

Life history of the Japanese dormouse, another arboreal rodent and hibernator in Japan

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Japanese dormice are arboreal small rodents and hibernators in Japan. Ecology of the dormice was studied at Mt. Asama in central Honshu, Japan, from April until early November each year during 1997 – 1999. A total of 143 dormice (83 males, 60 females) were captured with 197 nest boxes and individually marked in the study area (31 ha) throughout the daily inspections of 55688 nest box days during three years. In 1997, 36 adult dormice (17 females, 19 males) were found in the study area. In 1998, 33 adults (13 females, 20 males) were captured in the central part of the study area (25 ha), and in 1999, 31 adults (16 females, 15 males) in the whole area. Population densities of adult dormice were 1.2 dormice / ha in 1997, 1.3 dormice / ha in 1998, and 1.0 dormice / ha in 1999. Among the adults, proportions of ≥ 2 -yr old individuals were 24.2 % in 1998 and 35.5 % in 1999. Four dormice (12.9 %) were ≥ 3 -yr old in 1999. A breeding season with two peaks (May and July) was observed in the dormice population. Females bred two times at most in a year. Dormice used various sites for resting and frequently changed their daily rest sites. In 363 tracking days for 23 radio-tracked dormice, 123 rest sites were used, 72 % in trees and 28 % in shallow

underground or rock crevices. Dormice frequently used nest boxes for daily resting, except when used by passerine birds. Home ranges of resident males ($n = 20$, 5.8 ± 6.2 ha in average) were larger than those of females ($n = 8$, 1.1 ± 0.5 ha). Male ranges overlapped with each other and with those of multiple females. Female ranges were uniformly distributed. We conclude that torpor ability enables the dormice to maintain relatively large home ranges and long lifespan compared to other small mammals.

- Shibata F., T. Kawamichi, and K. Nishibayashi. 2004. Nest site selection by the Japanese dormouse, *Glirulus japonicus*. *Journal of Mammalogy* 85: 117–124.
- Shibata F., and T. Kawamichi. 2009. Female-biased sex allocation of offspring by an *Apodemus* mouse in an unstable environment. *Behavioral Ecology and Sociobiology* 63(9): 1307–1317.