ending before wing tip; costa extending well beyond end of third vein; fourth and fifth veins indistinct from outer cross vein.

Length, 1 mm.

Type and paratypes: Cat. no. 15972. U. S. N. M.

Locality: Victoria, Texas. 10-9-1907. (September?) (J. D. Mitchell) "on *Bumelia lanuginosa*." Five specimens.

Allied to *ferruginata* Stenh., which is cosmopolitan in its occurrence, and is common in North America.

Leptocera (= *Limosina*) **approximata**, new species.

Male: Black-brown, subopaque. Second antennal joint, viewed from above and the side, velvety opaque black; cheeks and face yellowish-brown. Pleuræ and legs yellow-brown. Halteres yellow, knob brown. Wings clear.

Frons occupying almost the entire width of head, fig. 2, center stripe shining, the narrow stripe on either side opaque orbits shining, lateral margins of center stripe with a row of hairs, orbits covered with short

hairs, the bristles hair-like, and confined to the upper half; antennæ of moderate size, directed outward, second joint with short apical bristles, third joint with pale pilosity; arista slightly longer than width of frons, hair-like, pubescence distinct, white; face slightly retreating in profile, eye small occupying less than one-half the length of head from vertex to anterior margin, distinctly higher than long and in height equal to height of cheek; 2-3 short bristles below anterior lower margin of eye; the marginal bristles on cheek regular, distinct, and increasing in length anteriorly.

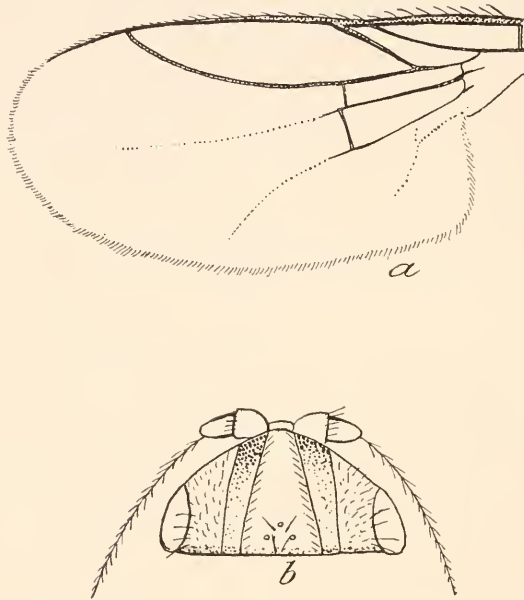


Fig. 1. *Leptocera approximata*, n. sp.; a, wing; b, head, antennae, face and cheeks.

Mesonotum with short discal pale hairs, the bristles confined to a row (5-6) in front of scutellum; marginal bristles weak; scutellum flattened on disk, broad, rounded in outline, disk bare, margin with four widely separated bristles of equal length. Abdomen not longer than thorax; hypopygium knob-like, the surface covered with short hairs. Legs normal; dorsal surface of mid tibia with 4-5 bristles as in most species of *Limosina*. Wing as figure 1a.

Length, 5 mm.

Type: Cat. no. 15973. U. S. N. M.

Locality: Dallas, Texas. August 30, 1907, reared from cow manure, (F. C. Pratt), Hunter no. 1611-19.

The peculiar frons should readily separate this species from any of the few species that are allied to it in wing venation.

NEW EXOTIC NEUROPTEROID INSECTS.

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Included below are a few miscellaneous descriptions of new exotic Neuropteroid insects which I have prepared from time to time while going over parts of my collection.

EPHEMERIDÆ.

Ephemera vedana n. sp.

Yellowish; pronotum with a dark stripe each side reaching back to above base of wings. On dorsum of abdomen, each segment has a pair of dark lines each side, the upper one the wider, except on the penultimate segment where there is one stripe each side, and a submedian pair within, this submedian pair of lines is often indicated on the other segments; last segment has a round black spot each side at base, and on some of the basal segments is a median dark spot. Venter with dark line each side, and the connection of venter and dorsum dark; setæ yellowish, their joinings dark; two dark dots each side on the upper plura. Tibia I dark at ends, femur reddish; basal joint of antennæ dark.

Fore wings hyaline, with a reddish tint along front, deepest in submarginal area and in the pterostigmatic area; cross-veins dark, longitudinal veins pale yellowish; hind wings with the cross-venation also dark; no spots on the wings. In several specimens the intercalary in front of the first anal is united to the anal near base.

The subimago has cloudy wings with dark cross-veins, in some specimens a black dot in the base of the median fork.

Expanse, 22 mm.

From Chapra, Bengal, India, February.

Abdominal marks are similar to those of *E. remensa* Eaton, but there is no trace of spots on the wings and the costal marks are different from that species.

Cloeon pulchella n. sp.

Female: Pale yellowish, abdomen rather darker. Wings hyaline, the costa faintly yellowish; about 25 cross-veins in the wings, and several of these are continuous across longitudinal veins, none near the margin, two or three in the pterostigma, widely separated, none before bulla; two intercalaries behind median, cubitus, and first anal, the posterior one of those behind median and cubitus is the longer.

Male: Thorax brown, basal segment of abdomen brown above, segments two