

COUNTY: DORSET SITE NAME: BRACKET'S COPPICE AND
RYEWATER FARM

DISTRICT: WEST DORSET

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

Local Planning Authority: WEST DORSET DISTRICT COUNCIL, Dorset
County Council

National Grid Reference: ST 517073 Area: 53.67 (ha.) 132.62 (ac.)

Ordnance Survey Sheet 1:50,000: 194 1:10,000: ST 50 NW

Date Notified (Under 1949 Act): 1977

Dates Notified (Under 1981 Act): 1984, July 1997

Other Information:

The site boundary has been amended by extensions and contains a Geological
Conservation Review Site.

Description and Reasons for Notification:

Bracket's Coppice and Ryewater Farm lie 2 km north of Corscombe in the vales
of West Dorset and comprise oak and ash woodland, wooded stream valleys,
herb rich grassland and fen-meadow with a diverse fauna. Jurassic clays and
limestones underlie the site and nodular limestone is exposed where fast flowing
streams have cut deep gulleys through the drift and clay. A Geological
Conservation Review Site is present where fossil rich exposures of Jurassic
clays and sandy limestones are present in the stream banks. In addition a tufa
deposit is present in Redland Coppice and Bracket's Coppice contains traces of
Tertiary silcrete deposits as Sarsen Stones. The soils range from seasonally
waterlogged clay loams to well drained brashy calcareous soils over limestone
and the site covers an altitudinal range of 75–115 m.

Biological interest

Wooded stream valleys to the south and west of Bracket's Coppice support ash
woodland on free draining calcareous soils over limestone. Oak, downy birch and
alder are also prominent over an understorey of hazel coppice, holly and maple.
The diverse ground flora has abundant false brome *Brachypodium sylvaticum*,
pendulous sedge *Carex pendula*, dog's mercury *Mercurialis perennis* and
enchanter's-nightshade *Circaea lutetiana* with scattered wood-sorrel *Oxalis
acetosella*, wood avens *Geum urbanum* and tufted hair-grass *Deschampsia
cespitosa*. The local green helleborine *Helleborus viridis* and alternate-leaved
golden-saxifrage *Chrysplenium alternifolium* are present and the abundance of
ferns and mosses on soil and exposed limestone are indicative of the sheltered
oceanic conditions. Soft shield-fern *Polystichum setiferum*, lady fern *Athyrium
felix-femina*, hart's tongue *Phyllitis scolopendrium* and broad buckler-fern

Dryopteris dilatata are all abundant together with the mosses *Thamnobryum alopecurum* and *Atrichum undulatum*. Streamside rocks support the Nationally Scarce moss *Rhynchostegiella curviseta* and the local moss *Hygrohypnum luridumare*. The mosses *Mnium stellare* and *Campylium stellatum* var *protensum*, which are scarce within the county of Dorset are present in the wood. The epiphytes, common polypody *Polypodium vulgare* and intermediate polypody *Polypodium interjectum* flourish in the sheltered, humid conditions within the stream valleys. Sunny streamside glades support a mixture of tall herbs and grasses such as hemlock water-dropwort *Oenanthe crocata*, giant fescue *Festuca gigantea* and water figwort *Scrophularia aquatica*.

Seasonally waterlogged soils away from the steeper slopes of the valley support pedunculate oak woodland over hazel coppice with silver birch, holly and hawthorn. The ground flora is a mosaic of communities dominated by one of ivy *Hedera helix*, bluebell *Hyacinthoides non-scripta* or pendulous sedge with scattered wood sedge *Carex sylvatica*, male fern *Dryopteris felix-mas*, barren strawberry *Potentilla sterilis*, common dog-violet *Viola riviniana* and yellow archangel *Lamiastrum galeobdolon*. Three local species present are greater butterfly orchid *Plantathera chlorantha*, bird's-nest orchid *Neottia nidus-avis* and slender sedge *Carex lasiocarpa*.

Bracket's Coppice contains an important fungal flora with over 350 species recorded, many restricted to ancient woodland including the rare agarics *Cortinarius lividus* and *Cortinarius subpurpurascens* and the rare bolete *Uloporus lividus*.

The site contains a variety of topography, soil depth and moisture supporting a diverse range of juxtaposed grassland and mire communities. Neutral, loamy soils support a grassland community typical of traditional hay meadows and pasture overlying the clay vales in West Dorset. Fine grasses are characteristic and abundant such as red fescue *Festuca rubra*, sheep's fescue *Festuca ovina*, crested dog's-tail *Cynosurus cristatus* and sweet vernal grass *Anthoxanthum odoratum*. Abundant herbs are bird's-foot trefoil *Lotus corniculatus*, common knapweed *Centaurea nigra* and oxeye daisy *Leucanthemum vulgare*. Scattered throughout the sward are herbs such as dyer's greenweed *Genista tinctoria*, pepper saxifrage *Silaum silaus*, meadow buttercup *Ranunculus acris* and the local corky-fruited water-dropwort *Oenanthe pimpinelloides* whilst the fern, adder's tongue *Ophioglossum vulgatum* is rare. A variant of this community is present on more acidic soils where grasses such as common bent *Agrostis capillaris* and heath-grass *Danthonia decumbens* are prominent together with herbs such as tormentil *Potentilla erecta*, saw-wort *Serratula tinctoria*, devil's-bit scabious *Succissa pratensis* and betony *Stachys sylvatica*.

Moister soils and flushes support rush pasture characterised by the dominance of rushes and sedges such as sharp-flowered rush *Juncus acutiflorus*, compact rush *Juncos conglomeratus*, hairy sedge *Carex hirta* and common sedge *Carex nigra*. Tall herbs are prominent and include meadowsweet *Filipendula ulmaria*, marsh thistle *Cirsium palustre*, fleabane *Pulicaria dysenterica* and ragged robin *Lychnis flos-cuculi*. Peaty mineral soils support fen meadow comprising tall

tussocks of purple moor grass *Molinia careulea* and tufted hair-grass interspersed with herbs characteristic of this community such as meadow thistle *Cirsium dissectum*, bugle *Ajuga reptans*, lousewort *Pedicularis sylvatica* and greater bird's-foot-trefoil *Lotus uliginosus*. Zig-zag clover *Trifolium medium*, betony and marsh stitchwort *Galium palustre* are locally abundant. Further habitat diversity within the grasslands is provided by gorse *Ulex europaea*, bramble *Rubus fruticosus* and blackthorn *Prunus spinosa* scrub and species rich hedges provide valuable habitat for birds and invertebrates.

The woodland supports the rare and protected dormouse *Muscardinus avellanarius* and several bats have been recorded within the wood, namely grey long-eared bat *Plecotus austriacus*, brown long-eared bat *Plecotus auritus*, whiskered bat *Myotis mystacinus* and Natterer's bat *Myotis nattereri* all of which are protected.

The woodland supports a diverse breeding bird community typical of western oak woods and includes lesser-spotted woodpecker *Dendrocopus minor*, buzzard *Buteo buteo*, wood warbler *Phylloscopus sibilatrix*, mistle thrush *Turdus miscivorus* and nuthatch *Sitta europaea*. Occasional breeding species are pied flycatcher *Ficedula hypoleuca*, redstart *Phoenicurus phoenicurus* and spotted flycatcher *Muscicarpa striata*. Three local species breed in the stream valley namely grey wagtail *Motacilla cinerea*, dipper *Cinclus cinclus* and kingfisher *Alcedo atthis*.

The range and intimacy of the grassland, fen-meadows, woodland and streams supports a rich and diverse invertebrate fauna, many of the species being rare or scarce and restricted to ancient woodlands and old pasture.

A rich and diverse butterfly fauna is present throughout the site. Three local species, silver-washed fritillary *Argynnis paphia*, white admiral *Ladoga camilla* and purple hairstreak *Quercusia quercus* are present within the oak wood whilst the local and declining small pearl-bordered fritillary *Boloria selene* breeds in the hazel coppice and in glades on the woodland edge.

The Nationally Scarce marsh fritillary *Euphydryas aurinia*¹ is present in the fen-meadow enclosed within Bracket's Coppice and the assemblage of more widespread species includes dingy skipper *Pyrgus malvae*, brown argus *Aricia agestis* and holly blue *Celastrina argiolus*.

The woodland supports a diverse fauna of insects associated with decaying wood in old woodland, including the Red Data Book (Nationally Rare) hoverflies *Chalcosyrphus eunotus* (Vulnerable) and *Psilota anthracina* (Vulnerable). Nationally Scarce hoverflies present include *Xylota abiens*, *Xylota florum*, *Sphegina verecunda*, *Volucella inflata* and *Criorhina asilica*. The Nationally Scarce soldier fly *Beris fuscipes* and the Nationally Scarce solitary wasp *Ectemnius sexcinctus* are also present. There are old records of Nationally Scarce beetles associated with old woodland and it is likely that these will still survive.

In addition the Nationally Scarce hoverflies *Xanthandrus comtus*, *Cheilosia carbonaria*, *Eumerus ornatus* and *Psilota anthracina*; the Nationally Scarce rove beetles *Deleaster dichrous* and *Zyras haworthi*; the Nationally Scarce weevil *Polydrusus flavipes* and the Nationally Scarce flea beetle *Longitarsus fowleri* have been recorded.

Geological interest

Intermittent stream sections and bank exposures in the Ryewater–Lovelihoods area near Corscombe show a remarkable Lower Callovian succession in the core of an anticlinal structure.

At the base of the succession, the Abbotsbury Cornbrash Formation, which although incompletely exposed, contains the Bathonian–Callovian boundary, in an area where this boundary is known to be one of the most complete in Britain (basal Keppleri subzone, Herveyi Zone faunas are known from nearby Corscombe in Fleet Member facies). Higher levels in the Fleet Member yield *Macrocephalites* spp. of the Terebratus and Kamptus subzones.

The overlying sequence appears to show the Kellaways Formation resting directly upon the Fleet Member with no evidence of the presence of the Cayton Clay Formation, which is known further north. The Kellaways Clay Member dominates the Formation and only a thin development of the Kellaways Sand Formation is present. The Kellaways Clay Member is richly fossiliferous, and this is the only site in Britain where the unit is permanently exposed. It contains septarian nodules with well preserved ammonites of the Gowerianus Subzone of the Koenigi Zone, including *Kepplerites gowerianus*, *Cadoceras*, *Proplanulites* and *Chamoussetia*. Of particular note are effective topotypes of the zonal index *Proplanulites koenigi*, a species first described from nearby Rampisham. Many bivalves (including *Myophorella*, *Catinula* and *Thracia*) are also present.

The Kellaways Sand Member yields few recognisable fossils excepting *Gryphaea*, but the presence of *Sigaloceras* and *Proplanulites petrosus* suggests a Calloviense Zone, Calloviense Subzone age. Above the Kellaways Sand Member is a sequence of sandy and silty mudrocks with some calcareous lenticles in its upper part. Ammonite faunas include *Sigalocera enodatum*, *Kosmoceras medea*, with some perisphinctids and a *Cadoceras* (the latter two groups mainly in the lower part). Bivalves are abundant, with bands of *Gryphaea* at higher levels. The ammonite fauna indicates the Enodatum Subzone (Calloviense Zone) of the terminal Lower Callovian, and the Medea Subzone (Jason Zone) of the basal Middle Callovian. These levels would be assignable to the Oxford Clay Formation, but the silty character suggests that the locally developed Mohuns Park Member is present. Ryewater may, therefore, include the only significant surface exposures of this unit, known primarily from boreholes.

Although little known, the Ryewater–Lovelihoods exposures are in a classical area where most of the older sites have been lost. They reveal a remarkably complete Lower Callovian sequence yielding Callovian ammonite faunas of international importance. Lithostratigraphically the site provides potential reference sections for members not permanently exposed anywhere else in Britain.

¹European protected species listed on Schedule 2 of the Habitats Regulations 1994.