NESTBOX GRIDS IN STUDIES OF THE COMMON DORMOUSE MUSCARDINUS AVELLANARIUS) POPULATIONS: SOME METHODICAL ASPECTS

R. JUŠKAITIS

Institute of Ecology, Vilnius, Lithuania

Studies of common dormouse populations are usually carried out using nestboxes or live traps located in a grid system of high density in comparatively small areas. The aim of the present study, carried out in Lithuania in 2001, was to compare the efficiency of different study methods in the estimation of common dormouse population parameters. The following study methods were used:

– regular checking of nestboxes placed in a 25 × 25 m grid;
– regular checking of nestboxes placed in a 50 × 50 m grid;
– trapping of dormice using live traps.

The results obtained showed that regular control of nestboxes placed in 25 × 25 m grid gives an opportunity to register all dormice living at a study site during a comparatively short period. Trapping of dormice using live traps in the same area proved that all dormice captured used nestboxes placed in 25 × 25 m grid. When nestboxes placed in a 50 × 50 m grid were checked regularly throughout the active season, more than 90% of all dormice living in the study site were captured. Use of live traps in studies of dormouse populations is time consuming and labour intensive, especially in large areas, and special environmental conditions are necessary.

Investigations carried out in Lithuania have shown that dormice are distributed irregularly in large forest areas, and the results obtained at small study sites do not reflect the average characteristics of the population. Other imperfections of small study sites are: 1) some results obtained (e.g. density) can be overestimated because of "edge effect", and 2) predators, e.g. owls, can catch some dormice and thus have a big influence on the results. For all these reasons, studies of dormouse populations should be carried out in large forest areas (e.g. 30–50 ha), preferably with nestboxes placed in a 25 × 25 m grid. However, large quantities of nestboxes are necessary for such studies. If the quantity of nestboxes available is limited, and the density of dormice is low, it is better to put up nestboxes in a 50 × 50 m grid in a large forest area than in a 25 × 25 m grid in a small area. Methods, tested in the present study, can also be used in studies of other dormice species and other mammals occupying nestboxes.