



# Woodland assessments for biodiversity

An advisory note  
produced by the  
Mercian Woodland  
Biodiversity Project, a  
partnership between  
**Small Woods  
Association** and  
**Severn Trent Water.**

  
SmallWoods





**While ancient semi-natural woodlands have highest value for biodiversity, all woods and forests, including those originally established as plantations, can be valuable for biodiversity with appropriate management.**

**UK Forestry Standard**





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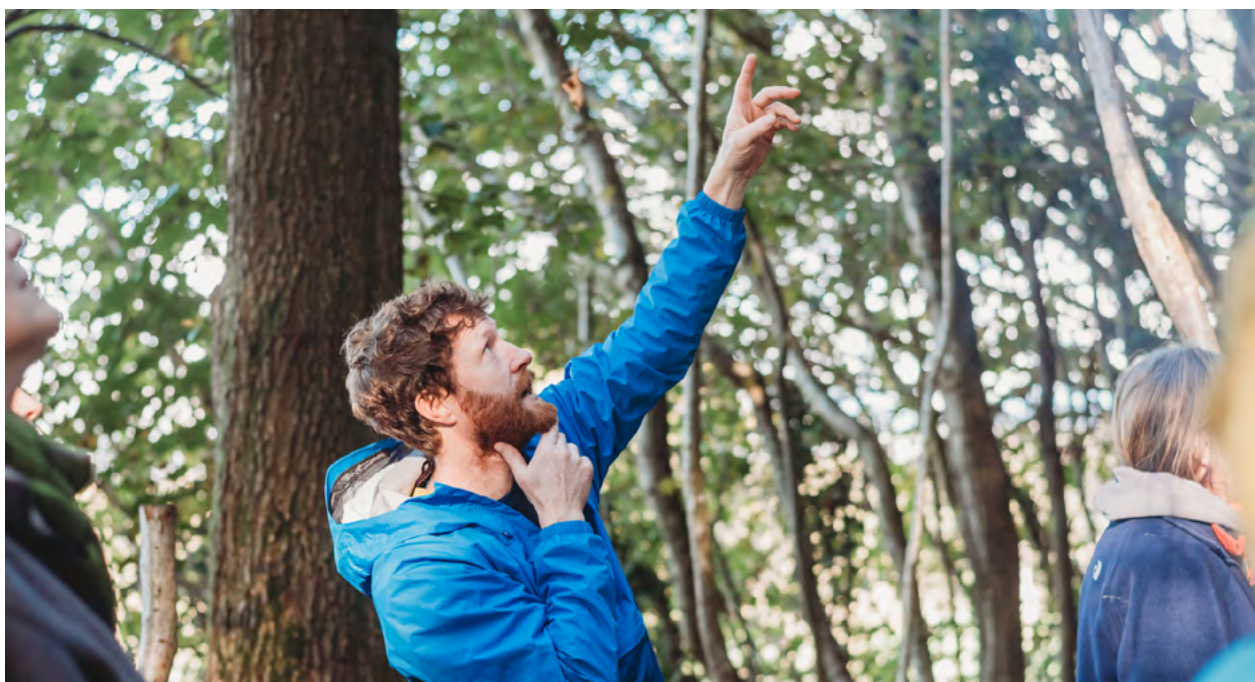
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# The benefits of assessing your wood

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Undertaking an assessment of your woodland and gauging its potential for biodiversity enhancement alongside your other priorities for the site may seem like a daunting task, especially if you have not attempted one before. The following notes are designed to help you successfully evaluate and record your woodland to help inform a management plan.

The Mercian Woodland Biodiversity Project has a clear focus on creating habitat and an uplift in biodiversity within woodlands. Templates have been developed for an Initial Assessment giving all the site

information, along with a Biodiversity Potential Assessment designed to be simple to use by anyone attempting an assessment of their woodland for the first time. However, there are many other assessment tools such as the Sylva Woodland Wildlife Kit which can provide an excellent assessments for creating a management plan, or you can simply create your own assessment process.

This note has been written to help guide you through the process of undertaking a biodiversity assessment whichever path you decide to follow.

# Why do a woodland assessment for biodiversity?

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- A practical woodland assessment for biodiversity is an excellent foundation for well-informed and positive woodland management
- It provides an essential baseline for the conservation and potential improvement of woodland biodiversity
- Even if you already know a woodland reasonably well, a biodiversity assessment will help you to find out more information about the wood you are planning to manage, to work in or to just enjoy
- An assessment will help you to identify features in the woodland, threats or challenges to biodiversity and opportunities to improve biodiversity. It will also help prioritise and plan your work on biodiversity alongside your other woodland management objectives

To conduct a woodland assessment for biodiversity, simple steps below will help guide you and make it more useful and productive for your ongoing woodland management.

## Designations and site status

Remember that if your wood is designated as a Site of Special Scientific Interest (SSSI) or Local/National Nature Reserve, you must liaise with the relevant statutory nature conservation organisation in your country to find out more about the significance of the site. You will need to seek agreement and consent for future management and conservation works.

The agencies for the home nations areas are:

### **Natural England**

[gov.uk/government/organisations/natural-england](https://www.gov.uk/government/organisations/natural-england)

### **NRW**

[naturalresources.wales](https://www.naturalresources.wales)

### **CNC**

[naturalresources.wales](https://www.naturalresources.wales)

### **NatureScot**

[nature.scot/about-naturescot](https://www.nature.scot/about-naturescot)

### **DAERA**

[daera-ni.gov.uk/landing-pages/protected-areas](https://www.daera-ni.gov.uk/landing-pages/protected-areas)

If you're not sure about existing nature conservation designations in and around your wood, the MAGIC system is a good starting point. Here you can obtain valuable free official information on the status of your

woodland; [magic.defra.gov.uk](http://magic.defra.gov.uk)

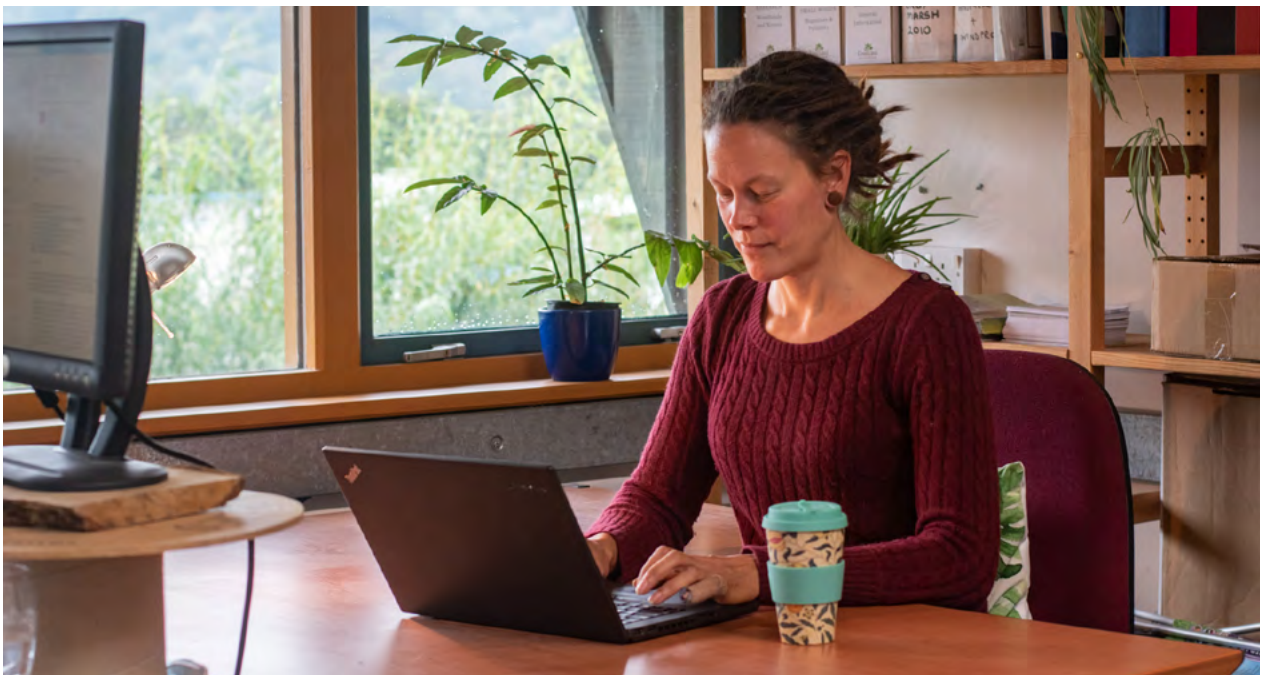
Other potential resources include local county records and the Botanical Society of Britain and Ireland (BSBI) at their website:

[bsbi.org](http://bsbi.org)

# Starting the woodland biodiversity assessment process

## Background and preparation

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A well-planned visual walkover survey is the foundation for a practical biodiversity woodland assessment. Seeing and experiencing the wood at first hand

and walking it methodically, using a framework for assessment will help you gather key information about the current biodiversity status of the wood. It will also identify ways



in which biodiversity might be potentially enhanced and developed as woodland management goes forward.

## **When would you carry out an assessment?**

You can carry out an assessment at any time of year but some are better than others for spotting biodiversity indicators, especially if you are new to visual surveying. Mid to late spring is likely to provide you with the greatest range of flora and fauna for an assessment on a single walk through and provide a good basis for the planning process.

However, to build the fullest picture of the wood, aim to augment your woodland assessment on several different occasions during the year. You will always see or hear something new or different through the woodland year, picking up more information with visits and assessments spread across the seasons. It will also be interesting, rewarding and help to connect you to the wood and its key characteristics.

## **Woodland desktop detective work**

Before you do the visual walkover survey, prepare with some simple desk or IT-based research and scene-setting work.

Look at aerial photography for

context and orientation using simple free tools such as MAGIC and Google Earth. If available, (and sadly they often are not) previous management records such as an old management plan or site notes could help inform you about earlier management. Where possible, try to talk to local people, contractors and site neighbours who will often know and share useful information about the wood and its past management.

All of this preparation helps to build up your information bank and develop a more complete picture of the wood before the survey work starts.

## **Mapping**

To carry out a woodland assessment, start with a map or plan of the area to provide focus and clarify the area concerned and determine the woodland boundaries. This can be digital or hardcopy, either will work as an initial base resource.

The Mercian Woodland Biodiversity Project uses free mapping software called Avenza. This can be run on Android or iOS smartphones, uses no data allowance and there are many free Ordnance Survey maps available as base maps.

Avenza also allows you to take notes, draw or track boundaries, compartments or coups, geolocate features and photographs and export the resulting map with all its features to your project folder.

Alternatively, for another simple but very effective way of mapping woods and dividing them up into functional sections or compartments (usually the starting point for woodland management planning) see the Sylva

myForest system, a free and sound tool for mapping and planning Avenza Maps. Visit these websites for more information:

[store.avenza.com](https://store.avenza.com)

[myforest.sylva.org.uk](https://myforest.sylva.org.uk)

## Organising the assessment

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To get the most out of the assessment process it is important to organise and structure it effectively.

This helps to make it consistent, repeatable and provides a useful baseline for future monitoring. This may sound ambitious, but if you are

going to manage the wood to meet your objectives for biodiversity and other outcomes, you need to be able to see in future if it's working

For the Mercian Woodland Biodiversity Project use a Biodiversity Potential Assessment template to help achieve this.



# Woodland assessment for biodiversity – core elements

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## Initial Assessment Sheet – Woodland key facts

Start by recording some key factual information about the woodland site – even if you know this, other people you work with potentially will not, so record it for completeness and accuracy and so that it will make sense to you and to others in future.

- Woodland site name
- Location – address and Grid Ref/ W3W for main access point
- Approx. size (ha.)\*
- Site ownership/management responsibility
- Woodland assessor/surveyor
- Assessment date

For help finding woodland grid reference see: [gridreferencefinder.com](https://www.gridreferencefinder.com)

\*See measuring tool on MAGIC: [magic.defra.gov.uk/MagicMap.aspx](https://magic.defra.gov.uk/MagicMap.aspx)

# Assessment survey method

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To make the most of your assessment, following a pre-determined survey method will help you to get the most out of the process and ensure that the assessment informs and directs future management. It will also make the process repeatable, so that you can use it to monitor how effective the woodland management has been in a few years' time, and, to see if biodiversity has been conserved and enhanced as a result.

## **The Mercian Woodland Biodiversity Project – Biodiversity Potential Assessment**

The Mercian Woodland Biodiversity Project provides a Biodiversity Potential Assessment as a template in either Word or PDF that will allow you to gather and structure information on your woodland that can inform a Biodiversity Management Plan for the project and an excellent introduction to wider and more complex management plans.

The template can be used as an editable Word or PDF with useful information hyperlinks on a tablet device., which may make the assessment process more streamlined or you can print the template and complete it by hand.

## **The Sylva Woodland Wildlife Kit**

The Sylva kit can be found at [woodlandwildlifetoolkit.sylva.org.uk/assess](http://woodlandwildlifetoolkit.sylva.org.uk/assess) and contains excellent 'ready-made' and field-tested resources to guide and support woodland condition assessment. It links to resources that the England Woodland Biodiversity Group and Forest Research have developed to help rapidly assess the ecological condition of woodland.

Completing an assessment using these resources should help to gain a better understanding of:

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

The survey is intended for the assessment of whole woodlands (not individual compartments) and involves a walk through the woodland to be surveyed collecting information from temporary survey



plots of 10-metre radius at fixed stopping points, but also during the walk between these survey plots. A woodland walk 'whole woodland survey form' and a '10m radius plot survey form' have been included to print and complete on-site. The information collected can be compared directly against the condition assessment criteria scores for woodland condition and biodiversity indicators in the THRESHOLDS tab.

## Building your own

If you want to use a similar but adapted and lower-key approach to build up your own woodland biodiversity assessment, think about organising your walk to include fixed-point survey plots (perhaps 5x 10m radius survey plots in a small woodland under 5ha., or 10x plots if the wood is highly variable in composition or over 5ha) and stop to record your observations at 50m or 100m intervals along the walking route through the woodland. Signal permitting, you can use GPS on a smartphone or other device to record plot centres and the spot points along your walking route, again to make the survey and assessment repeatable and consistent over time.

If you do choose to develop your own recording forms for the survey, they should include the following key elements;

## Woodland regeneration

For woodland biodiversity to be maintained over the long term, most typical UK woods need some form of regeneration process to be taking place. In your woodland survey are any of the following types of regeneration present in the wood?

Add any useful notes, photos etc. as additional information as you go.

Type of regeneration	Present? Yes / No	If yes, comment on scale/extent
Seedlings		
Saplings (3-7 cm. diam. at 1.3m. above ground)		
Coppice regrowth		
New planting or restocking		
Other – describe/ comment		

## Veteran trees

Does the wood contain veteran or notable trees? (large/over-mature trees that appear much older than most others seen)

Add any useful notes, photos etc. as additional information as you go.

Present? (Yes / No)	If yes, comment on scale/extent

To inform this see resources available at:

[forestresearch.gov.uk/tools-and-resources/fthr/historic-environment-resources/veteran-trees](https://forestresearch.gov.uk/tools-and-resources/fthr/historic-environment-resources/veteran-trees)

[woodlandtrust.org.uk/publications/2022/06/green-recovery-avt-tree-assessment-guide](https://woodlandtrust.org.uk/publications/2022/06/green-recovery-avt-tree-assessment-guide)

[woodlandtrust.org.uk/publications/2021/07/ancient-and-veteran-trees-caring-for-special-trees-on-farms](https://woodlandtrust.org.uk/publications/2021/07/ancient-and-veteran-trees-caring-for-special-trees-on-farms)

## Deadwood

Deadwood has fundamental biodiversity value and is essential for soil formation and development processes. It provides significant opportunities for hole-nesting birds and for a myriad of invertebrates and fungi as dead and decaying wood is cycled back into living systems.

Increasing deadwood volumes in woods is often a high conservation priority, with optimal biodiversity values supported by larger diameter material (20cm. +), irregular distribution of deadwood throughout a woodland and a consistent deadwood supply over time – continuity in deadwood! In some situations and where tree risk management and access levels allow, standing or aerial deadwood

can be deliberately created by ring-barking live trees. Terrestrial deadwood can be created and increased by felling low-value trees to waste and leaving felled material on site to naturally break down.

For more information on dead and decaying wood in woodlands see; [woodlandtrust.org.uk/publications/2019/12/wood-wise-life-in-deadwood](https://woodlandtrust.org.uk/publications/2019/12/wood-wise-life-in-deadwood)

Circle the category below that best describes the deadwood character of the wood you see on your survey walk

- Standing deadwood/large dead branches/stems and stumps can be seen over more than 50% of the woodland survey walk
- Standing deadwood/large dead branches/stems and stumps can be seen in between 25% and 50% of the woodland survey walk
- Standing deadwood/large dead branches/stems and stumps can be seen in less than 25% of the woodland survey walk

Add any useful notes, photos etc. as additional information as you go.

## Invasives

Invasive species in UK woodlands can include both plant and animal species. They typically have a negative impact on woodland biodiversity, particularly in



woodlands with significant or near-natural ground flora. This assessment focuses primarily on invasive non-native plant species.

Invasive plants can rapidly establish and spread through a woodland, outcompeting natural or naturalised plants through faster growth and reproduction and by physically dominating space. In your woodland assessment, try to identify the presence of invasive plants and record their approximate extent and location. This can help inform future control as part of an overall woodland management plan.

<b>Common invasive non-native plant species present within woodland</b>		
Japanese knotweed	<b>Yes</b>	<b>No</b>
Himalayan balsam	<b>Yes</b>	<b>No</b>
Cherry laurel	<b>Yes</b>	<b>No</b>
Snowberry	<b>Yes</b>	<b>No</b>
Rhododendron	<b>Yes</b>	<b>No</b>
Buddleia	<b>Yes</b>	<b>No</b>
Other invasives... (identify/ describe/ locate on map or plan)	<b>Yes</b>	<b>No</b>

For more information on invasive plants in woodlands see;

**[woodlandwildlifetoolkit.sylva.org.uk/advice-invasive](http://woodlandwildlifetoolkit.sylva.org.uk/advice-invasive)**

For an excellent wider overview of invasive non-native plant and animal species impacts see;

**[researchbriefings.files.parliament.uk/documents/POST-PN-0673/POST-PN-0673.pdf](https://researchbriefings.files.parliament.uk/documents/POST-PN-0673/POST-PN-0673.pdf)**

## Environmental features with biodiversity value

Record other environmental features present within the woodland. Circle those present and describe briefly, plotting them on your plan/map to show their approximate locations;

- Hedges
- Scrub
- Standing water as pools/lakes
- Wet areas/marsh
- Watercourses – springs, streams, rivers
- Grassland
- Quarries/rock faces
- Other environmental features observed – describe briefly...

Add any useful notes, photos etc. as additional information as you go.

## **Review, prioritisation of works for biodiversity and monitoring**

Once you have completed your assessment, review the information you have gathered, using the plan or map to help orientate, locate and inform this process.

Having done this thoroughly, aim to answer the following key questions as objectively as you can, based on the assessment you have carried out;

- What and where are the highest value biodiversity features in the woodland? List them and locate them on the woodland plan or map
- What are the biggest threats and challenges for biodiversity in the woodland? List them and if possible, locate them on the woodland plan or map
- What and where are the opportunities to enhance and develop biodiversity value in the woodland? List them and locate them on the woodland plan or map

Once you have considered these questions and responded with a short list for each, try to clearly prioritise the biodiversity issues at the overall woodland level. Where can you and your resources (time, labour, equipment, funding) make the most important differences to biodiversity

values within the woodland?

It makes sense to be very honest and realistic about prioritisation. Few people or organisations have the resources to do everything feasible in managing threats to biodiversity or taking opportunities to enhance biodiversity, so identifying and ranking a small number of high priority areas for work – protection or improvement work – is usually essential and realistic.

Once you have done this, include these high priority biodiversity work areas in your overall work plan or management plan for the woodland, alongside the other management objectives that will be considered.

When your woodland management work – for biodiversity and other outcomes – has been in action for a year or two, repeat the assessment process. Use this monitoring assessment to record how the works you identified and prioritised are taking effect and how they are influencing and hopefully improving biodiversity in and around the woodland. Some effects will show up relatively quickly – within a year or two of management works – others will take longer. Future management work can be informed, adjusted and changed depending on the evidence shown by your monitoring assessment.







Found this advisory note helpful? Visit our website to find out more.

 [smallwoods.org.uk/mercian](https://smallwoods.org.uk/mercian)

## Interested in involving your woodland in the Mercian Woodland Biodiversity Project?

If your woodland falls within the Severn Trent catchment and you would like to hear more about the project, please get in touch.

**Contact the project co-ordinator**

**David Reeve**

 [davidreeve@smallwoods.org.uk](mailto:davidreeve@smallwoods.org.uk)

