

NOTES ON THE OCCURRENCE OF ABNORMAL SCALE
PATTERNS IN ADULT FEMALE *Aedes vexans*
(MEIGEN)¹

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Aedes vexans (Meigen) is a common mosquito found throughout the United States and Canada. During the late spring and summer the species frequently occurs in sufficient numbers to create substantial nuisance. In upland light trap collections, *Aedes vexans* is generally the foremost floodwater species in New Jersey.

Adult female *Aedes vexans* normally display dark scaled abdominal tergites with conspicuously indented basal white bands (Fig. 1). The in-

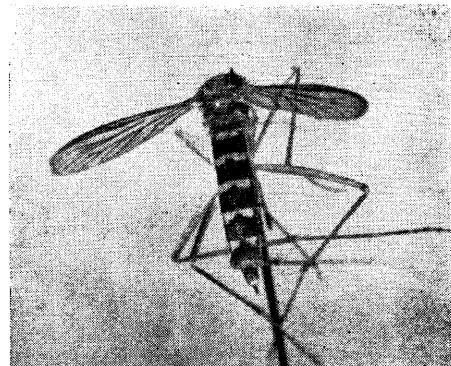


FIG. 1.—Normal Adult Female *Aedes vexans*.

dented white bands are most often used as the conclusive key character. Occasionally, the apical tergites exhibit a few scattered pale scales.

Routine light trap investigations have for several years revealed occasional females with abnormal

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scale patterns. Abnormal representatives of this species, recently taken with considerable frequency, display an increase in abdominal pale scales, generally concentrated as a dorsal median line (Fig. 2). When viewed without the aid of

final striping. Trap records show that abnormal specimens have been taken from May through September. Although the majority of specimens taken thus far have come from the southern and western districts, recent traplines established in other areas have revealed a complement of abnormal individuals.

Prior to 1966, very few abnormal *Aedes vexans* were noted in routine light trap collections. Verbal reports from New Jersey mosquito investigators and those outside of the state, however, indicated that occasional specimens had been collected. Specimens have been received from Mr. Bruce Brockway of the Toledo Area Sanitary District in Ohio. Mr. Robert Lake of the University of Delaware attests finding four New Jersey specimens and three from Delaware in the University collection, which demonstrate a median stripe.

The possibility that variations in scale patterns might be connected with variations in habits has not been explored. All specimens thus far collected have represented isolated individuals, with no concentrations of striped specimens from one particular location. The possible association of this morphological variation with that of a separate race is, therefore, open to considerable question.

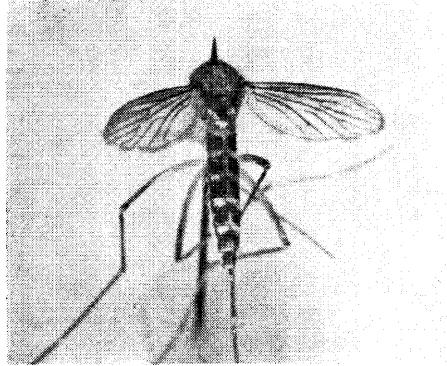


FIG. 2.—Moderately striped Adult Female *Aedes vexans*.

magnification, these scales present a clear dorsal median abdominal stripe. The extent of abdominal scaling appears to vary considerably. Occasionally, specimens may be found with white scales so heavily concentrated that the indentations associated with the abdominal bands are all but obliterated (Fig. 3).

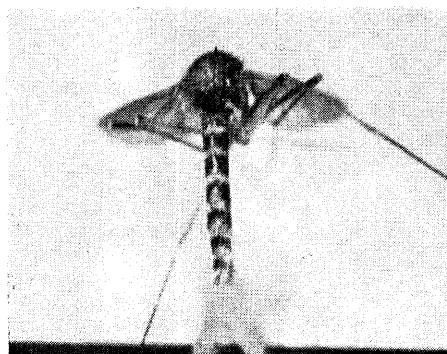


FIG. 3.—Heavily striped Adult Female *Aedes vexans*.

The increased number of pale scales is apparently not restricted to the abdomen. Many specimens displaying a median stripe exhibit wider bands on the tarsal segments. With some variation, the extent of median striping appears to be associated with the width of the tarsal bands.

Since 1966, approximately forty such specimens have been pinned and examined from New Jersey. These specimens show varying degrees of abdom-