THE LARVA AND BREEDING PLACE OF *Aedes aldrichi* DYAR AND KNAB. (CULICIDÆ, DIPTERA).

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Aedes aldrichi is the dominant mosquito in the Lower Fraser Valley, B. C., and the main cause of the serious mosquito pest that at times occurs in that district and casts an evil shadow over the most beautiful period of the year. Previous to the summer of 1920, the larva had been unknown and there were no definite data as to its breeding place. Extensive larval collections have shown the main breeding places to be in the wooded river bottoms. These areas are thickly covered with cottonwood and a tangled low growth of willow, rose and spiræa. They are locally known as alder-bottoms. At freshet time flooding converts them into temporary swamps capable of producing enormous numbers of mosquitoes. *Aedes vexans* and *Aedes cinereus* occur with *Aedes aldrichi* in these alder-bottom areas, but the latter is the chief species.

Description of Larva of *Aedes aldrichi*.

Stage IV.—A stout dark grey larva, very much like that of *Aedes hirsuteron* and *Aedes aestivalis*, from which it differs mainly in the dorsal head hairs and, in the case of *hirsuteron*, in the laterals of the sixth abdominal segment.*

Head with a dark patch on the vertex; broad, narrowed before the eyes; front roundly arcuate. Antennæ, inserted at notch in head, yellowish, moderate, curved, swollen at base, fairly thickly covered with large and small spines; antennal tuft of about seven hairs of moderate length placed a little before centre; at the apex are four short spines, one long spine and one short bud-like process. Eyes transverse and pointed. Upper pair of dorsal head hairs usually in twos and lower head hairs single; ante-antennal tuft of about seven hairs. Mental plate broadly triangular with a small, central tooth and fourteen to seventeen teeth on each side, those toward base largest. Thorax rounded, wider than long, hairs abundant and fairly long. Abdomen stout, anterior segments shorter and broader, hairs sparse, laterals moderately long, secondaries short; laterals usually double from second to sixth segment, but often in threes on third segment; first segment with two pairs of fairly long hairs. Air tube stout, about three times as long as wide; pecten of about seventeen evenly spaced teeth reaching to middle; teeth gradually larger distally; individual tooth a long spine with broad base, a stout spine at base and a very small tooth between this and the main spine; a tuft of six hairs following the pecten. Lateral comb of eighth segment of about twenty-five scales in a broad triangular patch; scales three deep; individual scales broadly elliptical, fringed with short delicate spines from centre outwardly, a longish stout spine at apex. Dorsal plate reaching nearly to ventral line. Dorsal tuft a brush of about eight hairs and one long hair on each side. Ventral brush well developed. Anal gills ensiform and about twice as long as eighth segment. Skin of larva covered with minute spicules.

*Note.—A great deal of variation occurs and a good series is needed to ensure accurate determinations. The dorsal head hairs are not very constant. In many cases the upper dorsal head hairs are in threes and the lower head hairs in twos, sometimes they occur in fours and in threes, but in only a very few specimens examined were the upper head hairs found to be single as in *aestivalis*. In many specimens some of the abdominal laterals were found to be in threes, but the sixth laterals are always paired, unlike those of *hirsuteron*, in which they are single.