

Master Thesis

„Effects of nest box density on a population of edible dormice (*Glis glis*)“

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Background and Research question

Nest boxes are important substitutes for natural tree holes in managed forests, where management reduced the availability of suitable trees. They fulfil ecological requirements of dormice such as the availability of suitable daily sleeping sites or to give birth and raise their juveniles. In a closely related species, the common dormouse (*Muscardinus avellanarius*), it was found that more nest boxes within a certain area increased the proportion of young breeding females. In our ongoing long-term study site, starting in 2006 in the Vienna woods, the number of available nest boxes changed throughout the years. Here, we plan to study whether these changes, i.e. a higher nest box availability, affected the presence of edible dormice within the study area and/or influenced reproductive parameters of the population.

For example, for this species it is described that insufficient nesting site availability could favour the occurrence of communal breeding, meaning more than one female raising its litter within the same nest box. On the other hand, due to high site fidelity in edible dormice, aspects like social thermoregulation may contribute to the shared use of nest boxes, independent from the nest box density. To get insights into these topics, we plan to use our existing data set as well as collecting new data at our study site.

Methods and requirements

Using a long-term dataset starting in 2006, together with new data collected in 2025, the candidate will have sufficient data to investigate the reproductive parameters in dormice depending on the nest box density and its relationship with communal breeding. The student will work in a well-established fieldwork setup with free-living dormice and in close cooperation with a PhD Student. Regular fieldwork (2 days every other week) during the active season in 2025 is mandatory for this project. 128 nest boxes will be assessed during every field trip. Field work will start in April and will finish in October. Data evaluation can be carried out in autumn/winter 2025/2026. The applicant should have a good background in biology/ecology. Previous experience in statistics using R is beneficial.

If you are interested in joining our team, please send us your application containing a CV and a letter of motivation via e-Mail to lukas.hochleitner@vetmeduni.ac.at