Carnian - Norian biomagnetostatigraphy at Silická Brezová (Slovakia): correlation to other Tethyan sections and to the Newark Basin

J.E.T. Channell [*J.E.T. Channell*] (Department of Geological Sciences, University of Florida, Gainesville, FL 32611; ph. 352-392-3658; fax 352-392-9294; e-mail: jetc@ufl.edu); H.W. Kozur (Rézsü u. 83, H-1029. Budapest, Hungary); T. Sievers (Dept. Geological Sciences, University of Florida, Gainesville, FL 32611-2120); R. Mock, R. Aubrecht, M. Sykora (Dept. Geology and Paleontology, Comenius University, 84215 Bratislava, Slovakia)

Correlations of Upper Triassic magnetic stratigraphies from Tethyan sections have been hampered by difficulties with conodont biostratigraphy and taxonomy, and discontinuous sedimentation, particularly in the "Hallstatt Limestones" of Turkey and Austria. The magnetic stratigraphy and conodont biostratigraphy from the upper Carnian to upper Norian limestones exposed at Silická Brezová (Slovakia) can be correlated to other Tethyan sections and to the continental succession in the Newark Basin. The resulting correlations help to resolve some of the apparent discrepancies in existing conodont zonations, and result in a revised correlation to North American terrestrial vertebrate and palynological zones. The correlations imply that the Norian-Rhaetian boundary lies within Newark polarity zone E17r at ~207 Ma. The Carnian-Norian boundary lies close to the base of Newark polarity zone E7r at ~226 Ma. This implies durations for the Norian and Rhaetian stages of 19 Myr and 7 Myr, respectively.