FEEDING HABITS AND POSSIBLE PARASITISM OF THE LARVAE OF *CULICOIDES SANGUISUGA* (COQUILLETT) (DIPTERA: CERATOPOGONIDAE) [1]

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INTRODUCTION. Larvae of *C. sanguisuga* were collected from the water film between moist fallen leaves on the forest floor at Lac Serpent, a resort and farming community in the Laurentians of Quebec, during the summer of 1969 and 1970. Larvae were examined under a microscope for signs of feeding. The gut was visible owing to the transparent nature of the cuticle.

RESULTS AND DISCUSSION. The food of *C. sanguisuga* larvae was not clearly established. Jamnback and Wirth (1963) stated that, "Although the larvae were not observed feeding, whole dead leaves placed in a jar with large numbers of the larvae were quickly skeletonized." In the present study, no leaf tissue was skeletonized or observed to be ingested by *C. sanguisuga* larvae, although at least 20 percent of larvae collected from wet leaves were found to have brownish-colored gut contents, which may or may not indicate the ingestion of leaf material. On the other hand, three larvae were each observed to feed on a dead mite and two larvae were observed to feed on a dead nematode. In all cases, a stream of fluid and suspended particles was seen to flow from the mite and nematode into the gut of the larvae.

A small number of the third and fourth instar larvae of *C. sanguisuga* (Table 1) collected from wet leaves on the forest floor were dead and fully-extended with dark-brown patches on some of the thoracic and abdominal segments (Fig. 1). The nature of this "browning" was not determined. If due to parasitism, the use of parasites against the larval stages might conceivably offer a line of approach towards the control of *C. sanguisuga* and other biting midges. There appears to be no record in the literature of *C. sanguisuga* larvae being found parasitized.

Table 1.—Incidence of "browning" in third and fourth instar larvae of *C. sanguisuga* collected from wet leaves at Lac Serpent, Quebec.

Period	No. of larvae collected	% exhibiting "browning"
10/VII/69–7/VIII/69	969	2.1
20/V/70–20/VI/70	78	5.1
22/VII/70–5/VIII/70	1073	2.2

Fig. 1.—"Browning" exhibited by a fourth-instar larva of *C. sanguisuga* X 100.

Literature Cited

Jamnback, H. and Wirth, W. W. 1963. The species of *Culicoides* related to *obsoletus* in eastern North America (Diptera:Ceratopogonidae). Ann. ent. Soc. Am. 56:185–198.

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AEDES AEGYPTI IN SOUTHEASTERN NEW YORK STATE

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On June 27, 1972 five *Aedes aegypti* males and two females were found in a light trap collection taken at Croton Point, New York. Croton Point (41° 11′ 30″ N) a 1½ square mile peninsula extending into the Hudson River, is the site of a county-owned and operated park, camp, and sanitary landfill. Within one mile of the sites where these mosquitoes were found, there is a railroad station, with car and engine repair facilities. These facilities give rail connections to many parts of the United States.

Investigation of subsequent light trap catches revealed 13 males and 4 females in collections made during the first week in July. An additional light trap was installed at the adjacent train station but no *A. aegypti* were ever recovered from it.

In a larval survey made at Croton Point, 1,583 larvae were collected from artificial containers in the park and landfill areas. Of these, 482 were identified as *A. aegypti* and were all recovered from a discarded tire and a treehole in the park.

As many complaints were received regarding

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