



Conference Abstract

# Distribution of Glirids in an Alpine national park

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## Abstract

In this long-term study, we evaluated the distribution of three species of Glirids: Hazel Dormouse (*Muscardinus avellanarius*), Garden Dormouse (*Eliomys quercinus*) and Edible Dormouse (*Glis glis*) in the Gran Paradiso National Park (Western Italian Alps). The aim was to investigate the ecology, adaptation strategies, and distribution of these dormouse populations along an altitudinal gradient. Monitoring started in 2015 and is still ongoing. We used five different techniques (searching for nests, grids of nest boxes, transects of live traps, nesting tubes, and footprint tunnels), placed along an altitudinal gradient from 700 to 2300 m a.s.l. We found a total of 680 signs of the presence of Hazel Dormouse and 46 individuals, 275 signs and 142 individuals of the Garden Dormouse and 674 signs and 67 individuals of the Edible Dormouse. The three species selected different altitudinal gradients: Edible Dormouse from 800 to 1700 m, with a prevalence between 800-1100 m; Garden Dormouse from 1100 to 2000 m, with a prevalence between 1400-1700 m. The Hazel Dormouse was ubiquitous from 800 to 2032 m, without a clear altitudinal pattern. Edible Dormice were mainly found in deciduous and mixed forests, while Garden Dormice usually occurred in coniferous forests. The Hazel Dormouse seemed to be regularly distributed in all forest types up to the tree limit. These results, obtained from diverse methodologies, permitted comparison between the monitoring protocols, improved

knowledge of habitat selection by Glirids in Alpine habitats, as well as providing novel insights within the context of climate change.

## **Keywords**

Gliridae, Alps, Species distribution, *Muscardinus avellanarius*, *Eliomys quercinus*, *Glis glis*

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