

## A Plio-Pleistocene large mammal fauna from Strekov and Nová Vieska, south Slovakia

Peter HOLEC

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Abstract. Fossil-bearing beds from Strekov and Nová Vieska have yielded the following mammal species: *Trogotherium* sp., *Pliocrocota perrieri*, *Dicerorhinus megarhinus*, *Dicerorhinus jeanvireti*, *Dicerorhinus etruscus etruscus*, *Hipparion* sp., *Anancus arvernensis*, *Mammut borsoni*, ?*Archidiskodon meridionalis*, Cervidae indet., ?*Libralces* sp., ?*Alces* sp., ?*Bos* sp., ?*Bison* sp., *Sus* sp. On the basis of the species composition it is suggested that the fauna is of allochthonous and heterochronous origin and of Pliocene and Lower Pleistocene age.

Key words: Mammals, Pliocene, Pleistocene, Slovakia.

Peter HOLEC, Department of Geology and Paleontology, Faculty of Sciences, Comenius University, Mlynska dolina B, 842 15 Bratislava, Slovakia.

### I. INTRODUCTION

In Slovakia there are a number of important localities with fossil mammal. The fauna from the localities Strekov and Nová Vieska is interesting because it is composed of species from both the Pliocene and the Pleistocene.

### II. LOCALITIES

The villages of Nová Vieska and Strekov lie in the southwestern part of the Hronská pahorkatina Upland in south Slovakia (Fig. 1). In both villages, small pits with sands and gravels are exploited. A fossiliferous bed was uncovered in these sediments. On the basis of the relatively short distances between the sand pits and the similar faunal composition it is assumed that they come from a single bed. In Strekov the thickness of the bed is 8-15 cm, in Nová Vieska approximately 10 cm. It is formed of limonitized gravels to gravelous sands (Fig. 2). The geological conditions were described in detail by HARČÁR & SCHMIDT (1965) and SCHMIDT & HALOUZKA (1970).

### III. DISCUSSION

The above-mentioned authors described the following fauna: *Zygodontomys borsoni* (HAYS, 1834), *Anancus arvernensis* (CROIZET & JOBERT, 1828), *Archidiskodon planifrons* (FALCONER & CAUTLEY, 1846), *Dicerorhinus megarhinus* (CHRISTOL, 1835), *Cervus* sp., *Alces* sp., *Bison* sp.

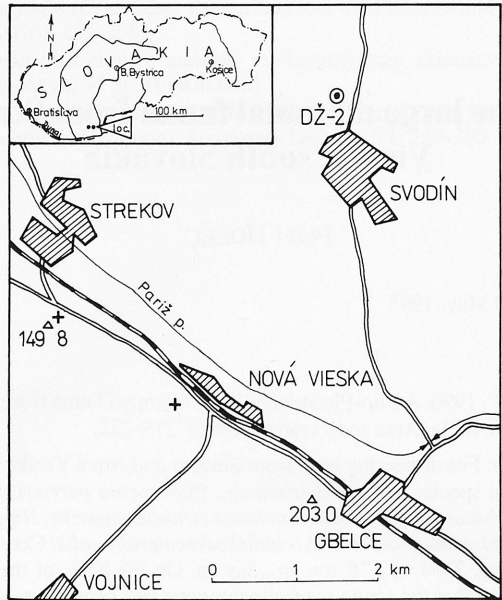


Fig. 1. Schematic map of Slovakia and sketch of the area around the localities Strekov and Nová Vieska. The sand pits are marked by crosses. (Modified after SCHMIDT & HALOUSKA 1970).

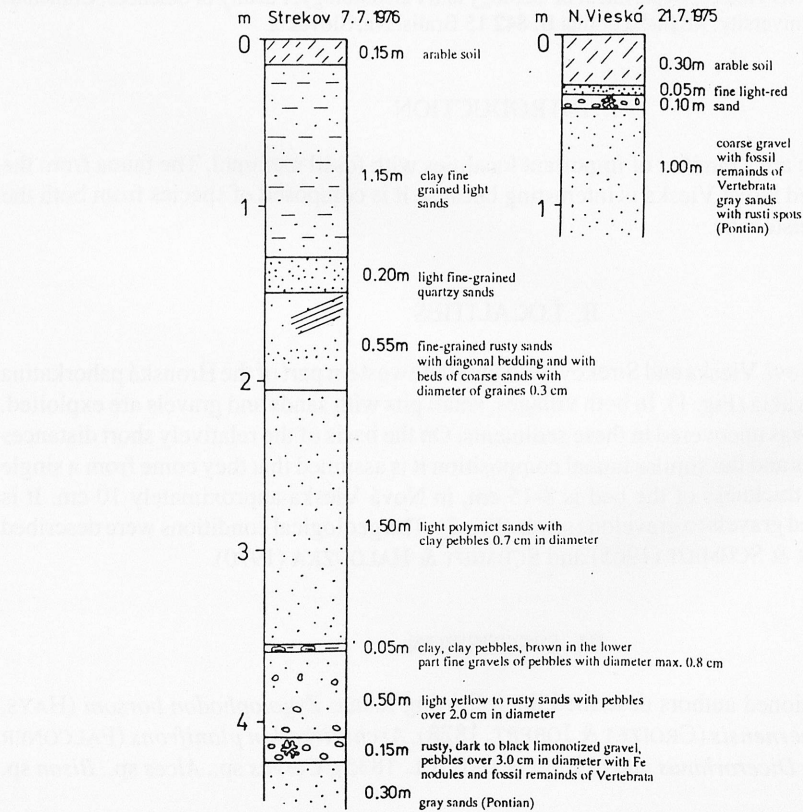


Fig. 2. Schematic lithological profiles of the sand pits in Strekov and Nová Vieska.



and *Sus scrofa* (L.). They assumed that the fauna belonged to the earliest Pleistocene. Later, HOLEC (1986) discovered further faunal remains: *Dicerorhinus jeanvireti* GUÉRIN, 1972, *D. etruscus etruscus* (FALCONER, 1859), *Trogotherium* sp., ?*Libralces* sp., *Pliocrocuta perrieri* (CROIZET & JOBERT, 1828), ?*Archidiskodon meridionalis* (NESTI, 1825), *Hipparion* sp., ?*Bos* sp. and ?*Bison* sp. We must assume on the basis of these later finds that we are dealing with an allochthonous and heterochronous fauna from the Pliocene and Lower Pleistocene. This can be established on the basis of the large mammal composition, and moreover the sediments are of fluvial type and the fossils bear marks of transport – some are quite small, others very clearly rounded.

When we arranged the species into the zones of GUÉRIN (1982), who created a zonation for the Pleistocene on the basis of rhinoceroses, and also into those of MEIN (1975), we found that our fauna belongs at least to three faunistic complexes. The Pliocene complex is formed by the species *Dicerorhinus megarhinus*, *D. jeanvireti*, *Hipparion* sp., and *Mammuth borsoni*. The second complex includes species from the Pliocene-Pleistocene transition. These are: *Trogotherium* sp., *Pliocrocuta perrieri*, *Dicerorhinus etruscus etruscus*, *Anancus arvernensis* and *Archidiskodon meridionalis*. The third complex pertains to the upper part of the Lower Pleistocene, and includes the genera *Bos* and *Bison*, which occur only in MNQ 20 together with *Sus scrofa* (L.), and continue to the Middle Pleistocene (Fig. 3). According to MADE & MOYÁ-SOLÁ 1989 (and personal communication) the *Sus* specimen could be *Sus stozii*.

In closing it may be stated that the river flowing through this area in the Lower Pleistocene in its erosional activity cut through older Pliocene sediments and the fossil fauna these contained. This is demonstrated by the occurrence of *Dicerorhinus megarhinus*, which is relatively rare here and is characteristic of the Pliocene zones MN 14 and MN 15, together with remains of *Bos* sp. or *Bison* sp., which do not appear until zone MNQ 20.

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