

# **Ecological Assessment of Land at Sparkford**



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This assessment was carried out by Dr Philip Wilson MCIEEM and Marian Reed. Both are professional ecologists and botanists with more than 30 years of experience each. Both have BSc degrees in Biological Sciences from the University of Exeter. They specialise in vegetation and habitat survey and land management for biodiversity conservation. They also work on the ecology and conservation of endangered plants. Much recent work has concentrated on the management of land under agri-environment schemes, monitoring the results of these schemes and providing advice to farmers. Philip Wilson has a PhD in the ecology and conservation of Britain's arable flora and was the first recipient of the Marsh Botanical Prize. They own and manage a farm in Devon with a small herd of pedigree Devon cattle.

## Introduction

The land at Sparkford was visited on 1<sup>st</sup> November 2018. The field and hedgerows were assessed for ecological value using standard Phase 1 and Phase 2 methods including the collection of species-lists and target notes. A full set of vegetation quadrats would have been recorded from stands of Priority Habitat if any had been present. A representative series of photographs was taken. The site was evaluated for its potential to support and legally protected species.

An agricultural and landscape evaluation of the site was carried out in March 2018 (Hitchings, 2018). This survey included a soil assessment which described the soils as largely calcareous clay loams with locally impeded drainage. Geology consists of interbedded lower lias limestones and mudstones.

## Site Description (see map for location of numbered notes).

The site consists of a grassland field of approximately 8.6ha. It is bordered to the south, east and north by hedgerows. In the south-west it is separated from a small area of planted woodland by a fence, and the railway line from Yeovil to Castle Cary runs along the west side, being separated from the field by a fence. The field was formerly divided into two parts by a boundary running across from east to west. This boundary is still detectable in the field.

The field is generally flat, but slopes gently uphill to a high point in the south-west corner.

The grassland is a species-poor agriculturally-improved sward dominated by a range of grasses including perennial rye-grass *Lolium perenne*, crested dog's-tail *Cynosurus cristatus*, yorkshire fog *Holcus lanatus*, cocksfoot *Dactylis glomerata*, rough-stalked meadow-grass *Poa trivialis* and common bent *Agrostis capillaris*. Few broad-leaved species are present, these include white clover *Trifolium repens* and spear thistle *Cirsium vulgare*. There are beds of stinging nettle *Urtica dioica* near the southern and western boundaries.

The existing hedges (1, 2, 3, 6) appear to be outside the site boundaries. The whole site is fenced, with fences and ditches inside the hedgerows. Those to the east, north and south consist of continuous lines of shrubs and appear stockproof. Principal species are blackthorn *Prunus spinosa* and hybrids with domestic plum *Prunus domestica*, hawthorn *Crataegus monogyna*, elm *Ulmus minor*, wild privet *Ligustrum vulgare* and field maple *Acer campestre*, with smaller amounts of ash

*Fraxinus excelsior*, common dog rose *Rosa canina* and dogwood *Cornus sanguinea*. There are some larger sycamores *Acer pseudoplatanus* in the middle of the eastern hedge (1) and two larger ash in the northern hedge (2).

The western boundary (3) is the railway fence, and outside this there is also a belt of scrub which appears to be self-sown rather than a planted hedge. It consists of hawthorn, common dog-rose, elder *Sambucus nigra*, ash, old-man's beard *Clematis vitalba*, sycamore and oak *Quercus robur*.

The south-western boundary is with the neighbouring community woodland and is fenced with no hedge. The former boundary (4) between the north and south parts of the field is marked by fragments of the fence and a few grazed hawthorns.

The large veteran beech *Fagus sylvatica* (5) near the western boundary is of considerable value.

The adjacent land between the site, Sparkford Hill Road and the railway line to the south-west of the site is a recently planted community woodland (7). Tree species include hazel *Corylus avellana*, ash, silver alder *Alnus incana*, silver birch *Betula pendula*, wild cherry *Prunus avium*, walnut *Juglans regia*, wayfaring tree *Viburnum lantana* and oak. The understorey is tussocky, species-poor grassland dominated by cocksfoot, false oat-grass *Arrhenatherum elatius* and stinging nettle.

## **Evaluation**

With the exception of the large beech tree, ecological interest is restricted to the field boundaries. Hedgerow management is however probably in the control of the neighbouring landowners.

The grassland is of little intrinsic ecological importance, and is species-poor, probably as a result of past ploughing, re-seeding and fertiliser application. The grassland is however likely to be poor in the macronutrients phosphorus and nitrogen, and rich in Calcium carbonate, and therefore offers good opportunities for species-enrichment.

## **Recommendations**

In the absence of significant existing ecological interest, there are few constraints on agricultural and horticultural development, and considerable potential for ecological enhancement. While the management will be at the discretion of the smallholders, some consideration should be given to overall ecological enhancement of what is currently a low-value site.

A priority should be the planting of marginal hedges and tree belts and shrub belts to divide separate holdings within the site. This will ensure that the shelter and screening functions of the hedges are within the control of the smallholders and independent of any management carried out by neighbouring farmers and Network Rail. New hedges should consist of native species and should contain a high proportion of species such as hawthorn, blackthorn and hazel which are of the greatest value to wildlife. A well-managed, dense, species-rich hedge will be of great value to many forms of wildlife.

Low macro-nutrient levels in the soil and high lime content mean that improvement of the species-richness of pasture grassland and any marginal grassland areas would be relatively easy. This is important both for the nutritional welfare of grazing stock and nutrient value of animal produce, but also for the value of the grassland to wildlife. If a good mixture of nectar-producing plants is introduced to the site, the range of beneficial predatory and pollinating insects will be greatly improved.

The large beech tree should be carefully managed for its landscape value and importance to wildlife. These are shallow-rooted trees and no cultivation should be carried out within at least 15m of the centre of the trunk (Lonsdale, 2013).

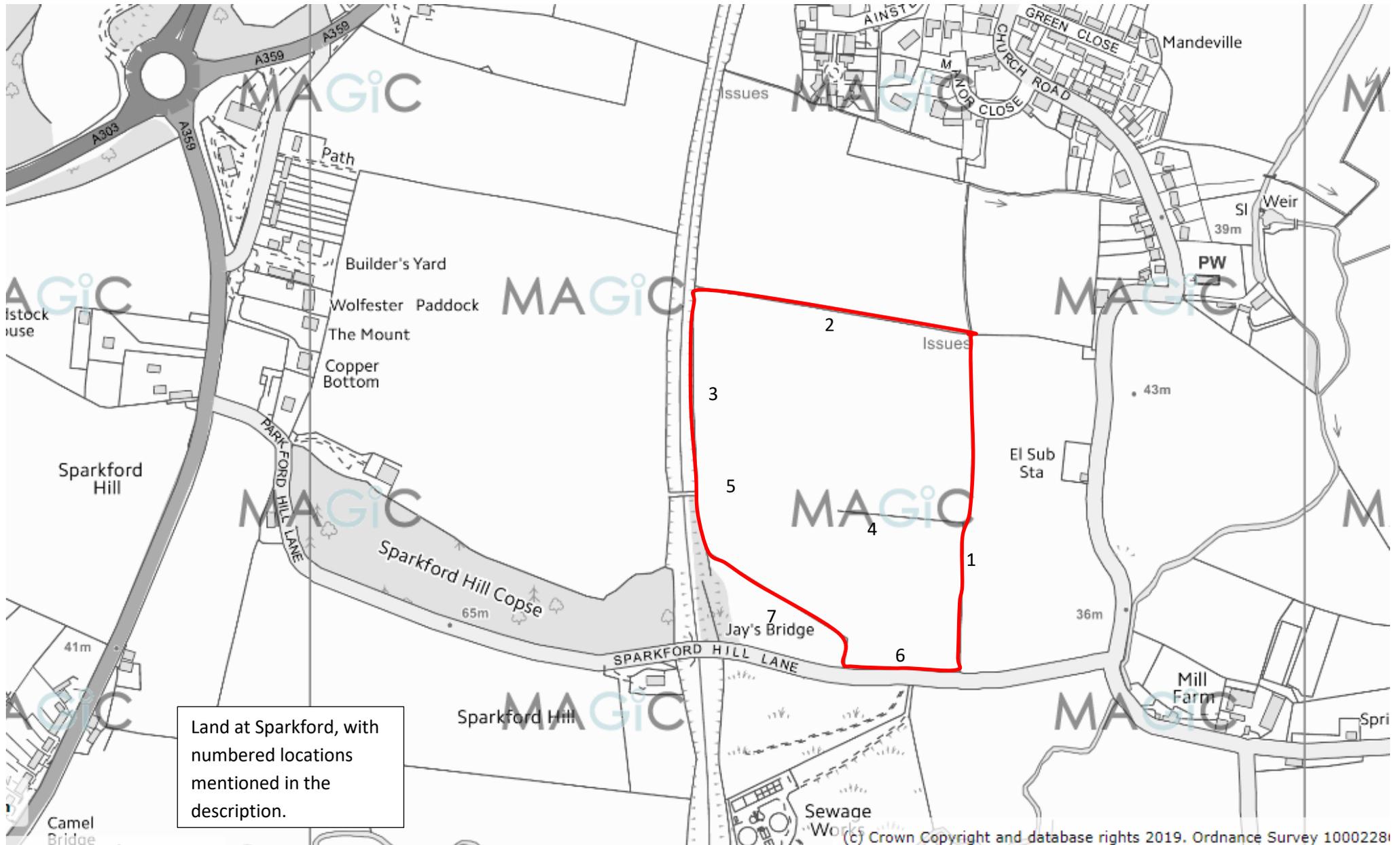
**Hedges at Sparkford.** See map for location. Abundances on the DAFOR scale (D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare).

		1	2	3
<i>Acer campestre</i>	Field maple	A		
<i>Ulmus minor</i>	Elm	A	A	
<i>Crataegus monogyna</i>	Hawthorn	F	F	A
<i>Ligustrum vulgare</i>	Wild privet	R	F	
<i>Prunus spinose</i>	Blackthorn	F	A	F
<i>Rosa canina</i>	Common dog rose	F	R	O
<i>Prunus spinosa</i> X <i>domestica</i>	Hybrid blackthorn X plum	A	A	
<i>Fraxinus excelsior</i>	Ash	R	R	O
<i>Cornus sanguinea</i>	Dogwood	R		
<i>Rubus fruticosus agg</i>	Bramble	A		A
<i>Acer pseudoplatanus</i>	Sycamore	LF		O
<i>Quercus robur</i>	Oak			R
<i>Sambucus nigra</i>	Elder			O
<i>Clematis vitalba</i>	Old-man's beard			O

## References

Hitchings R (2018). *Report on land on Sparkford Hill Lane, Sparkford, Yeovil, Somerset. BA22 7JE.* Report to the Ecological land Co-operative.

Lonsdale D (2013). *Ancient and other Veteran Trees: Further Guidance on Management.* The Tree Council, London.



Land at Sparkford, with numbered locations mentioned in the description.

View across the site from the south east to the north-west





Large beech tree



Sparkford Copse Community Woodland



View across field from west to east along the former field boundary