

Woodland Condition Assessment (WCA5)

Introduction. How valuable is your woodland for wildlife? The Woodland Condition Assessment (WCA) will help you assess your woodland's condition in a standardised way. Carrying out the assessment is straightforward, and anyone can do it. You do not need any special equipment. It involves doing a walking survey through the wood, using a paper survey form or using the free Woodland Condition app (which works offline) to record features on the way. You can then compare your results to the conditions assessment thresholds (Good, Moderate and Poor). This will give you an overview of the condition of your woodland's habitats and identify any issues you may need to address. Further information on your woodland wildlife including guidance on management is available from the Woodland Wildlife Toolkit¹. You can download the Woodland Condition Assessment supporting information and survey forms here².

Why carry out a Woodland Condition Assessment?

Completing an assessment will help to gain a better understanding of:

- Woodland attributes that have an important influence on wildlife (e.g. woodland composition, habitat types present)
- Woodland condition and biodiversity indicators that can be assessed as a measure of the status of these attributes
- Where woodland management can be altered to improve condition

The Woodland Condition Assessment has been developed by the Forestry Commission, Natural England, Woodland Trust and England Woodland Biodiversity Group to help assess the ecological condition of woodland. The online app has been built and is hosted by Sylva Foundation³ and supporting guidance and training is available from Field Studies Council⁴.

How to carry out a Woodland Condition Assessment

There are three parts to the Woodland Condition Assessment

- Desk-based survey
- Whole woodland survey – plan a walking route through the woodland using maps and aerial photographs
- 10 metre radius survey plots – plan the stopping points on the walk where you will carry out a more detailed survey

Ideally you should carry out the Woodland Condition Assessment twice in the same year:

- Early spring (or winter) – before ground vegetation obscures views
- Summer – when trees are in leaf and ground vegetation is present

If only one assessment is being undertaken, this should be carried out in spring/summer.

See *Survey routes and plots* (page 2) for more guidance on planning your walking route. See *Whole woodland survey form* (pages 4-6) and *10 metre radius survey plots form* (pages 7-8) for the features that you need to record on the way.

The information collected can be compared directly against the condition assessment criteria scores for woodland condition and biodiversity indicators in the *Indicators and thresholds tables* (page 9-10). Note classification thresholds (good, moderate and poor) and classification scores for each indicator reflect the scoring methodology and scores used for national reporting on woodland ecological condition developed and published in 2020 by the National Forest Inventory.

Woodland types

For the purposes of this survey, two main woodland habitat types are recognised (though see paragraph on ancient woodland, below). These are: 1) Broadleaved, mixed and yew woodland (defined as W1 in UKHAB); and 2) Coniferous woodland as defined in UKHab (W2). The woodland habitat type 'Broadleaved, mixed and yew woodland' (W1) includes habitat types which are **Priority Woodland Habitats*** listed under the Natural Environment and Rural Communities Act 2006⁵:

- Lowland beech and yew woodland*
- Lowland mixed deciduous woodland*
- Native pine woodlands (Scotland only)*
- Other coniferous woodland
- Other Scots pine woodland
- Other woodland; broadleaved
- Other woodland; mixed
- Upland birchwoods*
- Upland mixed ashwoods*
- Upland oakwood*
- Wet woodland*

In England, native woodland is defined as woodland that is composed of at least 80% native tree species. Up to 20% of this can comprise 'naturalised species' if they are already present in the wood. This will still meet the favourable condition threshold for 'nativeness'. Coniferous woodland in England, although not recognised as a Priority Woodland Habitat type under the UK BAP, can provide important habitats for a range of native species. The survey should include areas of

coniferous woodland if present as most of the biodiversity indicators in the Indicators and thresholds table (pages 8&9) can be assessed and applied to non-native woodland. On ancient woodland sites which have been converted to plantations dominated by non-native species (known as 'plantations on ancient woodland sites' or PAWS), the preferred long-term outcome is gradual restoration, eventually resulting in a stand with over 80% of the canopy containing native species

SURVEY ROUTES AND PLOTS

Planning the survey: desk-based

The route for the whole woodland survey walk and location of the 10m radius survey plots (0.03ha) should be planned in advance. Assessments should be made by main woodland habitat type

- Broadleaved, mixed and yew woodland – 20% or more broadleaves
- Coniferous woodland – 80% or more conifer

You can use a map and/or aerial photographs of the woodland, but also knowledge of the two different main woodland habitat types that may be present. Search online for the National Forest Inventory. www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/

The route should pass through all the woodland type(s) present. Although you can use paths for this part of the survey, do not restrict your route to paths (especially well-worn paths). Try to follow your planned route as close as possible.

Plan the location of stopping points where you will carry out the more detailed plot surveys. In small woods and/or woods of unchanging woodland type and age classes, a minimum of five temporary survey plots is required. For larger woodlands (e.g. 30 hectares or more) or where there is variation in the two main woodland habitat types and age classes, a minimum of 10 survey plots is recommended.

The locations for the 10m radius survey plots should represent variation and the woodland type(s) present. For example, in a woodland with young and mature age classes of broadleaved and coniferous woodland, survey plots should be located in at least one young and one mature section of both the broadleaved and coniferous woodland.

If you have no pre-existing knowledge of the woodland, a quick walk through the woodland should quickly give a feel for the amount of variation that is likely to be encountered and the survey plot locations can then be marked accordingly on a printed woodland survey map in advance of the survey.

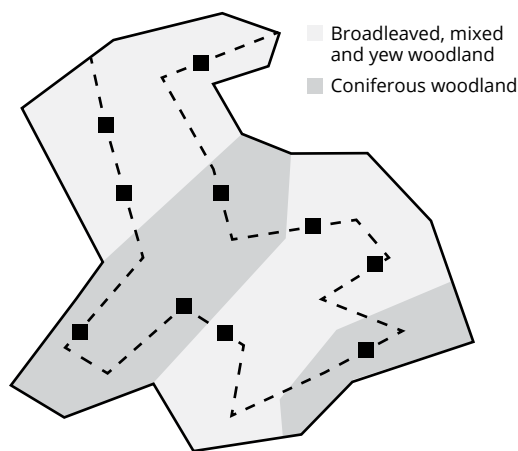
Start the survey: desk-based

Some data (e.g. woodland size, % open ground and % favourable land cover) are best collected before you go into the woodland to conduct fieldwork. Compile your answers using the paper forms or the Woodland Condition app. If you plan to use the Woodland Condition app in the woodland it is best to download it to your tablet or mobile device to avoid any data loss during fieldwork. The app is browser-based meaning that it works like a typical webpage but has been designed to also enable you to collect all the data you need, even when there is no mobile signal. To use this functionality, you must download it first. Visit: www.woodlandcondition.sylva.org.uk

Undertake fieldwork: outside

Start fieldwork in the woodland, collecting data using the paper form or the Woodland Condition app. The app allows you to switch easily between the whole woodland and each of the plot surveys. **Note:** survey the plots first then reflect at the end of the woodland walk on what you saw before completing the whole woodland survey form.

To carry out a plot survey, place an object (like a rucksack) on the ground to mark its centre. Then measure 10 metres in four directions: north, east, south and west. This sets the boundaries of the temporary 10m radius circular plot. It is important to stay within the 10m plot boundaries. Don't be tempted to expand the boundaries simply to add in interesting features to your survey (like large standing deadwood). You can mark out the boundaries with tape or flags.



Plan for walking route and ten stopping points in an area of woodland. Since broadleaved, mixed and yew woodland covers a greater area than coniferous woodland, there are more plots in this woodland type.

Assessment of woodland ecological condition

The woodland condition app automatically calculates the woodland condition score for your woodland and produces a downloadable summary report which confirms that you have carried out a woodland condition assessment. If you are unable to use the woodland condition app, the scores (i.e. 1 or 2 or 3) for each individual indicator using the *Whole woodland survey form* and *Indicators and thresholds table* (pages 9-10) are simply added together to give a total score for the woodland assessed. Woodlands scoring greater than 35 are considered to be in good condition, in moderate condition when scoring between 26 to 35 and in poor condition when scoring less than 25. Note some scores are recorded by woodland type and some for the whole woodland. If there are two main woodland types (broadleaved and conifer) present sum scores by woodland type for indicators 1, 4, 5, 8, 11 & 14, and use the whole woodland scores for remaining indicators to calculate the total score for each woodland type.

Additional considerations

The Woodland Condition Assessment focuses on woodland attributes important to wildlife that can be altered by management. Woodland managers should be aware that there are additional attributes that have an important influence on woodland biodiversity and wildlife, but that cannot feasibly be altered through management activities. As a general rule of thumb, there is evidence to show that the more heterogeneous the environment, the greater the variety of niche spaces that are available for colonisation by a greater diversity of individuals and species with unique habitat and resource requirements. Thus some woodlands have inherent heterogeneity just based on their physical setting due to the presence, for example, of rocky outcrops and crevices and/or areas of significant topographical relief, offering wildlife a variety of sheltered and more exposed habitat. Additionally, the more continuously wooded (through time), the more connected and the larger a woodland is, the greater the prospects for harbouring higher levels of biodiversity than less well-connected, smaller and younger woodlands. Recently planted woodlands may, therefore, take some time before achieving favourable woodland condition. Furthermore, while the Woodland Condition Assessment considers woodland at the compartment scale, attempting to improve conditions for wildlife should be considered at the whole woodland scale which may extend beyond the boundaries of woodland ownership. The presence of and composition of woodland ground flora will typically reflect many of these attributes that are important for wider woodland biodiversity; consequently woodland with abundant and/or diverse ground flora valued by wildlife and humans (e.g. native bluebell carpets, nectar and berry providing plants) hold a particular value for nature conservation.

Woodland owners are encouraged as part of their efforts to improve the ecological condition of their woodlands to record:

1. The presence of non-native invasive plant species through the GB Non-Native Species Secretariat <https://www.nonnativespecies.org/what-can-i-do/recording>
2. Any tree health issues that are apparent through the Observatree scheme <https://www.observatree.org.uk>
3. The presence of any veteran trees as part of the Woodland Trust's register <https://ati.woodlandtrust.org.uk>

Websites referenced in this section (pages 1-3)

- ¹ <https://woodlandwildlifetoolkit.sylva.org.uk>
- ² <https://woodlandwildlifetoolkit.sylva.org.uk/assess>
- ³ <https://sylva.org.uk>
- ⁴ <https://www.field-studies-council.org>
- ⁵ <https://www.legislation.gov.uk/ukpga/2006/16/contents>



Woodland Condition Assessment app

<https://woodlandcondition.sylva.org.uk>

or scan the QR code (left)

WHOLE WOODLAND SURVEY FORM / SCORE SHEET

Surveyor's name Date Time taken to conduct survey (hours/days)

Woodland name Woodland National Grid Reference (e.g. TG197054)
 For help finding grid reference <https://gridreferencefinder.com>

- 1. Age distribution of trees.** Across the whole woodland how many age classes (young, intermediate, old) are present for each woodland type? Each age class scores 1, so two classes would score 2, three classes 3.

1 2 3 *Broadleaved, mixed and yew woodland*

1 2 3 *Coniferous woodland*

- 2. Wild, domestic and feral herbivore damage.** From the plot survey results select ONE option below for whole woodland.

3 SCORE 3 if there is no significant browsing damage evident in woodland

2 SCORE 2 if evidence of significant browsing damage is present in less than 40% of woodland

1 SCORE 1 if evidence of significant browsing pressure is evident in 40% or more of woodland

- 3. Invasive plant species.** From the plot survey and walkover results select ONE option below for whole woodland.

3 SCORE 3 if there are no invasive species present in woodland

2 SCORE 2 if Rhododendron or Cherry Laurel are not present, and other invasive species have <10% cover

1 SCORE 1 if Rhododendron or Cherry Laurel are present, and/or other invasive species have $\geq 10\%$ cover

- 4. Number of native tree species.** From the plot survey results add up number of species in each plot, then divide by number of plots, then select ONE score below for each woodland type.

Broadleaved, mixed and yew woodland

3 SCORE 3 if five or more native tree or shrub species found across woodland

2 SCORE 2 if three to four native tree or shrub species found across woodland

1 SCORE 1 if two or fewer native tree or shrub species found across woodland

Coniferous woodland

3 SCORE 3 if five or more native tree or shrub species found across woodland

2 SCORE 2 if three to four native tree or shrub species found across woodland

1 SCORE 1 if two or fewer native tree or shrub species found across woodland

- 5. Cover of native tree and shrub species.** From the plot survey results take an average of the percentages entered for plots for woodland type.

Broadleaved, mixed and yew woodland

3 SCORE 3 if >80% of canopy trees and >80% of understorey shrubs are native

2 SCORE 2 if 50-80% of canopy trees and 50-80% of understorey shrubs are native

1 SCORE 1 if <50% of canopy trees and <50% of understorey shrubs are native

Coniferous woodland

1 SCORE 1 the plot average should be <50%

- 6. Open space within woodland.**

What area (%) (all woodland types combined) is open space? %

3 SCORE 3 if 10-20% of woodland has areas of temporary open space or if the woodland is <10 ha, 0-20% of temporary open space is permitted

2 SCORE 2 if 21-40% of woodland has areas of temporary open space

1 SCORE 1 If <10% or >40% of woodland has areas of temporary open space

7. Proportion of favourable land cover. See page 11.

How much (%) favourable land cover is there within a 5.6 km radius (100 km² circle) of the woodland?

- 3 SCORE 3 if the value is >20%
- 2 SCORE 2 if the value is 10–20%
- 1 SCORE 1 if the value is <10%

8. Woodland regeneration. From the plot survey results and walkover, how many classes (4-7 cm DBH; saplings; seedlings or coppice regrowth) are there? Select ONE option below for each woodland type.*Broadleaved, mixed and yew woodland*

- 3 SCORE 3 if all three classes are present in woodland: 4-7cm DBH; saplings; seedlings or advanced coppice regrowth
- 2 SCORE 2 if one or two classes only are present in woodland
- 1 SCORE 1 if no classes or coppice regrowth are present in woodland

Coniferous woodland

- 3 SCORE 3 if all three classes are present in woodland: 4-7cm DBH; saplings; seedlings or advanced coppice regrowth
- 2 SCORE 2 if one or two classes only are present in woodland
- 1 SCORE 1 if no classes or coppice regrowth are present in woodland

9. Tree health. From the woodland walk and plot survey results, select only ONE option below for whole woodland using an average of the plots.*Broadleaved, mixed and yew woodland*

- 3 SCORE 3 if tree mortality is 10% or less and there are no pests and diseases and no crown dieback in woodland parcel
- 2 SCORE 2 if there is 11-25% tree mortality and/or crown dieback or a low risk pest or disease present in woodland parcel
- 1 SCORE 1 if there is greater than 25% tree mortality and/or crown dieback or any high risk pest or disease present in woodland parcel

Coniferous woodland

- 3 SCORE 3 if tree mortality is 10% or less and there are no pests and diseases and no crown dieback in woodland parcel
- 2 SCORE 2 if there is 11-25% tree mortality and/or crown dieback or a low risk pest or disease present in woodland parcel
- 1 SCORE 1 if there is greater than 25% tree mortality and/or crown dieback or any high risk pest or disease present in woodland parcel

10. Vegetation and ground flora. Note number of plots containing a woodland NVC community at ground layer. 50% or more of survey plots containing a woodland NVC community at ground layer will count as a recognisable woodland NVC community.

- 3 SCORE 3 if there is a recognisable woodland NVC community at ground layer present, strongly characterised by ancient woodland flora specialists
- 2 SCORE 2 if there is a recognisable woodland NVC community at ground layer present
- 1 SCORE 1 if there is no recognisable woodland NVC community at ground layer present

11. Woodland vertical structure. Count the storeys in each plot and select only ONE score below for each woodland type.*Broadleaved, mixed and yew woodland*

- 3 SCORE 3 if there are three or more storeys across all survey plots, or a complex woodland
- 2 SCORE 2 if there are two or more storeys across all survey plots
- 1 SCORE 1 if there are one or fewer storeys across all survey plots

Coniferous woodland

- 3 SCORE 3 if there are three or more storeys across all survey plots, or a complex woodland
- 2 SCORE 2 if there are two or more storeys across all survey plots
- 1 SCORE 1 if there are one or fewer storeys across all survey plots

12. Veteran trees. Divide the total number of veteran trees found in the whole woodland by the total woodland area to give the average number of veteran trees per hectare. Additionally, record on the map any other known veteran trees present in the woodland. Select only ONE option below for whole woodland.

- SCORE 3 if there are two or more veteran trees per hectare
- SCORE 2 if there are one or fewer veteran trees per hectare
- SCORE 1 there are no veteran trees present in woodland

13. Amount of deadwood. Assessed from plots and woodland walk for whole woodland. Select only ONE option below for whole woodland

- SCORE 3 if 50% of all survey plots within the woodland have deadwood, such as standing and fallen deadwood, large dead branches and/or stems, branch stubs and stumps, or an abundance of small cavities
- SCORE 2 if between 25% and 50% of all survey plots within the woodland have deadwood, such as standing and fallen deadwood, large dead branches and/or stems, branch stubs and stumps, or an abundance of small cavities
- SCORE 1 if less than 25% of all survey plots within the woodland have deadwood, such as standing and fallen deadwood, large dead branches and/or stems, branch stubs and stumps, or an abundance of small cavities

14. Woodland area by type.

Total woodland area (hectares)	Total broadleaved, mixed and yew woodland area (hectares)	Total coniferous woodland area (hectares)
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<i>Broadleaved, mixed and yew woodland</i>	<i>Coniferous woodland</i>
<input type="checkbox"/> SCORE 3 if total woodland area is 20ha or more	<input type="checkbox"/> SCORE 3 if total woodland area is 20ha or more
<input type="checkbox"/> SCORE 2 if total woodland area is 5–20ha	<input type="checkbox"/> SCORE 2 if total woodland area is 5–20ha
<input type="checkbox"/> SCORE 1 if total woodland area is less than 5ha	<input type="checkbox"/> SCORE 1 if total woodland area is less than 5ha

15. Woodland disturbance. Assessed across whole woodland. Select only ONE option below for whole woodland.

- SCORE 3 if there is no nutrient enrichment or damaged ground evidence
- SCORE 2 if less than 1 hectare in total of nutrient enrichment across woodland area, and/or less than 20% of woodland area has damaged ground
- SCORE 1 if 1 hectare or more of nutrient enrichment across woodland area, and/or 20% or more of woodland area has damaged ground

<input style="width: 40px; height: 20px;" type="text"/> TOTAL SCORE for broadleaved, mixed and yew woodland	<input style="width: 40px; height: 20px;" type="text"/> TOTAL SCORE for coniferous woodland
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10 METRE RADIUS SURVEY PLOTS FORM

Surveyor's name Date Time taken to conduct survey (hours/days)

Woodland name Woodland National Grid Reference (e.g. TG197054)
For help finding grid reference <https://gridreferencefinder.com>

GPS reading at centre of each survey plot) Plot 1 Plot 2

Plot 3 Plot 4 Plot 5

Predominant woodland type within survey plot. If woodland type can be distinguished, TICK one from the two.

Broadleaved, mixed and yew woodland Coniferous woodland

2. Wild, domestic and feral herbivore damage. Are there significant signs of browsing impact within the survey plot (yes/no)?

TICK if yes.

3. Invasive plant species. Estimate the PERCENTAGE COVER of these invasive non-native species. If there are none record 0%.

Cherry Laurel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Snowberry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rhododendron	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shallon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Himalayan Balsam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	American Skunk-cabbage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Japanese Knotweed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Variiegated Yellow Archangel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Number of native tree species. Identify within the survey plots the main native tree and shrub species present in the upper storey (>5m). TICK IF PRESENT in plot.

NATIVE	Plot number						Plot number						Plot number				
Alder Buckthorn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Eared Willow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Purging Buckthorn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Almond Willow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Elder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Purple Willow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	English Elm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Rowan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aspen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Field Maple	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sessile Oak	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bay Willow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Field Rose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Silver Birch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Beech	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Goat Willow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Small-leaved Elm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bird Cherry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Gorse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Small-leaved Lime	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Black Poplar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Grey Poplar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Smooth-leaved Elm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Blackthorn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Grey Willow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Spindle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Box	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Guelder-rose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Spurge-laurel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bramble	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hawthorn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wayfaring-tree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Broom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hazel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	White Willow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Butcher's-broom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Holly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Whitebeam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Common Alder	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hornbeam	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wild Cherry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Common Lime	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Juniper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wild Privet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crab Apple	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Large-leaved Lime	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wild Service-tree	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crack Willow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Midland Hawthorn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wych Elm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dog Rose	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Montane Willows	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yew	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dogwood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Osier	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						
Downy Birch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pedunculate Oak	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						

PLOT TOTAL FOR NATIVES

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NON-NATIVE	Plot number						Plot number						Plot number				
Black Walnut	1	2	3	4	5	Italian Alder	1	2	3	4	5	Silver Maple	1	2	3	4	5
Cedar species	1	2	3	4	5	Japanese Larch	1	2	3	4	5	Sitka Spruce	1	2	3	4	5
Coast Redwood	1	2	3	4	5	Lawson's Cypress	1	2	3	4	5	Sweet Chestnut	1	2	3	4	5
Common Walnut	1	2	3	4	5	Lodgepole Pine	1	2	3	4	5	Sycamore	1	2	3	4	5
Corsican Pine	1	2	3	4	5	Maritime Pine	1	2	3	4	5	Turkey Oak	1	2	3	4	5
Douglas Fir	1	2	3	4	5	Noble Fir	1	2	3	4	5	Western Hemlock	1	2	3	4	5
European Larch	1	2	3	4	5	Norway Maple	1	2	3	4	5	Western Red-cedar	1	2	3	4	5
European Silver Fir	1	2	3	4	5	Norway Spruce	1	2	3	4	5	Wild Pear	1	2	3	4	5
Grand Fir	1	2	3	4	5	Raoul/Rauli/Roble	1	2	3	4	5	Wild Plum	1	2	3	4	5
Holm Oak	1	2	3	4	5	Red Oak	1	2	3	4	5	Other broadleaved	1	2	3	4	5
Horse-chestnut	1	2	3	4	5	Scots Pine	1	2	3	4	5	Other conifer	1	2	3	4	5

PLOT TOTAL FOR NON-NATIVES					
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5. Cover of native tree and shrub species. Record PERCENTAGE of the canopy cover in the upper storey (>5m) and understorey (up to 5m) layers that is made up of native tree species within survey plot boundaries.

<input type="text"/>	Plot 1	<input type="text"/>	Plot 2	<input type="text"/>	Plot 3	<input type="text"/>	Plot 4	<input type="text"/>	Plot 5
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8. Woodland regeneration. HOW MANY of these three classes (4-7 cm dbh; saplings; seedlings or recoppice growth) are there in each plot 1-5? (Possible answers are 0, 1, 2 or 3).

<input type="text"/>	Plot 1	<input type="text"/>	Plot 2	<input type="text"/>	Plot 3	<input type="text"/>	Plot 4	<input type="text"/>	Plot 5
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9. Tree health. TICK ONLY ONE (a, b or c) for each plot.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	a. tree mortality less than 10%, <u>and</u> no pests and diseases <u>and</u> no crown dieback
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	b. Tree mortality 11% to 25% mortality <u>and/or</u> crown dieback <u>or</u> low risk pests or diseases present
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	c. Tree mortality 11% to 25% mortality <u>and/or</u> crown dieback <u>or</u> low risk pests or diseases present

10. Vegetation and ground flora. Record the presence of ancient woodland indicators and a recognizable woodland NVC community. TICK ALL THAT APPLY.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TICK if there are at least several ancient woodland indicators in the survey plot
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TICK if there is a recognisable NVC community in the survey plot

11. Woodland vertical structure. Record all the different storeys present. TICK ALL THAT APPLY.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Upper storey of canopy (Too wide to get arms around / at least 35cm DBH)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Middle storey (Wider than a tin of beans / at least 7cm DBH)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Lower storey (Saplings and/or coppice growth / over 130 cm tall <7cm DBH)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shrub layer (Woody plants < 1.3m, tall such as Hazel and Holly)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Complex (Made up of multiple tree heights that cannot easily be split into height bands)

13. Amount of deadwood.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TICK if standing deadwood is visible in the survey plot
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TICK if large dead branches <u>and/or</u> stems and stumps are visible in the survey plot
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TICK if fallen deadwood is visible in the survey plot
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	TICK if an abundance of small tree cavities is visible in the survey plot

INDICATORS AND THRESHOLDS TABLES

Indicator	Definition
1. Age distribution of trees	Trees are grouped into classes of young, intermediate and old according to their age. Each woodland can be recorded as having one of these possible combinations of age classes: Young only; Intermediate only; Old only; Young and Intermediate; Young and Old; Intermediate and Old; Young, Intermediate and Old. Certain broadleaved trees such as Birch (<i>Betula</i>), Cherry (<i>Prunus</i>) or <i>Sorbus</i> species are typically quicker to reach maturity than other species and so are attributed a lower age threshold for the 'old' class. If tree species is not a Birch, Cherry or <i>Sorbus</i> , 0-20 years = Young; 21-150 years = Intermediate; >150 years = Old. For Birch, Cherry or <i>Sorbus</i> species; 0-20 years = Young; 21-60 years = Intermediate; >60 years = Old.
2. Wild, domestic and feral herbivore damage	Browsing pressure can be recognised as follows: * Browse line: Lower branches and shoots of trees and shrubs are browsed back so that leaves no longer occur within reach of livestock. *Bark stripping *Damaged or absent shoot tips: Includes damage to shoots present at the base, on the trunk or on the lower branches of trees and taller shrubs. *Topiary' appearance of shrubs *Well-used deer tracks. Browsing pressure is considered to be significant where >20% of vegetation visible within each survey plot shows damage from any type of browsing.
3. Invasive non-native plant species	Invasive species cover is calculated as a percentage of the total area of the woodland. These percentages are used to assign a score for each woodland. Note that because Rhododendron and Cherry Laurel are regarded as aggressive colonisers, their presence at any amount leads to an unfavourable score.
4. Number of native tree species	The number of different native tree/shrub species including young trees and shrubs. A list of commonly found native tree and shrub species is provided on page 10. Not all species listed are native to all parts of the UK. Note that a list of commonly found non-native tree species is also included and should be recorded if present.
5. Cover of native tree and shrub species	The abundance of native tree species in upper (>5m) and understorey (up to 5m) layers including young trees and shrubs.
6. Open space within woodland	This is temporary open space in which trees can be expected to regenerate (e.g. glades, rides, footpaths, areas of clear-fell). This differs from permanent open space where tree regeneration is not possible or desirable (e.g. tarmac, buildings, rivers). Area is at least 10m wide. Less than 20% is covered by shrubs or trees, but in order to reach good condition, transitions between areas of more open space and more closed canopy woodland should be graded ecotones, with transitions not clearly delineated. Exemptions for small woodlands in indicator description are due to the increased ratio of edge habitat to woodland where the woodland is <10ha.
7. Proportion of favourable land cover	Land Cover Map classes below are incorporated as 'supportive' habitats for woodland: *Acid grassland *Bog *Calcareous grassland *Dwarf shrub heath *Fen marsh and swamp *Freshwater *Inland rock *Montane habitats *Neutral grassland *Rough low-productivity grassland *Deciduous woodland * Traditional orchards * Wood pasture and parkland.
8. Woodland regeneration	Record the number of classes of native (include naturalised broadleaved species) and non-native trees in the three classes: *4-7 cm DBH, *Saplings *Seedlings or advanced coppice regrowth. This indicator measures regeneration potential of the woodland by considering three classes: seedlings; saplings; and young trees of 4-7cm DBH. All three classes would fall in the 'young' category of the 'age distribution of trees' indicator, but the regeneration indicator gathers additional information by considering regeneration potential - if seedlings, saplings and young trees are all present that means natural regeneration processes are happening.
9. Tree health	Tree health indicators include: rapid rate of tree mortality above natural or background levels; large proportion of crown dieback across a stand of trees; presence of significant tree diseases. Tree death is a necessary part of ecosystem function, and as a measure of tree health, mortality is about capturing rapid loss.
10. Vegetation and ground flora	Surveys should be undertaken between April to October for an accurate assessment of the ground vegetation. Lists of ancient woodland indicator plants vary across the UK, but they all share in common the fact that the more of these species found in a wood, the more likely it is to be ancient woodland. Strongly characterised means at least several ancient woodland species are occasional, frequent or abundant across the ground vegetation. Often these will enable identification of NVC communities.
11. Woodland vertical structure	Vertical structure is defined as the number of canopy storeys present. Possible storey values are: 1) Upper 2) Complex: recorded when the stand is composed of multiple tree heights that cannot easily be stratified into broad height bands (such as upper, middle or lower) 3) Middle 4) Lower and 5) Shrub layer. There might be no storeys where the woodland has been felled.
12. Veteran trees	Veteran trees are defined either by DBH for a given species, and/or a total of three or more features and attributes combined. These include *Major trunk cavities or hollowing *Water pools in tree crevices *Small holes in the trunk, larger branches or larger roots caused by decay *Missing or loose bark *Large quantities of dead wood in the canopy *Areas where sap is seeping through the bark *Crevices sheltered from direct rainfall *Fungi on the trunk or larger branches *Plants growing on the trunk or branches (not mosses or lichens).
13. Amount of deadwood	Includes logs, large dead branches on the forest floor and stumps (<1m tall) >2cm diameter at narrowest point and >50cm long. Also includes standing dead trees (>1m tall) and also deadwood on standing live trees. Diameter is measured at the narrowest point on the stem. Minimum diameter of 20cm.
14. Size of woodlands	There is an established relationship between species richness and habitat area which is particularly well-documented for more specialist species. As habitat parcel size increases so does the area to perimeter ratio, resulting in proportionally more of the internal woodland environment that is important to some species and proportionally less edge habitat that can be detrimental to some species. For woodland biodiversity, there is evidence that woodland parcels less than 3-5 hectares in size are less able to support some woodland taxa compared to larger woodlands, although different woodland species require different minimum woodland areas.
15. Woodland disturbance	Examples of disturbance are: significant nutrient enrichment; soil compaction from trampling, machinery, animal poaching or litter. Record significant patches (>0.1 hectares) of Nettle and/or Cleavers which can indicate significant nutrient enrichment. Note soil that has been damaged (e.g. deep ruts) and/or excessive or continuous compaction (e.g. by forestry machinery). Some soil disturbance by animals is necessary and desirable for ecological functioning in woodland.

	Total Score	GOOD: Greater than 35	MODERATE: 26–35	POOR: Less than 26
Assessment method		GOOD: Score 3	MODERATE: Score 2	POOR: Score 1
1. Age distribution of trees. On woodland walk record the number of different tree age classes found across the whole woodland. An age class needs to be recognisable across the woodland, so a few saplings is not enough for an age class of young trees		Three age classes present	Two age classes present	One age class present
2. Wild, domestic and feral herbivore damage. Note evidence of significant browsing within survey plots		No significant browsing damage evident in woodland	Evidence of significant browsing pressure is present in less than 40% of whole woodland	Evidence of significant browsing pressure is present in 40% or more of whole woodland
3. Invasive non-native plant species. Record the presence and % cover of invasive non-native plant species on woodland walk and within survey plots		No invasive species present in woodland	Rhododendron or Cherry Laurel not present, other invasive species <10% cover	Rhododendron or Cherry Laurel present, or other invasive species ≥ 10% cover
4. Number of native tree species. Record the main tree and shrub species present in the upper canopy (>5 m) within each survey plot		Five or more native tree or shrub species found across whole woodland	Three to four native tree or shrub species found across whole woodland	Two or fewer native tree or shrub species across whole woodland
5. Cover of native tree and shrub species. Record % cover in the upper and understorey canopies of native tree and shrub species within survey plots		>80% of canopy trees and >80% of understorey shrubs are native	50–80% of canopy trees and 50–80% of understorey shrubs are native	<50% of canopy trees and <50% of understorey shrubs are native
6. Open space within woodland. Note areas of open habitat on map of woodland during woodland walk . Also highlight any other known or potential areas of open habitat seen on aerial photographs. Visit areas where confirmation is required		10–20% of woodland has areas of temporary open space. Unless woodland is <10ha, in which case 0–20% temporary open space is permitted	21–40% of woodland has areas of temporary open space	>40% or <10% of woodland has areas of temporary open space. If woodland <10ha has <10% temporary open space, please see Good category
7. Proportion of favourable land cover. Record % cover of favourable land cover within a 5.6km radius (100 km ² circle) of woodland		>20%	10–20%	<10%
8. Woodland regeneration. Record the number of classes of native/non-native regeneration within survey plots		All 3 classes present: Trees 4–7cm DBH; Saplings; Seedlings / Coppice regrowth	1 or 2 classes only present	No classes or coppice regrowth present
9. Tree health. On woodland walk and in survey plots note % dead canopy and/or trees with crown dieback across woodland & presence of pests/diseases		Tree mortality 10% or less, no pests or diseases and no crown dieback	11–25% mortality and/or crown dieback or low risk pest or disease present	Greater than 25% tree mortality and/or any high risk pest or disease present
10. Vegetation and ground flora. Using the NVC key establish whether there is a recognisable NVC community at ground layer in each survey plot and note also whether there are ancient woodland indicators		Recognisable woodland NVC plant community at ground layer present, strongly characterised by ancient woodland flora specialists	Recognisable woodland NVC plant community at ground layer present	No recognisable woodland NVC community at ground layer
11. Woodland vertical structure. Record the number of different canopy storeys present in each survey plot		3 or more storeys across all survey plots or a complex woodland	2 storeys across all survey plots	1 or less storey across all survey plots
12. Veteran trees. On a map of the woodland, note the location of veteran trees encountered during the woodland walk . Additionally, record on the map any other known veteran trees present in the woodland		2 or more veteran trees per hectare	1 or fewer veteran trees per hectare	No veteran trees present in woodland
13. Amount of deadwood. Record presence of standing deadwood on woodland walk by woodland type and within survey plots		50% or more of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and/or stems, branch stubs and stumps, or an abundance of small cavities	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and/or stems, stubs and stumps, or an abundance of small cavities	Less than 25% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and/or stems, stubs and stumps, or an abundance of small cavities
14. Size of woodlands. Record total area of woodland		>20 hectares	5–20 hectares	<5 hectares
15. Woodland disturbance. Record evidence of nutrient enrichment and/or damaged ground on woodland walk		No nutrient enrichment or damaged ground evident	<1 hectare in total of nutrient enrichment across woodland area and/or <20% of woodland area has damaged ground	1 hectare or more of nutrient enrichment and/or >20% of woodland area has damaged ground

USEFUL LISTS

Table 1. Invasive species in woodland	
American Skunk-cabbage	<i>Lysichiton americanus</i>
Himalayan Balsam	<i>Impatiens glandulifera</i>
Japanese Knotweed	<i>Reynouria japonica</i>
Cherry Laurel	<i>Prunus laurocerasus</i>
Shallon	<i>Gaultheria shallon</i>
Snowberry	<i>Symphoricarpos albus</i>
Variegated Yellow Archangel	<i>Lamiastrum galeobdolon</i> subsp. <i>argentatum</i>
Rhododendron	<i>Rhododendron ponticum</i>

Table 2a. High risk pests and diseases	
Acute oak decline	<i>Phytophthora austrocedri</i>
Ash dieback (Chalara)	<i>Phytophthora kernoviae</i>
Asian Longhorn Beetle	<i>Phytophthora lateralis</i>
Bronze birch borer	<i>Phytophthora ramorum</i>
Budworm	Pine Processionary Moth
Chronic oak decline	Pine Lappet Moth
Citrus Longhorn Beetle	Pitch pine canker
Double-spined Bark Beetle	Red band needle blight
Eight-toothed Spruce Bark Beetle	Small Spruce Bark Beetle
Horse-chestnut bleeding canker	Sweet Chestnut blight
	Two-lined Chestnut borer

Table 2b. Low risk pests and diseases	
Great Spruce Bark Beetle	Oak Processionary Moth
Horse-chestnut Leaf Miner	Large Pine Weevil
Japanese Sawyer Beetle	Pine-shoot Beetle

Factsheets of these invasive non-native plant species can be found on the GB Non-native Species Secretariat website www.nonnativespecies.org

More information about tree pests and diseases can be found on the Observatree website www.observatree.org.uk

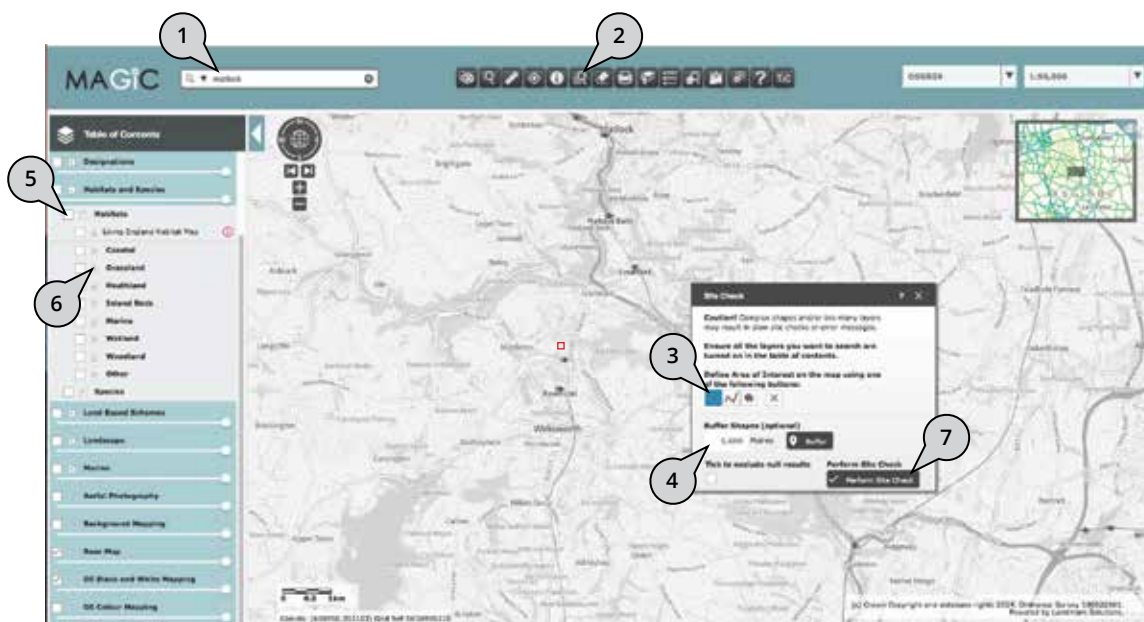
Table 3a. Native trees and shrubs	
Alder Buckthorn	Guelder-rose
Almond Willow	Hawthorn
Ash	Hazel
Aspen	Holly
Bay Willow	Hornbeam
Beech	Juniper
Bird Cherry	Large-leaved Lime
Black Poplar	Midland Hawthorn
Blackthorn	Montane Willows
Box	Osier
Bramble	Pedunculate Oak
Broom	Purging Buckthorn
Butcher's-broom	Purple Willow
Common Alder	Rowan
Common Lime	Sessile Oak
Crab Apple	Silver Birch
Crack Willow	Small-leaved Elm
Dog Rose	Small-leaved Lime
Dogwood	Smooth-leaved Elm
Downy Birch	Spindle
Eared Willow	Spurge-laurel
Elder	Wayfaring-tree
English Elm	White Willow
Field Maple	Whitebeam
Field Rose	Wild Cherry
Goat Willow	Wild Privet
Gorse	Wild Service-tree
Grey Poplar	Wych Elm
Grey Willow	Yew

Table 3b. Non-native trees and shrubs	
Black Walnut	Red Oak
Cedar species	Scots Pine
Coast Redwood	Silver Maple
Common Walnut	Sitka Spruce
Corsican Pine	Sweet Chestnut
Douglas Fir	Sycamore
European Larch	Turkey Oak
European Silver Fir	Western Hemlock
Grand Fir	Western Red-cedar
Holm Oak	Wild Pear
Horse-chestnut	Wild Plum
Italian Alder	
Japanese Larch	
Lawson's Cypress	
Lodgepole Pine	
Maritime Pine	
Noble Fir	
Norway Maple	
Norway Spruce	
Raoul/Rauli/Roble	

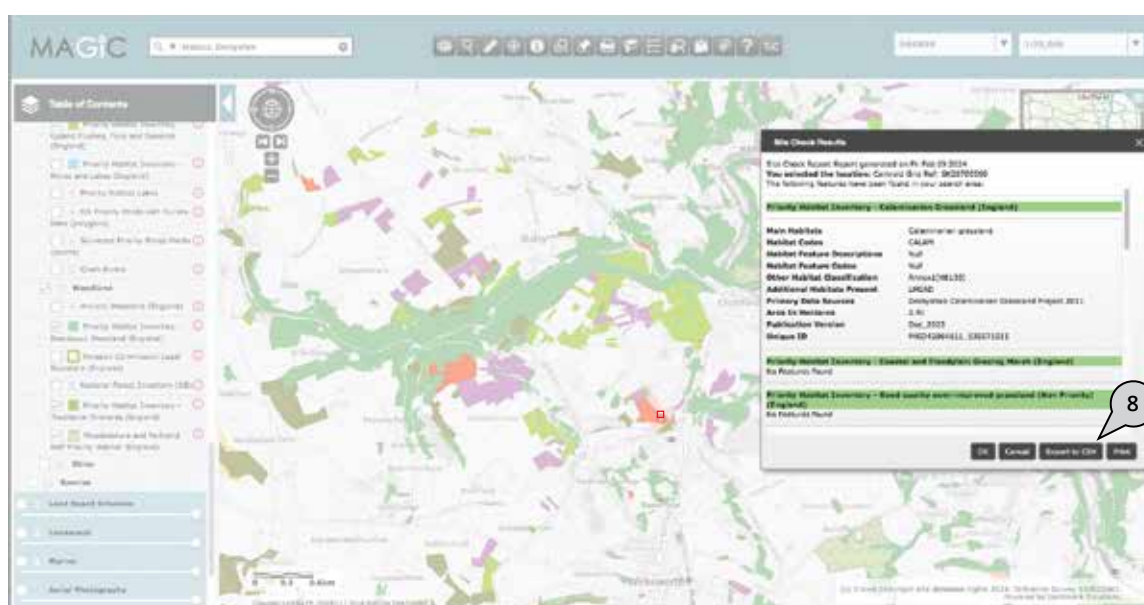
EXTRA GUIDANCE ON WCA INDICATOR 7

How to work out the % proportion of favourable land cover around your woodland

Use the MAGIC website <https://magic.defra.gov.uk/MagicMap.aspx>



1. Find your woodland
2. Click on Site Check
3. Define area of interest using choice of buttons. Use **point** unless your woodland is >1,000ha (if your woodland is larger than 1,000ha use **polygon** to map outer boundary of woodland)
4. Type in 5,600 metres in Buffer Shapes and click on Buffer button
5. Click on **Habitats and Species**
6. Tick:
 - **Grassland** – then tick ALL sub-categories of grassland
 - **Heathland** – then tick UPPERMOST 3 sub-categories (Lowland Heathland, Mountain Heaths and Willow Scrub, Upland Heathland)
 - **Inland Rock** – then tick Limestone Pavements
 - **Wetland** – then UPPERMOST 5 sub-categories i.e. Blanket Bog, Lowland Fens, Lowland Raised Bog, Reedbeds, Upland Flushes, Fens and Swamps
 - **Woodland** – then tick Deciduous Woodland, Traditional Orchards, Woodpasture and Parkland



7. Click on **Perform Site Check**
8. Click on **Export to CSV** – then use Sum in Excel to add up all the area figures in column H and divide by 100 to give you the % proportion of favourable land cover around your woodland.