

Sutasinee Saosooong 2014: Species Diversity and Population Characteristics of Small Mammals in Hill Evergreen Forest at Doi Suthep-Pui National Park, Chiang Mai Province. Master of Science (Forest Biological Science), Major Field: Forest Biological Science, Department of Forest Biology. Thesis Advisor: Mr. Prateep Duengkae, Ph.D. 81 pages.

A study of species diversity and population characteristics of small mammals in hill evergreen forest at Doi Suthep-Pui National Park, Chiang Mai Province was conducted in a 16 hectare long-term permanent plot between December 2012 and December 2013. A total of 6,760 trap nights (4,212 trap nights for live traps and 2,548 trap nights for pitfalls) from live traps (81 traps per month array with a grid of 9×9 m) and pitfalls trap (49 traps per month array with a grid of 7×7 m) were used in this study. A total of 252 individuals representing 12 species (11 genera, 6 families, 4 orders) were captured. Trap success for live traps was 19.19% and for pitfalls was 4.90%. The Shannon-Wiener indices (H') in a hill evergreen forest at Doi Suthep-Pui was 2.31; H' was highest in June ($H' = 2.03$). The three species having greatest population density estimated by the MARK Program were *Tupaia belangeri* (9 ± 1.05 individual/ha), *Niviventer fulvescens* (6 ± 1.01 individual/ha) and *Rattus tenazumi* (3 ± 0.20 individual/ha). A comparison of sex ratios of all species indicated that they had a higher proportion of males to females. Small mammals had an average home range of 0.82 hectares and the ability of movement average was 83.6 ± 29.6 meters. This study showed the diversity and variation dynamics of small mammal species over a one-year period. The findings can be used as basic information for future wildlife management of small mammals in Thailand.

Student's signature

Thesis Advisor's signature