



## Woodland near North Tawton, Devon

### Habitat Management Plan

Report No: 19/3539.02

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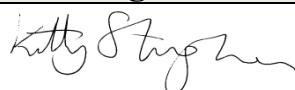
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## **1 Introduction**

### **1.1 Introduction**

This report contains the results of a Habitat Management Plan for a woodland located outside North Tawton, Devon at National Grid Reference SS 659 033.

This survey area comprises approximately 2ha of semi-natural ancient woodland and is part of a larger woodland complex. A site assessment was undertaken on 5<sup>th</sup> August 2019 by Tom Nitti BSc. (Hons) GradCIEEM, to identify the habitats currently present and provide advice on managing and enhancing these habitats.

## 2 Site Description

### 2.1 Habitats

The survey area consists predominantly of ancient broadleaved semi-natural woodland. The site contains multiple tree species of varying age that provide a range of habitats within the woodland. Two streams flow south to north through the centre of the site and provides areas of wetter ground and vegetation. A full species list is presented in Appendix 1. An Extended Phase 1 Habitat Survey Map (DWC Drawing Number 19/3539.02-01) is presented in Appendix 2, including Target Notes (TN) highlighting features of interest.

#### 2.1.1 Woodland

The south-eastern and eastern extent of the survey are dominated by stands of mature beech *Fagus sylvatica*, holly *Ilex aquifolium* and pedunculate oak *Quercus robur*, with a shrub layer consisting of occasional stands of hazel *Corylus avellana*. The areas of mature beech form dense canopies resulting in a limited ground flora. As a result, this extent of the survey area contains patches of bare ground with occasional bluebell *Hyacinthoides non-scripta*, dog's mercury *Mercurialis perennis*, common nettle *Urtica dioica* and greater stitchwort *Stellaria holostea*.

The mature beech stands grade into an assemblage of mature pedunculate oak, ash *Fraxinus excelsior* and silver birch *Betula pendula* of varying age in the north-eastern and northern extent of the site. The understorey contains patches of dense bramble *Rubus fruticosus* agg. scrub and a variety of ferns including scaley male-fern *Dryopteris affinis*, broad buckler-fern *Dryopteris dilatata*, lady fern *Athyrium filix-femina* and hard shield-fern *Polystichum aculeatum*. Additional species include remote sedge *Carex remota*, enchanter's nightshade *Circaea lutetiana*, creeping soft-grass *Holcus mollis*, soft-rush *Juncus effusus* and common valerian *Valeriana officinalis*. Although patches of bramble and nettle are present, these species do not dominate the area, however, the area should be monitored to ensure it does not encroach further. This mosaic of vegetation continues along the northern boundary of the site passing through two wet flushes. These wetter flushes contain an increased level of soft-rush, sharp-flowered rush *Juncus acutiflorus*, opposite-leaved golden saxifrage *Chrysosplenium oppositifolium*, meadowsweet *Filipendula ulmaria* and marsh bedstraw *Galium palustre*.

The north-western and western extent of the survey area is dominated by previously coppiced hazel stools with occasional ash and pedunculate oak. The level of ground flora varies from patches of bare ground to denser areas of bramble scrub. However, the majority of this section comprises a wide variety of species including wood sedge *Carex depauperata*, violet *Viola* sp., bugle *Ajuga reptans*, tufted hair-grass *Deschampsia cespitosa* and common cow-wheat *Melampyrum pratense*.

The south-western corner comprises the wettest section of the woodland. Here the ground flora is dominated by hemlock water dropwort *Oenanthe crocata* with marsh marigold *Caltha palustris*, fool's watercress *Apium nodiflorum*, bittercress *Cardamine* sp., opposite-leaved

golden-saxifrage and wild angelica *Angelica Sylvestris* also present. There is also significant willow *Salix* sp. and alder *Alnus glutinosa* regeneration.

## 3 Habitat Management Advice

### 3.1 Introduction

These recommendations are to provide information on how to increase biodiversity within the habitats present on site with particular emphasis on maintaining and enhancing the diverse understorey in the broadleaved woodland.

### 3.2 Habitat recommendations

#### 3.2.1 Woodland

**Aim:** To increase the diversity and ecological interest of this habitat.

**Objectives:** Coppice hazel stools  
Deadwood management  
Control sapling regeneration

The woodland itself will only require light-touch management to promote wildlife within the area. It is important to note that traditional management would not have included any chemical input; therefore, it is generally recommended not to use any chemical fertilisers, insecticides, fungicides etc. in and around the woodland. Mowing of the field layer (including ferns, brambles) should be avoided except where required to maintain access.

#### *Bramble encroachment*

At present, there is a minimal level of bramble encroachment throughout the survey area, and the current level provides a mosaic of habitats throughout the woodland. This provides shelter/foraging/nesting opportunities for a wider range of wildlife including invertebrates and birds.

However, the level of bramble should be monitored to prevent dominating and out competing the woodland ground flora. It is recommended that where it begins to encroach the brambles should be cut back manually or pulled/dug out in order to remove the roots. The arisings should be removed from the site and not burned or composted within the woodland.

#### *Hazel Coppicing*

The western and central areas of woodland include a number of hazel stools that have not been managed for some time. These stools should be cut as close to the ground as possible. The idea is to encourage new shoots to grow at ground level and develop their own root systems, reducing the risk of instability and butt rot.

It is important not to coppice too extensively each year in order to maintain diversity in the age of the hazel stools and retain connectivity. By coppicing a small proportion of the hazel every few years, the overall structure of the feature is maintained with additional benefits gained from regrowth. It is possible to only coppice a proportion of poles within an individual hazel stool, however it increases the risk of rot and disease, therefore coppicing all of the



poles of a hazel stool tends to be a better option. New regrowth of hazel tends to be relatively unproductive in terms of hazel nuts until about 7 years after coppicing, English Nature recommends that within a hazel woodland, the ideal coppicing cycle length is between 15 to 20 years.

It is suggested that this area be supplemented with the planting of hazel whips where space permits. Whips should be protected from rabbit browsing through the use of canes and biodegradable spiral tree protectors and planted at spacings matching the existing coppice stools. If it is not possible to use biodegradable tree protectors, it must be ensured that the tree guards are removed from site when they are no longer required.

Good management through coppicing has positive impacts on a wide range of woodland wildlife. The dappled shade allows patches of light to reach the ground vegetation, hazel nuts are an important food source and have a strong association with mammals including dormouse *Muscardinus avellanarius* and birds such as jay *Garrulus glandarius*, woodpecker *Dendrocopus* sp. and nuthatch *Sitta europaea*. Hazel bark often becomes covered in a range of mosses and lichens and the coppice stools themselves become good sheltering and nesting habitat for a range of species.

#### *Dead Wood*

The woodland contains numerous examples of both standing and fallen dead wood, some with a good coverage of mosses and fungi. Where trees are felled or fall during storms it is beneficial to the woodland to leave the fallen tree in situ. The increased light on the woodland floor promotes growth of a variety of species, an example of this can be seen where there is greater floral diversity along trackways and woodland edge habitats. A mosaic of habitats throughout the woodland is desirable to provide shelter, foraging and nesting opportunities for a wider range of wildlife including invertebrates and birds.

Dead and decaying wood should be retained within the woodland. Any new fallen dead wood should be placed in discrete piles around the woodland perimeter or added to the deadwood piles already within the woodland. Wood decay is a natural process and creates good habitat for a number of species including invertebrates, birds and mammals. Any decaying large trees or stumps should be left in situ (unless it constitutes a danger to persons within the woodland) as deadwood habitat, especially large decaying trees, which can be very important for a range of species including many invertebrates, woodpeckers, and bats.

#### *Habitat Piles*

Cuttings from the woodland and any brash arisings should be collected and either removed from site or alternatively utilised to create log and vegetation piles. These should be placed in relatively undisturbed locations, adjacent to the boundaries thereby providing habitat for a range of invertebrates, amphibians, reptiles and small mammal.

#### *Sapling Regeneration*

Where there are dense areas of saplings, these should be thinned out (particularly willow) and removed. This is to prevent the ground flora becoming over-shaded which will result in reduced flora diversity.



#### *Wood chipping*

Any wood chipping within the woodland should be avoided where possible as the chippings smother the ground flora and allow colonisation of undesirable ruderal species.

#### *Ash Dieback*

Ash dieback is a fungal disease affecting common ash trees, by infecting the tree and weakening it to the point at which it becomes more vulnerable to other pests and pathogens. It is recommended to leave these trees in situ and only remove dying limbs if they become hazardous.

### **3.2.2 Wetter woodland**

**Aim:** To increase the diversity and ecological interest of this habitat.

**Objectives:** Break up and remove thatch of hemlock water-dropwort.

#### *Management:*

It is considered possible to improve the species diversity of the wettest area of woodland in the south-western corner without the need for wildflower seeding or bulb planting. In patches around the wet area where hemlock water-dropwort is not dominant, a number of wildflower species is present. With management to break up and remove this species, it is expected that wildflower species will recolonise and regenerate naturally.

Hemlock water-dropwort is a perennial but also self-seeds rapidly; invading damp grassland woodland and riverbanks. It should be treated with extreme caution as it is highly toxic, and ingestion of the roots is fatal to humans.

The arisings should be removed from the areas and left to dry on concrete if possible. If no concrete is available, they should be stacked so that the roots are off the ground. Provided no seed heads are present, once dry, the arisings can be disposed of in a compost heap.

### **3.3 Species recommendations**

#### **3.3.1 Bats**

**Aim:** Encourage use of the site by bat species for roosting, commuting and foraging

**Objectives:** Erect bat boxes on mature trees around the site and maintain flight lines and foraging habitat.

#### *Management:*

Large mature trees within the woodland areas in the south east of the site are considered to offer potential suitable roosting opportunities for bats due to their size and maturity.

In addition to these roosting opportunities the roosting potential of the site could be increased with the installation of bat boxes. There are large numbers of different types of bat boxes available which may benefit certain species or life stages. For example, pipistrelle species or

brown long-eared bats *Plecotus auritus* may use small bat boxes for maternity roosts, whereas other species may only use small boxes for occasional day roosting. Larger bat boxes are designed to accommodate larger species of bats such as noctule and even larger boxes are designed as hibernation roosts. Examples of bat boxes are presented in Appendix 3.

It is recommended that woodcrete bat boxes be utilised in preference to wooden boxes, as woodcrete boxes have a longer lifespan compared to the wooden boxes. This longevity can be especially important as bats have relatively long lives for small mammals, loyally returning to the same roosts for a number of years.

Bat boxes should be installed on suitable, mature trees around the site at height of at least 3m, ideally 4-5m, on a southeast or southwest orientation. The direction that the box faces encompasses a range of thermal variations which can be an important factor particularly if boxes are used as maternity roosts.

All bat boxes should be checked occasionally with repairs or replacements made when necessary. If bat boxes are utilised by bats, care must be taken to avoid disturbance of the boxes and any intervention should be undertaken by a suitable licensed ecologist. Natural England currently maintains a network of licensed bat ecologists who may be contacted for such works.

### 3.3.2 Birds

**Aim:** Encourage use of the site by bird species

**Objectives:** Erect bird boxes on mature trees around the site

Sensitive management of the site as detailed in section 3.2.1 above is anticipated to encourage use of the site by a range of bird species.

General purpose bird boxes such as woodcrete Schwegler models 1B (with a range of hole sizes) and 2H (open fronted) may be installed on mature trees around the site at approximately 3m high and facing a northerly direction. Holed boxes may be used by tits *Aves* sp., pied flycatchers *Ficedula hypoleuca* and nuthatches *Sitta europaea*, and open fronted boxes by robins *Erithacus rubecula* and spotted flycatchers *Muscicapa striata*.

Larger nest boxes designed for tawny owls could also be considered; following installation these should only be checked by people with appropriate knowledge and experience, as tawny owls defend their young very vigorously. Example of bird nesting provisions are presented in Appendix 3.

### 3.3.3 Dormice

**Aim:** Encourage use of the site by dormice.

**Objectives:** Erect dormouse boxes on several mature coppice stools or trees throughout the site.

The hazel dormouse is classified as a priority species under the UK Biodiversity Action Plan due to their diminishing numbers and a loss of suitable habitat across the UK. The woodland constitutes an area which has high potential to support dormice. The dense stools of hazel provide good connectivity throughout the woodland.

Management of the areas of woodland habitats detailed in Section 5.2 is anticipated to maintain and improve habitats suitable for dormice. Additional habitat creation can be achieved through the installation of dormouse boxes, which should be installed on mature trees around the site. Further information on constructing and positioning dormouse boxes are presented in Appendix 3.

Dormice are a legally protected species and must not be disturbed or handled unless you have a Natural England licence to do so.

## References

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**Bright, P., Morris, P. & Mitchell-Jones, A. (2006).** *The Dormouse Conservation Handbook 2<sup>nd</sup> Edition* Peterborough, English Nature.

**Clarke, S.A., Green, D. G., Bourn, N. A. & Hoare, D. J. (2011).** *Woodland Management for butterflies and moths: a best practice guide*. Butterfly Conservation.

**Hedgerow Regulations (1997).** HMSO

**MAGIC.** <http://magic.defra.gov.uk/> [accessed on 29/09/2019]

**Morris, P.A. Bright, P.W. & Woods, D. (1990).** *Use of nest boxes by the dormouse *Muscardinus avellanarius**. *Biological Conservation*. 51: 1-13

**Sutherland, W. and Hill, D. (1996).** *Managing Habitats for Conservation*. Cambridge university press, Cambridge.

## Appendices

Appendix 1: Raw Survey Data

Appendix 2: Extended Phase 1 Habitat Survey Map

Appendix 3: Example bird, bat and dormouse boxes

## Appendix 1 – Raw Survey Data

### A3.1 Extended Phase 1 Habitat Survey data

Parameter	Condition
Temperature (°C)	16
Cloud cover (%)	40
Wind	F1
Precipitation	None

#### Weather Conditions Recorded During the Survey

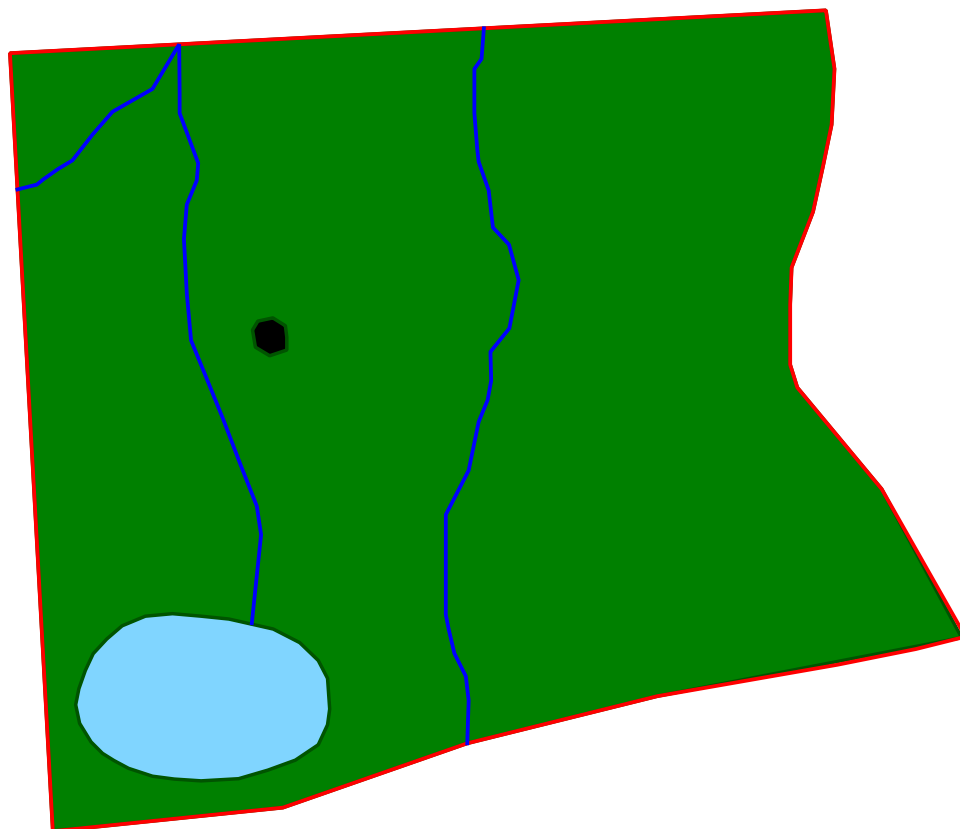
English Name	Scientific Name
Alder	<i>Alnus glutinosa</i>
Betony	<i>Stachys officinalis</i>
Bluebell	<i>Hyacinthoides non-scripta</i>
Bog pimpernel	<i>Anagallis tenella</i>
Bramble	<i>Rubus fruticosus</i> agg.
Broad buckler-fern	<i>Dryopteris dilatata</i>
Bugle	<i>Ajuga reptans</i>
Cleavers	<i>Galium aparine</i>
Common cow-wheat	<i>Melampyrum pratense</i>
Common dog-violet	<i>Viola riviniana</i>
Marsh bedstraw	<i>Galium palustre</i>
Common nettle	<i>Urtica dioica</i>
Common valerian	<i>Valeriana officinalis</i>
Bittercress sp.	<i>Cardamine</i> sp.
Creeping buttercup	<i>Ranunculus repens</i>
Creeping soft-grass	<i>Holcus mollis</i>
Enchanter's nightshade	<i>Circaea lutetiana</i>
Fool's-water-cress	<i>Apium nodiflorum</i>
Greater stitchwort	<i>Stellaria holostea</i>
Grey willow	<i>Salix cinerea</i>
Hard shield-fern	<i>Polystichum aculeatum</i>

Hard fern	<i>Blechnum spicant</i>
Hemlock water-dropwort	<i>Oenanthe crocata</i>
Herb-robert	<i>Geranium robertianum</i>
Honeysuckle	<i>Lonicera periclymenum</i>
Ivy	<i>Hedera helix</i>
Lady-fern	<i>Athyrium filix-femina</i>
Lesser spearwort	<i>Ranunculus flammula</i>
Marsh marigold	<i>Caltha palustris</i>
Meadowsweet	<i>Filipendula ulmaria</i>
Opposite-leaved golden-saxifrage	<i>Chrysosplenium oppositifolium</i>
Remote sedge	<i>Carex remota</i>
Scaly male-fern	<i>Dryopteris affinis</i>
Sharp-flowered rush	<i>Juncus acutiflorus</i>
Soft rush	<i>Juncus effusus</i>
Toad rush	<i>Juncus bufonius</i>
Tufted hair-grass	<i>Deschampsia cespitosa</i>
Water mint	<i>Mentha aquatica</i>
Wild strawberry	<i>Fragaria vesca</i>
Wood anemone	<i>Anemone nemorosa</i>
Wood speedwell	<i>Veronica montana</i>
Wood-sedge	<i>Carex sylvatica</i>
Wood-sorrel	<i>Oxalis acetosella</i>

**Botanical Species Recorded During the  
Extended Phase 1 Habitat Survey**



## Appendix 2 – Extended Phase 1 Survey Map



## Legend

- Stream
- Site boundary
- Broadleaved woodland
- Area of wet woodland
- Hut

Title: Extended Phase 1 Habitat Survey Map

Client: John Waddingham

Site: Woodland near North Tawton

Drawing No.: 19.3539.02-01

Date: September 2019

Drawn By: TN

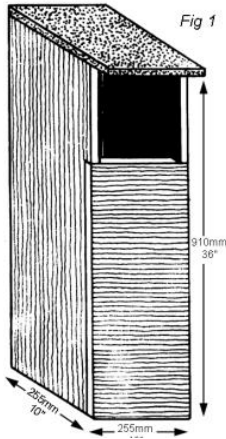
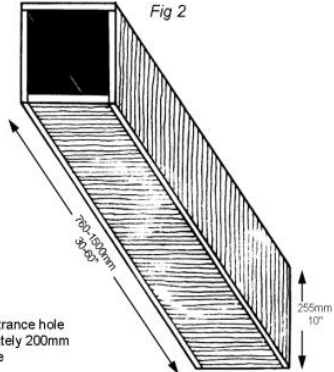
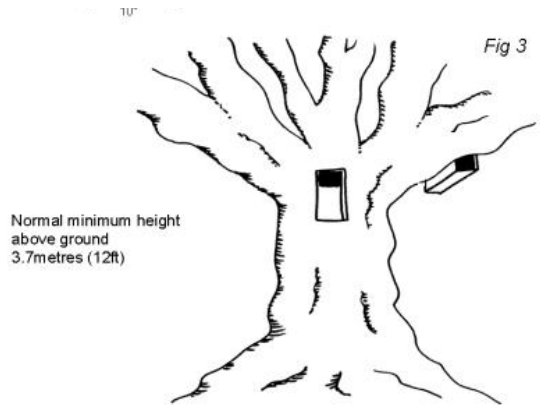

Scale: NTS

Checked by: KS

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### Appendix 3 – Examples of bird, bat and dormouse boxes

 	<p><b>General Purpose Wooden &amp; Woodcrete Bird Boxes</b></p> <p>General purpose nest boxes such as the 1B Schwegler nest box or a traditional wooden nest box come with a variety of entrance holes diameters to suit a range of species. It is recommended to install boxes with different sized entrances.</p> <p>A range of entrance hole sizes will cater for different species for example:</p> <p>26mm: Blue Tit, Coal Tit, possibly Wren.        32mm: Great Tit, Nuthatch, Pied Flycatcher.        45mm: Starling</p> <p>These boxes should be installed between 2 and 4 metres high on mature trees on a north eastern aspect and so that the entrances are not exposed to direct sunlight or strong winds. Shown are the 1B Schwegler nest box and a traditional wooden nest box.</p>
 	<p><b>Open faced bird boxes</b></p> <p>Open faced bird boxes provide nest opportunities for species such as robin and spotted flycatcher. These boxes are available in woodcrete and timber and should be placed low down within a shrub or scrub, it is important that these boxes are not installed in open habitat as the open face means they can easily suffer predation. The examples shown are the 2H Schwegler robin box and a traditional open fronted wooden nest box.</p>

 <p style="text-align: right;">Fig 1</p>  <p style="text-align: right;">Fig 2</p> <p>Size of entrance hole approximately 200mm (8") square</p>	<h3>Tawny owl</h3> <p>Tawny owl boxes should be installed securely at least 3m high on mature trees within woodland rather than on the fringes and on an aspect that shelters the boxes from prevailing winds. The example details a vertical design for the trunk of a tree or a sloping box designed to be installed on a major limb. Both examples are readily used by tawny owls.</p>  <p style="text-align: right;">Fig 3</p> <p>Normal minimum height above ground 3.7metres (12ft)</p>
	<h3>Roosting bats</h3> <p>General purpose bat boxes such as the 2F Schwegler bat box or a wooden slimline or double chamber bat box are suitable for a range of common bat species. These boxes should be installed on mature trees with a tree friendly aluminium nail (often provided) between 3m and 6m high in partial sun. Wooden boxes should not be treated with any kind of timber preservative as this can be harmful to the bats.</p>



### Dormouse boxes

Wooden dormouse boxes can such as the example provided can be obtained from a variety of wildlife equipment providers (such as the NHBS).

These boxes should be positioned approximately 1.5m above ground, on a hazel tree trunk or other suitable support, with the hole facing inwards to reduce occupation by birds. The two bars on the front of the box are to ensure a gap between the box and the tree. Depending on the design of the box they can be secured by a nail, or by wire wrapped around the box.