

**PRESENCE OF A LARGE-SIZED HIPPARION IN THE VILLAFRANCHIAN LOCALITY OF SÉSKLO
(THESSALY, GREECE)**

***Athanassiou A.*^{1,2}**

¹ *Ministry of Culture, Ephorate of Palaeoanthropology–Speleology, Athens, Greece*

² *National and Kapodistrian University of Athens, Museum of Palaeontology and Geology, Athens, Greece*

Objectives: The locality of Sésklo, discovered in 1971 in a clay quarry within a fluviolacustrine basin, has yielded a rich and quite diverse mammalian fauna, dated to the lower part of the European Land Mammal Zone MN17 (Early Pleistocene) (Athanassiou, 1996). In terms of number of individuals the fauna is dominated by a horse referred to the species *Equus stenonis* Cocchi, 1867 (Athanassiou, 2001). However, some specimens among the equid material excavated in the locality during the early 1970s are characterised by distinct morphology, as well as by different fossilisation: they are heavily mineralised and dark coloured, deriving quite probably from a clayey layer rich in volcanic material, which is stratigraphically situated in the lower part of the sedimentary sequence of the basin.

Methods & Results: The available material consists of long-bone parts, as well as autopodial elements, which were studied morphologically and biometrically. Despite their large size, which is similar to that of *Equus* from the upper sequence of the same locality, the studied specimens (particularly the proximal phalanges and the astragali) have a clear hipparionine morphology. A juvenile mandible excavated in 2005 exhibits a caballine enamel pattern (*sensu* Eisenmann *et al.*, 1988), which differs from the stenonid one seen in the Sésklo *Equus*.

Conclusions: As a whole the Sésklo *Hipparion* sample is consistent with the advanced morphology of the large-sized Pliocene hipparions of Eurasia, usually referred to as *Plesiohipparion*, and their large body size as well. Currently there is no evidence of hipparion and horse stratigraphic association in Sésklo, the former presumably occurring in deeper layers. The Sésklo Basin is one of the very few European localities that record the faunal transition from the *Hipparion*-dominated Neogene faunas to the *Equus*-dominated Quaternary ones.

References:

Athanassiou A. (1996). [Contribution to the study of the fossil mammals of Thessaly]. PhD thesis, National and Kapodistrian University of Athens. [in Greek]

Athanassiou A. (2001): New data on the *Equus stenonis* Cocchi, 1867 from the late Pliocene locality of Sésklo (Thessaly, Greece). *Geodiversitas*, 23 (3): 439–469.

Eisenmann V., Alberdi M.T., De Giuli C., Staesche U. (1988): Methodology. In Woodburne M.O., Sondaar P., Eds.: *Studying fossil horses*. E.J. Brill. Leiden.