



Turkey: Another country of the Oligocene Giant Rhinoceros *Paraceratherium*

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ABSTRACT

Paraceratherium is an extinct genus of gigantic hornless rhinoceroses grouped in the family Hyracodontidae. The representatives of this family dispersed in large areas from eastern Asia to the Balkans during Eocene and Oligocene times. The genus *Paraceratherium* includes the largest species of this family; adult males are estimated to have been taller than 5 m at the shoulder and 10 m long from head to tail. They had a long neck, like giraffes. Their skull was nearly 1.5 m long. Weight estimates vary greatly, but most realistic and reliable weight estimates are more than 10 tonnes. Giant rhinos were the largest land mammals that have ever existed. *Paraceratherium* fossils were widespread in Mongolia, China, Central Asia and Indian Subcontinent. A few specimens were also mentioned from Georgia and Balkans. First *Paraceratherium* specimens in Turkey were recovered in 2002 from the Oligocene deposits (Kızılırmak Formation) in the Çankırı-Çorum Tertiary Basin of North-Central Anatolia. Later fieldworks in this formation led to the discovery of several localities with abundant cranial and postcranial remains of this gigantic rhinocerotoid. It is associated to several other mammalian taxa such as small rhinocerotoids, ruminants and rodents, which strongly suggest a Late Oligocene age for the Kızılırmak Formation. In addition, some postcranial remains of *Paraceratherium* were also recently reported from northeastern Anatolia, also dated to the Late Oligocene. The *Paraceratherium* fossils from Turkey referred a new *Paraceratherium* species (*Paraceratherium* sp. nov) after detailed systematic definitions and comparisons with the giant rhino specimens from other Asian and European localities. The Oligocene *Paraceratherium* fossils from Asian localities are known as inhabitants of open woodlands and also they were browsers that fed on leaves, fruits, branches, twigs and shrubs. The morphological similarities of Turkish *Paraceratherium* fossils suggest that they lived in similar paleoenvironments and climate as in South and Central Asia. Terrestrial connections and similar palaeoenvironment probably facilitated the dispersal of giant rhinocerotoids from East Asia to the Balkans, across the Anatolian land.

Key words: Kızılırmak Formation; Çankırı-Çorum Tertiary Basin; North-Central Anatolia; Turkey; Oligocene; *Paraceratherium*.

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