

Stratigraphical significance of the Foraminiferal assemblages from the Eocene Red Clays near Barwinek, described by Rudolf Noth in 1912 (Magura Unit, Outer Carpathians)

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A rich deep-water agglutinated foraminifera assemblage (50 taxa) is documented from the Lower Eocene Red Clays of the Magura Unit, Outer Carpathians. Four localities have been sampled from the Barwinek region, which are thought to correspond to those studied by Rudolf Noth in 1912. A stream section of variegated red and green shales outcrops near Zydranowa (Poland), has been logged and extensively sampled. A further two localities of Red Clays has been sampled in stream sections near Vysny Komarnik (Slovakia), and a final outcrop of Red Clays has been sampled from a stream section close to Olchowiec (Poland). The agglutinated foraminifera recovered closely resemble assemblages of the same age in localities throughout the Outer Carpathians, and also show very close similarities to agglutinated foraminifera recovered in sections of the Lower Eocene from Gubbio (Northern Italy), the Numidian Flysch (Northern Morocco), and ODP Leg 173 (Iberia Abyssal Plain). The material under study in this report has been correlated by acmes of *Karrerulina coniformis* and *Reticulophragmium amplexans*. Magnetostratigraphy and nannofossils recovered from ODP Leg 173 are used to date these events as NP12-13 and NP15a respectively (early-middle Eocene). The agglutinated foraminifera recovered from the green shales contain a high percentage of tubular forms, and are believed to represent turbidite deposits. The red shales are considered to represent a condensed sequence, corresponding to global warming and high sea levels during the latter part of the early Eocene. The fauna recovered has also been fully documented using SEM photography.