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New Sr-isotope stratigraphy (SIS) age-data from the Central Paratethys

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The Central Paratethys (CPT) was formed primarily as an inland sea of the Neotethys in the early Oligocene (covering the actual Carpathian and Eastern Alpine regions). It existed with mostly normal salinity roughly until the middle Serravallian and is characterized by rather endemic biota. Therefore, regional stages were introduced in the 60-70s of the 20th century. Their correlation to the global stages based on bio-, magneto- and sequence stratigraphy is in some cases still problematic and contradictory. A direct correlation of most important CPT sites to the numerical time scale is in progress by using SIS data, which can lead to a better correlation of the CPT regional stages to the global stages. Another outcome should be a detailed comparison between the interpretations of regional stages in different countries. Results listed below are the first data of our research.

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The age of samples assigned to the basal and lower part of the Egerian CPT stage [Novaj (H), lower boundary stratotype: 24.6–24.0 Ma; Eger, Wind brickyard (H), holostratotype: 24.3–23.2 Ma; Csókás (H): 24.9–23.7 Ma; Budikovany (SK): 24.0–22.9 Ma] appeared to correspond to the late and terminal Chattian. These data are at least 2 Ma younger than expected (PILLER et al. 2007) and necessitate recorrelating the lower boundary of the Egerian within the late Chattian. SIS-data from sites with most primitive miogypsinids (whose FO defines the lower boundary of the Egerian) outside the CPT mark late Chattian, too [P. Badisco (I): 24.3–23.8 Ma; Escornebéou (F): 24.6–24.0 Ma]. The Bretka (SK) samples assigned to the upper, Miocene part of the Egerian mark 22.4–21.9 Ma (early Aquitanian).

Of the localities believed traditionally Eggenburgian the SIS-age of the Darnó Conglomerate from Szajla (H) appeared to be between 21.4 and 20.9 Ma corresponding both to late Aquitanian in accord with the newly found *Miogypsina tani* and to basal Eggenburgian in the CPT subdivision. The Coruşu (RO) sample with large pectinids marks 19.9–19.2 Ma (early Burdigalian). A younger (18.5–17.9 Ma) SIS-age (corresponding to about the Eggenburgian/Ottnangian boundary) has been obtained from the Budafok Sand from Budapest, Pacsirta Hill. Samples from the upper part of the Pétervására (Fil'akovo) Sandstone from Parád, Ilona Valley (H) and Lipovany (SK) gave even younger Sr-isotope ages (18.2–17.6 and 18.3–17.7 Ma, respectively), which correspond rather to the early Ottnangian. These data are; however, in accord with the Ottnangian character of mollusks and also with the revised (17.5–16.9 Ma) age of the overlying lower rhyolitic tuff from Ipolytarnóc (PÁLFY et al. 2007).

In the case of the Várpalota, Bánta-puszta (H) localities similar SIS-ages have been obtained from both sides of the locally assigned Ottnangian/Karpatian boundary (16.1–15.3 and 15.9–15.1 Ma, respectively) corresponding to the early Badenian and early Langhian. Similar (16.1–15.3 Ma) SIS-ages came out from the Egyházasgerge Sand from Csernely (H) and also from the schlier deposits of Cerová-Lieskové (SK) both thought to be Karpatian. The SIS-age (15.7–14.9 Ma) from the Szabó quarry in Várpalota (H) confirms the early Badenian biostratigraphic age of this site.

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