concentration. Mortalities in the 2 chambers placed in the grassy area of the 2 liters/ha treated pond showed little change in the *Ae. vigilax* mortality but a significant lowering in the *Cx. sitiens* mortality as compared to the results in the non-grassy area. This indicates that the presence of grass may greatly affect the dispersal and efficacy of *Bti*.

Visual inspection of the ponds 32 days after *Bti* application revealed that the treated ponds contained approximately 50% fewer larvae than the control pond. Hembree et al. (1980) found that *Bti* had a residual activity of up to 5 days. In the present study no attempts were made to determine the reasons for the lowered mosquito populations in the treated ponds as compared to the control pond.

The rapid larvicidal activity and the ease of application of the *Bti* make it a promising candidate for the biological control of *Ae. vigilax* and *Cx. sitiens* in the South Pacific.

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CORDILURA VARIPES (SCATOPHAGIDAE), A PREDATOR OF *CULICOIDES VARIIPENNIS* (CERATOPOGONIDAE)

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Predators of Ceratopogonidae were summarized by Bacon (1970), but no records exist for *Culicoides variipennis* (Coq.). Species of Scatophagidae are known to be entomophagous (Seguy 1952). Wallace[1] noted that *Cordilura varipes* (Walker) attacked small midges by crawling over the vegetation, but he did not identify these midges to species.

Culicoides variipennis breeds along the margins of several brine ponds in Saltville, Virginia. Adults emerge at dawn, expand their wings and groom themselves before taking flight. Between 0600–0900 hours, *Cordilura varipes*, which breeds in the surrounding marsh vegetation, has been observed to prey on *Culicoides variipennis*. Observations were made from June 1–Sept. 10, 1979. Though *Cordilura varipes* is a swift flyer, when attacking teneral midges it crawls from midge to midge. It jabs a midge several times with its proboscis and ingests the midge's body fluids. Several *Cordilura varipes* were taken to the laboratory and on 11 occasions when offered adult *Culicoides variipennis*, they fed in the same manner as observed in the field. Nothing further is known about this predator-prey relationship, nor is it known whether *Culicoides variipennis* constitutes a large percentage of the diet of *Cordilura varipes*.

ACKNOWLEDGMENT. We appreciate the identification of *Cordilura varipes* by F. C. Thompson, Systematic Entomology Laboratory, USDA.

[1] Wallace, J. B. 1967. The biology and descriptions of immature stages of the genus *Cordilura*, sensu lato, in the eastern United States (Diptera: Anthomyiidae). Ph.D. dissertation, Virginia Polytech. Inst., Blacksburg, VA. 161 p.

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