

THREE NEW SPECIES OF CULEX.

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Culex atropalpus, new species.

♀. Black, the halteres, apices of coxæ, and bases and under side of femora, except toward the apex, yellowish white; scales of palpi black, occiput covered with broad, appressed whitish scales and with a patch of black ones near the middle of each side, the middle of the upper side covered with narrow yellowish scales, the upright forked scales yellow; scales of mesonotum golden yellow and with a median vitta of black ones; scales of abdomen purplish black, and with a narrow fascia of whitish ones at the bases of the segments, becoming much broader on the venter; scales of legs black, those at base and on under side of femora, except toward the apex, also at extreme apices of femora, both ends of tibiæ and of the tarsal joints, except the last two and apex of the third on the front and middle tarsi, white, those on last joint of hind tarsi wholly white; claws of front and middle tarsi toothed, those of the hind ones simple; wings hyaline, lateral scales of the veins long and narrow, first submarginal cell slightly over twice as long as its petiole.

♂. Colouring as in the female, except that the short joints of the antennæ are ringed with white; palpi two thirds as long as the proboscis, slender, the apex blunt, last two joints less than half as long as the remaining portion, and bearing a few rather short hairs; claspers of nearly an equal thickness, evenly covered with hairs, and with a long, slender, curved claw at apex of each; fourth joint of front and middle tarsi as broad as long; larger claw of front and middle tarsi one-toothed, the smaller one and the claws of the hind tarsi simple.

Length, 3.5 to 4.5 mm. Thirty-seven females and three males. Type No. 6558, U. S. National Museum.

Habitat.—Richmond, Va. (Sept. 26: E. G. Williams); Plummer's Isd., Montgomery Co., Md. (May 18 to Aug. 14: R. P. Currie and H. S. Barber); Shenk's Ferry, Pa. (Oct. 21: S. E. Weber), and White Mts., N. H. (H. K. Morrison).

Near *Canadensis*, but readily distinguished by the colour of the scales on the palpi and mesonotum.

Culex varipalpus, new species.

♀. Same as *atropalpus*, with these exceptions: Scales on apices of palpi and a ring near the middle, white; occiput with two patches of

black ones on each side, the upright forked ones black and whitish ; first submarginal cell noticeably less than twice as long as its petiole.

Length, 3 mm. A female specimen collected July 29 by Mr. H. S. Barber. Type No. 6559, U. S. N. M.

Habitat.—Williams, Arizona.

Culex quadrivittatus, new species.

♀. Differs from *atropalpus* as follows : Scales at apices of palpi and several on the upper side white, scales of occiput yellowish and with four patches of black ones ; scales of mesonotum black and with four vittæ, and lateral margin of golden yellow ones ; abdomen black scaled, each segment with a lateral patch of white ones extending nearly to the middle of the venter ; scales of legs at apices of tibiæ and of joints of tarsi black, on the last two joints of the hind tarsi wholly black, tarsal claws simple.

Length, 4.5 mm. Eight females received, June 13, by Dr. L. O. Howard from Prof. Gustav Eisen, of San Francisco, Cal. Type No. 6560, U. S. N. M.

Habitat.—Chacula, Guatemala (6,600 feet altitude).

A NEW MYODITES (RHIPIPHORIDÆ).

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The specimens on which this description is based are in the collections of the University of Nebraska and of the author. I owe especial acknowledgments to Mr. J. C. Crawford, Jr., for specimens and field observations, and to Professor Bruner for directing my work. A sixteen-power glass was used in determining characters.

Myodites solidaginis, n. sp.—Female : Length, 7.9 mm. Head depressed, finely and evenly punctate, clad with dense yellowish-white, perpendicular pubescence. ; antennæ pectinate, ten-jointed, pubescent, very finely punctate, third joint with base of tooth yellowish ; vertex between antennæ elevated ; mandibles with the exterior side finely punctate, densely pubescent, grooved, in front and on interior sides shining glabrous. Thorax densely punctate, with median groove, but becoming mesially carinate behind the centre, clad with dense, upright, yellowish-white pubescence. Scutellum very finely and densely punctate, pubescent ; postscutellum shining glabrous ; metathorax bilobed, densely pubescent, punctate ; first dorsal segment of abdomen glabrous, remaining dorsal segments punctate, pubescent ; thorax and abdomen below, pygidium and legs punctate, pubescent ; elytra irregularly punctate,

slightly pubescent; posterior tarsi with first joint large, elevated, obliquely truncate and emarginate at tip, more than twice as long as second and much thicker, second joint longer than the third; claws pectinate; anterior and median tibiae with the first joint longer than the three following joints.

Colour: Antennae with the exceptions above mentioned, head, thorax, pygidium, genital sheath, femora, first ventral segment, transverse band on the first dorsal and lateral segments, two spots on second ventral, and median spots on the last four dorsal segments, black; abdomen, with the above exceptions, red; elytra honey-yellow; wings transparent honey-yellow, with a large fuscous cloud on the costal margin toward apex; tarsi and tibiae varying from black to yellow. The ♀ abdomen varies from red to brownish.

Male: Length, 7-9 mm. Similar to the female, with the following exceptions: Antennae double flabellate, 11-jointed, finely punctate throughout, pale yellow, tipped with dark; abdomen dark, with joints of first three dorsal segments yellowish, membranous. Legs yellow, with black spot at junction of femora and tibiae.

This species differs from *Popenoi*, *semiflavus* and *scaber* by having the abdomen red in the ♀ and black in the ♂. From the first two it differs by having the prothorax black, punctate, densely pubescent, vertex pubescent; from *Popenoi* by having the first joint of posterior tarsi more than one-half longer than second; from *scaber* by having the first joint much thicker than the second.

A large series of females was caught by the author on August 24, 25, 26, 1901, and by Mr. Cary on August 26, on flowers of *Solidago Missouriensis*, *rigida* and *Canadensis*, at Lincoln, Nebr. A large number were also taken August 21, 1902, and during the following week. These were, as a general rule, ovipositing in the buds of *Solidago rigida*, while a few were on the flowers of *Solidago Missouriensis*. The distribution was limited to the regions near the salt basins.

A large swarm of males was caught flying in the region of colony of *Epinomia triangulifera*, Vachal, *Perdita albipennis*, and certain species of *Andrena* and *Nomada*, on August 25, 1901, by Mr. Crawford, on the salt basins at Lincoln. Two males were caught on *Solidago* by the author; also two pairs on August 26 and 27, 1901.

A ♂, taken from the Pine Ridge, in Northwestern Nebraska, during July, has the antennae orange coloured, the clouding of the elytra fulvous, and is slightly smaller. This may be a different species.