Woodland operations

Timing of operations for sustainable woodland management in England and Wales





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A foreword from the CEO of Small Woods

The timing of forestry operations is complex: the

management of woodland consists of an interplay for

the preservation and improvement of ecosystems, timber and wood product markets, enhancement of biodiversity, skills shortages, ground conditions and climate change. To preserve biodiversity, selective felling and thinning are ideally scheduled during dormant seasons, minimising disruption to wildlife. However, a persistent skills shortage in the forestry

sector necessitates careful planning to ensure skilled

labour availability during these critical periods. Ground conditions, particularly in wetter seasons, influence the feasibility of heavy machinery use, affecting activities like planting and harvesting.

Climate change adds another layer of complexity, demanding adjustments in planting schedules to adapt to warmer and wetter conditions, as well as

to extreme weather events.

This multifaceted challenge requires an integrated approach that balances these factors to ensure sustainable woodland management in the face of evolving environmental dynamics.

proactive measures to mitigate increased pest and disease risks and respond

Simon James

simonjames@smallwoods.org.uk

Get in touch with us

Small Woods Association

The Green Wood Centre
Station Road
Coalbrookdale
TF8 7DR

- © 01952 432769 © office@smallwoods.org.uk
- smallwoods.org.uk 🗗 🗷 📵 SmallWoodsUK



Introduction

Forestry operations in woodlands across England and Wales play a pivotal role in the management and conservation of these diverse ecosystems. The timing of these operations are critical as they can significantly impact the delicate balance between sustainable management objectives and the enhancement of wildlife habitats, including protected species. This note delves into the intricate balancing act required in determining the optimum timing of forestry operations for the dual purpose of yielding woodland products whilst considering the needs of wildlife and protected species.

Consideration is also given to the desirability of sustainable employment in the forestry sector, as well as the impact of climate change and changing seasonal weather patterns on the timing of forestry operations.





Seasonal variations and their impact on wildlife

Understanding the seasonal dynamics within woodlands is fundamental to recognising the impact of forestry and woodland operations on wildlife. Each season offers unique conditions that influence the behaviour, breeding patterns, and habitats of various species.

Seasons

For instance, spring marks the breeding season for numerous birds and mammals, making it a critical time to avoid disturbance caused by felling or machinery noise that could disrupt nesting sites or mating behaviours. Similarly, autumn and winter hold significance for other species, particularly those dependent on fallen leaves and decaying wood for shelter and food. In these seasons, delaying operations or employing methods that minimise disruption, such as selective harvesting, can safeguard the habitats of species like insects, amphibians, and small mammals.

If however, wildlife and biodiversity niches are to be retained, woodlands do require management. The extent, quality and variety of habitat available for wildlife, including ground flora, fungi and invertebrates, declines if a woodland is not managed. There is a complex and fine balance between the timing of forestry operations, habitat creation and maintenance, and reproductive seasons of species identified in the woodlands.



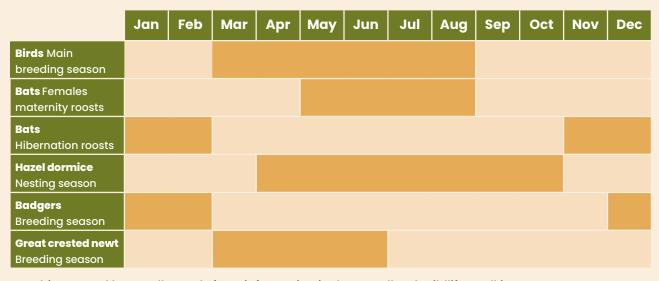
Box 1. Woodland wildlife and biodiversity resources

1. Woodland Wildlife Toolkit

woodlandwildlifetoolkit.sylva.org.uk

The Woodland Wildlife Toolkit (RSPB, Woodland Trust, Forestry Commission, Bat Conservation and Butterfly Conservation) provides advice on managing woodlands for wildlife, in particular rare and declining species that are dependent on woodland habitats.

Amongst other comprehensive information, the tool kit indicates the most sensitive period for species likely to be found in woodland.



Graphic created by Small Woods from information in the Woodland Wildlife Toolkit

2. Small Woods Advisory Notes

smallwoods.org.uk/mercian

The Mercian Woodland Biodiversity Project, led by Small Woods, has recently produced this series of advisory notes:

- Owning and managing a woodland
- How to conduct a woodland assessment for biodiversity
- Managing woodland for ground flora
- Trends in woodland management and the status of woodland birds
- Managing woodland to enhance habitat for birds
- Managing woodland for invertebrates
- Managing woodland for bats
- How to manage a woodland for biodiversity and products





Tree felling licences

It's an offence to fell trees without a licence if an exemption does not apply. Everyone involved in the felling of trees (the owner, agent and timber merchant or contractor) must ensure that a licence has been issued before any felling is carried out, unless they are certain that one of the exemptions apply. If there's no licence or other valid permission, or if the wrong trees are felled, anyone involved can be prosecuted. However, the tree felling licensing laws do not tie the owner or manager to any particular time or season of the year.

For more information on tree felling licences, go to **gov.uk/ guidance/tree-felling-licence-when-you-need-to-apply**

The UK Forestry Standard additionally indicates, in the section UKFS Guidelines on Forests and Biodiversity — Priority habitats and species: Where priority species are ecologically dependent on a woodland habitat, plan felling programmes so that disturbance at sensitive times of the year is minimised.

For more information, see The UK Forestry Standard

Conservation charities advise that you should try to carry out any woodland operations during the winter months, following leaf fall when you can see into the canopy branches and the tree itself is dormant. This recommendation also avoids the peak season for nesting birds, which is from the beginning of March to the end of August.



For evergreen trees, it is more difficult to detect dormancy, however buds are an indication. If they are hard and dry, you may also notice an increased needle fall as older needles are replaced.



Below, you will find a table summarising what has conventionally been accepted as the optimum timing for forestry operations.

However, recognising other considerations, such as the viability of forestry employment and the conditions of the woodland floor and work tracks, certain forestry operations should be considered throughout the year.

In all cases it is recommended that the forest manager consult Magic Maps for the distribution of European Protected Species (EPS) **magic.defra.gov.uk/ magicmap.aspx**

Table 1: Conventionally accepted optimum timing for forestry operations				
Forestry operation	Optimal season	Optimal for tree operations - observations	Wildlife - considerations	
Planting	Bare root – November to February, but avoid long periods of frost ¹ Seedlings – early to mid-spring Try to time after the last frost, but before bud burst		Consider diverse species mix and non-chemical aftercare	
Coppicing	Winter – late September to early March	When trees are dormant ²	Assess work area for wildlife	
Pruning	Early spring ³	Just before trees come into leaf	Assess work area for wildlife	
Selective thinning	Year round		Assess work area for wildlife	
Timber extraction	Summer or cold winter	Ground is firm ⁴	Assess work area for wildlife, avoid root and soil compaction	

^{1.} Planting season now typically extended by cell-grown and plug plants – start early and finish later options at each end of traditional planting season.

^{2.} Due to climate change, coppice workers tend to cut for longer than the traditional season these days, especially down in the south of England, as the warmer winters prevent full dormancy occuring.

Some tree species are better pruned in summer e.g. cherry and walnut forestresearch.gov.uk/tools-and-resources/tree-species-database/wild-cherry-gean-wch rhs.org.uk/fruit/cherries/grow-your-own forestresearch.gov.uk/tools-and-resources/tree-species-database/131530-common-walnut-jre

^{4.} Please refer to the discussion of the impact of changing weather patterns due to climate change, and the condition of the ground, later on in this Note

Box 2. A summary of the principles to adhere to when planning forestry operations

- · Woodland conservation benefits from active management.
- Protection of rare species should not stop carefully considered woodland operations which will help conserve wider biodiversity.
- Overall aim is conservation of overall populations and their habitat, not the protection of every individual.
- Woodland operations should maintain and improve habitat for EPS and minimise the risk of harming and disturbing animals or damaging their breeding sites or resting places.
- Work that follows the Forestry Commission's Good Practice Guides for England and Wales should not require a European Protected Species (EPS) Licence.
- If you comply with standard practice and obtain a licence where necessary, you should not be committing an offence.

But, an owner or manager must be able to demonstrate that all of the following three tests are met before undertaking any forestry operations:

- Purpose to conserve wildlife, public safety, deliver the Government's woodland strategy and provide public benefit
- · No satisfactory alternative
- Overall package of works will not be detrimental to overall population of the species.

Source: Forestry Commission

Good Practice Guide England: assets.publishing.service.gov.uk/media/5b35fa57ed915d0b53021ae1/FCPG201.pdf

Good Practice Guide Wales: naturalresources.wales/media/681030/gpg6_forest-resilience-1_structural-diversity.pdf



Crucially, any pre-work survey and subsequent work plan needs to be ongoing and dynamic as, during the course of operations, species can move in and out of the operations area, or be found in locations not accessible prior to felling. The forest contractor should be willing and able to wait/move/stop operations accordingly.

Optimum timing for forestry operations necessitates an integrated approach that considers management objectives and wildlife conservation. Adopting strategies like Continuous Cover Forestry (CCF) or selective harvesting techniques enables the sustainable extraction of timber while preserving the overall woodland structure and biodiversity.

Furthermore, creating buffer zones, or leaving untouched patches within woodlands, including deadwood, can serve as sanctuaries for wildlife and biodiversity, including fungi and invertebrates, providing undisturbed habitats even during active forestry operations.

In addition, timely management of ponds, glades, woodland edges, and rides provide habitats for amphibians, small mammals, ground flora, invertebrates, and foraging areas for woodland birds. The online woodland management tool, myForest (**myforest.sylva.org.uk**), facilitates this approach to woodland management by incorporating all niches in a woodland, including, for example, ponds and rides.

Protected species and legal considerations

England and Wales have a poor and declining level of biodiversity, however, woodlands have habitats that provide sanctuary for a myriad of species. Some species, such as bats, dormice, and certain birds, are legally safeguarded under various wildlife conservation acts. Ground flora, fungi and invertebrates are also crucially important elements to woodland biodiversity and resilience and are also covered by legislation. Consequently, any forestry operations must adhere strictly to legal frameworks that protect these species and their habitats. Informed management, as outlined in this advisory note, can enhance the biodiversity of woodlands.

For example, the Wildlife and Countryside Act 1981 (legislation.gov.uk/ukpga/1981/69) and the Conservation of Habitats and Species Regulations 2017 (legislation.gov.uk/uksi/2017/1012/contents/made) provide clear



directives for protecting species and their habitats. These laws dictate specific periods, such as bat hibernation or bird nesting seasons, during which forestry operations must be restricted or conducted under stringent guidelines to prevent harm to these protected species. See Further Information for a summary of details of these Acts.

A summary of the guidance to manage and protect wildfire in a woodland context can be found on the Forestry Commission website: **gov.uk/guidance/manage-and-protect-woodland-wildlife**

Wales: naturalresources.wales/guidance-and-advice/environmental-topics/woodlands-and-forests

In some cases, a Wildlife Licence will be required. This is separate and in addition to a felling licence.

These site links provide the relevant Wildlife Licence guidance for England and Wales:

England: gov.uk/guidance/manage-and-protect-woodland-wildlife#apply-for-a-wildlife-licence

Wales: naturalresources.wales/guidance-and-advice/environmental-topics/woodlands-and-forests/check-if-you-need-a-wildlife-licence-during-forest-operations

For further information on regulatory provisions in the legislation, please refer to the end of this Note.

Non-regulatory considerations in the timing of forestry operations

Skills availability in the forestry sector

There is a shortage of skilled forest workers at times of the year crucial for forestry operations. This is in part due to the prevalence of the seasonal nature of forestry work, coupled with a lack of woodland work at other times of the year. If there is only work for part of the year, forest workers will leave the sector. There is therefore a problem of retention and a consequent shortage of forest



contractors at peak winter times and this contributes to constraints on the timeliness of forest operations.

Forestry operations that can be conducted in the summer months, following an appraisal of the presence of wildlife, particularly EPS, include: pruning, selective thinning, timber processing and extraction, spraying, surveying, track/access/ride repairs, ditching, guard maintenance, beat-up surveys, clearing windfall/dangerous trees and site preparation. That said, smaller woodlands are unlikely to support continued operations, both in terms of actual practical activities and finances.

Continual operations are connected more with larger estates and farm operations. One way of overcoming this issue of sustainability of forest work and forestry operations is the linking up of woodlands and their management: coordinating with contractors, available machinery, and knowledge between neighbours and through the landscape.

The condition of the ground and disturbance to the woodland by forestry operations

Summer operations risk disturbing nesting birds, bats' maternity roosts, invertebrate life cycles and ground flora. That said, forest extraction operations are best conducted when the ground is firm – either dry in the summer or conventionally when frosted/frozen in the winter.

The rule of thumb has been winter felling, summer extraction, depending on the condition of the ground. However, climate change is having an effect on the conventional seasonal weather patterns, with a new pattern of late summer and autumn storms, and far fewer heavy frosts. These heavy rains leave potential for track and infrastructure damage and massive soil and tree root damage in woodland stands. Timber/wood removals need to be run whilst localised soil conditions allow progress without unacceptable damage at site level.

Foresters should no longer be held hostage to a seasonal dogma of operations that is in the process of being replaced by the operational reality of climate change in the UK. For example, in lowland England there are so few lasting hard frost events, it's now a risk that a forest contractor may be working on ground that is thawing, which will create huge and permanent damage. With correct ground conditions, some measures such as track mats, brash mats, and other protection can also be used to protect the ground. Some minor ground



disturbance, however, can be a good thing – bare ground for seed germination, water pools for invertebrates etc. In essence, however, the recommendation now, due to the emerging impact of climate change, is far more to assess the local site and ground conditions, no matter the season, than to adhere doggedly to traditional seasonal norms for forestry operations.

Stakeholder engagement and adaptive management

The success of timing forestry operations in woodlands is contingent on effective communication and collaboration among stakeholders. Engaging with forestry professionals, local conservation groups, communities and neighbours, as well as regulatory bodies is crucial to developing adaptive management plans. These plans should incorporate monitoring data (see Woodland Wildlife Toolkit: Assessing your Woodland's Condition, at woodlandwildlifetoolkit.sylva.org. uk/assess and Small Woods: How to conduct a woodland assessment for biodiversity, available at smallwoods.org.uk/mercian), and local knowledge to continuously refine the timing of operations in line with wildlife needs.





Regular monitoring and assessment of the woodland ecosystems pre and post-operations are essential to gauge the effectiveness of the timing and identify any unintended consequences on wildlife. Adaptive management allows for flexibility, enabling adjustments to be made to future operations based on these observations.

Conclusion

The optimum timing of forestry operations in woodlands in England and Wales demands a delicate balance between meeting your principle management objectives and safeguarding wildlife, including protected species (see Small Woods: Managing Woodland for Biodiversity and Products, available at **smallwoods.org.uk/mercian**).

It necessitates a comprehensive understanding of seasonal variations, adherence to legal frameworks including felling licences and the protection of wildlife, adoption of integrated forest management strategies, and active stakeholder engagement. By effectively planning and executing operations with consideration for wildlife needs, it is possible to achieve sustainable forestry practices that conserve biodiversity, as well as your overall objectives, and by so doing contribute to the long-term sustainability of these precious ecosystems.

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Further information

Summary of provision in the relevant Acts

Forest owners, managers and contractors must comply with regulations as specified in Wildlife and Countryside Act 1981.

The Acts provide for the protection of wildlife species and habitats when you're managing woodland and planning forestry operations. Certain species are, in addition, designated as European Protected Species (EPS) listed in the Conservation of Habitats and Species Regulations 2017.

Under these regulations, it is an offence to:

- deliberately capture, injure, kill or cause significant disturbance to a protected species
- deliberately destroy the eggs of a protected species
- damage or destroy protected species' breeding sites or resting places (such as a bat roost in a tree or a dormouse nest on the woodland floor).

You must carry out planned operations carefully, making the necessary checks, and you may need a wildlife licence (see below) in certain circumstances. If you follow Good Practice, you should be able to carry out most activities without the need for a licence – but to do so you may just have to modify or reschedule some of your management proposals or practices.

Detailed advice can be found on the Forestry Commission website - see web links in section on legal requirements.

Wales: Natural Resources Wales / Protected species: forestry and woodlands

naturalresources.wales/guidance-and-advice/environmental-topics/woodlands-and-forests/check-if-you-need-a-wildlife-licence-during-forest-operations

The habitats regulations (The Conservation of Habitats and Species Regulations 2017) give legal protection to protected species wherever they are found in Wales. Many of the species covered by these regulations are found in woodlands. As a result, there are certain implications for the management of those woodlands and the forestry operations carried out in them.



Legislation specific to birds

All wild birds, including non-native species, in Great Britain are protected under the Wildlife and Countryside Act 1981 (as amended). This includes even common species like pigeons, blackbirds and magpies. Further protection is given to some rarer species and to species vulnerable to disturbance and/or persecution. This is done through various schedules attached to the Act.

For any wild bird species, it is an offence to intentionally or recklessly:

- kill, injure or take a bird
- take, damage, destroy or interfere with a nest of any bird while it is in use or being built
- obstruct or prevent any bird from using its nest
- take or destroy an egg of any bird.

For any wild bird species listed on Schedule 1, it is an offence to disturb:

- · any bird while it is building a nest
- any bird while it is in, on, or near a nest containing eggs or young
- any bird while lekking
- the dependent young of any bird.

For any wild bird species listed on Schedule 1A, it is an offence to intentionally or recklessly harass any bird. For any wild bird species listed on Schedule A1, it's an offence to intentionally or recklessly take, damage, destroy or interfere at any time with a nest habitually used by any bird.

It is also an offence to:

- possess or control a living or dead wild bird
- possess or control an egg of a wild bird (or any such derivatives)
- knowingly cause or permit any of the above acts to be carried out.

There are additional offences in relation to:

- use of prohibited methods of killing or taking wild birds
- the sale of live and dead wild birds listed on Schedule 3
- the registration and keeping of captive wild birds listed on Schedule 4.



Exceptions to these offences include the shooting of certain Schedule 2 species outside the closed season. Read the Wildlife and Countryside Act 1981 Schedules 1, 1A, A1, 2, 3 and 4.

The Acts make provision for non-natives and invasives, which can be culled, under licence where they pose a significant threat to native species, crops or air safety.

European Protected Species

In addition to legislation specific to birds, certain species found in the UK are protected under European Protected Species legislation. These species are listed as 'European Protected Species' (EPS) under the Conservation of Habitats and Species Regulations 2017. They also receive additional protection under the Wildlife and Countryside Act 1981.

These are 17 species of bat, hazel dormouse, great crested newt, otter, sand lizard and smooth snake.

It is an offence to: (a) Deliberately capture, injure or kill any wild animal of a European protected species (b) Deliberately disturb wild animals of any such species (c) Deliberately take or destroy the eggs of such an animal, or (d) Damage or destroy a breeding site or resting place of such an animal.

National guidance and decision trees are provided by the four UK forestry administrations to aid in the planning of forestry operation whilst protecting EPS.

For example, the European Protected Species and Woodlands Operations checklist:

assets.publishing.service.gov.uk/media/5ac6308f40f0b62272a6156d/eps-checklist-v4.pdf

The Protection of Badgers Act 1992

Under this legislation, offences include:

- Taking, injuring or killing badgers
- Cruelty
- Interfering with badger setts
- Selling and possession of live badgers
- Marking and ringing.

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