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DIVERSITY AND DISTRIBUTION OF GOAT TICKS IN WET AND INTERMEDIATE ZONES OF SRI LANKA

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Ticks cause great economical losses to the livestock as blood sucking ectoparasites leading to reduction in live weight and anaemia. They also act as vectors that transport many disease causing microorganisms. In Sri Lanka, goat farming is concentrated mainly in the dry and intermediate zones where about 75% of goat population is distributed. In the wet zone the goats are patchily distributed in small numbers, and are mainly confined to smallholder farmers with herd sizes ranging from five to 150 animals per farm. Diversity and distribution of tick species that infest goats in the wet and intermediate zones of Sri Lanka were studied.

Ticks were collected from goats (*Capra aegagrus hircus*) from selected sites in all the districts in the two zones from June to December 2011. Site of attachment of the tick, intensity of infection, and host breed were noted. Ticks were preserved in 70% alcohol and species and life stages were identified morphologically using standard keys and literature. A total of 1,744 ticks were collected from 15 districts in the two agro-climatic zones from 496 goats of various breeds including Sri Lankan Boer, Beetal, Kottukachchiya, Sannan, Jamunapari and their cross breeds. Six species of ticks belonging to two genera (Family Ixodidae) including *Haemaphysalis bispinosa*, *Haemaphysalis intermedia*, *Haemaphysalis cuspidata*, *Rhipicephalus haemaphysaloides*, *Rhipicephalus sanguineus* and *Rhipicephalus microplus* were recorded.

The most common species in the overall collection was *H. bispinosa* (66.0%) found in all the sites except in Rathnapura, Kandy and Badulla districts. In these exceptions, *H. intermedia* was the dominating species, which was the second most abundant species (23.0%) in the overall collection. The least common species was *H. cuspidata* found only in Puttalam and Gampaha districts. Previously, *Rhipicephalus haemaphysaloides*, *Hyalomma marginatum*, *Boophilus annulatus* and *Haemaphysalis lechi* were recorded from goats. Among them *H. marginatum*, *B. annulatus* and *H. lechi* were not found in the present study, but three new species which were not previously recorded on goats namely, *H. bispinosa*, *H. cuspidata*, and *R. microplus* were found. Mostly the adult stage of the ticks (61.6%) was found while nymphs and larvae formed 33.6% and 4.7% of the collection, respectively. The larval stages of *R. haemaphysaloides* and *R. sanguineus* were not recorded. Only one nymph stage of *R. haemaphysaloides* was recorded in the intermediate zone (Kurunegala district) which could be an accidental occurrence. All the life stages of *H. bispinosa*, *H. intermedia* and *B. microplus* were recorded in both zones. Adult stages of *H. bispinosa* and *H. intermedia* and nymphs of *H. bispinosa* were high in number in both zones. Very few larval stages were observed from *H. intermedia* and *B. microplus*. Many species of ticks infest goats and their prevalence and the life stages on goats varied in the two climatic zones.