

SITE NOTIFIED TO THE SECRETARY OF STATE ON 26 NOVEMBER 1986

COUNTY: DORSET                      SITE NAME: STUDLAND CLIFFS

DISTRICT: PURBECK

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

Local Planning Authority: PURBECK DISTRICT COUNCIL, Dorset County Council

National Grid Reference: SZ 038828 to SZ 048813    Area: 18.3 (ha.) 45.2 (ac.)

Ordnance Survey Sheet 1:50,000: 195                      1:10,000: SZ 08 SW

Date Notified (Under 1949 Act): 1970 and 1954    Date of Last Revision: 1977

Date Notified (Under 1981 Act): 1986                      Date of Last Revision: –

Other Information:

Site formerly known as Studland Bay Cliffs SSSI. Includes part of previously scheduled Ballard Down and Cliffs SSSI.

Site is part of the Dorset Heritage Coast and lies within an Area of Outstanding Natural Beauty. Boundary amended by extension and deletion.

Description and Reasons for Notification:

An outstanding stratigraphic and structural site of national importance, the strike and dip cliff section displays unequalled exposures of mid-Campanian Chalk, especially important for palaeontological studies. To the south the Upper Chalk is separated from the Lower and Middle Chalk by the spectacular Ballard Down Fault.

This site is the best exposure, west of Alum Bay, to show the Chalk–Tertiary unconformity, and a relatively complete Palaeocene and lower Eocene succession. The bay provides important sedimentological data and enables palaeogeographic reconstruction of the western part of the Hampshire Basin during the deposition of the Reading Beds – ‘Redend Sandstone’ interval.

These coastal rock outcrops provide an outstanding cross section through the Purbeck Monocline, part of a belt of crustal flexures running through South Dorset and the Isle of Wight, one of the most important geological structures in southern England. The Ballard Down fault is exposed 300 metres north of Ballard point, cutting through the fold and juxtaposing nearly vertical Chalk to the south against nearly horizontal Chalk to the north. At Redend Point, horizontal Eocene sands overlying the Chalk are cut by sets of small faults which reflect compression associated with the formation of the Purbeck Monocline.

Ballard Down is a key site for coastal geomorphology. It includes a series of predominantly chalk cliffs, platforms and associated beaches, best known for the classic assemblage of stacks, arches and caves at Handfast Point. The site is also important for revealing not only the relationships between local bedrock structures and coastal form, but also the effects of

different wave dynamics on the north and south sides of the peninsula respectively. Ballard Down is the most sheltered of the major chalk cliff systems and so forms a key element of the suite of chalk cliff sites.

The site includes a strip of maritime, cliff-top grassland, dominated in places by Red Fescue *Festuca rubra*. There are many associated herbs including Kidney Vetch *Anthyllis vulneraria*, Wild Carrot *Daucus carota* and a good population of the local Wild Cabbage *Brassica oleracea*. Dense scrub covers the less steep cliffs in the north west of the site. The adjoining Studland Wood has an almost pure Hazel *Corylus avellana* canopy with occasional mature Field Maple *Acer campestre*, over a ground flora dominated by Ramsons *Allium ursinum* and Dogs Mercury *Mercurialis perennis*. Mature Spindle *Euonymus europaeus* and Dogwood *Cornus sanguinea* are frequent as fringing scrub. The wood has a rich invertebrate fauna with a number of uncommon species. These include the beetles *Grynobius excavatus*, *Ptinomorphus imperialis* and *Caulotrupodes aeneopiceus* in dead wood on the old Field Maple. The rare ant *Stenamma westwoodi* and the local Jet Ant *Lasius fuliginosus* also occur.

The cliffs are important for birds with several species nesting including one of three sites in Dorset for Cormorant *Phalacrocorax carbo* and an unusual cliff locality for House Martin *Delichon urbica*.