RESULTS OF PALEONTOLOGICAL EXCAVATIONS IN CAVES OF HUNGARY

SUMMARY

The author gives a brief summary of the vertebrate palaeontological material yielded by caves and karstic cavities in different territories in Hungary during the last decades. A series of newly discovered localities and the re-examination of some old ones resulted chiefly in the following: a northern Carpathian parallel of the for a century known classical strata type of the Villány Mountains became known: the twenty localities of the Osztromos Hill. A series of localities of the hitherto insufficiently known Middle Pleistocene time span were discovered: they represent the Tarkó-, Uppony-, Castellum and Solymár Faunal Phases. Lambrecht Cave (Varbó-Phase) and some other localities of the same age have been used to define a new horizon of the Upper Pleistocene and to refine its stratification.

The palaeontological investigation of caves, karstic cavities and fissures in Hungary has yielded a microstratigraphic series based on vertebrate remains, chiefly of the Pliocene and Pleistocene, which may justifiably be called one of the most important in Europe.

The first description of vertebrate remains from karstic sediments of our country dates from the middle of the nineteenth century (Petényi, 1864), and his diagnoses of small mammal species are still useful, correct and up-to-date. Since then, there has been an almost uninterrupted tradition of such investigations in Hungary (Méhely, 1914; Kormos, 1937; Kretzoi, 1956, 1962; Jánossy, 1969, 1973).

Palaeontological work has been especially vigorous during the last thirty years. Nearly all our limestone mountains contain some karstic cavities, many of them newly discovered, which have been explored from a palaeontological point of view; these will now be reviewed in order of different geographical units.

Transdanubia

In Transdanubia there are only a few examples of karstic phenomena with vertebrate palaeontological remains. Up to the present the oldest fauna was found in the sediment of the lower layer of the Csákavár (Esterházy) Cave in the Vértes Mountains. The sediments of Lower Pliocene age were investigated by M. Kretzoi (1954). The richest known "Hipparion Fauna" in Europe was explored in this locality.

The revision of the remains collected over more than a hundred years from nearly forty localities in the Villány Mountains, undertaken initially by Kretzoi (1956) and more recently by Jánossy (from 1976), yielded much new information in this field. This sequence provides the basis of the stratigraphy of the Upper Pliocene—Lower Pleistocene, not only in Hungary but in the whole of Europe. The type localities of the newly established Pliocene and Pleistocene stratigraphic units (Csarnotian, Bermenian, Villányian, Nagyharsányhegy-Phase and Templomhegy-Phase) all lie in these mountains or close by.

During the last decades the exploration of geologically younger cave sediments in Transdanubia was very sporadic. It must be mentioned that excavations were carried out by M. Roska in the Szárazgerencé Cave (Bakony Mountains) which yielded very rare palaeontological remains (Varzó, 1955) from the threshold of the Last Glacial. The southern limit of the Pleistocene distribution of the Collared lemming (Dicrostonyx torquatus Pall.) is found at the Abri of Tekeresvölgy, in the same region (Bertalan—Kretzoi, 1962).

Some Upper Pleistocene sequences were explored in the Pilis Mountains and Buda, in the Bivak Cave, Remete Cave (Jánossy, 1955, 1957) and the Rockshelter II of Pilisszántó (Vértes, 1955) as well as
Geographical location of caves with palaeontological remains. TRANSDANUBIA: 1 Csákývár Cave, 2 Szurazgerence Cave, 3 Abri of Tekeres-völgy, 4 Bivak Cave, 5 Remete Cave, 6 Pilisszentó Rock Shelter, NORTHERN MOUNTAIN RANGE: 9 Caves of Osztramos Hill, 10 Porlyuk Cave, 11 Kővesvárad, 12 Tarkő Rock Shelter, 13 Uppony Rock Shelter, 14 Hőrvölgy Cave, 15 Lambrecht Cave, 16 Poroslyak Cave, 17 Istállócső Cave, 18 Subalyuk Cave, 19 Petenyi Cave, 20 Rejtik Rock Shelter.

the sediments in the outer part of the Jankovich Cave (Excavations of Janossy, in: Herrmann––Kretzoi––Vértes, 1957) in the Gerecse Mountains. The palaeontological material of all these localities greatly increased our precise knowledge of the characteristic faunas of the “Upper Würm”. The stratigraphy of the Jankovich Cave provides very important information relating to the problem of the Pleistocene–Holocene boundary.

In the Mecsek Mountains only the Rockshelter Melyvölgy has been investigated; this yielded some Pleistocene material (Vértes, 1955) of little importance. During the last decades much new palaeontological data has been obtained from the karstic cavities of the Northern Chain of the Central Mountains of Hungary.

North Hungary

Greatest importance must be attached to the large number of sites in the Osztramos Hill of the Aggtelek Karst, where some twenty localities cover the period from the Middle Pliocene to Middle Pleistocene. This is a good northern parallel to the sequence of the Villány Mountains and the use of the old name Esztramos (for Osztramos) is well justified in expressions such as Esztramontian (a stratigraphical stage in the terrestrial Middle Pliocene) and Estramomys simplex (a newly discovered Eomyd rodent Lower Pliocene) (Janossy, 1969).

At present the unique palaeontological material from the different localities of Osztramos has made it possible to describe 17 species and subspecies of mammals new to science as well as the similarly new stratigraphic unit, the Torna-Phase (Janossy, 1970, 1971, 1972, 1973, 1975).

In the same region is the Porlyuk Cave, whose fossil remains represent the threshold of the Last Glacial (Jánossy, 1968). Some newly discovered localities show an interesting picture of the changes in the Microvertebrate fauna of the early Holocene (Nagyoldal, Kordos, 1975).

The Bükk Mountains in Northern Hungary contain a very rich series of new or recently revised localities. The oldest of them is Kövesvárad, where the first Lower-Middle Pleistocene fauna in this area was discovered (Jánossy, 1963). One of the richest Middle Pleistocene localities in this area is the red clay of the Rockshelter Tarkő, which yielded a unique stratigraphic series containing several thousand bone remains. The new Tarkő-Phase stratigraphic unit was based on this series (Jánossy, 1962, 1969).

The least known parts of the Middle Pleistocene are those represented by the fossil remains in the...
sediments of the Rockshelter-Uppony at the northern edge of the mountains (the type locality of the newly named Uppony-Phase), and those in the Hőrvölgy Cave in the southern part of the same region. The Hőrvölgy Cave can be considered as containing the type fauna of the former Solymár-Phase (Jánossy, 1969 and unpublished data).

The Lambrecht Cave, containing numerous remains of small and large mammals (including man, for which this is the second known locality in our country), is stratigraphically taken to be the threshold of the Last Glacial (Varbo-Phase, "Hystrix-Horizon"). The Poroslyuk Cave near Répáshuta, has yielded an equivalent fauna but so far has yielded no archaeological remains (Jánossy, 1964 and unpublished data).

A new examination of the Istállóskő locality, known for more than fifty years, has yielded much archaeological material and abundant palaeontological remains. As a result, this cave has been defined as a type locality of the "Middle Würm", the typical faunal assemblage of the Last Glacial in our country (Istállóskő Phase, Jánossy, 1955). The re-examination of some remains from the deposits of the long-known Subalyuk Cave has shed fresh light upon the microvertebrate life of the Subalyuk-Phase (Würm "1", Jánossy, 1960).

Finally, the Petényi Cave (Peskő Hill) and the Rockshelter Rejtek, both on the southern edge of the Bükk Plateau, together with the already mentioned Jankovich Cave in Transdanubia, form a very important stratigraphic series, transitional between the Pleistocene and Holocene (Jánossy—Kordos, 1976).
This brief summary of the palaeontological research in Hungarian Caves shows the considerable advances in this field during recent decades. It is to be hoped that in the future we may be able to correlate the stratigraphic succession in our country with that in Europe as a whole.

English translation revised by R.A. Halliwell.

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REFERENCES


The author with the bone remains of the sites No. 2 and 8, Ostramom Hill


