

A-02: Transmission of *Wuchereria bancrofti* by *Culex quinquefasciatus* in Matara

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Some aspects of transmission of bancroftian filariasis such as seasonal resting abundance, infection and infectivity rates and worm load in infected vectors has been studied in, 3 villages. A comprehensive entomological parameter for measuring transmission tested in India is being tried out in the present study. The parameter designated Transmission Intensity Index (TII) is the product of three components; Man-Hour density of the vector, Infectivity rate and Average number of infective larvae per infective mosquito.

Fortnightly morning collections of *Culex quinquefasciatus* mosquitoes resting indoors were made in the 3 study villages from 06 30h to 08 30h. All *Cx quinquefasciatus* females were dissected for filarial infection.

Since the villages are situated together and with the same epidemiological features, the data was combined for the analysis of the Transmission Intensity Index. Man-Hour Density of *Cx quinquefasciatus* in the area for 1992 ranged from 2.3 (April) to 11.2 (June). The highest index (TII) was in June 1992 during the rainy season.

The mean L3 worm load in 20 wild caught infective *Cx quinquefasciatus* dissected so far was 3.3 (range 1 - 12). In contrast in 22 laboratory bred *Cx quinquefasciatus* fed on a carrier with a count of 310 mf per 60 μ l which became infective after 12 days, the mean L3 worm load was 10.6 (range 2-30).

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