

Habitat preferences and vertical distribution of dormice in the Tatra Mountains

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Abstract

Dormice monitoring was carried out between 2014 and 2019 at 14 areas located in various regions of the Tatra National Park in Poland. The areas were located in various habitats: beech forests and spruce forests in the low mountain zone; spruce forests, windbreaks and mountain pine (*Pinus mugo*) thickets in the high mountain zone. The choice of the area for monitoring resulted from the habitat type and technical possibilities enabling regular inspections. Each area was equipped with 30 nest boxes dedicated to dormice. The boxes were hung on trees at a height of 1.5 to 2 meters, only in mountain pine thickets. In habitats with a dense cover of European Red Raspberries (*Rubus idaeus*) the boxes were hung lower, on branches or on specially constructed poles. The use of boxes was determined on the basis of the presence of dormice or their nests.

A comparison of nest box use shows that the Hazel Dormouse has specific habitat preferences in mountainous areas. This species was most frequently found in windbreaks, often those with a high proportion of trees destroyed after an outbreak of the spruce bark beetle (*Ips typographus*). These habitats are characterized by extensive undergrowth with numerous raspberries, Common Rowan (*Sorbus aucuparia*), Rosebay Willow Herb (*Epilobium angustifolium*) and spruce undergrowth (*Picea abies*). Beech forest (*Fagus sylvatica*) forms a habitat which is not preferred, but is unavoidable. Negative selectivity was demonstrated in relation to the spruce and mountain pine forests that are dominant in the Tatra National Park. The Forest Dormouse (*Dryomys nitedula*) was found at only one plot in the fourth year of observation. It was located in a small patch of beech in the vicinity of the site where this species was detected in 2011.

Keywords

Hazel Dormouse, Forest Dormouse, Tatra Mountains

Presenting author

Jan Cichocki

Presented at

Poster presentation at the 11th International Dormice Conference 2022

Conflicts of interest