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ABSTRACT BOOK

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Dimitris S. KOSTOPOULOS, Evangelos VLACHOS, and Evangelia TSOUKALA

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Tetralophodon longirostris (Kaup, 1832) from Late Miocene of the Kassandra peninsula (Chalkidiki, Greece)

Georgios LAZARIDIS ✉, and Evangelia TSOUKALA

Several proboscideans identified from the Late Miocene of Greece include: *Deinotherium giganteum*, *D. gigantissimum*, *Choerolophodon anaticus*, *C. pentelici*, *Mammot* sp., *Konobelodon atticus* and *Anancus* sp. These fossils were located in several localities hosted by strata spanning the entire Vallesian and Turolian (MN9-13) (e.g. Konidaris and Koufos, 2013; Konidaris et al., in press). *C. pentelici* is the most common taxon, whereas attributions to *Tetralophodon* in earlier studies have been disputed.

The proboscidean fossils of the Chalkidiki region studied comprise dispersed material including specimens from sand-pits of the Fourka area, the seabed in Kryopigi and the Chelona beach at Siviri in Kassandra. The specimens have been described, illustrated and compared with related taxa from other localities of Eurasia. From this work, we are able to make suggestions about the origin, chronology and paleoecological implications of these fossils. The material in this study (Fig. 1) belongs to a single taxon found at several localities: *Tetralophodon longirostris* (Kaup, 1832). Identification was made based on the size and morphology of each specimen separately. The most

important morphological characteristics are these: the four lophs in M2, lack of cement, the 5½ lophs in m3 and 4½ (or five) in M3; the open interlophs (-ids), the feebly developed trefoil pattern (according to Osborn, 1924), pretrite main cusp distally displaced in m3 (according to Saegusa et al., 2005), concentric dentine and absence of a tubular in the lower tusk.

The original stratigraphic provenance of these specimens is considered to be the Antonios Fm. (Syrides, 1990) based on their fossilization pattern and analyses of consolidated sediment on specimens. Previously recognized *Deinotherium giganteum* in Aghia Paraskevi (Tsoukala and Melentis, 1994) is consistent with the presence of *T. longirostris* in the same formation, since they commonly co-occur in Western and Central European localities. The dimensions of the former (see Göhlich and Huttunen, 2009) suggest an age of MN9-10 for the Aghia Paraskevi sands. However, in Greek localities this combination is so far unknown, and the closest geographical exception is that of Yulafli locality of MN10 (possibly around age 9.3-9.4Ma), in Turkish Thrace (Geraads et al., 2005). *Tetralophodon* has also been reported from nearby Bulgaria (in Varna; Markov and Vergiev 2012). A preliminary study of fauna in the Fourka localities shows the presence of *Hipparion*, which appeared in Early Vallesian of Europe. Based on this evidence, the age of the Fourka localities and sand deposits of Kassandra should be provisionally regarded as Vallesian.

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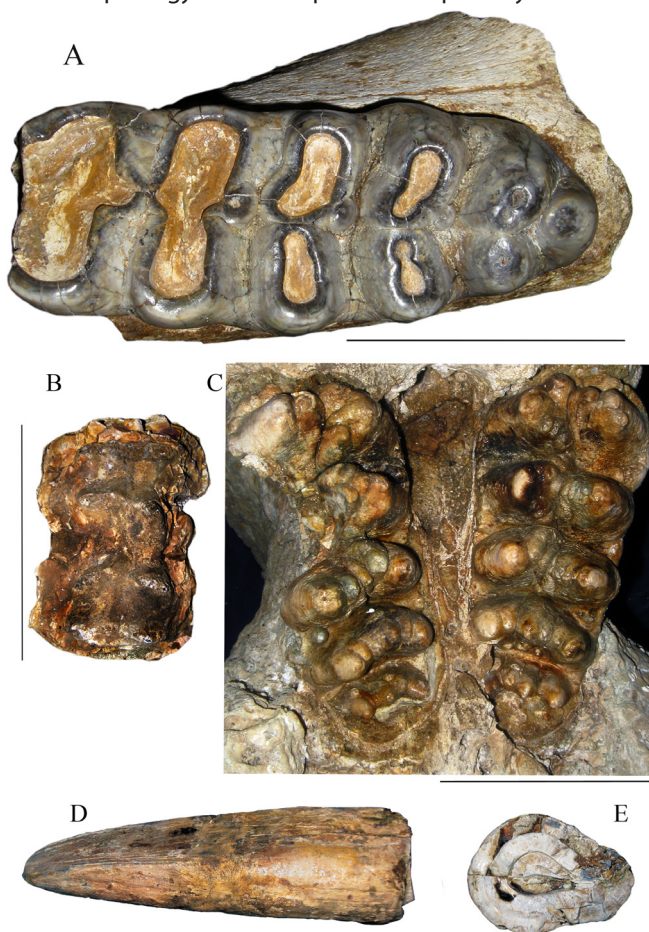


Fig. 1. *Tetralophodon longirostris* (Kaup, 1832) remains from Kassandra sand deposits. A, Right lower third molar FRK11 in mandible fragment; B, Internal imprint of broken left upper second molar of skull KSC1 showing four lophs; C, left and right upper third molars of skull KSC1, still not erupted; D, partial right lower tusk KKR1; E, cross-section of tusk KKR1. Scale equals to 10 cm.

✉ geolaz@math.auth.gr



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