

THE EFFECT OF EXPOSURE AND HEIGHT OF NEST-BOXES
ON GRID COLONIZATION BY THE COMMON DORMOUSE
(MUSCARDINUS AVELLANARIUS)

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Nest-boxes placed in grids or transects are a common method for studying the ecology of *Muscardinus avellanarius*. Some physical parameters can influence nest-box use and they can give information both on the species' fine-grained habitat selection and on the reliability of the census itself.

We tested the effect of exposure of the nest-box entrance hole and of height above ground. We recorded 308 exposures of holes in 4 sample areas in different years to check for selection of a given exposure. Moreover, in 2 of these areas we set up a three-dimensional grid of 1 ha: at each of the 25 points (trees) of the grid we mounted nest-boxes at 0, 1.5, 3 and 5 m above ground. In both tests we recorded, per nest-box, the presence of:

- complete round-shaped nests;
- incomplete nests;
- individuals;
- reproduction;
- other signs of presence (faeces, food-stores, etc).

In the 2-way ANOVA global model, exposure was not significant and only the post-hoc comparison test, by Tukeys' HSD for unequal N, relating to the presence of individuals in nest-boxes with NW and SW exposure was statistically significant.

In the case of nest-box height, the data, either cumulated or divided per area, gave a significant 2-way ANOVA global model. Using the post-hoc comparison tests, ground zero proved to be avoided, but there are no significant differences between the presence of complete, incomplete nests and individuals among 1.5, 3 and 5 meters. The other two variables were not significant between levels, but the few instances of reproduction were recorded only at 1.5 and 3 m, whereas the other signs of presence were distributed throughout the four heights with a slight prevalence at 0 and 5 meters.