

# NEOGENE AND QUATERNARY MAMMAL FAUNAS OF THESSALY\*

by

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## I. INTRODUCTION

The Province of Thessaly is situated in Central Greece. It is a mainly plain geographical area (the most extensive low relief area in the Greek peninsula), delimited in the North by Olympus Mountain, in the West by Píndos mountain range, in the East by the Aegean Sea and in the South by Orthrys mountain range. Alluvial deposits that form extensive plains cover most of the eastern and central part of the region. A hill range made of tertiary gravel beds and directed NW-SE, divides these plains into two regions: the plain of Lárissa in the East and the plain of Tríkala–Kardítsa in the West. Two smaller basins, those of Vólos and Almyrós, extend in SE Thessaly. The westernmost part of the province is mountainous, formed by alpine and molassic formations of Mesozoic and Neogene age respectively. In the southwestern part the long peninsula of Pélion Mountain forms the wide and rather closed Pagassetic Gulf.

## II. GEOLOGY

The Thessalian mountain ranges are placed in the Pelagonic and Píndos geotectonic zones, which have a NW–SE direction. The Pelagonic is a very wide zone that covers a very extensive area of Northern and Central Greece. It is usually divided to several minor zones, either metamorphic or not. Most of those zones are of Triassic–Jurassic age and they are covered by a transgression series that begins in Late Cretaceous (Cenomanian). The stratigraphic columns of the Pelagonic zone consist of Late Palaeozoic and Mesozoic metamorphic, semimetamorphic or sedimentary rocks, as gneiss, amphibolites, slates and limestones. Most of the Mesozoic rocks are neritic limestones. The limestone series ends in the Late Jurassic by regression. Some ophiolite occurrences of Late Jurassic age are common in the areas of Orthrys, Olympus and Pélion Mountains. Another mostly neritic limestone series is deposited during the Late Cretaceous transgression. The pelagonic stratigraphic column ends up with flysch of Late Cretaceous – Eocene age.

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The Píndos Zone is formed by pelagic sediments, mainly thin-bedded folded limestones and cherts of Mesozoic age. The zone is divided into two series: The lower one ends in the Early Cretaceous with a flysch-like clastic formation and a regression. The upper one ends up in the Eocene with a flysch, the last formation of the stratigraphic series of Palaeocene–Eocene age.

A tectonic window in the area of Olympus reveals another series of sedimentary (limestones, dolomites) and metamorphic (marbles, slates) rocks of Triassic–Eocene age.

Two molassic formations, named Pentálophon and Tsotýlion, of uppermost Oligocene and Early Miocene age cover a part of Eastern Thessaly. These formations are deposited in the Mesohellenic Trench, the most extensive molassic basin of the Greek peninsula. They consist mainly of conglomerates, sandstones and marls.

Neogene post-orogenic tectonic subsidence of the Thessalian region resulted to the formation of the extensive plains and basins, as well as of the Pagassetic Gulf. A consequent sedimentation of lacustrine, fluvial and marine deposits started in these forming basins. Neogene continental deposits are mainly found in Central–Eastern Thessaly and they consist of conglomerates, sands and clays. SCHNEIDER (1968, 1972), using physical characters of the sediments, divides the continental deposits of Thessaly into two parts: a lower one, *Lower Thessalian Layers*, which consists of light-coloured lacustrine–fluvial sediments, and an upper one, *Upper Thessalian Layers*, which consists of fluvial–terrestrial red beds. Because of the absence of any fossils, he approximately dates these two parts in Miocene–Pliocene and Pliocene–Pleistocene respectively. MÜLLER (1983), who studied the Neogene of Eastern Thessaly, classifies the terrestrial Neogene deposits of the area according to their petrographical characters (carbonate and clastic percentage, colour etc.), distinguishing four formations: *Agnanderí*, *Kokkinóvrachon*, *Mikrón Perivolákion* and *Pheraé*. *Agnanderí* is the oldest formation and it roughly corresponds to SCHNEIDER's *Lower Thessalian Layers*. The other three correspond to the *Upper Thessalian Layers*.

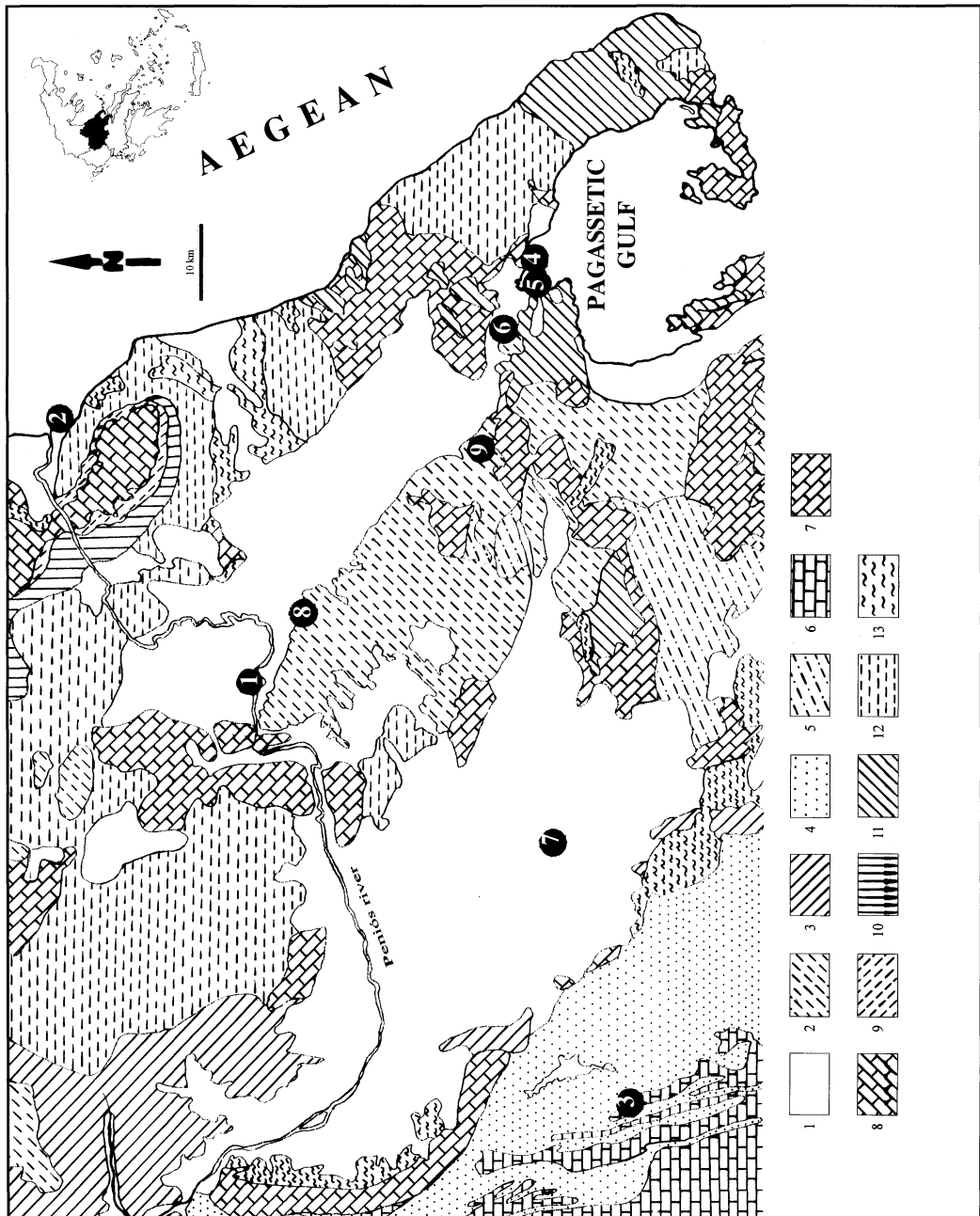
The Quaternary is found as alluvial sediments that cover the vast plains of the Eastern (plain of Láriisa) and Western (plain of Tríkala–Kardítsa) part of Thessaly, fluvial terraces (Peniós river) and lacustrine deposits. Some Pleistocene fissure fillings occur in the karstified limestones and marbles of the basement.

### III. FOSSILIFEROUS LOCALITIES

The majority of the Thessalian fossiliferous localities (Fig.1) are found in the eastern part of the province. The until now known sites are dated from the Late Miocene to the Late Pleistocene. The most important faunas are found and studied quite recently, indicating the need for further investigation in the area.

#### *Sophádes – Alíphaka – Perivoláki*

The oldest Mammal occurrences in Thessaly are dated in the Late Miocene. The locality Sophádes, situated in a small lignite outcrop, has yielded only one finding, a suid mandible fragment. It was described by THENIUS (1955), who referred it to *Sus antiquus*. The species is currently classified in the genus *Microstonyx*.



**Fig. 1:** Simplified geological map of Thessaly, based on ΜΠΟΡΝΟΒΑΣ & ΠΟΝΤΟΓΙΑΝΝΗ-ΤΣΙΑΜΠΑΟΥ (1983), with the geographical position of the fossil Mammal localities.

*Geology:* 1: Alluvial and quaternary deposits; 2: Neogene lacustrine deposits; 3: Oligocene–Miocene molasse; 4: Palaeocene–Eocene flysch; 5: Late Cretaceous–Eocene flysch; 6: Pelagic Mesozoic limestones; 7: Neritic Mesozoic limestones; 8: Marbles and dolomites (Late Mesozoic – Palaeocene); 9: Phyllite; 10: Schists with marble intercalations; 11: Schist–chert formation (Jurassic); 12: Gneisses, schists, amphibolites (Palaeozoic–Triassic); 13: Ophiolites.

*Localities:* 1: Peniós valley; 2: Peniós mouth; 3: Karýtsa; 4: Vólos; 5: Halykés; 6: Sésklo; 7: Sophádes; 8: Alífhaka; 9: Perivoláki.

The locality Alíphaka is situated at the western end of the plain of Lárissa (Fig. 1). The fossils were found in a small outcrop of freshwater limestone. They were described by MELENTIS & SCHNEIDER (1966), who give the following faunal list:

Faunal list of the locality Alíphaka  
(according to MELENTIS & SCHNEIDER, 1966)

Rodentia:	<i>Hystrix primigenia</i>
Artiodactyla:	<i>Helladotherium duvernoyi</i> <i>Tragocerus amaltheus</i> <i>Palaeoryx majori</i>
Perissodactyla:	<i>Hipparion mediterraneum</i>

However, most of the above specific determinations are based on inadequate data (single specimens, isolated or deciduous teeth). At least the two bovid species given are very questionable, mainly because of their small size. The authors consider the fauna as similar to that of Pikérmi and assume a similar age.

The third Late Miocene fauna of Thessaly was recently found near the village Mikró Perivoláki, at the western end of the plain of Lárissa, near the border of the Prefectures of Magnesia and Lárissa. The fossils were discovered in the Neogene sandy and argillaceous deposits that form the central Thessalian hill range. KOUFOS *et al.* (1999) give a preliminary faunal list. The presence of *Mesopithecus*, *Helladotherium* and *Plioviverrops*, as well as the morphological characters of *Hipparion*, indicate an Early–Middle Turolian age. According to KOUFOS (pers. com.), the recent morphological study of *Mesopithecus* allows a more accurate dating of the fauna, which could be placed to the early MN12.

Faunal list of the locality Perivoláki  
(according to KOUFOS *et al.*, 1999)

Primates:	<i>Mesopithecus pentelicus</i>
Carnivora:	<i>Plioviverrops orbignyi</i> <i>Promephitis</i> cf. <i>larteti</i>
Artiodactyla:	cf. <i>Palaeoreas</i> <i>Gazella</i> sp. Bovidae n.sp. <i>Helladotherium duvernoyi</i> <i>Microstonyx</i> sp.
Perissodactyla:	<i>Hipparion</i> cf. <i>mediterraneum</i> <i>Hipparion</i> cf. <i>matthewi</i> <i>Hipparion</i> sp.

## Sésklo

The Prefecture of Magnesia, southeastern part of Thessaly, includes some of the most interesting localities. Sésklo is the richest locality in Thessaly. It has yielded until now a very good sample of Late Pliocene Mammals. The site is located in a clay filled basin laid on a Mesozoic basement of metamorphic rocks (gneiss, peridotites, slates). Lithostratigraphically it belongs to the *Upper Thessalian Layers* of SCHNEIDER (1968) or to the *Pheraé Formation* of MÜLLER (1983). A part of the basin is used by the local cement industry as a clay pit. It was during the works of this pit, in 1971, when the fossil bones were discovered. ΣΥΜΕΩΝΙΔΗΣ & ΤΑΤΑΡΗΣ (1983) describe one of the first fossil findings of the area (a mandible of *Anancus arvernensis*). Several excavations or bone collections followed the first fossil discovery. Most of the available material was excavated in 1982 and it was studied by ΣΥΜΕΩΝΙΔΗΣ (1992) and ΑΘΑΝΑΣΙΟΥ (1996).

The dominant form of the locality is *Equus stenonis*, a big but not very stout form, similar in proportions to the horse samples from the localities La Puebla de Valverde, Saint-Vallier, Olivola and Vólax (ATHANASSIOU, 2001a). Other abundant taxa are *Gazellospira torticornis* and *Gazella*. The former species shows typical morphology and dimensions. *Gazella* is known from three distinct forms (ΑΘΑΝΑΣΙΟΥ, 1996; ΚΟΣΤΟΠΟΥΛΟΣ & ΑΘΑΝΑΣΙΟΥ, 1997; ΑΘΑΝΑΣΙΟΥ, this volume). Most of the gazelline material is referred to *Gazella bouvrinae*. Another distinct species, *Gazella* sp.B (revised in ΑΘΑΝΑΣΙΟΥ, this volume), is also well represented in the material, while a single find, a frontlet, is attributed to the well-known West-European villafranchian species *Gazella borbonica*. The coexistence of three gazelline species is a peculiar character of this locality.

The fauna also includes a Giraffid (*Mitilanotherium inexpectatu*), a family that is unknown in the W. European villafranchian faunas, and some very peculiar bovid forms, which have been described as Antilopinae indet., Caprini indet. and Ovibovini indet. (ΑΘΑΝΑΣΙΟΥ, 1996). The first two forms are of similar size and they may belong to a caprin. Under Ovibovini indet. I have grouped together some metapodials and teeth of clear ovibovin morphology, as well as two very peculiar straight horn cores with semicircular cross-section. Two fragmentary metapodials of bigger dimensions (about the size of *Megalovis* or *Soergelia*) were referred to as Caprinae indet. This material has been recently revised and a new genus and species (*Euthyceros thessalicus*) has been erected for a part of it (ΑΘΑΝΑΣΙΟΥ, 2002). Another part of the material is attributed to Gallogoral meneghinii sickenbergi (unpublished data).

The other Artiodactyla present in the fauna, Suidae and Cervidae, are rare. A suid mandible referred by ΣΥΜΕΩΝΙΔΗΣ (1992) to *Sus* cf. *strozzi* has different lithology from the rest of the fauna and it rather comes from an older layer. Its small dimensions (quite comparable to the size of *Sus minor*) also support this view. The cervids are grouped into three size groups that fit very well to the *Croizetoceros ramosus* – “*Cervus*” *philisi* – *Eucladoceros* assemblage of Western Europe. However, no specific determination is possible, as no antlers were found. The Proboscidea are represented by both Late Pliocene representatives of the order, i.e. *Anancus arvernensis* and *Mammuthus meridionalis*. The latter is an extremely big form. Carnivora are also well represented. *Nyctereutes megamastoides* is the most common carnivore. Compared to the known *Nyctereutes* from Western Europe, it is characterised by its big size and robustness.

Faunal list of Sésklo locality

(according to ΣΥΜΕΩΝΙΑΔΗΣ, 1992 and ΑΘΑΝΑΣΙΟΥ, 1996; modified according to ΚΟΣΤΟΠΟΥΛΟΣ & ΑΘΑΝΑΣΙΟΥ, 1997, ΑΘΑΝΑΣΙΟΥ, 2002 and unpublished data)

Proboscidea:	<i>Anancus arvernensis</i> <i>Mammuthus meridionalis</i>
Rodentia:	<i>Castor</i> sp.
Carnivora:	<i>Nyctereutes megamastoides</i> <i>Vulpes</i> cf. <i>alopeoides</i> <i>Ursus</i> cf. <i>etruscus</i> <i>Pachycrocuta perrieri</i> <i>Homotherium crenatidens</i>
Artiodactyla:	Suidae indet. Cervidae indet. cf. <i>Croizetoceros ramosus</i> cf. <i>Eucladoceros</i> sp. <i>Mitilanotherium inexpectatum</i> <i>Gazella borbonica</i> <i>Gazella bouvrinae</i> <i>Gazella</i> sp. <i>Gazellospira torticornis</i> <i>Euthyceros thessalicus</i> <i>Gallogoral meneghinii sickenbergi</i> . Caprini indet. Antilopinae indet. Artiodactyla indet.
Perissodactyla:	<i>Equus stenonis</i> <i>Stephanorhinus</i> sp.

***Vólos – Halykés***

The faunas of Vólos and Halykés come from fissure fillings in the area of Vólos, the capital town of Magnesia. Both include species with Early Pleistocene affinities and they should be of the same age, because of their vicinity and geological similarity. The material from Vólos has not yet been described. VAN DER MEULEN & VAN KOLFSCHOTEN (1988) give a faunal list that includes *Canis lupus* cf. *mosbachensis*, *Panthera gombaszoegensis*, *Equus* cf. *marxi* and micromammals.

The fauna of Halykés (ΑΘΑΝΑΣΙΟΥ, 1994, 1996) includes among others *Canis etruscus*, *Canis arnensis*, *Panthera gombaszoegensis*, *Equus* sp. and *Gazellospira torticornis*. The last species is a rather primitive element and gives a Pliocene character to the fauna.

It is easily seen that the faunal lists of these two localities are quite similar. *Canis etruscus* is morphologically and metrically almost indistinguishable from *Canis lupus mosbachensis*, as it is already noticed by some authors (ERDBRINK, 1968; BONIFAY, 1971 and others). The range of variation is anyway fairly high. It seems that there is a tendency of many authors to refer to the Early Pleistocene *Canis* as *C. etruscus* and to

the Middle Pleistocene ones as *Canis lupus mosbachensis*. The felid *Panthera gombaszoegensis* is common in both sites.

No comparison is possible for the equid material, as this from Vólos is not described. The main characters of the Halykés horse are the large size, the relatively long protocone and the short nasal notch that distinguish it from *Equus stenonis* (ΑΘΑΝΑΣΙΟΥ, 1996). It has many affinities with the horse of Apollonía referred to by ΚΟΥΦΟΣ *et al.* (1997) as a new species, *Equus apolloniensis*, which is considered to be of early Middle Pleistocene age.

VAN DER MEULEN & VAN KOLFSCHOTEN (1988) consider the fauna of Vólos to be of Early Biharian age because of the presence of *Microtus arvalis*. A somewhat older age could be deduced for Halykés, mainly because of the presence of *Gazellospira*, which is a Pliocene survivor (ΑΘΑΝΑΣΙΟΥ, 1996). Its presence in Europe is proved up to the lowermost Pleistocene. However, according to DUVERNOIS & GUÉRIN (1989), *Gazellospira* can be present up to the beginning of the Middle Pleistocene. On the contrary, the horse with the rather evolved characters indicates a relatively young, presumably postvillafanchian, chronology. *Lagurodon arankae* characterises the Early Biharian, while the presence of *Mimomys* restricts the dating to the Early Pleistocene. Considering the available data and the uncertain determination of some taxa, an MNQ 19–20 age can be inferred for Vólos and Halykés.

Faunal list of the locality Halykés  
(according to ΑΘΑΝΑΣΙΟΥ, 1996)

Rodentia:	<i>Hystrix refossa</i> <i>Mimomys</i> sp. <i>Lagurodon</i> cf. <i>arankae</i>
Lagomorpha:	<i>Oryctolagus lacosti</i>
Proboscidea:	Elephantidae indet.
Carnivora:	<i>Canis etruscus</i> <i>Canis arnensis</i> <i>Canis</i> sp. <i>Panthera gombaszoegensis</i>
Artiodactyla:	<i>Gazellospira torticornis</i> Bovidae gen. A Bovidae gen. B
Perissodactyla:	<i>Equus</i> sp. Rhinocerotidae indet.

Faunal list of the locality Vólos  
(according to VANDER MEULEN & VAN KOLFSCHOTEN, 1988)

Rodentia:	<i>Apodemus mystacinus</i> <i>Apodemus sylvaticus/flavicollis</i> <i>Cricetulus migratorius</i> <i>Lagurus pannonicus</i> <i>Microtus (Pitymys) arvalidens</i>
Carnivora:	<i>Canis lupus</i> cf. <i>mosbachensis</i> <i>Vulpes praeglacialis</i> <i>Panthera gombaszoegensis</i>
Artiodactyla:	cf. <i>Hemitragus bonali</i>
Perissodactyla:	<i>Equus</i> cf. <i>marxi</i>

### ***Peniós Valley***

A great number of Late Pleistocene Mammal localities are located between the city of Lárissa and the mountain of Zárkos, west of the city, along the valley of the river Peniós, the main river of the region. *Elephas antiquus* is the dominant form. The fossils are often associated with palaeolithic artefacts. The fauna is described by MILOJČIĆ *et al.* (1965) and SCHNEIDER (1968), who give the following faunal list:

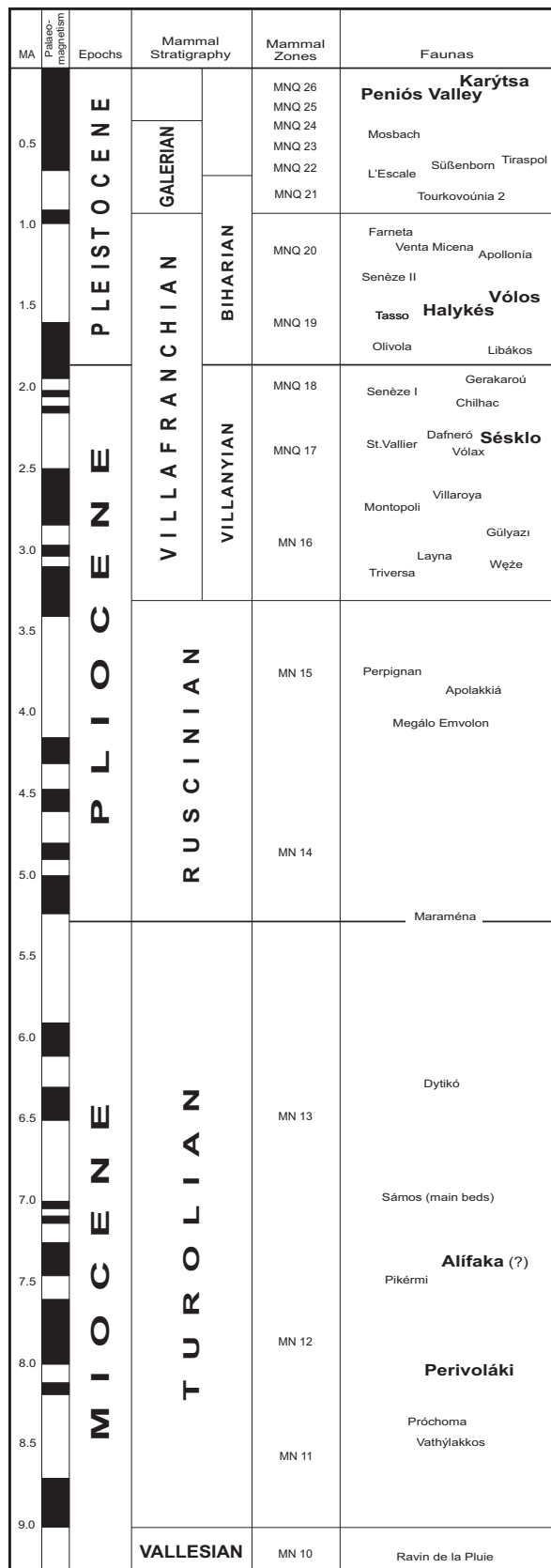
Faunal list of the Peniós valley localities  
(according to MILOJČIĆ *et al.*, 1965 and SCHNEIDER, 1968)

Proboscidea:	<i>Palaeoloxodon antiquus italicus</i>
Artiodactyla:	<i>Hippopotamus amphibius</i> cf. <i>antiquus</i> <i>Megaceros</i> sp. <i>Cervus elaphus</i> <i>Dama</i> sp. <i>Capreolus capreolus</i> <i>Saiga tatarica</i> <i>Bos primigenius</i> <i>Bubalus</i> cf. <i>arnee</i>
Perissodactyla:	<i>Dicerorhinus</i> cf. <i>hemitoechus</i> <i>Equus (Asinus) hydruntinus</i> <i>Equus caballus</i>

Elephant remains are often found in the river valley, especially during very dry climatic conditions, when most of the riverbed is exposed. Some recent findings from the area, attributed to *Elephas antiquus* and *Bos primigenius*, are described in ATHANASSIOU (2001b). The upper Peniós valley, in the area of the Tríkala–Kardítsa basin, has not until now yielded any mammal remains.

Apart from the above listed fauna, SCHNEIDER (1968) describes an isolated M<sup>2</sup>-part





**Fig. 2:** Chronological chart of the Late Miocene – Late Pleistocene showing the chronological correlation of the Thessalian fossil Mammal sites with other known Eurasian localities. Data from VAN DER MEULEN & VAN KOLFSCHOTEN (1988), GUÉRIN (1990), MEIN (1990), ΑΘΑΝΑΣΙΟΥ (1996), STEININGER *et al.* (1996), KOUFOS & KOSTOPOULOS (1997), KOUFOS *et al.* (1999). The stratigraphical position of some localities (especially the classic Turolian ones, like Pikérmi and Sámos) is approximate, as many stratigraphical problems of fossil samples that come from old excavations still exist.

**Table 1**  
Taxa represented in the Thessalian fossil Mammal faunas  
(The parentheses indicate a determination as cf.)

	Aliphaka	Perivoláki	Sophádes	Sésklo	Halykés	Vólos	Peniós valley	Peniós mouth	Karyítsa
<b>Primates</b>									
<i>Mesopithecus pentelicus</i>		+							
<b>Rodentia</b>									
<i>Hystrix primigenia</i>	+								
<i>Hystrix refossa</i>					+				
<i>Castor</i>				+					
<i>Mimomys</i>					+				
<i>Lagurodon arankae</i>					(+)				
<i>Lagurus pannonicus</i>							+		
<i>Apodemus mystacinus</i>							+		
<i>Apodemus sylvaticus</i>							+		
<i>Cricetulus migratorius</i>							+		
<i>Microtus arvalidens</i>							+		
<b>Lagomorpha</b>									
<i>Oryctolagus lacosti</i>					+				
<b>Proboscidea</b>									
<i>Anancus arvernensis</i>				+					
<i>Mammuthus meridionalis</i>				+				(+)	
<i>Elephas antiquus</i>							+	+	
<i>Mammuthus primigenius</i>								(+)	
<b>Carnivora</b>									
<i>Plioviverrops orbigny</i>		+							
<i>Promephitis larteti</i>		(+)							
<i>Nyctereutes megamastoides</i>				+					
<i>Canis</i>					+		+		
<i>Vulpes</i>				+			+		
<i>Ursus etruscus</i>				(+)					
<i>Ursus spelaeus</i>									+
<i>Pachycrocuta perrieri</i>				+					
<i>Homotherium crenatidens</i>				+					
<i>Panthera gombaszoegensis</i>					+	+			

**Table 1** continued

	Alphaka	Perivoláki	Sophádes	Sésklo	Halykés	Vólos	Peniós valley	Peniós mouth	Karyítsa
<b>Artiodactyla</b>									
<i>Microstonyx</i>		+	+						
<i>Hippopotamus antiquus</i>							(+)		
<i>Helladotherium duvernoyi</i>	+	+							
<i>Mitilanotherium inexpectatum</i>				+					
<i>Megaloceros</i>							+		
<i>Cervus elaphus</i>							+		
<i>Dama</i>							+		
<i>Capreolus capreolus</i>							+		
<i>Croizetoceros</i>				(+)					
<i>Eucladoceros</i>				(+)					
<i>Palaeoreas</i>		(+)							
<i>Gazella</i>		+		+					
<i>Gazella borbonica</i>				+					
<i>Gazella bouvrinae</i>				+					
<i>Gazellospira torticornis</i>				+	+				
<i>Euthyceros thessalicus</i>				+					
<i>Gallogoral meneghinii sickenberg</i>				+					
Antilopinae				+					
Caprinae				+					
<i>Hemitragus bonali</i>						(+)			
<i>Saiga tatarica</i>							+		
<i>Bos primigenius</i>							+		
<i>Bubalus</i>							+		
<b>Perissodactyla</b>									
<i>Hipparion mediterraneum</i>	+	(+)							
<i>Hipparion matthewi</i>		(+)							
<i>Equus</i>					+	+			
<i>Equus stenorhinus</i>				+					
<i>Equus hydruntinus</i>							+		
<i>Equus caballus</i>							+		
<i>Stephanorhinus</i>				+					
<i>Dicerorhinus hemitoechus</i>							(+)		

from the area of Lárissa, not away from the river bed. The find, which he refers to *Archidiskodon meridionalis* cf. *cromerensis*, has been found in the hills around the city. The exact position of the site is unknown. As is the case with most old collections, the determination of this partly preserved specimen is very doubtful; at least its relatively narrow occlusal surface, as well as the rather increased crone height, point to a more advanced elephant species.

### ***Peniós mouth***

PARASKEVAIDIS (1977) reports scanty findings that he assigns to *Elephas (Palaeoloxodon) antiquus italicus*, *Elephas (Archidiskodon) cf. meridionalis* and *Elephas (Mammontheus) cf. primigenius* near the mouth of Peniós. These specific determinations indicate a mixed material that derives from different stratigraphic levels.

The faunas of the Peniós valley/mouth areas derive from surface collections made by local people or during geological field work. No systematic excavation has been yet carried out. Therefore the material is scanty and in most cases there are not any stratigraphical data. Moreover some of the already studied specimens, which belonged to private collections, are now considered to be lost. So, a reinvestigation is essential for a better knowledge of these faunas.

### ***Karýtsa***

MITZOPOULOS (1960) describes some remains of *Ursus spelaeus* and a large cervid from a cave near the village Karýtsa in SW Thessaly. The material includes only isolated teeth. This was the first report on the presence of *Ursus spelaeus* in Greece. A Late Pleistocene age is assumed.

## **IV. CONCLUSION**

The Province of Thessaly has yielded a number of fossil Mammal localities that date from the Late Miocene to the Late Pleistocene. The available data do not provide a good knowledge of the faunal succession in the Thessalian area. Some gaps in the fossil Mammal record of the area do exist, as until now the Early Pliocene (Ruscinian) and Middle Pleistocene faunas of the region are unknown (Fig. 2). This is, however, also true for the entire country in general, as the known faunas of Greece of that ages are very rare and rather poor (KOUFOS & KOSTOPOULOS, 1997).

The Late Miocene localities (Alíphaka, Sophádes) are not well known, because of poor material. A recently found fauna in SE Thessaly (Perivoláki) is, however, very promising and its study will contribute to the knowledge of the Neogene environment of the area. The Late Pliocene fauna is well documented by the material excavated at Sésklo, a site with peculiar faunal elements. *Equus stenorhis* is the main taxon of the fauna, instead of *Hipparion*, which characterises the older faunas. The Canids appear with the presence of *Nyctereutes*, while the Giraffids are represented by their last species in SE Europe, *Mitilanotherium inexpectatum*. The arrival of *Canis*, *Panthera* and more evolved *Equus* with short snout and longer protocone marks the Early Pleistocene

fissure filling faunas. The Late Pleistocene material consists mostly of fragmentary or isolated findings; however, the Elephant remains are reported from many sites and represent the most interesting elements of the fluvial–lacustrine deposits.

## ABSTRACT

An overview of the available data about the fossil Mammal localities of Thessaly, Central Greece, is given in this article. The composition of the faunas and their stratigraphic succession is discussed. The until now known localities date from the Late Miocene to the Late Pleistocene.

## ΠΕΡΙΛΗΨΗ

Στην παρούσα εργασία επιχειρείται σύνοψη των υπαρχόντων δεδομένων για τις απολιθωμένες πανίδες Θηλαστικών της Θεσσαλίας. Δίδεται η σύνθεση των πανίδων, η στρωματογραφική τους τοποθέτηση και σύντομη περιγραφή των ευρημάτων. Οι μέχρι σήμερα γνωστές απολιθωματοφόρες θέσεις καλύπτουν το διάστημα από το Ανώτερο Μειόκαινο έως το Ανώτερο Πλειστόκαινο, εμφανίζοντας όμως κενά κατά το Κατώτερο Πλειόκαινο και το Μέσο Πλειστόκαινο.

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