

EXTENDED PHASE 1 HABITAT REPORT

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Oakley Wood

Prepared For
Warwick District Council

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1. INTRODUCTION

1.1 Terms of Instruction

1.1.1 This report has been commissioned by Chris Hastie of Warwickshire District Council (December 2008) to provide a baseline ecological assessment of Oakley Wood. The findings of the assessment will be used to inform future management proposals as to existing ecological constraints (e.g. badger setts) or opportunities for ecological gain (e.g. retention of candidate veteran trees).

1.1.2 A secondary purpose of the survey was to establish whether any further investigations (e.g. protected species, invasive species, etc) might be required.

1.2 Report Limitations

1.2.1 The report is for the sole use of the client and its reproduction or use by anyone else is forbidden unless written consent is given by the author.

1.2.2 This is an ecological report and as such no reliance should be given to comments relating to buildings, engineering, soils or other unrelated matters.

1.2.3 The inspection was undertaken from ground level.

1.3 Documents Provided

1.3.1 As background information the following documentation was provided:

- Sales particulars for Oakley Wood – John Clegg & Co.
- Extended Phase 1 Habitat Survey – Middlemarch Environmental Ltd, June 2007
- Oakley Wood North – Mastermap (1:2500) – Warwick District Council (Jan 09)
- Oakley Wood South – Mastermap (1:2500) – Warwick District Council (Jan 09)
- Oakley Wood – Mastermap (1:3500) – Warwick District Council (Jan 09)
- 1km data search – Warwickshire Biological Records Centre (Jan 09)

1.4 Qualifications

1.4.1 The authors of this report are detailed below:

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1.5 The Site

- 1.5.1 The site occupies an area of approximately 47ha and constitutes the majority of Oakley Wood. The wood supports a mixture of broadleaf, conifer and mixed plantation. Oakley Wood Crematorium and natural burial ground is located in the north-western corner of the wood and was not surveyed as part of this study. The redline location plan is presented at **Appendix I**.
- 1.5.2 The site is bound to the north, east and west by large arable fields, with the M40 beyond to the east. Land use to the south is slightly more varied and includes Wiggerland Wood (ancient semi-natural woodland) and several large areas of parkland to the south with buildings belonging to Ashborne Hall beyond. See plans at **Appendix II** for surrounding landscape features.

2. APPROACH

- 2.1.1 To assess the ecological issues associated with the site and to inform any further assessments the following tasks were undertaken:
- A Desk Study
 - An Extended Phase 1 Habitat Survey.

3. METHODOLOGY

3.1 Desk Study

- 3.1.1 The purpose of the desk study was to identify habitats and species of local conservation value which may not have been present or apparent during the survey visit (e.g. late spring/summer flowering plants).
- 3.1.2 Information used as part of the desk study included the following reports and websites:
- **Middlemarch Ltd** - Extended Phase 1 Ecological Survey of woodland burial section of Oakley Wood (June 2007);
 - **Natural England** – Nature on the Map;
 - **Multi-Agency Geographic Information for the Countryside;**
 - **Warwickshire Biological Records Centre;**

The baseline information provided by these four sources is presented in full in **Appendix II**).

3.2 Extended Phase 1 Habitat Survey

- 3.2.1 According to the IEMA Guidelines (1995), Phase 1 Habitat Surveys can be undertaken all year round to support and verify the findings of the desk top survey.
- 3.2.2 The aim of the Extended Phase 1 Habitat Survey was to provide information to establish the ecological value of the site and to determine any further assessments. During the Phase 1 Habitat Survey the dominant plant species present were recorded and the habitats classified according to their vegetation types.

- 3.2.3 This information is presented in accordance with the standard Phase 1 Habitat Survey format with habitat descriptions and a habitat map with Target Notes (Joint Nature Conservation Committee, 1993), see **Appendix III**.
- 3.2.4 As part of the survey any evidence of protected species was also recorded and a general assessment of the site's likelihood of supporting protected species was also made.
- 3.2.5 In addition invasive weeds were also searched for during the Phase 1 Habitat Survey.

Habitat Assessment Evaluation Criteria

- 3.2.6 A five point evaluation scale has been applied to assist with the identification of key features of ecological significance in relation to the proposed development, following guidance outlined in IEEM (2006) guidelines. This is an arbitrary scale which experience has shown is effective at this level of assessment.
- 3.2.7 The five point scale is outlined below:
- low value;
 - intermediate value;
 - high value (Local/District importance e.g. Local Wildlife Site);
 - very high value (County importance e.g. Local Nature Reserve); and
 - exceptional value (National importance e.g. Site of Special Scientific Interest (SSSI)).

4. RESULTS

4.1 Desk Study Results

- 4.1.1 The full information collected during the desk study is presented at **Appendix II** and summarised below.

Ecological designations

Statutory sites

- 4.1.2 No statutory designated sites (e.g. SSSI/RAMSAR) are located within 2km of Oakley Wood. The study did confirm that Oakley Wood is a replanted Ancient Semi-Natural Woodland (**See MAGIC search presented in Appendix II**).

Non-statutory sites

- 4.1.3 Six non-statutory sites (i.e. Ecosites) were identified within the 1 km study area used by Middlemarch Ltd as part of their report in June 2007, and a more recent search completed by Warwickshire Biological Records Centre (see plan and further detail at **Appendix II**).
- 4.1.4 The non-statutory sites support a wide range of typical lowland habitats which have declined across the UK in recent years.
- 4.1.5 These include areas of species rich grassland to the south west (Heathcote Farm), rough tracks supporting notable plant species to the north-west (Wasperston Lane),

mature woodlands (including Oakley Wood and Wiggerland Wood), parkland (Ashorne Hill & Park) and wetland habitats (Plestowes Stream).

Protected Species

4.1.6 Protected species records identified within 1 km of the site include:

- Bats (2 records, 2 species);
- Other Mammals (7 records, 2 species);
- Reptiles (2 records, 1 species);

4.1.7 Two records of grass snake *Natrix natrix* (Schedule 5, protected from killing or injury) were identified by the search. The grass snake records (both recorded in the 1970s) are located 300m south-east of the main crematorium building (**See WBRC Plan, Appendix II**).

4.1.8 In addition the WBRC search located 3 badger setts records (all recorded in 1999) within Oakley Wood. The first is located opposite the eastern boundary of the car park belonging to the crematorium, with the second occupying an earth embankment near the north eastern corner of the wood, with the third embedded in the bank of the Scheduled Ancient Monument (SAM).

4.2 Field Survey Limitations

4.2.1 The field survey was conducted on 15th of January 2009 and comprehensively covered all broad habitats present within the study area.

4.3 Habitat Descriptions

4.3.1 The habitats identified during the Phase 1 habitat survey are detailed below in alphabetical order:

- Broadleaved Plantation
- Conifer Plantation
- Dense/Continuous Scrub
- Mixed Plantation
- Scattered trees/bracken mosaic
- Standing water

The full Phase 1 Habitat Survey Map detailing the location of the above habitats and other features of ecological interest is presented at **Appendix III**. The habitat descriptions below should be read in conjunction with this plan and associated target notes.

Habitats

Broadleaved Plantation

4.3.2 Belts of densely planted broadleaved trees were concentrated along the public footpaths and permissive routes which run north-south, and east-west through the wood (**See Broadleaved Plantation, Appendix III**).

- 4.3.3 The stands of broadleaved woodland in the northern half of the wood were largely dominated by semi-mature poplar *Populus sp.*, silver birch *Betula pendula* and oak *Quercus sp.* Understorey coverage was variable but notable concentrations of mature hazel coppice stools were recorded close to the crematorium (**Target Note (TN) 10, Appendix III**) and further north along the footpath towards the B4087. Due to the high tree density, heavy leaf litter and pedestrian traffic the groundflora in these areas generally lacked diversity and was largely dominated by pleurocarpus moss, bareground and bramble *Rubus fruticosus*, although wood sorrel *Oxalis acetosella* (an Ancient Woodland Indicator¹) was regularly observed. In areas where more light was able to penetrate to the woodland floor (**west of TN5 and north of TN13, Appendix III**) a slightly more interesting range of specialist woodland plant species including herb robert *Geranium robertianum*, red campion *Silene dioica* and ground ivy *Glechoma hederacea* had established.
- 4.3.4 The stands of broadleaved plantation to the north provided suitable conditions for a wide range of invertebrates. Levels of large (5cm+) well rotted timber were high, with many of the standing dead trees supporting large volumes of both large and small bracket fungi (**See Photo 1, Appendix IV**).
- 4.3.5 The southern half of the site supported both recently planted and more established blocks of broadleaved plantation. The stand located within the northern tip of the SAM was largely dominated by young oak, with the rides linking the stand to the eastern and southern boundaries of the wood supporting a more mature crop of hybrid poplar *Populus canescens*, wild cherry *Prunus avium* and ash *Fraxinus excelsior*.
- 4.3.6 The stand of oak within the SAM was of relatively low ecological value as the trees are still young and provided only limited nesting and roosting opportunities for birds and bats. Groundflora within the stand was limited (due to the very heavy leaf litter) but it may provide foraging grounds for badgers (**See TN19, Appendix III**). The adjoining belts of semi-mature poplar and wild cherry were of intermediate ecological value, but were still dominated by acidic species including bracken *Pteridium aquilinum* and bramble. These features would benefit from management to increase light levels and stimulate ground flora development.
- 4.3.7 The dense belt of mature oak and sweet chestnut opposite the B4100 in the south eastern corner of the wood was of intermediate to high ecological value. Populated by a mixture of mature standards (including ash, horse chestnut *Aesculus hippocastanum* and oak) underlain by a strong understorey this stand mirrors the composition of the ancient semi-natural woodland opposite (Wiggerland Wood). Due to the rich assemblage of fruit and seed bearing trees and understorey (holly *Ilex aquifolium* was frequently recorded here) the stand provided suitable foraging grounds for a range of woodland mammals (muntjac *Muntiacus reevesi* faeces was found within this block) and small birds. The groundflora within this stand was also notable. Lords and ladies *Arum maculatum* (**TN28, Appendix III**) and dense blankets of bugle *Ajuga reptans* and self heal *Prunella vulgaris* were all recorded.

¹ **Ancient Woodland Indicator:** Ancient woodland indicators are species, most commonly vascular plants although they have been identified in other groups (eg lichens, invertebrates), that are more common in ancient woods than in recently established sites. The presence of such species may therefore be used as evidence for the wood being ancient. Due to variations in local climate and soil type there are regional variations as to which plants are classified as AWIs. For more information see Rose and O'Reilly, 2006.

- 4.3.8 In-addition several of the mature trees particularly along the extreme eastern boundary of the compartment were covered in features, e.g. large split branches and limbs which would be attractive to bats searching for temporary or permanent roosts during the summer and autumn months.

Habitat Value: Intermediate – High (mature trees in the south-eastern corner)

Conifer Plantation

- 4.3.9 Dense stands of semi-mature and mature conifer are located in distinct compartments across the balance of the Wood. Planted in different phases between 1947 and 1958 most of the compartments have developed to form a dense canopy underlain by various acidic groundflora indicators.
- 4.3.10 Scots pine *Pinus sylvestris* was the dominant species in most of the conifer compartments. Other coniferous species recorded within this habitat included Douglas fir *Pseudotsuga menziesii*, Norway spruce *Picea abies*, western hemlock *Tsuga heterophylla* and European larch *Larix decidua*.
- 4.3.11 Several broadleaf species were also dispersed within the conifer blocks (although not comprising more than 10% of the cover). Species recorded on site included English oak, silver birch and sweet chestnut *Castanea sativa*.
- 4.3.12 The extent and diversity of the understory varied between compartments but was generally low overall. Trailing prostrate stems belonging to honeysuckle *Lonicera periclymenum* were the only constant species present in the understory between different compartments. Hazel *Corylus avellana*, holly *Ilex aquifolium* and very occasionally rowan *Sorbus aucuparia* were also occasional components of the understory.
- 4.3.13 As light levels were low and soil acidity high, the overall coverage and diversity of the groundflora within the conifer blocks was low. Bracken and bramble (typically of NVC W10 communities) were the dominant plant species with other notable species recorded in these areas including wood sorrel and bluebell *Hyacinthoides non-scripta* (both Ancient Woodland Indicators), wood false brome *Brachypodium sylvaticum* and wood rush *Luzula campestris*.
- 4.3.14 Besides the few herbs and bracken listed above the conifer blocks also supported a limited selection of common pteridophytes (ferns) including broad buckler *Dryopteris dilatata*, soft shield *Polystichum setiferum* and male fern *Dryopteris filix-mas*.
- 4.3.15 Other plant species include a common assemblage of pleurocarpus and acrocarpus mosses including *Thuidium tamariscinum*, *Brachythecium rutubulam* and *Plagiothecium undulatum*.
- 4.3.16 The dense, conifer rich stands may offer roosting and limited foraging opportunities for a specialist species of woodland birds as well as dense cover for small (e.g. rabbits) and large mammals (e.g. deer) foraging in adjacent blocks of mixed and broadleaved plantation.

Habitat value: Low-Intermediate (The cones produced by the conifer may provide suitable winter foraging grounds for specialist woodland birds e.g. crossbill and goldcrest.)

Dense/Continuous scrub

- 4.3.17 A small area of dense scrub has developed to the south-west of the crematorium.
- 4.3.18 Coverage of mature trees in this area is low (although there is a notable oak with bat potential located within this habitat) with the balance of the habitat consisting of a limited range of native scrub species.
- 4.3.19 Hazel and bramble are dominant with other woody species recorded within this habitat including oak, dog rose *Rosa canina* and hawthorn *Crataegus monogyna*.
- 4.3.20 As a consequence of the low canopy cover within this habitat the groundflora was relatively species rich compared to the adjacent blocks of woodland plantation. Notable herbs recorded in this habitat included ground ivy *Glechoma hederacea* and garlic mustard *Alliaria petiolata*.
- 4.3.21 The rich assortment of berry and seed producing woody species within this habitat combined with its overall structural complexity is likely to provide good foraging and sheltering opportunities for both common woodland bird species and small mammals (e.g. wood mouse).

Habitat value: Intermediate

Mixed Plantation Woodland

- 4.3.22 Stands comprising a mixture of broadleaved and coniferous trees occur over the majority of the site. Most are dominated by conifer (particularly Scots pine) with various broadleaved species constituting between 10 and 90% of overall tree cover within each block.
- 4.3.23 The blocks of mixed plantation were populated by a similar range of conifer species to those found in the surrounding stands of pure coniferous woodland. Besides Scots pine, Douglas fur and western hemlock were frequently recorded in the stands of mixed plantation.
- 4.3.24 The blocks of mixed plantation contained a healthy mix of broadleaved species, including silver birch, poplar and grey poplar *P. x canescens*, sweet chestnut, sycamore *Acer pseudoplatanus*, lime *Tilia sp.*, ash, wild cherry and hornbeam *Carpinus betulus*.
- 4.3.25 The diversity and extent of the understory within the different stands of mixed plantation varied widely. Most supported relatively little besides bramble, but several mature hazel coppice stools were noted close to the boundaries of the wood along the B4087 (to the north) and the B4100 (to the east). Other understory species noted in this habitat included holly and elder *Sambucus nigra*.
- 4.3.26 The coverage and diversity of herbs present within the mixed plantation stands tended to be higher than in other parts of the wood. Grasses were generally suppressed except

for small tufts of wood false brome and patches of creeping bent *Agrostis stolonifera* in the more open areas opposite the footpaths.

- 4.3.27 As elsewhere, bracken and bramble were the dominant groundflora species within this habitat. Besides these two species, dense patches of AWIs formed frequent components of the groundflora in less shaded areas of mixed plantation. Clumps of wood sorrel were noted in every stand, with a particularly high concentration just to the south of the crematorium (**Target Note 23, Appendix III**). Bluebell was also recorded on a frequent basis along with other notable species including wood sage *Teucrium scorodonia* near the centre of the site (**TN18, Appendix III**) and greater stitchwort *Stellaria holostea* (AWI).
- 4.3.28 Other notable vegetative species recorded within this habitat included foxglove *Digitalis purpurea*, sweet violet *Viola odorata*, lesser celandine *Ranunculus ficaria* and yellow pimpernel *Lysimachia nemorum*. Lichens were generally rare but did include several common species including *Cetraria chlorophylla*. Besides the four ferns listed above (4.3.7) scaly male fern *Dryopteris affinis* was also recorded in one of the mixed plantation stands.
- 4.3.29 The areas of mixed plantation may provide foraging and nesting habitat for a range of different bird species including raptors (e.g. buzzard – noted flying over head during the site survey) and smaller passerine species (e.g. chaffinch, coal tit and robin).
- 4.3.30 Although of slightly higher ecological value compared to the adjacent areas of conifer plantation this habitat is still largely unnatural. The blocks of mixed plantation would benefit from management practices which would promote the acquisition of a more natural local character similar to other ancient woodlands in the surrounding area (e.g. Wiggerland Wood).

4.3.31 *Habitat value: Low-Intermediate*

Scattered trees/Bracken mosaic

- 4.3.32 An interesting assemblage of scattered broadleaved trees underlain by a dense carpet of scattered bracken and bramble is located along the southern boundary of the site (**See Photo 2, Appendix IV**).
- 4.3.33 Well spaced sweet chestnut and oak are the dominant trees with occasional ash and sycamore recorded within this habitat. Many of the trees, particularly towards the south-eastern corner (see **TN27, Appendix III**) are covered with features attractive to roosting bats and nesting birds. A small amount of replanting (signified by old tree protectors and canes) and natural regeneration (silver birch) was noted within the habitat.
- 4.3.34 The groundflora varied significantly between the eastern and western side of the habitat. The groundflora in the south-eastern corner was not exceptional considering the relatively high light levels. Bracken and bramble in dispersed by occasional clumps of red campion *Silene dioica* were the dominant groundflora species in this area.
- 4.3.35 Towards the south-western corner the groundflora was more species rich. Bluebell was a frequent component of the groundflora along with common chickweed *Stellaria*

media, greater stitchwort (AWI) and red campion. The understory within this compartment was also considerable and included several notable hazel coppice stools.

- 4.3.36 This area which looks to have been thinned recently would benefit from management which would diversify the existing age structure (currently mature oak dominate) and reduce bracken coverage through an increase in canopy density.
- 4.3.37 Further survey should be considered to assess whether this areas would be a suitable candidate for parkland management in the future.

Habitat value: Intermediate-High

Standing Water

- 4.3.38 Three small waterbodies were recorded on site (**See Photos 3-4, Appendix IV**). The first in the north-eastern corner of the site opposite the B4100 (P1), the second is a series of small ephemeral pools at the base of the SAM in the centre of the site (P2), with the third close to the southern boundary (P3).
- 4.3.39 All three appeared to be ephemeral in nature and supported little marginal vegetation (e.g. no rush or wetland grass was noted during the site survey). Tiny amounts of floating pond weed (small leaved duckweed *Lemna minor*) were noted in P3.
- 4.3.40 Water quality generally appeared to be low with little detectable invertebrate activity in any of the waterbodies (although the survey was not completed at the optimal time of year). Sediment load in each of the ponds was high and the base of each was coated in a dense layer of fallen leaf material.
- 4.3.41 No notable bird or other species were associated with these features.

Habitat value: Low

Protected Species and Other Faunal Interest

Protected Species

Amphibians

- 4.3.42 The walk over survey did not find any evidence of amphibians under terrestrial refugia (e.g. logs).
- 4.3.43 The wood supports extensive areas of optimal terrestrial habitat (e.g. dense scrub and woodland) for foraging, sheltering or over-wintering purposes.
- 4.3.44 Although the ponds within the wood were considered to be sub-optimal for amphibian occupation (heavily shaded, little emergent or bank side vegetation) they may provide suitable breeding grounds for amphibians (e.g. great crested newt (GCN) *Triturus cristatus*).
- 4.3.45 Neither the local records search, nor the National Biodiversity Network search found protected amphibian records (e.g. GCN) within 1km of the wood.

Bat Species

- 4.3.46 No signs of bats were recorded during the walkover e.g. feeding remains, active roosts.
- 4.3.47 Generally the standing trees on site lacked features attractive to these species e.g. split bark, dense ivy. Important exceptions included several of the mature oak along the southern boundary of the western spur (**TN20, Appendix III**), parts of the eastern and western boundaries (**west of TN25, Appendix III**) and the well spaced oak along the southern boundary (**TN26, Appendix III**). Many of these trees were sufficiently mature to offer optimal roosting opportunities for bats foraging or commuting across the local area.
- 4.3.48 The main body of the wood lacked suitable foraging grounds for bats due to the density of the canopy in many of the compartments and poor quality of the waterbodies located within the wood. The more open rides (those with less mature trees which run north-south through the wood) and well spaced oak and scrub along the southern boundary may provide useful commuting routes and foraging grounds for bats navigating through the site and across the local landscape.

Reptile Species

- 4.3.49 No reptile species were recorded during the walkover survey, although the weather conditions on the day were sub-optimal for reptile survey.
- 4.3.50 It was considered that the site generally lacked suitable foraging grounds (e.g. ponds, tall grass) or basking sites (e.g. glades) for these species. Although as this is a wide ranging species and areas of grassland and ponds are readily available in the surrounding landscape it may travel through and forage amongst the leaf litter within the wood.

Bird Species

- 4.3.51 During the walkover several birds nests were noted in both the stands of mixed plantation and conifer plantation. Notable concentrations were noted along the northern boundary opposite the B4087, and north eastern corner of the wood. Moreover a coal tit *Periparus ater* was noted entering and leaving a small cavity located in a standing dead birch trunk in the north-eastern corner. Both the mixed, conifer and broadleaved plantation may provide suitable nesting sites for a wide range of common woodland birds.
- 4.3.52 A number of bird species were recorded across the wood (see **Table 1** for incidental list) and it was considered that the site would provide good breeding and foraging conditions for numerous woodland/hedgerow species.

Badgers

- 4.3.53 The walkover detected only a few signs of badger activity. These included a single faeces and several large snuffle holes which may have been dug by a badger.
- 4.3.54 The WBRC search found 3 badger sett records within Oakley Wood. The three locations and their immediate surroundings were inspected for signs of recent/detectable badger activity as part of the walk over survey.

- 4.3.55 Two of the three setts do not appear to be currently used by badgers. Direct habitation by rabbits was observed in the sett opposite the B4087 with other holes further north also showing signs of rabbit activity and current occupation (see **Photo 5, Appendix IV**). A search of the ground to the east of the crematorium car park did not reveal any signs of badger activity either. No badger trails or latrines were found, with the only signs of past activity being several disused burrows (see **Photo 6, Appendix IV**).
- 4.3.56 The third WBRC badger sett record related to a site in and around the northern bank of the SAM. A detailed search of this area discovered several entrance holes. One of the holes was of a suitable size for badgers (see **Photo 7, Appendix IV**) but field signs were masked as the ground had recently been disturbed by dogs. Field signs around the other holes were more consistent with rabbit usage (rabbit faeces was abundant).
- 4.3.57 The woodland rides and areas of scrub would provide suitable cover and foraging grounds for badger.

Other faunal interest

- 4.3.58 Other mammal species identified through field signs included rabbit *Oryctolagus cuniculus*, mole *Talpa europaea*, grey squirrel *Sciurus carolinensis*, fox *Vulpes vulpes* and deer.

Table 1: Incidental Site Bird Record on 15th January 2009

Scientific Name	Common Name
<i>Aegithalos caudatus</i>	Long-tailed tit ³
<i>Buteo buteo</i>	Buzzard ³
<i>Columba palumbus</i>	Woodpigeon ³
<i>Corvus corone</i>	Carrion crow ³
<i>Corvus monedula</i>	Jackdaw ³
<i>Cyanistes caeruleus</i>	Blue tit ³
<i>Fringilla coelebs</i>	Chaffinch ³
<i>Garrulus glandarius</i>	Jay ³
<i>Parus major</i>	Great tit ³
<i>Periparus ater</i>	Coal tit ³
<i>Phasianus colchicus</i>	Pheasant ^{No Status}
<i>Picus viridis</i>	Green woodpecker ²
<i>Troglodytes troglodytes</i>	Wren ³
<i>Turdus merula</i>	Blackbird ³

¹**Red List (RSPB):** Rapid decline in range over recent years

²**Amber List (RSPB):** Moderate decline in range over recent years

³**Green List (RSPB):** Species that fulfil none of the above criteria

5. RELEVANT LEGISLATION

5.1.1 Based on actual sightings, signs of and the presence of potentially suitable habitats for protected species noted during the survey, the following legislation may apply to the management aspirations for the site.

Breeding Birds

5.1.2 The Primary legislation affecting wild birds in England, Scotland and Wales is the Wildlife and Countryside Act 1981 (as amended). In January 2001 the Countryside and Rights of Way Act 2000 (CRoW) included amendments, which strengthened the law in England and Wales.

5.1.3 All birds, their nests and eggs, are protected by law and it is therefore an offence, with certain exemptions, to;

- Intentionally kill, injure or take any wild bird

- Intentionally take, damage or destroy the nest of any wild bird whilst in use or being built
- Intentionally take or destroy the egg of any wild bird
- Have in one's possession or control an egg or part of an egg which has been taken in contravention of the Act

5.1.4 In addition to the general protection afforded to birds, some rare breeding birds are further protected by special penalties. These birds are listed in Schedule 1 of the Act and are usually referred to generically as **Schedule 1 species**.

5.1.5 It is an offence to;

- Intentionally (or recklessly (CRoW Act 2000)) disturb any Schedule 1 species while it is nest building or is at, or near, a nest with eggs or young; or
- To intentionally disturb the dependent young of such a bird.

Bats

5.1.6 All species of Bat and their roosts are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) and The Conservation (Natural Habitats, & c.) Regulations 1994.

5.1.7 This legislation makes it illegal to kill, injure and disturb bats and also destroy active bat roosts (even if bats are not present).

5.1.8 Any works prescribed for the mature trees on site will need to consider potential bat roosts particularly in trees supporting features attractive to these species.

Badger

5.1.9 Badgers are protected specifically by the Protection of Badgers Act 1992. Although aimed primarily to protect badgers against baiting, of relevance to ongoing woodland management is that under the Act it is an offence to wilfully kill, injure or take a badger, or attempt to do so.

5.1.10 Furthermore, it is an offence to damage, destroy or obstruct a badger sett, or disturb an animal whilst it is occupying a sett.

5.1.11 An offence is committed if such damage, destruction or disturbance arises from either a reckless or deliberate act.

Reptile

5.1.12 The legislation relating to the protection of the commoner reptiles (adder, grass snake, common lizard and slowworm) in Britain is contained mainly within the Wildlife and Countryside Act (1981) as amended by the Countryside and Rights of Way Act (2000). Under the act it is an offence to;

- Intentionally (or recklessly) kill or injure commoner reptile species.

6. EVALUATION

6.1 Local Context

- 6.1.1 The landscape surrounding the wood is composed of deciduous woodland, arable land and improved grassland.

6.2 Habitats

- 6.2.1 The desk study identified habitats of local importance to be wildflower meadows, native woodland and open water.
- 6.2.2 Generally the site is dominated by a mixture of low to intermediate value habitats. The stand of mature broadleaved woodland in the south-eastern corner, free-standing mature oaks around the southern and western perimeter of the wood constitute habitat of intermediate to high ecological value.

6.3 Species

- 6.3.1 The desk study identified a range of protected species records in the area including badger and grass snake. It should be noted that absence of records certainly does not equate to absence of species in a study area. The site has been assessed on the suitability of the habitats to support such protected species and the likelihood of those species being present.

Bird Species

- 6.3.2 The site provides suitable foraging and nesting grounds for a wide range of woodland and hedgerow species. The current canopy density and general lack of fruit and seed producing understory does however lower its overall suitability for several species of non-woodland specialists (e.g song thrush).

Badger

- 6.3.3 Few active signs of badger usage and occupation were noted inside the wood. Two of the three setts identified by the records search were considered to be currently occupied by rabbit. The sett near the northern tip of the SAM supported an entrance of suitable dimensions for badger.
- 6.3.4 The woodland rides and surrounding grassland fields opposite the southern boundary of the wood would provide suitable foraging grounds for badger.

Bat Species

- 6.3.5 The balance of the wood supported semi-mature trees which lacked features attractive to roosting bats (e.g. split branches, peeling bark). The mature oaks along the southern and eastern boundary and those located along the southern edge of western spur south of the crematorium (**west of TN20, Appendix III**) are likely to provide suitable roosting opportunities for bats.
- 6.3.6 The wood may also provide valuable commuting routes and limited foraging grounds for bats in the local area.

Amphibians

- 6.3.7 The site offers relatively limited opportunities for breeding amphibian species (only three waterbodies of low suitability for amphibians were found). The terrestrial habitats on site would provide suitable foraging and shelter habitats for amphibian species. In terms of the wider landscape the local records search did not detect any protected species of amphibian (e.g. great crested newt) within 1km of Oakley Wood.

Reptile Species

- 6.3.8 No signs of reptiles were noted during the survey. The high canopy density and lack of suitable foraging grounds (e.g. ponds) lowers the woods overall suitability for reptiles.
- 6.3.9 As the survey was completed in sub-optimal conditions a lack of reptiles signs was not unsurprising. As the surrounding habitats and parts of the woods (e.g. more open rides) may provide suitable foraging and overwintering conditions for reptiles future management should consider these species.
- 6.3.10 A licence is not required from Natural England to capture grass snake and common lizard or damage their habitat. However, as already detailed above, the reptiles themselves are protected so there is a risk that offences would be committed if damaging habitats causes direct harm to reptiles.

Other protected species considerations

- 6.3.11 Rabbits forage and occupy burrows distributed across the wood. Deer activity appears limited and largely restricted to the eastern boundary. The wood also supports a healthy population of grey squirrel.

7. CONCLUSIONS

- 7.1.1 The site is dominated by plantation woodland which is of low to intermediate ecological value. The density of the canopy, lack of native broadleaf species and structural diversity currently the wood's suitability for a wide range of notable plant and animal species.
- 7.1.2 The site does support several features of intermediate to high ecological value. These include the section of well spaced oak along the southern and eastern boundary, and line of pollarded oak south of the crematorium (**west of TN20, Appendix III**).
- 7.1.3 The existing seed bank of the site is also of intermediate to high ecological value. Although largely suppressed by the acidic leaf and needle litter the site still supports extensive areas of notable woodland plants including three Ancient Woodland Indicators (wood sorrel, greater stitchwort and bluebell). Other AWIs or local notable groundflora currently dormant may respond to improved management and begin to germinate.

8. RECOMMENDATIONS

- Breeding Birds – Timing of Works:** Ideally thinning/clearance works affecting trees, or other wooded features should be scheduled outside of the main bird breeding season (i.e. March to August inclusive) or specialist advice should be

sought with regard to bird breeding status at the site ahead of works commencing during such a time.

2. **Badgers – Best Practice:** Although not confirmed during the site visit, badgers may be using part of the sett in the northern tip of the Scheduled Ancient Monument. In order to avoid possible disturbance Forestry Commission best practice (Forestry Practice Guide 9) as regards badgers in this area should be followed.
3. **Reptiles:** The likely presence of these species should be considered as part of ongoing management works. For example pre-existing habitat piles (e.g. logs, mature spoil heaps) should be retained where possible and care taken when accessing the site to reduce the risk of killing or crushing members of these species.
4. **Native Tree Re-introduction:** Future management should address the current bias towards conifers within the woodland. Selective felling and replacement with local native species could aid ground flora re-establishment and improve foraging opportunities for mammals and birds.
5. **Ride Enhancement:** Currently many of the rides lack structural diversity and are largely scrub and poplar dominated. Introduction of a three zoned system (Warren and Fuller, 1993) which incorporates areas of grassland in the centre, shrubs towards the outside with high forest beyond would enhance the range of ecological niches currently available within the wood and facilitate improved pedestrian access.
6. **Candidate Veteran Retention:** Several of the mature oaks around the perimeter of the wood would benefit from retention and a reduction in competition from surrounding trees.
7. **Coppice:** Opportunities to create areas of rotational coppice should be considered. This style of management within many of the existing woodland stands would improve deadwood reserves and assist in increasing light levels to stimulate bird activity and groundflora development.

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