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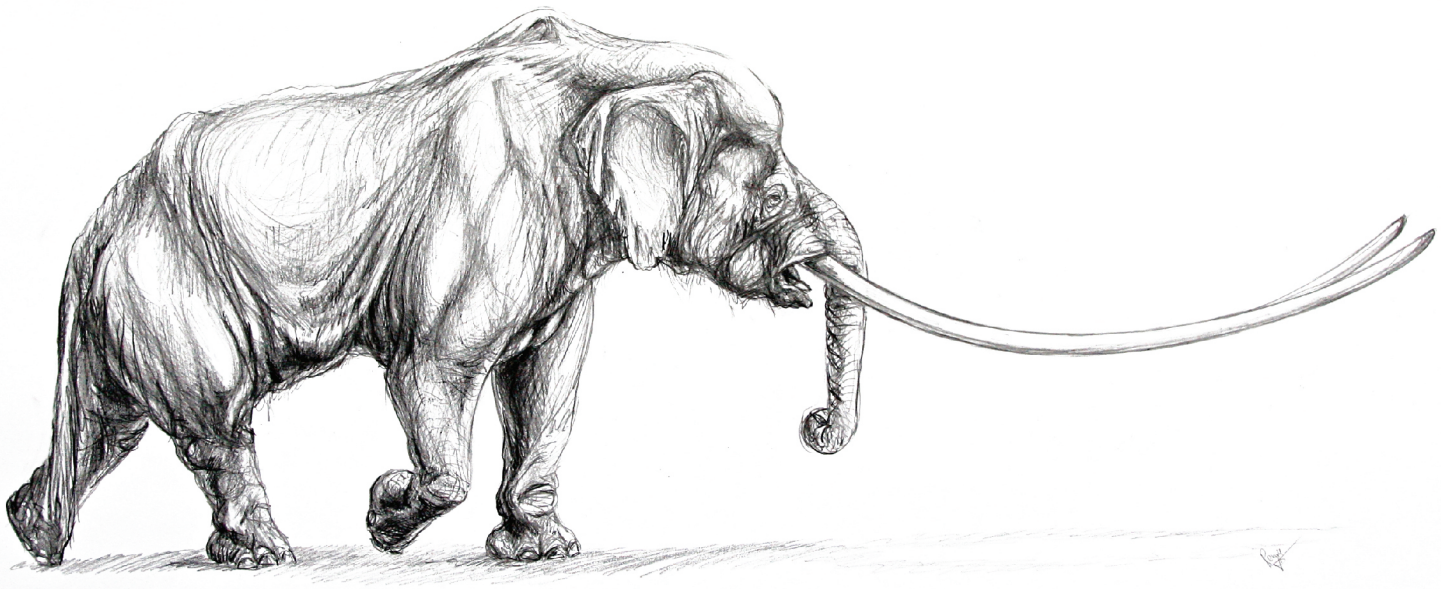

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ABSTRACT BOOK

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Review of the Late Neogene Proboscideans from Turkey

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Turkey is a unique country that extends on two continents - Europe and Asia and its position in the Neogene paleontology gains benefits from this geography. Thanks to extensive field works of geologist and paleontologist from MTA-Ankara and Ege Univ. Natural History Museum-Izmir for the last 50 years, over 400 fossil vertebrate localities were spotted in Turkey.

Within all these numerous localities and related studies, The publication of Calvert and Neumayr (1880) which originally recorded *Mastodon angustidens* and *Mastodon longirostris* from Çanakkale is the first paleontological study that described the fossil mammal content of the Miocene formations on both sides of Dardanelles. Almost 50 years later, Küçük Çekmece (Istanbul) mammal fauna, studied by Nafiz and Malik (1933), is the second locality where proboscideans were also recorded. The fauna comprises of well-preserved *Choerolophodon* and *Deinotherium* specimens which were briefly described and figured.

During the 1940s and the 1970s, the preliminary studies of proboscidean fossils mostly focused on Late Miocene (Turolian) faunas of Central and Western Anatolia (Ozansoy, 1955, 1957, 1961a, 1965; Senyürek, 1952; Tassy, 1994; Tassy et al., 1989); Late Miocene (Vallesian to Turolian) faunas of NW Anatolia-Thrace region (Viret, 1953; Viret and Yalçinlar, 1952; Yalçinlar, 1952) and few Early-Middle Miocene faunas from Western Anatolia (Ozansoy, 1961b).

During 1965–1969, a joint project called "Lignite Deposit Exploration in Turkey" and conducted by a group of German and Turkish geologists, led to the discovery of new fossil mammal localities throughout western and central Anatolia (Sickenberg et al., 1975). Gaziry (1976) compiled proboscidean collections that were found during this extensive field work. This publication is clearly the first comprehensive study on fossil proboscideans of Turkey.

Over the last two decades, renewed laboratory and fieldwork has added substantially to prior fossil collections made in Western and Central Anatolia, Especially, the monographs on the Hominoid sites (Sinap, Paşalar and Çandir) and sporadic publications have added new results to fossil Proboscideans and their evolutionary story (Geraads & Gülec, 2003; Geraads et al., 2005; Kaya et al., 2003; Kayseri et al., 2014; Sanders, 2003; Tobien, 1990).

The richest part of the fossil proboscidean specimens known from Turkey are of Middle-Late Miocene age. The present study provides (1) announcement of the first records of some Middle Miocene proboscidean taxa, such as *Gomphotherium subtapiroideum*; (2) new results of taxonomic analyses of the unstudied proboscidean collections, such as *G.angustidens, Zygolophodon turicensis, Tetralophodon longirostris, Choerolophodon ssp, Deinotherium giganteum* and *Prodeinotherium bavaricum*, that are mainly stored in Ege Univ. Natural History Museum, local Museums and private collections (F. Ozansoy); (3) partly revision of the aforementioned published collections; (4) new information on the temporal distribution and taxonomic diversity of the fossil proboscideans of Anatolia (Fig. 1).

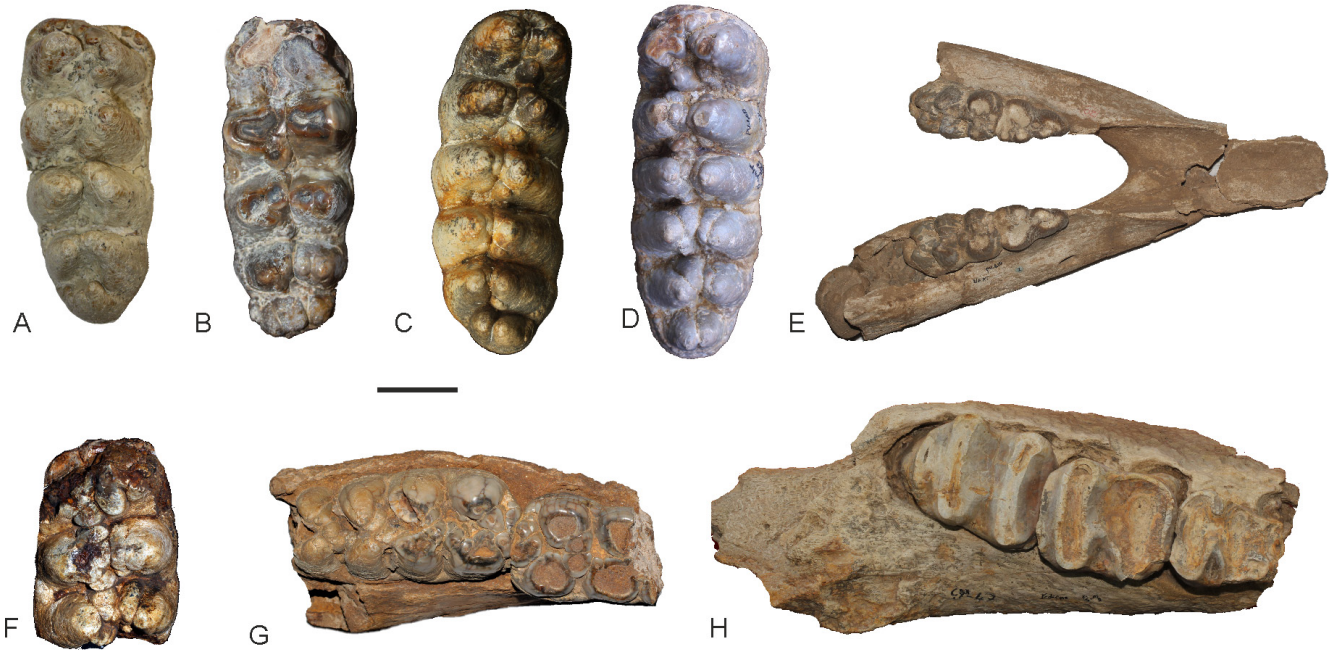

Fig. 1. New Miocene proboscidean collections in Ege Univ. Natural Hist. Museum, Izmir-Turkey. **A**, *Gomphotherium angustidens*, M3 dext. Kütahya; **B**, *G. subtapiroideum*, m3 sin. Imbros; **C**, *Tetralophodon longirostris*, m3 dext. , Tekirdağ-Yulafli; **D**, T.longirostris, m3 sin. Çanakkale-Bayraktepe; **E**, *Choerolophodon pentelici*, mandible, Uşak-Kemiklitepe A-B; **F**, *T.longirostris*, m3 sin. Çanakkale-Lapseki; **G**, *Choerolophodon* sp., m2-3 dext., Istanbul-Kilyos; **H**, *Deinotherium giganteum*, mandible, Tekirdağ-Yulafli. Scale bar equals 5 cm.

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