Geophysical Research Abstracts
Vol. 16, EGU2014-5259, 2014
EGU General Assembly 2014

Magnetostratigraphic data from the Pignola-Abriola section (Southern Apennines, Italy): new constraints for the Norian/Rhaetian boundary

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New magnetostratigraphic data have been obtained from the Norian/Rhaetian boundary section of Pignola-Abriola (Southern Apennines, Italy), which consists in 60 m of basinal cherty limestones. A total of 10 magnetozones have been identified and calibrated with conodont and radiolarian biostratigraphy. The Pignola-Abriola section was correlated to the Newark APTS with a statistical method under the assumption that stratigraphic depth is a linear proxy of time. The section was slid aside the Newark APTS producing a total of 19 possible correlation options that were evaluated by linear regression of the age-depth tie points. Then, a student t-test was applied to the linear regression coefficients to isolate the most reliable correlation options. According to our best correlation option, the Pignola-Abriola section covers the interval from E13r (∼217 Ma) to E20r (∼205 Ma) in the Newark APTS. The Norian/Rhaetian boundary based on the FAD of conodont *Misikella posthernsteini* and the base of the *Proparvicingula moniliformis* radiolarian Zone 1 at Pignola-Abriola (Giordano et al., 2010: Lethaia 43, 573–586) falls on the Newark APTS at ∼205.4 Ma within magnetozone E20r. The magnetostratigraphy of the Pignola-Abriola section has been successfully correlated to other Late Triassic magnetostratigraphic sections from the literature spanning the Norian/Rhaetian boundary (Steinbergkogel, Oyuklu, Brumano and Pizzo Mondello) . Our magnetostratigraphic correlation reveals an apparent discrepancy in the first appearance of conodont *M. posthernsteini* between Pignola-Abriola and Steinbergkogel/Oyuklu. However, we infer that the forms attributed to *M. posthernsteini* at Steinbergkogel/Oyuklu are more similar to what we refer to as *M. hernsteini/posthernsteini* transition at Pignola-Abriola, a solution that virtually eliminates the discrepancy. Considering the taxonomic complexity of the $M.$ *hernsteini/posthernsteini* lineage, we propose to place the Norian/Rhaetian boundary in correspondence of a marked negative shift of $d^{13}C_{org}$observed at Pignola-Abriola at ∼41.5 m (close to the FAD of *M. posthernsteini*),which, according to the correlation with the Newark APTS, would have an age of ∼205.6 Ma. According to this new definition of the Norian/Rhaetian boundary, the Rhaetian is ∼4.5 Myr-long.