

**LOEFFLER, S.-B. *Tübingen* - Molluscs of the Lower Oligocene "Zementmergel Formation" (Lower Inn Valley, Tyrol) - possibilities of palaeoclimatic and -ecologic reconstructions.**

The studies are part of the Collaborative Research Initiative (SFB 275) of the Faculty of Geosciences at the University of Tuebingen. They concern the investigation of the Lower Oligocene "Zementmergel Formation" of the Lower Inn Valley (Tyrol, Austria) with respect to palaeoecologic and palaeoclimatic reconstructions. A detailed study of the molluscs including a taxonomic revision of this fauna, which was historically described shows a mixture of at least two different faunal associations: an autochthonous soft bottomed deeper water fauna as well as an allochthonous shallow water fauna, swept into the basin. The fauna already shows the beginning of the developing paratethyal fauna. First measurements of oxygen isotopes on calcitic shelled pectinids show values between -3,56 and -1,00 promille. However the diagenetic transformation is probably a factor which is not to undervalued, as REM- and cathodoluminescence analyses show.