

SITE NAME: **FROME ST QUINTIN**

COUNTY: **DORSET**

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 Authorities:** Dorset County Council, West Dorset District Council,

**National Grid reference:** ST585036

**Area:** 32.82 ha

**Ordnance Survey Sheets:**

**1:50 000:** 194

**1:10 000:** ST50 SE

**Date notified (under 1949 Act):**

**Date notified (under 1981 Act):** 1991

**Reasons for Notification:**

Frome St Quintin is notified for an outstanding assemblage of invertebrates associated with wet woodland, seepages, streams and fen; alder, ash and oak woodland including *Alnus glutinosa-Fraxinus excelsior-Lysimachia nemorum* woodland; *Alnus glutinosa-Carex paniculata* woodland; *Quercus robur-Pteridium aquilinum-Rubus fruticosus* woodland; *Fraxinus excelsior-Acer campestre-Mercurialis perrenis* woodland; fen *Filipendula ulmaria-Angelica sylvestris* mire, *Phragmites australis-Urtica dioica* tall herb fen and neutral grassland *Centaurea nigra-Cynosurus cristatus* meadow.

**General Description:**

Frome St Quintin SSSI is the most extensive known intact valley mire on Upper Greensand in Dorset. The site occupies two gently sloping valleys in the headwaters of the River Frome which run southwards from Evershot and Holywell over an altitudinal range of 170 - 135 m before converging 1.5 km downstream to the north west of Frome St Quintin. The streams arise in Evershot and Holywell at springs issuing from the junction of the Upper Greensand and Gault Clay and flow through the greensand on shallow gravels before cutting through the underlying clay which is exposed in the stream banks through Burl Moor.

Spring lines run the length of each valley and an extensive network of lateral seepages and streamlets is present providing a constant supply of base rich water to the fen and wet woodlands in the valley mire below, which has developed on shallow peaty soils. Petrifying springs in the valley to the south of Evershot have deposited tufa in the lateral streamlets

flowing over gravels through the woods and open fen.

The site demonstrates community succession in a valley mire from dry woodland and grassland on free draining soils above the spring line, through wet woodland, fen and reedbed on lateral seepages and peat, to swamp and riverine woodland in the valley bottom. Burl Moor, Chantmarle Moor and Dry Hill Moor contain ancient ash-alder woodland and species-rich hedges enclose much of the open habitat in the valley. The juxtaposition and succession of communities provide a valuable range of habitats for the outstanding assemblage of wetland invertebrates present on the site.

Alder *Alnus glutinosa* woodland is present in two distinct communities influenced by soil moisture and structure. Extensive stands of alder are present on seepages associated with the spring line in Burl Moor, Chantmarle Moor and Dry Hill Moor where shallow peat has developed on gently sloping ground. The slopes are dissected by numerous seepages and stream channels containing shallow gravels with tufa; and saturated dead wood has created numerous debris dams across the streams. The calcicole moss *Palustriella commutata* var. *commutata*, a species associated with tufa, is present on stones in streams in Burl Wood and the tall herb, hemlock water-dropwort *Oenanthe crocata* is abundant in streams and seepages throughout the site.

This open community has an overstorey of multi-stemmed alder and ash *Fraxinus excelsior* as maiden trees and coppice, with ash becoming more prominent on the south facing slopes of Burl Moor. The sparse understorey has locally abundant hazel *Corylus avellana* coppice on drier ground and stands of grey willow *Salix cinerea* with crack willow *S. fragilis* on the wettest soils. Holly *Ilex aquifolium*, elder *Sambucus nigra* and groups of young ash are occasional in Burl Moor and Dry Hill Moor and redcurrant *Ribes sylvestre* is an abundant shrub throughout all the woods. Opposite-leaved golden-saxifrage *Chrysosplenium oppositifolium* is a distinctive component of this community and forms extensive mats alongside stream channels and seepages with occasional alternate-leaved golden-saxifrage *Chrysosplenium alternifolium*. Butterbur *Petasites hybridus* is locally frequent in Burl Moor with stands of yellow iris *Iris pseudacorus*, greater pond sedge *Carex riparia* and tussock sedge *Carex paniculata*. Common valerian *Valeriana officinalis*, creeping-Jenny *Lysimachia nummularia* and water avens *Geum rivale* are occasional species throughout the wet woodland. Drier soils have creeping buttercup *Ranunculus repens*, drifts of rough meadow-grass *Poa trivialis* and bugle *Ajuga reptans* under a tall herb cover of nettle *Urtica dioica*, great horsetail *Equisetum telmateia* and sprawling cleavers *Galium aparine*. Ramsons *Allium ursinum* is a distinctive vernal species in Dry Hill Moor and on the silty soils of the riverine alder woodland.

Alder woodland also occurs in sinuous stands with tussock sedge alongside streams in the valleys where there is abundant opposite-leaved golden-saxifrage, bugle and meadow sweet

*Filipendula ulmaria*. Angelica *Angelica sylvestris* is frequent whilst marsh marigold *Caltha palustris*, cuckoo flower *Cardamine pratensis* and wood dock *Rumex sanguineus* are occasional.

Stands of oak *Quercus robur* and ash are present in a mosaic in all the woods on drier soils above the spring line on steep, slumping slopes. Oak high forest is present on free draining sandy soils with an open understorey of occasional holly, hawthorn *Crataegus monogyna* and locally hazel coppice. Bluebell *Hyacinthoides non-scripta* is abundant with greater stitchwort *Stellaria holostea*, creeping soft-grass *Hocis mollis* and locally, bracken *Pteridium aquilinum*.

The oceanic species, wood sorrel *Oxalis acetosella* is occasional on north facing slopes. Ash high forest with maiden trees or coppice is present on base rich drift and greensand outcrops over a patchy understorey of elder, maple *Acer campestre* and hazel coppice. Free draining but moist soils on slopes have abundant ramsons, primrose *Primula vulgaris* and ground ivy *Glechoma hederacea* and ferns such as scaly male fern *Dryopteris affinis*, soft shield fern *Polystichum setiferum* and hart's-tongue *Asplenium scolopendrium* are prominent. Gooseberry *Ribes uva-crispa* and redcurrent are occasional shrubs. Celandine *Ranunculus ficaria* and moschatel *Adoxa moschatellina* form a distinctive vernal cover on moister soils with dog's mercury *Mercurialis perennis*, tufted-hair grass *Deschampsia cespitosa* and pendulous sedge *Carex pendula*.

Standing and fallen dead wood is plentiful throughout the woods and many of the ash and alder trees have reached a significant stature. These over mature trees have developed old growth features such as hollow boles, dead limbs and rot holes and epiphytes are abundant including intermediate polypody *Polypodium interjectum*, broad buckler fern *Dryopteris austriaca* and ivy *Hedera helix*.

Dry Hill Moor and Burl Moor are rich in lichens and bryophytes on oak, ash and hazel with many species being associated with ancient woodland and parkland. The old forest lichen *Lobaria pulmonaria* is present on ash in Dry Hill Moor. Other lichen species of the Lobarion alliance indicative of ecological continuity present here include *Arthopyrenia ranunculospora*, *Bacidia biatorina* and *Catillaria atropurpurea* on ash and *Thelopsis rubella* on oak. The Nationally Scarce *Eopyrenula grandicula* is present on hazel in Dry Hill Moor and *Strigula taylorii* occurs on ash in Burl Wood. Bryophytes on tree bark include the moss *Pterogonium gracile*, a local species in Dorset, and the Nationally Scarce moss *Leptodon smithii* on maple. Stands of grey willow near the stream in Burl Wood are rich in epiphytic lichens and bryophytes and the local liverwort *Cololejeunea minutissima* is present in Dry Hill Moor. Open fen is present in a number of distinct communities providing the lightly shaded, humid conditions required by the wetland invertebrates present on the site. Common reed *Phragmites australis* occurs as the dominant species in open reedbeds on both sides of the valleys and as discrete stands within the wet alder woodland. Other tall herbs present include hemlock water dropwort, great horsetail and nettle with cleavers and occasional angelica, meadowsweet and butterbur. Bulrush *Typha latifolia* is locally prominent.

At the head of each valley is a community dominated by tall herbs such as meadowsweet, angelica, water mint, great horsetail and marsh horsetail *Equisetum palustre*. Hairy sedge

*Carex hirta*, hard rush *Juncus effusus* and Yorkshire Fog *Holcus lanatus* are locally frequent with occasional blunt flowered rush *Juncus subnodulosus*, hemp agrimony *Eupatorium cannabinum* and flag iris. Low growing herbs prominent on seepages are creeping buttercup *Ranunculus repens*, wavy bitter-cress *Cardamine flexuosa* and fool's water-cress *Apium nodiflorum*. Elsewhere angelica, marsh thistle *Cirsium palustre* and great horsetail occur between the dominant tussocks of greater pond sedge *Carex riparia*. Tussock sedge fen is associated with both communities and is present alongside lateral and valley bottom streams and in swamp with marsh-marigold, bugle, water figwort *Scrophularia aquatica* and opposite-leaved golden-saxifrage.

Pastures in the valley below Burl Farm contain neutral grassland of the common knapweed *Centaurea nigra* - crested dog's-tail *Cynosurus cristatus* type on the south facing slopes above the spring line. Here a short turf community has abundant spring sedge *Carex caryophylla*, quaking grass *Briza media*, devil's bit scabious *Succisa pratensis* and betony *Stachys officinalis* on the driest soils. The local species, corky fruited water dropwort *Oenanthe pimpinelloides* and ladies mantle *Alchemilla vulgaris* are occasional. On the lower flushed slopes, meadow thistle *Cirsium dissectum*, bird's-foot trefoil *Lotus corniculatus* and heath grass *Danthonia decumbens* are typical species on moister soils.

The invertebrate interest of the site is high as there is an assemblage of Nationally Scarce species and a species listed in the Red Data Book; the Nationally Rare and Endangered fenland fly *Stenomicroa cogani*. Species associated with seepages, fens, stream margins and wet woodland dominate the fauna and considerable interest derives from the juxtaposition of acidic and basic conditions which contribute to a richer fauna than would otherwise be expected for a site of this size. Flies of the families Tipulidae, Empididae, Dolichopodidae and Sciomyzidae are particularly well represented. There are outstanding associations of aquatic soldier flies including *Stratiomys potamida*; and of crane flies associated with wet woodland or carr containing flushes or streams. Three of the nationally scarce species, the crane flies *Limonia trivittata* and *Molophilous corniger* and the soldier fly *Oxycera pardalina*, are closely associated with calcareous fens and seepages. There is also a deadwood component to the fauna including the local dance fly *Oedalea tibialis*.