PALEONTOLOGY OF MAMMALS IN ROMANIA - A HISTORICAL PERSPECTIVE

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As many of us know, the study of fossil mammals has a long tradition in Romania. Publications of the last decades of the nineteenth century and the first decade of the twentieth contain references and descriptions of various mammalian taxa. At present, there are numerous data on mammals from the Late Mesozoic through the Paleogene and Neogene to the Pleistocene/ Holocene boundary.

Fossil bones in the Romanian territories were undoubtedly known to some scholars far back in the past. Scientific publications, however, did not appear prior to the nineteenth century.

The pastor M. Ackner from Sibiul recorded as early as 1852 the presence of a Late Pleistocene fauna collected from the terrace of the Cibin River. Later discoveries also from Transylvania showed the great potential of this region as regards the fossil mammals J. Boeckeh and J. Matyasovszky described in 1876 Brachydiastematherium transylvanicum, an Eocene brontothere found at Radiala near Cluj-Napoca. The same locality has also yielded remains of a very primitive rhinocerotid named Proyracodon orientale by A. Koch (1897). Towards the end of the nineteenth century, A. Koch (1876, 1879, 1880) and M. Schlosser (1899) have greatly contributed to make known the Pleistocene mammals from Barailot-Capeni (Barot-Kopez) including among other species Paraliburus angicus and Protartoceras boeckhi.

On the other side of the Carpathians, G. Stefanescu found in 1874, at Moldov in Vale in the Olt River valley a lower jaw indicating, for the first time in Europe, the presence of a true camel (named Camelus alutensis in 1895) in deposits dated to the Early Quaternary. G. Stefanescu is also well-known for the discovery at Manzati (1890) of a skeleton of a dinothere named Dinotherium giganteum (1895) Late Miocene in age.

At the beginning of the twentieth century, S. Athanasiu published (1900-1909) the first monograph of mastodons and elephants from the Dacic Basin.

In the first decades of the twentieth century, T. Kormos announced the discovery of several fossil sites at Gheța near Oradea including many new species of macro- and micromammals and providing an important contribution to the knowledge of Early and Middle Pleistocene faunas from this area.

I would also mention the studies undertaken by I. Simionescu (1930, 1932) on the Pleistocene faunas from Malusteni and Beresti including, for the first time, a lot of micromammals from the northeastern Dacic Basin. Between 1930-1940, I. Simionescu and his collaborators described the Miocene mammals from Cimisia, a fossil site located on the Romanian territory at that time (now in the Republic of Moldavia). In 1959, Virginia Barbu published the rich Hippotherium remains coming from the same locality. It is worth mentioning that I. Z. Barbu published in 1930 the first catalogue of the fossil mammals of Romania. Nearly half a century later, a comprehensive list of fossil mammals from Romania was published by N. Macarovi (1978).

It is worth remembering that unknown representatives of new groups of mammals were described in the 1970s and 1980s: Creviadatherium mackeniei (C. Radulescu, I. Iliescu, Maria Iliescu 1976), C. iliesci (C. Radulescu, J. Sudre 1985) (Embrithopods), Benaratherium gabunii (C. Radulescu, P.M. Samson, 1989), Paraceratherium prohorovii (V. Cordrea 1989) (Indricothereids), Cadrucoodon zimorenensis (V. Cordrea, N. Suraru 1989) (Amyonodontia) and other taxa belonging to various orders of mammals.

Numerous other scientists (A. Gaudry, F. Toula, G. Schlesinger, J. Etkin, I. Gaal, M. Roska, S. Stefanescu, S. Schaub, E. Patte, M. Kretzoi, I. Maxim, Virginia Barbu, Maria Mott, T. Jurcsak, L. Gabunia, and many others) are also well-known for their studies devoted to fossil mammals of our country. Of course, the list of names is not exhaustive, but these scientists contributed substantially to the knowledge of fossil mammals of various geological ages from Romania.

With regard to the fossil man, we mention that M. Roska (1938) found some phalanges attributable to Homo neanderthalensis at Obba-Ponor Cave. F. Rainer and I. Simionescu published (1942) a partial skull of Homo sapiens from Cicloviu Cave and Olga Necrasov (1963) described a juvenile molar belonging also to a modern man, found at "La Adam" Cave.

Since 1956, the study of fossil mammals was firmly continued at the "Emil Racoviță" Speleological Institute. In the framework of this Institute studies on fossil mammals were initiated and promoted by Margareta Dumitrescu, S. Athanasiu's daughter. In the memory of her father, Margareta Dumitrescu formed a new generation of paleontologists including finally a small team of three students, namely Dr. P.-M. Samson, Dr. Elena Terezia and myself. The project of a group of paleontologists at the Speleological Institute was also supported by C. Motas (director of this Institute since 1956) and M. Orghidan (director since 1964).

I have to confess that 40 years ago the Romanian geologists were somewhat skeptical considering that fossil mammals have a low or no value for biostratigraphy. A global view on the researches undertaken by the Paleontological section of the Speleological Institute shows, however, that the paleontology of mammals (especially small mammals) is becoming an increasingly reliable tool in establishing biostratigraphic correlations not only at local, but also at continental scale. In addition, the study of mammals supplies a lot of information on paleoecology, biodiversity, biogeography and past climate.

Summarising the results of the paleontological investigations on mammals, I should mention that our researches were focused on Middle and Late Pleistocene fossiliferous karst deposits from Central Dobrogea, and on the stratified Plio-Pleistocene deposits of western Dacic Basin from where series of successive levels containing remains of mammals in association with molluscan faunas were described allowing a biostratigraphic scheme calibrated on
paleomagnetism to be established. Fossil localities from this area (the Olt and Jiu River Basins) such as Tetoiu (=Bugulesti) and Irimesi for large mammals and Milcovu, Slatina, Dragomesti-Olt, Izvoru-2, Dranic and Podari for small mammals are already cited in the biostratigraphic schemes at continental level. In addition, the mammal faunas from the "classic" sites such as Baracol-Capeni, Malusteni and Beresti were studied and their chronology reevaluated. In this framework, Dr. Elena Terzca devoted her studies especially to the macro- and micromammals from karst deposits at Betfia. In the late 1970s, the first micromammal associations of the late Middle and Late Miocene age (sites of Taut and Comanesti in the Crisul Alb Basin) were recorded by Dr. P.-M. Samson and myself.

Within the past fifty years extensive collections and studies have been made in the Neogene and Quaternary deposits of Romania, particularly, as already shown, in the Dacic Basin, the Brasov Depression and the karst of Betfia and Central Dobrogea. As the result of these investigations the knowledge of the Pliocene and Pleistocene succession of mammalian faunas of Romania has been growing and taking shape and as a consequence it has become apparent that the increasing scientific data can be integrated to form a unified and coherent scheme of the successive mammalian communities in various regions of Romania and of the environmental context in which they lived. "Last but not least" it is worth mentioning that besides the activities dealing with the Cainozoic and Quaternary mammals from karst and stratified deposits from Romania, Dr. P.M. Samson and I were involved in the study of a very important materials of Multituberculates collected from the Late Cretaceous (Maastrichtian) deposits in the Hateg Basin.

We are glad to see now that a new generation of paleontologists at Bucharest (E. Stiuca, A. Petculescu, Alexandra Cristina Paunescu at the Speleological Institute and Prof. Dr. D. Gigoescu and his students at the University of Bucharest), Cluj-Napoca (under the direction of Dr. V. Codrea), Craiova, Iasi and other cultural centers of our country is ready to continue and develop the study of fossil mammals. We hope that in the near future the Paleontological Society of Romania will be an interdisciplinary association whose principal purpose is to encourage research and to facilitate and coordinate national and international cooperation in this research.