

FRIENDS OF PRIORS HILL COPSE

Priors Hill Copse

Botanical Survey 2014

Botanical Survey of Priors Hill Copse, Butlocks Heath, Hampshire

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Introduction

Priors Hill Copse is situated to the north-east of Butlocks Heath, part of Netley, a suburb of Southampton. The whole woodland is approximately 20ha in area. The western part of the woodland, approximately 3.8ha, is managed by Friends of Priors Hill Copse for public recreation and nature conservation.

A survey of the vegetation of the western part of the wood and an assessment of woodland structure and requirements for future management for wildlife conservation was carried out on 16th June 2010. The results of this survey are described in an earlier report (Wilson, 2010).

In summary, in 2010 the woodland was identified as an example of the National Vegetation Classification community W10a (*Quercus robur* oak-*Pteridium aquilinum* bracken-*Rubus fruticosus* bramble community, typical sub-community), the characteristic woodland type of a wide range of circum-neutral soils in lowland southern England (Rodwell, 1991). The dominant canopy tree species is *Quercus Xrosacea* the hybrid between the English oak *Q. robur* and the sessile oak *Q. petraea*, with local *Fagus sylvatica* beech and *Betula spp* birch. The secondary canopy and shrub layer is dominated by holly *Ilex aquifolium*, with smaller quantities of rowan *Sorbus aucuparia*, hazel *Corylus avellana*, crab apple *Malus sylvestris*, hawthorn *Crataegus monogyna* and wild cherry *Prunus avium*. Unusual features of this woodland which reflect past management include an area of coppiced alder buckthorn

Frangula alnus and rowan *Sorbus aucuparia* and the presence of several coppice stools of oak *QuercusXrosacea*. It seems likely that the woodland canopy has been felled in the past (possibly in the 19th century) and that the woodland has been replanted.

The ground flora was also assessed in 2010. There was an underscrub layer of bramble *Rubus fruticosus* with smaller quantities of bracken *Pteridium aquilinum* and in one area raspberry *Rubus idaeus*. The ground flora was dominated by bluebell *Hyacinthoides non-scripta* and ivy *Hedera helix* with locally frequent wood anemone *Anemone nemorosa*. Thirteen species considered characteristic of long-established woodland in southern England (Rose, 1999) were recorded (out of the 18 recorded in the whole Prior's Hill Copse area).

The presence of 13 ancient woodland indicator species in 2010, marginal banks and ditches and an entry in the Hampshire Inventory of Ancient Woodland strongly suggest that this part of Priors Hill Copse has been in existence since at least 1600 and probably for considerably longer.

Survey in 2014.

Since 2010 a considerable amount of management work has been undertaken in Priors Hill Copse with the aim of allowing more light into the woodland and to maximise structural diversity. Holly *Ilex aquifolium* has been removed from some areas to create stands of high forest, while in other parts of the copse, holly, rowan *Sorbus aucuparia*, alder buckthorn *Frangula alnus* and oak *QuercusXrosacea* have been coppiced. Brash arising from this work has been removed and stacked .

Visits were made to Priors Hill Copse on 23rd April and 2nd October 2014 to assess the effects of recent work on the woodland ground flora.

Species recorded in 2014 are listed in Table 1. All abundances within the site are given on the Dafor scale (D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, prefix L=Locally).

A total of 62 species were recorded from the ground flora in 2014. Of this total, 22 were ruderal and grassland species that have taken advantage of the temporarily disturbed conditions resulting from recent work. It is unlikely that these species will persist. These include greater plantain *Plantago major*, hedge garlic *Alliaria petiolata*, dandelion *Taraxacum sp* and perennial rye-grass *Lolium perenne*. A further two species, hybrid bluebell *Hyacinthoides non-scriptaXhispanica* and cut-leaved bramble *Rubus laciniatus* have probably originated in nearby gardens. Seedlings of 6 tree species were also recorded, with holly *Ilex aquifolium* seedlings being locally abundant.

The most abundant species in the ground flora was bluebell *Hyacinthoides non-scripta* with locally frequent wood anemone *Anemone nemorosa*, yellow corydalis *Ceratocarpus claviculata*, rough meadow-grass *Poa trivialis*, ivy *Hedera helix*, and the mosses *Brachythecium rutabulum*, *Eurhynchium praelongum* and *Hypnum cupressiforme*. Seedlings of holly *Ilex aquifolium* were abundant in areas where work had recently been carried out and bare soil created.

Comparable figures from 2010 were a total of 44 ground flora species, of which nine were ruderal and grassland species, 2 were of garden origin and seven were seedlings of tree species.

Two species characteristic of ancient woodland, wood meadow-grass *Poa nemoralis* and yellow archangel *Lamiastrum galeobdolon* were not refound in 2014. It is however likely that these species still occur in small quantity. One ancient woodland species remote sedge *Carex remota* was added in 2014. A single tree of wild service tree *Sorbus torminalis* is present in the wood margin in the north (M. Presswell, pers comm). This uncommon species is locally frequent in woodlands around the Solent, and is a very good indicator of ancient woodland.

All of the characteristic species of the woodland canopy, shrub layer and underscrub that were recorded in 2010 were still present in 2014. Oak *Quercus Xrosacea* and probable *Quercus robur* is the dominant canopy tree in stands of high forest and coppice with standards. Individual trees of beech *Fagus sylvatica*, chestnut *Castanea sativa* wild cherry *Prunus avium* and birch *Betula pendula* and *Betula pendula Xpubescens* are also present. Beneath this is a now much thinned secondary canopy of holly *Ilex aquifolium*. There is a single tree of whitebeam *Sorbus aria* (M. Presswell, pers comm).

The shrub layer has been thinned partly by removal of holly *Ilex aquifolium* and by coppicing. Most of the coppiced stools of oak *Quercus spp*, holly *Ilex aquifolium*, alder buckthorn *Frangula alnus* and rowan *SOrbus aucuparia* are showing good regeneration with little obvious damage from deer browsing.

Underscrub of bramble *Rubus fruticosus* is present throughout much of the woodland, locally joined by bracken *Pteridium aquilinum* although this is sparse and open where work has been recently carried out. In the west however it is dense, with frequent raspberry *Rubus idaeus* in the north-west.

The low bank along the western boundary of the woodland has a dense belt of trees and shrubs. The principal species are field maple *Acer campestre*, crab apple *Malus sylvestris*, elm *Ulmus procera*, hawthorn *Crataegus monogyna* and blackthorn *Prunus spinosa*. Non-native species here include garden privet *Ligustrum ovalifolium*, plum *Prunus domestica*, holm oak *Quercus ilex* and bay *Laurus nobilis*. Butcher's broom *Ruscus aculeatus*, an ancient woodland indicator is present in two places. It is a Hampshire Notable Vascular Plant ([http://www.hantsplants.org.uk/docs/Hants%20Notable%20Species%20Checklist%20\(A4\).pdf](http://www.hantsplants.org.uk/docs/Hants%20Notable%20Species%20Checklist%20(A4).pdf)), and is a characteristic plant of woodland margins in sites near the sea in the Hampshire Basin.

A total of 15 ancient woodland species have been recorded between 2010 and 2014. These include the tree species holly *Ilex aquifolium*, alder buckthorn *Frangula alnus*, crab apple *Malus sylvestris*, wild service tree *Sorbus torminalis* and field maple *Acer campestre*. Bluebell *Hyacinthoides non-scripta* is abundant throughout the site, with wood anemone *Anemone nemorosa* and yellow corydalis *Ceratocapnos claviculata* both locally frequent. Rose (1999) remarks that woodlands on acidic soils without wet areas are unlikely to have more than 30 ancient woodland indicator species. The number of indicator species is directly related to the size of the woodland and a total of 15 species is good for an area of only 3.8ha.

References

Rodwell J. (1991). *British Plant Communities 1: Woodlands and Scrub*. Cambridge University Press.

Rose F. (1999). Indicators of ancient woodland. *British Wildlife*. http://www.britishwildlife.com/classic_articles/BW%2010-241-251%20Indicators%20of%20ancient%20woodland.pdf

Wilson PJ. (2010). *Ecological Survey of Priors Hill Copse, Butlocks Heath, Hampshire*. Report to Friends of Priors Hill Copse.

Table 1. Species recorded from Priors Hill Copse in 2014. Abundances on the Dafor scale.

Scientific name	Common name	Abundance (DAFOR score)
Canopy species		
<i>QuercusXrosacea</i>	Hybrid oak	D
<i>Fagus sylvatica</i>	Beech	O
<i>Betula pendulaXpubescens</i>	Silver birch	Lo
<i>Betula pendula</i>	Silver birch	Lo
<i>Betula pubescens</i>	Downy birch	R
<i>Prunus avium</i>	Wild cherry	R
<i>Castanea sativa</i>	Chestnut	R
Shrub layer		
<i>Ilex aquifolium</i>	Holly	FA
<i>Sorbus aucuparia</i>	Rowan	F
<i>Frangula alnus</i>	Alder buckthorn	Lf
<i>Corylus avellana</i>	Hazel	O
<i>Malus sylvestris</i>	Crab apple	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Prunus avium</i>	Wild cherry	O
<i>Betula pendula</i>	Silver birch	O
<i>Ulmus procera</i>	Elm	Lo
<i>Quercus robur</i>	Oak	R
<i>Prunus spinosa</i>	Blackthorn	R
<i>Cytisus scoparius</i>	Broom	R
<i>Fagus sylvatica</i>	Beech	R
<i>Taxus baccata</i>	Yew	R
<i>Laurus nobilis</i>	Bay	R
<i>Ruscus aculeatus</i>	Butcher's broom	R
<i>Acer campestre</i>	Field maple	R
<i>Castanea sativa</i>	Chestnut	R
<i>Quercus ilex</i>	Holm oak	R
<i>Prunus domestica</i>	Plum	R
<i>Ligustrum ovalifoium</i>	Garden privet	R
<i>Sorbus torminalis</i>	Wild service tree	R
<i>Sorbus aria</i>	Whitebeam	R
Ground flora		
<i>Hyacinthoides non-scripta</i>	Bluebell	A
<i>Ilex aquifolium</i>	Holly	Oa
<i>Rubus fruticosus</i>	Bramble	oA

<i>Anemone nemorosa</i>	Wood anemone	Lf
<i>Ceratocapnos claviculata</i>	Yellow corydalis	Lf
<i>Poa trivialis</i>	Rough-stalked meadow-grass	Lf
<i>Pteridium aquilinum</i>	Bracken	Lf
<i>Rubus idaeus</i>	Raspberry	Lf
<i>Hedera helix</i>	Ivy	Of
<i>Brachythecium rutabulum</i>	Moss	O
<i>Eurhynchium praelongum</i>	Moss	O
<i>Galium aparine</i>	Cleavers	O
<i>Hypnum cupressiforme</i>	Moss	O
<i>Plantago major</i>	Greater plantain	Lo
<i>Alliaria petiolata</i>	Hedge garlic	Lo
<i>Hyacinthoides non-scripta</i> <i>Xhispanica</i>	Hybrid bluebell	Lo
<i>Lonicera periclymenum</i>	Honeysuckle	Lo
<i>Melampyrum pratense</i>	Common cow-wheat	Lo
<i>Ranunculus ficaria</i>	Lesser celandine	Lo
<i>Taraxacum sp</i>	Dandelion	Lo
<i>Urtica dioica</i>	Stinging nettle	Lo
<i>Lolium perenne</i>	Perennial rye-grass	Lo
<i>Atriplex patula</i>	Common orache	R
<i>Cerastium fontanum</i>	Mouse-eared chickweed	R
<i>Conyza Canadensis</i>	Canadian fleabane	R
<i>Epilobium adenocaulon</i>	American willow-herb	R
<i>Hypochoeris radicata</i>	Common cat's-ear	R
<i>Persicaria lapathifolium</i>	Pale persicaria	R
<i>Plantago lanceolata</i>	Ribwort plantain	R
<i>Polygonum aviculare</i>	Knotgrass	R
<i>Rubus laciniatus</i>	Cut-leaved bramble	R
<i>Sambucus nigra</i>	Elder	R
<i>Solanum dulcamara</i>	Black nightshade	R
<i>Sonchus oleraceus</i>	Common sow-thistle	R
<i>Sorbus aucupoaria</i>	Rowan	R
<i>Agrostis capillaries</i>	Common bent	R
<i>Anthriscus sylvestris</i>	Cow parsley	R
<i>Arrhenatherum elatius</i>	False oat-grass	R
<i>Arum maculatum</i>	Cuckoo pint	R
<i>Brachypodium sylvaticum</i>	Wood false-brome	R
<i>Carex divulsa</i>	Grey sedge	R
<i>Carex remota</i>	Remote sedge	R
<i>Chaerophyllum temulentum</i>	Rough chervil	R
<i>Chamaenerion angustifolium</i>	Rose-bay willow-herb	R
<i>Circaea lutetiana</i>	Enchanter's nightshade	R
<i>Dactylis glomerata</i>	Cocksfoot	R

<i>Digitalis purpurea</i>	Foxglove	R
<i>Dryopteris dilatata</i>	Broad buckler-fern	R
<i>Dryopteris filix-mas</i>	Male fern	R
<i>Geranium robertianum</i>	Herb Robert	R
<i>Geum urbanum</i>	Wood avens	R
<i>Holcus lanatus</i>	Yorkshire fog	R
<i>Isopterygium elegans</i>	Moss	R
<i>POa annua</i>	Annual meadow-grass	R
<i>Polytrichum formosum</i>	Moss	R
<i>Prunus avium</i>	Wild cherry	R
<i>QuercusXrosacea</i>	Hybrid oak	R
<i>Ranunculus repens</i>	Creeping buttercup	R
<i>Senecio jacobaea</i>	Ragwort	R
<i>Stellaris holostea</i>	Greater stitchwort	R
<i>Veronica hederifolia</i>	Ivy-leaved speedwell	R
<i>Acer campestre</i>		

Table 2. Species recorded at Priors Hill Copse in 2010 and 2014. Species considered typical of long-established woodland in southern England (Rose, 1999) in bold – total = 14.

Scientific name	Common name
<i>Acer campestre</i>	Field maple
<i>Acer pseudoplatanus</i>	Sycamore
<i>Agrostis capillaries</i>	Common bent
<i>Alliaria petiolata</i>	Hedge garlic
<i>Allium vineale</i>	Wild garlic
<i>Anemone nemorosa</i>	Wood anemone
<i>Anthriscus sylvestris</i>	Cow parsley
<i>Arrhenatherum elatius</i>	False oat-grass
<i>Arum maculatum</i>	Cuckoo pint
<i>Atrichum undulatum</i>	Moss
<i>Betula pendula</i>	Silver birch
<i>Betula pendulaXpubescens</i>	Hybrid birch
<i>Betula pubescens</i>	Downy birch
<i>Brachypodium sylvaticum</i>	Wood false-brome
<i>Brachythecium rutabulum</i>	Moss
<i>Bromus sterilis</i>	Barren brome
<i>Carex divulsa</i>	Grey sedge
<i>Carex remota</i>	Remote sedge
<i>Castanea sativa</i>	Sweet chestnut
<i>Chaerophyllum temulentum</i>	Rough chervil
<i>Chamaenerion angustifolium</i>	Rose-bay willow-herb
<i>Circaea lutetiana</i>	Enchanter's nightshade
<i>Corydalis claviculata</i>	Yellow corydalis
<i>Corylus avellana</i>	Hazel

<i>Crataegus monogyna</i>	Hawthorn
<i>CrocsmiaXcrocsmiflora</i>	Montbretia
<i>Cytisus scoparius</i>	Broom
<i>Dactylis glomerata</i>	Cocksfoot
<i>Deschampsia flexuosa</i>	Wavy hair-gras
<i>Dicranella varia</i>	Moss
<i>Digitalis purpurea</i>	Foxglove
<i>Dryopteris dilatata</i>	Broad buckler-fern
<i>Dryopteris filix-mas</i>	Male fern
<i>Eurhynchium praelongum</i>	Moss
<i>Fagus sylvatica</i>	Beech
<i>Frangula alnus</i>	Alder buckthorn
<i>Fraxinus excelsior</i>	Ash
<i>Galium aparine</i>	Cleavers
<i>Geranium robertianum</i>	Herb Robert
<i>Geum sp</i>	Garden avens
<i>Geum urbanum</i>	Wood avens
<i>Hedera helix</i>	Ivy
<i>Holcus lanatus</i>	Yorkshire fog
<i>Hyacinthoides non-scriptaXhispanica</i>	Hybrid bluebell
<i>Hyacinthoides non-scriptus</i>	Bluebell
<i>Hypnum cupressiforme</i>	Moss
<i>Ilex aquifolium</i>	Holly
<i>Isopterygium elegans</i>	Moss
<i>Lamiastrum galeobdolon</i>	Yellow archangel
<i>Lapsana communis</i>	Nipplewort
<i>Laurus nobilis</i>	Bay
<i>Linaria purpurea</i>	Purple toadflax
<i>Lonicera periclymenum</i>	Honeysuckle
<i>Malus sylvatica</i>	Crab apple
<i>Melampyrum pratense</i>	Common cow-wheat
<i>Mnium hornum</i>	Moss
<i>POa annua</i>	Annual meadow-grass
<i>POa nemoralis</i>	Wood meadow-grass
<i>POa trivialis</i>	Rough-stalked meadow-grass
<i>Polytrichum formosum</i>	Moss
<i>Prunus avium</i>	Wild cherry
<i>Prunus spinosa</i>	Blackthorn
<i>Pteridium aquilinum</i>	Bracken
<i>Quercus ilex</i>	Holm oak
<i>Quercus robur</i>	Oak
<i>QuercusXrosacea</i>	Hybrid oak
<i>Ranunculus ficaria</i>	Lesser celandine
<i>Ranunculus repens</i>	Creeping buttercup
<i>Rubus fruticosus</i>	Bramble
<i>Rubus idaeus</i>	Raspberry
<i>Ruscus aculeatus</i>	Butcher's broom

<i>Senecio jacobaea</i>	Ragwort
<i>Sorbus aria</i>	Whitebeam
<i>Sorbus aucuparia</i>	Rowan
<i>Sorbus torminalis</i>	Wild service tree
<i>Stellaria media</i>	Chickweed
<i>Stellaris holostea</i>	Greater stitchwort
<i>Taraxacum sp</i>	Dandelion
<i>Taxus baccata</i>	Yew
<i>Ulmus procera</i>	Elm
<i>Urtica dioica</i>	Stinging nettle
<i>Veronica hederifolia</i>	Ivy-leaved speedwell
<i>Atriplex patula</i>	Common orache
<i>Cerastium fontanum</i>	Mouse-eared chickweed
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<i>Persicaria lapathifolium</i>	Pale persicaria
<i>Plantago lanceolata</i>	Ribwort plantain
<i>Plantago major</i>	Greater plantain
<i>Polygonum aviculare</i>	Knotgrass
<i>Rubus laciniatus</i>	Cut-leaved bramble
<i>Sambucus nigra</i>	Elder
<i>Solanum dulcamara</i>	Black nightshade
<i>Sonchus oleraceus</i>	Common sow-thistle
<i>Sorbus aucupoaria</i>	Rowan
<i>Prunus domestica</i>	Plum
<i>Ligustrum ovalifolium</i>	Garden privet

Habitat Notes (Map 1)

- 1 Open high forest. Thinned oak with small shrubs of hazel, sycamore, rowan and holly.
- 2 Dense bramble with raspberry. Frequent yellow corydalis *Ceratocarpus claviculata*.
- 3 Thinned high forest with some planted hazel. Coppiced oak, abundant holly seedlings. All brash removed and stacked at the edge of the coupe. Butchers broom present in one place.
- 4 Dense non-intervention woodland. Oak standard with dense holly. One pollarded oak and a standard chestnut.
- 5 Recently coppiced rowan and alder buckthorn.
- 6 Recently thinned woodland with recently coppiced oak and holly.

- 7 Dense underscrub of bramble beneath oak standards and old oak coppice.
- 8 Boundary bank with a dense hedge of crab apple, field maple, elm, hawthorn, blackthorn, plum, holm oak, garden privet and standards of holly and oak. Butchers broom present in two places.
9. Wild service tree *Sorbus torminalis*

