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# SOME DATA CONCERNING *COELODONTA ANTIQUITATIS* (BLUMENBACH) FROM MUREȘ COUNTY

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Downstream Tg. Mureș, on the geographically left bank of the Mureș River, within the terrace deposits, there are several quarries from which ballast-stone for building activities is mined. Such quarries are to be found at Cristești and Sînpaul (Fig. 1). The quaternary gravel and sand deposits overlie the pannonian formations.

During the mining activities, a series of quaternary skeletal remains belonging to big mammals were discovered in these quarries, the most frequent being those of the wooly rhinoceros: *Coelodonta antiquitatis* (Blumenbach). A part of these fragments entered the collections of the Natural Science Department, from the Tg. Mureș Districtual Museum (TMSN) and they are discussed in the present note.

## PALEONTOLOGICAL DESCRIPTION

Parvord. *Ceratomorpha* Wood, 1937

Ord. *Perissodactyla* Owen, 1848

Infraord. *Moromorpha* Schoch, 1984

Superfam. *Rhinoceroidea* Owen, 1845

Grandfam. *Rhinocerotida* Owen, 1845

Subfam. *Rhinocerotinae* Owen, 1845

Tribe *Rhinocerotini* Owen, 1845

Genus *Coelodonta* Bronn, 1831

### *Coelodonta antiquitatis* (Blumenbach)

The first fossil remain which has to be mentioned is an incomplete right hemimandible from which only the horizontal ramus with P/2 - M/2 and M/3 was preserved (TMSN 820). From the last molar only a part of the anterior prism could be saved. TMSN 820 was discovered at Sînpaul in the gravel quarry, in 1982 (Pl. I, Figs 1-3).

The mandible belonged to a young specimen in which the cheek teeth eruption wasn't completed and which preserved D/4 within its dental row. From this point of view, the material we refer to represents an excellent source for a study of the eruption process which is in an advanced stage. D/4 is drastically worn, M/1 is characterized by a moderate wearing, M/2 by an incipient one while M/3, if we consider the existing fragment, wasn't worn at all. All the cheek teeth are covered by cementum which, though not

in excess, can be noticed on the labial walls as well as on the transversal valleys. The lateral cingulums are missing &44 in all these teeth.

P/2 is drastically damaged therefore the crown details are not visible any more.

P/3 is characterized by transversal valleys whit "V" - shaped profiles, the level difference between the valleys being considerable.

D/4 is so deeply blunted that the crown is worn almost to its base.

M/1 is characterized by transversal valleys similar to those of P/3 both in profile and level difference.

M/2 was in full eruption, the wearing process affecting its strictly anterior zone within the paraconid area and stopping before the protoconide. The anterior valley has a "V"-shaped profile and the posterior valley a "U" - shaped one. The level difference between these is small.

Furthermore, the mandible shape corresponds exactly to the species characteristics: tall and massive, with a highly convex lateral face and a medial convex one close to the alveolar and ventral edges. In front of P/2 within the upper third of the labial side, a small mentonier, elliptically - shaped foramen of the opening (maximum diameter 7 mm) can be noticed.

Dimensions (mm):

	P/2	P/3	D/4	M/1	M/2
Length	+ 25.0	37.0	38.0	55.0	62.0
Width anterior	-	23.0	23.0	31.0	31.2
posterior	+ 16.4	20.0	24.0	29.0	29.0
Height	-	47.0	-	-	64.4
Index (100xH/L)	-	127.0	-	-	103.9
Width of horizontal ramus under	43.0	48.0	56.0	58.0	53.0
Height of horizontal ramus under (labial)	-	68.0	78.0	88.0	88.0

The second discovery we refer to is a right radius entirely preserved (TMSN 365). It was found at Cristești in 1965 (Pl. II, figs 1 - 2). Its assignment to the afore-mentioned species is absolutely certain and it is proved by the position of the proximal articulation surfaces as well as by its size.

Dimensions (mm):

Length	400.0
Proximal transversal diameter	122.0
Transversal proximal articular diameter	118.0
Antero-posterior proximal diameter	+ 89.0
Transversal diameter of the diaphysis	70.5
Antero-posterior diameter of the diaphysis	51.5
Antero-posterior supraarticular distal diameter	82.0

### COMPARISONS AND DISCUSSIONS

The Mureş fragments represent an evolved stage of this species. The small breadth of M/2, an advanced degree of the cheek-teeth hysodonty, the radius length, the high values of its transversal diameters, the value (17.63) of the gracility index ( $100 \times \text{DT diaphysial} / \text{Length}$ ) are as many arguments supporting this point of view. The relatively significant lengths of the molars are explained by the integrity of these teeth which were, as we have already showed, very slightly worn.

Therefore we consider that the wurmian age - probably a rather later Würm - cannot be doubted. Moreover, this idea is confirmed by the other paleofaunistic elements discovered within the same deposit at Cristeşti: an evolved *Mammuthus primigenius* as well as a species from the *Bos* genus, probably *B. primigenius*, materials existing in the same collection.

As C. GUÉRIN already proved (1980, 1982) the species is characteristic for the interval included between the biozones 24 - 26, that is between the Riss and Würm glaciations, its extinction occurring in Europe some 12 - 10 000 years ago. The specimens from Sînpaul and Cristeşti closely resemble, from the point of view of their geological age, to the Brăteiu discoveries, Sibiu country (P. SAMSON & W. HERMANN, 1968) or to those from other localities of the same country (*O. PHLEPS*, 1926). The beautiful, already described Brăteiu mandible, from the würmian deposits of the lower terrace of Tîrnava Mare, belonged to an adult specimen older than the Sînpaul one. However, the Brăteiu geologic age could be more recent than the Mureş occurrence.

The Adămuş discoveries (H. FUCHS & I. KÓNYA, 1967) consist of geological older forms of this species it we consider the width of the mandibular cheek teeth which more likely correspond to a Riss specimen.

Up to the present the woolly rhinoceros was reported from 10 localities of Mureş county (Fig. 1):

1. Adămuş - Corneşti (H. FUCHS & I. KÓNYA, 1967);
2. Crăieşti (H. FUCHS & I. KÓNYA, 1967);
3. Cristeşti (H. FUCHS & I. KÓNYA, 1967);
4. Cuci (H. FUCHS & I. KÓNYA, 1967);
5. Gălăţeni (A. KOCH, 1891, 1900; I.Z. BARBU, 1930; C.S. NICOLAESCU - PLOPŞOR, 1938; C. EUFROSIN, 1942; M. ROSKA, 1942; B. JUNGBERT, 1979; I. VÖRÖS, 1983);
6. Hărănglab (A. KOCH, 1888, 1891, 1900; I.Z. BARBU, 1930; C. S. NICOLAESCU - PLOPŞOR, 1938; C. EUFROSIN, 1942; M.ROSKA, 1942);
7. Lăscud (unpublished material in the TMSN collection);
8. Păcureni (A. KOCH, 1876, 1891, 1900; K. GOOS, 1876; G. TÉGLÁS, 1886; M. MOGA, 1938; M. ROSKA, 1942; I. VÖRÖS, 1983);
9. Sîngeorgiu de Mureş (H. FUCHS & I. KÓNYA, 1967);
10. Sînpaul (this paper).

## CÂTEVA DATE PRIVIND RINOCERUL LÂNOS: *COELODONTA ANTIQUITATIS* (BLUMENBACH) DIN JUDEȚUL MUREȘ

(Rezumat)

În aval de Tg. Mureș, în depozitele de terasă ale malului stâng geografic al râului Mureș, se găsesc mai multe cariere din care se exploatează balast pentru construcții. Astfel de balastiere se găsesc în localitățile Cristești și Sânpaul. Se descriu resturi scheletice aparținând rinocerului lănos - *Coelodonta antiquitatis* (BLUMENBACH) - întâlnite aici: un fragment de mandibulă și un radius.

Datele morfologice și dimensionale indică o formă evoluată a speciei, caracteristică Würmului, fapt ce concordă de altfel cu celelalte mamifere mari cuaternare întâlnite aici. Descoperirile de la Cristești și Sânpaul relevă o formă de rinocer lănos foarte apropiată de ceea ce se cunoaște din județul Sibiu, de la Brăteiu și din alte localități. Este prezentată o listă cuprinzând descoperirile de rinocer lănos din județul Mureș.



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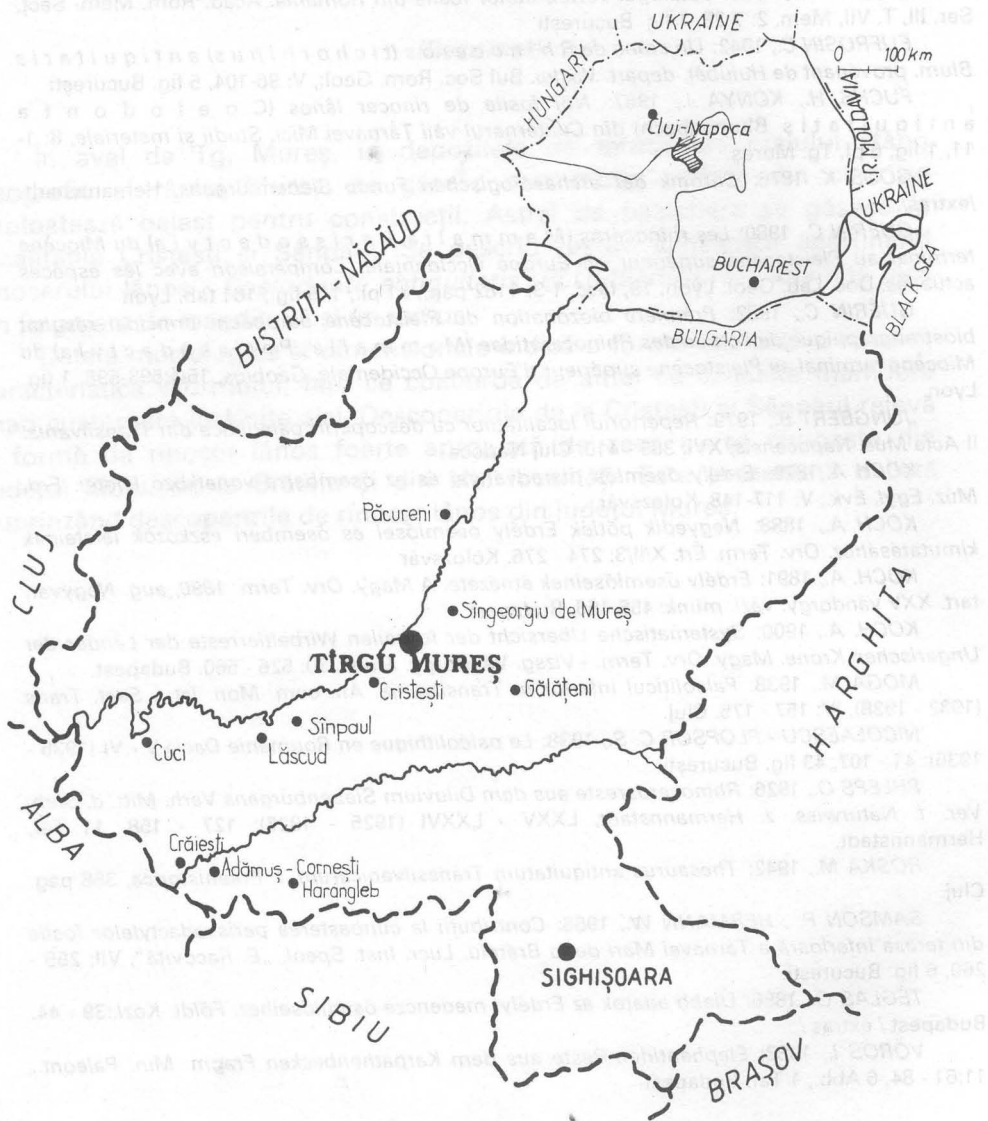
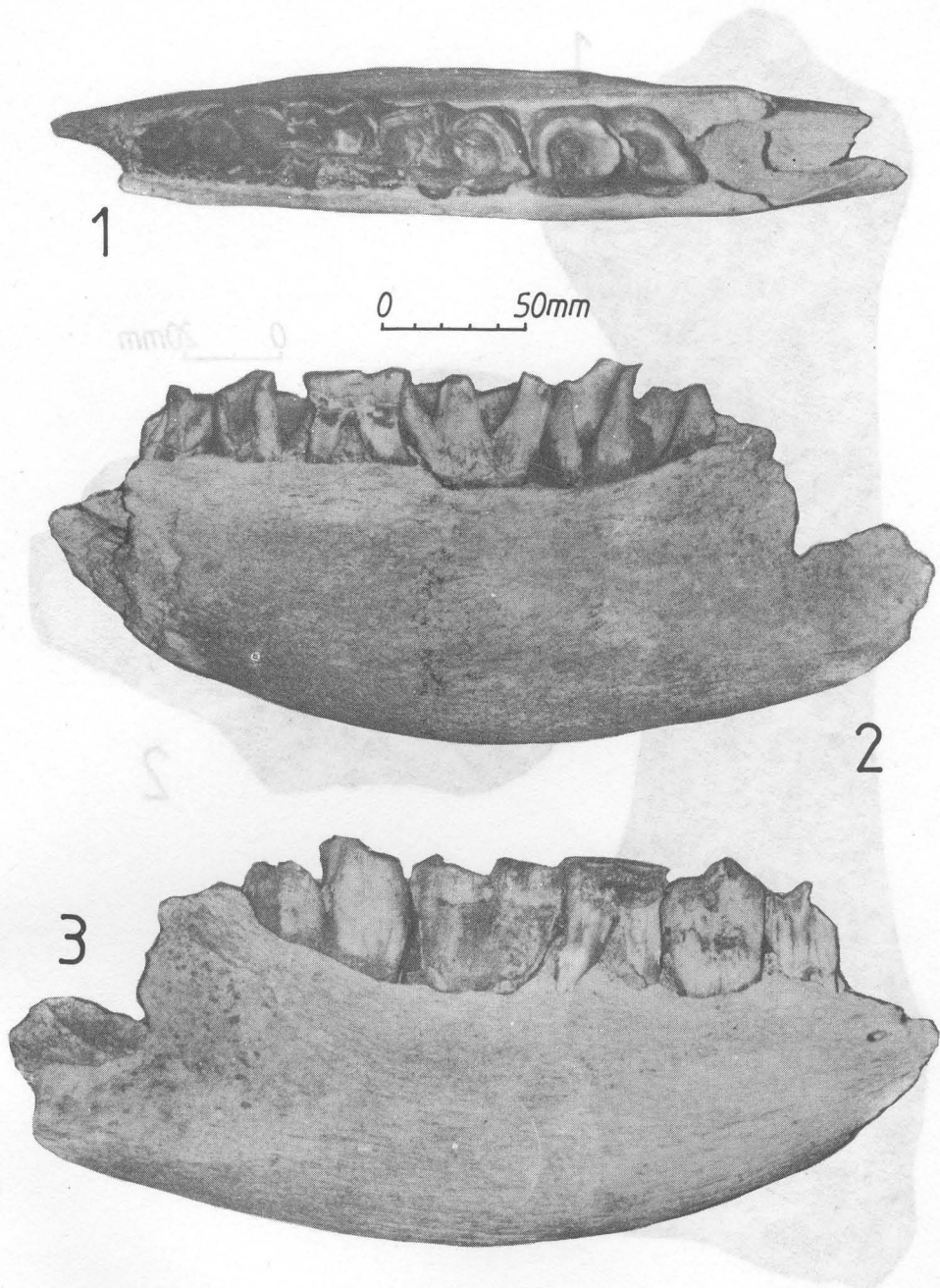


Fig. 1: Occurrences with *Coelodonta antiquitatis* (Blumenbach) in Mureș County.



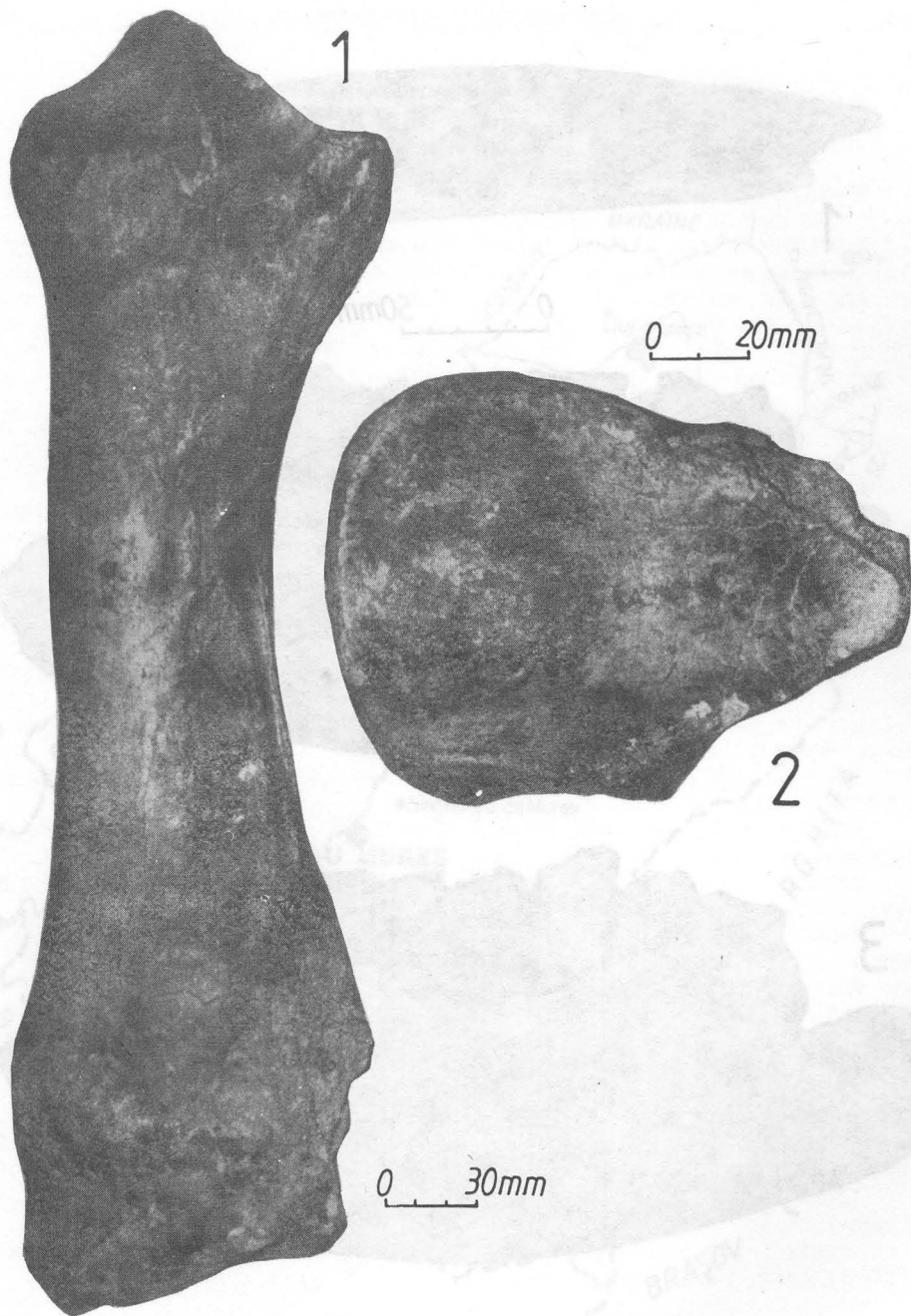
Pl. I: Right mandible of *Coelodonta antiquitatis*, Sânpaul (Mureș):

Fig. 1 - Upper view

Fig. 2 - Inner view

Fig. 3 - Outer view





Pl. II: Right radius of *Coelodonta antiquitatis*, Cristești (Mureș):  
Fig. 1 - Posterior view  
Fig. 2 - Proximal articular surface