Paleocene-Eocene Carbonate Platforms from the Adriatic Sea to the Pannonian Basin (Western Central Tethys) and their Tectonic Position

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Paleocene and Eocene sediments, ranging from the basinal to shallow-water platform facies, occur scattered around the vast region between the Adriatic Sea and the Pannonian basin. In order to correlate carbonates and clastic sediments and interpret them paleogeographically, identification of tectonic units is needed. Diversity and abundance of microfossils (representatives of the most far north Tethyan biota), larger benthic foraminifera, dasycladaceans, and bivalves in particular are considered as a tool for reconstructing shallow-water paleoenvironmental regions. Paleoenvironmental and paleobathymetric data from the investigated formations, coupled with palinspastic reconstruction, provide new insights into pre-Miocene paleogeography of the area.

The tectonic units, from north to south, made of Paleogene deposits are the following: Transdanubia and Bükk region are considered to be part of the Pannonian unit, Krappfeld area is of the Eastern Alps (ALCAPA, for the both units), localities along the Periadriatic Fault System partly belong to the Eastern Alps (those on the northern side), partly (those placed south to the line) to the Southern Alps – Dinarides, the outcrops in the southern Pannonian basin are a part of Internal Dinarides, whereas the region made of sediments deposited on the Adriatic carbonate platform belongs to External Dinarides.