DETECTION OF L_3 LARVAE OF *WUCHERERIA BANCROFTI* USING A SPECIES - SPECIFIC DNA PROBE

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The ability of a *Wuchereria bancrofti* - specific DNA probe EMBL3WB34[1] to detect infective L_3 larvae was investigated using a spot hybridization technique.

Serial dilutions of L_3 larvae (1 to 15) of *W. bancrofti* were probed with ^{32}P-labeled EMBL3WB34. The probe was capable of detecting a single L_3 larva after 20 hours exposure. In a similar experiment when a single uninfected (sterile) mosquito was also included in each of the serial dilutions of L_3 larvae, the remnant mosquito debris (if any) did not interfere with the hybridization signal.

Further, the probe EMBL3WB34 did not crosshybridize with L_3 larvae of *Setaria* species, *Dirofilariarepens*, *Brugia pahangi* (or) with mosquito DNA (1 ug) from *Culex quinquefasciatus*, *Armigeres Subalatus Anopheles tessellstus*, *Anopheles nigerrimus* and *Aedes togoi*.

These studies indicate the strong potential of the EMBL3WR34 probe as an effective tool to monitor vector control programmes against bancroftian filariasis.

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References: 1. Sirideva, K., Chandrasekharan, N.V., Karuanayake E.H. & Dissanayake, S. Proc. Sri Lanka Assoc. Adv. Sci 45.3,1989