

Woodland case study no. 2

Tyntesfield plantation woodland



1. Location

Geographical region: North Somerset

Woodland Name: Tyntesfield-Plantation Woodland

Name of woodland owner/manager/contractor: National Trust

Woodland size: Approx 21 Hectares

Overall woodland size (if your woodland part of bigger woodland block): Approx 53 Hectares

2. Type and description of woodland

Type of woodland:

This is an amenity woodland/ designed landscape with mixed broadleaf and conifer planting. The site also has avenues of mature trees.

Characteristic species and features

Oak, sweet chestnut, beech, ash, sycamore, yew, Norway spruce, Douglas and grand fir can be found on the site. The plantation woodland is a designed landscape on a rocky slope with formal rides and combs. Exotics and avenues have been planted in one compartment.

Canopy

There are some stands of plantation, open areas and mature trees.

Understorey composition

Understorey consists of rhododendron (which has largely been removed, but this work continues), box, holly, hazel and laurel.

Field/ground layer

The ground layer is not particularly rich in diversity due to the compartment being rotated in part as plantation. There are many fungi identified throughout the plantation as well as dog's mercury, and woodland plants, including bluebells. In addition Buddleia is a problem in some areas.

Dead wood, number of trees per Ha equivalent (standing and fallen)

There is a large amount of deadwood in particular compartments due to windblow circa 1990. Standing deadwood is scattered across the woodland.

Invasive species

Rhododendron ponticum and *Buddleia davidii*

Evidence of grazing or browsing of large herbivores

Roe deer are present on the site but these are controlled by a gamekeeper

Is there connectivity via hedges etc to other areas of woodland?

There is some connectivity to other woodland blocks, plus the neighbouring landowner's share of this historic landscape - in excess of 21 hectares.

Predominant landscape type around woodland

The surrounding landscape is mostly farmland - arable and pasture. This site also includes a mansion and gardens.

3. Use of Woodland

Woodland use type

This woodland is used for timber production, recreation, coppice products and nature conservation. This is primarily an amenity woodland, but efforts are being made in the writing of a Management Plan to increase biodiversity value.

Woodland management carried out in this woodland

Management	Past 5 years	Current	Next 5 years	Area, frequency and tree species affected
	(tick to indicate)			
Coppicing		x		Occasional of individual hazel
Thinning			x	
Other felling	x			Tree safety work
Extraction of timber			x	
Planting			x	Where open areas have been created as a result of the rhododendron removal, natural regeneration will be allowed to occur, but additional planting is also likely to take place.
Ride creation/maintenance	x	x		Opening of historic rides
Glade management	x	x		Management of the existing glade, creation of others
Ditch/drainage maintenance			x	To avoid erosion threats
Creation of buildings/structures	x			Re-roofing of a summerhouse
Management for particular species			x	Likely to remove Japanese larch and Norway Spruce and favour native broadleaves.
Control of invasive species	x	x	x	Rhododendron - approx 4 hectares
Non-intervention			x	
Other				

What other management activities on land adjacent to the woodland might impact on the woodland

The current farm tenancy is CSS, but HLS is being considered as a possibility in the future. There could also be possible EWGS funding for the woodland.

4. Use of woodland by bats

Bat species found on site

Bat species	Roost use	Foraging use	Unknown but recorded as present	Other
Lesser horseshoe bat			x	
Brown long-eared bat			x	
Common pipistrelle			x	
Greater horseshoe bat			x	
Noctule			x	
Serotine			x	
Soprano pipistrelle			x	
Whiskered bat			x	
Leisler's bat			x	
Natterer's bat			x	
Daubenton's bat			x	

Foraging - What component of woodlands used?

This woodland is thought to be used for commuting and foraging. Bats have been observed foraging along the rides and hedgerows.

How has this information been collected?

When the National Trust took on Tyntesfield bat surveys were commissioned. At present there has not been enough survey work carried out in the woodland to understand the use of the woodland by particular bat species but potential tree roosts have been identified.

Any other information about bats or other key species using the woodland

A large breeding roost of lesser horseshoe bat (100+) occurs above the Servants Quarters in the house at Tyntesfield. Other buildings are known to be used by a range of bat species.

Badger setts are present on the site so due care has to be taken. There are also hares and slow-worms. Moth surveys have also identified potential firsts for the region.

5. Type of activity reported in this case study

Why?

Activities were directly for bat conservation
Necessary as the result of other unrelated activities

X

When?

2008

Type of activity

Reason for activity

As part of works to renovate and provide access to the Summer House at Tyntesfield, woodland management works were proposed.

Some mature trees were deemed to pose potential health and safety issues and work was needed to reduce these risks.

Description of activity

1. Improved access to the Summer House via Bendle Combe where ride widening was to take place, mainly by removing young secondary growth of broad-leaved trees and rhododendron in a 10m corridor. Works also involved addressing health and safety risks posed by some mature trees by carrying out tree surgery/removal.
2. Clear fell secondary growth of mainly ash and sycamore to the west of the summer house to allow this area to gain a grassier ground cover over time.

How was the activity modified due to bats?

General

The habitat to the west of the summer house was assessed and deemed to be of low importance to bats. The secondary growth was relatively tall and spindly and there was no shrub layer, except very scattered elder, and sycamore regeneration. The ground layer was predominantly bramble, ivy and seedling ash and sycamore. The work to this area was therefore unlikely to have a significant impact on local bat populations or their movements. This area was therefore clear felled as planned.

Woodland to the south west of the summer house was retained to ensure connectivity with the summer house. In addition a row of mature yew to the north west of the summer house was also retained to provide cover and connection between the summer house and the track west of the Summer House Cottage.

Bendle Combe – health and safety of mature trees

Mature yews and other large trees along the edge of Bendle Combe formed a windbreak and provided shelter; they also formed a commuting route for bats linking a wooded strip running westwards and a hedge running northwards from the Summer House cottage.

These trees were retained (with limited removal of dead wood from these trees for health and safety reasons) avoiding sensitive timing for bats.

The health and safety risk of these trees was assessed and deemed low enough after tree works were completed to retain both the trees and the footpath. The footpath in question is permissive, and a landscape feature. There are many routes into the woodland and as part of the routine tree inspections the risk level is continually evaluated. Retaining the trees is a top priority, even if this means carrying out works over a number of years. At some point however these may prove to be beyond retaining.

The Holm Oak

There was however health and safety concerns about a holm oak tree within the Bendle Combe area that required attention. This oak had numerous hollows in the trunk and splits in the lower limbs where branches have previously been lost. The trunk and lower branch stubs had good potential to support bats and it was hoped that these features could be retained after surgery.

Unfortunately the oak required felling for health and safety reasons. The oak was deemed too unsafe to climb and therefore prior to felling further inspections were completed from the ground in accordance with a pre-work checklist form. Works were carried out at a non-sensitive time to minimise disturbance and the sections of the tree with potential roost features was removed in sections and carefully lowered to the ground.

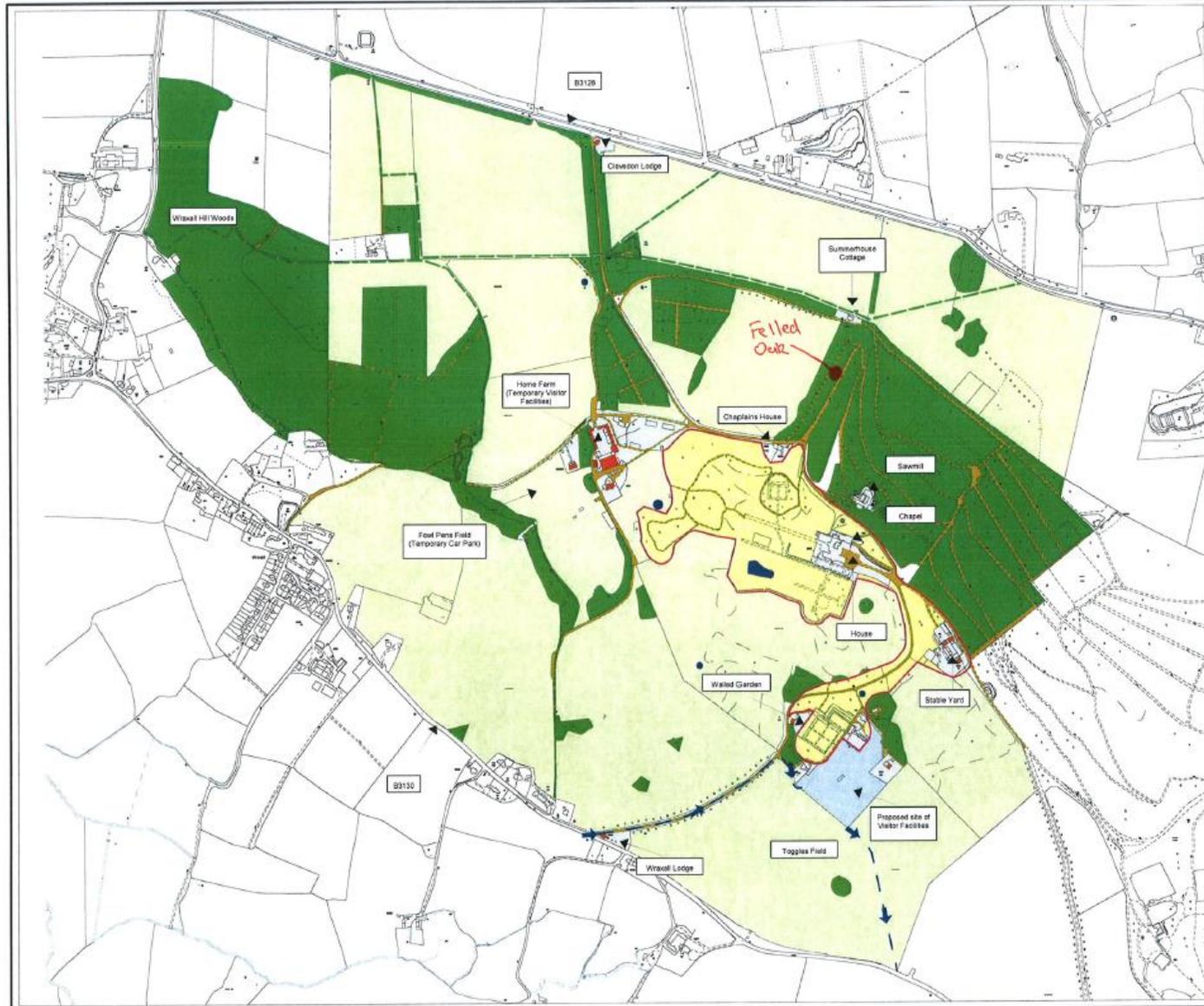
It was decided that works to the ride should not significantly impact bat foraging habitat providing the following advice was adhered to:

- The canopy remained intact.
- The ride was graded, with a mown area extending to a maximum of 2-3 metres at the centre. This graded into longer grass and vegetation and a shrub layer made up of native broad-leaved trees and shrubs, such as hazel.

How is success of activity to be measured?

Continued surveys to identify the use of woodland for foraging/commuting

6. Drawings or plans of the project:



The
National
Trust

Wessex
Regional Office

Tynesfield Zones

Scale 1:7500

- Fields
- woodland
- Gardens
- Buildings
- Rented Properties
- Car Park & Visitor Infrastructure
- Roads, Tracks and Paths
- Pay Perimeter
- Entrance & Exit Routes
- Public Rights of Way



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7. Monitoring Data

Evidence of bat use post activities

Follow up surveys found the bats continued using the flight paths previously identified

8. Measures of success

Based on the objective of the activities do you deem the activities to have been successful?

Yes, acoustic surveys indicate that bat use of the site has not been significantly altered by the activities.

Are there lessons from this project that you would like to highlight?

It is important to know your site before undertaking works likely to affect key species, but ideally to be able to consider any species that may be affected by works.

9. Photos (before and after)



**Bendle Combe –
Ride widening works**

