

FREE-ROAMING DOG POPULATION IN SUBURBAN RESIDENTIAL AREAS OF WESTERN SARAWAK

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Free-roaming dogs are common in urban landscapes. This recently have led to controversy regarding their potential impact on public health risk (zoonoses). Rabies, a zoonotic viral disease affecting central nervous system, transmitted to humans through saliva (bite and scratch) of infected mammals especially dogs, unfailingly fatal once symptoms appear. Rabies is widely distributed around the world, yet Malaysia was rabies free in the past 20 years. There are 62 areas have been declared as rabies-infected zones in Sarawak as in May 2019. As from July 2017, there were 25,907 cases of dog bites and 16 people were dead from rabies. There is a dearth of information in dog density in suburbs residential areas of western Sarawak. Free-roaming dog population control is crucial for the reduction of rabies, and dog population data can assist in management of rabies. Sarawak Disaster Information stated that there are 11 infected zones in Kuching (7) and Samarahan (4) districts. This study examines dog density in 13 selected suburbs residential areas of Kuching and Samarahan districts for a period of 13 months from Feb 2016 to Feb 2017 using distance sampling. Line transect was used to estimate the dog population. Distance 7.0 was used to estimate the density and detection probability of dogs in suburbs residential areas. Dogs observed in cages were excluded in this study. Dog censuses totaling 179.8 hours of observation along 290.2 km of transects yielded 1,193 records. One study site failed to estimate the density owing to insufficient data collection. Overall density of dog population was 1.66 individuals ha^{-1} (SE = 0.096, CV = 5.77%) and detection probability was 4.4 percent. The density of dogs in each sites ranged from 0.52 individuals ha^{-1} to 9.69 individuals ha^{-1} . Highest density of dogs was recorded in Taman Orchid (9.69 ind ha^{-1}) followed by Midway Link (4.78 ind ha^{-1}). However, the estimation of this study was based on preliminary data which potentially underestimated the true population of dogs.

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Wild dogs in suburban residential areas