

Worrapan Phumanee 2013: Roost Site Selection of Lyle's Flying Fox (*Pteropus lylei* K. Andersen 1908) in the Central of Thailand. Master of Science (Forestry), Major Field: Forest Biology, Department of Forest Biology. Thesis Advisor: Assistant Professor Vijak Chimchome, Ph.D. 111 pages.

The study on Roost selection of Lyle's Flying Foxes (*Pteropus lylei* K. Anderson 1908) in the Central of Thailand was carried out between February to June, 2009. This study consists of 4 main objectives 1) to study the characteristics of roosting and non-roosting tree of Lyle's Flying Foxes 2) to evaluate the potential camp of Lyle's Flying Foxes 3) to estimate its population and 4) to analyze the relationship between population size and biological and physical factors. The results showed that the roosting trees composed of 348 trees from 38 families and 62 species and non-roosting tree composed of 173 trees from 24 families and 53 species. The habits of roosting tree is tree (91%). the highest proportion of roosting tree of Lyle's Flying Foxes is in the family Dipterocarpaceae followed by family Leguminosae-Papilionoideae, family Moraceae, family Leguminosae-Mimosoideae, family Meliaceae and family Palmae, respectively. Moreover, it was found that diameter at breast height of roosting trees, their height, first branch, and canopy volume were significantly different ($p < 0.05$).

By using the minimum entropy to analysis of the potential camp of Lyle's Flying Foxes, it was shown that the most important environmental factors are temperature followed by elevation, air press, industrial area, stream, relative humidity, orchard and rainfall, respectively. Approximately, 25,000 Lyle's Flying Foxes were counted from 348 roosted trees. The estimation of Lyle's Flying Foxes' populations with direct and indirect counting was significantly different ($p < 0.05$). In addition, the multiple regression indicating that canopy volume, height, distance to nearest tree, distance to nearest taller tree, and distance to nearest stream are the important factors for roost selection of Lyle's Flying Foxes. This study is important in term of management and it is a basic knowledge for further understanding in ecology of Lyle's Flying Foxes.

Student' signature

Thesis Advisor's signature