D-34: Seasonal trends in malaria vector population at Gomadiyagala - a village in the North Western province of Sri Lanka

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Investigations on anopheline prevalence were carried out in Gomadiyagala over a period of 3 years from June 1989. Adults were gathered by cattle baited hut collections and larvae by dipping.

Eight species were encountered. *An. culicifacies* and *An. subpictus* were the most predominant species and formed 32.8% and 34.2% respectively of the total mosquitoes collected.

The distribution of *An. culicifacies* was unimodal, peaking around the North East monsoon/Post monsoon periods during November-April. *An.subpictus* showed a bimodal distribution with a dominant peak around the North East monsoon period. There was a general increased incidence of malaria in the locality during this period.

A stream with 2 tributaries in the study area was the only permanent anopheline breeding habitat. Scum formation and an increase in turbidity of the stream resulting from agricultural practices of the local population were seen to be associated with an increased breeding of *An. subpictus* and retardation in *An. culicifacies* production. Apart from *An. culicifacies* which is considered the major vector of malaria, several other species are reported to be capable of transmitting the disease.

These observations indicate the need to monitor seasonal trends in anopheline prevalence on a locality basis to determine the possible association of various species with local transmission and to select the suitable control measure depending on the behavioural features of the species and the ecological aspects of the locality.

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