

Nest type and occupancy of Indian giant flying squirrel, *Petaurista philippensis grandis* in rural central Taiwan

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The nest site and availability of flying squirrels is one of the major factors related to the population size and reproduction. Three types of nests, including tree cavities, dreys, and the base of tree ferns were used by Indian giant flying squirrel in natural forest and plantation of Taiwan from previous studies. In this study, we use nest boxes (n=90) and radio tracking to investigate the nest site use by this species in rural central Taiwan. Eleven adults (8 males, 3 females) were captured and radio tagged to learn the nest use by this species from 2010 to 2011. We found the flying squirrel used six types of nest. Besides three nest types recorded before, they also used rock caves, vine nests, and the base of palm leaves to nest. There were differences in nest type use between sexes. Female individuals occupied more nest boxes (73.17%) than those of males (25.44%). On the contrary, male individuals occupied more dreys (56.47%) than those of females (26.83%). In terms of

nest site use, some individuals occupied the specific nest site regularly, and others used the same nest site successively. The high probability of nest boxes occupancy by females might be due to the breeding need of females to care for their young in a safer nesting site. And nest boxes may meet the criteria because they are relatively weatherproof in comparison with other nest types. In contrast, males occupied a variety of nest sites, and travelled around and rested in any available nest sites.

Keywords: nest type, nest use, Indian giant flying squirrel, *Petaurista philippensis grandis*, radio tracking, nest box