



Woodland management: rides, glades and coppice



Carpet of bluebells in recently coppiced woodland © A.Waite

Kent is one of the most wooded counties in the South East, with well over 45000ha of woodland ranging from sweet chestnut coppice and wet woodland to lowland beech and yew woodland and mixed broadleaved woodland. Many factors will come into play to determine why a woodland has evolved in a particular manner and what species are present: geology, soil type, drainage, aspect, present and past management, isolation from other woodlands, and presence of browsing animals such as deer, to name but a few.

This leaflet is designed to give you a broad introduction to the benefits of coppicing and the creation of rides and glades and covers some of the main issues to think about. However, you are advised to seek professional advice before starting any management work such as coppicing.

Why manage woodlands?

For many centuries, our woodlands were intensively managed to provide coppice and timber products such as fencing materials,

timber for construction, firewood and food such as cobnuts. Contrary to popular belief, most of the woodlands which we know so well today have come about as a result of being managed, and the wildlife which we have come to associate with this particular habitat will gradually disappear if these woodlands are no longer managed.

Coppicing is a traditional management technique which can rejuvenate a tree and allow it to last for many years and provide further crops of timber or wood. Some of our oldest trees may be coppice stools rather than single stem trees (known as a 'standard').

Both coppicing and the creation of rides and glades mimic natural processes of fires and storms (such as the 1987 hurricane) which open up expanses of woodland to sunlight, allowing ground flora to flourish, taller grassland areas to thrive, and fallen trees to rot down. Eventually, scrub takes over, saplings grow, and the woodland canopy closes up again. All of these areas provide unique habitats for an array of species.

This advice sheet contains information about the following topics:

- why 'manage' woodlands?
- management of woodland: introducing more sunlight by opening up the canopy
- species which benefit from coppiced woodland, rides and glades
- before starting any work
- creating and managing rides & glades
- coppicing
- grants and felling licences
- legislation and other considerations
- protected species
- further reading and references
- further advice



Silver-washed fritillary © B.Chapman



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Male slow-worm © Dr Lee Brady



Dormouse © Kent Wildlife Trust



Nightingale © Amy Lewis



Violets © Kent Wildlife Trust

Management of woodland: introducing more sunlight by opening up the canopy

As a general rule, woodlands which are structurally diverse and have a wide range of micro-habitats tend to have more biodiversity. Structural diversity means that there are, for example, trees of different ages (which is not the case in a beech or conifer plantation), but also different physical 'layers': leaf litter and soil, ground vegetation, understorey of saplings and shrubs, taller coppice and young trees, and then the woodland canopy. Micro-habitats include standing and lying deadwood, damp and shady areas, sunny, sheltered glades, scrub, ponds, standards (single stem trees or timber trees as they are sometimes known), veteran trees, pollards and coppice stools.

Research indicates that many species prefer to live in the first ten metres from a woodland edge, where there is more sunlight. Coppicing and creating rides and glades can enhance the biodiversity of a woodland by increasing the levels of light, rejuvenating individual trees and allowing shorter vegetation and shrubs to grow, thus creating more structural diversity and micro-habitats leading up to the edge of the taller trees.

Species which benefit from coppiced woodland, rides and glades

Many species groups will benefit, including dormice and other small mammals, dragonflies which forage for insects along woodland rides, birds such as nightingale and chiffchaff, and reptiles which like to bask in the shorter, warmer grassland areas (with scrub and tall grassland for cover nearby). Butterflies and moths will benefit from an increase in wildflowers and grasses, since

many species have very specific larval foodplant requirements (for example, the caterpillars of the silver-washed fritillary feed on common dog-violet) and are reliant on nectar for food. Other species such as bumblebees will also benefit from an increase in nectar and pollen-rich plants. Bats do forage for insects along woodland rides but be aware that some species prefer closed canopy and dense understorey and will not benefit from opening up woodland.

Before starting any work

Before undertaking any management work, you need to check what plant and animal species are currently present on site to make sure that any work will not adversely affect some rare and protected species. Woodland plant species (including lichens, ferns and mosses) which have taken centuries to build up can be very quickly impacted by heavy machinery, changes in light conditions and competition from faster growing species such as grasses and bramble. Other species such as bats can be inadvertently affected if the ambient conditions surrounding a bat roost tree are altered.

Key information gathering and planning can include:

- looking up historical and habitat information for your woodland, which may give you clues about past management. The Kent Landscape Information System website (<http://www.kent.gov.uk/klis/home.htm>) provides maps going back to 1870 and shows which woodlands are designated or classified as Ancient Semi-Natural Woodland (at least 400 years old).
- contacting the Kent and Medway Biological Record Centre <http://www.kmbrc.org.uk/> to find out about any wildlife records for your site

- starting to build up your own records (please read our advice sheet *Recording wildlife: getting started*)
- obtaining professional advice from organisations such as Kent Wildlife Trust
- writing a short management plan (2-4 pages), with a map showing what work you intend to do and in which years (see section on 'Grants and felling licences')
- if there are archeological features on your land, such as internal woodbanks or charcoal pits, then you need to be careful how you undertake the management of any trees that are growing on those features and should seek expert advice (see 'Further reading'). Inappropriate management such as using heavy machinery can cause compaction and other damage.

Creating and managing rides & glades

A ride is a linear trackway designed for access; depending on management, it can have several zones: a central track or pathway, some taller grassland areas either side and then some shrubs and bramble thicket grading into the taller woodland trees. Glades are openings within a woodland, and can either be coppiced or left as grassland and scrub. Where possible, glades and rides should link up to create wildlife corridors. It may not be appropriate to create large glades or wide rides in small woodlands; creating



Even narrow grassy paths can benefit wildlife
© J. Weightman



Scallop along woodland ride
© J. Weightman



Zoned woodland ride management
© Kent Wildlife Trust

'scallops' along narrow paths and rides can usually offer a suitable alternative.

- where possible, create or manage rides running east to west since these receive more sunlight; however, you may need to work around historical pathways already present
- think about prevailing winds to make sure that a ride does not act as a wind tunnel with potential for damage to trees
- avoid introducing new wildflower seed or saplings: regeneration is generally better and will ensure that only adapted, local species can grow. There are often many bulbs and seeds in the ground just waiting for the opportunity to flower, given a little sunlight and space.
- manage any scrub growth by cutting one third of the scrub every 3-5 years or so between November and February (this will ensure nectar and berries are available every year)
- cut the central part of the ride short on a yearly basis, at the end of the summer
- cut longer grass areas on a three year cycle, as for scrub

Coppicing

Coppiced woodlands can include pure coppice or coppice with standards. Not all woodlands have been coppiced in the past and you should only consider re-introducing a coppicing regime to woodlands which have been coppiced in the last 60 years



Coppicing a woodland will dramatically alter the look of the woodland, at least for the first two or three years © Kent Wildlife Trust

or so. You may also wish to consider how your woodland fits into the wider landscape: if several adjacent landowners are already coppicing large tracts of woodland nearby, there may be less need to reinstate coppice on your land.

- coppicing involves cutting each pole (stem) on the stool (stump) as close to the ground as possible, at an angle. Most species will respond well to coppicing, given the right conditions, although species such as oak and beech are very slow growing and therefore tended to be left as timber trees.
- depending on the species, the coppice will need to be cut again every 5-20 years
- as a rule, the area to coppice (a coupe) should be between 0.25 and 1 hectare; any smaller and the coppice will be in the shade and not grow well; rotate coppice areas within your woodland to create a chequerboard effect

- if the woodland is very small, it may not be appropriate to coppice the required minimum area; however, one can get around this by creating a shallow coppiced 'scallop' along the woodland edge or ride (preferably running east-west)
- the regrowth can be particularly vulnerable to browsing from deer or rabbits (deer in particular since they are taller and can reach the regrowth for the first two or three years); repeated browsing can kill the stool. Please see Further reading.
- it is better to allow natural regeneration to take place if you would like to diversify the species in your woodland; however, if you do wish to plant some new saplings, make sure they are of local provenance and suitable for your soil and woodland type



Recent coppice © R. Jarrett



Very old hazel coppice © A. Waite

Grants and felling licences

You may be able to apply for a grant from the Forestry Commission for writing a management plan and for certain types of management work. Please visit the Forestry Commission's Grants and Regulations in England, Land Information Search (LIS) and Felling Licences webpages at <http://www.forestry.gov.uk/> to check on current regulations and schemes in your area, as well as for advice on the maps you will need to submit with your application. Please note that felling work will usually require a felling licence and we would recommend only carrying out the work out between November and February.

Legislation and other considerations

- if the site is designated (e.g. a Site of Special Scientific Interest or Ancient Semi-Natural Woodland) or included in a government scheme such as the Environmental Stewardship Scheme, you will need to follow the guidelines set out in any agreements
- all contractors working on the site must wear adequate personal protective equipment and adhere to all health and safety requirements set out in law or regulation, in particular The Health and Safety at Work Act 1974 and The

Management of Health and Safety at Work Regulations 1992.

- check that your contractor is aware of regulations concerning protected species and designated sites
- if you are buying a woodland, check with your solicitor whether any obligations will be transferred from the previous owner
- for sites with public access or which are very visible to the public, you may wish to inform the public in advance of the work and explain why it is necessary
- there are a range of pests and plant diseases which affect woodland and may need to be taken into account (eg. ash dieback).

Protected species

A number of species such as the hazel dormice, breeding birds, great crested newts and all bat species are protected by law and you need to make sure that you are complying with all relevant regulations before doing any habitat management work. A good place to start for more information is to look at the Natural England Protected Species List and Frequently Asked Questions webpages, available here: <http://www.naturalengland.org.uk>. Alternatively, contact your local Natural England office and explain what surveys or management work you are planning to do.

Further reading and references

Forestry Commission Practice Guides on a wide range of topics are available to download for free or buy a hard copy. Call Forestry Commission Publications on 0161 495 4845 or look online at <http://www.forestry.gov.uk/website/publications.nsf/>

Forestry Commission. (2009)

So, you own a woodland? Getting to know your wood and looking after it. An excellent (free) 37 page booklet giving a broad introduction to most aspects of woodland management.

Kent Wildlife Trust

Land Management Advice Series
Woodland management: control of rhododendron and cherry laurel.

Rackham, O. (2001)

Trees and Woodland in the British Landscape. Published by Phoenix Press, London.

Small Woodland Owners Group

website and monthly newsletter with information about woodland management, events, contacts and much more www.swog.org.uk

The Conservation Volunteers

Woodlands: a practical handbook and other handbooks available to buy from <http://store.tcv.org.uk/>

South East Woodland Archeology

Forum: archeological feature identification toolkit available to download from <http://www.sewaf.org.uk/surveying-and-lidar/id-toolkit/>

Obtaining further advice

For further information, please contact the Trust's Land Management Advice Service by calling 01622 662012 or by emailing info@kentwildlife.org.uk



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