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Sibling species of Anopheles subpictus and their seasonal abundance in Chilaw area

Anopheles subpictus is the most important secondary vector of malaria in Sri Lanka. This Species is a complex of sibling species of which four (A, B, C and D) have so far been identified from India on the basis of two inversions on "X" chromosome. Egg morphology is also used to differentiate sibling species. Studies carried out earlier revealed the occurrence of two sibling species, A and B in Sri Lanka.

Two localities were selected for investigation in Chilaw area of the North-Western province. One locality was situated in the coast of Chilaw and the other towards inland

about 8 km away from the coastal area. Investigations were carried out at fortnightly intervals from October 1995 to October 1997. Cattle baited net trap collections and cattle baited hut collections were used as sampling techniques. Sibling species of Anopheles subpictus mosquitoes (Blood fed or Gravid) collected were determined by examination of egg morphology (at least 5 eggs in each batch). Identification of sibling species was limited to the females, which had laid eggs.

A total of 7337 *Anopheles subpictus* females were collected and 1692 specimens were identified to the sibling species from the coastal area. Of these 1258 were of species B, 320 were species C, 63 were species D and 51 belonged to species A. Peak abundance of sibling species B in the coastal area was observed in January 1996, April 1996, December 1996 and July 1997 while that of species C in June 1996 and May 1997.

A total of 431 *Anopheles subpictus* females were collected from the inland area and 165 specimens were identified to the sibling species. OF these 120 were species C, 28 were species A, 12 were species D while only 5 belonged to species B. Peak abundance of sibling species C in inland area was observed in November 1995 and January 1996.
Species B was rather rear in this locality.

Species B was predominant in the coastal area species C in the inland area Low densities of species A and D were recorded from coastal area comparatively.