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FORAMINIFERAL DIVERSITY AND TRANSGRESSIVE SYSTEMS TRACTS: THE EXAMPLE OF THE ANISIAN (PELSONIAN) OF THE WESER BASIN (NORTHERN GERMANY)

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Anisian (Pelsonian) benthic foraminifera [Hoyenella gr. sinensis (HO), Pilamminella grandis (SALAJ), Pilammina aff. densa PANTIC, etc.] have been identified in the carbonate transgressive systems tracts (TST) of two depositional sequences in the Muschelkalk of the Weser Basin (Diemel Valley section), Northern Germany. The relationship between microfaunal distribution and sequence analysis is discussed.

As already observed in other Triassic localities (Dolomites and Pyrenees), abundant microfaunas are located within the TST of the sequences, independently of the stratigraphic interval. Thus, major foraminiferal diversity appears to be related to a sea level rise, with the development, also for the Weser Basin during the Muschelkalk, of a carbonate platform facies.

The modern approach of integrating micropaleontology and sequence stratigraphy is fairly new as far as Triassic microfaunas are concerned. The data reported for the Anisian (Pelsonian) in Northern Germany, and also for the Triassic of the Dolomites and Pyrenees, will certainly lead to major and useful developments in future correlations based on micropaleontological analysis and/or sequence stratigraphy in the Middle to Upper Triassic.