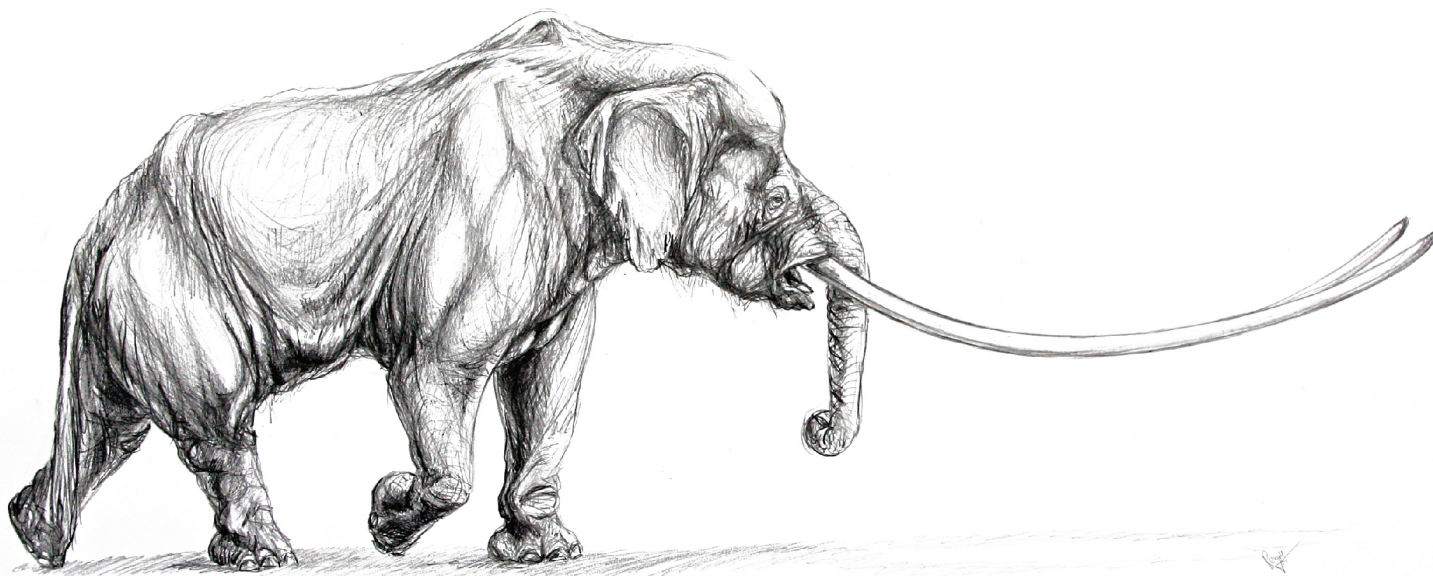




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## **ABSTRACT BOOK**

**Editors:**

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## On the problems about the systematic position of the Taribana elephant, *Archidiskodon meridionalis taribanensis* Gabunia et Vekua, 1963

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The spatio-temporal distribution and evolutionary history of the Subfamily Elephantinae Gray, 1821 in Eurasia are of great biostratigraphical significance. However, many researchers (e.g. Tesakov, 2004) have drawn the attention on the problematic polifacial geological structure of the Plio-Pleistocene continental deposits, which are often represented by several generations of deposition, overlapping or interdigitating with each other. Estimating the geological age of deposits containing large mammal remains becomes, therefore, a complicated task. A remarkable series of papers on this topic is the example of the formidable sites from the Upper Valdarno Basin (e. g. Fiolini et al., 2013).

Some researchers consider the species *Archidiskodon "gromovi"* (having as holotype the incomplete skull from Liventsovka quarry, from the so-called "Khapry sands" – Alexeeva and Garrut, 1965). Gabunia and Vekua (1966) mention that "There were probably some deficiencies in the systematic assignment of the Liventsovka *Archidiskodon*, even by the authors of this species, who preferred to keep silent on its relation to the Taribana elephant". The discussion regarding the validity of this species went on for more decades (e.g. Gabunia, Dubrovo, 1990). However, according to V. Gromov (1948), the Liventsovka site yielded remains of elephants from different evolutionary stages: "*Elephas* cf. *planifrons*" (more basal) and "*E. meridionalis*" (more derived). Gromov (1948) also noted that: "the fossil remains are not only found at the base of the Khaprovian sands, but also inside them". Some researchers considered that the "Khapry sands" belong to various ages (e.g. Tesakov, 2004).

The name *Archidiskodon* Pohlig, 1888 (type species *Elephas meridionalis* Nesti, 1825) is taxonomically valid and may be used at the generic or subgeneric level, although other authors refer these species to *Mammuthus*. Maschenko (2010) re-examined the *A. "gromovi"* holotype. He reached the conclusion that the main evolutionary parameters of this holotype are identical to those of the *A. meridionalis meridionalis* holotype. Maschenko (2010) erects a new elephant species to replace *A. "gromovi"*. However, the definition of this new species – *A. "garutti"* – was declared by Baygusheva et al. (2011) a non-available species name. Subsequently, the holotype specimen was assigned to *A. cf. "rumanus"* and *A. "meridionalis rumanus"* (e.g. Baygusheva et al., 2011; Baygusheva and Titov, 2012). Baygusheva and Titov (2012) support the validity of "*A. meridionalis gromovi*".

The subspecies *Archidiskodon meridionalis taribanensis* Gabunia et Vekua, 1963 was described from the Taribana fossiliferous site (Georgia). Its age was initially estimated as late Akchiaglyan-early Apşeronian (end of MNQ 17 biozone – beginning of MNQ 18 biozone). Additional field research allowed a better estimation of the elephant skeleton's age as Late Akchiaglyan, MNQ 17 biozone (e.g. Vekua et al., 2010), corresponding to an age of approximately 1,8 Ma. Professor Vekua (personal communication, 2011) considered that the deposits which contained Taribana elephant are 2 Ma old. The author believes that the same evolutionary degree is seen in the elephants from Ioannina, north-western Greece (Melentis, 1960).

In September 2011, the author of this abstract visited the Georgian National Museum (Tbilisi, Georgia), to study once more the Taribana elephant skeleton. Molar measurements

of the Taribana elephant holotype, revealed an evolutionary degree more basal than in the case of the *A. "gromovi"* holotype (data given by Maschenko, 2010). However, it was shown that *A. m. taribanensis* has nomenclatural priority (Obadă, 2012). Therefore, in the author's opinion, the Taribana elephant, *A. m. taribanensis* – the index *Archidiskodon* species for biozone MNQ 17 in Europe, can be considered as descendent of Ştefănescu's elephant, *A. stefanescui* (Obadă, 2010) – the index *Archidiskodon* species for biozone MN16 in Europe. The rehabilitation of the Romanian elephant – *Elephas rumanus* – the index *Elephas* species for biozone MN16 in Europe, was presented by Obadă (2010). This species is reported by other authors to the *Archidiskodon-Mammuthus* phylogenetic line (e.g. Lister et al., 2005; Baygusheva and Titov, 2012).

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