

THE PALEOCENE/EOCENE-BOUNDARY INTERVAL IN TWO DEEP-SEA SECTIONS OF THE WESTERN TETHYAN REALM (EASTERN ALPS, AUSTRIA)

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In the vicinity of the town of Salzburg Paleogene deposits occur in the Rhenodanubian flysch (Anthering section) as well as in the Northern Calcareous Alps (Untersberg section). The sediments of the Anthering section were deposited below the calcite compensation depth, however, the turbidites contain well preserved calcareous nannoplankton which is useful for biostratigraphy. In this section the negative ^{13}C isotope excursion coincides with an extinction event of agglutinating foraminifera, with a bloom of diatoms and an acme of the dinoflagellate genus *Apectodinium* which is coeval with the range of *Apectodinium augustum*. In this part of the section intensive carbonate dissolution in the source area of the turbidites can be implied from a large number of reworked Cretaceous species within the turbidites and from an increased number of species less prone to carbonate dissolution. Up to now carbonate dissolution was observed in many deep-sea sections, e.g. from Zumaya where 3m of red claystone were deposited at that time. In the Untersberg section 3.5m of green and red claystone is intercalated in grey marlstones. The latter display average carbonate contents of 50%. The lower contact between marlstones and claystones is sharp whereas the upper contact is gradual. The rate of sedimentation is estimated as 3cmky⁻¹ for the marlstone as 1.5cmky⁻¹ for the claystone. Consequently, the duration of the episode of carbonate dissolution can be calculated as 230ky.