Foraminiferal biostratigraphy and ecology of the Coniacian/Santonian boundary at the Stöckelwaldgraben section (Northern Calcareous Alps)

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The Coniacian/Santonian boundary is represented in the Austrian Stöckelwaldgraben section (Streiteck- and Grabenbach formations, Gosau-Group, Upper Cretaceous). This section exposes grey marls with frequent tempestite events throughout the section. The Stöckelwaldgraben section was located on the southern margin of the Penninic Ocean and represents a shelf environment. The late Coniacian to early Santonian are covered by the *Dicarinella concavata* and *Dicarinella asymetrica* planktic foraminifera zones. The boundary is marked by the first occurrence of *Sigalia carpatica* and the first occurrence of *Dicarinella asymetrica*. The primary marker, the inoceramid *Platyceramus undulatoplicatus*, which is defined by the GSSP (Global Stratotype Section and Point), could not be found in this outcrop as well as the ammonite genus *Texanites*. The rise in abundance and diversity of benthic foraminifera suggests a gradual sea-level shift from a shallow marine to a neritic environment. In the Coniacian samples, planktic foraminifera were scarcely found but large sized miliolids were plenty. The overall diversity of benthic foraminifera was very low. This suggests very shallow marine conditions. The content of planktonic foraminifera was gradually increasing up to 40 % in the Santonian, where the planktic foraminiferal fauna was predominantly represented by large sized marginotruncanids, biserial planktics, dicarinellids and archeoglobigerinids. The preservation state of the microfossils recovered is ranging from moderate to well preserved except for high-magnesium calcite tests of miliolids. The latter show signs of decalcification and pyrite infillings.