

## Ammonite stratigraphy of the Santonian (Upper Cretaceous) in the type area of the Gosau Group (Northern Calcareous Alps, Austria)

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In the Gosau area (Gosau/Upper Austria/ Russbach/Salzburg) the *Placenticerias polyopsis* Zone (Santonian) can locally be subdivided by ammonite assemblages into three subzones.

### A) *Eulophoceras natalense* Subzone (early Santonian).

*Eulophoceras natalense* appears in the basal Santonian together with *Nowakites savini*, *Texanites quinquenodosus* and *Cladoceras undulatoplicatus*. “*Hemitissotia randoi*” Gerth 1961 frequent in the basal Santonian is the juvenile stage of *Eulophoceras natalense*, and is its synonym. *Texanites quinquenodosus* extends through the early and middle Santonian until about 20 m below the occurrence of the Late Santonian *Placenticerias paraplanum*.

### B) *Muniericeras gosauicum* Subzone (middle Santonian).

*Muniericeras gosauicum* occurs abundantly together with *Texanites quinquenodosus*, *Parapuzosia corbarica* and baculitids in the Randobach area (Russbach, Salzburg).

### C) *Placenticerias paraplanum* Subzone (late Santonian).

*Placenticerias paraplanum* occurs together with abundant *Placenticerias polyopsis*, *Boehmoceras arculus* and *Boehmoceras krekeleñi* and *Eulophoceras jacobii* and *Diaziceras austriacum*. *Reginaites* is the only representative of the Texanitidae. The highest ammonite occurring in the Schattau section (Russbach, Salzburg) is *Texasia dentatocarinata* which seems to be already close to the base of the Campanian. Also indicative for the late Santonian is *Marsupites laevigatus*. *Cordiceras muelleri muelleri* and *Sphenoceras* ex gr. *pachti/cardissoides* occur in a remarkable cluster of articulated specimens in the late Santonian. In a local mass occurrence of *Micraster coranguinum rostratus* the planktic foraminifera *Globostruncanita elevata* and *Globostruncanita stuartiformis* have their first (local) appearance. *Dicarinella asymetrica* is still present up to the top of the Schattau section, indicating the *asymetrica* total range zone or the *asymetrica-elevata* concurrent range zone according to planktic foraminiferal zonations. Nannofossils give evidence for nannofossil standard zones CC17 and UC12–13.