

County: Dorset **Site Name:** Poole Bay Cliffs

District: Poole and Bournemouth

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981, as amended.

Local Planning Authority: Dorset County Council, Poole Borough, Bournemouth Borough

National Grid Reference: SZ 058891 to SZ 138913

Area: 11.48 (ha) 28.35 (ac)

Ordnance Survey Sheet 1:50,000: 195

1:10,000: SZ 19 SW, SX 09 SE, SZ 08 NE

Date Notified (Under 1949 Act): – **Date of Last Revision:** –

Date Notified (Under 1981 Act): 1989 **Date of Last Revision:** –

Other Information:

New site. A Geological Conservation Review site.

Description and Reasons for Notification:

The western cliffs present sections in the Bournemouth Freshwater Beds which provide an unparalleled opportunity for the sedimentologist to study the point-bar and channel-plug deposits of large meandering river systems. The beds are of early to mid-Eocene age and have yielded a diverse fossil flora. Eastwards they pass laterally into the very different shallow marine and offshore sediments of the Isle of Wight, and are therefore important in the palaeographic reconstruction of the Hampshire Basin.

The lateral passage from the Bournemouth Freshwater Beds to the Bournemouth Marine Beds involves a highly deformed channel bank-collapse complex.

The eastern cliffs show unique exposures of the Bournemouth Marine Beds and of the Boscombe Sands of mid-Eocene age. These formations display probably the best examples of meso-tidal estuarine sedimentation in the British Eocene, and contain numerous features of interest to the sedimentologist. In the past they have yielded a very diverse fossil tropical flora.

Sections of the cliffs support heath vegetation with heather *Calluna vulgaris*, bell heather *Erica cinerea*, bristle bent *Agrostis curtisii* and dwarf gorse *Ulex minor*. Some areas of exposed sands support dune-like vegetation with marram *Ammophila arenaria*, lyme-grass *Leymus arenarius* and other characteristic species. The site supports at least 2

important populations of the rare and declining sand lizard *Lacerta agilis**, these being associated with certain areas of suitable habitat.

There are also local seepage features, in places supporting common reed *Phragmites australis* and purple moor-grass *Molinia caerulea*. The specialised invertebrate fauna of these seepages includes several rare species such as the shore bug *Saldula arenicola* and the fly *Cephalops chlorinae* the latter being recorded from only one other locality in Britain.

* This species is listed on Schedule 5 of the Wildlife and Countryside Act 1981.