

THE FIRST RECORD OF *MUSCARDINUS AVELLANARIUS* LINNAEUS 1758 IN OPOVO. Tatjana B. Jovanović¹, Gordana Grbić² and D. Kataranovski¹, ¹*Institute for Biological Research „Siniša Stanković”,* ²*Department of Ecology and Department of Neurophysiology,* 11060 Belgrade, Yugoslavia.

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Muscardinus avellanarius Linnaeus 1758 belongs to monospecific genera and it is widespread from Mediterranean to southern Sweden, eastward to Russia excluding Iberia. Local distribution is affected by habitat fragmentation. Habitat of hazel dormouse is mixed deciduous forest especially the forest edge and shrubs (prefers habitats with wide diversity of arboreal food). *Muscardinus avellanarius* is an arboreal sequential specialist feeder. It eats forest plant fruits, flowers and sometimes insects. It is not normally active on the ground. Considering the population status, even in a favorable habitats, population density probably does not usually exceed 10 adults per hectare. In unfavorable habitats density may be a half of this figure (Mitchell-Jones *et al.* 1999).

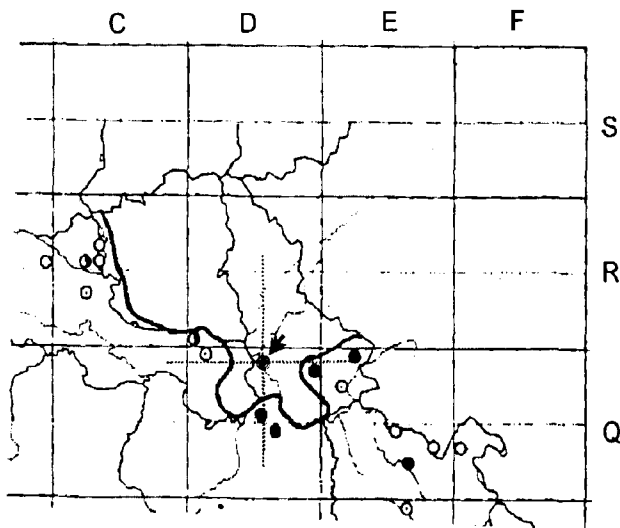


Fig. 1. Map of *Muscardinus avellanarius* L. 1758 distribution. (UTM grid system DQ 58) after Petrov, 1992.

Hazel dormouse is highly sensitive to climate. The reasons are direct as bad weather restricts feeding activity, as well as indirect through the effects of sunshine and temperature on ripening and availability on vital food supplies. The limiting factors for common dormouse are geographical and altitude extremes of range. Also population density is probably limited by density dependent factors. Moreover, males are strongly territorial in the breeding season (Mitchell-Jones *et al.* 1999).

Data on the distribution of hazel dormouse in Yugoslavia are very scarce. More than half of reports were published before 1970. Few of them were based on pellet analyses. The map of distribution exceeds Opovo (Petrov 1992). According to Matvejev (1989) Opovo belongs to District 1 Biom 36 (European broad-leaved woodlands with elements of steppe).

One of hazel dormouse predators is long-eared owl, *Asio otus* Linnaeus 1758. The long-eared owl is a species which lives in pairs during the breeding season and these individuals are gathering in-groups (so-called winter flocks) made of up to 100 individuals. Long-eared owl is a predominantly predator of small mammals. The undigested portions of food are compressed into compact masses (pellets, castings) and ejected through the mouth. These pellets contain the bones by which prey species can be identified (Mikkola 1983). In our investigation we collected pellets from *Asio otus* winter-flocks during two seasons: December 1998 March 1999 and December 1999 March 2000. The material was examined and skulls of Micromammalia were determined up to species or subgenera depending on the level of damage. All together 17881 individuals (prey items) were identified. Among them, there were 3 specimens of *Muscardinus avellanarius*: one from December and two from February pellet collection of the first winter season. Knowing from literature (Mikkola 1983) that the range of *Asio otus* is about 5 km, it can be considered that those hazel dormice were caught in Opovo. It presents 0.0167% of all items determined. But in view of biogeography and biodiversity, it is a valuable record of the species *Muscardinus avellanarius* in this part of Pannonian region in Yugoslavia. The area where this species was recorded nearest Opovo until now is on the south of Avala Mt., on the east the region of Deliblato Sands and on the west of Fruška gora Mt. This new habitat of the hazel dormouse in Banat district, represents remarkable extending of known area of this species. Moreover, this record originates from the season when it can be expected that hazel dormice are hibernating.

Protection status of hazel dormouse: Bern Convention, Appendix III; EU Habitats & Species Directive, Annex IV; IUCN Red List, Lower risk near-threatened (Mitchell-Jones *et al.* 1999; Stevanović and Vasić 1995).

Advantage of pellet investigation is that long-eared owls are good hunters and sometimes much more efficient than traps and suggest that this kind of investigations is valuable source of information of terriofauna biodiversity.

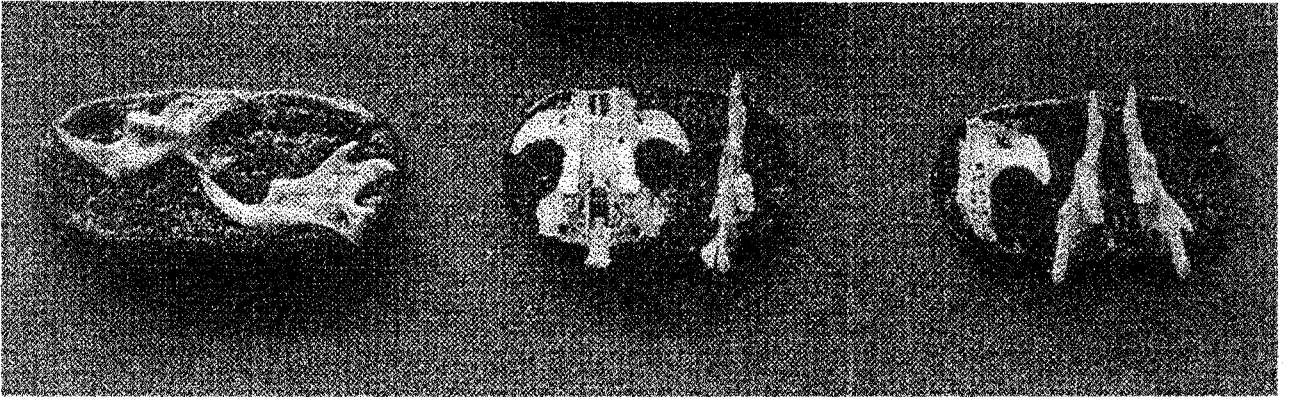


Fig. 2. Skull of *Muscardinus avellanarius* L. found in Opovo

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