

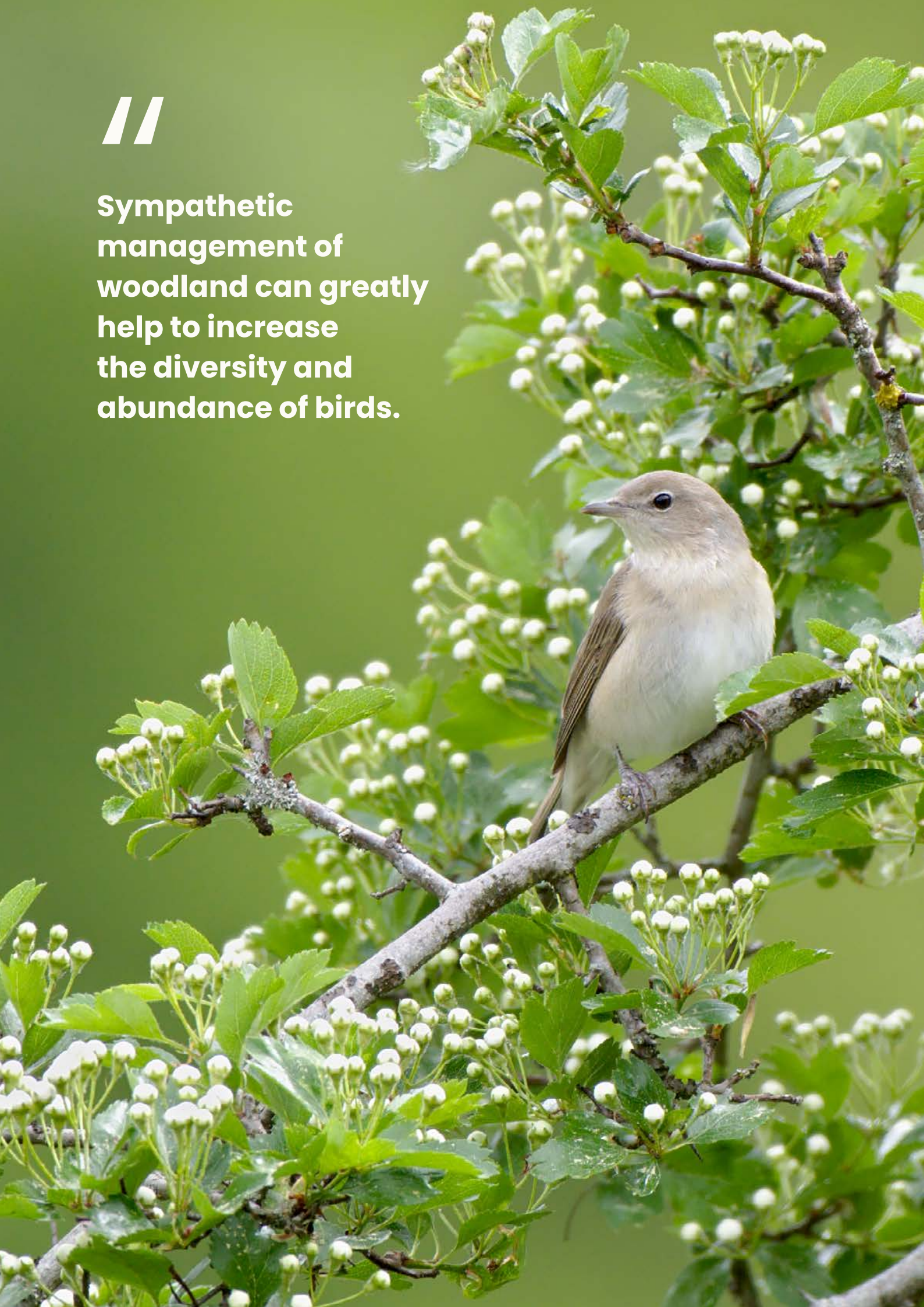


# Managing woodland to enhance habitat for birds

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



**Sympathetic  
management of  
woodland can greatly  
help to increase  
the diversity and  
abundance of birds.**



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### Photography

Cover photo: Marsh tit (*Poecile palustris*) by Frank Vassen (CC BY 2.0)

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# Introduction

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Stand management can help provide the vegetation structures apparently preferred by many species of woodland birds, including some that are in decline such as the nightingale. Especially for young-growth species and ones requiring complex understorey structures, targeted management interventions can deliver suitable habitats at a more rapid rate than development of similar features through naturally occurring stand dynamics<sup>1,2</sup>.

Management can influence many aspects of woodland vegetation and

wildlife habitat including:

- tree species composition (shade intolerant /tolerant species)
- tree height and vertical/lateral extent of the canopy
- size distribution and number of stems
- horizontal heterogeneity in terms of patches at different growth stages
- density of foliage in shrub and ground layers
- quantity and quality of dead wood

## Stand management

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In principle, woods can be managed to deliver almost any desired structure through careful selection of harvesting intervals, the scale of harvesting (from single tree to large clearcuts), or the adoption of particular thinning regimes. Of course, there will often be a tension between the optimum approach for wildlife and the commercial or cultural objectives for any particular site. However, even within woods where timber production is the main objective, there is usually scope to

modify management to enhance habitat quality for birds and other wildlife without greatly compromising yields. However, there are multiple pathways to particular structures and a single recommendation of active management is likely to be insufficient to secure the necessary features in the majority of situations<sup>2</sup>. A combination of approaches is likely to be needed, including minimum interventions, maintenance/ re-instatement of coppicing, the encouragement of

**Table 1. Summary of possible conservation interventions**

General considerations	
<b>Maintain areas at different stages of growth</b>	This can be achieved in various ways (see below) to provide habitat for species associated with early and later phases of vegetation development.
<b>Maintain existing open space</b>	Semi-permanent canopy openings and their edges, such as rides and glades, offer important feeding areas for birds and should be kept open as far as possible.
<b>Maintain and enhance wetland features</b>	Woodland ponds and other damp areas can increase invertebrate abundance. Ponds ideally need to be kept free of shading and periodically desilted.
<b>Reduce grazing pressure by deer</b>	High deer pressure in coppice and high forest reduces low vegetation leading to poor habitat quality for many woodland birds; however, within open-canopy wood-pasture low-intensity grazing is an integral part of the system potentially creating high habitat complexity.
<b>Enhance the native broadleaved component in conifer plantations</b>	Planting or natural regeneration of native broadleaves can increase diversity of foods and structures for birds.
Interventions for young-growth species	
<b>Shorter rotation length in small areas</b>	In clear-felling, patches could be cut on shorter rotations to increase the extent of young-growth; successfully used to provide nightingale habitat in southern England.
<b>Use of group fells within continuous cover systems</b>	Even where single tree selection is the adopted system, incorporating some regeneration gaps (>0.2ha) can provide habitat for species needing dense thicket regrowth such as garden warbler ( <i>Sylvia borin</i> ).
<b>Unconventional thinning</b>	Variable intensity thinning can create novel habitat structures of high wildlife value, including gaps at different stages of regeneration.
<b>Management of external woodland edges</b>	The interface of woodland and open country is often a rich zone for birds and insects; allow a shrub-rich belt to develop and cut sections on rotation.
<b>Management of ride and track edges</b>	Increasing ride width, reducing shading, and providing scrubby / brambly margins as linear strips or scallops will increase habitat for young-growth species; cut sections on rotation.
Interventions for mature-growth species	
<b>Retentions</b>	In clear-felling and continuous cover, maintain longer rotations beyond commercial felling age within patches of woodland to provide 'islands' of large trees.
<b>Designated old-growth stands</b>	Areas of woodland could be left indefinitely to develop characteristics of old-growth or natural forest.
<b>Maintaining individual ancient or legacy trees</b>	Avoid felling trees that are exceptionally old.
<b>Provision of snags and decaying wood</b>	Through sensitive thinning and harvesting, retain quantities of standing dead trees and fallen decaying wood; consider increasing numbers of dead trees by ring-barking or injection.

Reproduced with permission from *Woodland Management and Birds - Part 2 (Fuller, 2021b)*

complex scrub structures at the margins of open space and at woodland edges, and the creative use of clear/selective felling and thinning (refer Table 1).

Within small woods it clearly unlikely to be realistic to adopt all these approaches so concentrating on a small number would be appropriate. With reference to the accompanying woodland birds advisory note, management approaches resulting

in an increase in both young and old growth habitats are likely to be beneficial to a range of bird species experiencing population decline, as well as to wider woodland diversity<sup>3</sup>.

The emphasis of the approaches described below is on increasing the range of resources for woodland birds which, one hopes, will lead to higher diversity and overall abundance of birds, especially in woods that have not been managed for a considerable time<sup>1,2</sup>.

## Notes on particular management interventions

- **Individual large standard or veteran trees:** The retention of individual scattered large trees and standing dead trees is desirable in woods of all ages and can provide increased opportunities for hole nesters and late woodland succession bird species that excavate invertebrates from decaying wood.
- **Young-growth:** Ensuring that areas of open canopy young growth are always available will greatly enhance woodland for light demanding plants, and for warmth-loving and nectar dependent invertebrates, which provide resources for a number of young-growth bird species.
- **Conservation thinning:** Most commercial thinning is of little conservation benefit because the canopy is rarely sufficiently opened to greatly increase woody understorey regeneration. However, 'variable intensity thinning' or 'thinning for habitat diversity' can create spatially complex woodland with much variation in canopy cover including glades of different sizes
- **Rides and edges:** The maintenance of complex vegetation structures along ride edges and the outer margins of woods contributes to further habitat variability. A simple action to create nesting and feeding sites for many birds is to leave a strip 2 to 5m each side of the ride unplanted, and allow bramble and other deciduous woody regeneration to develop a thicket structure over the years. This should be cut on a rotation of 7 to 10 years – it is important to cut on a piecemeal basis so that different stages of growth are always present. Such habitat could also be enhanced by creating scallops rather than linear strips.

Taken, with permission, from Fuller, 2021b.

## Deer browsing

The increasing densities of deer in broad areas of England are having a widespread impact on woodland structure. Degradation of the shrub layer caused by deer browsing affects the ability of dependent birds to maintain populations. Meanwhile heavy browsing pressure has very serious implications for woodland regeneration and management<sup>4</sup>.

For the foreseeable future deer impacts will continue to be widespread and probably increasingly severe in many areas. Where deer browsing is extensive, the understorey vegetation will struggle to develop under the canopy. To some extent the impacts of deer may be reduced where the canopy is very open allowing light to reach ground level, but where deer pressure is

high this will offer little respite and the potential complexity offered by vegetation structures even in open glades and along rides will be impacted. This has an effect on the range of habitat available to woodland birds and consequently also the resources available to them. In addition, where deer populations are high, active coppicing is a difficult option and is likely to be successful only where deer control is consistent and intensive, ideally at a landscape scale, or where deer fences are erected. Semi-permanent steel deer fences are expensive and require maintenance to secure gaps created by badgers and fallen trees. However, in coppiced woods the use of brushwood fences around freshly cut coupes to give temporary protection to the regrowth can help greatly to reduce browsing pressure<sup>5</sup>.



**Roe deer** | Nigel Cohen/Pixabay

# Landscape considerations

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It would be a mistake to think that stand management alone can provide the solution for the recent declines in woodland birds outlined in the accompanying *Trends in Woodland Management and the Status of Woodland Birds* advisory note. However, stand management can undoubtedly do much to increase the variety and range of resources for birds especially when provided across several woods in an integrated way within a landscape. Individual birds of some species will often use several different woods within their home range, further reinforcing the value of a landscape approach. Developing approaches that are appropriate to the landscape context is important. For example, in the Welsh borders and the Peak District, oakwoods can carry distinctive bird communities with localised species such as redstart and wood warbler, so maintaining as much closed canopy mature oak as possible is important. By contrast, in lowland ancient woods with a long history of coppice management, the emphasis might lie on achieving a more even balance between young growth and old stands. Occasionally it may even be deemed best not to undertake any management or to

adopt the lightest of approaches – this could be the case where a wood has been ‘neglected’ for such a long time that it is taking on the attributes of a near-natural old-growth stand or has the potential to do so.

The requirement to consider woodland structure at a landscape scale is further compounded with the implications of climate change and a strong case can be made for attempting to buffer valued wildlife communities against damaging effects of climate change, by creating woodland and maintaining structural diversity through the landscape. Increasing the variety of habitat types and structures at a landscape scale is one of the best strategies we have for maximising future opportunities for wildlife in a changing climate. Enhancing habitat linkages across landscapes will also assist the movement of individuals and colonisation of existing and newly created patches of wildlife habitat.

On this note, if your woodland is small, or the stands you are managing are of a less complex structure, woodland managers could conceivably collaborate with neighbours and adjacent landowners to provide an array of varying stand



structures in the locality. With this array of woodland structures in the local landscape, woodland managers

could potentially provide resources to support most species of woodland birds in Britain.

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## 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.

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