

## UPPER CRETACEOUS NAUTILOIDS FROM NORTHERN CANTABRIA, SPAIN

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From 1991 to 1997, the Berlin Cretaceous Working Group studied the Upper Cretaceous succession in northern Cantabria (Spain). During fieldwork, numerous nautiloids were collected, but, due to their limited stratigraphic and palaeoecologic significance, these cephalopods were hitherto almost completely ignored. Now, the stratigraphy and sedimentary dynamics of the Upper Cretaceous sequences in the North Cantabrian Basin (NCB) are well understood (e.g. WIESE & WILMSEN, 1999). Therefore, nearly forty years after the last synoptic work on Cretaceous Nautiloidea from Spain (WIEDMANN 1960), the taxonomy of the nautiloids and their distribution patterns within the depositional environment are currently studied, and some preliminary results are presented here.

For taxonomic analysis, the shape of the suture is considered the most important feature. The form of the shell and location of the siphuncle are also of significance. Based on these criteria, the Cantabrian nautiloids can be referred to the genera *Eutrephoceras* HYATT, 1894 and *Angulithes* MONTFORT, 1808.

During the Late Cretaceous, the NCB was situated at the northern margin of the Iberian microplate forming a narrow, E/W elongated basin in which a variable, ca.

1000 m thick series of marine, predominantly calcareous sediments accumulated. It can be shown that the nautiloids do not occur scattered throughout the succession. Instead, their occurrences are often associated with intervals indicating reduced net-accumulation (condensation and/or transgressive reworking). Nautiloids are especially abundant in the condensed horizons on top of the submerged Altamira carbonate platform (Middle to Late Cenomanian, WILMSEN 1997). Here, adult representatives of the genus *Angulithes* (e.g. fig. 1) predominate and their numbers increase towards the more proximal areas whereas contemporaneous basinal marls are nearly devoid of nautiloids and dominated by ammonite faunas. Another example is presented by a terminal Santonian unconformity which, again, is characterized by abundant nautiloids. Further investigations may provide information on the relationship between nautiloid and ammonite occurrences in the NCB.

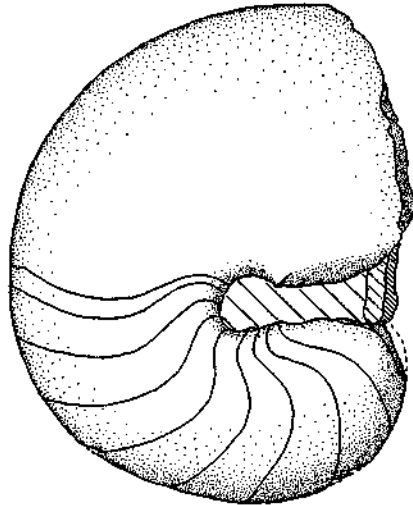


Fig. 1: *Angulithes* cf. *triangularis* (MONTFORT, 1808), Upper Cenomanian of Tagle, lateral view (x 0.5).