

## *Enriching woodland for wildlife*

– some practical tips to increase biodiversity

One of the joys of trees and woodlands, whether your own or in the countryside at large, is that they add hugely to the richness of wildlife. There are several reasons, both familiar and perhaps surprising. Long-lived trees, and stands of trees in woodlands, add structure and variety of habitat, almost a third dimension compared with a field of wheat or grassland, and they offer countless niches<sup>1</sup>. Also, woodlands are often some of the least spoilt elements of our natural heritage with many of them, known as ancient semi-natural woodlands, always having been under trees and so providing a direct link to the ancient 'wildewood' that once covered two-thirds of Britain. And woodlands, compared with farms and gardens, rarely have pesticides, fertilisers, or other chemicals inflicted on them in the course of management: or if they do it is only once or twice in 50 or even 100 years at the time of initial planting. To this can be added that often rides in woodlands, having never been cultivated or ploughed up, can in

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<sup>1</sup> Ecologists use 'niche' to describe the type of home or environment an organism needs in order to thrive.



the less shaded parts be refuges for wild flowers of meadow and hedge bank. Woodlands are havens.

If there are such benefits, how can one make the most of them? How can tree and woodland management enhance wildlife? We will try and answer these questions by looking at three kinds of site, though in each case practices for one will usually be applicable to one or both of the others.

Before we start, a brief comment on why complete neglect isn't often best for wildlife. Quite apart from the danger of leaning trees, fallen branches and other hazards, years of neglect cause rides to become filled in, glades overgrown, aliens such as grey squirrels and muntjac to run amuck browsing or gnawing everything in sight, or non-native trees such as the common Turkey oak or the invasive western hemlock to dominate. I exaggerate, but only a little. The point is that frequently the net effect of neglect is less variety in structure, fewer wild flowers on the woodland floor, and, overall, less rather than more diversity.

## **Ancient woodlands**

Ancient woodlands are more properly called ancient semi-natural woodlands (ASNW) since all woods in Britain have been disturbed to some extent by man, by operations such as coppicing and pollarding. However, they are often the most valuable woodland type for wildlife. This is because the land has always had woodland cover and thus usually possesses a flora that is both rich and also often of plants only found in such places. 'Always' is actually defined! Land believed to have been under woodland since 1600 (1750 in Scotland) is likely always to have been wooded; that is how 'ancient' is defined. The countryside agencies like English Nature, Countryside Council for Wales, and Scottish Natural Heritage, maintain details county by county of all woodland considered to fall into this category of ancient.

If you haven't checked before, do find out if the woodland you own is ancient. You will usually be blessed by abundance and variety of wildlife – some ASNWs have over 200 species of flowering plants alone – and also 'blessed' with a little extra red tape with what you can do with it!



*The lovely yellow archangel often indicates  
an ancient woodland site*

Two of the features of many ASNWs point to ways that all woodland can be enhanced for wildlife.

- Firstly, many such woods have mature, over-mature, dying and fallen trees which provide countless niches. Holes in trees for nesting and for bats are an enormous boon and fallen, rotting wood – dead wood – provides habitats for countless invertebrates. Such conditions are rarely found in the plantations of tidy minded foresters, not to mention one's own garden. Deliberately encouraging such tree and woodland conditions, by extending rotations and not rushing to clear up fallen timber, are useful ways to promote biodiversity.
- The second feature is that many ancient woodlands will have been managed in traditional ways. Today's preponderance of growing trees all together to large size, 'high forest' as it is called, was the exception in the middle ages. Most woodlands, as we mentioned in an early chapter, were kept quite low by coppicing to provide the small sized wood products then in demand. Resumption of these traditional practices, mainly coppicing and pollarding, keeps alive the wildlife so long associated with them. The influx of light and warmth to the forest floor stimulates dormant seed to germinate and results in the magnificent show so often encountered in the



years following a coppicing. It is one of the glories of England! So exclaimed that irascible, itinerant farmer and politician of the early nineteenth century, William Cobbett, in his *Rural Rides* 'What in vegetable creation is so delightful as the bed of a coppice bespangled with primroses and bluebells?' The regular and cyclic cutting of coppice allows such flowers and the associated wildlife to flourish. The clearing of the ground, the letting in of light, and the replenishing of the seed bank in the soil every 15 or 20 years, creates this glory of God's creation, artificial though the management is.

If coppicing is resumed plan to do it in a succession of areas at intervals of a few years. Butterflies, such as some fritillaries, thrive only in recently cut areas so to maintain a population one needs sunny glades, freshly cut coppice and for track and rides to be the corridor that connect them.

There is, of course, much more to ancient woodland, but highlighting some of the reasons why they are rich and good for wildlife helps us to know how we can make use of such practices more generally.

## Recent woodlands

Recent woodlands are ones known to have been established on bare land. This is the case for much of my own wood that was first planted in the 1880s on former farmland. However, before turning to these, some readers may be wanting to remonstrate with me for not commenting on a third key feature of ancient woodlands, that is they are almost exclusively of native tree species. This is undoubtedly correct, but as a reason for their being rich in wildlife it is less significant than is often suggested. The late Sir Richard Southwood's seminal work in the 1960s showed a significant correlation between variety of insects and tree species, in particular how long the species was believed to have been part of Britain's flora. Oaks, an early arrival, possessed hundreds of associated insects while recent introductions, such as many of our commercial conifers, only 30 or 40. However, this genuine correlation has many anomalies. For example, native beech and ash are inferior in insect species diversity to some recent exotic introductions. Indeed, assessments show that the southern beeches (*Nothofagus* spp.) from



Chile and Argentina, which have only been planted in the British Isles for about 100 years, support far more diverse populations than common beech, and are only exceeded by oak itself. And talking of common beech, it is thought with good reason only to be native in Britain south of the M4 corridor, though not as far west as Cornwall, possibly in Essex, and also in the county of Gwent in SE Wales. Some question whether it is native at all, but rather a very early introduction in Bronze age times.

The point is that far more important than tree species appears to be structure in woodland. It is uniformity that is unattractive to wildlife. Each of the following adds diversity.

### *Glades*

Ensure that woodland has some glades open enough to encourage sunlight on to the ground. Around these glades shrubs will grow and this will increase habitat known beneficially as 'edge effect'.



*Woodland glade showing sunny open area, shrubs, and tall trees which is ideal for wildlife and pretty good for a picnic site too*

### *Rides*

As with glades, make sure some rides are open and allow plenty of light and warmth. They will be sunniest if running East – West. Don't cut both sides of a ride every year but alternate the side for cutting to allow ride-side plants to flower and set seed. If there are



no glades, add them to rides by opening up a bay every so often that can double for wildlife and somewhere to store cut timber or as a campsite. Make such 'scallops' about one tree height distance into the adjoining stand.

### *Ponds*

If your wood is without open water why not consider constructing a pond?

### *Thinning*

Neglect of thinning is the scourge of many woodlands. Thinning out poorer trees will help the remainder to grow better and will open the canopy allowing sunflecks onto the forest floor. It transforms a dark stand of trees into a more open and usually beneficial environment for wildlife. You don't need to thin out every unwanted tree. Any that are not interfering with good trees you can retain. In the beech stands in my own wood I have left many small, suppressed trees to create patches of two storey forest just to add structure.

### *Sow wild flowers*

Recent woodland is often impoverished and the addition of common wild flowers such as scabious, bellflower and red campion, can be achieved by sowing seeds. Research in the 1980s by Dr Joanna Francis and others has shown how successful this can be. Visit the new woodlands around the new town of Milton Keynes and you'll be surprised by the displays of flowers on the unpromising clay soils. Buy seed, plants or bulbs from reputable suppliers able to provide material of known British origin.

### **New sites**

As a reminder of what we said before about planting a new wood, lay it out so that wet areas, stream sides, rocky sites and other interesting wildlife-rich features, including bits of woodland, are left untouched. Retain hedges, ditches and banks and, of course, all archaeological features. If there are mature trees, retain these as

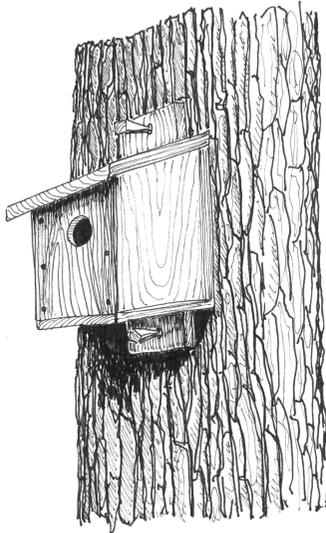


well. In addition make provision for wide rides and glades right from the start. Plant native tree species if you want to, but also add some shrubs such as hazel, hawthorn and even spindle tree with its lovely November display of tiny pink and red fruits.

## **Trees**

### *First, health and safety*

For much wildlife, the ideal is for trees to grow as large as possible and live for as long as possible, but this can lead to unacceptable conditions for safety! You can't have a large, old tree decaying and falling apart right next to your entrance or overhanging a road where it is a hazard. And the expense of employing tree surgeons to reduce or thin dangerous crowns to prolong a tree's useful life is usually out of the question. Once holes develop in trees they often indicate decay within and increased hazard without. However if the tree represents no threat, leave it for the abundance of nesting sites it provides, the preserve of beetles, and the substrate for fungi and micro-organisms of all kinds. If it must be cut, you can always put up nest, bird or bat boxes, leave the trunk as a rotting hulk and the branch wood as deadwood habitat on the ground.

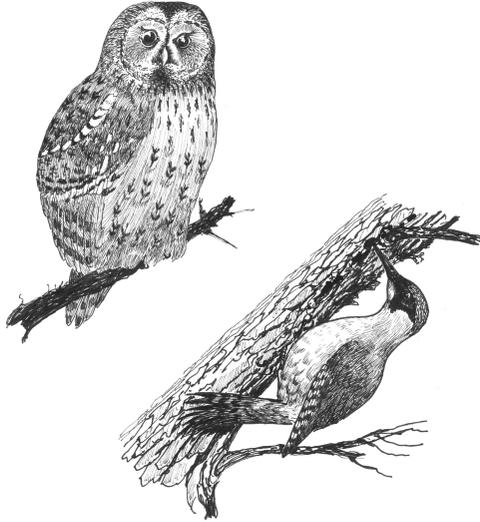


*Nesting box suitable for tits. Remember to clean the box out early in winter*



*Dead trees and snags*

Once a tree dies it doesn't mean the end of its usefulness for wildlife. Indeed, while it stands – what Americans call 'snags' – raptors (birds of prey) will use it as a perch, owls will nest in cavities, woodpeckers will seek out insects, and those lower down the food chain will benefit in consequence. When safe to do so, and when not wanted for other purposes, leave dead trees standing.



*The tawny owl and the green woodpecker are just two of the many birds that value dead and dying trees full of holes and cavities*

*Ivy*

There is no need to cut ivy away from a tree. This climber provides splendid cover in winter and whenever possible should be retained. It seldom harms the trees it climbs up.

*Resuming pollarding*

Sometimes old and long neglected pollards can be brought back into cycle, but the key appears to be to leave one living limb attached while the recovery phase lasts. Cut back branches to just outside of where they were last removed and hope that adventitious buds (new buds which often develop in the callus tissue at a cut) will do the rest. Success is not guaranteed. If it does



not work, you still have a large trunk that becomes a 'snag' and will benefit wildlife in different ways.

## **Conclusion**

To sum up for woodlands generally, wildlife is helped by providing diversity of habitats by:

- conserving existing natural features;
- allowing trees of all ages and conditions;
- protecting any really ancient trees;
- avoiding uniformity and encouraging varied structure;
- resuming practices such as coppicing, pollarding and thinning;
- providing areas of light and dark – glades, open rides;
- leaving some dead trees standing and creating deadwood piles;
- deliberately adding wild flowers in to recent woodland;
- excavating a pond.

Do all the above and you will be a blessing to our wildlife and to all of us who enjoy the countryside. And since badgers love an undisturbed corner of a wood a few yards in from a field for their sets and love mushrooms and toadstools for food, they may even turn up as a 'thank you' for all your hard work and your blisters!



*Food for thought: a badger eyeing a cluster of pixy-caps*