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Life Sciences

## ECTOPARASITES IN PETS AND LIVESTOCK IN UDUNUWARA DIVISIONAL SECRETARIAT DIVISION IN CENTRAL PROVINCE OF SRI LANKA

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Ectoparasites are a major health concern of both humans and animals. They act as vectors of many economically important and zoonotic diseases, and in-depth studies on species diversity are important in controlling and preventing infestations. The objective of the study was to survey ectoparasite species in domestic animals and collect socio-ecological data from households having infested domestic animals within the Udunuwara Divisional Secretariat Division in the Central Province of Sri Lanka. Households were visited using a snowball sampling method, and ectoparasites were collected through visual appraisal. Seven hundred eighty ectoparasites were collected from 151 host animals, including dogs, cats, cattle, rabbits, goats, domestic fowls, turkeys, pigeons, lovebirds, and a buffalo in 42 Grama Niladhari divisions within the area. The collection comprised of ticks (n = 311, species = 13), lice (n = 196, species = 11), fleas (n = 256, species = 2), and mites (n = 17). Among the tick species, the cattle tick Rhipicephalus microplus (30%) was the most abundant, followed by the brown dog tick Rhipicephalus sanguineus (29%) and Rhipicephalus haemaphysaloides (17%). Among the louse species, Menacanthus stramineus (28%) was the most abundant, followed by Damalinia caprae (15%) and Lipeurus caponis (14%). The dog flea Ctenocephalides canis (82%) was the most abundant, while Ctenocephalides felis was found in cats and dogs. The rabbit fur mite: Leporacarus gibbus and another two Analgoidae mites were recorded from rabbits, domestic fowls, and lovebirds, respectively. Households with low sanitation, close contact with the wild animals, feeding livestock with cut grass like Panicum maximum (Guinea grass), and poor veterinary care were socio-ecological factors presumably creating a conducive environment for infestations. Moreover, the household members lacked awareness about ectoparasites, ectoparasite-related complications, and zoonotic potential of ectoparasites. Domestic animals were infected with a wide range of ectoparasites. Island-wide surveys on ectoparasite fauna are required to understand the distribution and ecology of these parasite taxa.

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Keywords: Domestic animals, Fleas, Lice, Mites, Ticks