

# Deer from the Early Pliocene Prioziornoe, Kuchurgan River Valley (Moldova, Eastern Europe)

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With 25 figures and 8 tables

**Abstract:** We here describe new cervid material from the rich Early Pliocene fauna of Priozernoe situated on the western slope of the lower part of the valley of Kuchurgan River (Eastern Moldova). An important part of this study aims the taxonomy and systematics of the Kuchurgan cervids. A new genus is established for the small muntjac-like cervids from the Pliocene of Italy, Central and South-eastern Europe. The fauna of Priozernoe contains three cervid species: *Praeelaphus australorientalis* CROITOR, 2017, *Procapreolus moldavicus* (JANOVSKAYA, 1954), and *Eostyloceros pidoplitschkoi* KOROTKEVICH, 1964, which we propose to include in a new genus. Such a characteristic association of cervid species resembles the fauna from Priozernoe to Berești (Romania), suggesting the similar geological age. Our results confirm the earlier conclusions on the fauna Priozernoe as the youngest among Kuchurgan faunas and its close affinity with the Moldavian faunal assemblage from the Carbolia Beds.

**Key words:** Biostratigraphy, Cervidae, morphology, nov. gen., systematics, taxonomy.

## 1. Introduction

The Pliocene of Kuchurgan in Eastern Moldova and Southwestern Ukraine is represented by an exceptionally rich and complete palaeontological record that reveals the palaeoenvironment and faunal evolution in Eastern Europe before the mid-Pliocene climate shift and before the onset of Northern-Hemisphere Glaciation and glacial cycles (SARNTHEIN *et al.* 2009).

The palaeontological material of Kuchurgan attracted the attention of scholars for almost 70 years and can be regarded as a reference palaeontological record of the Early Pliocene of Eastern Europe (KOROTKEVICH 1970; KOROTKEVICH 1988; PEVZNER *et al.* 1996; VANGENGEIM *et al.* 1998; VANGENGEIM *et al.* 2005). Nonetheless, many stratigraphic, taxonomic and systematic questions of the Kuchurgan faunas, as well as their correlations remain open. The Kuchurgan (= Cuciurgan in Romanian) fluvial deposits are confined to the watershed of Dniester and South Bug rivers and

are exposed mostly on the flanks of Kuchurgan River Valley. No less than a dozen Early Pliocene fossiliferous sites of the Kuchurgan Valley are referred to in the literature as Kuchurgan (PEVZNER *et al.* 1996). According to PEVZNER *et al.* (1996), the Kuchurgan palaeontological record spans a considerable time interval and can be stratigraphically subdivided in greater detail. They proposed a detailed biostratigraphy of two fossiliferous sites based on the small mammal record – Novaya Andriashevka (the second half of MN14) and Grebeniki-2 (the final stage of MN14) – both situated at the southern edge of the Kuchurgan deposits. VANGENGEIM *et al.* (1998) roughly correlated Grebeniki-2 with the Carbolia (= Karbolya) Beds from southern Moldova and placed the Kuchurgan site in question below the Carbolian site of Lucești (MN15). Large-sized mammals from the Kuchurgan alluvium still lack a robust stratigraphy (VANGENGEIM *et al.* 1998). According to NESIN & NADACHOWSKI (2001), Grebeniki-2 differs in biostratigraphy from the rest of Kuchurgan sites and