

# A NEW VOLE FROM HUNGARY AND AN INTERESTING BAT NEW TO THE HUNGARIAN FAUNA.

By Dr. J. ÉMIK.

## *Pitymys transsylvanicus* n. sp.

*Type locality.* — Mts. Fogaras near Kerez (County Fogaras) around the Bulea Lake, altitude 2046 m.

*Geographical distribution.* — Known only from the type locality.

*Diagnosis.* — Size small, hind foot about 13·5 mm., condylobasal length of skull 20 mm. The smallest known European species. Skull small, interorbital region relatively wide: the anterior parts of the skull from the posterior border of interorbital constriction relatively short to the length of the brain case (8·5:11·7). The depth of the brain case including auditory bullae is very great (7·4 mm.).

*Colour.* — Upper parts not vivid dark reddish brown, with very many black hairtips; basal portion of hairs dark slate-black. Underparts pale smoke-grey, nearly white; the lighter slaty bases of the hairs everywhere showing through at surface. Feet dusky grey. Tail sharply bicolour, dark brown above, light whitish grey beneath.

*Skull.* — The skull is small and smooth, with large brain case. The anterior parts of the skull from posterior border of interorbital constriction relatively short to the length of brain case. Minimum transverse diameter of interorbital region 3·7 mm.; transverse diameter of anterior parts of rostrum 3·5 mm.; its upper transverse diameter between ante-orbital foramina, close before Proc. zygomaticus maxillaris 3·1 mm. Dorsal profile straight from the point, above anterior border of ante-orbital foramen to brain case; from posterior margin of interorbital constriction markedly convex beyond posterior margin of interparietal, beyond which the occiput curves downward without noticeable angle. Nasals sloping forward at an angle of about 15°. The general outline of skull as viewed from the side, narrowly cuneate; the depth of brain case including auditory bullae is very great (7·4 mm.): orbital depth beyond incisors 3·2 mm. Brain case from back of interorbital constriction as long as zygomatic breadth; its surface smooth, lambdoid crests only developed slightly at sides. The depth of the brain case through auditory bullae about 70 per cent of occipital breadth. Occiput rounded off behind: paroccipital processes slender, their tips

descending below lip of foramen magnum, the ridges, extending upward from their bases, weak, but well developed. Diameter of basioccipital, along suture (1.1 mm.), contained about three times in its median length (3.4 mm.). Largest diameter of auditory bullae, from paroccipital processes to ectopterygoid pits, 6.7 mm. Interorbital region short, the minimum width greater than that of rostrum. Zygomata weak, the two arches nearly parallel. The greatest diameter of anteorbital foramen contained about one and one-half times in breadth of plate, forming outer wall of anteorbital canal. Nasals slightly constricted before anteorbital foramen, beyond this slight constriction narrowed, their rounded and pointed posterior border extended at about level of middle of zygomatic root, the nasal branches of premaxillaries extending a little further backward; diameter of nasals along posterior suture as long as nasal branches of premaxillaries from outer corner of fronto-nasal suture backward. The greatest combined breadth of incisive foramina 0.9 mm.; their greatest diameter 3.7 mm. Palate with well marked lateral grooves: the lateral pits are large and deep: their transverse diameter close to the sloping portion of median ridge 0.6 mm.; their greatest longitudinal diameter 1.8 mm., pterygoids nearly parallel, the hamulars very slightly turned outward, mesopterygoid space rounded in front; ectopterygoid pits relatively large, their anterior parts widely rounded off.

Mandible slender, its portion in front of molars nearly equal with the length of  $m_1$ . Coronoid process large and weak, its extremity rising to level of condyle: their anterior margins rising nearly at right angles to level of triturating surface. Articular process abruptly bent inward at level of base of incisor. Angular process weak, but well developed, curved strongly outward.

*Teeth.* — Upper incisors strongly curved, the roots forming slight protuberances in infraorbital foramina, its anterior surface not visible when skull is viewed from above; cross section of shaft obscurely triangular: a deep subapical notch is present. Lower incisors slender, their roots extending into bases of articular processes but not forming noticeable protuberances on outer surface of mandible; cross section of shaft more triangular. Crown of third upper molar very slightly longer than that of second. First outer triangle of  $m^1$  opening into inner triangle but its apex on the same level with that of anterior loop and second triangle; on its terminal loop the posterior inner reentrant angle as wide as the other, but the incurved portion is shorter.  $M^1$  and  $m^2$  like with *Pitymys subterraneus*. The third inner reentrant angle of the first lower molar fails to penetrate till the enamel wall of opposite side of tooth, thus a broad area of communication being formed between first inner

and first outer triangles; the anterior portion of its anterior loop narrow, its main axis directed forward; the inner and outer reentrant angles of the anterior loop relatively deeper than with *Pitymys subterraneus*.  $M_2$  with four triangles, the antero-internal and antero-external communicating, and with a posterior transverse loop.  $M_3$  like with *Pitymys subterraneus* SÉLYS.

*Specimen examined.* — One subadult female from Mts. Fogaras, around the Bulea Lake, near Kerez (County Fogaras), altitude 2046. m, Coll. G. ENTZ Aug. 3. 1910. (Hung. Nat. Mus. No. 2770.)

*Measurements.* — Type (measured on dried skin): head and body 67.5 mm.; tail 23 mm.; hind foot 13.5 mm.

*Cranial measurements:* — Condylbasal length 20 mm.; zygomatic breadth 12.5 mm.; interorbital constriction 3.7 mm.; occipital breadth 10.3 mm.; occipital depth 5.5 mm.; nasal 5.7 mm.; diastema 6 mm.; mandible (without incisor) 13.5 mm.; maxillary tooth-row 4.7 mm.; mandibular tooth-row 4.9 mm.

### *Myotis oxygnathus* MONTICELLI.

I caught a bat supposed to be a *Myotis myotis* BORKH. on the 5<sup>th</sup> of June, 1924 at Budafok near Budapest which by determination proved to be a *Myotis oxygnathus* MONTICELLI. The total number of bat species known in Hungary rose to 23 by that.

The *M. oxygnathus* has been described in 1885 by MONTICELLI, who ends his description by remarking, that it is not excluded, that the new species will prove to be a single variety of *M. myotis*, by closer investigation.<sup>1)</sup> MÉHELY classifies the *M. oxygnathus* in 1900 as a synonyme of the *M. myotis*.<sup>2)</sup> MILLER resumes the study of the species in 1909 and describes it as a good species after having completed its specific characters as established by MONTICELLI.<sup>3)</sup> He examined 75 specimens of *M. oxygnathus*, also the type itself and states that "aside from its smaller size and shorter, narrower ears this species does not differ appreciably from *M. myotis*, though the general color is often darker than usual in the larger animal". According to my own investigations the more pointed nose is more characteristic for the animal, than the shorter and narrower ears.

<sup>1)</sup> MONTICELLI FR. SAV.: Descrizione di un nuovo *Vespertilio* Italiano. (Ann. d. Accad. O. Costa d. Aspiranti Naturalisti, Era 3. V. I. 1885. p. 7.)

<sup>2)</sup> MÉHELY L.: Monographia Chiropteroorum Hungariae. Budapest. 1900. p. 190.

<sup>3)</sup> MILLER, G. S.: Note on the *Vespertilio oxygnathus* of Monticelli. (Ann. d. Mus. Zool. d. R. Univ. d. Napoli, N. S. vol. III. No. 3. April 6. 1909.)

As MÉHELY classified the species among the *M. myotis*,<sup>1)</sup> the idea was at hand that I must find the *M. oxygnathus* in the collection of the Hungarian National Museum under the name of *M. myotis* from several places. And really by the revision of the bat collection of the Hung. Nat. Mus., I found the *Myotis oxygnathus* MONTICELLI from the following places:

1. Budapest, 2. Vörösvár (county of Pest), 3. Pilis-Marót (county of Esztergom), 4. Sopron, 5. Abaliget (county of Baranya), 6. Szekszárd (county of Tolna), 7. Deliblát (county of Temes), 8. Temes-Kubin (county of Temes), 9. Déva (county of Hunyad), 10. Alsó-Huta, cave of Ágasvár (county Heves), 11. Nagy-Röcze (county of Gömör) and to be added finally, 12. Budafok (near Budapest).

„The range of *Myotis oxygnathus* so far as known, strictly Mediterranean probably coincident with that of *M. capaccinii* and *Pipistrellus kuhlii*.“<sup>2)</sup> The occurrence in Hungary proves the exactness of MILLER's supposition.

<sup>1)</sup> MÉHELY L.: L. c.

<sup>2)</sup> MILLER, G. S.: Catalogue of the Mammals of Western Europe, London 1912. p. 202.