

Inoceramids and calcareous nanoplankton at the lower and middle Coniacian substage boundary in the Bohemian Cretaceous Basin

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Coniacian deposits fill the central part of the Bohemian Cretaceous Basin (BCB). Thus the study of an extensive Coniacian succession is possible only in boreholes. There are several thousand boreholes in the BCB, but only part of them is well documented by macrofauna and nannoflora. Among inoceramids, the genus *Cremnoceramus* dominates the lower Coniacian whereas in the younger Coniacian strata inoceramids of the genera *Platyceramus* and *Volviceramus* prevail. The turnover interval, from the *Cremnoceramus*- to *Platyceramus*-*Volviceramus*-dominated parts of the succession, is characterized by a distinct acme of the *Inoceramus frechi*, the species described earlier from surface outcrops of the BCB as *Inoceramus kleini* (ANDERT, 1934, ČECH & ŠVÁBENICKÁ, 1992). The species appears just above *Cremnoceramus crassus crassus* Zone, at the base of so called Emscher Marl (Březno Formation). The first occurrence of *I. frechi* defines the base of the *I. frechi* Zone. This zone with a thickness of approximately 10 m was recognized in boreholes and outcrops throughout the BCB and in the Czech part of the Nysa Kłodzka Graben. At the base of the *I. frechi* Zone the nanoplankton species *Micula staurophora* and the acme of the benthic foraminifer *Steinsioeina granulata* appear. This assemblage may serve as a good marker for the base of the middle Coniacian since the ammonites are very scarce in this interval.

ANDERT, H., 1934. Abh. Preuss. Geol. Landesanst. NF, **159**, 7–477.

ČECH, S. & ŠVÁBENICKÁ, L., 1992. Věst. Čes. geol. úst., **67/5**, 311–326.