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MONKDOWN WOOD, BREDHURST BREEDING BIRD SURVEY

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**MONKDOWN WOOD, BREDHURST,
KENT
BREEDING BIRD SURVEY**

1. INTRODUCTION

- 1.1 Kent Wildlife Trust was contracted by the Mid Kent Downs AONB Unit to undertake a survey of breeding birds at Monkdown Wood, Bredhurst, Kent (approximate grid reference to centre of site is TQ790608). A map showing the site boundaries has been included within Figure 1 overleaf.
- 1.2 The survey forms part of an environmental assessment of the area in order to establish the wildlife interest of Monkdown Wood and the wider Bredhurst Woods complex and to determine whether the site meets the criteria necessary for designation as a Site of Special Scientific Interest.
- 1.3 The land covered by this survey comprises the Monkdown, Friends and Polehill Woods complex. The woods are coppiced with some areas of mature deciduous trees, although little recent coppicing has been undertaken in recent years. The surrounding land is generally arable farmland.
- 1.4 This report includes a description of the survey methods, presentation of the results and an evaluation of the nature conservation significance of the breeding bird community.
- 1.5 Bredhurst Woods is considered to be of county wildlife importance, primarily for its habitat and botanical interest, and has been designated as a Local Wildlife Site (aka Site of Nature Conservation Interest) by Kent Wildlife Trust. A copy of the schedule has been enclosed within Appendix 1.

2. SURVEY METHODS

- 2.1 The survey was carried out during April-July 2006. The fieldwork was based on a modified territory mapping method, a standard technique for breeding bird surveys as used for many years by the British Trust for Ornithology for their Common Birds Census (Marchant 1983, Gilbert *et al.* 1998). It involves making a series of visits throughout the breeding season, during which all birds seen or heard in the area are recorded on large-scale maps using standard codes denoting their species and behaviour. At the end of the survey, analysis of the clusters of map registrations for each species enables the number of territories to be determined.
- 2.2 The preferred number of visits for this survey method is eight-ten but, with experienced surveyors and well-planned visits, it is possible to achieve adequate results from fewer. Eight visits were made in 2006, spread evenly between early April and early July. Five of these visits were full mapping visits, whilst three visits were carried out to assess the raptor population of the site. This involved watching over the canopy of the wood from an adjacent viewpoint rather than surveying within the wood itself.
- 2.3 The whole area was covered on each of the mapping visits. Recording extended a little beyond the site boundary, in order to define territories that straddled the boundary. This 'peripheral zone' varied in width, depending on the adjoining habitats, but was generally about 30m wide.
- 2.4 All mapping visits were made in the early morning, starting between 05:00 and 06:00, when bird activity is greatest, and finishing by 10:30. The three visits for raptor survey were made in mid-morning.
- 2.5 Analysis of the registrations for each species followed the procedures set out in Marchant (1983) and Gilbert *et al.* (1998), taking into account the biology of the species involved or the geography and habitats of the site. Bird species differ in detectability, and in most cases it is unlikely that contacts are made in all territories on a single visit.
- 2.6 Caution has been exercised in interpreting the results of the field data, and the numbers of territories estimated should be regarded as minima.
- 2.7 A data search was carried out on records held by the Kent Ornithological Society in order to determine whether additional species not recorded during the field survey might be breeding within the wood.

3. RESULTS

Breeding bird surveys

- 3.1 Table 1 lists the estimated numbers of territories of all mapped species considered to be breeding in the Monkdown Wood survey area in 2006. Commoner breeding species were not mapped. Records of non-breeding species using the site or those flying over the survey area are given in Table 2.

Table 1. Estimated numbers of territories of breeding species, 2006	
Species	Territories
Sparrowhawk	1
Kestrel	1
Hobby	1
Pheasant	Common breeding species
Stock Dove	1
Woodpigeon	Common breeding species
Cuckoo	1
Tawny Owl	1
Green Woodpecker	2
Great Spotted Woodpecker	4
Lesser Spotted Woodpecker	1
Tree Pipit	1
Wren	Common breeding species
Dunnock	Breeds
Robin	Common breeding species
Blackbird	Common breeding species
Song Thrush	Breeds
Mistle Thrush	1
Whitethroat	1
Garden Warbler	3
Blackcap	12
Chiffchaff	7
Willow Warbler	3
Goldcrest	2
Marsh Tit	8
Blue Tit	Common breeding species
Great Tit	Common breeding species
Coal Tit	8
Long-tailed Tit	3
Treecreeper	4
Jay	Breeds

Species	Territories
Magpie	Breeds
Jackdaw	Breeds
Carrion Crow	Breeds
Chaffinch	Common breeding species
Greenfinch	1
Bullfinch	2
<i>Number of species</i>	37

Species	Comments
Red-legged Partridge	Recorded on the arable fields around the wood, but no evidence of breeding within it
Swift	Occasionally flying over, no evidence of breeding in the wood
Skylark	Recorded on the arable fields around the wood, but no evidence of breeding within it
Swallow	Occasionally flying over, no evidence of breeding in the wood
House Martin	Occasionally flying over, no evidence of breeding in the wood
Grey Wagtail	One flying over on Apr 26 th
Pied Wagtail	Occasionally flying over, no evidence of breeding in the wood
Redwing	One recorded on Apr 26 th
Lesser Whitethroat	Male singing near Arran Bank Farm just outside survey area boundary
Starling	Occasionally flying over, no evidence of breeding in the wood
Goldfinch	Occasionally flying over, no evidence of breeding in the wood
Siskin	Several recorded on Apr 8 th
Linnet	Occasionally flying over, no evidence of breeding in the wood
Common Crossbill	One flying over on Apr 8 th

4. EVALUATION

- 4.1 A number of methods of describing the importance of areas for birds have been developed, with the work of Fuller (1980, 1982) being highly influential in this development. The objective of ornithological evaluation is generally to establish the relative importance of an area within a geographical context, typically with respect to five levels of conservation importance: international, national, regional, county and local. The three principal attributes of bird communities which are considered are population size, diversity and rarity. It is desirable that estimates of bird populations in an area are available for analysis covering a number of years although, in practice, this often is not the case.

Evaluation criteria

Population size

- 4.2 The standard criterion upon which evaluation of population size is based is that if 1% or more of the defined geographical population of a species regularly uses a site, then that site is important at that geographical scale. This means, for example, that if 1% of the national population occurs, then the site is nationally important for that species. The term 'regularly' implies that data should be available for a five-year period; this is not the case for the present study. Valuable sources of information on national bird populations include Gibbons *et al.* (1993) and Stone *et al.* (1997).
- 4.3 The 1% criterion for importance is widely accepted at national and international levels. It can also be applied for smaller geographical units but problems may then arise when the total population within the unit is small and very small numbers occurring on a site would confer importance. In such cases, consideration may be given to raising the proportion of the population that defines importance: for example, 5% of a county population may be a better measure of county importance than 1%. The key source of information on the size of Kentish breeding bird populations is Henderson & Hodge (1998).

Diversity

- 4.4 The number of species recorded in an area (species-richness) is a simple and effective measure of diversity, which can be used to describe conservation value separately for breeding, passage and wintering bird communities. Fuller (1980) provided the following criteria for the breeding season:

National	Regional	County	Local
85+	84-70	69-50	49-25

- 4.5 A method of measuring diversity which takes into account the national abundance of individual species has been developed (Fuller 1980, NCC 1989). The more recent system, devised as part of the procedure for selecting Sites of Special Scientific Interest (SSSIs), allocates scores to selected species characteristic of certain habitats (woodland, lowland damp grasslands, etc); sites which have totals which exceed defined qualifying levels may be selected as SSSIs. Individual species' scores are based on their national abundance, with the

rarer species having higher scores. In the present case, analysis has investigated the quality of the site using the species assemblages for woodland.

Rarity

- 4.6 Various measures of rarity can be employed. One generally accepted criterion is that species with fewer than 1000 pairs breeding in Britain are described as nationally rare (Fuller 1980). A species with a Kent population of up to 25 pairs (Henderson & Hodge 1998) is treated as being rare in the county for the purposes of this report.
- 4.7 A different way of recording rarity is by distribution rather than by population size. The availability of an atlas of breeding distributions of birds in Britain and Ireland recorded by 10x10 km grid squares (Gibbons *et al.* 1993) makes it possible to describe the frequency of occurrence of individual species in terms of the proportions of squares in which they occur. Although not widely accepted, the 30% level forms a useful line below which a species can be described as scarce, for both breeding and wintering birds. This method can also be applied on a more local basis where suitable atlases exist, as it does in Kent on a tetrad (2x2 km) basis (Henderson & Hodge 1998).
- 4.8 The occurrence of species which are specially protected by law or otherwise listed as threatened, although not necessarily strictly rare, can also be helpful in establishing the conservation value of sites. Species listed on Schedule 1 of the Wildlife and Countryside Act 1981 or on Annex 1 of the European Community directive on the Conservation of Wild Birds (79/409/EEC) are worthy of special consideration, as are red list Birds of Conservation Concern (RSPB 2002). Red list species are those which are regarded as threatened in Britain by virtue of their small populations or declining numbers, or for which Britain supports a considerable proportion of the western European totals.
- 4.9 At a county level, the Kent Red Data Book (Waite 2000) lists species of local conservation concern, graded as follows:

KRDB1 Breeding species with 25 pairs or fewer in Kent

KRDB2 Breeding species with more than 25 pairs but red-listed nationally for their marked population declines

KRDB3 Species for which Kent holds >15% of the British population; nationally rare or localised species; and species that breed in 20 tetrads or fewer in Kent

Assessment of breeding bird community

Population size

- 4.10 The numbers of territories of species found at Monkdown Wood are mostly small in the context of their British populations and none approaches or exceeds 1%.

Diversity

- 4.11 The total of 37 breeding species falls within the mid-range of the category of local importance (Fuller 1980), but considerably short of the category of county importance, which requires a range of 50-69 breeding species.

Rarity

- 4.12 Four species on the red list of Birds of Conservation Concern were recorded as breeding during the present survey. These are shown in Table 3. All of these species are birds that are still relatively widespread and numerous but have experienced sharp national population declines (greater than 50% since 1970).

Lesser Spotted Woodpecker
Song Thrush
Marsh Tit
Bullfinch

- 4.13 Four species included in the Kent Red Data Book were recorded breeding at Monkdown Wood in 2006 (Table 4). Note that this list fully overlaps with Table 3, particularly since the KRDB2 category comprises the national red list species.

<i>KRDB grade</i>	<i>1</i>	<i>2</i>	<i>3</i>
Lesser Spotted Woodpecker		+	
Song Thrush		+	
Marsh Tit		+	
Bullfinch		+	

SSSI designation

- 4.14 The JNCC has produced guidelines for testing whether the breeding bird communities of particular habitats fall within certain thresholds, and thus allow an assessment of the importance of an individual site. Whilst these guidelines are now rather old (1989), they are still used for SSSI assessment. The threshold for woodland in Britain (excluding NW and NE Scotland) is 39 points. Points are awarded for each species breeding in a woodland site on the following basis:

Species	Points
Grey Heron	3
Honey Buzzard	5
Red Kite	5
Goshawk	5

Sparrowhawk	2
Common Buzzard	3
Osprey	5
Hobby	4
Black Grouse	3
Capercaillie	3
Woodcock	2
Stock Dove	1
Cuckoo	2
Tawny Owl	2
Long-eared Owl	3
Nightjar	3
Hoopoe	6
Wryneck	6
Green Woodpecker	2
Great Spotted Woodpecker	2
Lesser Spotted Woodpecker	3
Tree Pipit	1.5
Nightingale	3
Fieldfare	1
Redstart	6
Redwing	5
Garden Warbler	1
Blackcap	1
Wood Warbler	2
Chiffchaff	1
Goldcrest	1
Firecrest	5
Spotted Flycatcher	1
Pied Flycatcher	2
Long-tailed Tit	1
Marsh Tit	1
Willow Tit	2
Crested Tit	4
Coal Tit	1
Nuthatch	2
Treecreeper	1
Golden Oriole	5
Jay	1
Raven	3
Serin	6
Siskin	2
Lesser Redpoll	1
Scottish Crossbill	4
Common Crossbill	3
Bullfinch	1
Hawfinch	3

The survey carried out in Bredhurst Woods in 2006 gave the following results:

Species	Points
Sparrowhawk	2
Hobby	4
Stock Dove	1
Cuckoo	2
Tawny Owl	2
Green Woodpecker	2
Great Spotted Woodpecker	2
Lesser Spotted Woodpecker	3
Tree Pipit	1.5
Garden Warbler	1
Blackcap	1
Chiffchaff	1
Goldcrest	1
Long-tailed Tit	1
Marsh Tit	1
Coal Tit	1
Treecreeper	1
Jay	1
Bullfinch	1
Total Points	29.5

4.15 A search of Kent Ornithological Society records for the tetrad TQ76V indicates that Nightjars and Nightingale bred in the tetrad during the 1967-73 county wide breeding bird survey. In addition, the following species were recorded in TQ76V during the 1988-94 county wide breeding bird survey that were not recorded during the 2006 survey of Monkdown Wood: Spotted Flycatcher, Willow Tit and Hawfinch. It is considered unlikely that Nightjars currently breed in Monkdown Wood as the area of young coppicing available is not considered sufficient for the breeding requirements of the species. However, no specific visits were made to confirm this view. It is also unlikely that Nightingales bred in the wood in 2006. The species is relatively conspicuous, with a distinctive song, and is likely to have been recorded in 2006 if present. With regard to the three species recorded between 1988-94 but not in 2006, all three species have declined significantly in Kent since 1994, particularly Spotted Flycatcher and Willow Tit; the latter species is almost extinct in the county, with only 1-3 pairs reported in the whole of Kent since 2004. It is possible that Hawfinches still breed in small numbers in Monkdown Wood. They are a secretive species and could possibly have been missed in the 2006 surveys. The inclusion of this species within the SSSI analysis increases the points total for the site to 32.5, which is still significantly below the threshold of 39 points for breeding bird assemblages within woodland sites.

Distribution of birds within the area

- 4.16 Breeding birds are fairly evenly distributed across the survey area. Few areas have especially high or low numbers relative to others, with the exception of some of the areas of mature coppicing with few standards, which have relatively few birds. In general, the distribution of breeding species is much as would be expected in the habitats that are present.

Non-breeding bird community

- 4.17 During the 2006 survey, 14 non-breeding bird species were recorded using the site (Table 2). They include species breeding nearby and passage migrants. Most are fairly common and widespread although Common Crossbill is a fairly scarce bird in the county.

Conclusions

- 4.18 Monkdown Wood has a moderately diverse breeding bird community, which is important at a local but not county level. Both species-richness and abundance of birds are typical of this type of coppiced woodland. The number of breeding species present qualifies the area as locally important, but does not meet the criteria for SSSI designation on the basis of the breeding bird community alone.

5. REFERENCES

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Appendix 1: SSCI Schedule
MA34 – Bredhurst Woods