

Notified to the Secretary of State 28 March 1996

County: Dorset **Site Name:** Pentridge Down

District: East Dorset

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

Local Planning Authority: East Dorset District Council, Dorset County Council

National Grid Reference: SU 040173 **Area:** 77.59 (ha) 191.65 (ac)

Ordnance Survey Sheet 1:50,000: 195, 184

1:10,000: SU 01 NW, ST 91 SE

Date Notified (Under 1981 Act): March 1996

Date of Last Revision: –

Description and Reasons for Notification:

Pentridge Down is the largest surviving area of unimproved chalk downland in eastern Dorset lying midway between Blandford and Salisbury, close to Martin Down NNR. The smaller outliers such as Oakley Down and Blackbush Down are relicts of a once continuous tract of downland, the majority of which has been lost to forestry and arable agriculture.

The downland lies on chalk supporting free draining silty loams rising from 61 metres on the Ackling Dyke to 185 metres at the Iron Age hill fort on Penbury Knoll. The summit of Pentridge Hill is capped with Reading Beds consisting of sands, clays and clay-with-flints supporting dry acid grassland on free-draining sandy soils. Downwash from the Tertiary deposits has created a series of sandy stripes supporting acid grassland which overly the chalk on the steep slopes below the plateau. The site is rich in archaeological remains, notably of the later prehistoric and Roman periods.

The chalk flora is of a high quality and is distinguished by the abundance of the nationally scarce dwarf sedge *Carex humilis*, present in one of its largest populations in Dorset. Two distinct communities have developed in response to contrasting levels of grazing across the site. The richest downland is present where stock grazing has suppressed the growth of grasses to produce and maintain a short sward. This community is characterised by the high diversity and abundance of herbs such as wild thyme *Thymus polytrichus*, squinancywort *Asperula cynanchia*, hairy violet *Viola hirta*, horseshoe vetch *Hippocrepis comosa*, salad burnet *Sanguisorba minor* and autumn gentian *Gentianella amarella*. Less frequent are frog orchid *Coeloglossum viride*, fragrant orchid

Gymnadenia conopsea, chalk milkwort *Polygala calcarea* and kidney vetch *Anthyllis vulneraria* and the nationally scarce bastard-toadflax *Thesium humifusum* and endemic spring gentian *Gentianella anglica*¹. Grasses and sedges present in the short turf include quaking-grass *Briza media*, smaller cat's-tail *Phleum bertolonii*, sheep's fescue *Festuca ovina*, meadow oat-grass *Helictotrichon pratensis* and glaucous sedge *Carex flacca*.

A tall grassy sward is present where grazing levels are low and this is characterised by the prominence of upright brome *Bromopsis erecta*, sheep's fescue, red fescue *Festuca rubra* and downy oat-grass *Helictotrichon pubescens*. Tall herbs able to compete with the grasses are abundant, such as dropwort *Filipendula vulgaris*, small scabious *Scabiosa columbaria*, burnet-saxifrage *Pimpinella saxifraga*, fairy flax *Linum catharticum* and lady's bedstraw *Galium verum*. Herbs with spreading rosettes that are frequent in the short turf are able to persist in the overtopping sward and include primrose *Primula vulgaris*, dwarf thistle *Cirsium acaule* and hoary plantain *Plantago media*. This community is very scarce in Dorset, being restricted to two sites in the county.

A diverse chalk scrub is locally prominent containing buckthorn *Rhamnus catharticus*, wild privet *Ligustrum vulgare*, wayfaring tree *Viburnum lantana* and spindle *Euonymus europeaus* together with juniper *Juniperus communis* in one of only three extant populations in Dorset, all of which are declining. Yew woodland, an unusual feature in Dorset is present on Blackbush Down.

Dry acid grassland is present on the free-draining sandy soils overlying the highest ground on Pentridge Hill and on the stripes of Tertiary downwash. The juxtaposition of acid and chalk grassland is an unusual feature and particularly well developed on Pentridge Hill. The short, grazed sward is dominated by grasses such as common bent *Agrostis capillaris*, silver hair-grass *Aira caryophyllea*, heath-grass *Danthonia decumbens* and sheep's fescue. Scattered throughout the sward are small herbs such as heath bedstraw *Galium saxatile*, sheep's sorrel *Rumex acetosella*, tormentil *Potentilla erecta* and harebell *Campanula rotundifolia*. The presence of heather *Calluna vulgaris* is indicative of the chalk heath that was once widespread on the Tertiary deposits over Pentridge Hill and elsewhere.

The nationally rare and protected fairy shrimp *Chirocephalus diaphanus*² occurs in its only Dorset locality in two temporary pools on Pentridge Hill where the clay capping has created pockets of impeded drainage. The nationally scarce adonis blue *Lysandra bellargus* is present on the Ackling Dyke and Oakley Down and hobby *Falco subbuteo* regularly hunts over the site.

- ¹ Species listed on Annex 2 of European Habitats and Species Directive.
- ² Listed on Schedule 5 of the Wildlife and Countryside Act 1981.