

Appendix V

Botanical Survey

Undertaken by John Handley MSc
May 2014

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1.0 Introduction

John Handley, an Associate Botanist, a specialist in botanical surveys, undertook a desktop analysis of any historical botanical records for Fineshade woodland and the surrounding area. The aim of the survey was to produce a botanical species list at monad level, with species deemed of interest being recorded at a higher precision as necessary and to undertake a *Hybrid* 'Phase 1/NVC' mapping of key habitats with annotated species lists for each habitat (including representative quadrats in major habitats).

2.0 Methods

2.1 Desktop analysis

Records were obtained from the Northamptonshire Records Office however none of the records were from within the boundaries of the site.

1180 Biological Records were downloaded from the BSBI Database, 616 of these records fell within each of the 3 monads that the site occupies, 319 different species, subspecies or hybrids of vascular plants have been recorded within SP9898, SP9899 and SP9999 and these are listed in Appendix 6.1.4.

These records were analysed to identify their relative importance both locally and nationally. Several species were highlighted as uncommon: special attention was paid to identifying if they had previously been recorded within the boundary of the site and the likelihood of re-finding these plants e.g. appropriate time of the year to locate them.

2.2 Field Survey

On the 10th May 2014 the exterior of the site was walked to establish the site boundaries. The remainder of the 10th May was spent surveying the areas of the site that were within SP9898 and SP9899. The area of the site that fell within SP9999 was surveyed on the 11th May. A full species list was created and each monad, following best practice, was recorded separately. Individual quadrats were recorded within representative locations within each of the different vegetation types. Target notes were made of important features or uncommon species; grid references were recorded using a Garmin Etrex. Any records of subspecies and variety were amalgamated with those of the species to which they belong. Microspecies in the genera *Taraxacum* and *Rubus* were combined with records of the aggregate species, as were other taxa such *Rosa* to accommodate surveying in May. All Taxonomic nomenclature follows Stace (2010).

Classification of the plant communities follows the National Vegetation Classification (Rodwell, 1991). All quadrats were aligned north-south with the grid reference forming the point in the south-west corner. Within the wooded areas the canopy and shrub layers were recorded at 50 x 50 m and the ground layer at 10 x 10 m. Within the W21 *Crataegus monogyna* – *Hedera helix* scrub the shrub layer was recorded at 10 x 10 m and the ground layer at 4 x 4 m.

3.0 Results

The management of the woodland has significantly affected the vegetation to such an extent that semi-natural plant communities are difficult to discern beneath a forestry landscape, however where

the management is relaxed or a landscape feature makes forestry operations difficult the character of the communities can be seen. These are indicated in the map in figure 1.0 overleaf.

3.1 Area A and Area AA – W21 *Crataegus monogyna* – *Hedera helix* scrub

This community dominates both areas at the north-eastern (Area A) and south-western extent (Area AA) of the site.

Area A

A margin of Austrian Pine, *Pinus nigra*, 40m wide separates the cycle path (SP99139919-SP99009942) from the plantation between points SP99129920, SP99009942, SP98999941 and SP99119919. Area A is located in the north-east between the points SP99009942, SP98859936, SP98879933, SP98819929, SP98849923, SP98829921, SP98889904, SP98939900, SP98989907, SP98959912, SP98999915, SP99019912 and SP99129919. A small area of *P. nigra* remains between the points SP98989907, SP98959912, SP98999915 and SP99019912.

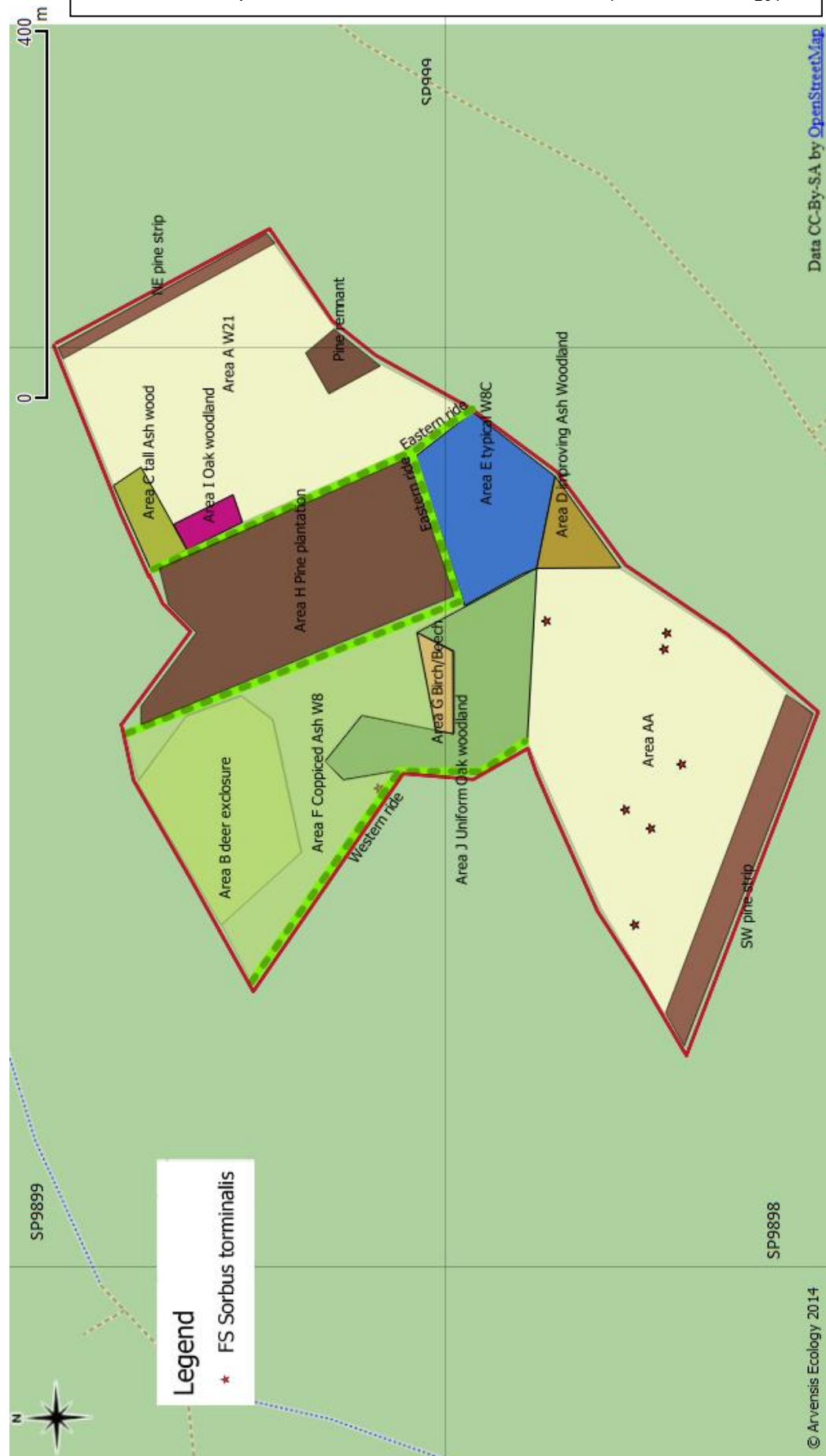
Area A would have been a Pine plantation that has since been clear-felled and scrub is developing amongst the planted Pedunculate Oak, *Quercus robur*. The very competitive Wood Small-reed grass, *Calamagrostis epigejos*, dominates the ground layer creating a deep litter which creates a barrier to many plants and only those with a large angiosperm are able to grow through this. This area is established as scrub with Silver Birch, *Betula pendula*, Goat Willow, *Salix caprea*, Field maple, *Acer campestre* and Blackthorn, *Prunus spinosa*, competing for the future of this area with the planted *Q. robur*. The ground flora is dominated by *C. epigejos* and only broken up by heavy brash underfoot that enables Common Nettle, *Urtica dioica*, Creeping Thistle, *Cirsium arvense*, Soft Rush, *Juncus effusus*, Hard Rush, *J. inflexus*, American Willowherb, *Epilobium ciliatum*, Wood Dock, *Rumex sanguinea* and Tufted Hair-grass, *Deschampsia cespitosa* to become established.

Toward the north east of area A the soil is wetter and not dominated so severely by *C. epigejos* enabling additional herbs to be added to the community; Wood Anemone, *Anemone nemorosa*, Wild Angelica, *Angelica sylvestris*, Glaucous Sedge, *Carex flacca*, Great Willowherb, *Epilobium hirsutum*, Bugle, *Ajuga reptans*, Marsh Thistle, *Cirsium palustre* and Valerian, *Valeriana officinalis* start to appear.

Area AA

Area AA is located in the south west of the site between the points SP98609860, SP98769881, SP98769890, SP98579891, SP98399883 and SP98249874. The W21 *Crataegus monogyna* – *Hedera helix* scrub is replicated in the south west of the site, again with a boundary of *Pinus nigra* between SP9828798767, SP9859698626, SP9858398593 and SP9824598748. This area is slightly drier than area A and the variety of herbs is fewer with *Anemone nemorosa*, *Angelica sylvestris*, *Carex flacca*, *Epilobium hirsutum*, *Ajuga reptans*, *Cirsium palustre* and *Valeriana officinalis* only appearing against the line of a drainage ditch running along the northern edge of this area. Several Wild Service-tree *Sorbus torminalis* that have been spared the chainsaw stand tall amid the scrub (locations within the appendix).

Figure 1. Map of Fineshade Wood indicating plant communities, rides and woodland compartments, OS Licence No. 100054589 (Arvensis Ecology).



3.2 Area B - Deer enclosure – W8C *Fraxinus excelsior*-*Acer campestre*-*Mercurialis perennis* woodland, *Deschampsia cespitosa* sub-community

The deer enclosure is located within points SP98599928, SP98629922, SP98599918, SP98459915, SP98379924, SP98529933. The vegetation is considerably denser and the height of the lower branches is much lower making it difficult to survey thoroughly. This is one of the only areas of the site that has a proliferation of Remote Sedge, *Carex remota*, indicating that it may be preferentially grazed by deer. *Salix caprea*, Grey Willow, *S. cinerea*, *S. x Reichardtii*, Wood Sedge, *Carex sylvatica*, *C. remota* species and *Ajuga reptans* proliferate. The age-structure to this section of woodland is young with no maidens. The closed canopy is also preventing any seedlings of Ash, *Fraxinus excelsior*, from getting away as maiden poles. The soil is heavier and wetter than elsewhere in the site. The Northern boundary of the enclosure, against the cycle track, provides a framework for scrambling Traveller's Joy, *Clematis vitalba*, Honeysuckle, *Lonicera periclymenum*, and suitable open and light conditions for Wayfaring Tree, *Viburnum lantana*, Spindle, *Euonymus europaeus* and Greater Burnet-saxifrage, *Pimpinella major* to flourish.

3.3 Area C - Tall Ash - W8 *Fraxinus excelsior*-*Acer campestre*-*Mercurialis perennis* woodland

This is a small area of woodland, where Lawson's Cypress, *Chamaecyparis lawsoniana*'s have recently been removed, situated between the points SP98789928, SP98879933, SP98859936 and SP98769932. This presence of the conifers has drawn the Ash trees up artificially high, making them susceptible to wind damage. The previously dense cover enabled Rough-stalked Meadow-grass, *Poa trivialis*, to dominate the ground flora though opening this area up may favour *Deschampsia cespitosa* ultimately though Wood False-brome *Brachypodium sylvaticum* is prevailing currently. Floristically poor at present the *C. lawsoniana*'s has only recently been removed and is still prevalent amongst the ground flora, which is relatively herb poor.

3.4 Area D - Improving Ash woodland - W8 *Fraxinus excelsior*-*Acer campestre*-*Mercurialis perennis* woodland

A small section of W8 *Fraxinus excelsior*-*Acer campestre*-*Mercurialis perennis* woodland between points SP98779881, SP98769890 and SP98869888 with many Oak maidens. The ditches that create the boundary to the West and the North provide some diversity with species such as *Carex flacca*, Hedge Bedstraw, *Galium album*, Meadowsweet, *Filipendula ulmaria* and Square-stalked St John's-wort, *Hypericum tetrapterum* the majority of the interest being toward the open South-eastern cycle track boundary.

3.5 Area E - Typical W8b – *Fraxinus excelsior*-*Acer campestre*-*Mercurialis perennis* Woodland; *Hedera helix* sub-community

Area E falls between points SP98869888, SP98769890, SP98739891, SP98729898, SP98889902 and SP98939897. This is a more natural W8b – *Fraxinus excelsior*-*Acer campestre*-*Mercurialis perennis* Woodland; *Hedera helix* Sub-community woodland. The age structure is varied and the ground flora is more diverse. The ditch running on the South-Western boundary makes access with machinery difficult leading to its more natural development. The Rush filled ride to the North creates a buffer (see area K). Diversity is highest on the South-Eastern boundary against the cycle track with species such as Yellow Archangel, *Lamiastrum galeobdolon* subsp. *montanum*, and abundance of Violets, *Viola* sp., Bluebell, *Hyacinthoides non-scripta*, Scaly Male-fern, *Dryopteris affinis*, Wood Speedwell, *Veronica montana* and Ground Ivy, *Glechoma hederacea*. It is noticeable that diversity diminishes at the pinch point between the two Pine plantations; this may be because of a diminishing edge effect or the proximity of the two sections of heavily managed woodland or a combination of

both factors. This community connects into the uniform Oak woodland (J) and the coppiced Ash woodland (F).

3.6 Area F - Coppiced Ash Woodland - W8c *Fraxinus excelsior*-*Acer campestre*-*Mercurialis perennis* woodland, *Deschampsia cespitosa* sub-community

This typifies the most typical and diverse area of the site extending toward and including the Deer enclosure. This area falls between points SP98689903, SP98589901, SP98599910, SP98569913, SP98539912, SP98549905, SP98319921, SP98379924, SP98439914 and SP98629918. The deer enclosure is just across the cycle path to the north from species rich woodland ancient woodland (Sanderson, 2014); the deer enclosure would have been carved out of this semi-natural area enabling us to see a clear distinction between grazed and ungrazed woodland. Area F was probably managed as a coppice with occasional Ash maidens and therefore contains a greater range in structure. The open canopy means that the ground flora is dominated by grasses though occasional herbs are present; Garlic Mustard, *Alliaria petiolata*, *Hyacinthoides non-scripta*, Perforate St John's-wort, *Hypericum perforatum*, *Lamium galeobdolon* subsp. *montanum*, Dog's Mercury, *Mercurialis perennis*, Wood Sorrel, *Oxalis acetosella* and Greater Stitchwort, *Stellaria holostea*. This area contains a small shaded pond (7m x 3m x 0.4m) at SP98629906 containing Floating Sweet-grass, *Glyceria fluitans* and Brooklime, *Veronica becca-bunga*. A particularly handsome example of Wild Plum, *Prunus domestica*, is located at SP98619906.

3.7 Area G – Heavily shaded W8c *Fraxinus excelsior*-*Acer campestre*-*Mercurialis perennis* woodland, *Deschampsia cespitosa* sub-community

This area falls between the grid references SP98699903, SP98679900, SP98599899 and SP98589901 is densely planted with Beech, *Fagus sylvatica*, and *Betula pendula* limiting the ground flora in contrast to the more species-rich coppiced Ash woodland area F.

3.8 Area H - Pine woodland

This plantation is located in the centre of the site between points SP98739899, SP98889904, SP98769931, SP98729930, SP98699927, SP98619933 and SP98599933. Typical of a pine plantation this area lacks diversity of species and age structure. *Calamagrostis epigejos* is able to proliferate in conjunction with Common Tamarisk-moss, *Thuidium tamariscinum*, which is able to thrive in the lower light levels.

3.9 Area I - W8 *Fraxinus excelsior*-*Acer campestre*-*Mercurialis perennis* woodland

Small stand of well structured semi-natural Oak woodland positioned at SP98819922, SP98849923, SP98819929 and SP98789928. This is a W8 *Fraxinus excelsior*-*Acer campestre*-*Mercurialis perennis* woodland with Oak maidens that connects to the South of the tall Ash woodland (area C) this small fragment benefits from the ride to the West.

3.10 Area J - Uniform Oak woodland maintained over a W8c *Fraxinus excelsior*-*Acer campestre*-*Mercurialis perennis* woodland, *Deschampsia cespitosa* sub-community

This Oak plantation is situated within the grid references SP98759892, SP98579892, SP98549896, SP98549905, SP98539911, SP98559913, SP98609909, SP98589899, SP98679899 and SP98699903. The lack of *Fraxinus excelsior* maidens and reduction of Hazel, *Corylus avellana*, *Betula pendula* and Hawthorn, *Crataegus monogyna*, and the lack of structure create a poorer woodland. Although this community contains a large number of quite mature Oak trees, the dominance within the ground flora of *Calamagrostis epigejos* reduces the proportion of herbs.

3.11 Area K - Rides

Typically within a woodland the rides contain the greatest diversity. The tracking of heavy machinery over the clay soils has impeded the drainage; the ride between the typical Ash wood (area E) and the Pine plantation (area H) running all the way through to the Eastern side of the deer plantation (Eastern ride) is dominated by *Juncus effusus*, *J. inflexus*, Mint, *Mentha* sp., Charaphyte, *charaphyte* sp., Marsh Bedstraw, *Galium paluste* and Cuckoo Flower, *Cardamine pratensis*. The plant communities of the other rides (Western ride) running North from SP98939900 to SP98769930 and from SP98299921 to SP98559904 can be split into two communities; the wetter area where the ground is compacted, mainly through feet (not causing deep ruts) contain *Carex sylvatica*, False Fox Sedge *C. otrubae*, Gypsywort, *Lycopus europeaus*, Colt's Foot, *Tussilago farfara*, Creeping Jenny, *Lysimachia nummularia* and the drier margins are dominated by Common Bent, *Agrostis capillaris*, Velvet Bent, *A. canina*, Yorkshire Fog, *Holcus lanatus* as well as herbs such as Creeping Cinquefoil, *Potentilla reptans*, Tormentil, *P. erecta*, Germander Speedwell, *Veronica chamaedris*, Ribwort Plantain, *Plantago lanceolata* and Selfheal, *Prunella vulgaris*.

4.0 Analysis

4.1 Axiophytes

Axiophytes are 'worthy plants' - the 40% or so of species that arouse interest and praise from botanists when they are seen. They are indicators of habitat that is considered important for conservation, such as ancient woodlands, clear water and species-rich meadows. A list of axiophytes within Northamptonshire has yet to be created, therefore the list of axiophytes that has been created for Lincolnshire has been used (the nearest neighbouring vice county for which a list exists, BSBI Axiophytes 2014). In this context 45 axiophytes were recorded as indicated in Table 1. Occurrence is calculated using the DAFOR system: >75% Dominant, 75-51% Abundant, 50-26% Frequent, 25-11% Occasional, 10-1% Rare.

Table 1: Axiophytes identified in survey area

Axiophyte	Occurrence on site	Axiophyte	Occurrence on site
<i>Acer campestre</i>	Frequent	<i>Lotus corniculatus</i>	Rare
<i>Agrimonia eupatoria</i>	Rare	<i>Lotus pedunculatus</i>	Rare
<i>Agrostis canina</i>	Rare	<i>Lycopus europaeus</i>	Rare
<i>Ajuga reptans</i>	Abundant	<i>Lysimachia nummularia</i>	Rare
<i>Anemone nemorosa</i>	Occasional	<i>Mercurialis perennis</i>	Occasional
<i>Angelica sylvestris</i>	Abundant	<i>Ophioglossum vulgatum</i>	Rare
<i>Calamagrostis epigejos</i>	Dominant	<i>Oxalis acetosella</i>	Rare
<i>Cardamine pratensis</i>	Rare	<i>Pimpinella major</i>	Rare
<i>Carex otrubae</i>	Rare	<i>Potentilla erecta</i>	Rare
<i>Carex remota</i>	Abundant locally	<i>Potentilla sterilis</i>	Rare
<i>Carex sylvatica</i>	Frequent	<i>Primula veris</i>	Occasional
<i>Centaurea nigra</i>	Rare	<i>Sanicula europaea</i>	Rare
<i>Cornus sanguinea</i>	Occasional	<i>Schedonorus giganteus</i>	Rare
<i>Daphne laureola</i>	Rare	<i>Scrophularia nodosa</i>	Rare
<i>Dryopteris affinis</i>	Occasional	<i>Sorbus torminalis</i>	Rare

<i>Euonymus europaeus</i>	Rare	<i>Stellaria holostea</i>	Rare
<i>Galium odoratum</i>	Rare	<i>Valeriana officinalis</i>	Occasional
<i>Galium palustre</i>	Rare	<i>Veronica montana</i>	Occasional
<i>Hyacinthoides non-scripta</i>	Occasional	<i>Veronica officinalis</i>	Rare
<i>Hypericum hirsutum</i>	Occasional	<i>Viburnum opulus</i>	Rare
<i>Hypericum perforatum</i>	Common	<i>Vicia sepium</i>	Rare
<i>Hypericum tetrapterum</i>	Rare	<i>Viola riviniana</i>	Rare
<i>Lathyrus pratensis</i>	Rare		

Axiophytes can be used as an empirical measure for sites of nature conservation interest. This allows landowners and others to see how decisions have been made. A list of axiophytes was identified for Devon which suggested that a threshold of 20 axiophytes would be needed to qualify as a County Wildlife Site within Devon (Whild 2010). An axiophytes list was created for Wiltshire that identified that the average Special Site of Scientific Interest had 46 axiophytes, Wildlife Trust Sites had 45 axiophytes and unprotected County Wildlife Sites had 24 axiophytes (Whild 2010). This would indicate that the site is almost certainly worthy of being awarded the status of County Wildlife site though to be empirically rigorous this analysis should ideally be undertaken using an axiophytes list created for Northamptonshire.

4.2 Ancient Woodland Indicators

21 Ancient Woodland Indicators (AWI) were recorded of which the species marked in **bold** are strong indicators. (Occurrence is calculated using the DAFOR system, as above.)

Table 2: Ancient Woodland Indicators identified in survey area

Ancient Woodland Indicator	Occurrence on site
<i>Acer campestre</i>	Frequent throughout
<i>Anemone nemorosa</i>	Occasional throughout
<i>Arum maculatum</i>	Frequent throughout
<i>Carex remota</i>	Restricted to deer enclosure and immediate surrounds
<i>Carex sylvatica</i>	Frequent throughout
<i>Cornus sanguinea</i>	Occasional throughout
<i>Daphne laureola</i>	1 plant at SP98279876
<i>Dryopteris affinis</i>	Occasional throughout
<i>Euonymus europaeus</i>	Restricted to deer enclosure
<i>Galium odoratum</i>	Rare
<i>Helleborus viridis</i>	1 plant opposite Top Lodge cottage SP98629863 possibly introduced
<i>Hyacinthoides non-scripta</i>	Occasional throughout Ash woodland
<i>Lamium galeobdolon ssp. montanum</i>	Occasional throughout Ash woodland
<i>Mercurialis perennis</i>	Occasional throughout Ash woodland
<i>Oxalis acetosella</i>	Occasional throughout both Ash and Oak woodland
<i>Potentilla sterilis</i>	Common throughout
<i>Sanicula europaea</i>	Rare
<i>Schedonorus gigantea</i>	Restricted around deer enclosure
<i>Sorbus torminalis</i>	Occasional throughout western area of Calamagrostis scrub

<i>Ulmus glabra</i>	One tree between the uniform Oak woodland and Calamagrostis scrub
<i>Veronica montanum</i>	Occasional throughout Ash woodland
<i>Viburnum opulus</i>	Within the South-Eastern hedgerow

The presence of AWIs also needs to be considered in the context of their abundance: of the strong AWI's only *Carex sylvatica* is locally frequent in areas across the site, the management of the site has provided an opportunity for *C. sylvatica*, a species favouring semi-shade, to thrive because of the manner in which the areas have been delineated i.e. rides, woodland edges. Many of the other indicators appear at the extremity or near the W8b – *Fraxinus excelsior*-*Acer campestre*-*Mercurialis perennis* Woodland; *Hedera helix* sub-community Ancient Woodland that borders the site. This survey would indicate that the area that was surveyed was secondary woodland that borders existing Ancient Woodland, this would support the findings of the recent Ancient Woodland report.

Constraints on survey:

This survey was undertaken on the 10th and 11th May 2014. Not all species would have been recorded simply because they were not evident at the time of recording, the grasses, sedges and roses in particular were not in flower. An additional botanical survey in late July/August would ensure that species that may be of ecological importance could be surveyed.

Another constraint on the survey was the combination of Phase I and NVC. Each quadrat was selected because it represented a 'typical' area of that community however as the quadrats are not replicated, presence or percentage cover should not be used to ascertain abundance. A full NVC survey would have provided 5 quadrats within each community and provided a more representative basis for interpretation. The tables at 4.1 and 4.2 are a broad-brush of the site and again may not represent individual communities.

5.0 References

Botanical Society of the British Isles (2011). BSBI Distribution Database [online]. Available at <http://bsbidb.org.uk/> (accessed May 2014).

Botanical Society of the British Isles (2011). BSBI Axiophyte concept [online]. Available at <http://bsbi.org.uk/axiophytes.html> (accessed May 2014).

Rodwell J.S., *et al.* (ed.) *British Plant Communities*. Cambridge University Press. Vol. 1. Woodlands and scrub. (1991).

Rose F. 1999 Indicators of Ancient Woodland: the use of vascular plants in evaluating ancient woods for nature conservation. *British Wildlife* 10: 241- 251.

Stace C. (2010) *New flora of the British Isles*. 3rd ed. Cambridge: Cambridge University Press; 2010.

Whild S. (2010) Axiophytes in the Landscape, PowerPoint Presentation, [online]. Available at http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CDIQFjAA&url=http%3A%2F%2Fbn.org.uk%2Fbn_wide%2Fmedia%2FDocuments%2FConferences%2FPresentations%2F8-Sarah-Whild-Axiophytes-in-the-landscape.pptx&ei=0MJ5U7v8LIWd0AWR14HYCg&usq=AFQjCNH-5INDTyhvFEP5x6MWsVGv58ZQUQ&sig2=DTr4R6ValtQtmOed0cEosQ&bvm=bv.66917471.d.bGQ (accessed May 2014).

Sanderson N.A., (April 2014). Notes on the Status of Woodland at Fineshade, Northamptonshire.

6.0 Appendix

6.1 Monad Species lists

6.1.1 SP9898

Recorder:	John Handley	
Date:	10th May 2014	
Location:	SP9898	
Taxon	Vernacular	Comment
<i>Acer campestre</i>	Field Maple	
<i>Acer pseudoplatanus</i>	Sycamore	
<i>Achillea millefolium</i>	Yarrow	
<i>Aegopodium podagraria</i>	Ground-elder	Patch located by Top Lodge cottage
<i>Agrimonia eupatoria</i>	Agrimony	
<i>Agrostis canina</i>	Velvet Bent	
<i>Agrostis capillaris</i>	Common Bent	
<i>Agrostis stolonifera</i>	Creeping Bent	
<i>Ajuga reptans</i>	Bugle	
<i>Alopecurus pratensis</i>	Meadow Foxtail	
<i>Anemone nemorosa</i>	Wood Anemone	
<i>Angelica sylvestris</i>	Wild Angelica	
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	
<i>Anthriscus sylvestris</i>	Cow Parsley	
<i>Arrhenatherum elatius</i>	False Oat-Grass	
<i>Arum maculatum</i>	Lords-and-Ladies	
<i>Athyrium filix-femina</i>	Lady-fern	
<i>Bellis perennis</i>	Daisy	
<i>Betula pendula</i>	Silver Birch	
<i>Brachypodium sylvaticum</i>	False-brome	
<i>Calamagrostis epigejos</i>	Wood Small-reed	
<i>Carex flacca</i>	Glaucous Sedge	
<i>Carex otrubae</i>	False Fox-sedge	
<i>Carex sylvatica</i>	Wood-sedge	
<i>Carpinus betulus</i>	Hornbeam	
<i>Centaurea nigra</i>	Common Knapweed	
<i>Cerastium fontanum</i>	Common Mouse-ear	
<i>Chamerion angustifolium</i>	Rosebay Willowherb	
<i>Circaea lutetiana</i>	Enchanter's-nightshade	
<i>Cirsium arvense</i>	Creeping Thistle	
<i>Cirsium palustre</i>	Marsh Thistle	
<i>Cirsium vulgare</i>	Spear Thistle	
<i>Clematis vitalba</i>	Traveller's-joy	
<i>Cornus sanguinea</i> subsp. <i>sanguinea</i>	Dogwood	
<i>Corylus avellana</i>	Hazel	

<i>Crataegus monogyna</i>	Hawthorn	
<i>Dactylis glomerata</i>	Cock's-foot	
<i>Daphne laureola</i>	Spurge-laurel	1 plant SP98279876
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	
<i>Dipsacus fullonum</i>	Wild Teasel	
<i>Dryopteris affinis</i>	Scaly Male-fern	
<i>Epilobium ciliatum</i>	American Willowherb	
<i>Epilobium hirsutum</i>	Great Willowherb	
<i>Equisetum arvense</i>	Field Horsetail	
<i>Erophila verna sens. lat.</i>	Common Whitlowgrass	
<i>Festuca rubra</i>	Red Fescue	
<i>Ficaria verna subsp. verna</i>	Lesser Celandine	
<i>Filipendula ulmaria</i>	Meadowsweet	
<i>Fraxinus excelsior</i>	Ash	
<i>Galeopsis tetrahit agg.</i>	Common Hemp-nettle	
<i>Galium album</i>	Hedge Bedstraw	
<i>Galium aparine</i>	Cleavers	
<i>Geranium pratense</i>	Meadow Crane's-bill	
<i>Geranium robertianum</i>	Herb-Robert	
<i>Geum urbanum</i>	Wood Avens	
<i>Glechoma hederacea</i>	Ground-ivy	
<i>Helleborus viridis</i>	Green Hellebore	1 plant located opposite Top Lodge Cottage SP9862998639
<i>Heracleum sphondylium</i>	Hogweed	
<i>Holcus lanatus</i>	Yorkshire-fog	
<i>Hyacinthoides non-scripta</i>	Bluebell	
<i>Hypericum hirsutum</i>	Hairy St John's-wort	
<i>Hypericum perforatum</i>	Perforate St John's-wort	
<i>Hypericum tetrapterum</i>	Square-stalked St John's-wort	
<i>Juncus effusus</i>	Soft-rush	
<i>Juncus inflexus</i>	Hard Rush	
<i>Lamium galeobdolon subsp. montanum</i>	Yellow Archangel	
<i>Lamium album</i>	White Dead-nettle	
<i>Lathyrus pratensis</i>	Meadow Vetchling	
<i>Lonicera periclymenum</i>	Honeysuckle	
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil	
<i>Lotus pedunculatus</i>	Greater Bird's-foot-trefoil	
<i>Lycopus europaeus</i>	Gypsywort	
<i>Malus pumila</i>	Apple	
<i>Mercurialis perennis</i>	Dog's Mercury	
<i>Myosotis arvensis</i>	Field Forget-me-not	
<i>Oxalis acetosella</i>	Wood-sorrel	
<i>Pinus nigra</i>	Austrian Pine / Corsican Pine	
<i>Pinus sylvestris</i>	Scots Pine	

<i>Plantago lanceolata</i>	Ribwort Plantain	
<i>Plantago major</i>	Greater Plantain	
<i>Poa annua</i>	Annual Meadow-grass	
<i>Poa humilis</i>	Spreading Meadow-grass	
<i>Poa pratensis</i>	Smooth Meadow-grass	
<i>Poa trivialis</i>	Rough Meadow-grass	
<i>Populus sp.</i>	a poplar	
<i>Potentilla anserina</i>	Silverweed	
<i>Potentilla reptans</i>	Creeping Cinquefoil	
<i>Potentilla sterilis</i>	Barren Strawberry	
<i>Primula veris</i>	Cowslip	
<i>Prunella vulgaris</i>	Selfheal	
<i>Prunus spinosa</i>	Blackthorn	
<i>Quercus robur</i>	Pedunculate Oak	
<i>Ranunculus repens</i>	Creeping Buttercup	
<i>Rosa sp.</i>	a Rose	
<i>Rubus fruticosus agg.</i>	Bramble	
<i>Rumex crispus</i>	Curled Dock	
<i>Rumex obtusifolius</i>	Broad-leaved Dock	
<i>Rumex sanguineus</i>	Wood Dock	
<i>Salix caprea</i>	Goat Willow	
<i>Salix cinerea</i>	Grey Willow	
<i>Salix x reichardtii</i>	S. caprea x cinerea	
<i>Scrophularia nodosa</i>	Common Figwort	
<i>Senecio jacobaea</i>	Common Ragwort	
<i>Senecio sylvaticus</i>	Heath Groundsel	
<i>Sorbus torminalis</i>	Wild Service-tree	Individual trees at SP98709888, SP98499880, SP98479877, SP98379879, SP98549874, SP98679876 & SP98689875.
<i>Stachys sylvatica</i>	Hedge Woundwort	
<i>Stellaria holostea</i>	Greater Stitchwort	
<i>Taraxacum agg.</i>	Dandelion	
<i>Trifolium pratense</i>	Red Clover	
<i>Trifolium repens</i>	White Clover	
<i>Tussilago farfara</i>	Colt's-foot	
<i>Ulmus glabra</i>	Wych Elm	
<i>Urtica dioica</i>	Common Nettle	
<i>Valeriana officinalis</i>	Common Valerian	
<i>Veronica chamaedrys</i>	Germander Speedwell	
<i>Veronica montana</i>	Wood Speedwell	
<i>Veronica officinalis</i>	Heath Speedwell	
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell	
<i>Viburnum opulus</i>	Guelder-rose	
<i>Vicia cracca</i>	Tufted Vetch	
<i>Vicia sepium</i>	Bush Vetch	
<i>Viola riviniana</i>	Common Dog-violet	

Viola sp.	Violet sp.	
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6.1.2 SP9899

Recorder:	John Handley	
Date:	10th May 2014	
Location:	SP9899	
Taxon	Vernacular	Comment
<i>Acer campestre</i>	Field Maple	
<i>Agrimonia eupatoria</i>	Agrimony	
<i>Agrostis canina</i>	Velvet Bent	
<i>Agrostis capillaris</i>	Common Bent	
<i>Agrostis stolonifera</i>	Creeping Bent	
<i>Ajuga reptans</i>	Bugle	
<i>Alliaria petiolata</i>	Garlic Mustard	
<i>Anemone nemorosa</i>	Wood Anemone	
<i>Angelica sylvestris</i>	Wild Angelica	
<i>Arctium minus</i>	Lesser Burdock	
<i>Arrhenatherum elatius</i>	False Oat-Grass	
<i>Arum maculatum</i>	Lords-and-Ladies	
<i>Athyrium filix-femina</i>	Lady-fern	
<i>Betula pendula</i>	Silver Birch	
<i>Brachypodium sylvaticum</i>	False-brome	
<i>Calamagrostis epigejos</i>	Wood Small-reed	Abundant through the woodland
<i>Cardamine flexuosa</i>	Wavy Bitter-cress	
<i>Cardamine pratensis</i>	Cuckooflower	
<i>Carex flacca</i>	Glaucous Sedge	
<i>Carex remota</i>	Remote Sedge	
<i>Carex sylvatica</i>	Wood-sedge	
<i>Centaurea nigra</i>	Common Knapweed	
<i>Chamaecyparis lawsoniana</i>	Lawson's Cypress	
<i>Chamerion angustifolium</i>	Rosebay Willowherb	
<i>Circaea lutetiana</i>	Enchanter's-nightshade	
<i>Cirsium arvense</i>	Creeping Thistle	
<i>Cirsium palustre</i>	Marsh Thistle	
<i>Cirsium vulgare</i>	Spear Thistle	
<i>Clematis vitalba</i>	Traveller's-joy	
<i>Cornus sanguinea</i> subsp. <i>sanguinea</i>	Dogwood	
<i>Corylus avellana</i>	Hazel	
<i>Crataegus monogyna</i>	Hawthorn	
<i>Dactylis glomerata</i>	Cock's-foot	
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	
<i>Dipsacus fullonum</i>	Wild Teasel	
<i>Dryopteris affinis</i>	Scaly Male-fern	
<i>Epilobium ciliatum</i>	American Willowherb	

<i>Epilobium hirsutum</i>	Great Willowherb	
<i>Euonymus europaeus</i>	Spindle	
<i>Fagus sylvatica</i>	Beech	
<i>Festuca rubra</i>	Red Fescue	
<i>Ficaria verna subsp. verna</i>	Lesser Celandine	
<i>Filipendula ulmaria</i>	Meadowsweet	
<i>Fraxinus excelsior</i>	Ash	
<i>Galium album</i>	Hedge Bedstraw	
<i>Galium aparine</i>	Cleavers	
<i>Galium odoratum</i>	Woodruff	
<i>Galium palustre</i>	Marsh-bedstraw	
<i>Geranium pratense</i>	Meadow Crane's-bill	
<i>Geranium robertianum</i>	Herb-Robert	
<i>Geum urbanum</i>	Wood Avens	
<i>Glechoma hederacea</i>	Ground-ivy	
<i>Glyceria fluitans</i>	Floating Sweet-grass	
<i>Hedera helix</i>	Common Ivy	
<i>Heracleum sphondylium</i>	Hogweed	
<i>Holcus lanatus</i>	Yorkshire-fog	
<i>Hyacinthoides non-scripta</i>	Bluebell	
<i>Hypericum hirsutum</i>	Hairy St John's-wort	
<i>Hypericum perforatum</i>	Perforate St John's-wort	
<i>Hypericum tetrapterum</i>	Square-stalked St John's-wort	
<i>Juncus effusus</i>	Soft-rush	
<i>Juncus inflexus</i>	Hard Rush	
<i>Lamiastrum galeobdolon subsp. montanum</i>	Yellow Archangel	
<i>Lapsana communis</i>	Nipplewort	
<i>Lathyrus pratensis</i>	Meadow Vetchling	
<i>Lolium perenne</i>	Perennial Rye-grass	
<i>Lonicera periclymenum</i>	Honeysuckle	
<i>Lotus pedunculatus</i>	Greater Bird's-foot-trefoil	
<i>Lysimachia nummularia</i>	Creeping-Jenny	
<i>Mentha sp.</i>	Mint sp.	
<i>Mercurialis perennis</i>	Dog's Mercury	
<i>Myosotis Arvensis</i>	Field Forget-me-not	
<i>Ophioglossum vulgatum</i>	Adder's-tongue	1 plant SP9889699295-
<i>Oxalis acetosella</i>	Wood-sorrel	
<i>Pimpinella major</i>	Greater Burnet-saxifrage	
<i>Pinus nigra</i>	Austrian Pine / Corsican Pine	
<i>Pinus sylvestris</i>	Scots Pine	
<i>Plantago lanceolata</i>	Ribwort Plantain	
<i>Plantago major</i>	Greater Plantain	
<i>Poa trivialis</i>	Rough Meadow-grass	
<i>Populus sp.</i>	a poplar	

<i>Potentilla anserine</i>	Silverweed	
<i>Potentilla erecta</i>	Tormentil	
<i>Potentilla reptans</i>	Creeping Cinquefoil	
<i>Potentilla sterilis</i>	Barren Strawberry	
<i>Primula veris</i>	Cowslip	
<i>Prunella vulgaris</i>	Selfheal	
<i>Prunus domestica</i>	Wild Plum	Mature individual located at SP98619906
<i>Prunus spinosa</i>	Blackthorn	
<i>Quercus robur</i>	Pedunculate Oak	
<i>Ranunculus repens</i>	Creeping Buttercup	
<i>Rosa sp.</i>	a Rose	
<i>Rubus fruticosus agg.</i>	Bramble	
<i>Rubus idaeus</i>	Raspberry	
<i>Rumex sanguineus</i>	Wood Dock	
<i>Salix caprea</i>	Goat Willow	
<i>Salix cinerea</i>	Grey Willow	
<i>Salix x fragilis sens. lat.</i>	Hybrid Crack-willow	
<i>Salix x reichardtii</i>	S. caprea x cinerea	
<i>Sambucus nigra</i>	Elder	
<i>Schedonorus giganteus</i>	Giant Fescue	
<i>Scrophularia auriculata</i>	Water Figwort	
<i>Scrophularia nodosa</i>	Common Figwort	
<i>Senecio jacobaea</i>	Common Ragwort	
<i>Senecio sylvaticus</i>	Heath Groundsel	
<i>Sorbus torminalis</i>	Wild Service-tree	1 tree located at SP98629903 and SP98529907 and 4 further trees at SP98319922
<i>Stachys sylvatica</i>	Hedge Woundwort	
<i>Stellaria holostea</i>	Greater Stitchwort	
<i>Taraxacum agg.</i>	Dandelion	
<i>Trifolium pratense</i>	Red Clover	
<i>Trifolium repens</i>	White Clover	
<i>Tussilago farfara</i>	Colt's-foot	
<i>Urtica dioica</i>	Common Nettle	
<i>Valeriana officinalis</i>	Common Valerian	
<i>Veronica beccabunga</i>	Brooklime	
<i>Veronica chamaedrys</i>	Germander Speedwell	
<i>Veronica montana</i>	Wood Speedwell	
<i>Viburnum lantana</i>	Wayfaring-tree	
<i>Viburnum opulus</i>	Guelder-rose	
<i>Vicia cracca</i>	Tufted Vetch	
<i>Vicia sepium</i>	Bush Vetch	
<i>Viola riviniana</i>	Common Dog-violet	
<i>Viola sp.</i>	Violet sp.	

6.1.3 SP9999

Recorder:	John Handley	
Date:	11th May 2014	
Location:	SP9999	
Taxon	Vernacular	Comment
<i>Acer campestre</i>	Field Maple	
<i>Acer pseudoplatanus</i>	Sycamore	
<i>Achillea millefolium</i>	Yarrow	
<i>Agrostis capillaris</i>	Common Bent	
<i>Agrostis stolonifera</i>	Creeping Bent	
<i>Ajuga reptans</i>	Bugle	
<i>Alopecurus pratensis</i>	Meadow Foxtail	
<i>Anemone nemorosa</i>	Wood Anemone	
<i>Angelica sylvestris</i>	Wild Angelica	
<i>Arctium minus</i>	Lesser Burdock	
<i>Arrhenatherum elatius</i>	False Oat-Grass	
<i>Arum maculatum</i>	Lords-and-Ladies	
<i>Athyrium filix-femina</i>	Lady-fern	
<i>Betula pendula</i>	Silver Birch	
<i>Brachypodium sylvaticum</i>	False-brome	
<i>Calamagrostis epigejos</i>	Wood Small-reed	
<i>Calystegia sepium</i>	Hedge Bindweed	
<i>Cardamine flexuosa</i>	Wavy Bitter-cress	
<i>Carex otrubae</i>	False Fox-sedge	
<i>Carex sylvatica</i>	Wood-sedge	
<i>Centaurea nigra</i>	Common Knapweed	
<i>Chamerion angustifolium</i>	Rosebay Willowherb	
<i>Cirsium arvense</i>	Creeping Thistle	
<i>Cirsium palustre</i>	Marsh Thistle	
<i>Cirsium vulgare</i>	Spear Thistle	
<i>Cornus sanguinea</i> subsp. <i>sanguinea</i>	Dogwood	
<i>Corylus avellana</i>	Hazel	
<i>Crataegus monogyna</i>	Hawthorn	
<i>Dactylis glomerata</i>	Cock's-foot	
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	
<i>Dipsacus fullonum</i>	Wild Teasel	
<i>Dryopteris affinis</i>	Scaly Male-fern	
<i>Epilobium ciliatum</i>	American Willowherb	
<i>Epilobium hirsutum</i>	Great Willowherb	
<i>Festuca rubra</i>	Red Fescue	
<i>Filipendula ulmaria</i>	Meadowsweet	
<i>Fraxinus excelsior</i>	Ash	
<i>Galium aparine</i>	Cleavers	
<i>Geum urbanum</i>	Wood Avens	

<i>Glechoma hederacea</i>	Ground-ivy	
<i>Heracleum sphondylium</i>	Hogweed	
<i>Holcus lanatus</i>	Yorkshire-fog	
<i>Holcus mollis</i>	Creeping Soft-grass	
<i>Hyacinthoides non-scripta</i>	Bluebell	
<i>Hypericum hirsutum</i>	Hairy St John's-wort	
<i>Hypericum perforatum</i>	Perforate St John's-wort	
<i>Juncus effusus</i>	Soft-rush	
<i>Juncus inflexus</i>	Hard Rush	
<i>Lamium album</i>	White Dead-nettle	
<i>Lathyrus pratensis</i>	Meadow Vetchling	
<i>Lonicera periclymenum</i>	Honeysuckle	
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil	
<i>Mercurialis perennis</i>	Dog's Mercury	
<i>Myosotis Arvensis</i>	Field Forget-me-not	
<i>Plantago lanceolata</i>	Ribwort Plantain	
<i>Plantago major</i>	Greater Plantain	
<i>Poa annua</i>	Annual Meadow-grass	
<i>Poa pratensis</i>	Smooth Meadow-grass	
<i>Poa trivialis</i>	Rough Meadow-grass	
<i>Populus sp.</i>	a poplar	
<i>Potentilla anserine</i>	Silverweed	
<i>Potentilla reptans</i>	Creeping Cinquefoil	
<i>Potentilla sterilis</i>	Barren Strawberry	
<i>Prunus spinosa</i>	Blackthorn	
<i>Quercus robur</i>	Pedunculate Oak	
<i>Ranunculus repens</i>	Creeping Buttercup	
<i>Rosa sp.</i>	a Rose	
<i>Rubus fruticosus agg.</i>	Bramble	
<i>Rumex obtusifolius</i>	Broad-leaved Dock	
<i>Rumex sanguineus</i>	Wood Dock	
<i>Salix caprea</i>	Goat Willow	
<i>Salix cinerea</i>	Grey Willow	
<i>Sambucus nigra</i>	Elder	
<i>Sanicula europaea</i>	Sanicle	
<i>Scrophularia nodosa</i>	Common Figwort	
<i>Senecio jacobaea</i>	Common Ragwort	
<i>Senecio sylvaticus</i>	Heath Groundsel	
<i>Sonchus asper</i>	Prickly Sow-thistle	
<i>Stachys sylvatica</i>	Hedge Woundwort	
<i>Stellaria holostea</i>	Greater Stitchwort	
<i>Taraxacum agg.</i>	Dandelion	
<i>Trifolium repens</i>	White Clover	
<i>Ulmus procera</i>	English Elm	
<i>Urtica dioica</i>	Common Nettle	

<i>Veronica chamaedrys</i>	Germander Speedwell	
<i>Vicia cracca</i>	Tufted Vetch	
<i>Vicia sepium</i>	Bush Vetch	
<i>Viola riviniana</i>	Common Dog-violet	
<i>Viola sp.</i>		

6.1.4 Historical records

The following species have been recorded within monads SP9898, SP9899 and SP9999, Botanical Society of the British Isles (2011), BSBI Distribution Database.

Taxon	Taxon
<i>Acer campestre</i>	<i>Carex otrubae</i>
<i>Acer pseudoplatanus</i>	<i>Carex pendula</i>
<i>Achillea millefolium</i>	<i>Carex remota</i>
<i>Aegopodium podagraria</i>	<i>Carex sylvatica</i>
<i>Aesculus hippocastanum</i>	<i>Catapodium rigidum</i>
<i>Agrostis capillaris</i>	<i>Centaurea nigra s.s.</i>
<i>Agrostis stolonifera</i>	<i>Centaurea scabiosa</i>
<i>Ajuga reptans</i>	<i>Centaureum erythraea</i>
<i>Alliaria petiolata</i>	<i>Cerastium fontanum</i>
<i>Allium ursinum</i>	<i>Cerastium fontanum subsp. vulgare</i>
<i>Alopecurus pratensis</i>	<i>Cerastium glomeratum</i>
<i>Anagallis Arvensis</i>	<i>Chaerophyllum temulum</i>
<i>Anemone nemorosa</i>	<i>Chamaecyparis lawsoniana</i>
<i>Angelica sylvestris</i>	<i>Chamerion angustifolium</i>
<i>Anisantha sterilis</i>	<i>Chenopodium album</i>
<i>Anthoxanthum odoratum</i>	<i>Chenopodium polyspermum</i>
<i>Anthriscus sylvestris</i>	<i>Chenopodium rubrum</i>
<i>Aquilegia vulgaris</i>	<i>Chrysosplenium oppositifolium</i>
<i>Arabidopsis thaliana</i>	<i>Circaea lutetiana</i>
<i>Arctium minus</i>	<i>Cirsium arvense</i>
<i>Arenaria serpyllifolia</i>	<i>Cirsium palustre</i>
<i>Arrhenatherum elatius</i>	<i>Cirsium vulgare</i>
<i>Artemisia vulgaris</i>	<i>Clematis vitalba</i>
<i>Arum maculatum</i>	<i>Clinopodium vulgare</i>
<i>Atriplex patula</i>	<i>Cochlearia danica</i>
<i>Ballota nigra</i>	<i>Conium maculatum</i>
<i>Barbarea vulgaris</i>	<i>Convolvulus arvensis</i>
<i>Bellis perennis</i>	<i>Cornus sanguinea</i>
<i>Betula pendula</i>	<i>Cornus sanguinea subsp. sanguinea</i>
<i>Blackstonia perfoliata</i>	<i>Corylus avellana</i>
<i>Brachypodium pinnatum s.s.</i>	<i>Crataegus laevigata</i>
<i>Brachypodium sylvaticum</i>	<i>Crataegus monogyna</i>
<i>Bromopsis ramosa</i>	<i>Crepis capillaris</i>

<i>Bromus hordeaceus</i>	<i>Cryptomeria japonica</i> subsp. <i>japonica</i>
<i>Bryonia dioica</i>	<i>Cymbalaria muralis</i>
<i>Calamagrostis epigejos</i>	<i>Cynosurus cristatus</i>
<i>Calystegia sepium</i>	<i>Dactylis glomerata</i>
<i>Campanula trachelium</i>	<i>Dactylorhiza fuchsii</i>
<i>Cardamine flexuosa</i>	<i>Daphne laureola</i>
<i>Cardamine hirsuta</i>	<i>Daucus carota</i>
<i>Cardamine pratensis</i>	<i>Deschampsia cespitosa</i>
<i>Carduus crispus</i>	<i>Deschampsia cespitosa</i> subsp. <i>cespitosa</i>
<i>Carex flacca</i>	<i>Dipsacus fullonum</i>
<i>Carex hirta</i>	<i>Dipsacus pilosus</i>
<i>Dryopteris dilatata</i>	<i>Hypericum hirsutum</i>
<i>Dryopteris filix-mas</i>	<i>Hypericum perforatum</i>
<i>Elytrigia repens</i> agg.	<i>Hypochaeris radicata</i>
<i>Elytrigia repens</i> subsp. <i>repens</i> f. <i>repens</i>	<i>Ilex aquifolium</i>
<i>Epilobium ciliatum</i>	<i>Inula conyzae</i>
<i>Epilobium hirsutum</i>	<i>Juncus articulatus</i>
<i>Epilobium montanum</i>	<i>Juncus bufonius</i> s.l.
<i>Epilobium parviflorum</i>	<i>Juncus effusus</i>
<i>Equisetum arvense</i>	<i>Juncus effusus</i> var. <i>effusus</i>
<i>Euonymus europaeus</i>	<i>Juncus inflexus</i>
<i>Eupatorium cannabinum</i>	<i>Knautia arvensis</i>
<i>Euphorbia amygdaloides</i>	<i>Lactuca serriola</i>
<i>Euphorbia helioscopia</i>	<i>Lamiastrum galeobdolon</i>
<i>Euphorbia peplus</i>	<i>Lamium album</i>
<i>Euphrasia nemorosa</i>	<i>Lamium purpureum</i>
<i>Fagus sylvatica</i>	<i>Lapsana communis</i>
<i>Festuca rubra</i> agg.	<i>Lapsana communis</i> subsp. <i>communis</i>
<i>Ficaria verna</i>	<i>Larix decidua</i>
<i>Filipendula ulmaria</i>	<i>Lathyrus pratensis</i>
<i>Fragaria vesca</i>	<i>Leontodon hispidus</i>
<i>Fraxinus excelsior</i>	<i>Lepidium coronopus</i>
<i>Gagea lutea</i>	<i>Leucanthemum vulgare</i>
<i>Galanthus nivalis</i>	<i>Ligustrum vulgare</i>
<i>Galeopsis tetrahit</i> agg.	<i>Linum catharticum</i>
<i>Galium album</i>	<i>Lolium perenne</i>
<i>Galium aparine</i>	<i>Lonicera periclymenum</i>
<i>Galium verum</i>	<i>Lotus corniculatus</i>
<i>Geranium dissectum</i>	<i>Lotus pedunculatus</i>
<i>Geranium molle</i>	<i>Lycopus europaeus</i>
<i>Geranium pratense</i>	<i>Lysimachia nemorum</i>
<i>Geranium pusillum</i>	<i>Malus sylvestris</i> s.l.
<i>Geranium robertianum</i>	<i>Malva moschata</i>
<i>Geranium robertianum</i> subsp. <i>robertianum</i>	<i>Malva neglecta</i>
<i>Geum urbanum</i>	<i>Matricaria chamomilla</i>

<i>Glechoma hederacea</i>	<i>Matricaria discoidea</i>
<i>Gnaphalium uliginosum</i>	<i>Medicago lupulina</i>
<i>Hedera helix</i>	<i>Medicago sativa</i>
<i>Hedera helix s.l.</i>	<i>Mentha arvensis</i>
<i>Helminthotheca echioides</i>	<i>Mercurialis perennis</i>
<i>Heracleum sphondylium</i>	<i>Moehringia trinervia</i>
<i>Holcus lanatus</i>	<i>Myosotis arvensis</i>
<i>Hordelymus europaeus</i>	<i>Odontites vernus</i>
<i>Hordeum murinum</i>	<i>Odontites vernus subsp. serotinus</i>
<i>Hordeum secalinum</i>	<i>Origanum vulgare</i>
<i>Hyacinthoides non-scripta</i>	<i>Oxalis acetosella</i>
<i>Papaver dubium s.l.</i>	<i>Pulicaria dysenterica</i>
<i>Papaver rhoeas</i>	<i>Quercus robur</i>
<i>Papaver somniferum</i>	<i>Ranunculus acris</i>
<i>Pastinaca sativa</i>	<i>Ranunculus auricomus</i>
<i>Persicaria hydropiper</i>	<i>Ranunculus bulbosus</i>
<i>Persicaria maculosa</i>	<i>Ranunculus parviflorus</i>
<i>Phleum pratense s.l.</i>	<i>Ranunculus repens</i>
<i>Picea abies</i>	<i>Reseda lutea</i>
<i>Picea abies subsp. abies var. abies</i>	<i>Reseda luteola</i>
<i>Pilosella officinarum</i>	<i>Rhamnus cathartica</i>
<i>Pimpinella major</i>	<i>Ribes rubrum</i>
<i>Pinus nigra</i>	<i>Ribes uva-crispa</i>
<i>Pinus sylvestris</i>	<i>Rosa arvensis</i>
<i>Plantago coronopus</i>	<i>Rosa canina agg.</i>
<i>Plantago lanceolata</i>	<i>Rosa stylosa</i>
<i>Plantago major</i>	<i>Rubus fruticosus agg.</i>
<i>Plantago major subsp. major</i>	<i>Rubus ulmifolius</i>
<i>Plantago media</i>	<i>Rumex acetosa</i>
<i>Poa annua</i>	<i>Rumex obtusifolius</i>
<i>Poa nemoralis</i>	<i>Rumex sanguineus</i>
<i>Poa pratensis s.l.</i>	<i>Sagina procumbens</i>
<i>Poa trivialis</i>	<i>Salix caprea</i>
<i>Polygonum arenastrum</i>	<i>Salix cinerea</i>
<i>Populus balsamifera x deltoides = P. x jackii</i>	<i>Sambucus nigra</i>
<i>Populus nigra s.l.</i>	<i>Sanicula europaea</i>
<i>Potentilla anserina</i>	<i>Saxifraga tridactylites</i>
<i>Potentilla reptans</i>	<i>Schedonorus giganteus</i>
<i>Potentilla sterilis</i>	<i>Schedonorus pratensis</i>
<i>Primula veris</i>	<i>Scorzoneroideis autumnalis</i>
<i>Primula vulgaris</i>	<i>Scrophularia auriculata</i>
<i>Prunella vulgaris</i>	<i>Scrophularia nodosa</i>
<i>Prunus avium</i>	<i>Sedum acre</i>
<i>Prunus spinosa</i>	<i>Sedum telephium</i>
<i>Pteridium aquilinum</i>	<i>Senecio erucifolius</i>

<i>Pteridium aquilinum</i> subsp. <i>aquilinum</i>	<i>Senecio jacobaea</i>
<i>Senecio sylvaticus</i>	<i>Veronica hederifolia</i>
<i>Senecio vulgaris</i>	<i>Veronica montana</i>
<i>Senecio vulgaris</i> subsp. <i>vulgaris</i> var. <i>vulgaris</i>	<i>Veronica persica</i>
<i>Sherardia arvensis</i>	<i>Veronica polita</i>
<i>Silene dioica</i>	<i>Veronica serpyllifolia</i>
<i>Silene flos-cuculi</i>	<i>Veronica serpyllifolia</i> subsp. <i>serpyllifolia</i>
<i>Silene latifolia</i>	<i>Viburnum lantana</i>
<i>Silene vulgaris</i>	<i>Viburnum opulus</i>
<i>Sinapis arvensis</i>	<i>Vicia cracca</i>
<i>Sisymbrium officinale</i>	<i>Vicia sativa</i> subsp. <i>segetalis</i>
<i>Solanum dulcamara</i>	<i>Vicia sepium</i>
<i>Sonchus arvensis</i>	<i>Viola arvensis</i>
<i>Sonchus asper</i>	<i>Viola hirta</i>
<i>Sonchus oleraceus</i>	<i>Viola odorata</i>
<i>Sorbus aucuparia</i>	<i>Viola riviniana</i>
<i>Stachys sylvatica</i>	<i>Veronica chamaedrys</i>
<i>Stellaria graminea</i>	
<i>Stellaria holostea</i>	
<i>Symphoricarpos albus</i>	
<i>Tamus communis</i>	
<i>Taraxacum</i> agg.	
<i>Taxus baccata</i> f. <i>baccata</i>	
<i>Thuja plicata</i>	
<i>Tilia cordata</i>	
<i>Tilia cordata</i> x <i>platyphyllos</i> = <i>T. x europaea</i>	
<i>Torilis japonica</i>	
<i>Tragopogon pratensis</i>	
<i>Trifolium campestre</i>	
<i>Trifolium dubium</i>	
<i>Trifolium pratense</i>	
<i>Trifolium repens</i>	
<i>Tripleurospermum inodorum</i>	
<i>Trisetum flavescens</i>	
<i>Tussilago farfara</i>	
<i>Typha latifolia</i>	
<i>Ulex europaeus</i>	
<i>Ulmus procera</i>	
<i>Urtica dioica</i>	
<i>Urtica dioica</i> subsp. <i>dioica</i>	
<i>Valeriana officinalis</i>	
<i>Valeriana officinalis</i> subsp. <i>collina</i>	
<i>Verbascum thapsus</i>	
<i>Veronica arvensis</i>	
<i>Veronica beccabunga</i>	

6.2 Site species list

155 species recorded within the site on the 10th and 11th May 2014, of these 45 were Axiophytes are (marked with #) and 21 were Ancient Woodland indicators (marked with *).

Taxon	Vernacular
<i>Acer campestre</i> *#	Field Maple
<i>Acer pseudoplatanus</i>	Sycamore
<i>Achillea millefolium</i>	Yarrow
<i>Aegopodium podagraria</i>	Ground-elder
<i>Agrimonia eupatoria</i> #	Agrimony
<i>Agrostis canina</i> #	Velvet Bent
<i>Agrostis capillaris</i>	Common Bent
<i>Agrostis stolonifera</i>	Creeping Bent
<i>Ajuga reptans</i> #	Bugle
<i>Alliaria petiolata</i>	Garlic Mustard
<i>Alopecurus pratensis</i>	Meadow Foxtail
<i>Anemone nemorosa</i> *#	Wood Anemone
<i>Angelica sylvestris</i> #	Wild Angelica
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
<i>Anthriscus sylvestris</i>	Cow Parsley
<i>Arctium minus</i>	Lesser Burdock
<i>Arrhenatherum elatius</i>	False Oat-Grass
<i>Arum maculatum</i> *	Lords-and-Ladies
<i>Athyrium filix-femina</i>	Lady-fern
<i>Bellis perennis</i>	Daisy
<i>Betula pendula</i>	Silver Birch
<i>Brachypodium sylvaticum</i>	False-brome
<i>Calamagrostis epigejos</i> #	Wood Small-reed
<i>Calystegia sepium</i>	Hedge Bindweed
<i>Cardamine flexuosa</i>	Wavy Bitter-cress
<i>Cardamine pratensis</i> #	Cuckooflower
<i>Carex flacca</i>	Glaucous Sedge
<i>Carex otrubae</i> #	False Fox-sedge
<i>Carex remota</i> *#	Remote Sedge
<i>Carex sylvatica</i> *#	Wood-sedge
<i>Carpinus betulus</i>	Hornbeam
<i>Centaurea nigra</i> #	Common Knapweed
<i>Cerastium fontanum</i>	Common Mouse-ear
<i>Chamaecyparis lawsoniana</i>	Lawson's Cypress
<i>Chamerion angustifolium</i>	Rosebay Willowherb
<i>Circaea lutetiana</i>	Enchanter's-nightshade
<i>Cirsium arvense</i>	Creeping Thistle
<i>Cirsium palustre</i>	Marsh Thistle
<i>Cirsium vulgare</i>	Spear Thistle
<i>Clematis vitalba</i>	Traveller's-joy

<i>Cornus sanguinea</i> subsp. <i>sanguinea</i> *#	Dogwood
<i>Corylus avellana</i>	Hazel
<i>Crataegus monogyna</i>	Hawthorn
<i>Dactylis glomerata</i>	Cock's-foot
<i>Daphne laureola</i> *#	Spurge-laurel
<i>Deschampsia cespitosa</i>	Tufted Hair-grass
<i>Dipsacus fullonum</i>	Wild Teasel
<i>Dryopteris affinis</i> *#	Scaly Male-fern
<i>Epilobium ciliatum</i>	American Willowherb
<i>Epilobium hirsutum</i>	Great Willowherb
<i>Equisetum arvense</i>	Field Horsetail
<i>Erophila verna</i> sens. lat.	Common Whitlowgrass
<i>Euonymus europaeus</i> *#	Spindle
<i>Fagus sylvatica</i>	Beech
<i>Festuca rubra</i>	Red Fescue
<i>Ficaria verna</i> subsp. <i>verna</i>	Lesser Celandine
<i>Filipendula ulmaria</i>	Meadowsweet
<i>Fraxinus excelsior</i>	Ash
<i>Galeopsis tetrahit</i> agg.	Common Hemp-nettle
<i>Galium album</i>	Hedge Bedstraw
<i>Galium aparine</i>	Cleavers
<i>Galium odoratum</i> *#	Woodruff
<i>Galium palustre</i> #	Marsh-bedstraw
<i>Geranium pratense</i>	Meadow Crane's-bill
<i>Geranium robertianum</i>	Herb-Robert
<i>Geum urbanum</i>	Wood Avens
<i>Glechoma hederacea</i>	Ground-ivy
<i>Glyceria fluitans</i>	Floating Sweet-grass
<i>Hedera helix</i>	Common Ivy
<i>Helleborus viridis</i> *	Green Hellebore
<i>Heracleum sphondylium</i>	Hogweed
<i>Holcus lanatus</i>	Yorkshire-fog
<i>Holcus mollis</i>	Creeping Soft-grass
<i>Hyacinthoides non-scripta</i> *#	Bluebell
<i>Hypericum hirsutum</i> #	Hairy St John's-wort
<i>Hypericum perforatum</i> #	Perforate St John's-wort
<i>Hypericum tetrapterum</i> #	Square-stalked St John's-wort
<i>Juncus effusus</i>	Soft-rush
<i>Juncus inflexus</i>	Hard Rush
<i>Lamiastrum galeobdolon</i> subsp. <i>montanum</i> *	Yellow Archangel
<i>Lamium album</i>	White Dead-nettle
<i>Lapsana communis</i>	Nipplewort
<i>Lathyrus pratensis</i> #	Meadow Vetchling
<i>Lolium perenne</i>	Perennial Rye-grass
<i>Lonicera periclymenum</i>	Honeysuckle

<i>Lotus corniculatus</i> #	Common Bird's-foot-trefoil
<i>Lotus pedunculatus</i> #	Greater Bird's-foot-trefoil
<i>Lycopus europaeus</i> #	Gypsywort
<i>Lysimachia nummularia</i> #	Creeping-Jenny
<i>Malus pumila</i>	Apple
<i>Mentha</i> sp.	a Mint
<i>Mercurialis perennis</i> *#	Dog's Mercury
<i>Myosotis Arvensis</i>	Field Forget-me-not
<i>Ophioglossum vulgatum</i> #	Adder's-tongue
<i>Oxalis acetosella</i> *#	Wood-sorrel
<i>Pimpinella major</i> #	Greater Burnet-saxifrage
<i>Pinus nigra</i>	Austrian Pine / Corsican Pine
<i>Pinus sylvestris</i>	Scots Pine
<i>Plantago lanceolata</i>	Ribwort Plantain
<i>Plantago major</i>	Greater Plantain
<i>Poa annua</i>	Annual Meadow-grass
<i>Poa humilis</i>	Spreading Meadow-grass
<i>Poa pratensis</i>	Smooth Meadow-grass
<i>Poa trivialis</i>	Rough Meadow-grass
<i>Populus</i> sp.	a poplar
<i>Potentilla anserine</i>	Silverweed
<i>Potentilla erecta</i> #	Tormentil
<i>Potentilla reptans</i>	Creeping Cinquefoil
<i>Potentilla sterilis</i> *#	Barren Strawberry
<i>Primula veris</i> #	Cowslip
<i>Prunella vulgaris</i>	Selfheal
<i>Prunus domestica</i>	Wild Plum
<i>Prunus spinosa</i>	Blackthorn
<i>Quercus robur</i>	Pedunculate Oak
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Rosa</i> sp.	a Rose
<i>Rubus fruticosus</i> agg.	Bramble
<i>Rubus idaeus</i>	Raspberry
<i>Rumex crispus</i>	Curled Dock
<i>Rumex obtusifolius</i>	Broad-leaved Dock
<i>Rumex sanguineus</i>	Wood Dock
<i>Salix caprea</i>	Goat Willow
<i>Salix cinerea</i>	Grey Willow
<i>Salix x fragilis</i> sens. lat.	Hybrid Crack-willow
<i>Salix x reichardtii</i>	S. caprea x cinerea
<i>Sambucus nigra</i>	Elder
<i>Sanicula europaea</i> *#	Sanicle
<i>Schedonorus giganteus</i> *#	Giant Fescue
<i>Scrophularia auriculata</i>	Water Figwort
<i>Scrophularia nodosa</i> #	Common Figwort

<i>Senecio jacobaea</i>	Common Ragwort
<i>Senecio sylvaticus</i>	Heath Groundsel
<i>Sonchus asper</i>	Prickly Sow-thistle
<i>Sorbus torminalis*#</i>	Wild Service-tree
<i>Stachys sylvatica</i>	Hedge Woundwort
<i>Stellaria holostea #</i>	Greater Stitchwort
<i>Taraxacum agg.</i>	Dandelion
<i>Trifolium pratense</i>	Red Clover
<i>Trifolium repens</i>	White Clover
<i>Tussilago farfara</i>	Colt's-foot
<i>Ulmus glabra*</i>	Wych Elm
<i>Ulmus procera</i>	English Elm
<i>Urtica dioica</i>	Common Nettle
<i>Valeriana officinalis #</i>	Common Valerian
<i>Veronica beccabunga</i>	Brooklime
<i>Veronica chamaedrys</i>	Germander Speedwell
<i>Veronica montana*#</i>	Wood Speedwell
<i>Veronica officinalis</i>	Heath Speedwell
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell
<i>Viburnum lantana</i>	Wayfaring-tree
<i>Viburnum opulus*#</i>	Gelder-rose
<i>Vicia cracca</i>	Tufted Vetch
<i>Vicia sepium #</i>	Bush Vetch
<i>Viola riviniana #</i>	Common Dog-violet
<i>Viola sp.</i>	a Violet

6.3 Quadrat data for communities

Grid reference recorded in the south west corner of each quadrat facing north.

A. Calamagrostis Scrub (SP9891099153)	%
<i>Betula pendula</i> (S)	30
<i>Quercus robur</i> (S)	5
<i>Calamagrostis epigejos</i>	80
<i>Deschampsia cespitosa</i>	10
<i>Juncus effusus</i>	8
<i>Cirsium arvense</i>	5
<i>Holcus lanatus</i>	3
<i>Cirsium vulgare</i>	3
<i>Glechoma hederacea</i>	3
<i>Juncus inflexus</i>	3
<i>Urtica dioica</i>	3
<i>Epilobium ciliatum</i>	2
<i>Galium album</i>	2
<i>Ajuga reptans</i>	2
<i>Viola sp.</i>	1

B. Deer enclosure (SP9854699208)	%
<i>Salix caprea</i> (S)	40
<i>Betula pendula</i> (S)	40
<i>Salix reichardtii</i> (S)	10
<i>Quercus robur</i> (S)	10
<i>Ajuga reptans</i>	50
<i>Carex sylvatica</i>	20
<i>Carex remota</i>	20
<i>Deschampsia cespitosa</i>	20
<i>Agrostis stolonifera</i>	10
<i>Geranium robertianum</i>	5
<i>Lonicera periclymenum</i>	5
<i>Galium aparine</i>	3
<i>Scrophularia nodosa</i>	1
<i>Cirsium paluste</i>	1

C. Ash woodland (tall) (SP9879499285)	%
<i>Fraxinus excelsior</i> (C)	80
<i>Poa trivialis</i>	65
<i>Brachypodium sylvaticum</i>	50
<i>Deschampsia cespitosa</i>	10
<i>Rubus fruticosus</i> agg.	10
<i>Chamaecyparis lawsoniana</i>	10
<i>Rosa</i> sp.	1

D. Improving Woodland (SP9878598910)	%
<i>Betula pendula</i> (S)	60
<i>Corylus avellana</i> (S)	20
<i>Quercus robur</i> (S)	10
<i>Deschampsia cespitosa</i>	35
<i>Juncus effusus</i>	25
<i>Primula veris</i>	5
<i>Athyrium filix-femina</i>	5
<i>Rubus fruticosus</i> agg.	5
<i>Lonicera periclymenum</i>	4
<i>Geranium robertianum</i>	2
<i>Glechoma hederacea</i>	2
<i>Dryopteris affinis</i>	2
<i>Brachypodium sylvaticum</i>	2
<i>Crataegus monogyna</i>	2
<i>Filipendula ulmaria</i>	1
<i>Rumex sanguinea</i>	1

E. Ash-Field Maple woodland (SP9889398969)	%
<i>Quercus robur</i> (C)	30
<i>Fraxinus excelsior</i> (C)	30
<i>Salix caprea</i> (C)	5
Open space (C)	40
<i>Crataegus monogyna</i> (S)	15
<i>Prunus spinosa</i> (S)	15
<i>Corylus avellana</i> (S)	10
<i>Acer campestre</i> (S)	5
<i>Poa trivialis</i>	25
<i>Brachypodium sylvaticum</i>	15
<i>Deschampsia cespitosa</i>	15
<i>Viola</i> sp.	10
<i>Circaea lutetiana</i>	5
<i>Rubus fruticosus</i> agg.	3
<i>Geum urbanum</i>	3
<i>Geranium robertianum</i>	3
<i>Ajuga reptans</i>	3
<i>Lamium galeobdolon</i> subsp. <i>montanum</i>	3
<i>Fraxinus excelsior</i>	3
<i>Quercus robur</i>	1

F. Open Ash woodland (SP9857299184)	%
<i>Fraxinus excelsior</i> (C)	50
<i>Quercus robur</i> (C)	5
Open space (C)	45
<i>Crataegus monogyna</i> (S)	5
<i>Corylus avellana</i> (S)	5
<i>Deschampsia cespitosa</i>	25
<i>Brachypodium sylvaticum</i>	20
<i>Poa trivialis</i>	20
<i>Calamagrostis epigejos</i>	15
<i>Rubus fruticosus</i> agg.	10
<i>Betula pendula</i>	5
<i>Urtica dioica</i>	3
<i>Carex sylvatica</i>	1

G. Birch/Beech (SP9860599007)	%
<i>Betula pendula</i> (C)	75
<i>Fagus sylvatica</i> (C)	20
Open space (C)	5
<i>Deschampsia cespitosa</i>	15
<i>Poa trivialis</i>	10

<i>Brachypodium sylvaticum</i>	5
<i>Circaea lutetiana</i>	3
<i>Fraxinus excelsior</i>	3
<i>Glechoma hederacea</i>	2
<i>Urtica dioica</i>	1
Bare earth	60

H. Pine wood (SP9873099085)	%
<i>Pinus nigra</i> (C)	80
Open space (C)	20
<i>Betula pendula</i> (S)	10
<i>Acer campestre</i> (S)	5
<i>Crataegus monogyna</i> (S)	5
<i>Thuidium tamariscinum</i>	90
<i>Calamagrostis epigejos</i>	25
<i>Betula pendula</i>	5
<i>Poa trivialis</i>	5
<i>Agrostis stolonifera</i>	5
<i>Urtica dioica</i>	3
<i>Rubus fruticosus</i> agg.	3
<i>Crataegus monogyna</i>	3
<i>Brachypodium sylvaticum</i>	3
<i>Rosa</i> sp.	1
<i>Epilobium ciliatum</i>	1

I. Oak woodland by tall Ash (SP9882699243)	%
<i>Quercus robur</i> (C)	85
<i>Fraxinus excelsior</i> (C)	10
Open space (C)	5
<i>Prunus spinosa</i> (S)	20
<i>Corylus avellana</i> (S)	10
<i>Fraxinus excelsior</i> (S)	10
<i>Salix caprea</i> (S)	10
<i>Brachypodium sylvaticum</i>	30
<i>Deschampsia cespitosa</i>	30
<i>Poa trivialis</i>	10
<i>Rubus fruticosus</i> agg.	1
<i>Dactylus glomerata</i>	1
Bare earth	40

J. Uniform Oak Planted Woodland (SP9864698962)	%
<i>Quercus robur</i> (C)	80
Open space (C)	20

<i>Deschampsia cespitosa</i>	80
<i>Juncus effusus</i>	10
<i>Brachypodium sylvaticum</i>	10
<i>Fraxinus excelsior</i>	3
<i>Quercus robur</i>	3
<i>Carex sylvatica</i>	2
<i>Potentilla sterilis</i>	1