OBSERVATIONS ON THE WESTERN CEYLON PALM SQUIRREL, *FUNAMBULUS PALMARUM FAVONICUS* IN TWO HOME GARDENS IN KANDY DISTRICT

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Squirrels are represented in Sri Lanka by six species: two flying squirrels, (*Petaurista* spp.), one giant-squirrel (*Ratufa macroura*) and three small striped squirrels (*Funambulus* spp.). The Western Ceylon palm squirrel falls in the category of small striped squirrels and is the most familiar one of all, being a member in the immediate neighbourhood of human habitations. The ecology of different species of squirrels, particularly of the temperate species, has been intensely studied in other regions of the world, but very few scientific accounts are available for the Western Ceylon palm squirrel, and these accounts are mostly anecdotal and not based on specific field studies. The study was undertaken to provide data on aspects such as population structure, reproductive ecology, feeding habits, and home range and inter-specific interactions of the Western Ceylon palm squirrel in two home gardens in Kandy district.

The study was carried out from May 2005 up to February 2006 and the data was collected once a week from 0600 to 1900 h. Frequency counts were carried out for two days in habitats such as grassland, marginal forest, dense forest, pine forest, urban areas and home gardens to determine in which habitats palm squirrels are more abundant. Detailed investigation was carried out at the two home gardens in Kandy district. Instantaneous sampling was conducted during 15-minute observation periods in conjunction with scan sampling. The individuals were followed and their general position was marked on a map to determine the approximate home range using the minimum area method.

The number of squirrels at the Nugawela site, averaged 9.8, over the study period, and the population on average consisted of 22.7% adult males, 29.7% adult females, 32.2% sub-adults and 15.4% juveniles. The mean adult sex ratio male:female was 1: 1.3. The average number of squirrels observed at the second location at Dodamwela was 11.4, and on average there were 25.8% adult males 28.0% adult females, 30.7% sub-adults and 15.5% juveniles in this population and the mean adult sex ratio males:females was 1: 1.1. The breeding peaks of squirrels were observed to be in May, October and December. During the period of study, squirrels were observed to utilize 34 species of plants belonging to 22 families. The squirrel population at the home garden in Nugawela ranged over an area of approximately 2377.43 m^2 while the population at Dodamwela had a range of 2099.23 m^2. On average, the size of the home range can be considered as 2238.3 m^2 ($\pm$196.72).The inter-specific interactions observed during the study revealed that the palm squirrels have a defense system together with birds such as Yellow billed babbler, Oriental magpie robin, White-bellied drongo and Red-vented bulbul.

The Western Ceylon palm squirrel appears to be a generalist and its breeding peaks occur in October and December. In addition, it plays many ecological and economical roles, being a food source to carnivores, pollinating agent, flower predator, seed disperser, as well as a pest.