

Herts & Middlesex Wildlife Consultancy

A Phase 1 Habitat Survey of Heartwood Forest, St Albans, Hertfordshire.



Supporting

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Heartwood Forest, St Albans, Hertfordshire**

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Limitations

Ecological assessments can only assess a site at a particular time. This evidence can be used to draw conclusions as to the likely presence or absence of species (animals and plants), population size, use of the site by animals; it is neither definitive nor complete. Any survey is a snapshot in time and should not be regarded as a complete study. Seasonality and weather conditions may also affect survey results.

The preparation of mitigation strategies, consultation exercise and submission of any licence applications cannot be relied upon until approved [licensed] in writing by third parties. Allowance must be made for both programme and financial change to projects as a result of application failure, amendment or refusal.

Every effort will be taken to provide an accurate assessment of the situation pertaining to this site and subject at the time of the study, but no liability can be assumed for omissions or changes after the survey has taken place.

The survey is based on anticipated work resulting from instruction and information supplied at the time of request.

No responsibility will be accepted for any use of or reliance on the contents of this report by any third party.

The author reserves the right to report on any incidents or actions [deliberate or reckless] that result in a breach of licence conditions or are in contravention of existing legislation.

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A Phase 1 habitat survey of Heartwood Forest, St Albans, Hertfordshire.

1. Introduction

The Woodland Trust commissioned the Herts and Middlesex Wildlife Trust to undertake a habitat survey of land proposed for the creation of the new Heartwood Forest north of St Albans, Hertfordshire. The work was undertaken by Graham White during April and May 2009, following the methods of the Phase 1 habitat survey (NCC 1990). This report presents the findings of the survey.

The aims of the work were:

- To undertake field visits to the defined area to complete a Phase 1 survey to standard methods.
- To deliver a report including:
 1. method;
 2. summary of habitat types found, including notable species recorded and recommendations for further survey work;
 3. coloured habitat map to Phase 1 methods; and
 4. target notes on significant habitat types.

2. Rationale and method for Phase 1 survey

The rationale and methodology for the survey followed those outlined in the *Handbook for Phase 1 habitat survey* (NCC 1990). The following techniques were used.

- Each parcel of land within the area of search was visited and the limits of each habitat type marked onto a map. Phase 1 has some ninety specified habitat types, mapped using standard colour codes.
- ‘Target notes’ were prepared for particular areas of interest. These may provide the basis for selection of sites for Phase 2 survey and for decision-making in relation to features of conservation value.
- Descriptive and interpretative reports prepared for the habitat types recorded.

3. Habitat descriptions for the survey area

Descriptions of the habitat types found within the study area are given, firstly (in italics) as defined within the Phase 1 Handbook, and secondly, as found within the Heartwood survey area. Finally, a summary of the key features of nature conservation value is given.

A Woodland and scrub

A1 Woodland

Woodland is defined as vegetation dominated by trees more than 5m high when mature, forming a distinct, although some times open, canopy. Woodland may be defined as broad-leaved, coniferous or mixed and each of these divided into semi-natural or plantation woodland.

Semi-natural woodland comprises all stands which do not obviously originate from planting. Both ancient and more recent stands are included. Woodland with both semi-natural and planted trees should be classified as semi-natural if the planted trees do not account for more than 30% of the canopy composition, but as plantation if more than 30% is planted.

There are four areas of woodland habitat within the survey area: Langley Wood (Target Note (TN)1), Pismire Spring (TN4), Well and Puddle Woods (TN5), and Round Wood (TN7). A fifth area, Pearman's Spring (TN12) is outside the survey area, but adjoins the boundary.

The woodlands fall largely within the Pedunculate Oak-Hornbeam stand-type of woodland typical of much of central and south Hertfordshire, although there are some features of the Oak/Ash/Beech woodland typical of the clay-with-flints soil type of the west of the county. This semi-natural woodland has a history of Hornbeam coppicing amongst scattered standard trees, mainly Oaks. Coppicing has generally not been undertaken for several decades. Other associated trees include Wild Cherry, Ash, Wych Elm and Field Maple. The understorey/ground flora is relatively species-poor, dominated by Bluebell and Bramble, providing the typical blue haze of a Hertfordshire bluebell wood in spring. Other species noted include Yellow Archangel, Pignut, Wood Anemone, Cuckoo-pint, Male Fern and Dog's Mercury. Wood banks are a feature of some of the woodland margins, occasionally occupied by Badger setts. Some individual trees are of considerable age and as well as having value in themselves, will have the potential to support bat roosts and some important specialist invertebrates. Some areas within the woods have been replanted in recent times, mainly with Ash, Lime or Field Maple and have a resultant loss of interest in the ground flora, particularly where there has been considerable amounts of ground disturbance.

The woods support a range of common woodland butterflies such as Orange Tip, Ringlet and Speckled Wood but generally have few or no open areas such as clearings or rides within them. A selection of commoner woodland birds breed, including Chiffchaff, Blackcap, Garden Warbler, Robin, Chaffinch, Blue Tit, Great Tit and Great Spotted Woodpecker.

A2 Scrub

Scrub is seral or climax vegetation dominated by locally native shrubs, usually less than 5 metres tall, occasionally with a few scattered trees. This includes stands of bramble, mature Hawthorn, Blackthorn and all willow carr less than 5 m tall.

Only small amounts of scrub are to be found within the survey area, although there is a considerable amount just beyond the survey boundary, particularly on the northern margin towards Nomansland Common. The scrub on site is mainly scattered bushes of Hawthorn and Blackthorn, with some Hazel and Gorse. All is located along the western boundary with the railway line (TN3), and again, much is beyond the survey boundary.

Scrub vegetation may be good for a selection of breeding birds, notably warblers, and it may provide nesting areas for farmland passerines. Whitethroats, Yellowhammers and Linnets were noted using this habitat on site. Well-structured scrub is also an important habitat for invertebrates, particularly if associated with flower-rich habitats.

A3 Parkland and scattered trees

This category is included where tree cover is less than 30%. The green dot symbols are superimposed on the appropriate habitat colour eg grassland.

Scattered trees are found both within the numerous hedgerows within the survey area and as remnant features along former field boundaries. The majority of these trees are Oaks, although a few Ash were noted.

B Grassland and marsh

B2 Neutral Grassland

This category includes a wide range of grassland communities occurring on neutral soils (pH 5.5-7.0). The following grasses are indicative of neutral conditions when frequent or abundant: Meadow Foxtail, False Oat-grass, Crested Dog's-tail, Cock's-foot, Tufted Hair-grass and Meadow Fescue. Rye Grass may be present, but when abundant it is indicative of improved grassland (B4).

None of the grasslands within the survey area can be considered to be semi-natural habitats of any antiquity, all having had some form of 'improvement' or disturbance. The best have been coded as 'poor semi-improved' (B6), with most categorised as 'improved' (B4). There are no extensive areas of grassland, all are present as field margin strips.

B4 Improved grassland

Improved grasslands are those meadows and pastures which have been so affected by heavy grazing, drainage, or the application of herbicides, inorganic fertilisers, slurry or high doses of manure that they have lost many of the species which one could expect to find in an unimproved sward. They have only a very limited range of grasses and a few common forbs, mainly those demanding of nutrients and resistant to grazing. Rye Grass,

Crested Dog's-tail, White Clover, Common Sorrel, Dandelion, Daisy and Meadow Buttercup are typical of improved grassland, while stands of dock, nettle and thistles indicate local enrichment of the soil by grazing animals.

Most of the grasslands within the survey area have been included in this category due to the low range of species recorded. None of the grasslands are likely to be of any age and all will have been affected by agricultural operations. As such, they are dominated by a range of common species, such as Cock's-foot, Creeping Buttercup, White Clover, Soft Brome and Rough Meadow-grass.

B6 Poor semi-improved grassland

Where there is a large amount of semi-improved grassland it is useful to split this category into 'good semi-improved' and 'poor semi-improved' to facilitate re-survey of the better grasslands at a later date. Good semi-improved swards will have a reasonable diversity of herbaceous species, and will be clearly recognisable as acid, neutral or calcareous in origin. Poor semi-improved will have a much more restricted list of species and is recorded as this category.

A few grass strips within the survey area have a slightly more diverse flora and as a result are included within this category (TN9). The dominant species are Cock's-foot, Creeping Buttercup, White Clover, Soft Brome and Rough Meadow-grass. Other species include Common Mouse-ear, Black Medick, Yarrow, Field Scabious, Burnet Saxifrage, Lady's Bedstraw, Common Sorrel, Hogweed, Greater Stitchwort and Bulbous Buttercup. Arable weeds along the margins increase the variety of the flora and include Field Pansy, Common Poppy, Cut-leaved Crane's-bill, Field Forget-me-not, Field Speedwell, Scarlet Pimpernel and Wall Speedwell. A large active Badger sett was located along one hedgerow/grass margin.

Good numbers of butterflies (notably 'browns', such as Meadow Brown and a few Marbled White) and grasshoppers (orthoptera) were noted along these grassy margins.

C Tall herb and fern

C3 Tall ruderal

This category comprises stands of tall perennial or biennial dicotyledons, usually more than 25cm high, of species such as Rose-bay Willowherb, Stinging Nettle and Japanese Knotweed.

The only area of notable tall ruderal vegetation occurs in association with scattered scrub along the western boundary by the railway (TN3). This un-managed strip may have previously been grassland but have been progressively invaded by Stinging Nettle, Hogweed, Cow Parsley, Cleavers, Rosebay Willowherb and Bramble, together with patches of rank grassland dominated by Cock's-foot grass.

G Open water

G1 Standing water

Standing water includes lakes, reservoirs, pools, flooded gravel pits, ponds, water-filled ditches, canals and brackish lagoons.

Only two ponds occur, but both are just beyond the boundary of the survey area. These are located in the northern section of the area to the north of Nomansland Farm. One is heavily over-shaded by tall Oak, Field Maple and Ash trees and has limited marginal aquatic vegetation but this includes some Greater Reedmace. The pond is surrounded by rough grassland. The second pond is more open and supports stands of Greater Reedmace, Reed Canary-grass and Marsh Marigold.

These ponds have the potential to support Great Crested Newts. Any creation of grassland or scrub habitat adjacent to these ponds in the currently arable area would be beneficial. Further survey of these ponds is recommended to ascertain whether newts are present in order to plan for habitat within the project area.

G2 Running water

Running water comprises rivers and streams. The direction of flow is indicated by an arrow.

Surprisingly, there is no running water within the survey area although some dry ditches may carry drainage water in the wetter months.

J Miscellaneous

J1 Cultivated/disturbed land

J1.1 Arable

This includes arable cropland, horticultural land, freshly ploughed land and recently re-seeded grassland, such as Rye Grass and rye-clover leys.

Extensive areas of arable land remain within the Heartwood Forest area. Autumn-sown cereals, Oilseed Rape and peas/beans were noted in the fields. Small amounts of typical arable weed were noted. These included Field Pansy, Groundsel, Common Poppy, Cut-leaved Crane's-bill, Field Forget-me-not, Field Speedwell, Scarlet Pimpernel and Wall Speedwell.

J1.3 Ephemeral/short perennial

Short, patchy plant associations typical of derelict urban sites, quarries and railway ballast. The land must be freely draining and usually has a shallow stony soil. The vegetation typically lacks a clear dominant species, but consists of a mixture of low-

growing plants such as Great Plantain, White Clover, and ragwort species, or of taller species such as Hedge Mustard (or related species) or melilots.

Small patches of this habitat type exist around some of the field margins (TN11). Two field corners have been ‘set-aside’ in the north-eastern sector of the survey land. Both have been allowed to regenerate and support a mixture of ruderal plants and arable weeds. Species recorded included Rough Meadow-grass, Groundsel, Square-stalked Willowherb, Hoary Willowherb, Rosebay Willowherb, Field Pansy, Ragwort, Common Poppy, Cut-leaved Crane’s-bill, Field Forget-me-not, Wall Speedwell, Prickly Lettuce, Spear Thistle and Smooth Sow-thistle.

Butterflies were numerous in these patches, including Marbled White and Meadow Brown. Some patches of Spear Thistle attracted large numbers of Peacock and Painted Lady butterflies.

J2 Boundaries

The following categories of hedgerows are recognised:

J2.1 Intact hedge

Intact hedges are entire and more or less stock-proof.

J2.2 Defunct hedge

Hedges in which there are gaps and which are no longer stock-proof fall into this category.

J2.3 Hedgerow with trees

The frequency of cross-hatching indicates the density of trees.

J2.4 Species-rich hedges

These have a diversity of native woody species and a good hedgerow bottom flora. Intact hedges, defunct hedges or hedges with trees are shown as species-rich or species-poor.

Hedgerows are one of the most obvious habitat features of the survey area and all of the above were present within the survey area. There are some extensive stretches of species-rich hedgerow on either side of Langley Wood (TN2), along the northern boundary (TN8), by Pearman’s Spring (TN12), alongside the B651 (TN10) and alongside the road from Sandridge up to Colemans Green (TN14).

By Langley Wood, the hedgerows are tall, bushy, continuous and unmanaged. The dominant trees/shrubs are Pedunculate Oak, Hawthorn, Blackthorn, Hazel, Dog Rose, Holly and Elder. Some Sweet-chestnut and Ash are present. The ground flora has a mix of the more typical ruderal hedgerow plants combined with typical woodland ground flora. Typical species include Cow Parsley, Garlic Mustard, Greater Stitchwort, Yellow Archangel, Bluebell, Field Scabious, Stinging Nettle, Cock’s-foot and False-Oat grass.

The diversity of ground flora indicates the antiquity of these hedgerows. They may have been derived from woodland.

The northern boundary of the survey area adjoins the grassland of Nomansland Common, an area of significant ecological value for its acid grassland, heathland and woodland habitats. The boundary is formed of a species-rich hedgerow/tree belt that is largely outside of the survey area. The hedge/trees are tall, bushy, continuous and unmanaged. The dominant trees/shrubs are Pedunculate Oak, Field Maple, Hawthorn, Blackthorn, Hazel, Holly, Elm and Elder.

The north-eastern boundary is a mixture of old hedgerow, scattered trees and the remnant margin of a woodland copse; Pearman's Spring. The boundary supports Hornbeam, Oak, Ash, Wild Cherry, Hawthorn, Blackthorn, Holly, Field Maple, Elder and Bramble. Some Bluebell is present. Pearman's Spring is largely outside the survey area, is a re-planted coppice woodland with remnants of its original interest, notably the lines of Hornbeam stubs that form the boundary with the survey area.

Some extensive areas of species-rich, albeit rather gappy, hedgerow are found alongside the minor road up from Sandridge to Colemans Green. The dominant trees/shrubs are Pedunculate Oak, Hawthorn, Hazel, Holly and Elder. Some Wych Elm and Spindle are present. Typical ground flora species include Cow Parsley, Greater Stitchwort, Yellow Archangel, Bluebell, Herb-robert, Bracken, Stinging Nettle and Cock's-foot. The diversity of ground flora indicates the antiquity of these hedgerows.

Species-poor hedgerows of more recent, planted origin, mainly dominated by Hawthorn are also present, mainly as internal field boundaries.

J4 Bare ground

Any type of bare soil or other substrate may be included here where not already covered.

Several areas of ex-arable land have already been taken in-hand by the Woodland Trust. These areas were largely bare, but cultivated, soil where seed had been sown. These areas were recorded as bare ground to distinguish them from the existing arable.

Areas of such ground were noted around the woodlands, variously left bare, re-seeded or with remaining cereal stubbles and left to regenerate (TN6). Where natural regeneration is underway, seedlings of Oak, Ash and Sycamore are evident. Re-seeded areas contain Red Fescue, Timothy, Ox-eye Daisy and a variety of arable weeds, including Black-grass, Field Forget-me-not, Groundsel, Field Pansy, Parsley-piert, Cut-leaved Crane's-bill and Creeping Buttercup.

4. Summary

- The land proposed for the creation of the new Heartwood Forest is currently largely an arable landscape with a number of small woods and hedgerows. Grass strips are present around the woodlands and fields. Geologically, the area is located on the boundary of two distinct areas; the clay-with-flints and the Colne gravels. The soils are typically loams of clays and silts, variably well-drained and flinty in places.
- The four small woods show features of the Pedunculate Oak-Hornbeam stand-type of woodland typical of much of central and south Hertfordshire, although varying amounts of re-planting has taken place in each wood. This semi-natural woodland has a history of Hornbeam coppicing amongst scattered standard trees, mainly Oaks. Coppicing has generally not been undertaken for several decades, although some small areas of more recent cutting are evident. The ground flora is typically species-poor, dominated by Bluebell and Bramble, but provides the typical blue haze of a Hertfordshire bluebell wood in spring.
- The hedgerows around the boundary of the survey area are largely intact and overgrown, and are generally species-rich in character. The internal hedges, by contrast, tend to be patchy of ‘defunct’ or more recently planted and species-poor. The species-rich hedgerows show signs of antiquity, with a good range of shrubs and some individual old trees. They support some ground flora species typical of the local woodlands and also remnants of more species-rich grassland.
- None of the grasslands within the survey area can be considered to be semi-natural habitats of any antiquity, all having had some form of ‘improvement’ or disturbance through agricultural operations. Most have therefore been categorised as ‘improved’ grassland. However, the few remnants of more species-rich vegetation have been coded as ‘poor semi-improved’. There are no extensive areas of grassland, all are present as field margin strips. The arable fields support a few of the commoner ‘weed’ species.
- No notably scarce species were recorded during this brief survey. However, Badgers were recorded at several locations and the potential for bats, reptiles and Great Crested Newts was noted. Further survey work, particularly of invertebrates, in the woodlands and species-rich hedgerows may reveal additional features of conservation importance.
- Overall, the survey area does not support significant areas of habitat of conservation importance but does retain some locally characteristic remnants of woodland and hedgerow.

5. Recommendations

- All the existing remnants of semi-natural vegetation should be retained within the new habitats. Each should be allowed to contribute to the developing habitat through natural regeneration and the design of the new habitat should consider the existing vegetation. The remnant areas of grassland, although they are all fairly species-poor, should be retained and form the basis of grassland zones within the new habitat. The existing woodlands and hedgerows will greatly assist in the natural regeneration of new woodland. This is evident by the extensive seedlings already appearing in the stubble fields.
- If the entire existing habitat is retained, further surveys for specially protected species may not be necessary. However, any removal of existing mature trees will require surveys for bats and removal of scrub/grass vegetation will require reptile surveys.
- The new habitats should build on the existing and historic habitats both within and around the site. The opportunity for creation of acid grassland/heathland-type habitat to extend and buffer Nomansland Common should be sought. Soil analysis will highlight areas of opportunity and may include the current arable land to the east of the B651.

6. References

Dony J. G. (1967), *Flora of Hertfordshire*, HUBC

Nature Conservancy Council (1990), *Handbook for Phase 1 habitat survey*, Peterborough.

Target note record

Survey title: Heartwood Forest		Site name: Langley Wood		
Grid ref: TL 162109	10 km sq: TL11	Orig. ref. no.: 1		
Surveyor: G J White		Survey date: May 2009		
Conservation status: None		SSSI code: None		
County: Hertfordshire		LA district: St Albans		
Habitat(s) included:		Alphanumeric code:		
dominant:	Broad-leaved woodland – semi-natural	A1.1.1		
other:	Poor semi-improved grassland	B6		
Target note:				
<p>Langley Wood is typical of the several small woodland blocks remaining within the proposed Heartwood Forest area. Semi-natural woodland with a history of Hornbeam coppicing amongst scattered standard Oaks, although sections have been replanted, partly with Lime. Other trees include Wild Cherry, Field Maple, Wych Elm and Elder. Although a small area of coppicing has been undertaken around 10 years ago, most of the wood has not been cut for several decades. Understorey is relatively species-poor, dominated by Bluebell and Bramble. Other species include Yellow Archangel, Pignut, Wood Anemone and Dog's Mercury. Wood banks are notable around the margins, some occupied by Badger setts. Some strips of poor semi-improved grassland around the wood margins.</p>				
Key words by habitat:				
A Woodland	B Grassland	C Tallherb/fen	D Heathland	E Mire
Ancient Coppice Ground flora	Species-poor			
F Swamp	G Open water	H Coastland	I Rock	J Miscellaneous
Species recorded:				
Species name:		Species code:	Notes:	
Dominant plant species:				
Hornbeam <i>Carpinus betulus</i>		Cb	Dominant as coppice	
Pedunculate Oak <i>Quercus robur</i>		Qr	Standard trees	
Common Lime <i>Tilia x europeaea</i>		Tiv		
Bramble <i>Rubus fruticosus</i>		Rf	'carpets' of Bluebells under the	
Bluebell <i>Hyacinthoides non-scriptus</i>		Hn	trees	
Other species of interest:				
Wild Cherry <i>Prunus avium</i>		Pa		
Yellow Archangel <i>Galeobdolon luteum</i>		Gl		
Wood Anemone <i>Anemone nemorosa</i>		An		
Pignut <i>Conopodium majus</i>				
Dog's Mercury <i>Mercurialis perennis</i>		Mp		
Holly <i>Ilex aquifolium</i>		Ia		

Target note record

Survey title: Heartwood Forest		Site name: Species-rich hedgerow		
Grid ref: TL160107	10 km sq: TL11	Orig. ref. no.: 2		
Surveyor: G J White		Survey date: May 2009		
Conservation status: None		SSSI code: None		
County: Hertfordshire		LA district: St Albans		
Habitat(s) included:		Alphanumeric code:		
dominant: Intact species-rich hedges		J2.1.1		
other: Poor semi-improved grassland		B6		
Target note:				
<p>Some extensive areas of species-rich hedgerow on either side of Langley Wood. Hedgerows are tall, bushy, continuous and unmanaged. Dominant trees/shrubs are Pedunculate Oak, Hawthorn, Blackthorn, Hazel, Dog Rose, Holly and Elder. Some Sweet-chestnut and Ash is present. The ground flora has a mix of the more typical ruderal hedgerow plants combined with typical woodland ground flora. Typical species include Cow Parsley, Garlic Mustard, Greater Stitchwort, Yellow Archangel, Bluebell, Field Scabious, Bush Vetch, Hedge Bedstraw, Cuckoo-pint, White Bryony, Black Bryony, Stinging Nettle, Cock's-foot and False-Oat grass. The diversity of ground flora indicates the antiquity of these hedgerows. They may have been derived from woodland.</p> <p>Some species-poor hedgerows of more recent, planted origin, mainly dominated by Hawthorn are also present.</p>				
Key words by habitat:				
A Woodland	B Grassland	C Tallherb/fen	D Heathland	E Mire
	Species-poor			
F Swamp	G Open water	H Coastland	I Rock	J Miscellaneous
				Intact hedge Species-rich Trees
Species recorded:				
Species name:		Species code:	Notes:	
Dominant plant species:				
Hawthorn <i>Crataegus monogyna</i>		Cm		
Blackthorn <i>Prunus spinosa</i>		Ps		
Hazel <i>Coryllus avellana</i>		Ca		
Pedunculate Oak <i>Quercus robur</i>		Qr		
Cock's-foot <i>Dactylis glomerata</i>		Dg		
Cow Parsley <i>Anthiscus sylvestris</i>		As		
Other species of interest:				
Greater Stitchwort <i>Stellaria holostea</i>		Sh		
Yellow Archangel <i>Galeobdolon luteum</i>		Gl		
Bluebell <i>Hyacinthoides non-scriptus</i>		Hn		
Field Scabious <i>Knautia arvensis</i>				

Target note record

Survey title: Heartwood Forest		Site name: Railway bank		
Grid ref: TL153114	10 km sq: TL11	Orig. ref. no.: 3		
Surveyor: G J White		Survey date: May 2009		
Conservation status: None		SSSI code: None		
County: Hertfordshire		LA district: St Albans		
Habitat(s) included:		Alphanumeric code:		
dominant: Scrub		A2		
Tall ruderal		C3.1		
other: Poor semi-improved grassland		B6		
Target note:				
<p>Bank alongside the railway line. Scattered scrub throughout, mainly Hawthorn but with some Hazel, Blackthorn and a few Gorse bushes, with some small continuous blocks. A patch of dense scrub with Pedunculate Oaks at the northern extremity appears to be outside the survey boundary. Tall ruderal vegetation is present between the patches of scrub. This is dominated by Stinging Nettle, Bramble, Cow Parsley, Cock's-foot, with some Rosebay Willowherb and Hogweed.</p> <p>Good farmland bird habitat with breeding Linnet, Yellowhammer and Whitethroat noted. The railway bank and its margins are potentially good for reptiles.</p>				
Key words by habitat:				
A Woodland	B Grassland	C Tallherb/fen	D Heathland	E Mire
Scrub	Species-poor	Ruderal Dry Mixed		
F Swamp	G Open water	H Coastland	I Rock	J Miscellaneous
Species recorded:				
Species name:		Species code:	Notes:	
Dominant plant species:				
Hawthorn <i>Crataegus monogyna</i>		Cm		
Cock's-foot <i>Dactylis glomerata</i>		Dg		
Cow Parsley <i>Anthiscus sylvestris</i>		As		
Stinging Nettle <i>Urtica dioica</i>		Ud		
Other species of interest:				
Hazel <i>Coryllus avellana</i>		Ca	Occasional	
Blackthorn <i>Prunus spinosa</i>		Ps	Occasional	
Gorse <i>Ulex europaeus</i>		Ue	Scattered bushes	

Target note record

Survey title: Heartwood Forest		Site name: Pismire Spring		
Grid ref: TL 154114	10 km sq: TL11	Orig. ref. no.: 4		
Surveyor: G J White		Survey date: May 2009		
Conservation status: None		SSSI code: None		
County: Hertfordshire		LA district: St Albans		
Habitat(s) included:		Alphanumeric code:		
dominant: Broad-leaved woodland – semi-natural		A1.1.1		
other: Ephemeral/short vegetation		J1.3		
Target note:				
<p>Pismire Spring is similar in quality to Langley Wood (TN 1). Semi-natural woodland with a history of Hornbeam coppicing amongst scattered standard Oaks. Coppicing has not been undertaken for several decades. Wild Cherry is occasional. Understorey is relatively species-poor, dominated by Bluebell and Bramble. Other species include Yellow Archangel, Pignut, Wood Anemone, Cuckoo-pint and Dog's Mercury.</p> <p>An old quarry is present in one corner of the wood. This is now dominated by colonising scrubby vegetation, such as Elder, with a ruderal understorey.</p> <p>Areas of cereal stubble have been left around one margin (TN6).</p>				
Key words by habitat:				
A Woodland	B Grassland	C Tallherb/fen	D Heathland	E Mire
Ancient Coppice Ground flora				
F Swamp	G Open water	H Coastland	I Rock	J Miscellaneous
				Ephemeral Field margin
Species recorded:				
Species name:		Species code:	Notes:	
Dominant plant species:				
Hornbeam <i>Carpinus betulus</i>		Cb	Mainly coppice Standards Dominant ground flora	
Pedunculate Oak <i>Quercus robur</i>		Qr		
Bramble <i>Rubus fruticosus</i>		Rf		
Bluebell <i>Hyacinthoides non-scriptus</i>		Hn		
Other species of interest:				
Yellow Archangel <i>Galeobdolon luteum</i>		Gl	Occasional standard in wood	
Wood Anemone <i>Anemone nemorosa</i>		An		
Pignut <i>Conopodium majus</i>				
Dog's Mercury <i>Mercurialis perennis</i>		Mp		
Holly <i>Ilex aquifolium</i>		Ia		
Wild Cherry <i>Prunus avium</i>		Pa		
Cuckoo-pint <i>Arum maculatum</i>				

Target note record

Survey title: Heartwood Forest		Site name: Well Wood/Puddley Wood		
Grid ref: TL158117	10 km sq: TL11	Orig. ref. no.: 5		
Surveyor: G J White		Survey date: May 2009		
Conservation status: None		SSSI code: None		
County: Hertfordshire		LA district: St Albans		
Habitat(s) included:		Alphanumeric code:		
dominant: Broad-leaved woodland – semi-natural		A1.1.1		
other: Ephemeral/short vegetation		J1.3		
Target note: Well and Puddley woods are typical of the several small woodland blocks remaining within the proposed Heartwood Forest area. Semi-natural woodland with a history of Hornbeam coppicing amongst scattered standard Oaks. Coppicing has not been undertaken for several decades. Understorey is relatively species-poor, dominated by Bluebell (some excellent stands) and Bramble. Other species include Yellow Archangel, Foxglove, Pignut, Wood Anemone, Enchanter's Nightshade and Dog's Mercury. Some areas of the wood have been re-planted, mainly with Ash but also Field Maple and Hornbeam. These areas show considerable disturbance and have a considerably poorer ground flora, many areas dominated by Stinging Nettle. A small quarry on the western boundary adds diversity to the area. Breeding birds include Chiffchaff, Blackcap, Great Spotted Woodpecker, Robin, Chaffinch and Garden Warbler. Orange Tip butterflies were frequent on the survey date.				
Key words by habitat:				
A Woodland	B Grassland	C Tallherb/fen	D Heathland	E Mire
Ancient Coppice Ground flora	Species-poor			
F Swamp	G Open water	H Coastland	I Rock	J Miscellaneous
				Ephemeral Field margin
Species recorded:				
Species name:		Species code:	Notes:	
Dominant plant species: Hornbeam <i>Carpinus betulus</i> Pedunculate Oak <i>Quercus robur</i> Bramble <i>Rubus fruticosus</i> Bluebell <i>Hyacinthoides non-scriptus</i> Ash <i>Fraxinus excelsior</i>		Cb Qr Rf Hn Fe	.	
Other species of interest: Rowan <i>Sorbus aucuparia</i> Yellow Archangel <i>Galeobdolon luteum</i> Wood Anemone <i>Anemone nemorosa</i> Pignut <i>Conopodium majus</i> Dog's Mercury <i>Mercurialis perennis</i> Foxglove <i>Digitalis purpurea</i>		Sac Gl An Mp Dp		

Target note record

Survey title: Heartwood Forest		Site name: New grassland		
Grid ref: TL159116	10 km sq: TL11	Orig. ref. no.: 6		
Surveyor: G J White		Survey date: July/August 2008		
Conservation status: None		SSSI code: None		
County: Hertfordshire		LA district: Watford		
Habitat(s) included:		Alphanumeric code:		
dominant: Ephemeral/short vegetation		J1.3		
Bare ground		J4		
other: Arable		J1.1		
Target note:				
Areas of ground around the woodlands, variously left bare, re-seeded or with remaining cereal stubbles and left to regenerate. Where natural regeneration is underway, seedlings of Oak, Ash and Sycamore are evident. Re-seeded areas contain Red Fescue, Timothy, Ox-eye Daisy and a variety of arable/disturbed ground weeds, including Groundsel, Black-grass, Field Forget-me-not, Field Speedwell, Rose-bay Willowherb, Redshank, Scarlet Pimpernel, Scentless Mayweed, Field Pansy, Parsley-piert, Cut-leaved Crane's-bill, Swine-cress and Creeping Buttercup.				
Key words by habitat:				
A Woodland	B Grassland	C Tallherb/fen	D Heathland	E Mire
F Swamp	G Open water	H Coastland	I Rock	J Miscellaneous
				Ephemeral Field margin Re-seed
Species recorded:				
Species name:		Species code:	Notes:	
Dominant plant species:			No dominant species	
Other species of interest: Pedunculate Oak <i>Quercus robur</i> Field Pansy <i>Viola arvensis</i> Cut-l'd Cranes-bill <i>Geranium dissectum</i> Field Forget-me-not <i>Myosotis arvensis</i> Parsley-piert <i>Aphanes arvensis</i> Scarlet Pimpernel <i>Anagallis arvensis</i> Scentless Mayweed <i>Tripleurospermum maritimum</i> Field Speedwell <i>Veronica persica</i> Swine-cress <i>Coronopus squamatus</i>		Qr	Seedlings in cereal stubble Occasional as arable weed	

Target note record

Survey title: Heartwood Forest		Site name: Round Wood		
Grid ref: TL 161120	10 km sq: TL11	Orig. ref. no.: 7		
Surveyor: G J White		Survey date: July/August 2008		
Conservation status: None		SSSI code: None		
County: Hertfordshire		LA district: St Albans		
Habitat(s) included:		Alphanumeric code:		
dominant: Broad-leaved woodland – semi-natural		A1.1.1		
other: Ephemeral/short vegetation		J1.		
Target note:				
<p>Round Wood is similar in quality to the other woods within this section of the survey area. Semi-natural woodland with a history of Hornbeam coppicing amongst scattered standard Oaks. Coppicing has not been undertaken for several decades. Wild Cherry is occasional. Understorey is relatively species-poor, dominated by Bluebell and Bramble. Other species include Yellow Archangel, Pignut, Wood Anemone, Cuckoo-pint and Dog's Mercury.</p> <p>Breeding birds include Great Spotted Woodpecker.</p>				
Key words by habitat:				
A Woodland	B Grassland	C Tallherb/fen	D Heathland	E Mire
Ancient Coppice Ground flora	Species-poor			
F Swamp	G Open water	H Coastland	I Rock	J Miscellaneous
				Ephemeral Field margin
Species recorded:				
Species name:		Species code:	Notes:	
Dominant plant species:				
Hornbeam <i>Carpinus betulus</i>		Cb		
Pedunculate Oak <i>Quercus robur</i>		Qr		
Bramble <i>Rubus fruticosus</i>		Rf		
Bluebell <i>Hyacinthoides non-scriptus</i> .		Hn		
Other species of interest:				
Yellow Archangel <i>Galeobdolon luteum</i>		G1		
Wood Anemone <i>Anemone nemorosa</i>		An		
Pignut <i>Conopodium majus</i>				
Dog's Mercury <i>Mercurialis perennis</i>		Mp		
Holly <i>Ilex aquifolium</i>		Ia		
Wild Cherry <i>Prunus avium</i>		Pa		
Cuckoo-pint <i>Arum maculatum</i>				

Target note record

Survey title: Heartwood Forest		Site name: Species-rich boundary		
Grid ref: TL 170121	10 km sq: TL11	Orig. ref. no.: 8		
Surveyor: G J White		Survey date: May 2009		
Conservation status: None		SSSI code: None		
County: Hertfordshire		LA district: St Albans		
Habitat(s) included:		Alphanumeric code:		
dominant: Intact species-rich hedges		J2.1.1		
other: Poor semi-improved grassland		B6		
Target note:				
<p>The northern boundary adjoins the grassland of Nomansland Common, an area of significant ecological value for its acid grassland, heathland and woodland habitats. The boundary is formed of a species-rich hedgerow/tree belt that is largely outside of the survey area. The hedge/trees are tall, bushy, continuous and unmanaged. Dominant trees/shrubs are Pedunculate Oak, Field Maple, Hawthorn, Blackthorn, Hazel, Holly, Elm and Elder.</p> <p>A species-poor strip of grassland is present along the inside of the boundary.</p>				
Key words by habitat:				
A Woodland	B Grassland	C Tallherb/fen	D Heathland	E Mire
F Swamp	G Open water	H Coastland	I Rock	J Miscellaneous
Species recorded:				
Species name:		Species code:	Notes:	
Dominant plant species:				
Hawthorn <i>Crataegus monogyna</i>		Cm		
Blackthorn <i>Prunus spinosa</i>		Ps		
Hazel <i>Coryllus avellana</i>		Ca		
Pedunculate Oak <i>Quercus robur</i>		Qr		
Field Maple <i>Acer campestre</i>		Ac		
Other species of interest:				

Target note record

Survey title: Heartwood Forest		Site name: Grass margins		
Grid ref: TL 170110	10 km sq: TL11	Orig. ref. no.: 9		
Surveyor: G J White		Survey date: May 2009		
Conservation status: None		SSSI code: None		
County: Hertfordshire		LA district: St Albans		
Habitat(s) included:		Alphanumeric code:		
dominant: Poor semi-improved grassland		B6		
other: Arable		J1.1		
Target note:				
A number of grassy strips are to be found around the various arable fields within the survey area. Most are very species-poor. A few, including the 7m wide strip between two fields at the grid reference are somewhat richer in species but cannot be classified any better than poor semi-improved grassland. The dominant species are Cock's-foot, Creeping Buttercup, White Clover, Soft Brome and Rough Meadow-grass. Other species include Common Mouse-ear, Black Medick and Bulbous Buttercup. Arable weeds along the margins include Field Pansy, Common Poppy, Cut-leaved Crane's-bill, Field Forget-me-not and Wall Speedwell. A large active Badger sett was located along one hedgerow/grass margin.				
Key words by habitat:				
A Woodland	B Grassland	C Tallherb/fen	D Heathland	E Mire
	Semi-improved			
F Swamp	G Open water	H Coastland	I Rock	J Miscellaneous
Species recorded:				
Species name:		Species code:	Notes:	
Dominant plant species:				
Cock's-foot <i>Dactylis glomerata</i>		Dg		
Rough Meadow-grass <i>Poa trivialis</i>		Pt		
Creeping Buttercup <i>Ranunculus repens</i>		Rr		
White Clover <i>Triflium repens</i>		Tr		
Other species of interest:				
Field Pansy <i>Viola arvensis</i>				
Cut-l'd Cranes-bill <i>Geranium dissectum</i>				
Field Forget-me-not <i>Myosotis arvensis</i>				
Parsley-piert <i>Aphanes arvensis</i>				
Smooth Hawk's-beard <i>Crepis capillaries</i>				
Wall Speedwell <i>Veronica arvensis</i>				
Black Medick <i>Medicago lupulina</i>				
Common Poppy <i>Papaver rhoeas</i>				

Target note record

Survey title: Heartwood Forest		Site name: Roadside hedge		
Grid ref: TL174115	10 km sq: TL11	Orig. ref. no.: 10		
Surveyor: G J White		Survey date: May 2009		
Conservation status: None		SSSI code: None		
County: Hertfordshire		LA district: St Albans		
Habitat(s) included:		Alphanumeric code:		
dominant:	Intact species-rich hedges	J2.1.1		
other:	Poor semi-improved grassland	B6		
Target note:				
<p>The boundary alongside the B651 supports a relatively species-rich hedge that through lack of management has developed into a 5m wide wooded belt in some stretches, reducing to a scrappy, gappy hedge in others. The hedge/trees are tall, bushy, continuous and unmanaged. Dominant trees/shrubs are Pedunculate Oak, Field Maple, Hawthorn, Blackthorn, Hazel, Holly, Elm and Elder. Some Bluebell and Greater Stitchwort is present in the ground flora, along with Bracken.</p> <p>A species-poor strip of grassland is present along the inside of the boundary.</p>				
Key words by habitat:				
A Woodland	B Grassland	C Tallherb/fen	D Heathland	E Mire
	Species-poor			
F Swamp	G Open water	H Coastland	I Rock	J Miscellaneous
				Hedgerow
Species recorded:				
Species name:		Species code:	Notes:	
Dominant plant species:				
Hawthorn <i>Crataegus monogyna</i>		Cm		
Blackthorn <i>Prunus spinosa</i>		Ps		
Hazel <i>Coryllus avellana</i>		Ca		
Pedunculate Oak <i>Quercus robur</i>		Qr		
Field Maple <i>Acer campestre</i>		Ac		
Other species of interest:				
Greater Stitchwort <i>Stellaria holostea</i>				
Bluebell <i>Hyacinthoides non-scriptus</i>		Hn		
Bramble <i>Rubus fruticosus</i> agg.		Rf		
Stinging Nettle <i>Urtica dioica</i>		Ud		
Bracken <i>Pteridium aquilinum</i>		Pt		

Target note record

Survey title: Heartwood Forest		Site name: 'Set-aside'		
Grid ref: TL 177124	10 km sq: TL11	Orig. ref. no.: 11		
Surveyor: G J White		Survey date: May 2009		
Conservation status: None		SSSI code: None		
County: Hertfordshire		LA district: St Albans		
Habitat(s) included:		Alphanumeric code:		
dominant: Ephemeral/short vegetation		J1.3		
Poor semi-improved grassland		B6		
other: Arable		J1.1		
Target note:				
Two field corners have been 'set-aside' in this north-eastern sector of the survey land. Both have been allowed to regenerate and support a mixture of ruderal plants and arable weeds. Species recorded included Rough Meadow-grass, Square-stalked Willowherb, Hoary Willowherb, Field Pansy, Common Poppy, Cut-leaved Crane's-bill, Field Forget-me-not, Wall Speedwell, Prickly Lettuce, Spear Thistle and Smooth Sow-thistle.				
Butterflies were numerous in these patches, including Marbled White and Meadow Brown.				
Key words by habitat:				
A Woodland	B Grassland	C Tallherb/fen	D Heathland	E Mire
	Species-poor			
F Swamp	G Open water	H Coastland	I Rock	J Miscellaneous
				Ephemeral Field margin Arable
Species recorded:				
Species name:		Species code:	Notes:	
Dominant plant species: Rough Meadow-grass <i>Poa trivialis</i>		Po		
Other species of interest: Field Pansy <i>Viola arvensis</i> Cut-l'd Cranes-bill <i>Geranium dissectum</i> Field Forget-me-not <i>Myosotis arvensis</i> Parsley-piert <i>Aphanes arvensis</i> Wall Speedwell <i>Veronica arvensis</i> Common Poppy <i>Papaver rhoeas</i> Sq-stalked W/herb <i>Epilobium tetragonum</i> Hoary Willowherb <i>Epilobium parviflorum</i> Prickly Lettuce <i>Lactuca serriola</i>				

Target note record

Survey title: Heartwood Forest		Site name: Pearman's Spring		
Grid ref: TL182124	10 km sq: TL11	Orig. ref. no.: 12		
Surveyor: G J White		Survey date: May 2009		
Conservation status: None		SSSI code: None		
County: Hertfordshire		LA district: St Albans		
Habitat(s) included:		Alphanumeric code:		
dominant: Hedgerow with trees		J2.1		
other: Arable		J1.1		
Target note:				
<p>The northern boundary is a mixture of old hedgerow, scattered trees and the remnant margin of a woodland copse; Pearmans Spring. The boundary supports Hornbeam, Oak, Ash, Wild Cherry, Hawthorn, Blackthorn, Holly, Field Maple, Elder and Bramble. Some Bluebell is present.</p> <p>Pearmans Spring is largely outside the survey area, is a re-planted coppice woodland with remnants of its original interest, notably the lines of Hornbeam stubs that form the boundary with the survey area.</p>				
Key words by habitat:				
A Woodland	B Grassland	C Tallherb/fen	D Heathland	E Mire
Broad-leaved Plantation Coppice				
F Swamp	G Open water	H Coastland	I Rock	J Miscellaneous
				Hedgerow Arable
Species recorded:				
Species name:		Species code:	Notes:	
Dominant plant species:				
Hornbeam <i>Carpinus betulus</i>		Cb		
Pedunculate Oak <i>Quercus robur</i>		Qr		
Bramble <i>Rubus fruticosus</i>		Rf		
Hawthorn <i>Crataegus monogyna</i>		Cm		
Elder <i>Sambucus niger</i>		Sn		
Ash <i>Fraxinus excelsior</i>		Fe		
Other species of interest:				
Bluebell <i>Hyacinthoides non-scriptus</i> .		Hn		
Field Maple <i>Acer campestre</i>		Ac		
Holly <i>Ilex aquifolium</i>		Ia		
Wild Cherry <i>Prunus avium</i>		Pa		




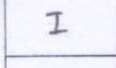
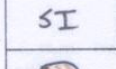
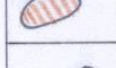
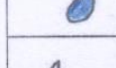
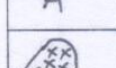
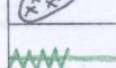
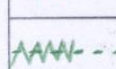
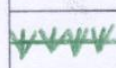
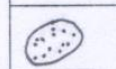
Target note record

Survey title: Heartwood Forest		Site name: Ponds		
Grid ref: TL180123	10 km sq: TL11	Orig. ref. no.: 13		
Surveyor: G J White		Survey date: July/August 2008		
Conservation status: None		SSSI code: None		
County: Hertfordshire		LA district: St Albans		
Habitat(s) included:		Alphanumeric code:		
dominant: Standing water		G1		
Poor semi-improved grassland		B6		
other: Arable		J1.1		
Target note:				
<p>Two ponds are present just outside the survey boundary, beyond the hedgerow. One is heavily overshadowed by tall Oak and Ash and has limited marginal aquatic vegetation but this includes some Greater Reedmace. The pond is surrounded by rough grassland.</p> <p>The second pond is more open and supports stands of Greater Reedmace, Reed Canary-grass and Marsh Marigold.</p> <p>Both ponds may support amphibians and notably Great Crested Newts.</p>				
Species recorded:				
A Woodland	B Grassland	C Tallherb/fen	D Heathland	E Mire
	Species-poor			
F Swamp	G Open water	H Coastland	I Rock	J Miscellaneous
	Pond			Hedgerow Field margin Arable
Species name:		Species code:	Notes:	
Dominant plant species: Greater Reedmace <i>Typha latifolia</i>				
Other species of interest: Marsh Marigold <i>Caltha palustris</i>				

Target note record

Survey title: Heartwood Forest		Site name: Species-rich hedges		
Grid ref: TL 185121	10 km sq: TL11	Orig. ref. no.: 14		
Surveyor: G J White		Survey date: May 2009		
Conservation status: None		SSSI code: None		
County: Hertfordshire		LA district: St Albans		
Habitat(s) included:		Alphanumeric code:		
dominant: Species-rich hedgerow		A 1.1.2		
other: Arable		J1.1		
Target note:				
Some extensive areas of species-rich hedgerow alongside the minor road up from Sandridge. A rather gappy hedgerow. Dominant trees/shrubs are Pedunculate Oak, Hawthorn, Hazel, Holly and Elder. Some Wych Elm is present. The ground flora has a mix of the more typical ruderal hedgerow plants combined with typical woodland ground flora. Typical species include Cow Parsley, Greater Stitchwort, Yellow Archangel, Bluebell, Herb-robert, Bracken, Stinging Nettle and Cock's-foot. The diversity of ground flora indicates the antiquity of these hedgerows. They may have been derived from woodland.				
Key words by habitat:				
A Woodland	B Grassland	C Tallherb/fen	D Heathland	E Mire
F Swamp	G Open water	H Coastland	I Rock	J Miscellaneous
				Species-rich Hedgerow Arable
Species recorded:				
Species name:		Species code:	Notes:	
Dominant plant species:				
Hawthorn <i>Crataegus monogyna</i>		Cm		
Hazel <i>Coryllus avellana</i>		Ca		
Pedunculate Oak <i>Quercus robur</i>		Qr		
Holly <i>Ilex aquifolium</i>		Ia		
Cock's-foot <i>Dactylis glomerata</i>		Dg		
Cow Parsley <i>Anthiscus sylvestris</i> .		As		
Other species of interest:				
Greater Stitchwort <i>Stellaria holostea</i>		Gl		
Yellow Archangel <i>Galeobdolon luteum</i>		Hn		
Bluebell <i>Hyacinthoides non-scriptus</i>				
Bracken <i>Pteridium aquilinum</i>				
Herb Robert <i>Geranium robertianum</i>				

Key to habitat coding

	A1.1.1	Semi-natural broad-leaved woodland
	A2	Scrub (dense or scattered)
	A3	Parkland and scattered trees
I	B4	Improved grassland (no colour)
SI	B6	Poor semi-improved grassland (no colour)
	C3.1	Tall ruderal
	G1	Standing water (ponds)
A	J1.1	Cultivated land - arable
	J1.3	Ephemeral/short vegetation
	J2.1	Intact hedgerow (species-rich / species poor)
	J2.2	Defunct hedgerow (species-rich / species-poor)
	J2.3	Hedgerow with trees
	J4	Bare ground
		Target note
		Habitat division

Habitat map

