

**Communal nest use by cliff chipmunks *Tamias dorsalis***

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Nest use by cliff chipmunks *Tamias dorsalis* is not well studied. We initiated a radio-telemetry study in order to analyze their nest use before and during hibernation from October to December in 2011. At Mt. Graham, Arizona, USA, 15 transmitters were attached to 15 chipmunks (10 females and 5 males).

Chipmunks are active outside the nests in the daytime in October. Nests were detected after chipmunks entered into the nests for the evening and in the early morning before emergence. A total of 25 nest sites were detected. In October, we monitored 127 nocturnal nesting events; 116 were in tree hollows or logs, five in burrows, and six undetermined.

In October communal nest use was frequently observed. The largest group size was four chipmunks (3 females and 1 male) spending one night together. Three chipmunks (2 females and 1 male) spent two nights together, and two chipmunks nested together on 28 nights (1 female and 1 male for 16 nights, 2 females for 11 nights, and 2 males

for one night). The combination of nestmates was stable; for example, one female and one male (Nos.401 and 280) spent 12 nights, and two females (Nos.118 and 061) eight nights in the same nest. Solitary nest use was also found.

In November and December, all seven chipmunks stayed alone in burrows. Six of the 7 individuals continuously used the same burrows, suggesting hibernation. The distances between hibernation burrows of the stable nestmates were closer than between non-nestmates.

The mean air temperature dropped below 0 °C in late November in the study area. Siberian chipmunks *T. sibiricus lineatus* in Hokkaido, Japan, also entered into hibernation below 0 °C in late November (Kawamichi 1996). Both species choose burrows for hibernation, are solitary during hibernation, and enter into hibernation by late November. The relatedness of nestmates and the functions of communal nest use before hibernation by cliff chipmunks should be clarified in the future.

Kawamichi, M. 1996. Ecological factors affecting annual variation in hibernation commencement in wild chipmunks (*Tamias sibiricus*). *Journal of Mammalogy* 77:731-744.