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Indoor resting behavior of different sibling species of *Anopheles subpictus*

Anopheles subpictus is a complex of sibling species and four species (A, B, C and D) have been identified from Sri Lanka on the basis of Egg morphology. Species B breeds in saline water while others breed in fresh water.

The present study was carried out to examine different indoor resting behaviors among these sibling species. Investigations were carried out in two localities (one coastal and the other inland) in Chilaw area of the North-Western province. Sampling techniques used included Cattle baited net trap collections to gather outdoor feeding and resting mosquitoes, Cattle baited hut collections for indoor feeding and resting mosquitoes and Indoor hand collection to determine the indoor resting density. The sibling species of *Anopheles subpictus* mosquitoes (Blood fed or Gravid) collected were determined by examining of egg morphology (at least 5 eggs in each batch).

A total of 1282 *Anopheles subpictus* females gathered by baited net traps, 410 by baited huts and 75 by Indoor hand collection were identified to the sibling species from the coastal area. In the collection by cattle baited net traps, 0.9% were species A, 92.2% were species B, 4.9% were C and 2.0% were species D. The species composition of the cattle baited hut collection for species A, B, C and D were 9.7%, 18.5%, 62.7% and 9.0% respectively. Respective figures for Indoor hand collection were 13.3%, 38.7% 45.3% and 2.7%. A total of 55 *Anopheles subpictus* females gathered by net traps 110 by Collection huts and 46 by Indoor hand collection were identified to the sibling species from the

inland area. In the collection by cattle baited net traps, 9.1% were species A, 9.1% were species B, 69.1 % were species C and 12.7% were species D. The species composition of the cattle baited hut collection for species for Indoor hand collection were 13.0%, 2.2%, 80.4% and 4.3%.

Species B prefer to feed and rest outdoors and species A and C prefer to rest indoors ($p<o.oo1$) when compared to total abundance in coastal and inland areas. Species D has not shown any significant difference for feeding or resting.