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Abnormal skull of Roach's mouse-tailed dormouse (*Myomimus roachi*)

Nezvyklá lebka plcha hrabavého (*Myomimus roachi*)

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Abstract. A juvenile Roach's mouse-tailed dormouse *Myomimus roachi* (age probably < 2 months) with a deformed skull was trapped on July 21, 1995 at Orhaniye near Edirne. Its rostrum is clearly bent rightwards but the rest of the cranium is not much malformed. There is no sign that the anomaly was posttraumatic.

Since selection exerts strong pressure towards an optimal phenotype, wild mammals do not show much variation in this respect, at least at the intra-population level. Nevertheless, deviant morphs do occur within populations, albeit at low frequencies. Such evident deviations have been reported in colour (e.g. AMBROS et al. 1980, BREE et al. 1963, HANÁK 1957), on the skeleton (BECKER 1966, HARRISON 1966) and on dentition (JAECK 1991, JOHNSON 1952).

In this communication we report on an aberrant skull of a rare Roach's mouse-tailed dormouse *Myomimus roachi* (Bate, 1937). This dormouse is the rarest and least known European mammal, which was recognised as a living species only as recently as 1959, first under the name *M. personatus* (PESHEV et al. 1960). Its range is also one of the smallest among rodents in the western Palaearctic (KRYŠTUFEK & GRIFFITHS 2002). The species is currently known only from Thrace in Bulgaria and Turkey (PESHEV et al. 1960, KURTONUR & ÖZKAN 1991) and from a very few sites along the west Anatolian coast (MURSAOĞLU 1973, BURULDAĞ & KURTONUR 2001). During the Holocene, the Roach's mouse-tailed dormouse disappeared from much of its previous Asiatic range, which extended as far south as Israel (TCHERNOV 1968). *Myomimus roachi* is a rare animal also in small mammal assemblages. Only 22 specimens altogether are known to be collected in Bulgaria (PECHEV et al. 1964), and KURTONUR & ÖZKAN (1991) obtained only 30 mouse-tailed dormice in four years of intense small mammal sampling in Turkish Thrace.

The aberrant specimen was collected on July 21, 1995 at Orhaniye near Edirne, European Turkey, and is deposited in the Department of Zoology, Charles University, Prague (TU-1022). It is a young male with abdominal testes (dimensions 4.6×2.4 mm). External dimensions are as follows: body mass 14 grams, head and body length 83 mm, and tail length 78 mm. In the Roach's mouse-tailed dormouse, body mass at weaning (age ca. 30 days) is 8.6–10.4 g (BURULDAĞ & KURTONUR 2001) and the earliest juveniles were collected in Thrace on July 8; their body mass was 8.5–13 g (KRYŠTUFEK & VOHRALÍK in press). We thus estimate the age of the anomalous specimen to be less than two months.

Skull is deformed in its rostral portion, which is twisted rightwards from the sagittal plane (Fig. 1). Although the deformation is easily noticed in the distal portion of the rostrum, the posterior part of the incisive foramens no longer deviates from symmetry. Asymmetry is also more evident in the dorsal than ventral view. Slight asymmetry is also noticeable in the zygomata and on the occipital condyles, of which the right one is shifted more anteriorly. Deformation is hardly noticeable in the lateral view, and not at all on the mandible. There is also no sign of mal-occlusion on the incisors.

When compared with a normally developed skull of a juvenile Roach's mouse-tailed dormouse from the same locality and of approximately same age and date of collection (July 26, 1995; TU-1021), hardly any differences can be noticed in the skull, apart from the rostrum. The brain-case is of the same size and proportions in the two specimens, although the skull of the anomalous specimen is shorter due to the

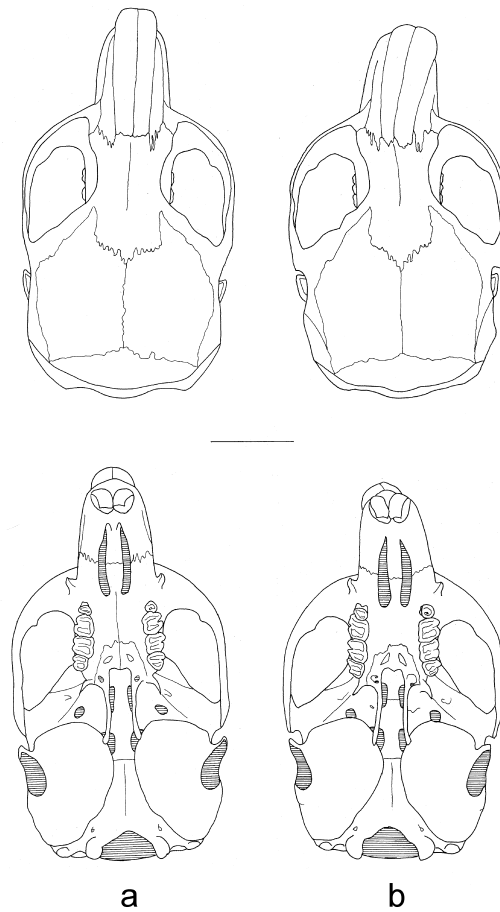


Fig. 1. Skulls in dorsal and ventral view of a normally developed (a) and anomalous (b) Roach's mouse-tailed dormice from Orhaniye, Turkish Thrace. See text for further explanation. Scale bar = 5 mm.

Obr. 1. Ventrální a dorsální pohled na normálně (a) a nezvykle (b) vyvinutou lebku plcha hrabavého z Orhaniye v Turecké Thracii. Měřítko = 5 mm.

deformed rostrum. In addition, the rostrum, nasals and incisive foramina are broader in the abnormal skull. Inter-orbital constriction, however, is of the same size in both animals.

There is no evidence of any fracture on the deformed skull, so the anomaly is evidently not posttraumatic. One of us (B.K.) has examined over 2500 skulls of various dormice belonging to the genera *Glis*, *Muscardinus*, *Dryomys*, *Eliomys*, *Myomimus* and *Graphiurus*, and has never previously come across any such deformation.

SOUHRN

U Orhaniye nedaleko Drinopole (Edirne) byl 21. července 1995 chycen juvenilní jedinec plcha hrabavého (*Myomimus roachi*) (o stáří pravděpodobně nižším než dva měsíce) s deformovanou lebkou. Přední část jeho lebky je zahnutá doprava, ale zbytek lebky pozměněn není. Nebylo zjištěno známek toho, že by změna lebky byla posttraumatická.

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