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Karnezeika (Argolis, Peloponnese): preliminary data concerning a new Villafranchian locality of Southern Greece

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Introduction

Karnezeika is a Villafranchian locality, situated in the northern part of southern Argolis. No proper excavations have been conducted in the locality. Geologically, the fossils are enclosed in fine-grained red sediments, which filled a small doline in a late Triassic – early Jurassic limestone. The locality of Karnezeika has been discovered in 2005 and the collected material has been stored in both Athens Museum of Palaeontology and Geology (AMPG) and the Laboratory of Palaeontology and Stratigraphy, Department of Geology, University of Patras. The material housed at the University of Patras was studied in the contexts of an Undergraduate dissertation (Kokotini, 2018). The present study is a combined effort from both Institutes to resume the up to now results on the prepared material.

Results

Despite the fragmentary nature and the scarcity of the material, the biodiversity of the site seems to be significantly high, including at least 22 genera, belonging to 17 families. The preliminary faunal list is provided on Table 1.

Table 1. Preliminary faunal list of Karnezeika

Class **Reptilia**	Order **Carnivora**
Order **Testudines** indet.	Family **Canidae**
Order **Squamata**	***Vulpes*** sp.
Clade **Lacertoidea** indet.	***Canis*** sp.
Clade **Ophidia** indet.	Family **Felidae**
Class **Aves**	***Panthera gombaszoegensis***
Order Accipitriformes	Family **Hyaenidae**
Family Accipitridae	***Pachycrocuta brevirostris***
Order **Passeriformes**	Order **Perissodactyla**
Family **Corvidae**	Family **Rhinocerotidae**
Pyrrhocorax sp.	***Stephanorhinus*** sp.
Class **Mammalia**	Family **Equidae**
Order **Artiodactyla**	***Equus*** sp.
Family **Bovidae**	Order **Rodentia**
Gazella borbonica	Family **Arvicolidae**
Gazellospira torticornis	***Kislangia*** sp.
Gallogoral meneghinii	***Kalymnomys*** sp.
Pliotragus sp.	Family **Muridae**
Family **Cervidae**	***Apodemus*** cf. ***dominans***
Eucladoceros sp.	Family **Gliridae** indet.
Order **Primates**	Order **Lagomorpha**
Family **Cercopithecidae**	Family **Leporidae**
Papionini indet.	***Hypolagus*** sp.

The majority of the identified taxa indicate an age approximately at the border between middle to late Villafranchian (Kostopoulos, 1996; Rook & Martínez-Navarro, 2010; Koufos, 2014; Doukas & Papayianni, 2016; Koufos & Kostopoulos, 2016). The coexistence of mammalian carnivores and herbivores of varying size, micromammals, birds and reptiles offers a great opportunity to study the Villafranchian faunas of Greece in more detail. Another interesting finding is the presence of a proximal radius, belonging to one of the macaque-like species occurring in this period.

Conclusions

The studied locality preserves high interest because of the following:

- It is the most comprehensively studied Villafranchian locality in southern Greece, offering new insights on biochronology and biogeography
- It comprises a rich fauna including macro-mammals, micro-mammals, birds and reptiles
- It is the first locality in Greece with remains of *Hypolagus*
- It includes some rare taxa such as *Eucladoceros*, *Gallogoral*, *Pliotragus* and the papionin primate
- In contrast to other Villafranchian localities it includes very few equid remains

The study of the bulk of the material which is still unprepared will certainly provide further and more complete data on the Villafranchian of Karnezeika. Thus, more precise conclusions will be made concerning the palaeoecology of the locality and its relationship with other Villafranchian sites in Greece.

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