

BIOSTRATIGRAPHY OF THE JURASSIC STRATA IN THE DUTCH CENTRAL NORTH SEA GRABEN

Extended Abstract

G. F. W. Herngreen, Th. Lissenberg and L. J. Witte

Geological Survey of The Netherlands, P.O. Box 157, 2000 AD Haarlem, The Netherlands

This contribution presents an extended abstract intended for the proceedings of the symposium: The Jurassic in the southern Central Graben, Hørsholm (Denmark) June 15–16, 1989. The full text entitled "Dinoflagellate, sporomorph, and micropaleontological zonation of Callovian to Ryazanian strata in the Central North Sea Graben, The Netherlands" has been published in the proceedings of the 2nd International Symposium on Jurassic Stratigraphy, Lisbon 1989, p. 745–762.

The palynomorph zonation schemes are based on cored material. Twelve dinoflagellate zones are defined by the extinction datum (top-occurrence) of the nominate species. In general, this zonation can be correlated with information from the British Isles. In the southern part of the Central Graben fewer marine intervals occur, and dating and comparison are based mainly on sporomorphs. The limits of the six sporomorph zones are less precisely known than those of the dinoflagellate zones. Some major boundaries in the sporomorph scheme could be accurately dated with dinoflagellates in marine incursions. The upper boundary of the sporomorph zones is also defined by the first appearance downhole of the eponymous species. One of the most striking conclusions drawn is that genera

such as *Cicatricosisporites*, the *Concavissimisporites/Impardecispora* plexus, *Trilobosporites*, and *Pilosisorites* occur in what are sometimes much older strata than is generally accepted in the palynological literature.

Ostracods and foraminifera of the Central Graben formations show little correspondence with those described from equally old strata in England or continental Europe. Marine intercalations provided the framework in which faunas from restricted marine or non-marine environments could be placed. With few exceptions, ostracods are the characteristic elements of the assemblages, and biozonation is mainly based on this microfossil group. Within the Central Graben area, relatively minor local variations in depositional environments gave rise to distinct microfaunal communities. As a result some of the assemblages have coincident ranges. The eleven micropaleontologic assemblages are based on ditch cuttings, and by consequence total ranges are not always precisely known. The typical *Cypriidea* assemblages that are of common occurrence in the transitional Jurassic-Cretaceous fresh to brackish water deposits in all parts of the world, are not present.