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# A PRELIMINARY NOTE ON A LATE MIOCENE MAMMALIAN FAUNA FROM MOLDAVIA (ROMANIA)

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A mammalian assemblage including *Choerolophodon pentelici*, *Aceratherium incisivum*, *Chilotherium* sp., *Hipparion* sp. and Palaeotraginae cf. *Samotherium* sp. was discovered in Bacău, Moldavia. The fossiliferous horizon seems to be no later than Early Meotian in age. *Choerolophodon pentelici* and *Chilotherium* sp. are recorded here for the first time in Romania.

The Miocene faunal history in Romania is very imperfectly known. Large mammals are represented, generally, by sparse fossils including fragmentary jaws, isolated teeth or limb bones. The discovery of a skeleton of *Dinotherium gigantissimum* Ștefănescu at Minzați (Moldavia) was quite exceptional. Bone accumulations were rarely reported. A brief review of the most significant findings of Late Neogene large mammals was presented by Macarovici (1972). Data on Miocene mammals in Transylvania, on the basis of Hungarian collections, were summarized by Kretzoi (1982). Small mammal associations have been reported only from the western part of Romania (Feru, Rădulescu & Samson 1979, 1980).

During the excavations carried out for the foundations of a thermo-power-station located on the right bank of the River Bistrița, in the Bacău area, mammalian remains were discovered. The fossiliferous horizon was situated at a depth of approximately 8–12 m in a succession of gray silty clays and fine sands. Under the supervision of one of us (C.Ș.) an interesting assemblage of large mammals was recovered and stored in the collections of the Museum of Natural Sciences, Bacău.

A preliminary examination of the fossils showed the presence of the following mammals :

*Choerolophodon pentelici* (Gaudry & Lartet)  
*Aceratherium incisivum* Kaup  
*Chilotherium* sp.  
*Hipparion* sp.  
Palaeotraginae cf. *Samotherium* sp.

*Choerolophodon pentelici* is represented by fragmentary lower jaws (including a specimen with the milk dentition and a ramus with the last molar) and limb bones.

The species was recorded mainly from eastern (Soviet Union) (G a b u n i a 1981), south-eastern (Bulgaria) and southern Europe (Greece) and also Anatolia and Iran (Tobien 1973, Solounias 1981).

*C. pentelici* is recorded here for the first time in Romania.

*Aceratherium incisivum* — judging by a few isolated molars, a rhinoceros form similar to *A. incisivum* in its dental morphology is present in Bacău. This species was widely distributed in Europe in the Late Miocene times.

*Chilotherium* sp. — The collection includes an upper jaw with P<sup>4</sup>—M<sup>3</sup>, a portion of an upper jaw which retains, M<sup>1-2</sup>, fragments of mandibles and limb bones.

It is of interest to note that the *Chilotherium* form in Bacău is characterized by more hypsodont teeth as compared with *C. schlosseri* (Weber) at Grebeniki (Early Meotian, Ukraine) (K r o k o s 1917). The degree of hypsodonty seems, however, to be less marked than in *C. sarmaticum* Korotkevich from Berislav (Late Sarmatian, Ukraine) (K o r o t k e v i c h 1970).

Representatives of the genus *Chilotherium* were recorded in eastern and southern Europe, Anatolia, Iran, China and India.

The genus is recorded here for the first time in Romania.

*Hipparion* sp. — The remains of *Hipparion* consists of a few elements of limb bones: a radius in a fragmentary state, a distal portion of a third metacarpal, a proximal end of a tibia. These skeletal remains resemble the corresponding bones in *Hipparion verae* Gabunia. The species is known in mammalian associations dating from the Late Sarmatian and Early Meotian of the European part of the USSR (G a b u n i a 1981).

*Hipparion verae* (= *gromovae* Gabunia) was recorded for Romania on the basis of a distal end of a cannon bone found at Ștuhuleț—Huși, Moldavia (M a c a r o v i c i 1967).

Palaeotraginae cf. *Samotherium* sp. — A Palaeotragine is represented by a fragmentary tibia which seems to have affinities, judging by size and morphology, with *Samotherium*, a genus known from several fossil localities in eastern (K o r o t k e v i c h 1970, G a b u n i a 1981) and southern Europe (S o l o u n i a s 1981) and Asia (Iran, China).

*Choerolophodon* and *Chilotherium* are the best documented among the mammals in Bacău. *C. pentelici* and many species of *Chilotherium* were described in the classic Turolian localities of Pikermi and Samos, Greece (S o l o u n i a s 1981). It is interesting to note that to the east of Romania, in Ukraine, *C. pentelici* was found especially in Sarmatian deposits. It was also mentioned there at the beginning of the Meotian stage (K o r o t k e v i c h 1970, G a b u n i a 1981).

The mammals in Bacău represent the most important Late Miocene bone accumulation in the Extracarpathian area of Romania. As a whole, this faunal assemblage indicates a warm temperate climate corresponding seemingly to the beginning of the Meotian Age. Although still imperfectly known, the mammals at Bacău suggest a relationship with the faunas at Berislav (Khersonian) and Grebeniki (Early Meotian) to the east (Ukraine) and also the faunas of some Meotian fossil localities in Bulgaria (N i k o l o v 1985) to the south.

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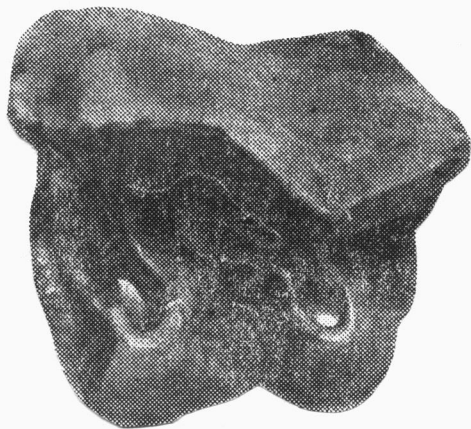
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**PLATE 1—fig. 3.** *Aceratherium incisivum*, left M<sup>2</sup> in occlusal view  
about  $\frac{3}{4}$  n.s.

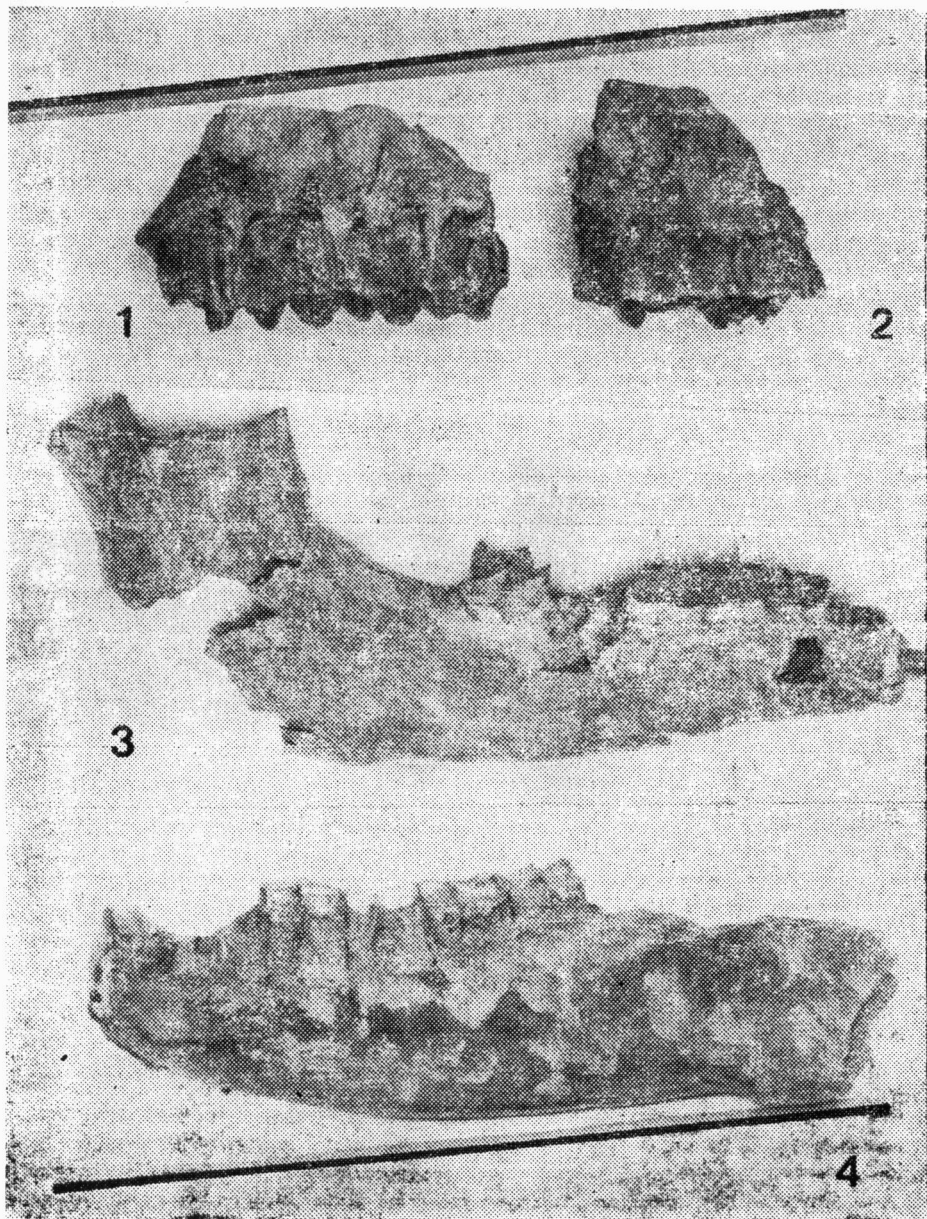


PLATE 2. — *Chilotherium* sp.: 1. Fragment of right maxillary with P<sup>4</sup> — M<sup>3</sup> in external view. Fragment of right maxillary with M<sup>1-2</sup> in external view. 3. Right mandible with P<sub>3</sub> — M<sub>1</sub>, M<sub>2</sub> in external view. 4. Left mandible with P<sub>4</sub> — M<sub>3</sub> in external view. Scales equal 40 cm.