

NOTES ON CULEX SQUAMIGER, COQ., WITH DESCRIPTION  
OF A CLOSELY-ALLIED SPECIES.

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In a recent number of this journal\* Mr. Quayle gives some notes on the habits of the Californian *Culex squamiger*, Coq., and compares these briefly with those of a species occurring in New Jersey which we have been calling *squamiger* (following a determination by Mr. Coquillett), and suggests the possibility of there being two forms. The identification of our species with the Californian one has been doubted by Prof. Smith and myself since we learned of the salt-water habit of the latter; but not until Mr. Quayle pointed out the difference in the length of tracheal gills of the larva was a close comparison of the species made. This I was able to do through the kindness of Mr. Quayle, who some time ago sent Prof. Smith, among other specimens, a male and female *squamiger*, and also several larvæ supposed to be of this species. The larvæ, it turns out, cannot be differentiated from *Culex Curriei*, which species I believe them to be. Should they, however, eventually prove to be the true *squamiger*, then some of the characters are greatly at variance with our species.

The adult New Jersey form may be characterized as follows:

*Culex sylvicola*, n. sp.—♀. Length, 6–7 mm. Head brown, occiput clothed with whitish scales and a patch of brown ones on each side of the median line contiguous to the eyes; antennæ brown, the basal joint and two following ones ochreous; proboscis and palpi blackish-brown, slightly sprinkled with white scales, the latter with the third joint rather long, the apical one minute, rounded, white scaled. The dorsum of the mesonotum is covered with cinereous scales, and a broad, median, dark brown vitta extends forward from the posterior margin, which becomes narrow anteriorly and golden-brown in colour; two other dark brown marks extend from the posterior margin not quite to the middle of the mesonotum, separated from the median vitta by a narrow line; scutellum cinereous, with brown bristles on the posterior margin; metanotum evenly brown; pleura brown, with dense, fluffy patches of whitish scales; halteres yellowish, tipped with brown and white. Abdomen blackish-brown above, with a few whitish scales intermixed; segments one to five have each a broad yellowish white band at the base, segments six and seven with an additional narrow apical band; beneath it is dirty white,

\*CAN. ENT., Vol. XXXVIII, p. 27.  
April, 1906.

with a few brown scales ; genitalia brown. Legs dark brown, femora and tibiae profusely sprinkled with whitish scales, the former yellowish on the posterior portion and at the knees ; claws uniserrated ; wings hyaline, the veins covered with broad brown and white scales, and also some narrow brown ones on the apical third, petiole of first submarginal cell almost two-thirds the length of this cell.

♂.—Palpi dark brown, the first joint whitish at the base, and with a yellow band in the centre ; bases of the two terminal joints also whitish in some specimens ; fan-like tufts brown, with yellow reflections. Abdomen with the bands restricted in the centre ; claws uniserrated ; petiole of first submarginal cell almost as long as this cell.

Genitalia : Clasp elongate, inner margin rounded apically ; sub-apical lobe present, prominent, projecting laterally, setose ; basal lobe well developed, setose, a long spine arising near it, which is curved at the tip ; clasp filament long, curved, two small setae near the apex, with long apical spine. Harpe jointed, basal segment curved, swollen basally ; apical segment long, dilated centrally, tip curved. Harpago hood-shaped, tip bent laterally. Appendage of eighth segment with long setae. (Fig. 11.)

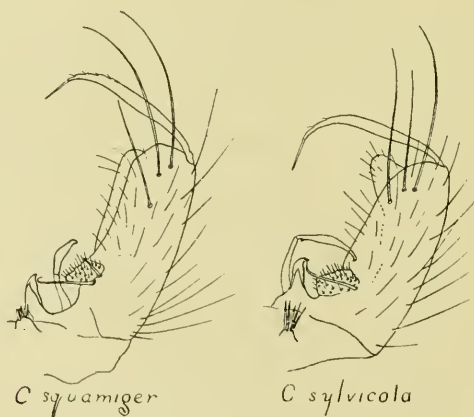


Fig. 11.—Genitalia of *Culex squamiger* and *sylvicola*.

Besides the great differences in the genitalia, *sylvicola* may be further distinguished from *squamiger* by the presence of the cinereous scales on the mesonotum ; by the proboscis being uniformly almost black instead of pale brown, and by the much darker colour of the femora and tibiae.

Described from 21 males and 20 females in the New Jersey Experiment Station collection.

Habitat : Livingston Park (near New Brunswick), N. J., and Westville, N. J.

This species was first taken in New Jersey, near Paterson, in April, 1903, in the larval condition ; but no adults were bred therefrom. In the following spring they were again met with in Livingston Park, and in the season of 1905 they were secured from this locality in some numbers. They were found full-grown as early as April 28th--indicating an egg hibernation--and the last were taken not later than May 17th, though frequent subsequent collections were made. No larvæ were ever taken in any but fresh water, woodland pools ; and adults were never seen outside their immediate breeding grounds. After emergence they continue on the wing for a period of about three months, becoming more and more worn as the season advances.

An account of the life-history of this species as far as known, and a description of both larva and adult, is given by Prof. Smith in his "Report on Mosquitoes" (N. J. State Exper. Sta., 1903-'04), and also a description of the larva in *Psyche*, Vol. XII, p. 13.

A description of the genitalia of *C. squamiger* is here appended for comparison with *C. sylvicola* (Fig. 11): Clasp elongate, margins subparallel almost to apex, inner margin rounding abruptly toward apex ; subapical lobe setose ; basal lobe well developed, setose, a long spine recurved at the tip arising near it, another stout spine a short distance above this ; clasp filament long, curved, four small setæ near the apex, with long apical spine. Harpe jointed, basal segment comparatively short, apical segment short, dilated centrally, tip slightly curved. Harpago hood-shaped, tip bent laterally. Appendage of eighth segment with short setæ.

#### THE ACADEMY OF SCIENCE OF ST. LOUIS.

This institution, founded in 1856, celebrated its first jubilee by a dinner on Saturday evening, March 10th. About 200 persons were present, including a number of representatives of societies at a distance. The Entomological Society of Ontario was well represented by one of its ex-presidents, Prof. Lochhead, of Guelph, who conveyed the cordial greetings of this Society to the members of the Academy. In commemoration of the interesting event a handsome bronze medal has been prepared, having on the obverse a portrait of George Engelmann, the first president. The Curator desires to express his hearty thanks for the one presented to our Society.