

A study on the abundance, distribution and protein profiles (SDS-PAGE) of cattle ticks (Acarina: Ixodidae)]

Ticks play a major role as vectors of diseases in cattle and pet animals. This study describes the abundance, distribution on the host body and protein profiles (selected species) of cattle ticks collected from two localities (semi urban - Peradeniy; rural - ganhatha) within the Kandy District, during June of September 1996. In total, 45% of cattle (n=40, Peradeniy; n=40, Ganhatha) sampled at each site were infested with ticks (n=1227, Peradeniy; n= 819 Ganhatha). Tick species comprised *Boophilus sp.*, *Haemaphysalis bispunosa*, *Rhipicephalus haemaphysaloides*, and *Hyalomma marginatum*. *Hyalomma marginatuma* was only encountered in Ganhatha. Overall, tick distribution in the two localities was significantly different ($P<0.001$). Statistical anlysis also revealed that the abundance of *H.bispinosa* (85.41%, $P<0.05$) at Peradeniya, and *Boophilus sp.* (95.09%, $P<0.05$) at Ganhatha, were significantly higher than other species collected in the respective sites. SDS-PAGE analysis showed that the adult stages of *Boophilus sp.*, {male 1 band 936-45kDa); female 3 bands (116-205,36-45 and below 36kDa)} and *H.bispinosa*, {male 2 bands 116-205 and abelow 36kDa);female, 3 bands (116-205, 97-116

and below 36kDa)} could be distinguished by their unique banding patterns. Preliminary investigations indicated that the protein profile could be used to distinguish *Boophilus sp.* and *H. bispinosa* adults in the absence of taxonomic keys.