

Uneven distribution of the Japanese giant flying squirrel *Petaurista leucogenys* at Satoyama

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The Japanese giant flying squirrel *Petaurista leucogenys* is fully arboreal, but is common at homestead woodland and thickets of Satoyama, secondary forest of the countryside. Satoyama environments have been encroached and fragmented by urbanization, and this may result in disappearance of the squirrel. To investigate the population density of the squirrel in Satoyama environments, nightly line transect surveys (each 2 hours and 3.6 km) were conducted 60 times from 2009 to 2011 at an isolated Satoyama hill (10 km²) in Machida, Tokyo. The study area (2 km × 1.5 km) consisted of patchily distributed evergreen homestead woodlands with large mature trees of 10-26 m high and deciduous broad-leaved thicket 16-18 m high. Most squirrels were found in homestead woodlands, with population density of 0.41/ha. Deciduous thicket 600 m of the homestead woodland, the density was 0.03/ha. No squirrels were observed in deciduous thicket that was >450m from the homestead woodlands. Since the structure of deciduous thickets was almost uniform throughout the study area, the difference in densities between two parts of thickets can be attributed to the existence of homestead woodland nearby. Existence of large tree stands within 500 m seemed

indispensable for survival of the squirrel population.