



Albian dinoflagellate cysts of the Gault Clay at Copt Point, Folkestone, South-East England

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An integrated study has been carried out on samples collected from the type section of the Gault Clay at Copt Point near Folkestone, Kent. The Gault is a fossiliferous clay with exceptional preservation, deposited in a shallow marine environment, at a depth of ~60m, during high sea-levels and a period of global warmth. The dinoflagellate cyst biostratigraphic record has been correlated against the standard reference bed numbers (I-XIII) of Owen (1971, 1976), and constrained using ammonite zones, providing the stratigraphical framework.

A range of data was collected from a detailed 10m section that gives evidence to suggest a significant palaeoclimatic/palaeotemperature shift at the Mid-/Late Albian boundary. This has been backed up using geochemical, nannofossil and macrofossil data.

The primary evidence of a major warming event that commenced around the Mid-/Late Albian boundary comes from oxygen isotope ($\delta^{18}O$) data measured on bulk Gault Clay material that was subsequently correlated with quantitative nannofossil and available macrofossil data. The first results from semi-quantitative palynofacies and dinoflagellate investigations are presented in this contribution.

References cited:

Owen, H.G. (1971) Middle Albian stratigraphy in the Anglo-Paris Basin. Bulletin of the British Museum (Natural History) Geology, supplement 8, 164pp.

Owen, H.G. (1976) The stratigraphy of the Gault and Upper Greensand of the Weald. Proceedings of the Geologists' Association, 86 (4), 475 - 498.