TWO NEW SPECIES OF CECIDOMYIIDAE FROM FLORIDA

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Lestodiplosis floridana n. sp.

MALE. Antenna a third longer than the insect, 2 + 12 segments, first and second approximated; the stems of the flagellar segments subequal in length, their diameters gradually decreasing toward the apex, the third being one and two-thirds, the fourteenth four times as long as the corresponding width. The necks of the segments, on the other hand, increase in length and decrease in width toward the apex, the third measuring 0.05 by 0.02 mm., the thirteenth measuring 0.07 by 0.01. Dimensions of the intermediate segments may be determined by interpolation. The basal node of each flagellar segment has one, the distal node two, whorls of long circumhili with regular loops. The node of the terminal segment is about a half longer than the stem. The first palpal segment is nearly quadrate, the second 2.5 times as long as broad, the third nearly as long, the fourth slightly longer than the second. Head, thorax, and abdomen pale brownish, the mesonotum somewhat darker. Legs yellow, coxae and fifth tarsal segments, and tips of second, third, and fourth tarsal segments dusky, the darker coloring at the tips of the intermediate tarsal segments owing to the presence of dark hairs. In rubbed specimens the legs are wholly yellow. Claws simple, strongly curved, not angulate, as long as the empodia. Wings hyaline with three dark spots in front of posterior radial branch, one basal, one median, and one on apical fourth; a spot at tip of this branch; three spots between radius and cubitus opposite those in front; an alongate forked spot covering petiole and branches of cubitus, and an irregular spot covering the wing base, all rather illly defined. The spots may be wholly or in part lacking in rubbed specimens because they owe their origin to the sparsely distributed hairs on the wing surface. Anterior branch of the radius ends about opposite the cubital fork; its posterior branch ends very slightly behind the wing tip. Halteres yellowish. Basistyle of terminalia fully as long as the third tarsal segment of fore legs, with a well developed, somewhat angulate, basal lobe; dististyle glabrous, slender, curved, about half as long as basistyle. Dorsal plate (so-called) emarginate, lobes rounded; ventral plate with rounded apex.
Length 1.8 mm. (alcoholic specimens); wing length 1.7 mm.,
width 0.9 mm.

The species resembles both *L. ridipennis* Johnson and *L.
florida* Felt, but differs in size, in leg and wing markings, and
in relative antennal length.

The pinkish larvae occur, presumably as predators, in the
flower heads of *Bidens pilosa* L. Reared January, 1944, at Engle-
wood, Florida, by Dr. J. G. Needham.

Holotype and paratypes in the Cornell University Collection.

*Asphondylia bidens* n. sp.

**Male.** Antennae brown; 2 + 12 segments, the two basal
short, third (first flagellar) four times as long as broad, its
length 1/6 mm., fourteenth (twelfth flagellar) four times as
long as broad, its length 1/8 mm., total antennal length 1.9 mm.;
intermediate segments in slightly decreasing lengths. Circum-
fili with low loops as figured for *A. monacha* by Felt (31st Rept.
N. Y. State Ent. 1915, p. 115, fig. 11a). Palpi three-segmented,
first basal short, second three times the first, third five times
the first in length. Head, including face, yellow to yellowish-
brown, mesonotum dark brown; submedian, longitudinal lines
yellow, very slender; scutellum brownish yellow; metanotum
yellow; humeri narrowly, over and in front of wing base, and
upper margin of the pleura, yellow; pectus brown. Abdomen
brownish yellow, incisures narrowly, pleural conjunctivae more
broadly yellow. Terminalia brown. Legs including coxae, yel-
low; tarsi darker apically; claws simple, strongly curved; em-
podium about as long as the claws. Wings hyaline, sparsely
hairy, radial veins yellow; costa ends at the apex of the wing,
anterior branch of the radius ends about opposite the cubital
fork. Halteres whitish, stem pale yellow. Terminalia promi-
etent, slightly wider than long; terminal clasp robust, but little
longer than wide, each with a pair of stout, triangular, pointed,
blackish teeth that are about as wide at the base as the length;
aedeagus Y-shaped, the up-curved, caudad projecting stem longer
than the arms; dorsal plate deeply cleft, lobes broad with rounded
apices.

Length (alcoholic specimens) 2 mm.; wing length 2 mm.,
width two-fifths of length.

**Female.** Antennae with 2 + 12 segments; total antennal
length 1.6 mm.; third segment 5.8 times as long as the diameter,
fourth to tenth in gradually decreasing lengths, the tenth about
\( \frac{3}{4} \) as long as the fourth, the terminal segments (tenth to fourteenth) measure 0.12 - 0.10 - 0.075 - 0.056 - 0.035 mm.; fourteenth slightly wider than long. Palpi 3-segmented, first a little longer than broad, second nearly three times, third about four times as long as the first. Coloring similar to that of the male but somewhat darker, the thorax and abdomen brown; legs pale brown, basal part of the femora yellow, tarsi darker brown especially apically. Immature specimens somewhat paler. Ovipositor with very slender, acicular terminal segment the base of which, when retracted, reaching forward to the second abdominal segment.

Length 2.35 mm. (alcoholic specimens); wing 2.50 by 1.08 mm.

Exuviae. Light brown; anterior horns short, stout, conical, pointed, and contiguous at base. Mesonotum, scutellum and first tergite without spinules; remaining tergites with transverse rows of spinules; the second to seventh with a regular, closely set row on the distal third and with a transverse belt on the proximal third which on the more anterior segments is composed of two irregular rows of sparsely set spinules, becoming more sparse on the posterior segments. The eighth segment has a dozen or more spinules on the disc and near the posterior margin a closely set row of stouter ones.

Length 2.8 mm., width near middle 0.9 mm. Pupa a third shorter than the exuviae.

This species differs from A. florida Felt in being smaller, and in the paler coloring and the smaller length-width ratio of the third antennal segment of the male.

Reared January, 1944, at Englewood, Florida, by Dr. J. G. Needham. The larvae make top-shaped galls in the corollas of some of the marginal flowers of Bidens pilosa L.

Holotype, allotype, and paratypes in the Cornell University Collection.

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