

ISLE OF WIGHT**BEMBRIDGE DOWN SSSI**

Status: Site of special scientific interest (sssi) notified Under Section 28 of the wildlife and Countryside Act 1981

LOCAL PLANNING AUTHORITIES: Isle of Wight County Council, South Wight Borough Council

NATIONAL GRID REFERENCE: SZ 628856

HECTARES/ACRES: 56.25/139.0

ORDNANCE SURVEY SHEETS: 1:50,000: 196

1:25,000: SZ 68

DATE NOTIFIED (1949 ACT): 1951

DATE OF LAST REVISION: 1971

DATE NOTIFIED (1981 ACT): 1984

DATE OF LAST REVISION: –

OTHER INFORMATION: The culver cliff headland is a National Trust property; most of the remainder is owned by South Wight Borough Council

REASONS FOR NOTIFICATION:

This site includes the 85m vertical face of Culver Cliff which forms the eastern-most limit of the chalk ridge on the Isle of Wight. To the east and south of the chalk ridge a geologically important, continuous succession from the Wealden Beds to the Upper Greensand occurs in the cliff section. This includes the entire Cretaceous succession found on the Isle of Wight.

The chalk cliffs support a breeding colony of Herring Gulls *Larus argentatus* and a small number of breeding shags *Phalacrocorax aristofelis*. Peregrine Falcons *Falco peregrinus* also bred regularly on these cliffs until the late 1950's.

The terrestrial, cliff top grassland is composed mainly of species-rich chalk grassland. This contains locally abundant Bee Orchids *Ophrys apifera*, Pyramidal Orchids *Anacamptis pyramidalis* and the rare Early Gentian *Gentianella anglica*. Yellow Horned Poppy *Glaucium flavum* also occurs along the cliff edge. At the junction between chalk and Upper Greensand the grassland becomes more neutral in character. Here the rare Purple Broomrape *Orobancha purpurea* is commonly found on the cliff top as well as Portland Spurge *Euphorbia portlandica* on the cliff face, in its only Isle of Wight locality. Still further east a dry sandy grassland has developed on the Lower Greensand where Subterranean Trefoil *Trifolium subterraneum* and Sand Sedge *Carex arenaria* are important components of the vegetation.

The geological importance of the site resides in two sections of cliff; the Red Cliff, Yaverland; and the Culver headland (the White cliff). The former contains exposures from the Wealden Group through to the Chalk, and the latter contains exposures of the upper part of the Chalk.

The Yaverland – Red Cliff site provides a complete section through the Wealden Group, Gault and Upper Greensand, together with the basal part of the Chalk. The Wealden Group, exposed at Yaverland, has been known as a source of large fossil dinosaur bones since 1829, and 11 genera of turtles, crocodiles, dinosaurs and plesiosaurs have been described. The most important find has been the typespecimen of the dinosaur *Yaverlandia bitholus*, the oldest known pachycephalosaur in the world belonging to a group of dinosaurs best known from the last Cretaceous rocks of North America and Mongolia. Yaverland is an important dinosaur site with good potential for future finds.

A complete sequence through the lower Greensand Group is exposed in Red Cliff and the section is vital in completing the group of four exposures that demonstrate in full the stratigraphy of the Lower Greensand on the Isle of Wight. The Atherfield Clay here is an important source of ammonites. Red Cliff is a key palaeontological and stratigraphic locality.

Whitecliff is an important and well-exposed locality cut in steeply-dipping Chalk belonging to the Coniacian, Santonian and Campanian Stages. This is one of the few British Chalk sites which provides exposures well into the Campanian Stage and is of great research interest because of this and the near-complete accessibility of the whole sequence. The site is six closely-spaced mineralised hardgrounds which are typical of the condensed sequence seen in the Chalk of the eastern Isle of Wight.