
Harwich

[TM 263 320]

Introduction

The stretch of coast between Beacon Cliff and The Guard at Harwich, Essex, exposes plant-bearing deposits in division A1 of the London Clay Formation (King, 1981), yielding the stratigraphically oldest plant fossils from the Thames Group in the London Basin. There is no detailed published account of the flora here, the only records in the literature being by Elliott (1970), Brett (1972) and Collinson (1983b).

Description

Stratigraphy

Elliott (1970) has described the geology along this stretch of coast (see also Daley in Daley and Balson, 1999, p.61). The plant-bearing beds consist of clayey silts associated with ash bands. These ash bands allow the plant beds to be accurately positioned within the lowest division of the Thames Group (division A1 of the London Clay of King, 1981) and hence they fall in the Palaeocene–Eocene transitional interval (see 'Stratigraphical Background' earlier in this chapter). The plant fossils can be extracted from the plant bed when it is exposed. However, collecting is easier from loose material on the foreshore, which has been washed out of the plant bed.

Palaeobotany

Collinson (1983b) mentions that nine species have been found here, but only two were specifically named: *Platycarya richardsonii* (Bowerbank) Chandler (walnut family) and *Vitis magnisperma* Chandler (grape family). The fossils are mostly preserved as pyrite petrifications. Chesters (reported by Elliott, 1970) also recorded the presence of possible examples of *Anonaspermum*, *Cinnamomum*, *Dunstania*, *Langtonia/Mastixia* and *Sapindospermum*, but the preservation was insufficient to establish species.

Brett (1972) described fossil wood from here as *Platanus*, which was very similar to the trunk wood of modern *Platanus*. Also described was possible root wood, under the name *Plataninium*.

Interpretation

The plant beds at Harwich are associated with volcanic ash bands that can be traced throughout the London Basin (Elliott, 1971). This allows them to be placed confidently in what King (1981) called the A1 division of the London Clay Formation.

The full list of species occurring here has yet to be published but the flora is similar to that of the overlying Eocene London Clay (Collinson, pers. obs.). In the absence of a full list of taxa found here, it is impossible to give a detailed comparative analysis for this site. However, its low stratigraphical position relative to the classic London Clay plant fossil sites makes it a site of considerable research potential.

Conclusions

Coastal exposures at Harwich have yielded the only flora from division A1 of the London Clay, in association with stratigraphically important ash bands. It is the oldest known flora from the Thames Group in the London Basin, some 50 Ma old, and has considerable research potential.

[References](#)