

Factors influencing the prevalence and distribution of ticks and tick- borne pathogens among domestic animals in Malaysia

ABSTRACT

Changes in tick-vector densities and a resultant incidence of tick-borne diseases are caused mainly by human activities affecting the environmental ecosystem, especially in tropical countries. As one of the most important invertebrate arthropod vectors of disease transmission, ticks are susceptible to changes in their environment due to their sole dependence of all their life stages on prevailing environment. Upon completion of their lifecycle, ticks depend on the availability of hosts and other several factors related to their surroundings to survive. This review discusses the major factors that influence the prevalence and distribution of tick-borne diseases among domestic animals in Malaysia. It is highly imperative to understand the factors that lead to increase in tick-vector populations, infection intensity and hence the spatial distribution of ticks and tick-borne diseases in order to prevent their emergence and resurgence as well as to serve as a basis for effective control.

Keyword: Prevalence; Distribution; Ticks; Tick-borne hemopathogens; Domestic animals; Malaysia