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Distribution of the Edible Dormouse (*Glis glis*) in the Bohemian Forest Mts., Czech Republic (Rodentia: Gliridae)

Rozšíření plcha velkého (*Glis glis*) na Šumavě (Rodentia: Gliridae)

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Abstract. Two new records of the edible dormouse (*Glis glis*) in the Bohemian Forest Mts. are reported. All previous data on the species distribution in this region are summarized. Possible reasons for its scarcity are discussed.

Key words. *Glis glis*, Bohemia, distribution, habitat, diet.

The edible dormouse, *Glis glis* (Linnaeus, 1758) ranks among the rarest mammal species in the Czech part of the Bohemian Forest Mts. (Šumava). Despite the quite intensive mammalogical faunistic research in this region (see e. g. Anděra & Červený 1994), only five localities of the edible dormouse occurrence were known until 2007 (see the list of records).

List of records of the edible dormouse in the Bohemian Forest Mts. (squares of the KFME grid system):

6845: Medvědí jámy, ca. 900 m a. s. l. – 1972, 6 inds. (Anděra & Beneš 2001); Zámecký les – Nad Samotami, ca. 950 m a. s. l. – 1990s, 1 ind. found in a pile of logs, leg. J. Růžička (unpubl.); western slope of the Sklářský vrch hill, 990 m a. s. l. – 5 June 1995, characteristic leaf nests and droppings in two owl nestboxes, leg. L. Bufka.
6847: Kašperské Hory, ca. 750 m a. s. l. – 10 July 1955, 1 ind. (Hůrka 1981).
7249: Plešné jezero lake, 1030 and 1100 m a. s. l. – 1989–2002, repeated findings in two owl nestboxes (nests, droppings, observations) (Anděra & Červený 1994, Kloubec & Obuch 2003)

During the year 2007, the edible dormouse was recorded at two new localities in the Bohemian Forest Mts., both in the square no. 6845. One observation comes from an area of traditional occurrence, roughly delimited by the valley of the Řezná creek, the Elbe-Danube watershed and the Czech-German boundary. On 18 July, one individual was observed in a nestbox at the locality Zámecký les on the western slope of the Polom hill (49° 07' 39" N, 13° 15' 06" E; 970 m a. s. l.; V. Topinka, pers. comm.). The nestbox was checked a week later and in mid August and the edible dormouse (probably the same specimen) was still present there (Fig. 1, V. Topinka pers. comm.). The nestbox is attached to the trunk of a full-grown spruce at the height of 1.7 m above ground and is surrounded by a mixed beech-spruce-fir forest with rich understorey. In addition, a completely new locality was found at the southwestern hillside of the Jezerní hora (49° 9' 17.2'' N, 13° 10' 49.1'' E; 900 m a. s. l.) in the Královský hvozd massif. Two individuals were live-trapped there (by V. M.) on the open scree slope above the Svarožná creek (Fig. 2) on 2 August. Both

Figs. 1, 2. The edible dormouse in the Bohemian Forest Mts. Fig. 1 (above). The edible dormouse sleeping in a characteristic nest in a nestbox at Zámecký les on 25 July 2007. Photo by J. Červený. Fig. 2 (below). Habitat of the edible dormouse in the Královský hvozd massif. Photo by V. Mikeš.
Obr. 1, 2. Plch velký na Šumavě. Obr. 1 (nahoře). Plch velký spící v charakteristickém hnízdě v ptačí budce v Zámeckém lese 25. 7. 2007. Foto J. Červený. Obr. 2 (dole). Biotop plcha velkého v Královském hvozdu. Foto V. Mikeš.

individuals weighed nearly 80 grams (78 and 79 g), which fits well into the subadult age category for this time of the year (according to Bieber 1998). The scree field is surrounded by a spruce forest, including only one small group of beeches and some single rowans and young birches. As the occurrence of the edible dormice in coniferous woods is rather unusual (see Storch 1978), chiefly because of their nearly strict herbivory (e. g. Holišová 1968), an analysis of the diet of both trapped individuals was performed. For this, a method described by Nowakowski & Godlewska (2006) was applied. Fresh faeces collected from live-traps were examined in a laboratory and it was found out that both individuals had fed on ripe bilberries (*Vaccinium myrtilus*) (A. Bernardová pers. comm.), which were really abundant at the site. Thus, the edible dormice seem to be able to live in coniferous forests as well, at least during the summer, when forest fruits are available.

The above-mentioned records suggests that at least two stable populations of the edible dormouse exist on the Czech side of the Bohemian Forest Mts. – one in the surroundings of the Plešné jezero lake and one in the Řezná creek basin. Such pattern of distribution corresponds well with the data on edible dormouse occurrence in the Weisser and Grosser Regen (= continuation of Řezná) creek basins (see Faltin 1988), however, the species has not been recorded at all on the Austrian side of the Plechý (= Plöckenstein) hill massif (Spitzenberger 1983, 2001).

In contrast to its rare occurrence in the Czech part of the Bohemian Forest Mts., the edible dormouse seems to be much more abundant and continuously distributed in the Bavarian Forest NP (see Müller-Stiess 1996). Thus, there have to be some differences between the German and Czech parts of the Bohemian Forest Mts. at a landscape level. According to Müller-Stiess (1996), the edible dormouse inhabits predominantly mixed woods in the Bavarian Forest NP. As this kind of habitat is rather scarce on the Czech side of the Bohemian Forest Mts. (e.g. Neuhäuslová 2001), it might be the explanation for the edible dormouse absence in the majority of this region.

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