

Badgers, Beeches and Blisters

Badgers, Beeches and Blisters

Getting started in your own wood

JULIAN EVANS

With illustrations by JOHN WHITE *and* STEPHEN EVANS

In partnership with Ownwood Ltd.
www.woodlands.co.uk

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Foreword

We are delighted that Julian has offered to write this book. He has a unique combination of unrivalled silvicultural knowledge and personal hands-on experience. He was for many years the Forestry Commission's Chief Research Officer. This he combines with twenty years of personal ownership of a small wood, where he has experienced many of the pleasures and tribulations that affect other owners. With his background knowledge he was able to overcome most (though not all!) of the obstacles, and to enjoy more deeply the satisfactions. Here, he shares with us his expertise and his enthusiasm.

Our company aims to make available affordable small woodlands for conservation and enjoyment. In the past few years, we have been seeing local authorities, English Nature, and the Forestry Commission increasingly value the contribution made by small woodland owners to the proper management of native woodlands.

Our purchasers come from varied backgrounds, but all share a love of the natural world and a wish to own and preserve part of this country's rich natural heritage. We have worked hard to build up a library of useful information and contacts on our website. This book will be the jewel in the crown. We recommend it to all with the interests of woodlands at heart. It is also freely available in full on our website www.woodlands.co.uk

Margaret and Alastair Hanton,
Directors of Ownwood Ltd.

*Owners of a small wood
in East Sussex for
the past thirty years.*

Preface

Margaret Hanton and I were chatting in the 'Woodlands for Sale' tent at the Weald Wood Fair in 2004 when the idea for this book arose. She was there as proprietor meeting past and future purchasers of her company's woodlands and I was kindly given space to sell *What Happened to Our Wood*, the second book about my own wood. I was also someone who could tell enquirers what owning a small wood was really like. We complemented each other. As we mulled over the usual questions people asked, the idea grew that a readable, accessible book could not only meet many of the queries new or aspiring owners would encounter, but, importantly, set them on the right path towards woodland management.

We teamed up: Ownwood (www.woodlands.co.uk) as the sponsors, I as the author and publisher.

What we hope to achieve is a short book that, first and foremost, is enjoyable to read. The book must be factually accurate as far as we can ensure and address just the sort of questions an owner starting out might wonder about. More than that the book should become a friend as the adventure of buying and caring for your own patch brings the fun as well as vicissitudes of ownership. So we hope you will find this book full of information but not overly full of endless lists and instructions; we want to help get you started, not prescribe everything in manual-like detail. You will need more information and so we have provided plenty of suggestions for further reading, organisations to join, and websites to visit.

Enjoy your wood. Both the Hantons and I have owned our woods for many years, which is why we are so enthusiastic and want to help you in the best way we can.

Julian Evans
March 2006

Acknowledgements

I am greatly indebted to Esmond Harris and Alex Argyropulo for reviewing the draft of this book and making many valuable suggestions. Margaret Hanton's comments were invariably encouraging but also constructive in helping, we hope, to achieve the right tone for our readership.

The title was undecided until a survey at the Weald Wood Fair in September 2005 clearly identified 'Badgers, Beeches and Blisters' as the one that got most votes.

I am again very grateful to John White for his wonderful illustrations although the fine ones of the tractor (page 31) and of the logs (page 84) are by my son, Stephen.

Finally, I would like to thank Margaret my wife who not only took me on after the sudden death of my late wife four years ago, but has now seen at first hand what an author and publisher does and how vexatious it sometimes can be!

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Your new purchase

I can remember lying awake the night I bought my own wood wondering, and worrying, if it would be OK. It was wholly irrational: after all the wood had survived perfectly well without me. Now I was its owner and carer and, well, it felt a little like when a new born baby has its first night at home and you tiptoe to the cot to see if the mite's still breathing. The excitement of buying a wood, of owning your own patch, is something to savour, and in a sense not worry about at all but enjoy. This short book is to help you do just that.

The early days ...

The early days of ownership are full of surprises. The changing scenes as sunshine turns to rain, your first storm with trees swaying and rocking, or your wood draped white and sparkling in a brilliant mid-winter's morning after a night of snow. The seasons themselves are counted off by flowers and herbs – primroses, bluebells, herb bennet, pimpernel in the rides, mushrooms and toadstools of autumn – by the rise and fall of birdsong and the deep silence of August, by your trees as their buds burst and new leaves build crown and canopy, and then age, turn russet, golden, or brown and finally fall to the forest floor only to begin again in



the Spring. I could go on for the seasons never fail to surprise and delight as on each visit your wood looks different or reveals a new facet – which stocks and shares can ever match that?

But surprises are not only when you get to know your wood. Even after 20 years of changing seasons we find new things. Three or four years ago it was that lovely wayside plant of central southern England, Solomon's seal, last year it was a clump of helleborine under some beech trees right beside our entrance. For several days in late May we had worked hard and raised blisters(!) setting posts, attaching rails, and replacing the main gates. During a coffee break there they were, two patches of this close relative of the orchids – wonderful, and I'd only been going in and out of the entrance for 19 years! A surprise of a different sort is learning that yellow archangel isn't simply a golden version of the similar looking white dead nettle, but an indicator of ancient woodland habitat, and discovering that muntjac deer devour bluebells and target the best patches of cowslips.

You will realise I am a bit of a fan of wildflowers. But we have buzzard nesting though they haven't always, badgers are in the vicinity but not yet active in the wood, a marsh tit was spotted by friends only this year, orange-tip butterflies herald Spring warmth, and deer, both roe as well as the wretched muntjac, are increasing. A wood is never static, it is forever variations on a theme.

Being creative ...

The pleasure of wildlife, of being in the country, need not exclude more down to earth interests of cutting firewood, gathering pea and bean sticks or growing useful timber. Unlike a farmer's field devoted exclusively to wheat or oilseed rape, your wood can meet many needs simultaneously, and we will return to this theme as a helpful way of thinking about woodland management. The pleasure this brings is that while you can enjoy the changing scenes in your wood from the weather, the butterflies, birds and flowers in their season, you can also create change. You can plant, and fell, you can pollard and coppice, you can deliberately leave piles of dead wood for beetles or open up glades for picnics and even dig ponds. The scale of such interventions needn't be timid, indeed they usually shouldn't be. It's a question of confidence. A wood is so permanent, trees are so tall and timeless, dare you



interfere? Yet interference, informed interference if you like, is just what many woodlands cry out for to help regenerate them, to help maintain the very diversity you are afraid of losing, and even to earn some money. Over the years our patch has more than 'washed it face' financially, but for many that is not an important consideration. Walking the dog, camping with the kids, pretending to be Ray Mears, fashioning your own rustic furniture, or having your own resource for woodturning are all reasons enough.

The possibilities of your new purchase are almost endless. There's getting to know your neighbours – always good to be on friendly terms – finding out who locally has special knowledge to help, who in the county can provide advice, is there a farmer who can mow or swipe the rides in summer in exchange for some Christmas trees in winter and so on. And have you a skill to offer or now, with your wood, a place to invite friends and family to?

But how much time does it take?

I often give talks about our wood and the most frequently asked question, by quite a long way, is how much time do you have to spend there or how much time does it take to look after properly? There is no fixed answer. Unlike a dairy farmer's daily necessity of milking cows, a woodland can be left, and left, and left – though presumably you won't be enjoying it as much as you might! Apart from checking the entrance, which someone else can always do for you anyway, or occasionally visits for pest control if you have a particular problem such as grey squirrels, there is nothing in woodland management that requires you to visit this week or this month. You may choose to, but will not have to. You can visit your wood when you want to, not because you must.

In answer to the question for myself, over the years I have probably averaged half a day per fortnight in my 30 acre wood. This is very frequent because, as I suspect you already appreciate, my wood is my hobby and I derive hours of pleasure from caring for this gift God has entrusted to us. I can honestly say that I have never found it a chore to visit my wood: I hope you find the enjoyment of yours as rewarding.



The handsome nuthatch forages in cracks and crevices in the bark mostly working down the trunk, the brown and better camouflaged tree creeper does this only going upwards

First steps

To care for a wood, indeed to enjoy it to the full, you need to get to know its ins and outs, literally as well as figuratively! Like a new house it's more than knowing the number of bedrooms or how modern the kitchen is: just as you would look into hidden corners, poke into places not usually probed and actually investigate what's behind the garden shed, it is good to take time to become familiar with your wood. Of course, it is possible to ask a forestry consultant to prepare a report, like a surveyor evaluating a house, and the Forestry Commission may grant aid this and their professional descriptions and judgements are particularly valuable for matters of commerce, law or safety, but that's not quite what I mean. It is hugely rewarding to gather firsthand knowledge about your new wood: here we look at the basics. Even so, however long you own it you will always be finding new things.

Getting there

By getting there I don't mean are you making progress(!), but the business of getting to and from your wood. One of the essentials before purchase I hope you checked are your rights of access from a public highway – and we will come back to that, but as well as this there is the simple question of how far you



live from your wood? It is a more interesting matter than you might think.

If your wood is next to your home or only a mile or two distant, you can pop over at whim, walk the dog, or enjoy a picnic as fancy takes you. And it's easy to check the entrance for rubbish. The converse is that you might find yourself spending many more hours there than intended and your partner or family become whatever is the silvicultural¹ equivalent of a 'golfing widow'. Also a wood that is nearby can be readily inspected after a storm or when heavy snow has fallen, which can be important if it enjoys roadside frontage or there is a right of way through it and some clearing up is needed.

When a wood is a long way away, say 30 miles or more, then the time taken to get there becomes significant. You can't so easily make a quick visit, it is more of a planned outing or even a day trip. Now, this is not all bad since the visit takes you away from home and away from the familiar: it is more of an expedition for the kids, it is more like going on holiday. So there are pros and cons and this will, in part at least, inform the ways you intend to enjoy your wood.

There is, too, the extreme where woodland or forest has been purchased purely as an investment. It doesn't matter where it is, you can still camp there or take a caravan – assuming acres of Sitka spruce are as congenial to you as, with luck, your bank balance.

For many years my own wood was about 15 miles from my home in Alton, though in 2005 I moved house and it is now only 8 miles away. I've found that the distance of 15 miles means that you can get there in under half-an-hour, do a decent morning's or afternoon's work, and still have the rest of the day for other things. It was far enough away when going for a picnic to make you feel it was a proper outing without the boys getting tetchy in the car, but not so far that the visit had to be planned in advance. It was a nice compromise and, for me, a bonus was that my work often took me past the wood *en route* to Oxford or the West Country so I could quickly check it then as well.

¹ 'Silviculture' is the forestry equivalent of agriculture: 'agri' is from the Latin for field, 'silvi' for woodland, so silviculture is everything to do with the care, husbandry and growing of woodlands.



So, how good is the access?

The distance to your wood is a matter of convenience, getting in and out of it from a public highway is a necessity. There's obviously little point owning a wood in the middle of a field if the farmer only allows access, other than perhaps on foot, in the couple weeks in September between his harvesting one crop and sowing the next – and I am not exaggerating this has happened to some unwitting owners. To be able to manage and enjoy your wood you need good access, but what does that mean?

- First, good access means you have comprehensive rights. You should have the right to use the access road or track unhindered and uninterrupted whenever you need to. It also means you can use any kind of vehicle you might conceivably want to, such as laden timber lorries of up to 30 or 40 tons. Even if you yourself don't intend to work your wood commercially, future owners might, so securing this right of access is important.
- Secondly, good access means a track that is wide enough and without sharp bends that are tricky to negotiate. Its formation should be sufficiently load-bearing to support the biggest vehicles ever likely to use it.
- Thirdly, good access means a wide and generous entrance on to the public highway, either where your wood fronts on to it directly or where the track you have rights over meets it. Articulated lorries, or a car and caravan, cannot turn in easily. From a lane the gates need to be well set back, gate posts at least 6 m apart and the whole entrance bell-mouth opening out to perhaps 30 m across – see the illustration at end of the chapter.

I know all this is the counsel of perfection, but hopefully it will help you think what you have got at the moment and what improvements may be needed one day.

Lastly, good access means good internal access within your wood: a desirable rather than essential feature. Are there tracks and rides – these words are often used interchangeably – which allow access to all parts? Is there a turning area and loading bay beside or at the end of the main access track from the public highway where logs can be stacked or a caravan or visitors' cars



parked safely? In general, the wider the track the better. Wide tracks dry out more quickly, offer more 'edge effect' for wildlife, and are great places for kids to play.



My own entrance before it was renewed to the standard outlined here

As you get to know your wood, note these features about access and why not also think about a new footpath, perhaps with a little mystery, that wends its way passed an old wizened tree, brings you to a view, or takes you to a secret glade? I have one in my own wood, not so much by design, but the route I usually take with first time visitors or when we have an Open Day.

Public access and anyone else with rights

Your deeds should show whether there are public rights of way across your land as should the appropriate Ordnance Survey map, but the definitive statement is held at the County Record Office. I assume you have already bought the OS 1:25 000 scale (Explorer series) that covers your wood, but don't forget the larger scale 1:10 000 maps if available and even the 1:1250 as a basis for a



woodland plan or map. As an aside, you can get your very own Ordnance Survey plan from Stanfords for a basic fee of £30 with grid lines, and with contours for an extra fee. Your County Record Office will let you have copies of earlier maps – the fabulously detailed 1870 series is a must if you have an interest in your wood's history. Returning to the question of public access, whether footpath, bridleway, or byway such as a green lane, there are attendant duties on the landowner which should be checked.

However, you may discover that others have access rights either specified in the deeds or when strangers start exercising them, as happened to us! These are mostly of three kinds:

- rights to sporting, such as rearing and shooting pheasants and other game birds, taking of deer, and even rough shooting – rabbits, pigeons etc;
- where a utility crosses the land, such as electricity or telephone, and a 'wayleave' has been granted, known legally as an 'easement', which may have a few restrictions;
- specific provision for access – in my own wood Network Rail have the right at all times to visit their electricity transformer and gain access to the railway track at the bottom of the wood. They provide one of the locks on the gate and from time to time contribute to upkeep of the main track. For my part I must ensure that this track is never obstructed.

Many woods have none of these additional rights and some rights, such as sporting, may only be for a period and you, as the new owner, can usually change the terms or stop their exercise altogether.

Locks, gates and names

A gated entrance that looks tidy and well kept conveys a sense of pride, care and regular usage, all of which will help to deter fly-tipping and other rural crime. The type of gate is unimportant, but the common metal or wooden 'five-bar' gates are very serviceable and rarely appear out of place in the countryside. To deter theft, particularly of new gates, use one hinge upside down so that the gate can't simply be lifted off. A substantial lock and chain add to



security and give a business-like impression, but do make sure that all who have a right of access have a key for your lock! It's not uncommon for several owners to share access and a locked gate. Do try and get everyone zealous in keeping it locked.

If your wood has a name you can attach a board or plate to the gate, or erect a free-standing sign. Of course if you use a shared entrance this might not be possible. And there's no reason why you can't name parts of the wood inside. We now have a 'Taid's Wood' and a 'Nain's Copse' in our 30 acres named, incidentally, after my parents. 'Taid' is Welsh for grandfather, 'nain' for grandmother: the story behind these namings are in the two books I've written '*A Wood of Our Own*' and '*What Happened to Our Wood*'.

Personally I dislike signs like 'Private', 'Keep out' and the asinine 'You are being watched'. We no longer see so much the more threatening 'Trespassers will be prosecuted' apart, of course, from the pages of *Winnie-the-Pooh* and Piglet's pride in his grandfather 'Trespassers Will ...'!

Sheds and things

You don't need to have a shed in your wood since saws, axes, spades, garden chairs and other paraphernalia are all easily carried in the boot of a car. If you are there daily then a shed is convenient, but it is debateable whether it is worth locking since someone will doubtless find it and doubtless want to break in, so don't keep anything of value in it. Arguably a trailer for your car is a better investment if you are planning to do a lot of work in your wood.

That said, if you plan to spend a good deal of time at your wood, some furniture is useful. Old tables and chairs are handy, but can quickly turn a pleasant glade into a slum. Despite what I have said, it is neater to keep them in a small shed along with kettles and dishes, spare Wellingtons, tarpaulins etc. Fasten the door, but don't waste money on an expensive lock, it will simply attract not deter interest. Thieves are looking for power tools, not your old furniture!

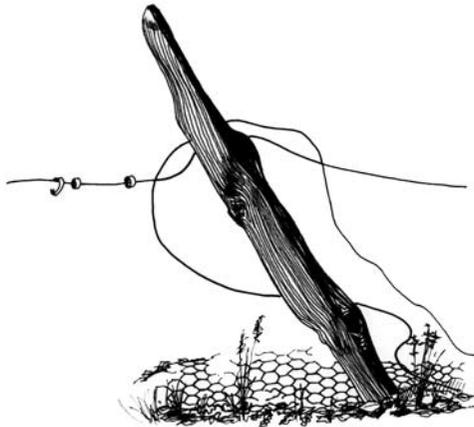
Remember that if you are planning to use herbicides or poisons, say for weed or rabbit control, then a secure, lockable safe may be required by law and is probably best kept at home in the garage.



Boundaries

Walking the entire perimeter of your new wood is one of the first things to do. It's fun. Apart from discovering remote corners, defiantly inaccessible bits, patches of nettles, and doubtless some rubbish, it will alert you to several things: what the state of the fencing is, where animals (and people) may be gaining unwanted access, any trees next to a highway that may look unsafe, whether a neighbour is using your land, and, of course, whether the line on the deeds matches where your boundary appears to be! Wear tough clothes and be prepared to fight through undergrowth in order to follow the exact course. There's no need to do it all in one go.

Maintenance of fencing will depend on need and whether your wood has a covenant requiring you to do this. This is more common than you might think since in the 1930s and 1940s, when the Forestry Commission was acquiring much land and some already established woods, as a gesture of good will it agreed to fence out a neighbouring farmers' livestock and so take on the job of fencing. It's back-to-front, after all it is the farmer's sheep and cows that move about and not trees, but quite often today part of a wood's boundary may still have a fencing covenant to be met by the owner. This may have lapsed or a change of neighbour extinguished it, but it's worth checking.



Old oak post with remnants of rabbit netting – only maintain a fence while the wood is at risk; remove if it becomes unsightly



Fencing is an interesting countryside skill. It is one that can, in time, be learned by almost anyone, but is also one where there are many contractors who will come and do a thoroughly professional job. Your main decision is whether the fence is purely for demarcation, where an attractive post and rail or simple strand wire will do, or one that is to keep out livestock, deer or rabbits in which case wire netting of suitable mesh size will be required – we go into more detail in Chapter 6. Doing your own fencing from coppice products can be very rewarding but make sure stakes are durable, either treated softwood or, better, sweet chestnut, oak, or even Lawson cypress from an unwanted garden hedge.

What is the woodland like?

This chapter is almost finished, and we haven't got round to talking about the trees themselves and discovering what they and your wood as a whole are like. I expect your vendor's particulars told you the basics, and perhaps that is what most interested you anyway. We will look at five questions.

'All sorts' or one sort?

I'm not referring to Bassett's lovely liquorice sweets, but is your woodland diverse or fairly uniform? Do you have young and old trees, dark and dense stands and light sunny gaps, wet places and dry slopes, and many kinds of tree species, or is there little variety with perhaps one or two stands of, say, Scots pine all of the same age? We British have been great planters of trees over the centuries and one result is that we have created woods and forests that tend to be uniform – stands that are even-aged and of only one or two species.

The importance of this question, what we call the structure of a woodland, is the potential it offers as an amenity or for wildlife – generally the more diverse the better; or for commercial use when less diversity usually has the edge economically. Of course, your management over time can coax a wood towards either more or less variety.



Is it an 'ancient' woodland?

By ancient is meant: has the land always been wooded? It is considered to be so if early maps or other records show it to have been continuously woodland from before 1600. If it was then it almost certainly always has been.

The importance of the question, quite apart from the piece of living history you might own, is that ancient woodlands are limited in extent and are usually the richest in wildlife. Indeed, some woodland flowers such as anemone, yellow archangel and oxlip are confined to them and help indicate this special status. For this reason your management options may be curtailed somewhat. For example, as a condition of tree felling you will usually be allowed only to plant or regenerate native tree species.

We return to the question of 'ancient' in later chapters because it is important, it affects what you can do, and as relicts of our past woodland type they are to be treasured.

How has the woodland been managed in the past?

Is your wood a plantation, a coppice, or coppice with standards, or neglected wood pasture, perhaps with pollards etc? It is not always easy to tell, especially when a wood has lacked management for many years or even many decades. Knowing its silvicultural history will help you since most coppices can be restored to working in this way (see page 75) while woodlands that have been planted probably need to be regenerated in the same way.

At the end of the chapter, the main woodland types and their tell-tale signs are illustrated so that you can be your own detective.

What are the main species?

I expect the vendor's particulars will have answered this, but any good tree identification book will help with the commoner species. One reminder for the uninitiated is that all conifers are known as 'softwoods' in the timber trade and all broadleaved tree species as 'hardwoods'. The terms have nothing to do with how hard or dense the actual timber is: yew is a conifer and is a 'softwood'; birch, poplar, and even the tropical 'balsa', are broadleaved species and are 'hardwoods'!



What commercial potential might it have?

The best way to answer this question is to invite a professional forester to visit your wood for an hour or two. He will look at the species, the ages and size of trees, how many hectares are ready for thinning, felling or coppicing and so on. For example, one or two high quality trunks of broadleaves (oak, ash, wild cherry etc.) can be worth enough for a merchant to buy as individual trees or logs. In this instance 'high quality' is a straight, defect free trunk of large diameter (50+ cm) able to produce a log of 3–6 metres in length. More usually, however, in any wood including plantations of pine, spruce or beech, being able to make up one load (15–20 tons) is the very minimum that might attract a purchaser – we return to this topic in Chapter 7.

In coppiced woodlands it should be more obvious whether it has recently been worked and the vendors, your neighbours or local forestry people can probably tell you. This is revealed in the wood itself by a patch (0.2–1 ha) of young growth next to older coppice – again, refer to the illustration at the end of the chapter.

Remember though, as we noted earlier, as well as the trees themselves, commercial potential will be dictated by the question of accessibility.

Wildlife surveys, archaeology, and censuses

For me one of the pleasures of owning woodland is finding out about wildlife, archaeological features, and how the wood has changed over time.

For recent history the 19th Century tithe maps, old records and early aerial photographs are invaluable. A trip to the local County Record Office is a must. However, I wonder how many people know that every piece of woodland in Britain over 5 acres was inspected for the Forestry Commission's 1947 census of forests and woodlands. You can inspect the original report on your wood at the Public Record Office at Kew. Mine was visited on 19 June 1947 and was described as 'devastated' (thanks to wartime fellings) and, rather quaintly, suitable for 'economic management'.

Surveys of wildlife are on-going and in one sense are never complete and always bring surprises. You can simply enjoy spotting wildflowers, butterflies and birds and build your own



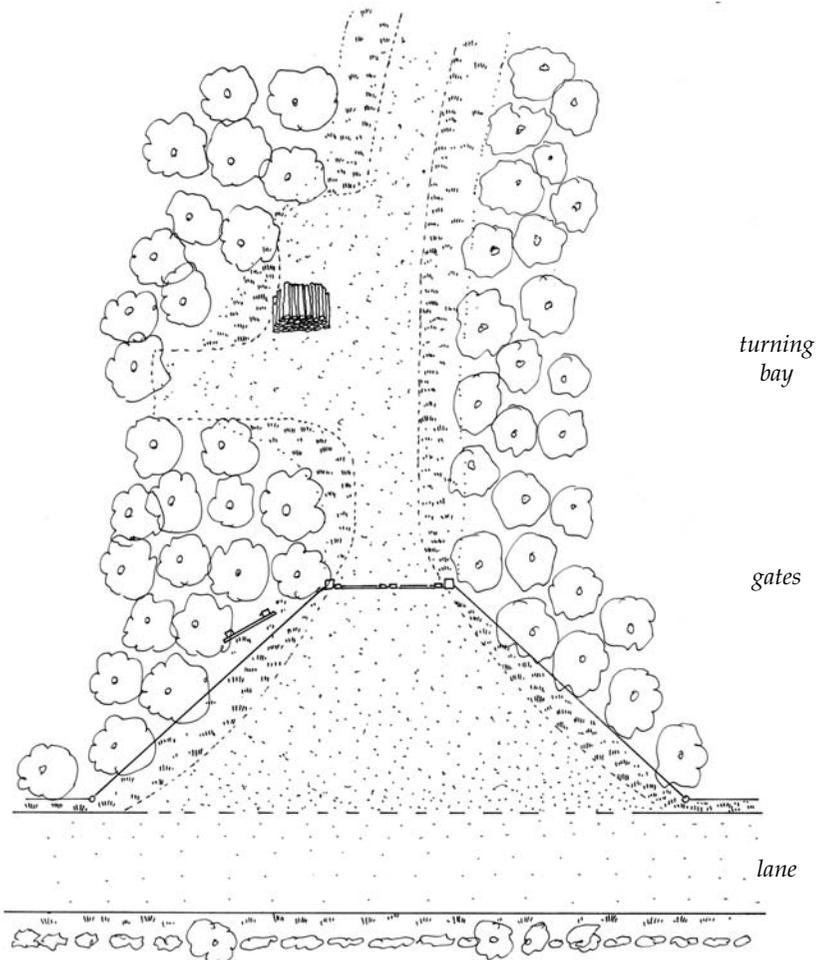
nature notes as season follow season. All of us probably know a 'twitcher' or two who will identify this bird song and that type of nest, even if not up to Bill Oddie's standards.



"That's never a golden oriole!"

There is much history to be discerned from archaeological features, such as banks and ditches, and of the woodland itself from the appearance of the trees. Numerous local societies will be more than keen to visit your patch and provide advice and information.

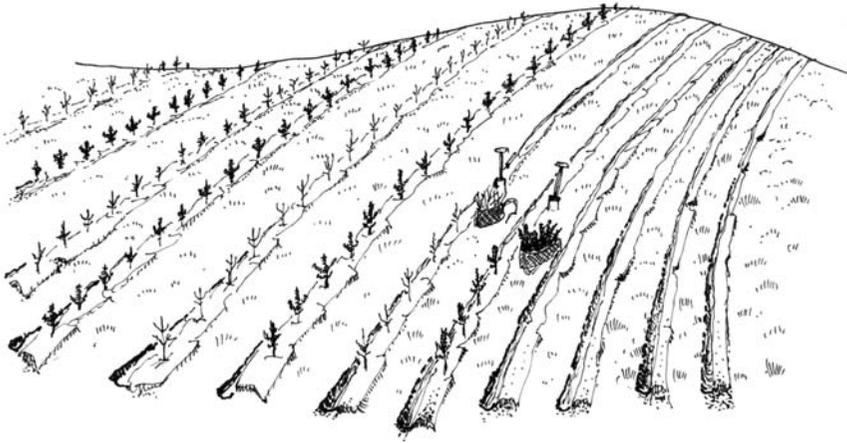
My records are quite informal, just a few jottings in a notebook, but only yesterday I found the first ever ragged robin flowering among nettles in damp ground right beside the main track. My wife, Margaret, had sown wild seed and planted a few tiny seedlings the previous July, and if I hadn't been doing ride-side maintenance it would not have been seen. But enough: do record what you find whenever you can, note any hazards and dangers that need attending to, and do rope in friends and relatives and their knowledge to enrich yours.



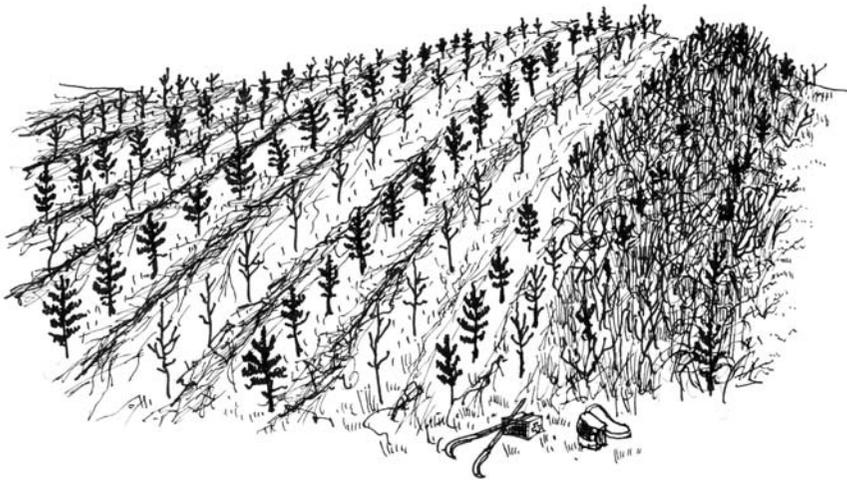
A well proportioned woodland entrance. Gates should be set at least 6 m back from a highway, but check local planning guidelines first, and the frontage about 30 m across to allow large vehicles to turn. The gates themselves should provide an opening of at least 5 m



The main types of woodland



A young plantation. Trees evenly spaced in rows and all of much the same size



Weeding and cleaning a plantation to stop it being overgrown



Thinning a plantation to give space to the best trees and yield some produce



Clearfelling underway (right) and replanting (left)

First steps



Coppice with standards



Wood pasture – these are the kinds of trees found but are farther apart – more scattered – than John White's delightful frieze suggests



Standard

Tall

Lapsed/Ancient

Willow

Pollards you might see. From left to right: managed, neglected, ancient, and riverside willow



Continuous cover forestry – new name for an old system which ensures that woodland is never completely cleared

How do you want to enjoy your wood?

Twenty years ago I wrote a book for the Forestry Commission on how to grow and look after broadleaved woodlands¹. In the book the question of what is the principal object of management was emphasised as the first thing to decide when considering what to do with a wood. This is still the case today. Although the title of this chapter is perhaps a rather odd question for a new owner to ponder, thinking about objectives or reasons for owning a wood, is constructive, even liberating.

We will look at the main ways any woodland can be enjoyed, highlight the issues, and suggest steps to take to get you started. But, as was emphasised in Chapter 1, different aims are rarely mutually exclusive, your wood can satisfy several at once, and no two woods are the same. What we tease out here are the main hopes you have to help decide what should take priority in the way you care for and look after your wood.

¹ 'Silviculture of Broadleaved Woodland' Forestry Commission Bulletin 62, HMSO 1984 232pp.



To get away from it all

For many owners enjoying their wood for walks, picnics, and simply to have fun is the main reason for buying somewhere in the countryside which is their very own. Getting away from it all and being able to relax are greatly valued in today's pressured times.

An attractive woodland for this purpose, what professionals call 'amenity', is one that has variety in tree sizes and ages, plenty of tracks and paths, and lots of open space. If you have a stream running through the wood so much the better, though do be careful with any watercourse and ponds if young children are about.

If peace and quiet are particularly sought after, then being some distance from a motorway, major arterial road, airport or railway line may be important. From experience if you can see from your wood where a major road is, even if 2 miles away, you are likely to hear a distant rumble of cars and lorries if the wind is coming from that direction. Of course, you will always have farm machinery and other countryside sounds: in our wood we have microlights buzzing overhead from a nearby airfield, not to mention the railway line at the bottom, but neither really intrude into our enjoyment – indeed, my boys when young loved to watch the trains.

It is also good if such woodlands are not too exposed, open and windy, though obviously you can choose when to picnic, after all you don't need to go on a stormy day or when a cold easterly wind is blowing!

Other points to think about – and we will return to this in Chapter 4 – are:

- elderly people like to feel safe, so for them in particular paths need to be even under foot so they won't trip or fall. They also need somewhere to sit;
- most children, even modern ones(!), will climb trees, make camps, gather sticks, and get stung as they muck about, so a first aid kit is essential and a mobile phone desirable assuming you get reception in your wood;
- fires should be restricted to a one or two safe locations well away from the base of a tree;
- glades make great picnic sites and double up well for wildlife;



- vistas need preserving and maintaining – a wonderful view from the wood may not last unless the opening between the trees or shrubs is kept cut back;
- tracks will need to be cut or mown once or twice each year;
- a small shed for gear, and if there's a sudden downpour, but don't store power tools and anything of value.



'Rest awhile'

If you plan to camp in the wood, then how easily you can get your gear to the chosen site may be important – is the track only adequate for fair weather use for the family car? There is the question of disposing of waste: taking it home usually being the best option.

What to concentrate on

If enjoying your wood as an amenity for recreation is your main aim, then the key things to concentrate on are providing good, safe access (tracks etc), knowing the dangers and hazards, and making



sure you have some means of communication in case of accident. Of course you will want, over time, to manage it in ways that keep or add to the wood's diversity and interest for old and young alike. We will look at the particular question of insurance and today's need for a risk assessment in Chapter 4.

A thing of beauty

More often than one might think, a wood is bought to preserve it as part of the countryside. A farmer might buy a wood adjoining one of his fields (or plant one on his land) to improve or retain a particular view. Similarly, someone who has moved to the country may value the nearby spinney or copse simply for its place in the landscape or because it screens an eyesore, but not be greatly fussed about visiting it for walks or for having a picnic.

When you buy woodland to preserve the beauty of the countryside it may also be a good investment. A house or cottage in the country that is attractive with pleasing views and free of anything unsightly or smelly(!) nearby, will be worth far more than one overlooking (say) a transport yard. All that might be needed to make the difference is retention of a patch of woodland, even as small as a quarter of an acre. Unfortunately (or fortunately!) buying a woodland with the hope of building a house in it is virtually impossible planning-wise, though buying a cottage and later purchasing some adjoining land such as a wood is certainly feasible.

Maintaining the fabric of our lovely countryside is also the aim of bodies such as the National Trust, the Woodland Trust and the Council for the Protection of Rural England (CPRE). Our state forest service, the Forestry Commission, now takes great pains to blend their operations into the local landscape with carefully crafted forest design plans and expects others to do so too. Landscape architecture has come a long way in recent years and much sound advice is available.

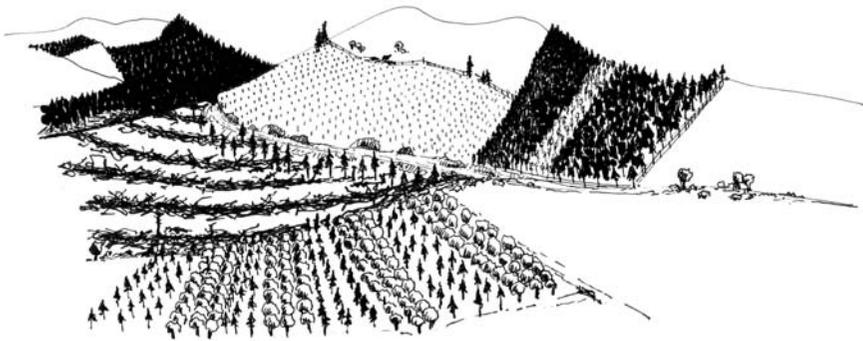
Enhancing the attractiveness of woodland

For the smaller wood, the following points should be born in mind where conserving beauty and being a feature in the landscape take



Attractive landscape where trees and woodlands enhance the natural form

first priority. Build on natural features and the form of the land such as rivers, streams, boggy patches and rocky places. Work with nature seeking to enhance your woodland's natural assets by not planting too close or by deliberately felling trees nearby to emphasise the feature. In general native species are preferred over exotics, but don't take this to extremes. A few pines, larches or Douglas firs in an otherwise broadleaved woodland usually add interest and certainly enhance the variety of habitats; what ecologists call 'niches'. Similarly, don't be over-zealous in removing sycamore; it looks good in the landscape and adds to biodiversity. And don't forget we have three native conifers: Scots pine, juniper, and yew. We return to these topics in chapter 8.



Unsympathetic planting and felling that intrude into the countryside with harsh edges and unnatural, geometric shapes



Think about the land form, and then manage the wood to be sympathetic to slopes, shapes and appearance of the local topography and texture of the landscape. A square block of dark conifers stuck on the side of any hill will generally offend and intrude: the same size of wood with two or three small patches of broadleaves in with the conifers, some open space, and boundaries that are not too geometric, usually will not. This is a generalisation, but I expect you get the point.

The same goes for the shape and size of openings made when felling trees. All woods need some tree felling to maintain them – long-term neglect is rarely the best option, but fell areas sensitively or explore continuous cover forestry options (page 74). As always the aim is simply to look part of and not intrude in the landscape.

John White has tried to illustrate the above points for us in the accompanying sketches (previous page).

The internal landscape of a wood is important too. Rides and tracks that curve, have scalloped edges i.e. have occasional glades to one side, and have vistas – like the cover illustration – all add interest and are generally good for wildlife.

Paintballing and related activities

I am not sure this topic should follow ‘beauty’ quite so closely(!), but it did so in my thinking so let’s run with the juxtaposition. Clearly buying a woodland for activities like paintball games, for motocross rallies, or for off-road 4 × 4 training as Landrover have, bring different management priorities. Key among these will be access rights, insurance cover for groups, prior permission from the local police for the traffic levels expected, in many cases planning permission from local authorities, and avoiding nuisance to your neighbours. Obviously one wouldn’t buy a wood of special conservation merit for these inherently more destructive uses, but, even so, a wildlife survey and full, transparent discussions about intentions will mollify neighbours and complaints from locals about the inevitable noise as well as allow special habitats to be avoided. It all makes for good public relations and is good stewardship.

Many owners or prospective purchasers of small woods will have no interest in these sorts of activities, but this does make the point that woodlands of all types are great places for fun and games.



Game and hunting

For many small woodland owners game shooting and hunting will not figure at all, but it's as well to be aware that woods, including small ones, are valued by these very common countryside sports. Many woods on estates and farms are managed for game such as pheasants and the steadily rising numbers of deer bring a need to stalk and hunt. For game birds a wood provides somewhere to rear them, cover and warmth for the birds in winter, whilst areas of young growth and shrubs create flushing cover to help the birds rise to the guns. Keepers may put down supplementary feed in a wood to attract birds in from the surrounding fields and improve numbers that beaters subsequently encourage into flight.

The management of woodlands for game is straightforward and the Game Conservancy at Fordingbridge is undoubtedly the best point of contact for those newly interested.

Rough shooting for rabbits, wood pigeons, grey squirrels and other wildlife officially designated as 'vermin' is hardly likely to be a major management aim, though a local shoot might acquire a wood with this purpose in mind. As with all shooting, compliance with gun licensing laws and exercising of very great care when in your wood are essential.

Deer stalking and culling is a matter for experts. Make local enquiries about who might be suitable, agree terms with them, and from time to time you may enjoy a haunch of venison from your own patch. Have no qualms about culling: deer numbers are at an all time high and are doing serious damage not only to woodlands but many national nature reserves owing to excessive browsing and grazing.

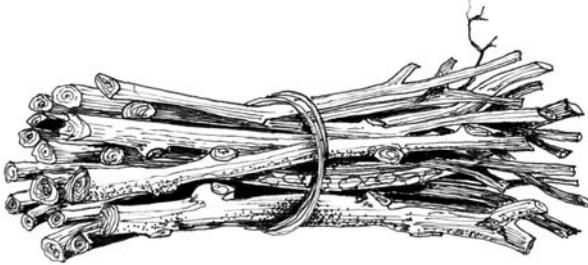
Your own firewood supply

Any woodland, except a new planting, can provide firewood. In these times of energy concerns and the need to consume less coal, oil, and gas, using firewood for heating (and cooking if you have a suitable Aga or Rayburn) makes sense. Firewood is best obtained from thinning out the poorest trees, from the debris left over after any tree felling, and directly from coppicing operations. The key point is that the shape and, to some extent, the size of the tree is largely irrelevant: everything can be used. This distinguishes

How do you want to enjoy



firewood from all other timber products where straight, defect free trunks are usually essential.



Faggots once fuelled our hearths, a return to burning firewood helps the planet

How much woodland do you need?

This obviously depends on how much firewood you plan to use. If you want to heat your whole house, a 3 bedroom semi would require about 5 tons of air dry wood each year. This quantity can be obtained in perpetuity from about 5 acres (2 hectares) of moderately vigorous, but well stocked broadleaved woodlands.

What trees makes good firewood?

In general, all broadleaved species are good. Ash is the best because it can be burnt straight from tree but, like all firewood, it does best only when thoroughly dry. Oak, hornbeam, beech and sycamore are all good: logs of the first two burn steadily and slowly. Wood from apple and pear trees give off a lovely fragrance.

Trees to avoid are poplar, willow and birch because they burn so quickly and conifers because their resin makes them 'spit', though some are worse than others. That said, Esmond Harris, who kindly reviewed this book in draft, finds very dry willow excellent for starting a fire though, as with conifers, it does spit.

The above remarks apply when burning wood in an open hearth. If you have a wood burning stove – and today's designs are remarkably efficient in terms of energy output and very little ash – then just about any truly dry wood will do.



Getting firewood from tree to grate

The crucial maxim is: cut firewood one winter and burn it no sooner than the next i.e. firewood should be well seasoned before burning so that it is properly air dry.

We will touch on the business of tree felling in Chapter 6. Here it is worth noting that usually logs for firewood are cut to 1.2 m (4 ft) lengths and stacked 1.2 m high. These dimensions are the basis of a 'cord' a stack of wood 4 x 4 x 8 ft in dimension, and make for easy handling. The stacks should be beside a track with vehicle access, but if possible not visible from the entrance to reduce theft.

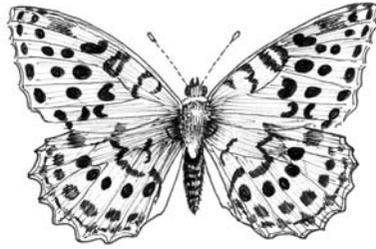
You can cut and split firewood logs – remember most grates require 8'' or 9'' lengths – in your wood and transport them when you need them, or do this job at home. It doesn't matter and simply depends on need and circumstances.

A haven for wildlife

Chapter 8 is devoted to this topic, but if protecting or enhancing wildlife in a wood is your main interest, the key issue, beyond finding out what is already present as we noted in Chapter 2, is understanding woodland ecology. Plants and animals all interact – the web of life – and your interventions should be informed by what we know. For example the fabulous fritillary butterflies, which can be so helped by timely coppicing, need a continuous supply of new, open spaces every few years since the plants they feed on mainly inhabit glades and warm sunny patches. So maintaining a wood for its fritillaries should really be seen as a commitment to coppicing or felling openings perhaps every other year. I've over-simplified the matter, but it's fun becoming a real wildlife 'anorak' and reversing the downward trend so apparent with so much of Britain's flora and fauna.

Of course, you won't always succeed first time. Margaret and Alistair, who are supporting this book, told me of a delightful occasion when they set up a hide in their own wood one night to watch badgers. Let me relate it in their own words.

How do you want to enjoy



Silver-washed fritillaries can be seen in open woodland in high Summer, their larvae feed on violets in the Spring

'We set up a hide one night, with a cotton sheet, which we put in place during the afternoon. At nightfall we crept along and stationed ourselves on the chairs we had made ready, and sat stock still peering through holes in the sheet for an hour or more. Not so much as a black snout appeared from the sett. At last, Alastair said ... "I'm feeling terribly sleepy" but the only answer was a muffled snore from his wife.

The next weekend some friends camped in our clearing. They reported that while they were frying up their supper they received a most surprising visit ... from one of our black and white friends ... not too shy to enjoy the proffered titbits of bacon!'

Some people have all the luck!

Christmas trees

I do hope you haven't bought a wood just to grow Christmas trees, but I do hope you remember to have a patch of them somewhere in your wood! Prices of real ones today are exorbitant, while plastic ones are made from non-renewable oil. So grow your own.

Plants of the commonly used species, Norway spruce, (never use Sitka spruce) can be bought from a forest nursery for 20–50 p each and should make usable size in 5 years. If you can't wait and have a patch of conifers already in your wood, the tops of slower growing trees will often be suitable – fast growing ones will look very leggy as Christmas trees with widely spaced whorls of branches. Don't be afraid to cut a tree just for its top 4–8ft of



Christmas tree: what you save in money terms will be far, far more than you are ever likely to make from selling the timber!

Christmas trees that don't drop their needles are becoming much more popular and the main species are Nordmann's (Caucasian) fir, noble fir and Fraser fir. A bushy, slow grown specimen of our own Scots pine always makes a good Christmas tree.

Although we will look at tree planting in Chapter 6, if you want to get started with a patch of Christmas trees the key things to note are:

- use land that may be unsuitable for other purposes, say because of a powerline overhead;
- keep the patch hidden from the entrance to avoid theft;
- fence the patch against rabbits and deer;
- space trees about 1 m apart, on the triangle if you can to make more even contact with neighbouring ones;
- keep weeds under control;
- just help yourself to the biggest as they reach the right size, then restock when two or more adjacent ones have gone and there is a gap of 3 m across.

Even timber production!

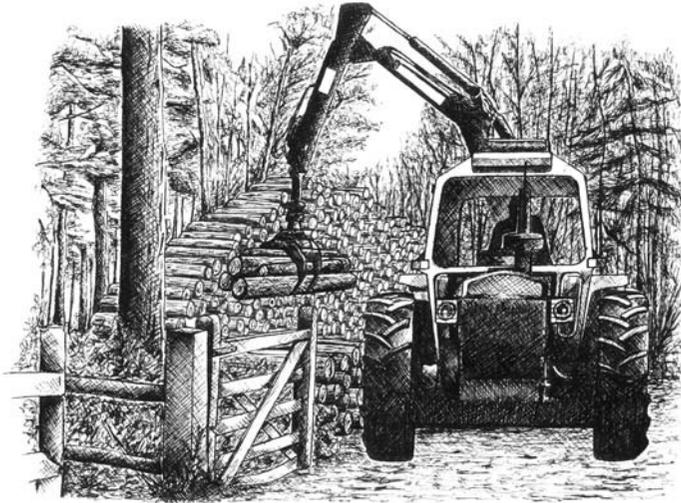
Here is my son's sketch of the time we extracted over 600 tons of pine from our 30 acre wood. By 'we' I mean the contractor we sold them to! The pine trees themselves were 35-years-old and the contractor felled the trees, extracted the logs, and hauled them to market. What we got from the sale almost equalled the price we had paid for the wood seven years before.

Since then we have thinned out the beech trees twice but we got nothing like so much either in total quantity of timber harvested or in price per ton. Mid-term (mid-rotation) beech has few markets and ours went to a mill at Sudbrook in Gloucestershire for pulping though this mill has just closed.

If timber production is one of your aims, then it's best to get an expert to cast a professional eye over your woodland. An hour or two of their time will soon tell you whether you have some commercial potential, when returns can be expected, and tell you how to go about the business of marketing the wood. I have



stressed before that management for this purpose need not exclude other objectives.



My son Stephen's sketch of the tractor with its grapple stacking logs at our wood's entrance when we sold the pines in 1992

In Chapter 7 we look at several topics relating to timber production to give you a feel of the possibilities you might have, though don't be optimistic; prices are at rock bottom at present (2006). There we look at: (1) the rewards of using you own timber whenever you can; (2) how to sell trees to contactors; (3) advertising trees for sale in magazines, such as *Woodlots*, and via websites; (4) how to assess quality and quantity of timber; and (5) typical prices for timber.

What else might you enjoy your wood for?

The website <www.woodlands.co.uk> has a splendid list of things to enjoy in your wood. Obviously not all woods are suitable for everything listed, but here is a flavour to round off this chapter nicely (I've added a few of my own):

exploring, barbeques, picnics and parties, map-making, creating tracks and paths, constructing benches, building secret dens, hanging a swing, orienteering, scout and guide wide



games, charcoal making, bodging and turning green wood, photography for a Christmas card or calendar or just snaps, sketching, nature trails – including a hide to watch birds or badgers, developing a forest school, putting up bird and bat boxes, gathering wild foods such as blackberries and some fungi, bee-keeping, harvesting nuts, Christmas decorations, and acquiring blisters!

Happy wooding.

Guests visiting your wood

One of the joys of your own woodland is welcoming visitors, showing them around, and sharing your plans and hopes for it. Many will be amused and bemused, if my experience is anything to go by! Why on earth did you buy a wood, what do you want it for, what do you do with it, how much work is it? Such questions pepper the conversation as you stroll from gate to ride to glade to the old oak to the thick stand of firs and back again. Sooner or later the question of making money arises if you have a forester with you, or its value as a pension, or hedge against inflation or inheritance tax if your friend is a city type! But all these reactions betray a curiosity, a touch of envy – at least I like to think so. Once your friends learn of your new acquisition you can expect a steady stream of visitors, always assuming you are happy to share the wood in this way.

Before looking at invited guests, we must mention the uninvited since every wood suffers trespass to a greater or lesser extent from those who have no right to be there. I will begin with a few comments about these first, so as to be rid of them before getting on to the fun bit.



Uninvited visitors

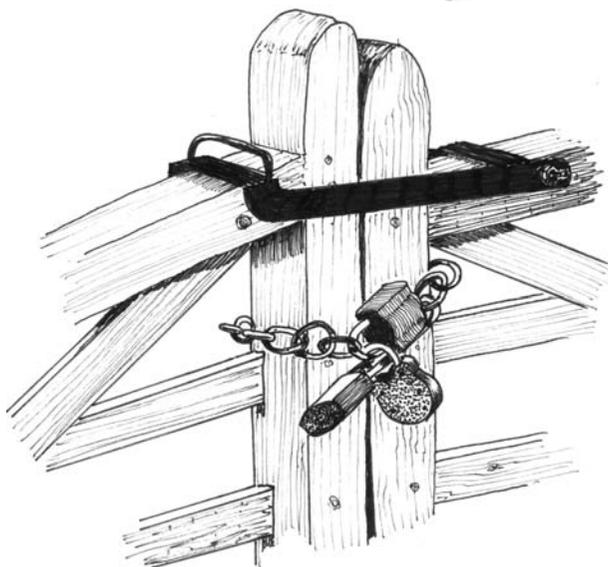
Because a wood is usually remote in the sense of not being near where you live and you can't watch over it easily, and because they are wonderful places where you aren't readily disturbed – that's may be why you have bought yours – they tend to attract the occasional uninvited visitor. It's rarely a big problem, more just something to be aware of.

Casual trespass and theft

Most woodland entrances will be used by people to relieve themselves and, in a way, that is a facility the owner provides for the desperate – we've all, surely, had to respond to an urgent call of nature! More annoying is the person who hops over the gate to help themselves to some 'free' firewood, whether from scavenging or taking from a log pile, which is why the latter is best hidden from the entrance. Some people will go into the countryside to help themselves to bean poles and pea sticks or similar rustic items. All these trivial thefts are a nuisance though occasionally there may be a health and safety concern.

As an aside, these problems might increase. Since 'Right to Roam' can be exercised over large tracts of hillside, many people imagine that all countryside, including woodland, is now open access. Unless a wood was previously 'common land' no such right exists. So if a visitor is encountered you can politely put them right.

More significant theft may be of Christmas trees, holly, foliage, moss and other commodities used in floristry. Theft of logs when doing thinning or felling is rare, but kids climbing on stacks is not. A notice warning of the danger helps but may not stop children and may suggest to trespassers that they have a right to be there. Theft of or disturbance to grey squirrel hoppers, traps and other paraphernalia of pest control is a real nuisance, as are loss of tools and gear left in the wood overnight, or breaking into a shed. These problems are minimised by tidying up after work, taking home whenever possible, and disguising anything you must leave – I have a wheelbarrow covered over in black polythene and hidden behind a bush which has not been disturbed in the 10 years I've had it, as far as I know: as I write, it was still there last week!



Keep gates secure, but remember everyone's padlock must interlink!

Other deterrents to trespass are a well-tended entrance with no litter, securely locked gates, and a freshly painted sign. Good neighbours are a blessing, so do encourage them to visit your woodland whenever they want to if they are happy to look around. My nearest neighbour walks his dog most days, or rather he walks and his dog, Mungo, scurries everywhere to investigate everything. Moreover, the owner of a small country estate a mile down the lane from my wood checks the banks and verges weekly to gather up litter – he always finds exactly enough lager or cider cans to match the days of the working week or since he last checked, but has never seen the culprit!

Poaching

One perhaps shouldn't write about poaching and wildlife crime in a book about getting started and enjoying your own wood, but it's best to be realistic. Such crime is unlikely to be met with, but still occurs. In a nutshell, poaching, whether by day or night, is unlawful. Entering land to pursue or kill game (deer, hares, several species of bird) is illegal, both in the unlawful entry and in search and pursuit with or without a gun. The offence is more serious if trespass is by several persons together, or is at night.



You'll be pleased to know it is an offence to offer violence to an owner, gamekeeper or their assistants! Most police forces have a wildlife crime unit or a liaison officer responsible for such crime.



The pheasants are yours if they are in your wood

Legally taking game is restricted by close seasons that vary from species to species. And, personally, I think it is a good thing that no game may be hunted or shot on a Sunday or on Christmas day.

Other wildlife crime

Special measures are in place to protect badgers, certain other mammals, rare birds, plants and flowers, special habitats and so on. They are covered by the Wildlife and Countryside Act though some wildlife is the subject of a specific act. Cruelty to animals has long been an offence and even when carrying out pest control, there are restrictions on how this may be done to ensure it is as humane as possible.

Rubbish and fly-tipping

Few owners whose wood fronts a highway escape this curse. A well-tended entrance is the best means of avoidance, but it doesn't prevent it altogether, as my litany of numerous condoms, many magazines, occasional garden or builder's waste, 18 fire extinguishers, 3 computers, 2 washing machines, and 1 burnt-out car testify! But that's over 20 years; on most visits to the wood nothing at all is encountered.

If rubbish is dumped or fly-tipping occurs, contact your local authority. For serious fly tipping DEFRA have a number to ring: 0845 3000630 and the police will probably be interested in a car that's been dumped, especially if it's burnt i.e. to destroy evidence.



Very welcome visitors

If you are as thrilled and excited by your wood as I was when I bought mine, you will be itching to show everyone your new purchase. A bit like a new house, it's a purchase you can show family and friends around. They can experience it, enjoy it, and share it with you in ways that almost nothing else equals. And that's not all. What about inviting local school children, or a natural history society, or holding a Sunday school picnic, or even an open day with a guided tour? But in all the fun and excitement you'll want to make sure that accidents are rare and that you are covered for unforeseen hurt in the litigious times in which we live.

Duty of care and public liability insurance

Whether access is authorised or not, a landowner has a duty of care both to control it and to make risky features safe. With the earlier example of kids climbing stacks of wood, it is your responsibility to make it as safe as possible and comply with good practice. 'Managing Visitor Safety in the Countryside' provides excellent advice – see www.vscg.co.uk. If you've invited a party to your wood it's best to carry out a formal 'risk assessment'

Do take out public liability insurance to cover claims from unwitting accidents. The Small Woods Association have arranged for group cover and my annual premium through them comes to about £70 for cover for claims up to £5 million. This insurance does not cover you if the access or use is charged for, and may not do so if the wood is neglected with many leaning, hung-up trees or other self-evident hazards. A bit like failing to maintain your car in a roadworthy condition, a claim could be refused if you haven't taken reasonable steps to make things safe.

Visitor access

Most visitors will arrive by car, so having somewhere to park off the public highway is a help. Inside a wood one can often park cars safely to the side of tracks, provided the ground is reasonably well-drained and it hasn't rained heavily in the last week. Of course you may need to liaise with neighbours if you have a shared access. A local farmer may be happy for you to use the corner of a meadow. In my own wood I can pack about 18 cars just



inside the entrance, any more than that and my kind neighbour provides an overflow.

All woods need at least one track and the secret to keeping tracks dry, in addition to being well drained, is for them to be open and not crowded in by trees. Glades beside the track, turning bays for vehicles, and an adjacent campsite or play area, all let in the sun and encourage airflow so the surface dries better: it's the same principle as hanging clothes out to dry on the washing line. The track surface itself can be mown grass or specially made up with chippings. If it has already been built for timber extraction it is likely to have a sound surface.

We mentioned before that the elderly need to know it's safe for them, in particular for paths to be even under foot so they won't trip or fall, and to have somewhere to sit. They will also be anxious about access to a toilet: where this can't be provided simply keep the visit short. Do warn them in advance about any lack of facilities.

We also mentioned before that most kids climb trees, make camps, gather sticks, and get stung as they muck about, so a first aid kit is essential and a mobile phone desirable assuming you get reception. The same kids, if they are local, are sure to know which mobile phones do work! Do everything to encourage children to enjoy your wood.

Just occasionally there may be specific things to warn visitors about. In my wood in the summer there are always ticks that get on to your clothes and then creep to a soft juicy part of your body, only to reveal their presence a couple of days later. There is a slight discomfort and a 'new' red freckle with a dark centre, namely the tick burrowing into your skin! As well as fever, the nasty Lyme's disease is a risk though I've not had either. In general snakes are rarely encountered. That said, it is probably best for children to wear shoes rather than sandals and for you to know where the nearest hospital A&E department is, and not only because of the faint risk of snake bites. Some berries are poisonous like those of yew and, of course, deadly nightshade. There is also the question of mushrooms and fungi and which are safe to eat.

Camping, caravans and fires

No permission is needed for occasional camping and caravanning. In the case of the latter you can keep a caravan on site for



maximum of 28 days in any one year, so unfortunately your wood can't be a new home for the family trailer!



Overnighting at least once in your own wood is a must

If cooking by open fire appeals and you want to enjoy a good old sing-song in the gloaming, do take care with siting the fire.

- It should be at least 8 metres from the base of any tree.
- Whenever possible try and have open sky above the fire and not branches however high above it.
- Once you have found a good fire site, try to use the same one in the future; don't move around the wood with fires here and there.
- Always make sure that a fire is well extinguished, dowsing with water if necessary, before your leave. Forest fires are rare in woodlands in Britain except in densely packed young conifer plantations or where trees are in thick grass that is dead and dry in springtime.
- If you are into Ray Mears and 'Survival' and want to start your fire with one match, remember there is always dry material inside a holly bush, whilst the inside bark of birch will peel off like tissue paper. Over this fine dry material,



create a cone-shaped pile beginning with fine twigs, then thicker ones and then small sticks. Once lit, continuously tend the fire by adding more sticks. Only once a fire is really going should you start adding split logs. With the latter use dead wood that has preferably not been in ground contact. Even if it's raining, you will find the wood will be dry when you peel the bark off. If you have to use freshly felled wood, ash is much the best and burns quite well straight from the tree.

Invited parties

I've had many groups visit my wood. The key to a successful visit is to plan where you will take the party and what you will show them that is of interest – what interests you will interest others. Plan for about 8–10 short stops which might take about an hour or hour-and-a-half to go round. Groups up to about 20 are a good size; more than this and the meandering crocodile takes a long time to assemble at each point and, of course, you have to raise your voice, especially on a windy day. Groups of more than 30 are best shown around by laying out a self-guided route, but this takes time and effort.

A visit to a woodland can bring alive any nature class for youngsters or interest teenagers doing biology. If possible show the teacher around first to assess the hazards – and so help with the school's risk assessment, and also to see how the visit will fit with the day's lesson plan. As Alex Argyropulo, one of the book's reviewers, said: 'it is sheer delight [to run a forest school] but one really has to return the children to parents in one piece!'

Open Days

I mention this topic because I have now run several and they are greatly enjoyed. The idea began following publication of '*A Wood of Our Own*' when people began to ask if they could visit the wood in the story. So rather than ones or twos being shown around we decided to hold an Open Day with a laid out route of 12 stops and invited about 150 people – family, friends, folk from church and, of course, those who had specifically got in touch. It worked well and so far we have run seven such events. May Day or Spring Bank holiday weekends are good times with spring flowers at their best.



Working 'bees'

I'm always surprised how keen people are to come and do woodland work for weekend relaxation. Groups like BTCV (British Trust for Conservation Volunteers) and local natural history societies have long known this. So if you have jobs needing doing – cutting a hedge, planting trees, coppicing, tidying up a track, gathering firewood – you will probably be swamped with offers once the word gets out! Do make sure that everyone comes well equipped for the conditions, that hazards are pointed out, tools are sharp, and any chainsaw is only used by a fully qualified operator. Indeed, it's probably best to stick with bowsaws.

For us, amongst many sorts of assistance, our church youth group have helped excavate a pond, our pastor has high pruned several trees and helped cut back hazel, the local doctor's family have spent several days coppicing. My Imperial College students have all tried their hand at thinning, pruning, stacking cords of firewood, clearing scrub, coppicing, burning lop and top – in fact having a whale of a time, but under strict supervision.

No payment should be made or else you get into the realms of entering into a contract with all the health and safety, insurance and employer liability implications this brings. Of course, a lovely meal at the end of the day, or toasted marsh mallows over an open fire – the choice of our church youth group(!) – will be appreciated, but even this should not be presented as payment in kind, otherwise you could be deemed to be their employer.

Pest control, shooting, hunting

Sometimes a small wood may be part of a larger area where neighbouring landowners are keen to control pests, cull deer or shoot game. There is no requirement for you to give permission to enter your land. However rough shooting – rabbits, grey squirrels, wood pigeons, etc. – can be offered to a local group who may visit a couple of times a year to keep these pests under control. As we remarked in an earlier chapter, you could well end up with a haunch of venison in exchange for allowing a couple hours hunting on your land to help with the enormous and much needed task of deer control!



When you invite or allow such people into your wood, do check that they are properly qualified, have suitable insurance, a gun licence, and comply with the law concerning close seasons.



As William Cobbett said in Rural Rides: 'What in vegetable creation is so delightful as the bed of coppice bespangled with primroses and bluebells?'

Some things for which you may need permission

This threatening title is meant to be nothing of the sort; it's a reminder that there are a few things you can't do without first obtaining permission. It's not a chore because most of the time officialdom and bureaucracy simply don't figure in how you run your wood, but like planning permissions and building regulations for your house, there are some things about which the state or local authority wants to have a say.

Planning permission

In general most woodland work and operations do not come under the normal planning regulations; the major exceptions are if you want to build a house or create a new access on to a highway.

Many of us like the idea of living in the country and what better place than to live in your own wood! This prospect, unless there is already a dwelling, is well-nigh impossible to achieve. Buying a wood and then seeking planning permission to build a house will fall foul of virtually every planning authority's guidelines.

One possible exception is where your woodland is large and you can make a credible case that the wood is your main source of



income or livelihood. You can then apply to build a forest worker's dwelling, which must be appropriate to the job – not a 6 bedroom 4 bathroom country home(!) Moreover such a cottage or small house must continue to be used for this purpose: it cannot be sold a few years later say for ordinary residential use without expressly applying to the planning authorities for a change of use. Such a change is unlikely to be granted.

What you can do in your wood by way of accommodation is camp there or site a caravan, as we mentioned in the last chapter, for up to 28 days. Permitted development also includes a secure tool shed, provided it is sited well away from a highway, but even here one needs to be a little careful. A shed must be a shed – a small hut with no windows and a lot of cobwebs – not something that can double up as a summerhouse or a modest chalet!

Felling trees

In general you can cut and fell small trees, but when it comes to several or more big ones you will almost certainly need to obtain a felling licence. I shall try to explain the basics in simple terms. And I am assuming there is no tree preservation order (which is very unlikely for a wood unless you are adjacent to a built up area) and that your wood doesn't have special status such as a National (or local) Nature Reserve, a Site of Special Scientific Interest (or other official designation), and is not in a conservation area.

The felling of trees in Great Britain is controlled by the Forestry Commission. Now here is the official bit: *a licence is normally required if you want to fell more than 5 cubic metres of timber for your own use in any 3 month period or just 2 cubic metres if it is to be sold.* What does this mean?

A tree with a trunk containing one cubic metre of wood is quite a big one. For a conifer, such as pine or spruce, it will be a tree you can just about hug and get your arms around. Its diameter at chest height – strictly when measured at a point 1.3 m from the ground – is around 40 cm. For broadleaves, such as ash, oak and beech, the same applies but their trunks and crowns tend to be less uniform so this guide is a bit more rough and ready. That said, you can see that if you only want to fell a few trees over a period of time, say to develop a picnic glade, a licence will not be needed. More than this, and it will be. Felling licences are not difficult to obtain and



are not withheld without a really good reason. Contact your local Forestry Commission office – use the internet or via Yellow Pages for the phone number – and ask for a felling licence application form.

There are some exceptions when you do not need to apply for a licence:

- If the felling is part of an already approved plan of operations by the Forestry Commission
- The trees are in a garden, orchard, churchyard or public place
- The trees are small <8 cm in diameter at breast height, <10 cm if part of a thinning, or <15 cm if the material you are cutting is coppice or underwood e.g. hazel or mixed scrub
- Trees that are dead, obviously dangerous or are nuisance (note that in a conservation area you cannot fell dead trees without permission).

Where clearfelling is intended, that is an area of your woodland is all cut at one time, the granting of a felling licence invariably includes the condition to restock the land with trees, by natural regeneration, coppicing or by replanting, as appropriate. Clearfelling woodland and turning land over to another use is only allowed in exceptional circumstances. Grant aid may be available to help with regeneration and woodland improvement (page 107).

Planting trees

You do not need permission to plant trees. If you are seeking grant aid to plant, conditions may apply such as providing public access, planting only native species on ancient woodland sites, and so on. Woodland grant schemes differ in detail between England, Scotland and Wales, but all seek to support the owner to provide public benefits in exchange for receipt of public funds.

Creating ponds

While building dams, reservoirs or ponds, may not be uppermost in one's first thoughts about looking after a wood, it is worth noting that diverting a watercourse to make a pond or abstracting



water from a borehole requires permission under the Water Resources Act. Small rainfed or groundwater ponds are unlikely to be affected.

Easements

This is a term in property law where rights exist over another's land. For example you may have the right to use a track across a neighbour's land, the electricity board may have purchased the right to take electricity by underground cable or with poles and wire across your land, or a third party may have right of access along your track to gain access to some facility like a mobile phone mast, etc. These rights rarely intrude in your enjoyment of the wood, but if what you plan to do interferes with their free exercise, obtaining agreement for the temporary restriction is advisable. For example, logs cut from thinning your trees need to be stacked and this could lead to blocking the track or making it impassable for a few weeks or even months.

Public rights-of-way

When you purchase a woodland, as mentioned in Chapter 2, the existence of rights-of-way should be evident. Obviously they must be kept open. Indeed, taking care to keep them in good shape, greatly reduces the chance of members of public wandering off and going where they are not welcome. All of us prefer to stick to a good clear path, so maintenance benefits the public and owner alike. Varying the route is a long, but not impossible process, provided a good case can be made. Your first point of call will need to be with the County Planning Department who hold definitive maps numbering and classifying every public right-of-way. The planning people at your local district council office will also be worth contacting.

Wildlife management

We touched on this briefly in Chapter 3, but if you intend to shoot you will need a gun licence and, as mentioned, you must comply



with the law concerning close seasons. In brief rabbits can be controlled at any time, grey squirrels at any time unless poisoning with warfarin which is restricted to 15 March to 15 August, and deer usually in the winter, except for roe males, but specific dates apply to each species and each sex, so do check.

Poisons, such as phostoxin to control rabbits, will require your signing the Poisons Register at the time of purchase and keeping them in a secure place.

Interestingly, it is the landowner's responsibility to keep down vermin so as not to be a nuisance to a neighbour which, from a forestry point of view, includes rabbits and grey squirrels.

A final word about permissions

We have covered the main situations where permission may be needed, but other activities where officialdom will be interested would include: holding car and motorcycle rallies; paint balling and other pursuits where charges are made; erecting advertising hoardings beside a highway; and any work on or near a site of archaeological importance.

This chapter hasn't been so bad! You are remarkably free to manage your wood how you want to. In my 20 years of ownership, I've not felt hemmed in by bureaucracy or frustrated by red tape; I hope you won't either. Let's hurry on to the action, I haven't even found a suitable illustration that might delay us further, let alone amuse or inform!

Growing and caring for trees

We British are great tree planters. Our woefully denuded countryside was down to 5% tree cover 100 years ago, now it is more than double that thanks to planting. Our success and experience makes us a world leader in sympathetic planting – virtually all our state forests are certified¹ – though many wouldn't have said that 50 years ago when we were coniferising ancient woodlands and plastering hills with square blocks of dark green spruce! Our history of planting goes back many centuries: we have all surely heard how in the 17th and 18th Centuries the cry was to plant oaks because the navy was running short of shipbuilding timber.

This is a long chapter and I've divided it into four sections to look at:

- how to plant trees and create a wood;
- how to encourage trees to develop from natural seeding – what foresters call natural regeneration;
- what may need doing as a stand of trees develops – cleaning, pruning, thinning, felling; and
- coppicing and pollarding.

¹ Certifying of forests first began about 10 years ago and is an independent vetting that management meets agreed standards of good practice to ensure sustainability.



PLANTING A WOOD

Planting trees – the basics

In the Bible the Teacher proclaims: “There is a time for everything, and a season for every activity ... a time to plant, a time to uproot ... ” (Eccl. 3.1–2). So what are the questions we need to cover to know that it is a ‘good time to plant’?

Where to plant trees

An odd question to begin with, but are there spots or places to avoid? I ask this first because visitors to my wood who see gaps, from a recent thinning or creation of a glade, often assume that tree planting is now needed: it isn't. Generally we are overly keen to fill up ground. Remember that existing trees need space to grow and wildlife thrives in gaps and glades. More specifically do not plant trees that might damage valuable habitat such as wetland or right next to streams and, similarly, not right beside rides and roads. If you do plant up a large opening, only plant trees in the middle where there is clear sky overhead; young trees don't grow well in the shade of old ones.

So, plant trees to turn a field into a wood or as a way of regenerating a large patch that has been clear felled, otherwise think hard about whether you really need to.

As an aside, if you need to add trees to a hedgerow, try recruiting a sapling by not cutting it when hedge-trimming. Make sure the sapling is growing directly above where it is rooting to avoid developing a ‘S’ bend and remember to mark the sapling with a stick or ribbon so whoever is trimming the hedge can see it easily.

What species to plant

In Britain we have three native conifers and about 30 native broadleaves. Introductions from across the world in the last 300 years have added immeasurably to the possibilities. In the appendix there is a list of the commoner species, what they are good for and the conditions that best suit them. If in doubt consult a local forester, though usually Forestry Commission staff will be



happy to make suggestions, and do see what is growing well already in or near your wood. You will rarely go badly wrong by continuing to grow what is doing well in the vicinity.

Where can small trees be bought?

Contact a tree or forest nursery, not a garden centre. There are many nurseries and your nearest will not be too far away. In the Yellow Pages they are entered under 'Nursery Horticultural – wholesale' and/or 'retail'. When choosing a nursery make sure the advertisement mentions trees, then phone them and go over to see what is on offer, or visit the website or request a catalogue and ask for a quotation for what you seek. Most nurseries like orders well in advance and then they lift the plants you want – 'plants' are what the trade calls small trees suitable for planting – and dispatch them to you just before the date they are to be planted. Sometimes plants will be lifted in November or December, carefully packed in bundles in purpose-made double skinned polythene bags, and then kept in a cold store for dispatch in late winter or early spring. The best thing is to contact your local nursery as early as possible in the autumn to discuss your requirements.

If you like the idea of developing your own small tree nursery there is plenty of advice in books. We will look at the subject briefly a little later.

What size of plants are best?

Usually it is the smaller the better. A plant 20–30 cm tall and 5–7 mm thick at the root collar i.e. at the point where stem and roots meet, will readily become established and start growing well once the weather warms up, provided of course it is protected from browsing damage and vigorous weeds.

Bigger trees, such as whips, saplings, half-standards (~3 m tall) and standards (>3 m tall), all impose increasing strain on the newly inserted root system. Their crowns of leaves demand many litres of water each day which the roots cannot easily deliver because many were broken off, especially the fine roots, when the trees were lifted from the nursery and because they haven't had much chance to re-grow in the new soil. Not surprisingly, large trees planted for effect on housing estates can



languish for years with thin crowns and poor leaves. Worse, large trees are one hundred times more expensive, and I'm not exaggerating.

What kind of tree to plant?

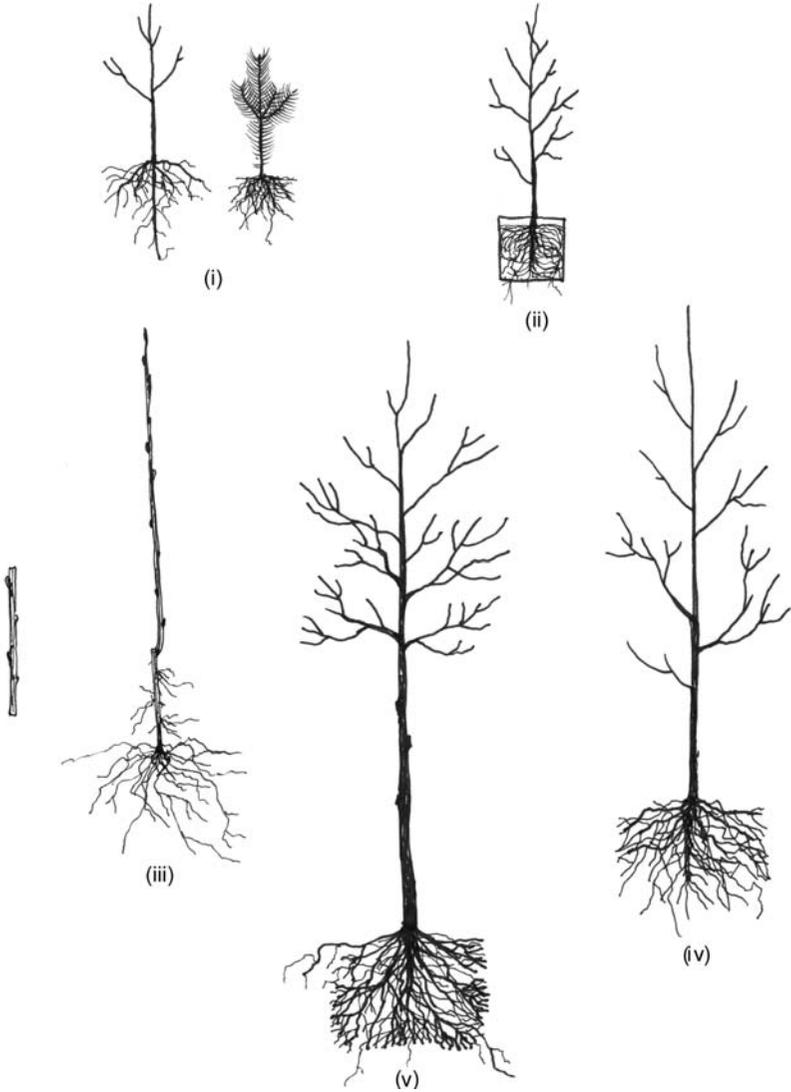
Seedlings and transplants are the two commonest names you will come across in a nursery catalogue. When they are sold no soil attaches to the roots, so they are called 'bare-rooted' plants. We will define them along with some other types of plants.

Seedling This is a plant that has grown up from seed, but has never been moved in the nursery until it is lifted for dispatch after it has been sold. Seedlings are usually one or two years old and 15–50 cm tall.

Transplant This plant began life as a seedling but was moved, when dormant, from one nursery bed to another, hence the name 'transplant'. The moving between beds severs tap roots and helps ensure a stocky, more robust, plant with a compact root ball. They are the commonest type of plant used and are mostly 2–4 years old and 15–75 cm tall.

Undercut This plant is a seedling that has had its roots undercut *in situ* at a depth of 10 or 15 cm to achieve the same effect as transplanting but without moving it from one bed to another. They are usually 1–3 years old and 15–75 cm tall.

Whips Plants that are allowed to grow beyond the seedling/transplant stage for another one or two years in the nursery to reach 80–150 cm tall. If well furnished with branches, they are known as 'feathered whips'.



Some of the types of plants/trees for sale at a forest nursery (not to scale)

(i) transplants

(ii) container grown tree

(iii) cutting (typically of poplar), and after it has become rooted

(iv) feathered whip

(v) half standard

In a nursery catalogue the type of plant and its age is indicated by a simple code. A seedling is just given an age. A transplant may



be shown as 1+1 meaning it is two years old, having grown one year as a seedling and then been transplanted to another bed for a further year. If it grew for two years in a transplant bed the catalogue shows this 3-year-old plant as 1+2. An undercut is a 1u1 if it grows as a seedling for one year, was then undercut, usually in about June of the second year, before being sold. Sometimes undercutting is done during the first season in July and one year old plants and are shown as $\frac{1}{2}u\frac{1}{2}$, but are seldom sold.

Container-grown stock Growing small trees in containers is quite common. It gives each plant a root ball and is used for trees, such as birch and Corsican pine, which lack fibrous roots to improve establishment. In general, forest trees are bought as bare-rooted stock. There are many kinds of containers and many names for them: containerised stock, Japanese paper pots, cell-grown stock, plant plugs raised in pre-formed plastic trays, pot grown stock, and ones raised in a hinged 'book' such as 'Roottrainers'. Container grown trees are more expensive, typically twice the cost per plant of bare-rooted ones. Many nurseries do not stock all tree species in this form.

Plant quality

So far we have considered what type, what size and from where plants can be obtained, but what about quality? It is important for plants to be sturdy to survive the rigours of planting whatever the site. Although height of plants is commonly given in catalogues, root collar diameter i.e. how thick it is at the point where stem and roots meet, is more important. Research shows unequivocally that thickness of stem, not how tall a plant is, is the most reliable indicator for subsequent survival after planting. Basically one wants healthy plants that have thick root collars, not weak flimsy ones. Equally important is a vigorous, fibrous root system, not a single long tap root.

The plants themselves must be free of damage, disease and other defects.

When plants arrive

Forest plants (young trees) are dispatched in special, double skinned, polythene bags which are black on the inside, sealed and



designed to minimise heating if ever exposed to the sun, even if briefly. On receipt of your plants, open the bag and check that the right species have been sent and that the specifications are as ordered. Then take one or two plants from a few of the bundles – transplants are typically in bundles of 25 or 50 – and check their health by nicking the bark on the stem with your thumbnail. The tissue beneath should be green or greenish-white. If it is at all brownish then the plant is likely to be dead even if the buds and other parts look OK. If more than one or two are brownish, reject the entire consignment and complain to the nurseryman.

Once you are happy with the plants – they are what you ordered and appear healthy – gently retie the bundle and close the bag. Store the bag(s) in a cool, dry place, preferably in the dark or in heavy shade, and make sure it is frost-free. An unheated garage is ideal provided it never cools to below freezing. While dormant in winter and early spring, such plants will remain alive for many weeks. Normally plants will stay damp enough in the bag they came in if it is kept sealed until time for planting.

Try not to move the plants until the day of planting. In particular DO NOT manhandle the bags, NEVER throw them around or drop them: treat them like your finest dinner service! The fine roots of young trees are easily broken and damaged, but this is rarely obvious to see. Experiments by the Forestry Commission show that bags with bundles of plants that are dropped, even from a height of only one metre, reduced the survival of the young plants when planted out. The more frequent the dropping and mishandling the worse survival and growth became. The take home message is: handle with care.

Obtaining trees for planting need not be an expensive business. A little forethought and care of the plants received is all that is required.

When is the best time to plant?

Plant trees anytime from mid-autumn to mid-spring, but avoid very cold and frosty weather. In the south of Britain all planting should be done by the end of March, in the north by mid-April. Trees must be planted while they are dormant and before they start coming into leaf (flushing).



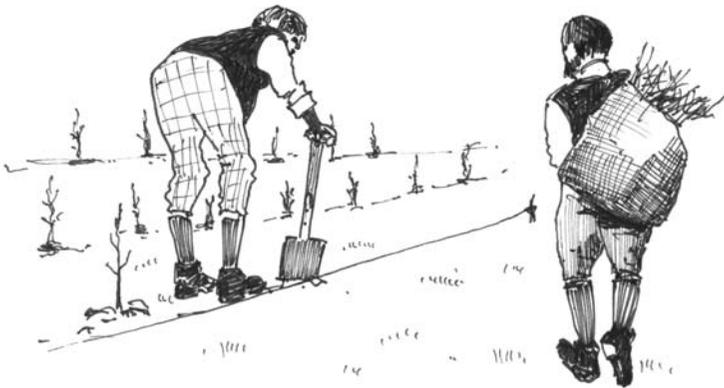
How far apart should trees be planted?

Usually trees are planted 2–3 m apart and equidistant along and between rows i.e. square spacing. You mark the position with a stick, or if planting only a few trees judge the distance approximately by pacing. There's no need to lay out a new wood or a belt of trees with the 'theodolite' precision seen in many an orchard.

If you are planting a thick hedge, three rows are a good idea and use triangular spacing. Set the trees about one metre apart.

How is planting actually done?

While a nicely dug pit is best, a simple slit in the ground with a spade or mattock is often sufficient. Gently place the roots in the slit or pit and tease them out. Then, while holding the tiny tree vertical, replace soil and firm it home with the ball of the foot. Make sure that the tree is planted only to the depth of the root collar, neither deeper nor shallower.



John White's idea of my brother-in-law and me planting trees in my wood – plus fours are not de rigueur

It is sometimes recommended that broken or damaged roots are trimmed with secateurs before planting. This takes time, is probably of little benefit and the further handling of the tender root system will break off more fine roots. The only time trimming will help is where roots are long and straggly since it's no good simply stuffing everything into the ground.



Do I need to stake my trees?

No is the short answer, unless the trees are over 2 m tall – which is not recommended. If staking has to be done, use a short one and secure the tree at about 30 cm from the ground. Do not fasten a tree to a stake at 1.2–1.5 m; the tree needs to flex from the base to build its stem properly. All a stake does is to help anchor the root system. Do remember to loosen the tie each year. By the third year a stake should no longer be needed.

Do trees need fertilising and irrigating?

In general, ‘no’ to both questions. If tree planting is done properly neither fertiliser nor irrigation will be needed. Phosphate (P) may help on some poor upland sites or sandy soils, but elsewhere the soil is already fertile enough for the undemanding appetites of trees. If you’ve planted the trees properly in the autumn or early spring and provided competing weeds are under control, you shouldn’t need to water them in the summer however hot and dry it gets. Only large trees such as half-standards may need irrigating just to keep them alive, but you know what I think about such planting stock already!

A summary

The key points are:

- generally use small, thick-stemmed plants bought from a reputable forest nursery;
- make sure plants are alive and healthy – a thumbnail nick of the bark should reveal greenish tissue;
- always keep plants cool, shaded and prevent roots from drying out – treat them gently;
- plant trees while still dormant and before starting to flush i.e. by the end of March;
- plant during cool, damp weather and not when it is frosty or very dry;
- plant the tree by inserting roots carefully into a small pit or slit in the ground and gently firm the soil with the ball of the foot.



What happens next?

So, after the planting, what then happens? Put another way, how are newly planted trees looked after during their first few months and years? There are really only two main concerns: protect them from damage, and don't let weeds get the upper hand.

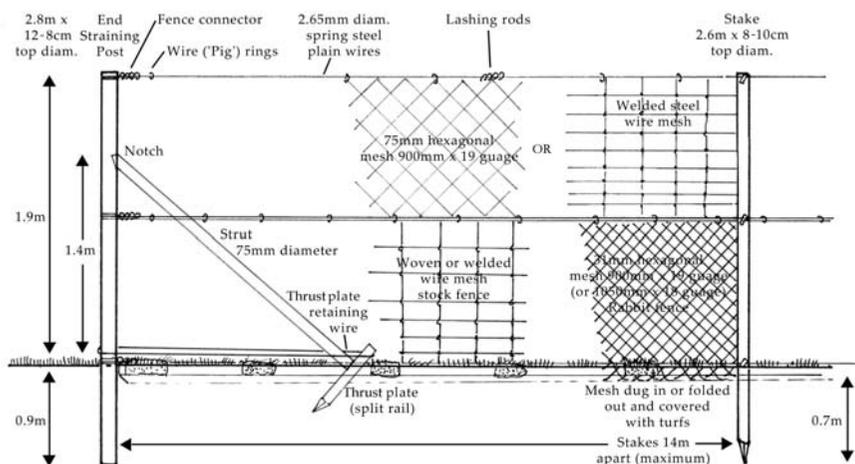
What threatens young trees?

Young trees are vulnerable to several dangers. Particularly damaging are browsing animals, such as rabbits, hares, deer or, indeed, livestock. If they are present newly planted trees must be protected. Some of these animals will also gnaw or strip bark.

Protection from late spring frost, drought or strong winds are largely outside one's control. Overcoming frost and drought problems is mainly resolved by choosing hardy species to plant and, for example, not planting in a frost pocket or on thin soils that readily dry out. Protection from insect pests and diseases is usually not needed. There is a nasty weevil that costs owners of commercial forests a lot of money to control, called *Hylobius abietis*. It has a predilection for the bark of very young conifers (and other species), but it usually isn't worth doing anything about it when planting only a few trees and, anyway, on many sites it doesn't cause any damage at all.

How do I stop animals causing damage?

The main choice is between fencing or individual tree protection. For individual protection there are many proprietary products to choose from. All are variations on a theme of plastic tubes or plastic mesh. The main consideration is the browsing animal itself and the height it can reach. For rabbits and hares a 60 cm high guard is sufficient, for roe deer 1.2 m, and for red or fallow deer 1.8 m. Very roughly, use individual guards if you need to protect fewer than 1000 trees, but consider fencing if you're planting more than this in one block. The basic specifications for a rabbit and deer proof fence are sketched here. Typically a contractor will charge £5–10 per running metre to erect such a fence.



Rabbit and deer proof fence showing typical specifications. You will only need this if you are into serious planting. For small numbers of trees use individual tree protection

Smearing repellents on the growing shoot of a tree is a nice idea though the only useful product is called 'Aaprotect'. It lasts for a few months but only affords protection to the parts of the tree actually smeared. Synthetic lion dung and other seemingly fearsome smells have been much hyped and, on the whole, found much wanting!

I am going to insert here an aside about a topic that doesn't fit happily elsewhere in this small book: the control of an animal that is the scourge of broadleaved woodlands – the grey squirrel. This menace from North America strips bark from oak, beech and sycamore trees (and many other species) and will attack trees as small as the thickness of one's arm to nearly mature ones. Damage occurs mainly in May, June and July. If uncontrolled they can ruin a promising stand of trees disfiguring and sometimes killing them.

Grey squirrels have been designated a pest since the 1930s. They are controlled by poking their nests (dreys) and shooting animals that emerge, by trapping them, or by poisoning with warfarin. The law is strict about what can and cannot be done. Even if you like grey squirrels in your garden, they are no friend in your wood. They damage your trees, probably raid birds nests for eggs, and may harm other wildlife.

Now back to your newly planted trees.



When should such protection start?

On the day you plant your trees! All too often planting has been done one day with the intention of installing protection the next only to find devastation occurs that very night. Animals familiar with a territory soon know that new and succulent plants have arrived – there is some evidence that freshly planted material actually emits chemicals that can be sensed. Some years ago I planted six fine young cherry trees in my wood and I thought I could get away without protecting them. Within twenty-four hours each was sought out and nibbled or bark stripped. Don't wait for damage before giving protection.

Do I need to worry about competing weeds?

Yes, this is important since weeds compete with young trees for moisture and nutrients and, if they grow tall, for light as well. Some weeds such as wild clematis and wild honeysuckle will also entwine and even overwhelm saplings.

How are weeds controlled?

Weeds are best controlled by killing them either with herbicide, by applying a mulch (a material placed on top of weeds to suppress them), or by hoeing around the tree. Just cutting weeds is ineffectual. Many owners of small woods will not want to or really need to use herbicide, particularly if you have willing labour to hand! If you do go down this route, use a proprietary herbicide, such as round-up (glyphosate), but take great care to avoid any of the herbicide getting on to the tree. If weeds were got rid of before planting, one application of herbicide in late June or early July will usually be sufficient to kill weed regrowth that has developed. Do read the label for instructions and follow them to the letter. Herbicide can be applied either with a directed spray or wiped on with a device that has a wick moist with the herbicide.

A good alternative to herbicide, particularly if you only have a few trees is to use mulch. Many materials are suitable, such as bark chips, black plastic, and even old carpet placed around the tree. Make sure that inert mulches like black plastic are thick enough e.g. farm silage wrap, and well pegged down. Organic mulches should be 6–10 cm deep; a light mulching is useless as weeds



simply grow through. One attractive combination is to use plastic sheeting as the main mulch and then sprinkle bark chippings on the surface both to keep it in place and as a disguise. Mulching is best done at the time of planting.

Cutting or mowing weeds is not very effective in relieving stress to young trees. Although cutting reduces competition for light, it usually worsens it for moisture and nutrients as new weed growth with new demands is stimulated. Just think of a lawn: for as long as it is kept green by mowing it is necessarily drawing moisture!

How far from a tree should weeds be controlled?

Control weeds to a distance of about 60–70 cm from the young tree or a diameter of 1–1.5 m. There is no need to kill all weeds between rows of trees, just concentrate on controlling those immediately around the tree itself.

How long will weed control be necessary?

Continue weeding until the tree is about 2 m high. This will usually be for about 3 years, and one weeding per year, provided weeds are killed, will usually be sufficient.

Do I need to replace trees that die?

Not necessarily. Since over the life of a stand of trees one will usually thin them out at intervals, it is not necessary to replace every tree that fails in the first year or two after planting. A rule of thumb is to replace failures if more than one in five dies. Less than this, and the odd death doesn't matter.

Starting trees from scratch – Seeds, Seedlings and Tree nurseries

As we've noted, most trees start life as seeds sown in a special forest nursery where they are cared for until robust enough to withstand planting out on the site where they will spend their life. This is very different from growing corn or cultivating vegetables where a seed is usually sown in the place where the plant is to grow. However, sowing tree seeds directly on a site to be restocked can sometimes work.



Sowing seeds directly

One can be tempted to find one's own seeds – acorns, beech nuts, seeds that fall out of a dry pine cone etc. – to sow directly into the soil; after all even 30–50p per plant from a nursery sounds expensive when wanting to plant hundreds of trees. But sowing directly is more difficult than it might appear and I list the reasons why, as a reminder of what we need to think about when establishing trees.

- You can't be sure seeds are viable and often only a few will germinate
- Some seeds such as those of ash need cold, moist stratification² to germinate well
- Sowing depth can be critical, neither too deep nor too shallow, but this varies between tree species
- Seeds are eaten by mice, voles, birds and squirrels and you need to sow many times more than the number of trees you hope to establish
- Tender seedlings that do emerge are easily swamped by other vegetation or may be browsed
- Seedlings from seed sown in a wood generally grow much more slowly in the early years than those from a nursery

For all these reasons it is far, far safer to buy and plant healthy young trees, already 1–3 years old, that have been raised in a special nursery with the care this affords. They will continue to grow faster for several years than seedlings in a wood.

If one is anxious to save money at this stage, then dig up wild seedlings, called 'wildings', from elsewhere in your wood and use these. Do it properly by excavating a decent root ball and planting the tree in the new location as soon as possible. It is time consuming and, of course, one is restricted to what wildings are to hand. You often find that such self-sown seedlings have astonishingly long, straggly roots that are difficult to dig up. Their lack of fibrous roots slows establishment and early growth.

² Stratification is the storage of seeds at just above freezing temperature in damp sand or peat for several weeks or months to mimic winter soil conditions. This 'pre-chilling' is required for species with deeply dormant seed to improve germination when sown.



Your own nursery

It can be enormous fun growing your own trees from seed. Your friends can help too, sowing acorns in flower pots and bringing to plant in your wood as trophies and trysts of friendship! But if you want to grow you own seedlings for a significant planting you will require a site which is quite demanding in its requirements, but will often be met by the corner of the vegetable patch in your garden! The key requirements are:

- full protection from browsing animals – voles, rabbits, hares and deer;
- full protection from seed predators – mice, birds and squirrels;
- access to irrigation;
- soil that is friable and easily worked and kept weed free;
- a location that is not excessively exposed or a frost hollow;
- adequate access.

If you have such a site and want to try your hand, I attempt to do here for tree seeds the sort of instructions one finds on the side of every flower or vegetable seed packet.

A few years ago The Tree Council issued an excellent booklet entitled *'The Good Seed Guide – all you need to know about growing trees from seed'*³. It is most helpful and well worth getting if you want to grown your own. It is illustrated in colour and silhouette images, many by John White who has illustrated this book as well as the two telling the story of my own wood! In the booklet's information sources at the back, one cited is John Evelyn's famous *Silva*, published over 300 years ago, and that rather took my breath away!

I will cover here the main topics in brief and content myself with strongly recommending that you obtain the Tree Council's excellent guide.

³ *The Good Seed Guide* published by the Tree Council in 2001. ISBN 0-904853-01-2 The Tree Council's address is 51 Catherine Place, London SW1E 6DY Tel: 0207 828 9928 Fax: 0207 828 9060 Website: www.treecouncil.org.uk



Where to get seeds from

If you want to collect your own seeds, obtain them from several different trees of the desired species not just from one, and from trees that are healthy and of good form. You can also buy tree seeds from certain nurseries. Whatever you decide, supplies of seed from year to year are not consistent since most trees only fruit heavily at intervals.

Sowing seeds

When – sow seeds in mid to late spring once risk of frost in past.

Condition of bed – prepare soil into a tilth, clean away all weeds, incorporate a slow-release compound fertiliser high in phosphate (P), but don't over-fertilise.

Quantity – aim for 100 seedlings per square metre of bed or sow 2 or 3 per container.

Depth – sow small seeds, such as birch, on the surface and very lightly cover, larger seeds, such as acorns, should be sown to a depth of 1 to 1½ times their longest dimension. They needn't be placed point upwards as they naturally germinate on their side.

Seed covering – cover seed to prevent birds eating them and help keep them moist. Use sand or grit that is on the acid side of neutral, not chalky. Sandy loam will do.

Watering – Irrigation is critical, but mustn't be overdone. How much depends on weather conditions: the bed or container soil should neither be soggy nor dry and dusty.

Protection from mice and birds – Use netting to keep birds away in the precious days and weeks between sowing and germination: a cat might deal with both threats!

Germination

Germination of seeds never occurs uniformly owing to the seeds' condition, the nature of the seedbed, and other factors not under



one's control. Germination time varies between species. Expect some seeds to germinate a few days early, most to come up at about the average time and a few to be slow and only emerge as time goes on. There will be a definite peak when most come up. In the days after germination provide shade if it is at all warm and sunny since young seedlings are very tender.

Weed control

Seeds of weeds, by their very nature, often germinate quickly, grow rapidly and soon overtop your tiny trees so they must be helped at this critical phase. Pull up all weeds. Do this once a week for the first couple of months and then as conditions dictate.

Thinning out and pricking out

When sowing flower or vegetable seeds we are used to thinning out seedlings to give the remainder room to grow. This is less common in tree nurseries except when using containers and you only want one good plant in each. If you are thinning down to one plant per container use the surplus seedlings to make good any containers that are empty. This operation, a form of pricking out, is best done when seedlings are small 'matchstick' size. Ease the seedling from the container soil and straightaway re-pot it in the new container using a miniature dibble, such as a small stick about the thickness of your little finger with a pointed tip. No time should elapse between lifting and re-potting the seedling apart, possibly, from a brief dunking of the roots in clean water. Do the work in the shade. These precautions are essential: it doesn't matter how careful you are as lifting and transplanting will break off many fine roots – the tiny tender roots and root tips you can only see with a hand lens. Without these the seedling will struggle until they become re-established again in two or three days time.

Freshly pricked out and re-potted seedlings should be kept shaded, but not in the dark, for a week, though the amount of shade can be reduced after about three days.

Transplanting and undercutting

In a small nursery simply use an ordinary flat spade for transplanting. Do it when the plants are dormant, between late



Autumn and mid-Spring, but not when ground is frozen. Sever the roots at a depth of about 15 cm and lever up the plant. Gently shake the soil off, place the seedling in a polythene bag in the shade, and replant it as soon as possible in its new bed for another year's growth. It is now a 'transplant'.

To undercut, use a spade sharpened with a file. Angle the spade down to cut the roots at 15 cm depth, and then withdraw. Undercut in the growing season, say in July.

Lifting and despatch

Your baby trees are ready for planting, usually after one or two years in the nursery when they are 15–50 cm tall and 5–8 mm thick at the root collar, and the final job is to lift them. With a small number of plants, simply repeat the transplanting operation to extract them from the bed, gently shake off soil and place them carefully in polythene bags kept in the shade. Provided plants are dormant when lifted and are kept in a cool dry place – and not at risk from frost – they can be stored for up to 2 months before use.

Now follow the operations for normal planting we outlined earlier.

If all the above operations proceed as planned, you will have the immense satisfaction of growing trees from the very seed you collected. There is no surer way of being certain of their origin and perpetuating the trees and shrubs you want to.

NATURAL REGENERATION

Most kinds of trees in Britain readily set fertile seed that falls or is carried by wind or birds to become the next generation of young trees. We all know someone whose lawn is seemingly invaded year after year by sycamore seedlings or baby oaks germinating from acorns, or how a patch of bare soil or a neglected corner soon sport some healthy birch or ash. Such 'volunteer' trees are called 'natural regeneration'. In our wood this free good is mostly the occasional birch and ash, except on the south side where carpets of sycamores have arisen thanks to seeds from a couple of large, old specimens nearby.



A jay, the master of oak natural regeneration

But are free seedlings like this always welcome and when should one utilise them? Firstly, the trees may not be growing where they are wanted and there's no point in encouraging trees to grow simply to fill up some land. One can dig up such self-sown trees and transplant them but, as mentioned earlier, you will find that even small ones have roots that will have taken a strong hold and often penetrate to a surprising depth. Experience shows, however, that even with great care such 'wildings' often don't grow very well.

Secondly, not only may self-sown seedlings not be of the kind of tree one wants but also they are not always found growing on a site suited to them. A common example is ash which springs up in dense thickets on many freshly exposed road and railway embankments. Despite their profusion they will not develop well on such sites and neither highway authorities nor, certainly, Network Rail, will welcome them either!

Where natural regeneration comes into its own, is when one wants to perpetuate the local tree stock, perhaps for reasons of conservation. Using self-sown trees continues the line of the parents and this goes back generations – centuries in the case of some trees – and so is a genetic link with the woodland heritage of an area. This is mainly a concern with native species and provided the stock is adequate for all of one's tree growing objectives.

Deliberately encouraging natural regeneration is tricky. As a way of regenerating woodland it is attractive, but seeds may not be available in the year you want to begin and even if there is plentiful seed fall, it may not survive the ravages of scavengers such as mice and grey squirrels. The ground needs to be prepared



by light cultivation and you will need to control competing weeds. Perhaps the best advice is simply to take advantage of any regeneration that does appear rather than trying to make it happen. Even experienced foresters can fail to regenerate stands by natural means!

WHAT MAY NEED DOING AS A STAND OF TREES DEVELOPS

Here we look at four silvicultural operations that a stand of trees may require at some stage. They are not equally important. For example, high pruning may only be needed for reasons of rideside safety or if you hope to grow high quality timber.

Cleaning

Cleaning makes us think of washing clothes, tidying our homes, scrubbing a work-surface, or polishing the car, but in forestry parlance it has a special application. Cleaning is the job of removing unwanted growth in a stand of young trees that's past the establishment phase but before trees are big enough to be usable, say when 3–7 m tall. It is an operation that should follow weeding but is commonly neglected although much needed in young woodland. It is ideal autumn and winter work and can be done reasonably safely with hand tools such as saws, hand axes and billhooks, secateurs or pruners. Anything from a tiny group of perhaps a dozen trees upwards will benefit from cleaning.

Cleaning is all about sorting out a stand of young trees to help those you want to succeed at a time when those not wanted are small enough to be dealt with by hand. I thought the best way to illustrate it is to reproduce an extract from Chapter 15 of my book '*What Happened to Our Wood*'. The chapter is called 'Cleaning Taid's Wood'. I've added some headings for clarity.

The story so far

In 1987 my brother-in-law and I planted four acres of new woodland with a mixture of ash, wild cherry and oak trees.



We called it Taid's Wood after my father. The trees grew vigorously in their early years with each individually protected by the then latest device, the plastic tubes or treeshelters, that today litter so much of our countryside. The treeshelters worked well, hardly any trees died and many grew nearly a metre in height each year.

Sporadic removal of treeshelters began in the mid-1990s as the cherry trees quickly swelled to fill the tubes. Removal of all of them from Taid's Wood began in January 1999. But, once de-sheltering was complete, we rather neglected this part of our wood.

The problems neglect of woodland can bring

Neglect can be damaging for broadleaved stands like ours. Unlike most conifers, species like oak, beech, and ash often fail to develop a straight stem unless deliberately helped by the way the trees are grown and cared for. Straight stems are encouraged by growing trees close together, to force upward height and suppress heavy side branches by mutual shading, by selecting trees of good genetic stock, or by formative pruning. In Taid's Wood although we had planted the trees about 3m apart, coppice growth of sycamore and some hazel did in places provide the desired more densely stocked conditions. But using other woody growth runs the risk that it will dominate, and even suppress, the planted trees. It's like allowing moss to green up bare patches of lawn only to find it takes over everywhere. Thus a time comes when a stand of trees needs sorting out, and the job is called 'cleaning'. It brings in no cash but lays the foundation for the future crop, and is a job neglected at peril. In Taid's Wood serious cleaning began in the winter of 2000. The best ash and cherry were already 10m tall and the oak about 7m.

What the cleaning entailed

Initially, one is hesitant in deciding what to cut but over several half days work, six distinct activities evolved. It was like tidying the garage, the more one does the more is discovered that needs attention and the whole job takes



longer than intended. The main task in Taid's Wood was to cut regrowth of sycamore and hazel and self-sown birch and sallow that competed with the planted ash, oak and cherry trees. My small Stihl chainsaw, lightweight with a short 12" guide bar, proved ideal. Stem thickness rarely exceeded 3" and with a well sharpened chain the saw cut through in seconds. With head down and felling several coppice stems in quick succession a rhythm develops though at the risk of being overzealous. Not only is there the question of safety, but the need to consider carefully each stem to be cut, since not every unplanted woody stem is necessarily unwanted. With the fairly widely spaced trees there was still benefit to be had from extra stems to make good any gaps and, in a few places, to substitute the planted tree if it was poor. It was important continually to keep an eye on the surrounding trees where one worked and always on the look out to recruit a new stem. Several well-grown sycamores were added in this way. The grand object was to secure the future of all the best trees and sometimes bring into the reckoning a new one. By cleaning, an unmanageable thicket was turned into a young stand of forest trees.

A few of the planted trees, although growing vigorously, had such badly shaped stems or ungainly crowns of branches that no amount of formative pruning would produce anything worthwhile. These 'wolf' trees are best cut out during cleaning. If not, they occupy much space and interfere with better formed adjacent trees. Perhaps one ash in twenty was culled – 'de-wolfed' – from Taid's Wood and one in fifty of the generally better cherry trees. None of the oaks was really big enough to merit the de-wolfing epithet and also they were being grown in a different way from the rest of stand.

Tiny groups of oaks had been scattered throughout the matrix of ash and cherry trees at 14m centres with the intention that oak will form the final crop. At each centre three oaks were planted in a tight triangle with the idea of selecting the best. A choice of one out of three for oak, with its generally poor form, is really too few. I hoped to get away with it because the acorns had come from good genetic stock and the activities of cleaning and formative pruning at the right time had been factored in. Assuming I was around,



Taid's Wood for one would not be neglected! As cleaning proceeded the triplets of oak were inspected and one or even two of the trees cut out if there was already a clear winner. However, for a few groups it was too late and all three oaks, with their slower growth, were dead or nearly so, suppressed by vigorous adjacent ash or sycamore.

All the while cleaning proceeded, the job was repeatedly interrupted by the strings and ropes of *Clematis* that entangled the undergrowth and ascended into the crowns. Sometimes they stretched from tree to tree like rigging on a sailing ship, but without the order and purpose, and would prevent cut stems falling to the ground. The problem was not serious since during establishment of Taid's Wood killing *Clematis* had been a priority. Nevertheless, dealing with this temperate vine was a crucial part of the cleaning. Tough stems, an inch across, were cut near the base and, importantly, the climber itself was pulled down from every tree it had assaulted. On one wintertime visit it was almost fun. Ben, our youngest son, had come to help and took on the climber-pulling task. It was the Saturday before New Year when most of the country was still in the grip of snow and ice. The trees in Taid's Wood were not only gripped by *Clematis* but still, albeit loosely, by Wednesday night's snow. Cutting any woody growth with the chainsaw sprinkled snow but Ben, yanking and pulling down *Clematis* repeatedly got showered! At least the snow did lubricate the branches so that the whole vegetable mass slid off the tree quite readily, and the hard work kept us warm.

The final cleaning task was to revisit all the better trees. While several ungainly 'wolf' trees were felled, many ash and a few of the cherry were forked or had heavy branches that interfered with less vigorous but better formed neighbours. Although the offending limbs were often rather large – ideally pruning should be confined to branches less than 2 ins across – removing them gave room for adjacent trees to develop. When the first proper thinning takes place in a few years time the future of these partially de-limbed trees will be re-considered, and many will probably go. As with thinning, the intensity of cleaning and what is removed is an open question. Very thorough cleaning and removal of all the poor trees, could make a lightly stocked stand decidedly gappy



and moth-eaten. As with most forestry tasks today's handiwork will be judged many years into the future.

Pruning

In woodland operations there are three situations when pruning might be undertaken, but none is essential compared with pruning roses, grape vines or fruit trees.

- While cleaning a young stand of trees, singling a fork in the main stem of an otherwise desirable tree is a pruning that can be done with secateurs or long arm pruner.
- For reasons of safety and good access, pruning branches from ride and track side trees is commonly needed.
- When growing high quality timber side branches are pruned from the lower trunk to a height of about 4–6 m to restrict the knotty core of timber. This is done early in the life of the stand while the trunk is no more than 10–15 cm thick.

When to prune

In terms of season, pruning can be done at any time though it is best to avoid late spring when copious sap flow can occur. For walnut and wild cherry trees pruning must be done in June or July to minimise disease risk.

In terms of size of tree, this will depend on the purpose listed in the bullet points above. One rule-of-thumb is that it is best not to prune branches bigger than 5 cm at the base, otherwise the wounds take years to heal over and readily become infected and start to decay.

How to prune

The aim is to sever the branch cleanly close to the stem. Do not do this absolutely flush but angle the cut slightly outwards beginning just outside the branch bark ridge – the zone of creased bark at the junction of branch and trunk.

Special long-handled pruning saws do the best job since one wants to cut through not tear the bark. Lopping with an axe is dangerous and generally damaging.



The pruning saw I use, it's a superb tool

Use of sealants

Although painting a sealant over a pruning scar feels as if you are providing a protective bandage, research has shown that little is gained, either in preventing disease or hastening the callus that heals over the wound. Spend time on doing the job carefully and cleanly not money on proprietary sealants.

Thinning

This topic and the next one, felling, are touched on only briefly. Both are major operations that require professional advice, trained operators and are usually done by contractors. What I will do is explain the idea and point you, I hope, in the right direction.

What is thinning?

At planting, or from natural regeneration, commonly two or three thousand trees are established per hectare. Yet at the end of a tree's life – at its rotation age – 50 or 100 or more years later when it is big and ready for the market, only 50 to 250 trees per hectare are left. The process of reducing the stocking of trees down to this small number is the operation of thinning. It is done at intervals as the stand of trees gets older and older.

If you are wondering why one starts out with so many trees when only about 10% are wanted at the end, there are three main reasons: to occupy the available ground quickly; to provide a wide choice of trees from which to choose the very best; and to prevent individual trees developing thick, heavy branches and a spreading



crown which happens if, in early life, they are spaced far apart without competition from neighbouring trees.

How do you thin a stand of trees?

The grand aim is to remove the worst and leave the best. One cuts out dead, dying and diseased trees and those of bad shape. Also one tries to favour the best trees by opening up around them to give their crowns space to grow.

If you open up a stand too quickly by thinning very heavily, the remaining trees – the ones you are wanting to favour – will be blown about, snap off and sometimes be uprooted. Thus it is usual only to thin out (remove) about one-third of the trees in a stand at each thinning.

When do you start thinning and how often is it repeated?

Thinning begins when trees are 10–12 m tall and are big enough to sell for firewood or pulpwood. To begin with the operation is repeated every 3–5 years but as the trees become large and nearer to maturity the frequency of thinning is reduced to every 8 or even 10 years.

Does thinning earn money?

Yes, usually, but not a lot. Because trees are being cut out from among others left standing, the operation is quite tricky and the total amount of wood obtained per hectare may be only be 20–40 tons, thus merchants or contractors won't pay a lot for thinnings. Worse, when trees are small in the first or second thinning you will be lucky to get any income at all since the cost of doing it may be more than the trees are worth. However, by thinning you are improving the crop for the future, so it is best to do the job when you can and not wait in the hope of a better price round the corner.

Felling and starting again

In commercial forestry trees are felled at the end of the rotation. Usually in Britain all the trees in a stand are felled at the same time: this is called 'clear felling'. It is a drastic change to your



woodland but is the most profitable way if this is important. After felling the ground is replanted unless natural regeneration is present or can be expected.

Because clear felling is a sudden and total opening up, there is a trend towards less severe forms of intervention. Most are covered by a new term 'continuous cover forestry'. As the name implies, trees are felled and regeneration encouraged without completely clearing the stand: some big trees are always left and a woodland appearance is maintained. It is a more intensive system, requires skill, and may be less profitable. One way is to fell small groups of trees and replant in the middle of the openings, another way is to thin heavily among the old trees and develop volunteer regeneration, whilst a third way might be to clear fell most of a stand but leave sufficient old trees to give the appearance of continuous cover, and so on. Which system will work best depends mainly on the site and the tree species involved. Space does not allow more details here. To illustrate the complexity, one can't regenerate woodland using small openings if the species concerned is ash or oak, both of which require plenty of sunlight from an early age, but it could work well with the more shade tolerant beech. That said, trying to establish groups of trees in small gaps is usually doomed to fail. A useful rule of thumb is that the minimum diameter for a gap to be worth planting (regenerating) is $1\frac{1}{2}$ times the height of adjacent trees.

If you think your trees are mature and your wood has reached the time when it should be regenerated – or you simply want to start again and leave your own mark on the wood – seek professional advice. As I have said before, an hour of a professional forester's time will repay handsomely as alternatives are presented and opportunities discussed.

COPPICING AND POLLARDING

Coppicing

These terms describe cutting a tree near ground level (coppicing) or somewhat above head height (pollarding) – and so out of reach of browsing animals – in order to use the shoots that emerge to form the next crop. The words 'coppice' and 'pollard' are also



nouns that name a crop or tree created in this way. Only broadleaved trees can be coppiced with the famous exceptions of redwoods, monkey puzzles, some cypresses, Chinese fir and one or two tropical pines. Even with broadleaves, coppicing potential and vigour varies. At every coppicing a few stumps die, and species such as beech and common alder generally do not sprout coppice very well. With beech it seems to coppice better in the wetter west parts of the country. Certainly in our wood in Hampshire I have been surprised how many stumps of beech have coppiced following wintertime thinnings in 1997 and again in 2003.

Restoring an old coppice

I begin with this because if you have bought a wood in the lowlands it is quite likely that it was once managed as a coppice. This is also true for many woodlands of native broadleaves in the uplands of southwest England, Wales, the Lake District and western Scotland. Indeed, historians believe well over half of all woodlands were managed by coppicing in medieval times. Yet, today, active coppice management is confined to about 25,000 ha or only one per cent of the total forest area.

A rapid decline in coppicing occurred in the early decades of the last century. This arose mainly from a collapse in markets for tanbark, charcoal, firewood, and rustic products such as thatching spars, hurdles, and besoms. There is now something of a revival of these rural crafts and coppicing is back in fashion along with all its wildlife benefits.

Why restore coppice?

There are several answers to this question. First, coppicing will bring back a neglected rural craft and demand for rustic produce such as hazel spars, hurdles for fencing, whilst poles and sticks for the vegetable garden are on the rise. Secondly a coppice is the perfect renewable and sustainable energy source for firewood or charcoal. Thirdly, and most important for many people, restoration of coppice will promote a wildlife habitat, a theme we return to in Chapter 8.

Can a wood be too small to consider for resuming coppicing? In a word, no. If there are clear signs that a wood was once coppiced,



even a half-acre copse (as the name implies) can be restored again, perhaps as two quarter-acre coupes cut five years apart. If once coppiced, it can be coppiced again.

Recognising coppice woodland

Because coppice uses the regrowth that sprouts from cut stumps, the key to identifying that a woodland is in fact a coppice is to look at the trees and how they appear. In a forest that is *not* coppiced but felled and replanted or regenerated by natural seeding all the trees will have single stems or trunks at ground level. In a coppice things will be quite different. Most trees will be multi-stemmed at or near the base with two or more trunks growing up very close to each other.

Sometimes in a long neglected coppice one tree stem or trunk will dominate and the others from the stump fail to grow much. Often the dominant trunk will appear slightly bent or swept at the base curving up a little from the ground and slightly off-centre. This feature, and the presence of even weak basal shoots, indicate a likely history of coppicing. A good example is the National Trust's lovely Hembury Woods on Dartmoor. They have been well thinned over the last 30 years with the best trunks of coppice origin favoured (a treatment called 'storing coppice') and the woods now look like a delightful high forest of oaks. But careful inspection of the base of each tree shows this off-centre feature of the trunk and often several straggly shoots persisting and growing out of the base – the sure signs of coppice origin.

Where coppicing has been practised for hundreds of years the original stumps will have long disappeared. However, the present trees may still be in multi-stemmed groups and also may make an informal ring with other clumps a bit like a fairy ring of mushrooms and toadstools. What has happened is that at each coppicing the new shoots arise at the periphery of a stump and so it enlarges a little each time.

Types of coppice

Coppices are not all the same. They vary in species composition, in their rotation or length of cutting cycle, and whether or not they have large trees (standards) scattered through them. I give a simple classification below which I hope is helpful. Once you



know the type of coppice woodland you have, then its treatment becomes clearer.

Pure coppice This is a coppice made up of one species. Examples include sweet chestnut, which is common in Essex, Kent and Sussex, hornbeam on the heavy clay soils around London, hazel in many woodlands in the southern half of Britain, and oak woods all along the western seaboard.

Mixed coppice This is a coppice of several species and deliberately managed as such. It is fairly common and is usually a short rotation coppice for producing bean poles, pea sticks, hedging stakes and similar small sized material. Mixed coppices typically contain hazel, birch, willow, hawthorn, ash and sometimes oak, lime, field maple, buckthorn, wild cherry and alder.

Short rotation coppice While there is no strict definition of what is 'short', it is usually accepted that coppice crops cut on a cycle or rotation of less than 10 years is short rotation, typically hazel. However, the name has been hijacked by the energy industry as 'short rotation coppice', or SRC as it is sometimes called, and is recognised today as a special crop of poplar or willow grown for biomass or 'green' energy.

To be strictly accurate, we should mention osiers, where special varieties of willow are cut each year to yield the pliable and wiry 'withies' for basket making. This is still an active local industry on the Somerset Levels.

Long rotation coppice All other coppices are worked on cycles longer than 10 years, and sometimes as long as 30 years, but rarely more. Such coppices include sweet chestnut, cut on a rotation of 12–18 years depending on quality, and worked for fencing stakes and traditionally hop poles, oak on a 25–30 year cycle when it was managed for tanbark, and hornbeam a similar length of time when it supplied firewood and charcoal for industry and the hearths of the home counties. Other coppices managed for firewood, or even pulpwood, would have rotations of 20–30 years to produce pole size material.

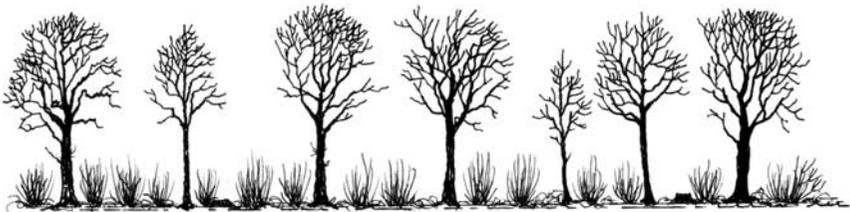
Coppice with standards This is a coppice crop within which there is a scattering of larger trees that stand over the coppice or



understorey (called 'underwood' in such circumstances). These larger trees, called standards, are well spaced apart so that the coppice is not heavily shaded. The idea is that both large timber as well as small-sized produce from the coppice are obtained from the site. Coppice-with-standards make an attractive stand and many traditional coppice woodlands were managed in this way.

It is easy to tell whether a woodland today is a neglected coppice-with-standards. As well as having clumps of multi-stemmed trees arising from the base, the big trees present will, very tellingly, have large usually dead branches low on the trunk. Typically these large limbs will be only 6 or 7 m from the ground. This shows that once these trees grew in much more open well lit conditions and not in a dark forest stand environment, even though today they may be in dense woodland. Part of my wood that we call Nain's Copse is like this with an underwood of sycamore and ash, last cut in about 1960, and a scattering of oak standards with only short branch-free trunks.

Standards are carefully managed along with the main coppice crop. Each time the coppice is cut, say every 20 years, the oldest standards will be taken and a few new young ones recruited. Typically a coppice-with-standards will have several age classes of standards that match the cutting cycle. Thus a coppice cut on a 20 year cycle should have a few standards each of 20, 40, 60, 80 and perhaps 100 years old respectively. This is illustrated at the end of Chapter 2 and again here to try and make it clear.



Coppice with standards showing different ages of standards

Oak is much the commonest species used as a standard. Ash is also suitable, but beech and hornbeam cast too heavy shade.



How to coppice

This is a wintertime job though it can be carried out later into the spring than planting. Ideally coppicing should be finished by the end of April otherwise the new shoots emerge late in the summer and are still small by the following winter. Cut coppice stems cleanly to near ground level taking care not to damage the bark. Provided the area is not heavily browsed, new shoots (coppice) emerge from the stump, called a 'stool', in late spring. The new shoots may grow 4–6 ft (1–1.5 m) in the first year. Initially many shoots will grow up but these thin themselves often to leave half-a-dozen by about 15 years of age or two or three times this number in the case of hazel.

Standards can be either recruited by leaving the occasional coppice stem or be planted.

Pollarding

The tree is regularly decapitated at intervals of 10 to 20 years and the shoots (branches) traditionally used for firewood or stored for winter cattle feed. The operation fell into neglect and many of today's large, stag-headed, multi-limbed trees are the result. Let's remind ourselves what pollards look like from John White's sketches in Chapter 2.

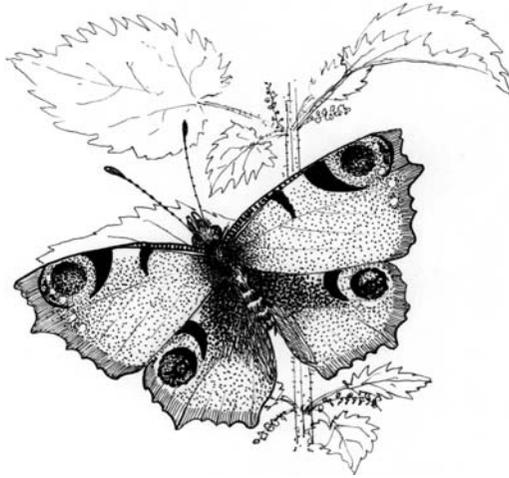


Different kinds of pollards

Pollarding is seeing a revival, particularly for riverside willows and there are some attempts to resume the practice on long neglected trees, but it is not at all easy. The trick appears to be only to cut off the branch just above the old cut and not below and into even older wood, but even this will not guarantee success.



Pollarding can create very old and squat trunks, often decay ridden, but still alive and a serviceable shell with an interior home to highly specialised beetles and other micro-organisms. It is a good operation to perpetuate.



Peacock butterfly with its favourite food, the stinging nettle: at home in almost all working woodlands

Woodland Crafts and Produce

This chapter is all about what you can obtain from your wood. We shall first look at topics relating to timber production we mentioned in Chapter 3, namely:

- how to assess quality and quantity of timber;
- advertising trees for sale in magazines like *Woodlots* and via websites;
- how to sell trees to contactors; and
- typical prices for timber.

We then look at the rewards of using your own timber whenever you can, comment on wood turning, making and using stakes, and finally using green timber. This eclectic group arises from personal interest and by way of illustrating the potential since we can't cover everything in a short book. We won't say much more about firewood or Christmas trees which we covered in Chapter 3.

The basics of timber production

I mentioned at the beginning of the book that inviting a professional forester to cast an eye over your wood, even for



only an hour, will handsomely repay itself. You will have a good idea if there is timber of worth, when and how it is best managed, and what steps to take, and you'll probably learn lots more besides. But even if timber production and earning income is of no concern, knowing what you have or don't have as the case may be enriches your knowledge. What I do here is provide rough and ready guidance to help get you in the right 'ball park' as the Americans would say.

If your wood is newly planted or none of the trees is over 8 m (25 ft) tall you can skip the next section since your trees are still too small to be saleable as timber. The exception is hazel coppice, but we will comment on this and other coppices a little later.

How much timber do you have?

In the trade timber is mostly sold by the cubic metre of volume which, for freshly felled unseasoned logs, equates very, very approximately to a ton in weight. We will stick with this more familiar measure. What one needs to do is work out how much you have of each main species. You need to know the number of trees and their average size.

To find out the number of trees in a small wood, and if trees are in rows, you can count every one or (say) every fifth one and work out the total. If rows are not obvious sample your wood by randomly¹ locating square plots of 10 × 10 m. Mark the corners and count the trees inside the plot. For a 2 ha (5 acre) wood lay out 10 plots, for a 5 ha (12 acre) wood 15 plots should do unless the wood is very variable. Now calculate the average number of trees per plot, multiply by 100 to discover the number of trees per hectare, and then multiply by your wood's total area for the total number of trees.

Once you know the number of trees of each species you next need to estimate the average volume or weight of timber. Here we become very imprecise, but you'll at least get an idea. When

¹ An objective though not entirely random way is to begin at a corner of a wood. Then take as many paces into it equal to the first two digits of your credit card number. Where you stop is your first plot. Pace on the distance equal to the next two digits on the card for the next plot and so on. If you reach the other side of the wood, turn round, take a different direction, and continue until you have ten or more plots.



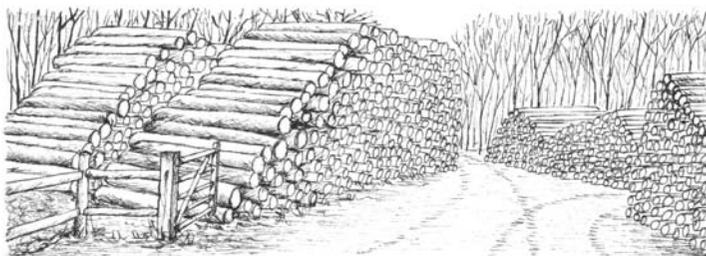
counting every fifth tree or the ones in a plot, measure their diameter as well – diameter is measured 1.3 m above ground. You can use an ordinary linen tape measure and your GCSE maths to convert circumference to diameter! The table below gives an approximate weight of timber according to diameter of the trunk. I originally drew up this table for an article about estimating amounts of unseasoned firewood *if all parts of the tree are used*, but it will hold crudely for timber in general.

Diameter of tree (cm)	Approximate weight of wood (tons)
10	0.02–0.04
20	0.2–0.3
30	0.6–0.8
40	1–1.4
50	1.8–2.4
60	3–4
70	5–7

The table shows that trees with diameters greater than 20 cm are pretty big and ones above 40 cm very sizable indeed. Unskilled operators should not attempt to fell trees any bigger than 10 cm diameter at the most.

To complete your rough estimate, I suggest you total up how many trees are around the 10 cm diameter mark, then how many are around 20 cm, and so on and then multiply the number in each diameter class by the weight given above. This will give a better result than working out an overall average diameter to get an average weight.

Remember, all this is very crude, but it will tell you whether you have something like 100 tons of timber in your wood rather than 500 tons, or vice versa. The illustration overleaf shows piles and piles of logs at the entrance to my wood. At the time I only owned 22 acres of woodland, and about 630 tons of logs came from just part of it and from just removing the pines from among beech trees, it was not a clear felling. Although many readers will not be interested in this side of forestry, eventually all woods need some thinning out and a lot of timber can result.



Not a priority for many, but using or selling your own timber can help with income and reduce Britain's imports

What makes timber good quality for selling?

I added 'for selling' to the subtitle because for many purposes, such as wildlife, amenity, or firewood, timber quality is irrelevant. But if you want to sell timber, and many small woods contain trees of value, quality is the key to price. It has four elements.

Quality firstly means species. Of the broadleaves, good oak and ash fetch better prices than good beech or birch, while willow – apart from the specialised cricket bat market – is virtually unsalable. Of the conifers, Douglas fir and larch usually sell readily, pines can be more difficult, and while good spruce is in demand, poor material is only fit for pulping. Added to this are specialised markets for prized timbers like walnut, sycamore with a curly grain, wild cherry with vein, but don't worry about these unless it interests you.

Secondly, good quality means large size. Small trees are of little or no value regardless of species. Prices increase rapidly with size. An oak of 25 cm diameter may sell for firewood – if you are lucky, a good one of 75 cm may go for several hundred pounds. Occasionally a tree can be too big, like a large old hulk of a seaside pine, simply because sawmills cannot cope with the dimensions.

Thirdly, good quality means defect-free. A log must be free of decay or bad deformity and big knots.

Finally, good quality means straight. Straight logs are transported more efficiently and when sawn the outturn from them is very much higher than from bent or forked ones which result in a lot of waste.



So, a buyer looking at your trees will be keeping an eye out for large, straight, blemish free trees of the species of interest.

How to advertise trees for sale

Most timber sold by private owners, is by 'standing sale'. That is the owner sells the trees while they are still standing. The job of cutting them, extracting the logs, and hauling them to a mill is done by the purchaser. It saves the hassle of doing the dangerous operations yourself. Of course, big companies and the Forestry Commission have their own felling gangs, but I don't expect many readers will be in this league.

The minimum a buyer needs to know is which trees are on offer. So you need to identify these and mark them clearly say with a spot of paint. Everything else about your wood, whether you have the appropriate felling licence, the quality of access, the terrain, the total amount on offer, will be evident when the potential buyer visits though it helps to have this information in advance. But how does one find a buyer in the first place?

Never underestimate your neighbours, so ask around if someone has sold timber in the last couple of years. If it went well, you have your recommendation. Failing that some Forestry Commission offices maintain lists of who might purchase timber. If a professional forester has visited your wood, do raise this topic. Trade magazines like *Forestry and British Timber* and *Forestry and Timber News* always have 'Timber wanted' adverts as do *Smallwoods* and the *Quarterly Journal of Forestry*. Following up an advert will quickly tell you what is being sought, and so set you on the right track.

For my part the Southeast England magazine 'Woodlots' run by East Sussex County Council is a must. It's like the 'Exchange and Mart' of forestry and is particularly helpful for the small owner. Other regions have networks or local associations that help timber sales like *Yorwoods* in Yorkshire, *Cumbria Woodlands*, *Chiltern Woodlands Project*, *Sylvanus Trust* in the West County, and *Anglia Woodnet*. Also there is the national 'Ecolots' which grew out of the success of 'Woodlots'. Most selling through *Ecolots* is web-based, so access it via the internet: www.ecolots.co.uk. Advertising in *Woodlots* is free and it succeeds in putting sellers and buyers in touch. Every advertisement I've placed has brought a sale even if not the price my inveterate optimism hoped for!



Many large private owners contract out woodland management, including selling timber, to a consultant or a management company such as Tilhill or English Woodlands. For small woodland owners not only will this be costly, but it takes away part of the very fun that buying a wood brings.

Selling to contractors

Several people who respond to adverts in *Woodlots* are actually timber contractors. Most are highly reputable and will be willing to visit your wood provided you can offer for sale at least 20 tons of decent timber. Of course they would prefer 200 or 2000 tons, but a good lorry load is the minimum most will consider. After looking at what you've got and assessing factors like access, if they are interested they will offer a price of around a few pounds per ton, unless what you have is exceptional.

Once you accept an offer a contract needs to be drawn up making explicit what is being sold, how long the purchaser has got to take his trees (2 years is normal), when payment is due, what insurance cover the purchaser must have to indemnify you against accidents, how tidy the contractor should leave the site, and other terms and conditions. A map showing the area where the trees are and the access routes is essential.

Instead of advertising you can circulate particulars directly to local contractors. These are rather like an estate agent's for a house sale, and describe what is on offer and what special conditions may be laid down. For example in my wood the main track must always be kept free for Network Rail staff, so timber operations must work round this.

Typical prices for timber

I'm not going to say much other than give you an idea of prices of standing trees. Remember in very general terms a 'ton' equals 'cubic metre'. And remember, too, prices vary enormously.

Small size material for firewood or pulping	£0-5 per ton
Medium sized trees for fencing, chipping and small logs	£5-10 per ton
Large conifers for sawmilling	£10-30 per ton



Large hardwoods for sawmilling	£20–80 per ton
Large hardwoods of exceptional quality	up to £250 per ton

Assessing coppice

Coppice is sold by area, say one acre. A buyer will look at it for density of stems, their straightness, freedom from kinks (especially hazel), thickness and such factors as ground conditions, proximity to a track and so on. However, there is an enormous amount of neglected and overgrown coppice unfit for traditional usage which needs bringing back into rotation first before it is saleable for anything other than perhaps firewood.

Using your own produce

Owners of small woodlands, possibly more than those of large estates, have a yen to use their woodland's produce as well as other forms of enjoyment. This desire can lead to interesting results and not a few benefits. Of course, the possibilities depend on the type of woodland, but let's look at some of them.

Supplies for the garden and home

If you have hazel coppice, or any type of coppice or young woody growth, finding bean poles, pea sticks and other vegetable patch and gardening props and supports will be easy. But what about rustic fencing, or your own decking, or making a seat out of a fallen oak – the sapwood might decay in a few years but the heartwood will remain for at least two decades and often longer? Talking of durability, sweet chestnut is the equal of oak in this respect and Lawson cypress may even better it. So there is a use for the poles from the overgrown hedges of suburbia!

These remarks about fencing were prompted by using Douglas fir from my own wood to replace the fence at its entrance now that the beech thinning is complete and the last lorry has uplifted the final consignment. Douglas fir is moderately durable and I hope will last up to 15 years. The trees used were 47 years old and were ones in the subdominant or suppressed crown class but still alive, with long slender stems to make rails, while thick enough at the base to produce a post or two. Despite their slow growth from a



life in heavy shade these otherwise valueless trees had developed good heartwood. If the job had been in early winter the tops of one or two of them would have made a passable Christmas tree. But I did the fencing in April and May and just contented myself with relishing the resin-rich aroma of Douglas foliage.

And the thought of foliage leads naturally to decorative uses of it in the home along with bark, cones, mistletoe at Christmas and other gatherings from the wild.

Energy

Perhaps collecting firewood is the most obvious use for one's own produce, always provided you have a house with a fireplace and chimney! Little more needs to be said apart from reminding ourselves what we noted in Chapter 3 that firewood is a green form of energy. If you cook or keep warm by burning wood, necessarily you are not using a fossil fuel like oil, coal or gas, so your net impact on carbon dioxide increase in the atmosphere is neutral – a tree grows by absorbing carbon dioxide through its leaves to make wood. Cutting firewood is a wintertime activity and what you cut one winter is best used for the next so that what you burn in the grate is well-seasoned. Dry wood burns well and gives out much heat. Green logs don't. They are full of water, and much heat is used driving it off.

More adventurous

So far I have confined remarks to produce that you can easily obtain without recourse to contractors or taking a chainsaw course. But clearly there is no limit in reality: friends of ours bought a dilapidated house with a 23 acre coppice with standards just weeks before the great storm of October 1987. The oaks felled by the storm provided all the flooring needed in the restoration of the property.

Wood for turning

There is a special delight in a gift of a bowl or goblet or paper knife or delicately crafted ornament carved or turned from wood from one's own patch. My brother received an ash 'thing bowl', as we



called it in our childhood, for his 60th birthday. This is the most recent of many gifts to relatives and friends turned from pieces of yew, oak, wild cherry and even birch from the wood. There are woodturners galore. So popular is the hobby that at least three dedicated magazines can be found in a large newsagents.

Most woodturners acquire their material as off-cuts from sawmills, DIY stores, fallen trees, and other bits and pieces. Garages become cluttered, and garden sheds inaccessible as all sorts and sizes of wood are stored waiting their turn(!) and, importantly, slowly seasoning. My brother-in-law's late father-in-law(!) was a keen wood turner and he used old toilet seats as a wonderful source of tropical hardwood! Forgive the rash of exclamation marks, but they convey my own journey of discovery into this world of woodturning. But as a woodland owner, can one sell material to this particular market?

What wood turners look for

Most woodturning seeks to display grain, figure, colour or patina, or an unusual feature like a knot cluster. The woodturner's expertise is seeing the potential and, like a diamond cutter, using his craft and skill to bring it out for all to admire. But, few woodturners give much thought to where their raw material originally came from and make the link back to the tree itself. They appear content just with the piece of wood that holds interest.

I am fortunate that twice the Hampshire Woodturners Association have visited my wood. I want to share this in a little detail to show what a delicatessen woodland can be. Within reason I offered to fell any tree, standing or fallen, if it might hold some turning interest. I was armed with a chainsaw. This is what happened.

1. The first tree was a small beech about 15 cm in diameter that had died about two years before from beech bark disease. I cut it at the base and whoops of delight revealed that the feature known as 'spalting' – dark lines like a artist's fine pen and ink sketch – were present. Several two foot lengths were cut off the stem for the woodturning visitors. The spalting feature occurs at a very early stage of 'decay', but does not continue to extend when turned into an artefact or brought indoors.



2. The next tree was an oak with a burr – a nobbly swelling on the side of the trunk – that I thought they would like. I was right in thinking that burrs are interesting, but this one was too small and no one wanted it. A large burr, that swells out from a tree like a heavily pregnant mum, are much sought after.
3. Farther into the wood we passed an uprooted birch, perhaps 40 or 50 years old, that was steeply leaning but not on the ground. I was asked to cross-cut it. This was dangerous, as is dealing with all hung up or blown trees. But this birch had been prostrate for several years and so, gingerly, I began cutting into the trunk. Eagle eyed I watched for any shifting of weight or tightening of cut, but there was none. The passage of time must have eased the huge tensions uprooted trees possess, and I safely cut right through. The cross-section exposed was a jigsaw of pale yellows, pinks and ochres across the surface! Several bits were cut and added to other trophies destined for the lathe.
4. Nearby was a 70-year-old ash with a huge limb rising from near its base. It was of coppice origin and I remarked that the tree would be much improved if this limb was removed. So remove it I did and was asked to cut it into 4-foot lengths. Subsequently the lengths were ‘quartered’ into ‘sixths’ – I am sure you get my meaning – using a sharp wedge and mallet to provide cleft ash for turning into chair legs.
5. The next tree was a long fallen yew that blew down in the storm of 1987. Much was still sound and the wood, with its deep pink heart, is always of interest. Several pieces were cut from branches.
6. The last stop was where a great oak had been felled five years before the wood of which possessed the rare and valuable feature called ‘brown oak’. This is natural chocolate brown staining caused by the beefsteak fungus. Discarded wedges from the felling still lay about – at least until my woodturning visitors found them!

Lessons for a woodland owner

I learnt much from the visits of the woodturners. They look at trees and bits of wood with a different eye. It has added to my own interest in our woodland, and not least that I could make a little



money from trees that were totally unsaleable to the usual timber markets. But before one gets too excited, woodturners are quickly satisfied in terms of quantity and the size of this niche market for any one woodland is unlikely to be large. Nevertheless, I hope that relating the woodturners visits in the way I have has shown you that there are other products that can come from a small woodland or even the odd tree. The usual premium placed on large, defect-free, straight stems has no place, quite the opposite in fact. Just as in the Bible we learn that God looks not on the outward appearance of man but on the heart, the woodturner weighs up what might be inside a tree.

Making and using stakes

Every woodland owner can make use of stakes. They are needed for fencing, for corner posts or gate posts, for name boards or fixing warning signs, while short stakes are used to stop vehicles encroaching soft ground. Thin stakes are needed to support tree shelters and other guards of newly planted trees. And, that's not all: birds perch on them, and where else do you put a mug of piping hot coffee? Most if not all the stakes you'll need can be obtained from your own wood.



This yellowhammer knows what a post is for



What makes a good stake?

A stake, like any other product, must be 'fit for purpose'. This means it must be (a) straight and of the right dimensions, (b) strong, and (c) durable i.e. resist decay, even in ground contact, for many years. Other desirable qualities are an ability to hold nails, be resistant to splitting, and for the surface to be free of splinters, snags and other hazards.

Tree species that make good fencing material

Most conifers (softwoods) produce straight uniform stems and, therefore, make potentially good stakes. Not all are naturally durable, and unfortunately not all that lack durability will accept preservative well. For broadleaves (hardwoods) the situation is even more variable, and it is also more difficult to find and cut a high proportion of straight stems. Below are some species worth considering. Ones left out like spruce, birch and poplar are unsuitable.

Species	Straightness	Natural durability*	Uptake of preservatives	Other factors
CONIFERS				
Pines	very good	fairly poor	fairly resistant	
Larches	very good	good	fairly resistant	good stakes
Douglas fir	very good	fairly good	resistant	
Cypress**	good	good	fairly resistant	good stakes
Yew	moderate	good	resistant	fine gate posts
BROADLEAVES				
Ash	good	poor	fairly good	may split
Beech	moderate	poor	good	
Oak	poor	very good	resistant	use heartwood fine gate posts
Sweet chestnut	good	very good	resistant	good stakes
Sycamore	good	poor	good	

* natural durability: poor = decays in under 5 years; good = will last about 15 years

** Lawson and Leyland cypress and the similar red cedar make durable stakes



Sizes of stakes and other fencing materials

Size depends on usage: for example gate posts, strainers or corner posts will need to be thicker than fence posts simply acting as wire supports in a long run of fence. The following sizes are illustrative.

Netting and tree stakes	0.9 – 3.0 m long	5–10 cm diameter
Fence posts (ordinary)	1.2 – 2.0 m long	min. 6 cm top diameter
Strainers/corner posts	up to 2.3 m long	min 12 cm top diameter
Gate posts	up to 2.6 m long	15–25 cm top diameter

Struts and anchoring stakes are typically 2 m long about 10 cm diameter. Rails are the appropriate length and at least 5 cm diameter.

Other types of stakes will have different dimensions. Supports for tree shelters can be cleft chestnut, rough sawn (3 cm) battens, or small stakes (3–4 cm diam). Hedging stakes, set every metre through a newly laid hedge at about 80°, need only be 3–6 cm diameter.

Cutting and preparing posts and stakes

Stakes usually come from first or second thinnings in plantations, coppices, or from the tops of trees in later thinnings. Once the felled tree is delimited, stake lengths are cut according to need. Most stakes, especially from conifers, are used 'in the round'. However, a large diameter stake can be split (cleft) into two, or sometimes more pieces. Traditional oak post and rail fences are cleft as is the special form of chestnut fencing where palings are wired together – and are often seen cordoning off building sites.

Pointing stakes can be done on a sawbench with a circular saw, but do ensure that you are trained and wear protective clothing. If you only have a few stakes to point, then use a hand axe. Make sure the axe is sharp. Hold the stake firmly at about 25° off vertical and rest the end for pointing on an old tree stump, log or discarded plank of wood. Start trimming off the bottom 15–25 cm with vertical strikes of the axe to create a taper of about 25°. Once one face is tapered turn the stake a half rotation and taper off the



second face. This will leave a wedge shape. Trim the sides of the 'wedge' to fashion the third and fourth faces and so complete the pointing. There's no need for a sharp point, which is easily broken off, a small square end is best.

Preservative treatments

Where non-durable timber is used for stakes or other fencing material that will be in ground contact, preservative treatment is essential. However, simply painting a surface application of a product will not do, despite claims on the container, though diffusion of borate-based preservatives is sometimes possible. For some species the sapwood will retain preservative but the heartwood won't. Some sawmills have on-site preservative treatment plants and may be willing to treat your stakes. It is generally simpler to use species that have some natural durability such as larch, yew, cypress, oak and sweet chestnut.

Note that it is now illegal to use creosote – for me, though, its smell still evokes happy childhood memories of helping my father 'creosote' the garden fence every few years.

A few tips when using stakes

Space does not permit a detailed description of erecting a fence, but here are a few tips from the best of all classrooms, experience in my own wood.

1. Always open up a hole with a crowbar before driving in the stake. This guides the stake down at the right place, helps keep it vertical, and you discover what the soil is like and whether there are stones. Also, the actual driving in of the stake will be easier.
2. Use a proper sledge hammer, not the back of a 7lb axe(!). Better still use a stake-driver i.e. a 1 m long iron tube sealed at one end and with handles, that slips over the top of the stake. Using an up and down pumping action the tube's weight drives in the stake.
3. If the top of the stake becomes badly scuffed or split, cut off the top 1 cm or so with a bow saw after the stake has been fully driven home. Alternatively chamfer (trim back) the edge around the top and splitting will be unlikely.



4. One-quarter to one-third of a stake's length should be driven below ground.

Happy staking.

Using greenwood

Today there is great interest in using freshly cut wood in the round, that is not sawn, and using unseasoned timbers for rustic purposes or even for buildings. Ben Law's famous house built from woodland produce using traditional skills has sparked widespread interest. There are really two key points to note.

Firstly, one works with nature's natural shapes. One looks for a bend or a fork or a certain length for a particular purpose to minimise shaping and cutting the wood itself. Added to this splitting with the run of the grain is preferred to sawing to help optimise strength as the fibres of the wood are not cut.

The second point is that the wood or timber dries *in situ*. As it dries (seasons) some twisting, shrinking, cracking and other movement is inevitable; changes which can go on for a long time. As I write this I am seasoning a 6 ft plank of 3" × 7" oak cut from my own wood to use as a mantelpiece. I am, of course, only using the heartwood. And this tests one's patience: it dries very slowly proceeding at about 1" of thickness per year. Only in about 3 years time will all seasoning induced movement stop and the mantelpiece be ready for life in the warm and dry!

It's good to work with nature, but recognise you are using a very different product from the dried, planed and shrink wrapped offerings of your local DIY store.

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 niches¹. 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

¹ 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

Sources of advice, grant aid, taxation and certification issues

In this last chapter to help you get started in your own wood I again draw on my experience rather than simply present a dry list of information sources. These, such as addresses, other contacts and sources of information, are in the appendices. Help can come in many different ways including grant aid. Even as a professional forester I have not been wanting for advice from others.

I've also summarised a few legal and taxation issues and comment on certification.

Neighbours

One of the best places to start is to ask a neighbour. To the south of our wood is a small organic market garden and Mike, the owner, willingly cuts my rides once a year, has cleared away rubbish dumped at our entrance, and generally keeps an eye on things. And, next to Mike is Melvyn. He works coppice in traditional ways when not farming his smallholding, and there is probably nothing he doesn't know about local wildlife, not to mention other rural goings-on. Opposite Melvyn live the Armstrongs who readily phone if they've seen something amiss. Beyond them,



Peter, who farms several fields, has kindly cut back our protruding hedge to allow combine harvesters easy passage along the lane so I get a free hedge trimming! Alan, whose 3 acre wood adjoins ours, is always passing on bits of local knowledge. Even Network Rail contribute to ride upkeep through the wood and cut back overhanging growth next to the railway. Neighbours are mostly a boon, and all of us like being asked for advice, for our opinion, and even for our help.

Reading matter

The ignorance of woodland lore is reflected by its absence in literature. Hansel and Gretel has no English parallel, though there is the joy of playing pooh-sticks, reading of the storm that blew down Owl's house, and other delights in A A Milne's *Winnie-the-Pooh* stories centred on One Hundred Acre Wood. One can, though, pick up a remarkable amount without really meaning to. Thomas Hardy's *'Woodlanders'* recounts much of coppicing, tree planting and the timber business, and who can fail to be impressed by Cobbett's *'Rural Rides'* or H E Bate's *'Through the Woods'* and his eye for detail in the cycle of woodland life as season follows season and altercation follows altercation with gamekeepers and the hunting fraternity. But, on the whole, there is little written informally about woodlands and woodland work. My own efforts of telling the story of a wood in *'A Wood of Our Own'* and *'What Happened to Our Wood'* have, I believe, no antecedents as neither did Thomas Firbank's inspirational *'I Bought A Mountain'* relating his venture into sheep farming from scratch in the wilds of Snowdonia in the 1930s.

More formally there are countless books about individual trees, how to identify them and what uses they have and increasingly they include chapters on tree management. Many gardening books contain sections about tree work, with some well-known authors like Alan Titchmarsh especially knowledgeable from their own experience. Alan owns a wood of 30 acres which is a delightful mix of new planting and mature woodland.

More formally still there are many books about forest and woodland management and silviculture, but few focus specifically on smaller woods apart from the late Ken Broad's almost encyclopedic *'Caring from Small Woods'* and Ben Law's informative



personal perspective in *'The Woodland Way'*. A comprehensive guide into all aspects awaits an author though Chris Starr's recently published *Woodland Management – a practical guide* gets nearest.

Periodicals and magazines that cover woodland work are either trade journals such as *'Forest and Timber News'* and *'Forestry and British Timber'*, or newsletters, magazines or journals associated with membership of societies, both professional and non-professional, of which there are many. Several are listed under societies and associations, but the most helpful for someone starting out is *'Smallwoods'* which is the journal of Small Woods Association.

When to get in touch with the authorities

Forestry Commission This is the government department responsible for forestry matters. For the small woodland owner the Forestry Commission will be the most important contact as *all felling of trees, beyond very small quantities, must be covered by a current felling licence or an approved management plan*. The good news is their Woodland Grant Scheme. Details differ between England, Scotland, and Wales, but grant aid is often available for woodland assessment, planning, improvement, regeneration and creation.

Get in touch with your local office using the Yellow Pages, telephone directory, or the Forestry Commission's website. You will find them almost a 'one-stop-shop' for forestry and woodland matters, for the few minutes they can spare you, and the local forester is occasionally able to fit in a brief visit to one's wood to discuss plans and ideas.

Local authorities Many local authorities employ tree or woodland officers who may be able to give advice. Sometimes a district or county may offer grants to help with certain woodland operations. For many years Hampshire encouraged the restitution of neglected hazel coppice as part of their countryside policy. Their forestry officer visited our wood to look at the neglected hazel, but wasn't impressed with its stocking and it didn't merit grant aid! Tree and woodland officers are usually found in the Planning Department or with Parks and Gardens.

Local authorities are also responsible for Tree Preservation Orders and should always be contacted in connection with such



matters. At the moment woodland operations do not come under planning control, though building and all related works do.

Other bodies The Department for Environment, Food and Rural Affairs (DEFRA) and their Scottish and Welsh equivalents may grant aid farm woodlands, often in conjunction with the Forestry Commission, as part of their environmental stewardship scheme.

Natural England (a new body to include English Nature), Scottish Natural Heritage and the Countryside Council for Wales may support some woodland work directed towards conservation improvement and, of course, will be directly involved if a woodland is a Site of Special Scientific Interest (SSSI) or is part of a nature reserve. English Nature provide a free information service.

National Park Authorities will have an interest in woodlands in their area

Joining Societies and Associations

There are numerous societies and voluntary bodies concerned with trees, woodlands and forests. I highlight here the ones of most interest to the small woodland owner and would encourage joining one or more. Addresses will be found in the Appendix.

Except for two bodies noted later, all forestry associations and societies are open to members of the public without pre-conditions. *The Royal Forestry Society* and *The Scottish Forestry Society* hold regular field meetings by region that are a delightful way of acquiring forestry knowledge and meeting like-minded people. They issue quarterly periodicals. This is also true of the *Forestry and Timber Association* who represent the interests of large and small private woodland owners generally. As mentioned before *The Small Woods Association* is one of the best groups to join since they link together many different parties, individuals and organisations, run workshops and training sessions, all with a special interest in smaller woodlands.

Other groups who organise visits to woodlands and have regional meetings are *The International Tree Foundation* and *Woodland Heritage*. Membership of *The Woodland Trust*, *The National Trust* and any one of the array of conservation bodies, local and national, like *The British Trust for Conservation Volunteers*, will all



add further opportunities to learn. *The Tree Council* is active in promoting tree planting and tree care – they instigated the annual tree week in early December – and also have a network of volunteer tree wardens who take a special interest in tree matters in their locality. They publish an attractive ‘glossy’ called *Tree News*.

The Institute of Chartered Foresters is the main professional body and one is only eligible to join through passing professional exams. Most consultants are members and are ‘chartered foresters’. *The Royal Institution of Chartered Surveyors*, similarly only open to membership by examination, has a forestry group who are also consultants.

Calling in the consultant

I’ve stressed more than once that even an hour’s visit by a qualified forestry consultant can revolutionise one’s thinking about a wood. Its possibilities and potential will become apparent, valuable timber trees identified, and management options discussed. For any wood of more than a few trees at least one visit at some stage by a knowledgeable person with a forestry qualification will repay the outlay.

Calling on a professional is especially important if there is concern over safety, say of a tree next to a public right-of-way. The local authority tree officer will also be a good person to contact.

A list of forestry consultants (chartered foresters) is published annually by the *Institute of Chartered Foresters*.

Using contractors

All of us have probably had a bad experience with contractors with a job poorly done or a feeling we have been ‘ripped off’. This can happen in forestry work but no more so than other industries. The best way to guard against this is to follow someone else’s recommendation, or refer to the *Forestry and Timber Association* who publish a list of members who undertake contracting.

As you will know by now, in my own wood I have sold all significant quantities of timber by tender and the buyer has



employed felling contractors to cut and extract the timber. I have had few problems and, indeed, when felling large oaks in part of the wood called Nain's Copse, the standard of work by the contractors was nothing short of exceptional. No neighbouring tree was barked, the logs were left beautifully presented, and the job was done cleanly and safely in just a few days.

In general consider employing a contractor for all significant tree felling (and tree pruning if safety is a concern) or if you are planting and doing maintenance work involving more than, say, 100 trees, fencing work, or road and track construction. Of course, this entirely depends on your circumstances, your skills, and time available! Remember to make sure your contractors are properly covered for insurance, are trained for the equipment they use, and comply with current health and safety legislation. As mentioned earlier, a woodland owner may be deemed the 'Forest Works Manager' under HSE guidelines and so carries more responsibility than a domestic home owner engaging a contractor to work on the house.

Taxation and related issues

Since 1988 forests and woodland have been largely taken out of the taxation environment. No income tax is payable on timber and wood products sold from a woodland, apart from the commercial growing of Christmas trees. So, if you can sell a fine oak for hundreds of pounds, no tax has to be paid. Indeed, the Inland Revenue simply won't be interested. Grants for woodland work are also tax-free.

It gets better. The value of standing trees and woods is not liable for capital gains tax and never has been.

It gets even better. Woodland will not normally attract inheritance tax either. When a woodland investment has been held for more than 2 years it qualifies for 100 per cent business relief from inheritance tax. And even if the wood is made over as a gift, after the 2 year qualifying period the business relief is passed to the new owner. The usual rule that a donor must survive 7 years after making an absolute gift for it to escape inheritance tax does not apply.

This favourable financial treatment is a way that government helps owners of forests and woodlands. It realistically reflects the



generally poor return from growing timber and the long time-scales and commitment required while recognising that in the wider landscape trees and woodlands add immeasurably to beauty, amenity and wildlife. You will never get rich owning and managing forests: the government agrees freeing you of most taxes.

The above provisions apply to commercially managed woodlands i.e. you have sold some timber or manage the wood with the intention of producing some for sale at some point in the future. It is, after all, a business relief. That said, most woods, even small ones, are managed for many purposes. Provided you make some sales from your wood, and keep a note of them, or have this as a management intention in 10 or even 20 years time, then you will probably satisfy the criteria of 'commercially managed'. If the taxation side of things is an important aspect of your buying or owning a wood, do check for yourself.

Certification

In the last ten years we have seen the rapid rise of independent bodies to certify that good standards of woodland management are carried out. The aim is to ensure sustainable management to perpetuate forests and woodlands. It began in the tropics as one way to help reduce destruction and deforestation, but now embraces many countries. Most of us will have seen the FSC or PEFC logos on timber bought from DIY stores.

How does this affect the small woodland owner? It may only be an issue if you want to sell timber. Increasingly buyers require assurance that the wood product they buy comes from a certified forest or woodland. You probably won't get a better price if your woodland is certified, but a more ready sale.

For the small owner the difficulty with certification is that it is expensive. The certifying organisation charges for the evaluation they do, and then for their annual or biannual checking to remain certified. What is required is for your wood and its management to comply with a UK Woodland Assurance Standard, inevitably known as UKWAS.

Because of the disproportionately heavy cost on a small owner, many such owners, including me, have not yet taken the step of certification. I think I will have to one day by which time there will



probably be group schemes for small owners to club together, and conditions that are less stringent to comply with than those obtaining for large commercially-run forests. The Soil Association is one body working on and trialling such an approach to help the small owner. It may be sooner rather than later. Already to be eligible for a management grant from the Forestry Commission, woodlands over 30 ha must be certified.

I don't want to finish this book on a negative note because the grand aim of certification is to ensure better run forests and woodlands, an aim with which most will surely agree. We want to see woodlands sustainably managed, and I hope this book has helped you get started in yours. At the end of the day we want to be able to say that we have been good stewards of what, for me as a Christian, God has entrusted to our care – one of the lovely woods that so bless Britain's countryside.



John White's lovely sketch of beeches – good luck with your wood

Glossary

Some of the terms used in this book may be unfamiliar. A list can never be complete, but I hope the simplified definitions below are a help.

agroforestry – growing trees and food crops (plants or animals) together

ancient woodland – land which has been wooded continuously since before 1600

biodiversity – (biological diversity), variety and abundance of species

biomass – crops grown for fuel, commonly as short rotation coppice

brashing – removal of lower branches by pruning to allow access

breast height – 1.3 m above ground and position where trunk diameter is measured

butt – bottommost part of a tree trunk and usually largest log

canopy – branches and leaves of trees that spread overhead and shade woodland floor

clearfell – felling of all trees in a stand in one go

continuous cover forestry – managing forest so that there is always some tree cover

coppice – using shoots that emerge from cut stumps to regenerate woodland

crown – the aerial assemblage of branches and leaves of a tree

cleaning – removing woody growth, climbers and other unwanted plants

flush – burst of new growth in the spring as buds expand and open

habitat – the place where animals or plants live



hectare – unit of area equal to 2.47 acres

invertebrate – animals without a backbone such as beetles and other insects

native – occurs naturally and not introduced by man

niche – the home (environment) suited to particular organisms

natural regeneration – regenerating forest from seed fall or coppice i.e. not planting

pollard – a tree regularly cut 2–4 m above ground for small sized branchwood

ride – track through a wood usually wide enough for vehicles

rotation – period of time between planting and felling, or age when trees are felled

roundwood – wood used ‘in the round’ such as stakes or sold like this e.g. firewood

sawlog – a big enough log suitable for sawing into planks

silviculture – c.f. agriculture, the husbandry, care and tending of woods & forests

short rotation coppice – coppicing on a cycle (rotation) of <10 years, often 2–4 years

snag – American word for dead trunk left standing

standing sale – sale of trees where they are growing and before they are felled

swipe – operation of cutting weeds and grass in a ride

stand – a community of trees with similar characteristics and managed as one unit

thinning – from time to time, removing some trees from a stand to favour others

underwood – woody undergrowth beneath a tree crop, may sometimes be managed

wildwood – pre-existing woodland before the influence of humans

Acronyms

We are beset by shorthand use of acronyms, here are some used in the book or which you might come across.

AGLV – Area of Great Landscape Value

AONB – Area of Outstanding Natural Beauty

ASNW – Ancient Semi-Natural Woodland

BCTGA – British Christmas Tree Growers Association

BDS – British Deer Society

BES – British Ecological Society

BTCV – British Trust for Conservation Volunteers

CCW – Countryside Council for Wales

CLA – Country Land and Business Association

CPRE – Council for Protection of Rural England

CROW – Countryside and Rights of Way Act

DEFRA – Department of Environment, Food and Rural Affairs

EN – English Nature (will become part of Natural England from 2007)

EWGS – England Woodland Grant Scheme

FC – Forestry Commission

FE – Forest Enterprise

FSC – Forest Stewardship Council

FTA – Forestry and Timber Association

FWAG – Farming and Wildlife Advisory Group

HAP – Habitat Action Plan



HSE – Health and Safety Executive
ICF – Institute of Chartered Foresters
PAWS – Plantations on Ancient Woodland Sites
PEFC – Programme for Endorsement of Forest Certification
RFS – The Royal Forestry Society
RSFS – Royal Scottish Forestry Society
SEERAD – Scottish Executive Environment Rural Affairs Department
SFGS – Scottish Forestry Grant Scheme
SHAI – Site of High Archaeological Importance
SNCI – Site of Nature Conservation Interest
SNH – Scottish Natural Heritage
SRC – Short Rotation Coppice
SSSI – Site of Special Scientific Interest
SWA – Small Woods Association
TPO – Tree Preservation Order
UKWAS – United Kingdom Woodland Assurance Scheme
WDA – Welsh Development Agency
WGS – Woodland Grant Scheme

Notes of common woodland trees and a few woody shrubs and climbers

Common name	Scientific name	Silvicultural notes	Soil ¹ & Site needs	Height & growth ²	Uses	Other notes
Native broadleaves						
Alder	<i>Alnus glutinosa</i>	Hardy tree, tolerates flooding	Wet soils, stream & river sides	20 m, moderate growth rate	Land restoration. Amenity. Turnery	Enriches soil by fixing nitrogen
Ash	<i>Fraxinus excelsior</i>	Frost tender, stems often fork. Light demander	Rich, moist soils, OK on chalk soils. Not exposed sites.	30 m, moderately fast growing when young	High quality hardwood. Good firewood	Sets seeds most years, natural regen. common
Beech	<i>Fagus sylvatica</i>	Tolerates shade. Prone to squirrel damage	Well drained loams. Avoid heavy soils	30+ m, slow to moderate growth, mature at 100+ y	Difficult to grow furniture quality. Charcoal.	Often found on chalk & limestone – suffers chlorosis
Birch	<i>Betula pubescens</i> <i>Betula pendula</i>	Arises naturally wherever mineral soil is exposed	Acid, sandy and gravelly soils. Grows in uplands.	20+ m, fast when young, rarely lives longer than 80 y	Amenity tree in landscape. White wood for turnery.	Two closely related species.
Elm	<i>Ulmus spp</i>	Trees up to 10m still common in hedgerows	Fertile, deep soils	30 m, but few big trees owing to DED	Landscape. Coffins, Windsor chairs.	Dutch elm disease (DED) still killing trees aged > 20 y
Field maple	<i>Acer campestre</i>	Wood margins in S of Britain	Deep heavy soils, copes with chalk	15+ m, slow to moderate growth	Good for hedges. Conservation	Winged seeds a lovely port red
Hornbeam	<i>Carpinus betulus</i>	Very hardy	Heavy clay soils	20 m, moderate growth	Dense wood, good for charcoal	Commonest in SE England
Holly	<i>Ilex aquifolium</i>	Minor component of many woods	Where beech and oak grow well	15 m, slow growing	Wood is good for carving & turning	Usually self-seeding
Lime	<i>Tilia platyphyllos</i> <i>Tilia cordata</i>	Component of native woods, good in hedgerow	Fertile soils	30+ m, moderate growth	Conservation planting. Turnery & carving	2 native species, hybrid common in avenues
Oak (Common) (Sessile)	<i>Quercus robur</i> <i>Quercus petraea</i>	Commonest native broadleaf. Needs full light to grow.	Tolerant of many soils, grows well on clays	30 m, slow growth, mature at 120+ y, long lived	Sound timber is in demand. Conservation	Species similar. Both suffer squirrel damage

Common name	Scientific name	Silvicultural notes	Soil ¹ & Site needs	Height & growth ²	Uses	Other notes
Poplar (Black) (Aspen)	<i>Populus nigra</i> <i>Populus tremula</i>	Susceptible to canker and rust	Deep, fertile soils. Not exposed sites	20+ m, often fast growth	Little commercial use. Conservation	Black poplar now rare
Rowan	<i>Sorbus aucuparia</i>	Very hardy	Upland sites	15 m, moderate	Amenity	Birds eat berries
Whitebeam	<i>Sorbus aria</i>	Early coloniser in scrub on chalk	Lowland sites, inc. chalky soils	20 m, moderate	Amenity	Light demanding
Wild cherry or gean	<i>Prunus avium</i>	Use in mixture with other species	Mostly lowlands inc. chalky soils	25 m, fast when young	Fine cabinet wood. Amenity	Attractive blossom in Spring
Wild Service Tree	<i>Sorbus torminalis</i>	Minor component of native woods	Lowland sites, at home on clays	20 m, slow to moderate growth	High conservation value	Indicates ancient woodland site
Willow	<i>Salix</i> spp.	Sallow (<i>S. caprea</i>) very widespread as early coloniser	Varied	Many are very fast	Not timber, except cricket bat willow <i>S. alba</i> 'Coerulea'	5 native species. Purple Emperor feeds on sallow
Woody shrubs and climbers						
Alder buckthorn	<i>Frangula alnus</i>	Widespread	Wet, acid soils		Excellent charcoal	Has no thorns
Bird cherry	<i>Prunus padus</i>	Often defoliated by ermine moth	Upland woods and streams in North	Small tree	Conservation	Birds eat berries
Blackthorn	<i>Prunus spinosa</i>	Suckers heavily			Cover for wildlife	Impenetrable!
Clematis or old man's beard	<i>Clematis vitalba</i>	Woody climber, can overwhelm	Sure indicator of chalky soils		A nuisance!	Why 'Travellers Joy?'
Purging buckthorn	<i>Rhamnus cathartica</i>	Most common in south and east	Thrives on poor chalky soils	Small tree	Hard reddish-brown wood	Berries have a powerful effect!
Dogwood	<i>Cornus sanguinea</i>	Mainly S England	Rich, chalky soils		Very hard wood	Birds carry seeds
Elder	<i>Sambucus nigra</i>	Throughout UK	Nitrogen-rich soils		Elderflower wine	Hollow stems
Hawthorn	<i>Crataegus monogyna</i>	Widespread	All but the poorest soils	Small tree	Excellent hedge	The wonderful 'May' flower
Hazel	<i>Corylus avellana</i>	As underwood or pure coppice.	Heavier soils, acid to chalky	8 m, fast initial growth from stool	Thatching spars, hurdles. Cover	Many neglected coppices.

Common name	Scientific name	Siticultural notes	Soil ¹ & Site needs	Height & growth ²	Uses	Other notes
Honeysuckle	<i>Lonicera periclymenum</i>	Woody climber in glades and rides	Most soils		Ash/hazel walking sticks – twisted on	Lovely fragrance on still evening
Ivy	<i>Hedera helix</i>	Woody climber	Throughout UK		Winter cover	Need not remove
Privet	<i>Ligustrum vulgare</i>	Mainly S England	Chalky soils		Hedging & cover	Evergreen
Spindle tree	<i>Euonymus europaeus</i>	Mainly S England	Commonest on chalky soils	Rarely a tree	Fine turnery – pegs, needles	In November, bright pink berries
Wayfaring tree	<i>Viburnum lantana</i>	Mainly S England	Dry chalky soils	Not really a tree		Beside droeways
Introduced broadleaves						
Poplars	<i>Populus</i> spp.	Disease resistant cultivars only. Put trees far apart.	Fertile soils, sheltered sites	30+ m, very fast	Biomass, short rotation coppice. Light timber	Some agroforestry potential
Sweet chestnut	<i>Castanea sativa</i>	Light demanding, flowers heavily, nuts disappointing	Acid, well drained soils. Warm, sunny conditions	30 m, moderate, fast when young coppice	Durable wood for palings & posts. Oak-like timber	Extensive coppice in SE England. Romans introduced
Sycamore	<i>Acer pseudoplatanus</i>	Hardy tree, occurs throughout UK. Regenerates freely	Tolerant of wide range of soils. Stands exposure	30 m, moderate growth rate	General purpose hardwood. Some high value butts	Suffers squirrel damage. Bark good for lichens
Walnut	<i>Juglans regia</i>	Frost tender, usually grown as single trees	Rich well-drained soil. Warm, sheltered sites	20 m, slow	Cabinet wood	Rarely produces edible fruit. Romans introduced
Native conifers						
Juniper	<i>Juniperus communis</i>	Widespread but declining in extent	Tolerant of a range of soils	15 m, slow	Conservation, esp. in uplands	Food source and cover for birds
Scots pine	<i>Pinus sylvestris</i>	Regenerates easily on heathland	Any well drained acid soil	30 m, moderate growth rate	Timber. Conservation (Scotland)	Severe chlorosis on chalky soils

Common name	Scientific name	Silvicultural notes	Soil ¹ & Site needs	Height & growth ²	Uses	Other notes
Yew	<i>Taxus baccata</i>	Pure stands rare, tolerates shade	Well drained soils, inc. chalky	20 m, slow, very long lived	Amenity, historic interest	Bark, berries and foliage poisonous
Introduced conifers						
Corsican pine	<i>Pinus nigra</i> var. <i>maritima</i>	Light demanding. Suffers red-band needle blight	Well-drained soils on lowland sites	35 m, moderate to fast, mature in 40+ years	Construction timber	Some tolerance of chalk/lime in soil
Douglas fir	<i>Pseudotsuga menziesii</i>	Tolerates some shade, continuous cover forestry	Fertile well-drained soils. Sheltered sites	40+ m, fast, mature at 40+ y, very long lived	Fine construction timber	Readily browsed by deer when young
European larch	<i>Larix decidua</i>	Light demanding, prone to canker	Well drained soils	30 m, moderate growth rate	Stakes & rustic. Sheds & fences	Forms hybrid with Japanese larch
Firs	<i>Abies</i> spp.					Minor importance
Japanese larch	<i>Larix kaempferi</i>	Light demanding	Tolerant of wide range of soils	30 m, fast when young	Stakes & rustic. Sheds & fences	Stems corkscrew, use hybrid
Lodgepole pine	<i>Pinus contorta</i>	Hardy, for uplands	Wet infertile soils	25 m, moderate	Industrial uses	Little now planted
Norway spruce	<i>Picea abies</i>	Moderately hardy	Heavy soils, drier sites in East	30 m, moderate to fast	Timber, Christmas trees	Suffers from great spruce bark beetle
Sitka spruce	<i>Picea sitchensis</i>	Most widely planted conifer, at risk of windthrow	All soils incl. peats & gleys if rain > 1000 mm	35 m, fast, mature at 40+ y, long lived	Good pulpwood, and construction timber	Never use as Christmas trees, needles prickly
Western hemlock	<i>Tsuga heterophylla</i>	Shade tolerant. Regenerates freely	Well drained acid soils in lowlands	30+ m, fast	Poorer timber than other conifers	Regeneration can be a nuisance
Western red cedar	<i>Thuja plicata</i>	Best in mixture	Well drained soils, tolerates chalk	30 m, moderate to fast, long-lived	Very durable timber	Cigar-shaped trees can look ugly

¹ Soil – reference to chalk or chalky soil means any calcareous soil with lime or chalk fragments or that is very shallow over chalk or limestone and is alkaline of pH > 7

² Height and growth – very approximate guide to final heights typical in UK; fast growth – up to 1 m in a year, moderate 40–70 cm, slow < 40 cm

Further reading

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Natural History and conservation in woodlands

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Watkins, C. (1991) *Woodland management and conservation* David & Charles

Accounts of individual woodlands but with much else of relevance

Evans, J (1995) *A Wood of Our Own*. Oxford, reprinted 2003 Permanent Publications, East Meon

Evans, J (2002) *What Happened to Our Wood* Patula Books, Basingstoke

Law, B, (2001) *The Woodland Way – a permaculture approach to sustainable woodland management*. Permanent Publications, East Meon

Organisations to join of relevance to owners of small woods

(addresses and websites are in the next section)

British Trust for Conservation Volunteers

One of the best bodies to join for gaining practical hands-on experience.

The Forestry and Timber Association

Forestry's equivalent of the NFU with focus on owners of larger woodlands, still much of relevance to the smaller owner. Have regional groups that hold useful field visits. Publishes *Forestry and Timber News*.

Local Wildlife Trusts

Information, surveys and management plans. Site visits and local practical work.

Royal Forestry Society

Largest society producing the very readable *Quarterly Journal of Forestry*, excellent website and monthly e-news digest, holds regular site meetings, good regional structure throughout England and Wales. After Small Woods Association join RFS, you'll benefit greatly. It is not expensive.

Scottish Royal Forestry Society

Scottish equivalent of RFS.

Small Woods Association

Probably the 'must join' organisation with a regular magazine (*Smallwoods*), relevant publications (some free), site meetings and training days for everyone interested in small woodland management. Includes the excellent Green Wood Centre.



The Tree Council

Many organisations belong to the Tree Council. Concerned with management and conservation of trees and woodlands. Promote annual tree week and 'Walk in the woods'

The Woodland Trust

A bit like the National Trust except focusing on woodlands, both existing and creating new ones. Free access to their woodlands in UK – look around and get ideas. Some opportunities for volunteer work.

Some useful addresses

British Trust for Conservation Volunteers (BTCV) 163 Balby Road,
Doncaster DN14 0RH www.btcv.org

Countryside Council for Wales, Plas Penrhos, Ffordd Penrhos,
Bangor, Gwynedd LL57 2LQ (tel. 01248 385500) www.ccw.gov.uk

English Nature, Northminster House, Peterborough PE1 1UA
(tel. 01733 455100) www.english-nature.org.uk

Forestry and Timber Association, 5 Dublin Street Lane South,
Edinburgh EH1 3PX (tel. 0131 538 7111) www.forestryandtimber.org

Forestry Commission, Silvan House, 231, Costorphine Rd. Edin-
burgh. EH12 7AT (tel. 0131 334 0303) www.forestry.gov.uk

Forestry Contracting Association, Dalfling, Blairdaff, Inverurie,
Aberdeenshire AB51 5LA (tel. 01467 651368) www.fcauk.com

Institute of Chartered Foresters, 7a St Colme Street, Edinburgh
EH3 6AA (tel. 0131 225 2705) - publish the journal *Forestry*
www.charteredforesters.org

Local Wildlife Trust (tel. 0870 036 7711) www.wildlifetrusts.org

Royal Forestry Society, 102, High Street, Tring, Herts. HP23 4AF
(tel. 01442 822028) www.rfs.org.uk

Royal Scottish Forestry Society, Hagg-on-Esk, Canonbie, Dumfrie-
shire DG14 0XE (tel. 01387 371 518) www.rsfs.org

Scottish Natural Heritage, 12 Hope Terrace, Edinburgh EH9 2AS
(tel. 0131 447 4784) www.snh.gov.uk

Small Woods Association, The Old Bakery, Pontesbury, Shrop-
shire SY5 0RR (tel. 01743 792644) www.smallwoods.org.uk

Tree Advice Trust, Alice Holt Lodge, Wrecclesham, Farnham,
Surrey GU10 4LH Tree helpline 09065 161147 www.treehelp.info
(advice and information)



Tree Council, 71 Newcomen Street, London SE1 1YT (tel. 0207 407 9908) www.treecouncil.org.uk

Woodland Heritage, PO Box 168, Haslemere GU26 1XQ
www.woodlandheritage.org.uk

Woodland Trust, Autumn Park, Dysart Road, Grantham, Lincs.
NG31 6LL (tel. 01467 574297) www.woodland-trust.org.uk

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[Note: additional named organisations, tree and shrub species will be found in the relevant appendix.]

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About the Author



Julian Evans was formerly the Forestry Commission's Chief Research Officer (S) based at the Alice Holt Research Station near Farnham, Surrey. For more than 20 years he has owned, in partnership with his brother-in-law, a 30-acre wood in mid-Hampshire. He is a member of the Small Woods Association, Royal Forestry Society, the Woodland Trust, is a vice-president of the Commonwealth Forestry Association and the International Tree Foundation, and is a Fellow of the Institute of Chartered Foresters.

Julian's own wood has featured on BBC Radio 4 (Ramblings) and in *Country Life*. He lectures frequently about owning and caring for his own woodland including, amongst others, to the National Trust, natural history societies, local conservation bodies, regional branches of Council for Protection of Rural England (CPRE), International Tree Foundation (ITF), Royal Forestry Society (RFS), and Young Farmers clubs.

Julian has written numerous articles and many books on forestry and woodland topics including two popular ones about his own wood. For several years he was a regular contributor on woodland matters to *Country Smallholding* and continues to be so to *Forestry and Timber News*.

Some other books by the Author

A Wood of Our Own, Oxford University Press, reprinted by Permanent Publications

What Happened to Our Wood, Patula Books, Basingstoke

Farm Woodland Management, Farming Press (co-author)



Silviculture of Broadleaved Woodland, Forestry Commission Bulletin No. 62, HMSO

Growing Broadleaves for Timber, Forestry Commission Handbook No. 9, HMSO (co-author)

Plantation Silviculture in Europe, Oxford University Press (co-author)

READER OFFER FROM PATULA BOOKS

Julian's two books about his own wood can be supplied to readers as follows:

'*What Happened to Our Wood*' Patula Books (hardback) 192 pp
£16.00 post free (20% discount)

'*A Wood of Our Own*' Permanent Publications (paperback) 158 pp
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