

First record of complete albinism in a vespertilionid bat (Chiroptera: Vespertilionidae) in Slovakia

Prvý nález úplného albinizmu u netopiera (Chiroptera: Vespertilionidae) na Slovensku

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Abstract. One complete albino of the greater mouse-eared bat *Myotis myotis* in a nursery colony (within 40 individuals) was found in the church attic in the village Hrušov (S Slovakia) on July 4, 2003. Some other records of partial and complete albinism in bats from surrounding countries are mentioned, too.

Complete albinism is a rare genetic deviation in animals and is a disadvantage for organisms for several reasons. An albino individual is more conspicuous (as a prey as well as a predator) and disadvantaged in partner choice, too. Furthermore, complete albinos reach lower age on average. Three forms of chromatic anomalies are distinguished: complete albinism, partial albinism and flavism. Complete albinism is clearly the rarest anomaly, characterised by a complete lack of melanin, so that the eyes are red, the skin is clear and the hair or feathers are white. Complete albinism in bats worldwide was documented in eight families and 38 species by UIEDA (2000). The author summarized also the literature on complete albinism in vertebrates.

In Slovakia, only one finding of a cadaver of the lesser horseshoe bat *Rhinolophus hipposideros* (Bechstein, 1800; Rhinolophidae) in attic of the Betliar castle (SE Slovakia) is known, with features of complete albinism (HORÁČEK 1995). Other findings of abnormally coloured vespertilionid bats – *Eptesicus serotinus* (Schreber, 1774), *Barbastella barbastellus* (Schreber, 1774) and *Plecotus auritus* (Linnaeus, 1758) – in Slovakia were partial albinos (ČERVENÝ 1980, PALÁŠTHY 1968, MATIS & PJEŇČÁK 1998).

We found one complete albino of the Greater mouse-eared bat *Myotis myotis* (Borkhausen, 1797) in a nursery colony, by checking church attic in the village Hrušov (48° 09' N, 19° 06' E; 460 m a. s. l.) on July 4, 2003. There were 40 females and grown-up juveniles present in the colony.



Fig. 1. Complete albino young male of the Greater mouse-eared bat (*Myotis myotis*), Hrušov (Slovakia), July 4, 2003. Photo by A. KRIŠTÍN.

Obr. 1. Úplný albín mladého samca netopiera obyčajného (*Myotis myotis*) odchytený na povale kostola v Hrušove (Slovensko) 4. júla 2003. Foto A. KRIŠTÍN.

An abnormally coloured individual, hanging within a cluster of other members of the colony, was captured and identified as a juvenile male (3–4 weeks old, Fig. 1). This individual was characterised by a complete absence of melanin, so the eyes were red, and the whole body was covered with white hair and clear, pink skin and wings.

In Slovakia, *M. myotis* is found frequently and is relatively abundant in summer roosts (attics, mainly in churches) as well as in hibernacula. It is the second most frequently registered bat species wintering in Slovakia, just after *R. hipposideros* (cf. LEHOTSKÁ 2003). In both winter and summer roosts, it belongs to the easiest detectable species (conspicuous body size, abundant colonies, no preference of crevices). Hence, we can speak about a relatively good knowledge of the occurrence and abundance of this species in comparison with other bats. In the European literature only partial albinism has been referred in this species (ŘEHÁK & ZUKAL 1994, ZUKAL et al. 1994), and one single note on the complete albinism does not have clear origin (UIEDA 2000). These facts confirm the scarcity of this finding. However, unpublished data about two juvenile complete albinos of *M. myotis* in the Czech Republic (Červené Poříčí, SW Bohemia; July 3, 1982 – one juvenile male; July 8, 1983 – one juvenile female; J. ČERVENÝ in litt.) suggest an increasing number of this phenomenon in bats. However, a question remains whether the reason is the increased mutagenic effect of the environment or a growing interest in chiropterology.

SÚHRN

Dňa 4. júla 2003 sme pri kontrole podkrovných priestorov kostola v obci Hrušov našli v materskej kolónii netopiera obyčajného (*Myotis myotis*) jedno úplne albinické mláďa samčieho pohlavia. Jedinec mal na celom tele čisto bielo sfarbenú srst', ružovú pokožku, biele až ružové lietacie blany a červené oči. Z územia Slovenska je to prvý nález úplného albinizmu u druhu netopiera z čeľade Vespertilionidae. V práci sú diskutované aj problémy albinizmu u netopierov.

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