

The use of artificial nest boxes by Siberian flying squirrels (*Pteromys volans*) in South Korea

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We examined the use of artificial nest boxes by Siberian flying squirrels (*Pteromys volans*) in Mt. Baekwoon in Gwangwon Province, South Korea. Out of a total 150 boxes placed in the forests by researchers in 2009, Siberian flying squirrels used 23. Mean litter size was 2.64 ± 0.50 , and we observed a maximum litter size of three. Siberian flying squirrels used nine boxes in the coniferous forests and two boxes in the mixed forests. The squirrels used boxes with entrance holes measuring 3, 3.5 and 4 centimeters in diameter, showing a preference for boxes with 4-centimeter and 3.5-centimeter holes, while avoiding those with 3-centimeter holes. Therefore, we suggest that artificial nest boxes with 4cm in entrance holes might be the best way to encourage breeding among Siberian flying squirrel, as this would minimize predation pressure and interspecific competition. The majority of nests made by the species in the artificial boxes were rectangular in shape with a hole and consisted of woody fiber from vines. We believe woody vines are important nest materials for the species. A survey involving the placement of artificial nest boxes with holes measuring 4-centimeter in diameter in well-managed coniferous forests known to have a dense population of Siberian flying squirrels could have positive effects on the Siberian flying

squirrel's breeding habits and maintain the population of the species in South Korea. More data to be obtained through additional surveys using artificial nest boxes is needed to elucidate the sophisticated breeding ecology and habitat characteristics of the Siberian flying squirrel.

Key words: Artificial nest box, coniferous forests, entrance holes, litter size, nest materials, Siberian flying squirrel, woody vines