

The Distribution of *Haemagogus (H) equinus* (Theobald)

(Diptera: Culicidae) in Trinidad and Tobago, W.I.

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ABSTRACT. The occurrence of *Haemagogus equinus* in Trinidad, is reported for the first time. Recent collections show that the species is found on the island of Monos, near the northwestern peninsula and northern coast of Trinidad, and in the coastal areas of Tobago.

Haemagogus equinus (Theobald) has a wide distribution from southern Texas through Mexico, Central America, and northern South America. In the Caribbean, it has been reported from Jamaica, Tobago and a small island known as Monos, which is close to the northwestern peninsula of Trinidad (Belkin et al. 1970; Heinemann et al. 1980, and Arnell 1973). During the period 1953 through December, 1978, some 2.5 million mosquitoes were collected from various parts of Trinidad and processed for arbovirus isolations, but *Haemagogus equinus* was not identified in these collections (Aitken et al. 1969; Tikasingh, unpublished data). Laboratory experiments have shown that *Haemagogus equinus* can transmit yellow fever virus and natural isolations of the virus have been made from the species. (Waddell and Taylor 1945, 1974; Waddell 1949; de Rodaniche, Galindo and Johnson 1957, and Arnell 1973).

During studies on the natural history of the yellow fever virus in the Chaguaramas forest, northwest Trinidad three female *Hg. equinus* were collected on 9th January, 1979, and this constituted the first record of this species on the island of Trinidad, West Indies. Subsequently, eggs of *Hg. equinus* along with other *Haemagogus* species were collected routinely from Chaguaramas forest using the traditional ovitrap developed by Fay and Eliason (1966). Immature and adult stages were reared from these egg collections, thus confirming the presence of *Hg. equinus* on Trinidad.

Adult *Hg. equinus* mosquitoes were collected off human bait during the period January, 1979 to October, 1982, at Chaguaramas forest, Trinidad, W. I., between 1000 and 1600 hours. Females were captured during all hours of the work period, but the peak collections occurred between 1200 to 1400 hours. Other *Haemagogus* mosquitoes collected included *Haemagogus janthinomys* Dyar,

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Hg. leucocelaneus (Dyar and Shannon) and *Hg. celeste* Dyar and Nunez Tovar. Despite regular collections of larvae of tree-hole breeding mosquitoes in the Chaguaramas forest no immature stages of *Hg. equinus* were found.

Other collections of adult *Hg. equinus* were subsequently made along the northern coast of Trinidad. The distribution of the species in Trinidad and Tobago is shown in Fig. 1. Arnell (1973) mentions that the species "is probably the most adaptable in terms of habitat utilization," yet in Trinidad it has not been able to penetrate the southern slopes of the Northern Range of Mountains and the rest of the island. The habitats in which *Hg. equinus* were found to exist, consist of deciduous seasonal forests in Trinidad and Tobago, but in the latter island many collections were also made from peridomestic situations (Chadee et al. 1981). On Monos Island the species was found in rock-hole habitats (Chadee 1983) and in tree holes (see Manuel 1965, Heinemann et al. 1980). There is, however, no apparent reason at the moment to explain this peculiar distribution of *Hg. equinus* in Trinidad and Tobago, W. I.

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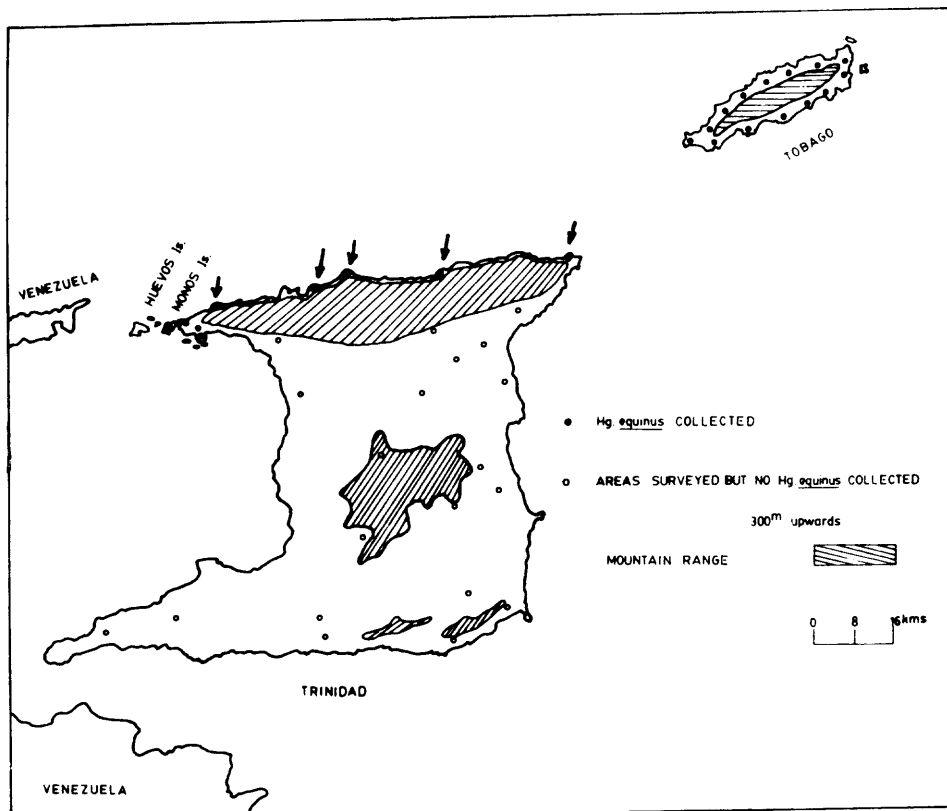


Figure 1. Map of Trinidad and Tobago showing the distribution of *Haemagogus equinus*.