A CATALOGUE OF FOSSIL VERTEBRATES FROM AIUD NATURAL SCIENCES MUSEUM

VLAD CODREA, RAMONA MĂRGINEAN

Abstract. The Aiud Museum Natural Sciences collections are the oldest ones of this kind in Romania. Their beginning runs far back in time, since the beginning of the 18th century. The vertebrate collection is not very large, but involves some interesting exhibits collected in 19th and 20th centuries. Among the most interesting items there are Uppermost Cretaceous dinosaur bones originating from Alba district, an Eocene sirenian rib and a series of teeth and bones belonging to Pleistocene mammals originating from various localities. This catalogue is trying to point out the outstanding value of this collection for the knowledge of the Transylvania vertebrate faunas.

Key words: Vertebrate paleontology, reptiles, mammals, Aiud, Transylvania.

Rezumat. Catalog al vertebratelor fosile de la Muzeul de Ştiinţele Naturii Aiud. Colecţiile Muzeului de Ştiinţele Naturii de la Aiud sunt cele mai vechi de acest fel din România. Începuturile lor sunt consemnate încă din secolul al XVIII-lea. Colecţia de vertebrate fosile nu reuneşte piese foarte numeroase, însă păstrează unele eşantioane extrem de interesante colectate în secolele XIX şi XX. Dintre cele mai remarcabile sunt de semnalat oase de dinozaur descoperite în jud. Alba, o coastă de sirenid eocen, precum şi o serie de oase şi dinţi de mamifere Pleistocene provenind din diferite localităţi. Acest catalog încearcă să scoată în evidenţă valoarea acestei colecţii şi semnificaţiile ei pentru cunoaşterea faunelor de vertebrate fosile din Transilvania.

Cuvinte cheie: paleontologia vertebratelor, reptile, mamifere, Aiud, Transilvania.

INTRODUCTION

The Natural Science Museum in Aiud (Alba district) nowadays locate in the Bethlen College, has its roots in a very old collection of minerals and fossils, first mentioned since 1720 - according to the manuscript "*Catalogus Raritatum et Benefacorum*". Later, a museum was born in 1796 in Aiud, under the name "*Raritatum Et Rerum Naturalium Museum*". It is the oldest natural sciences museum in Romania, much older either than the ones from Transylvania (*e.g.* Sibiu, Cluj), or from the outer Carpathians, in Iaşi or Bucharest.

Along its long history, the museum had known fortunate as well as unfortunate epochs, all close related to the Transylvania history. For example, after 1848 its collections suffered large losses due to the revolution events. However, each time a number of biologists and geologists tried to fill the goals, trough generous donations. Among the contributors involved in the collections establishment and grown one can mention Fransciscus Benko, Károly Herepei, M. Zeyk or Z. Szilady.

The geological collections host a wide diversity of exhibits. As outstanding ones, it worth to be stressed out several fragments of the meteorite fall at Mociu in 1882 (MAXIM, 1958), a fair preserved *Sabal major* leaf imprint originating from Upper Cretaceous deposits near Vinţu de Jos (HEREPEI & GÁSPÁR, 1896) or a large sample of Middle Miocene sea urchins and molluscs collected mainly at Gârbova de Sus, a village located not very far from Aiud. This kind of fossils represents the prevailing part of the 1660 items forming the paleontology museum collection.

The vertebrate fossils forming this collection are not very numerous, but at least a part of them are illustrative for the Transylvanian geology science evolution. This contribution is focused on this collection, trying to outline a catalogue of the exhibits still existing in Aiud (abbreviated, AiM). We mentioned for each exhibit: the locality of provenance, catallogue number, systematic assignation, the bone or tooth position and - when available - details on each lithostratigraphic unit where the fossils originated from, the discoverer, documented either on references or on the labels and collection registers. For the most representative exhibits, photographs and short paleontological descriptions and measurements are provided too.

A lot of localities mentioned in the museum registers and labels were in Hungarian. For finding the actual toponyms, we used the SUCIU's (1967) dictionary and MITTELSTRASS' (1992) digest, both very helpful tools in solving this task.

The vertebrate fossils are exposed in the museum case # 16 and their data mentioned into the Inventory register # III, pages 1571-1576.

SYSTEMATIC PALAEONTOLOGY

Class *Reptilia*
Dinosauria indet.

Alba Iulia (= Borbánd; former village Bărăbanţ, nowadays a town suburb).

AiM 1026 – Dinosaur limb bone, probably a tibia still covered by its rock matrix, embedded in plaster into a wood box (Pl. I, fig 1).

It is verisimilar that this bone belongs to the sauropod *Magyarosaurus*. A more convenient assignation would need the cleaning of the rock matrix still covering the bone, as well as the removing of the plaster embedding the fossil.

According to the label still accompanying the fossil (Pl. I, Fig. 2), it was discovered at Bărăbanț, "between the village up side and the flour mill", probably in 1860. In spite on these scarce data, it is obviously clear that the bone had been found in the Şard Formation (Late Cretaceous-? Paleogene; CODREA & DICA, 2005). This formation bears a large amount of dinosaur bones, the Metaliferi area being the second one in richness in our country after the famous Hațeg Basin. These fossils had been mentioned firstly by NOPCSA (1905), later by CODREA et al. (2000, 2002) or CODREA & DICA (2005).

Initially, this fossil had been related to Paleogene large mammals: *Anoplotherium* (TÉGLÁS, 1886), or later to *Anthracotherium* sp. (KOCH, 1894, 1900), the last name being still mentioned on the label. However, the bone morphology, as well the fossilization is indicating that this assignment is inappropriate.

At the end of the 19th and the beginning of 20th centuries a dispute occurred between two prominent Transylvanian geologists, ANTON KOCH and BARON VON NOPCSA, concerning the age of the red deposits from Alba Iulia-Sebeş area. The main subject of debate was focused mostly on the age of the deposits from Râpa Roşie near Sebeş, in Sebeş Formation (CODREA & DICA, 2005). The first of them was thinking that some large bones discovered there belonged to *Anthracotherium*, while the second one refuted this theory and was the partisan of their dinosaur origin. Unfortunately, since this scientific debate, the fossils from Râpa Roşie once curate at Sebeş Gymnasium had been lost. However, a fact is very well proved: all the fossil bones found at Râpa Roşie after, in the last century, belong to Maastrichtian reptiles (*e.g.* GRIGORESCU, 1987; JIANU et al., 1996; CODREA & VREMIR, 1997), but all of them are reworked into these red beds from older deposits. In this manner, the rocks from Râpa Roşie are probably ?Paleogene and Lower Miocene, anyhow younger than the Eocene as long as into Râpa Roşie conglomerate are present also limestone boulders bearing nummulites, and older than the Badenian, which covers in discordance the red beds.

The Şard Formation, which yielded AiM 1026 is older than the Sebeş one. The dinosaur bones from this formation have an *in situ* status. This formation was the source area for the reworked dinosaur bones in Sebeş Formation, at Râpa Roşie or Râpa Lancrămului.

AiM 1026 is probably the most, or anyhow, among the most valuable items of Aiud fossil vertebrates collection because until now, it is the oldest finding of a dinosaur bone in our country.

Measurement (mm): the bone length is 390 mm. The other dimensions cannot be measured in a convenient manner due to the plaster, which covers the bone.

Ciugud (= Csugud; village located eastward from Alba Iulia, on the left bank of Mureş River).

AiM 1025 – concerns a small fragment of a dinosaur long bone (Pl. I, Fig. 3). It was assigned to "a mammoth ankle bone" <*sic*!> according to the museum register. The bone is covered by fine green-grey sandstone resembling the rocks of this kind from the Late Cretaceous at Vurpăr, near Vințu de Jos, belonging to the Şard Formation. However, at Ciugud it is very plausible that this bone fragment could be reworked into the Sebeş Formation deposits.

Class Mammalia
Order Carnivora
Genus *Ursus* LINNAEUS 1758
Ursus spelaeus ROSENMÜLLER 1794

Onceasa Cave (Bihor district)

AiM 1007, AiM 1019 (femurs), AiM 1008, AiM 1010 (vertebrae), AiM 1011 (sacrum), AiM 1020 (bone indet.). The Onceasa Cave is a famous Pleistocene site visited by "hunters of fossils" from Transylvania or abroad along nearly two centuries ago. The donator of the cave bear bones remains unknown, but probably an Aiud gymnasium teacher had collected these fossils during a visit on the site.

Huda lui Papară Cave (= Szolcsvai, Alba district)
AiM 1021, AiM 1017 - three metacarpals and one molar.

Order Rodentia
Genus *Marmota* BLUMENBACH 1779
Marmota bobak (MÜLLER 1776)

Cluj-Napoca, Someşeni (= Szamosfalva; former distinct village, now a town suburb)

AiM 1016 – fragmentary skull, preserving also a part of the right half mandible embedded in plaster (Pl. II, Figs. 1-3). It originates from the old open pits, once mining Pleistocene and Holocene gravel at Someşeni, where several other large Pleistocene herbivores had been found (Koch 1891 a; VÖRÖS, 1983). This fossil will be described in a further distinct contribution. Although there are not additional indications, the old fashion style of its label seem to attest that it represents an old discovery, probably from the second half of the 19th or the first half of the 20th century. Anyhow, KOCH in his fossil vertebrates repertory issued in 1900 didn't specify such a fossil at Aiud musem.

Order *Sirenia*
Sirenia indet.

Cetea (= Csáklya; Alba district)
AiM 1027 – a rib embedded in plaster, into a wood box (Pl. II, Fig. 4).

Found on Pârâul Lupului in "Miocene" deposits, according to its label ("mediterran"; Pl. II, Fig. 5). However, in his repertory of fossils, TÉGLÁS (1886) mentioned that the rocks from Pârâul Lupului should be Eocene and not Miocene. Later, KOCH (1900) refers this rib to an Eocene representative too ("*Halitherium* sp."). This is pointing out nothing else but the rather unclear stratigraphy of this fossil. In our opinion, it belongs rather to an Eocene representative, as both TÉGLÁS and later KOCH mentioned.

The confusion is even accrued because the same label assigns the rib to "*Brachydiastematherium transilvanicum*". Or, *Brachydiastematherium* BÖCKH & MATYASOVSKI 1876 is an Upper Eocene poor known titanothere, without any connection with the Miocene faunas. A comparison we have made with some Eocene ribs fragments from Rădaia and Morlaca belonging to animals of *Brachydiastematherium*-size, stresses out different morphologies that in Cetea bone. The compactness of the bone marked by pachyostosis, really indicates a sirenian rib at Cetea.

In these circumstances, a more advanced systematic assignation would be imprudent, as long as ribs are not diagnostic bones for generic or specific assignations in sirenians. The rib length is 503 mm.

Order Perissodactyla
Genus *Equus* LINNAEUS 1758
Equus sp.

Araci (= Árapatak, Covasna district)
AiM 1046 – it concerns a right mandible horizontal branch, with p4-m3 (Pl. III, Fig. 1). The label mentions that this "*Equus primigenius*" originates from lignite, with *Congeria*. Measurement: L m1-m3 – 87.0

Gălăţeni (= Szent Gerlicze, Mureş district)
AiM 1002 – right half mandible. Pleistocene. *Measurements* (mm): Tooth row – L p2-m3 -165.4; L p2-p4- 81; L m1-m3 – 85.
References: Koch (1891, 1900) probably referred to this fossil as "*E. fossilis*".

Ormeniş (Mirăslău commune, Alba district)
AiM 1040 – tooth

Păsăreni (= Baczka-Madaras, Mureş district)
AiM 1004 – neural skull fragment. Pleistocene.

Tur (= Balaj Falva, Tűr village near Blaj, on Târnava Valley, Alba district)
AiM 999 + 1000 – mandible preserving both tooth rows (Pl. III, Fig. 2). Pleistocene. *Measurements* (mm): L – 420; Right tooth row: L – 158; L p2-p4 – 77.5; L m1-m3 – 79; Left tooth row: L – 159.5; L p2-p4 – 81; L m1-m3 – 79; Length of symphisys - 81; Symphysis transverse diameter-36; Horizontal mandible branch transverse diameter before p2 – 59.5; Idem, backward m3 – 106.5
References: Koch (1891, 1900) probably referred to these fossils as "*E. fossilis*".

Genus *Coelodonta* BRONN 1831
Coelodonta antiquitatis (BLUMENBACH 1799)
(= *Rhinoceros lenensis* PALLAS 1773; = *Rhinoceros thichorhinus* FISCHER 1811; wooly rhino)

Ormeniş (Mirăslău commune, Alba district)
AiM 1041 – mandible right horizontal branch fragment preserving p2-m1 (Pl. III, Fig.3). It originates from Pleistocene löess. *Measurements* (mm): L – 354 +; L p2-m1 – 137; L p3-p4 (at alveoli) – 67; Height under: m1 – 60; p2 – 64; p2/p3 – 68; p3/p4 – 71.5; p4/m1 – 87.5 Teeth: p3 – L: 31.5 W anterior: 21.7 W posterior: 21.7; p4 – L : 36 W anterior: 25.7 W posterior: 27.4; m1 – L : 36.5 W anterior: 28 W posterior: 29.7.

It concerns a rather young specimen. The cement is present inside the transverse valleys, as well covering the external teeth walls. Well preserved cheek teeth - excepting p2 heavy damaged and p4 damaged on its lingual side -, devoid of external and internal cingula. The p3 has small level difference between the transverse valleys, both "V" shaped. The last premolar, shows great level differences between the transverse valleys and a hypsodont pattern. The first molar with medium difference between the levels of the "V" shaped transverse valleys.

AiM 1042 – left M1 from the same site. *Measurements* (mm): L – 53.8; W anterior – 59.2 ; Width posterior – 55.3.

Waved ectoloph, typical for the species. Devoid of lingual and vestibular cingula. Ante-crochet missing, medio-fosette closed by fusion between crochet and crista.

References: TÉGLÁS (1887), KOCH (1891, 1900), BARBU (1930), NICOLAESCU-PLOPŞOR (1938), EUFROSIN (1942).

Rhinocerotinae indet.

Comolău (former village, now part of Reci village, Covasna district)

AiM 987 – right proximal femur fragment. *Measurements* (mm): L – 375 +; Transverse diameter of diaphysis – 77; Antero-posterior diameter of diaphysis – 57.

This locality is well known for its Holstein large herbivores (KOVACS, 1981; RĂDULESCU & SAMSON, 1985). It would be intersting to know how this fossil reached the Aiud collection, but for instance we have no detail about this.

Order *Proboscidea*

Genus *Mammuthus* BROOKES 1828

Mammuthus primigenius BLUMENBACH 1799

Araci (= Árapatak, Covasna district)

AiM 1047 - upper molar fragment. The label mentions that it originate "from stratified lignite deposit", but this provenience seem to be implausible if judging after the tooth fossilization. Perhaps it was not donated by the discoverer, but by another person who maybe confused the occurrence.

References: TÉGLÁS (1887), KOCH (1891, 1900), BARBU (1930), VÖRÖS (1983)

Corneşti (= Sövényfalva, Mureş district)

AiM 410 (however, it seems that this number is from an older registration; it could not be retrieved in the new register); left m1 preserving 12 plates, with waved occlusion surface, belonging to a specimen still keeping trogontheroid characters (enamel thickness; Pl. IV, Fig. 1). Measurements (mm): enamel thickness – 2.2-3; lamellae frequency – 8

References: TÉGLÁS (1887), KOCH (1891, 1900), VÖRÖS (1983)

Filipişu Mic (= Kisfülpös, Mureş district)

AiM 1023 – right lower molar fragment, still keeping eight lamellae; enamel thickness – 2.4 mm.

References: It is possibly that this fossil had been the one mentioned at Filipişu Mare (= Magyar Fülpös) by TÉGLÁS (1887), KOCH (1891, 1900), VÖRÖS (1983).

Icland (Mureş district)

AiM 1045 – tusk fragment. Donated by the schoolmaster Deneş Lörincz.

Gălăţeni (Szent Gerlicze, Mureş district)

AiM 1022 – *caput femoris*.

References: Koch (1891, 1900), VÖRÖS (1983)

Măgheruş (= Küküllőmagyaros, on Târnava Mică River, Mureş district)

AiM 1012- right lower molar distal fragment, from löess.

AiM 1013 – left m1 without roots, from loess. *Measurements* (mm): L -119; W – 76; enamel thickness – 2; number of plates – 11; lamellae frequency- 10

AiM 1014 – molar, same site (*non vidi*).

References: TÉGLÁS (1887), KOCH (1891, 1900), BARBU (1930), VÖRÖS (1983)

Ormeniş (= Örményes, Alba district)

AiM 1036- right femur diaphysis, from löess („Zekhely Urmennios arok losz keplete mammut labszar csont"). *Measurements* (mm): L – 765 +; Transverse diameter of diaphysis – 126; Antero-posterior diameter of diaphysis – 75.

AiM 1039; probably right m2. *Measurements* (mm): L - 186; W - 84; enamel thickness - 2 – 3; number of plates –13x; lamellar frequency – 8

References: TÉGLÁS (1886, 1887), KOCH (1891, 1900), BARBU (1930), VÖRÖS (1983).

Păsăreni (= Baczkamadaras, Mureş district)

AiM 1030 - right M3. *Measurements* (mm): L – 218; maximum width – 87; height – 160; occlusion surface length – 189; enamel thickness – 2.1; number of plates – 16x; lamellae frequency - 8.

AiM 1031 – upper molar distal fragment (probably M3); enamel thickness – 2 mm; lamellae frequency – 8

References: Koch (1891, 1900), VÖRÖS (1983)

Râmeţi-Olteni (= Remete; Alba district)
AiM 1043 – tusk fragment preserved embedded into plaster, in a wood box. It was found in 1877, "at Coşinilor spring", as part of „mammouth skeleton" according to TÉGLÁS (1886) and VÖRÖS (1983) (Pl. IV, Figs. 2-3).

Sânvăsii (= Nyárádszentlászló; Mureş district)
AiM 1028 – probably a left m1; 11x plates; enamel thickness – 3 mm. The attrition surface was aberrant, conferring a peculiar aspect to the occlusion surface (Pl. IV, Fig. 4).

Suplac (Mureş district)
AIM 1032 - molar

Order Artiodactyla
Genus *Cervus* LINNAEUS 1758
Cervus elaphus LINNAEUS 1758

Gălăţeni (= Szent Gerlicze, Mureş district)
AiM 991, 992. Antler fragments. Possibly Pleistocene.
References: Koch (1891, 1900)

Genus *Bison* HAMILTON SMITH 1827
? Bison priscus (BOJANUS 1827)

Comolău (former village, now part of Reci village, Covasna district)
AiM 995 – bone fragment (*non vidi*).

Genus *Bos* LINNAEUS 1758
? Bos primigenius BOJANUS 1827

Gălăţeni (= Szent Gerlicze, Mureş district)
AiM 1009. Skull fragment, from löess. Pleistocene.

Bos sp.

Aiud (Alba district)
AiM 1003 – horn.

FOSSILS WITHOUT LOCALITIES OF ORIGIN.

Equus sp.: AiM 1015 – cheek tooth
Mammuthus : AiM 1034, AiM 1037, AiM 1044 and AiM 410 – molars; without label number – tusk fragment
Cervus: without label number - antler fragment

CONCLUSION

The fossil vertebrates collection in Aiud refers to various exhibits, discovered mainly between the last 19th half and first decades of the 20th. All of them had been found as fortuitous finding and not as results of systematic diggings. The majority refers to Pleistocene herbivores, but older mammals and dinosaurs are present too. A large part of them retrieves in the structure of list of fossils drew up by geologists as TÉGLÁS or KOCH. Their data can be retrieved subsequently in other fossil vertebrates lists, as the ones belonging to BARBU or VÖRÖS. By far, TÉGLÁS had the main merit in putting on the map these fossils, but KOCH's contributions were more notorious.

One can easily observe that this collection in Aiud Museum practically ceased to grow after the First World War, when at Aiud the interest for paleontology decreased. After this, none outstanding paleontologist can be mentioned there.

REFERENCES

BARBU I.Z. 1930. *Catalogul vertebratelor fosile din România*. Academia Română, Memoriile Secţiilor Ştiinţifice, Seria III, **VII**, Memoriul II. Bucureşti: 7-23.

CODREA V. & VREMIR M. 1997. *Kallokibotion bajazidi Nopcsa (Testudines, Kallokibotidae) in the red strata of Râpa Roşie (Alba County)*. Sargetia. **17.** Deva: 233-238.

CODREA A.V., SĂSĂRAN E., DICA P. 2002. *Vurpăr (Vințu de Jos, Alba district).* In: The 7th European Workshop of Vertebrate Palaeontology, Sibiu, Romania, Abstracts volume and Excursions Field Guide. Sibiu: 60-62.

CODREA V. & DICA P. 2005. *Upper Cretaceous-lowermost Miocene lithostratigraphic units exposed in Alba Iulia-Sebeş-Vințu de Jos area (SW Transylvanian basin)*. Studia Universitatis Babeş-Bolyai, Geologia, **50**(1-2). Cluj-Napoca: 19-26.

EUFROSIN C. 1942. *Un crane de Rhinoceros (tichorhinus) antiquitatis Blum. Provenant de Hulubăț, depart. Valsui*. Buletinul Societății Române de Geologie, V. Bucureşti: 98-104.

GRIGORESCU D. 1987. *Considerations on the age of the "Red Beds" continental formations in SW Transylvanian Depression.* In : The Eocene from the Transylvanian Basin (I. Petrescu, L. Ghergari, N. Mészáros, E. Nicorici Eds.). Cluj-Napoca: 189-196.

HEREPEI K. & GÁSPÁR I. 1896. *Alsófehér vármegye földrajzi és földtani leirása*. In: Alsófehér vármegye monografiája. Nagy-Enyed: 67-183.

JIANU C.M., MÉSZÁROS N., CODREA V. 1997. *A new collection of Haţeg and Râpa Roşie material (Dinosauria, Crocodilia, Chelonia) in the Cluj-Napoca University*. Sargetia. **17.** Deva: 219-232.

KOCH A. 1891. *Erdély ösemlöseinek átnézete*. Magyar Orvosok és Természet-Viszgálók Vándorgyülésének Munkálatai, 25. Budapest: 526-560.

KOCH A. 1891. *Uj adatok a kolozsvár-vidéki diluvialis fauna ismeretéhez.* Földtani Közloni. **21**. Budapest: 255-256, 280.

KOCH A. 1894. *Die Tertiärbildungen des Beckens der Siebenbürgischen Landestheile. I. Paläogene Abtheilung*. Mitteilungen aus den Jahrbuch der Kön. Ungarische Geologischen Anstalt. **X(**6) Budapest: 177-399.

KOCH A. 1900. *Systematische Übersicht der fossilen Wirbeltierreste der Länder der Ungarischen Krone*. Magyar Orvosok és Természet-Viszgálók Vándorgyülésének Munkálatai. **30**. Budapest: 526-560.

Kovacs S. 1981. *Catalogul colecției de paleontologie (mamifere pliocene şi cuaternare) a muzeului Sf. Gheorghe*. Aluta. Sf. Gheorghe: 271-297.

MAXIM I. AL. 1958. *Meteoritul de la Moci (Cluj)*. Natura. X(2). Bucuresti: 17-26.

MITTELSTRASS O. 1992. *Ortsnamnbuch. Arbeitkreis für Siebenbürgische Landeskunde*. Heidelberg.

NICOLAESCU-PLOPŞOR C. S. 1938. *Le paléolithique en Roumanie*. Dacia, **V-VI** (1935-1936). Bucureşti: 41-107.

RĂDULESCU C. & SAMSON P. 1985. *Pliocene and Pleistocene Mammalian Biostratigraphy in southeastern Transylvania (Romania).* Travaux de l'Institut de Spéologie "Emile Racoviță". **XXIV**. Bucureşti: 85-95.

SUCIU C. 1967, 1968: *Dicționar istoric al localităților din Transilvania*. Editura (**1, 2**) Bucureşti. 435 + 448p.

TEGLAS G.1886. *Ujabb adatok az Erdély medencze ősemlőseihez*. Földtani Közlony. **16**. Budapest: 39 - 44.

TEGLAS G.1887. *Jelentés a múlt nyáron őstörténelmi és bányászati érdekből tett utazásomnok őslénytani eredményeiről*. Orvos Term. Ert. XIX, II. 3Kolozsvár: 333-335.

VÖRÖS I. 1983. *Elephantiden-Reste aus dem Karpathenbecken.* Fragmenta Mineralogica et Palaeontologica. **II**. Budapest: 61-84.

Vlad Codrea -Babeş-Bolyai University, Faculty of Biology and Geology,
Department of Geology-Paleontology, 1 Kogălniceanu str., 400074 Cluj-Napoca.
e-mail: codrea_vlad@yahoo.fr

Ramona Mărginean
Aiud Natural Science Museum

Plate I: Fig. 1 - ? *Magyarosaurus*, Alba Iulia (Bărăbanţ; AiM 1026); Fig. 2 – original labels on the wood box containing the dinosaur hind limb bone from Bărăbanţ (AiM 1026); Fig. 3 – dinosaur bone fragment (Ciugud, AiM 1025). Scale bars: 50 mm.
Planşa I: Fig. 1 - ? *Magyarosaurus* Alba Iulia (Bărăbanţ; AiM 1026); Fig. 2 – etichetele originale ale cutiei în care se păstrează osul de dinozaur provenit de la Bărăbanţ (AiM 1026); Fig. 3 – fragment de os de dinozaur (Ciugud, AiM 1025). Scara: 50 mm.

Plate II: Figs. 1-3 - *Marmota bobak* (MÜLLER 1776), Cluj-Napoca (Someşeni; AiM 1016); Fig. 4-5 – Sirenia indet. (Cetea, AiM 1027). Scale bars: 50 mm

Planşa II: Fig. 1-3 - *Marmota bobak* (MÜLLER 1776), Cluj-Napoca (Someşeni; AiM 1016); Fig. 4-5 – Sirenia indet. (Cetea, AiM 1027). Scara: 50 mm

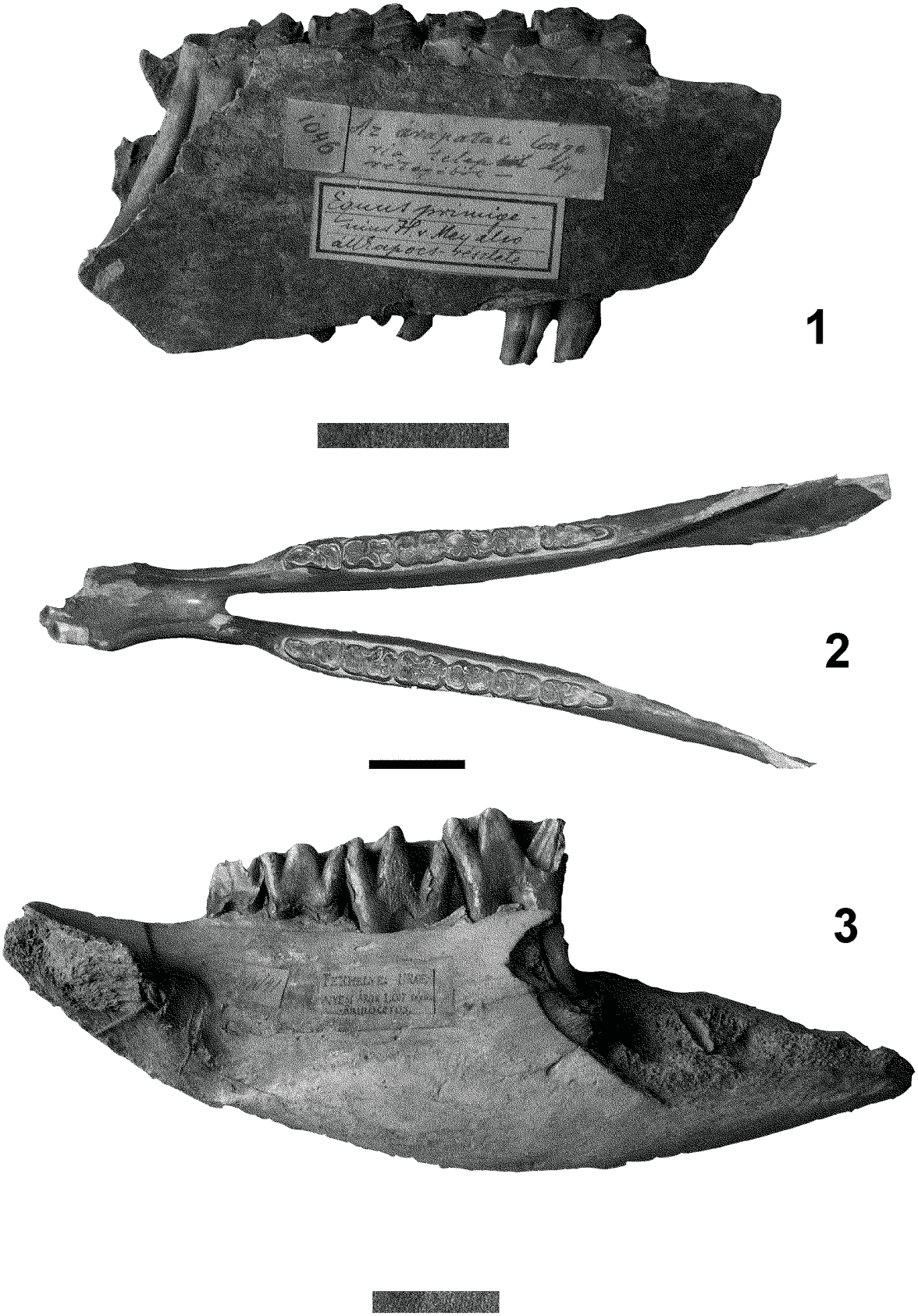

Plate III: Fig. 1 - *Equus* sp., Araci (AiM 1046); Fig. 2, *Equus* sp., Tur (AiM 999 + 1000); Fig. 3 - *Coelodonta antiquitatis* (BLUMENBACH 1799); Ormeniş (AiM 1041)

Planşa III: Fig. 1 - Equus sp., Araci (AiM 1046); Fig. 2, Equus sp., Tur (AiM 999 + 1000); Fig. 3 - Coelodonta antiquitatis (BLUMENBACH 1799); Ormeniş (AiM 1041)

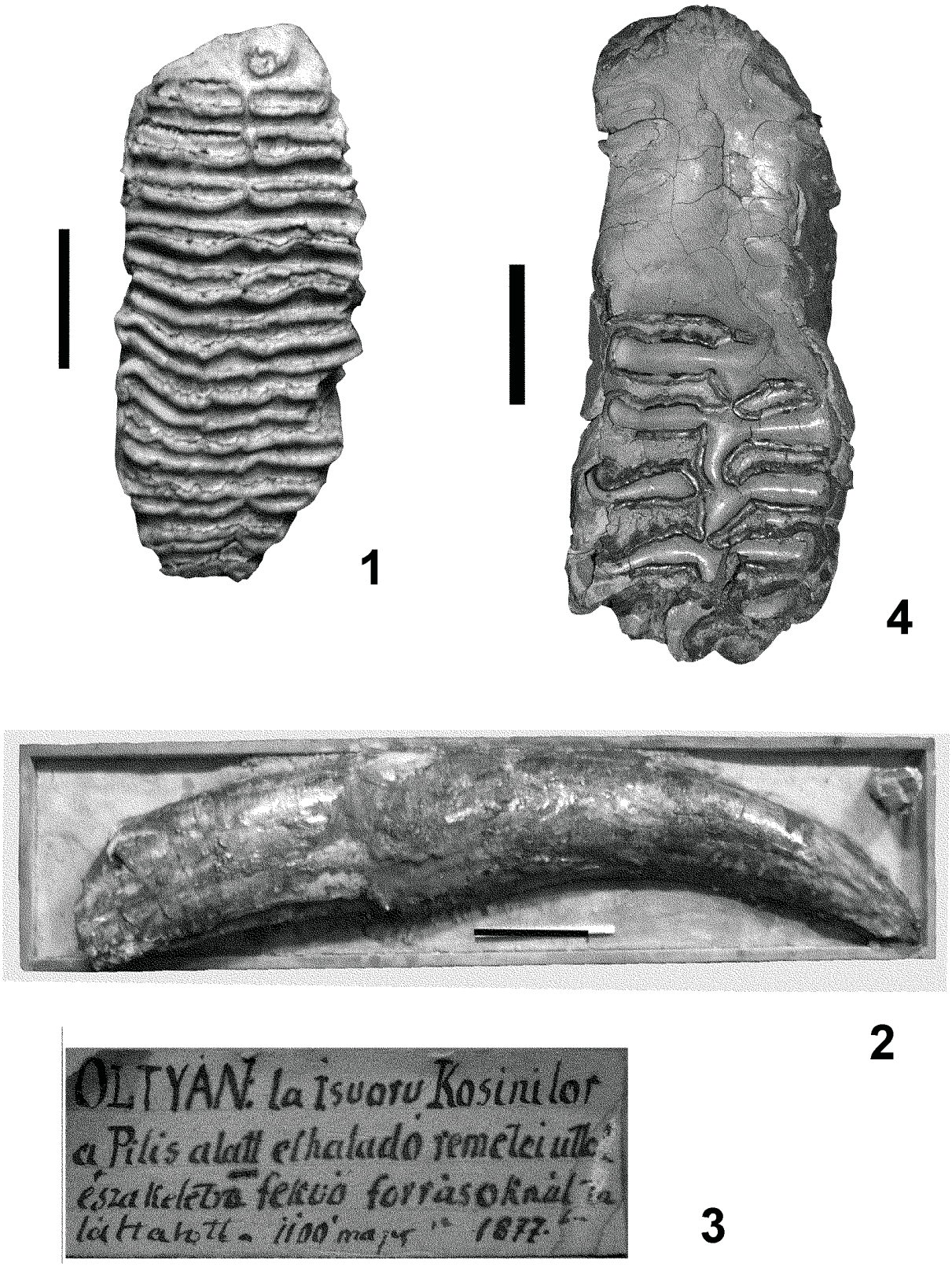

Plate IV: *Mammuthus primigenius* BLUMENBACH 1799; Fig. 1, Corneşti (AiM 410); Fig. 2-3, Râmeți-Olteni (AiM 1043); Fig. 4, Sânvăsii (AiM 1028)

Planşa IV: Mammuthus primigenius BLUMENBACH 1799; Fig. 1, Corneşti (AiM 410); Fig. 2-3, Râmeți-Olteni (AiM 1043); Fig. 4, Sânvăsii (AiM 1028)