

Living Woods

No.53 AUTUMN 2019

MAGAZINE

HEAVEN IN DEVON

BOOSTING
WOODLAND
DIVERSITY

plus

Building a woodland pizza place
and Forestry Commission centenary

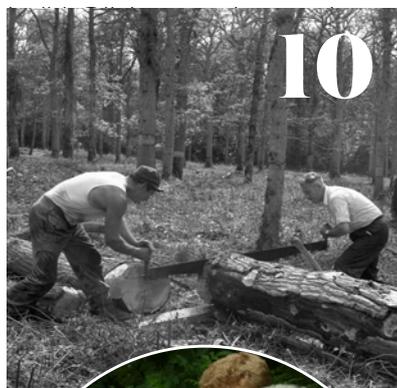
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From poetry to pizza ovens, via the Forestry Commission's centenary, we've got the full gamut of woodland experiences covered. Woodland owner Steve Davey writes enthusiastically about his family's work in their Devon woodland, Bruce Edelsten reviews a couple of wildlife cameras and I have been using a battery-powered Stihl chainsaw. Richard Gavens questions whether trees and planting paraphernalia should be taxed and we look at the transformation of a 5,000-year-old log into a unique addition to our national heritage.

Judith Millidge Editor



Greater spotted woodpecker by Woodlands Award winner, Cathy Ryan



COVER PHOTO
FORESTRY COMMISSION

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@Woodland News

ADDRESSING THE WORLD



What3Words app

You might know exactly where your woodland is, but could you convey this simply to the emergency services in a crisis? Few of us can remember precise grid references and a post code is not always

useful for a woodland. So the scheme that has divided the entire world into 57 trillion 3-metre squares, each distinguished by three random words, is surely to be welcomed.

What3Words is a free app that allows users to pinpoint their exact location. Living Woods HQ, for example, is pile.crowd.dance. The developers call it a 'simple way to talk about location', and it is compatible with other online mapping systems.

Already in use by the travel company Lonely Planet, the emergency services are also urging people to download the free app to simplify location finding.

FREE DOWNLOADS

In a world where we are bombarded with news stories, some of them apparently fake, we have a short list of informative downloads from qualified advisors on dealing with several aspects of woodland management.

ASH TREES

Managing Ash Dieback in England – advice from the Forestry Commission.

Sunset for Ash Trees? from land agents Lockhart Garratt.

Managing Ash Dieback Case Studies compiled by the Royal Forestry Society.

WOODLAND MANAGEMENT

Plantlife's **Managing Scotland's pinewoods for their wild flowers** – how to encourage a thriving understorey in pine woods.

Tree felling – getting permission

Forestry Commission statutory guidance about felling licences

WATER FOR TREES

Water UK has announced that water companies in the UK have pledged to plant 11 million trees before 2030, an ambitious plan to support their goal of achieving a carbon-neutral water industry by 2030.

Water UK owns some of the proposed 6,000 hectares of land and is working in partnership with local councils and bodies such as the Woodland Trust, National Trust, Wildlife Trusts and the RSPB who will help fulfil the quota. In addition, they promise to restore original woodland and improve natural habitats for wildlife.

Michael Roberts, chief executive of Water UK, said: 'Water companies play a unique role in running a vital public service and acting as long-term stewards of our

natural environment.'

The companies, including the nine major water and sewerage providers in England, have committed to fully deliver the habitat improvement programme, which will include hedgerows and grasslands as well as trees. The scheme, which will provide wildlife corridors that improve biodiversity and connect different habitats, was praised by Sir William Worsley, the government's Tree Champion. 'Trees are carbon sinks, provide crucial habitats for precious wildlife, mitigate flood risk and provide a valuable renewable resource in timber – and I encourage other industries to follow Water UK's excellent example to ensure we boost planting rates across the country.'





It's about cherishing the woodland at the bottom of your garden or the stream that runs through it. It affects every aspect of life.

Sir David Attenborough



To celebrate the 100th anniversary of the Forestry Commission, Royal Mail's new stamps showcase the character and varied colours of the nation's forests. Featured in the set are images of the following forests: Glen Affric; Sherwood Forest; Glenariff Forest; Westonbirt – the National Arboretum; Coed y Brenin; and Kielder Forest. They can be ordered from www.royalmail.com/forests.

BAH, HUMBUG AND OTHER CHRISTMAS PESTS

A **new report** published by Grown in Britain says tree pests and diseases could be hitchhiking their way into the UK on imported Christmas trees.

Each year, the UK imports around £3 million worth of cut Christmas trees from Europe and Scandinavia. Grown in Britain says buying Christmas trees labelled with its mark, which certifies they are UK grown, is the most effective way to reduce the risk of imported pests.

Six of the pests, including the pine processionary moth and Siberian fir woolly aphid, are currently considered

absent from the UK. Defra data identifies a further 12 pests which could enter on large cut Christmas trees, normally categorised as those more than 3 metres in height.

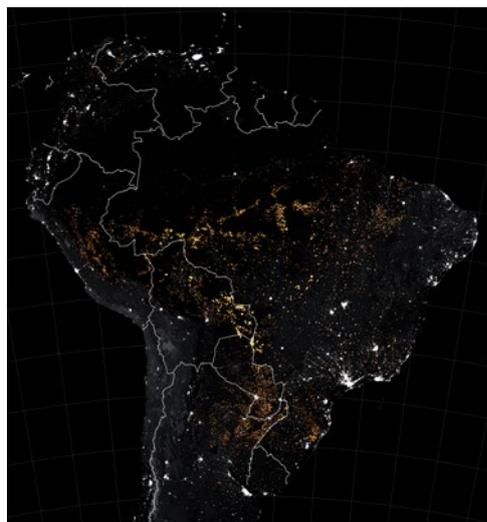
Grown in Britain Chief Executive Dougal Driver says: 'Christmas trees provide ideal conditions for pests to hitch a ride. The trees are usually netted, which means the branches don't dry out, and pests can remain hidden in the tightly bound branches. With climate change, the risks are also rising, as pests which are native to warmer parts of Southern Europe are increasingly likely to be able to survive in Northern Europe and the UK.'



PLANTING FOR THE FUTURE OF THE PLANET

In the light of recent news about the devastating fires in the Amazonian rain forest, world leaders might like to implement the suggestions of Professor Tom Crowther and his team at the Swiss university ETH Zürich, whose **research** has shown that forest 'restoration isn't just one of our climate change solutions, it is overwhelmingly the top one.'

Scientists have calculated that billions of trees could be planted across the world without encroaching on crop land or urban space. The research is based on the measurement of the tree cover in 80,000 high-resolution satellite images from Google Earth. Artificial intelligence computing then combined this data with ten key soil, topography and climate factors to create a global map of where trees could grow. This showed that about two-thirds of all land – 8.7bn ha – could support forest, and that 5.5bn ha already has trees. Of the 3.2bn ha of treeless



Active fire detections in Brazil between 15-22 August 2019. (NASA Earth Observatory images by Joshua Stevens, using MODIS data from NASA EOSDIS/LANCE and GIBS/Worldview)

land, 1.5bn ha is used for growing food, leaving 1.7bn ha of potential forest land in areas that were degraded or sparsely vegetated.

The report has been welcomed by scientists around the world, as well as by senior figures at the United Nations. René Castro, assistant-director general at the UN Food and Agriculture Organisation, said: 'We now have definitive evidence of the potential land area for re-growing forests, where they could exist and how much carbon they could store.'

Professor Crowther emphasised that it remains vital to reverse the current trends of rising greenhouse gas emissions from fossil fuel burning and forest destruction. He said that the tree-planting solution 'is available now, it is the cheapest one possible and every one of us can get involved.'

VIEW THROUGH THE TREES

JULIA GOODFELLOW-SMITH reflects on how best to record the changes in her woodland.

An ammo box might seem like a strange choice of birthday present, but on this occasion, it was inspired. Not sure what I would find, I opened the clip and lifted the lid. I peeled back the tissue paper to reveal... a beautiful notebook and a set of coloured pencils. The ammo box is perfect – designed to keep ammunition dry, the seal keeps out both rain and critters. Lots of things have been nibbled in the woods, including soap and the toilet seat, and I don't want that fate to befall my notebook.

Until then, I had been keeping a diary of sorts – scrawled notes on scruffy sheets of paper, listing the things we saw. But now that I had a beautiful journal, I started writing prose.

Looking back over my writing, I wondered what I would learn; what patterns I had missed in the mindfulness that overtakes me when I'm in the shade of the trees.

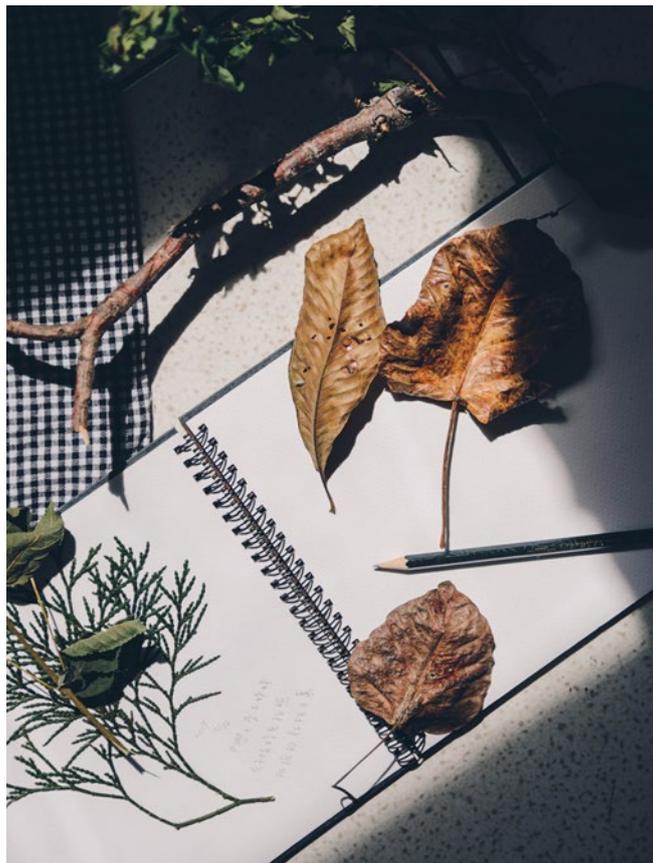
I know now that, although the bluebells flowered early this year, that is not why their purple haze was obscured by the daffodil leaves. Without my notes, I would not have known that the daffodils flowered even earlier than the bluebells.

I hadn't realised that the flush of fruiting fungi happens at around the same time as the autumnal leaves flare in colour, in the first half of November.

But it wasn't all good news. I had to dig to find the treasure in my musings. My records are muddled, the pages are disorganised, and I haven't been consistent in what I've recorded.

I could definitely do better; it's time to get organised!

I think the best thing to do will be to separate out the nature notes from my prose. I plan to jot things down in a small notepad as I walk around, and neatly transcribe these into my lovely journal later in the day.



Photograph: Loverna Journey/Unsplash

I have realised that I can't record everything, so I am going to pick a few things that I definitely want to cover and use a checklist to aid my memory. My list includes the state of the key tree species, daffodils, bluebells and fungi, the date and time, recent weather conditions and any woodland management activities we have done during that visit. Your list might include birds, butterflies, recipes you have tested over the campfire or whatever else you are most interested in. It feels important to me that keeping a journal should be enjoyable, not just another job that has to be done.

That is why I will also continue to write prose in my journal. I don't have the time or the energy to write a diary every day, but in the woods I find that I want to spend some time quietly reflecting on life.

I anticipate that I will enjoy taking a slightly more organised approach, knowing that it will help me to not only gain a deeper understanding of the life of the woodland, but of my own life too.

NATURE'S CALENDAR

Many people record the changes in their woodlands simply for their own reference and pleasure, but noting the changes to particular species of trees, plants and wildlife can also help build up a long-term record of how the climate is changing. Nature's Calendar is a website that relies on such citizen science to help establish a picture of how the weather affects the natural world and tries to answer questions about climate change and its effect on timings in nature. Register to record your findings on the [Nature's Calendar website](#).



A LITTLE BIT OF HEAVEN IN DEVON

In 2018 **STEVE AND TAMARA DAVEY** took possession of Arrishes Wood, five acres of mixed woodland atop a valley on the edge of Dartmoor. This is what they did next.

My wife Tamara and I have always had a keen interest in woodlands, and I have had a passion for the natural environment since my childhood. I used to rush home from school just like the lad in the film *Kes* to tend to a female kestrel that convalesced from a wing injury in our shed. These days, I rush home from work and can be in our wood in 20 minutes. I run a small taxi company and am lucky to be able to visit three to four times a week on average. Even after 18 months of ownership, I still feel a wave of euphoria when I go through the gate.

We purchased Arrishes Wood partly to safeguard our finances, but also to preserve the woodland itself. We regard it as an opportunity to get stuck into our own environmental projects and to carry out meaningful conservation work.

Each and every woodland is unique and precious in its own right and new owners are often advised to observe the woodland for a year before undertaking major operations. This is good advice, although

we have not exactly followed it to the letter. In our first winter we made a clearing for our base and opened up two rides. We planted some new hedging and installed three small ponds. Whatever changes we make within our wood must enhance its biodiversity. However, we are aware that in creating new habitat, one can run the risk of diminishing the existing environment. It is also worth bearing in mind that management can include doing nothing. I am no expert, but this should take up a significant percentage of your woodland.

Throughout the year new revelations have appeared before our eyes, whether it be fungi, bird species, invertebrates, wildflowers, trees or mammals, and this is what we find so special. It's a continual learning curve of enlightenment and knowledge. Our wood is no exception: we have foxes, badgers and roe deer and I have recorded over 30 bird species, including nightjar. For me this is priceless, and I have been down many times this summer in the



evenings just to see and hear this fabulous bird. In May I hired a bat detector from Devon Wildlife Trust for three nights and recorded seven species, including the Greater Horseshoe Bat.

We have stayed overnight a few times, which is a great experience, although you do hear some very strange noises. On one occasion I heard something that sounded like a seal pup outside – needless to say whatever it was had vanished before I could see it.

Trees and habitat

Arrishes Wood faces east and slopes away quite steeply (after all, it is Devon). A young Sitka plantation, probably seven to ten years of age, covers most of the site and in amongst this is a large amount of birch regeneration alongside sweet chestnut. On the western bank is a large beech border with a small amount of oak. There are a few ash trees, which are all in good health at the moment. Copious amounts of bramble and bracken fill out the understorey, both of which have an important role to play in the site's biodiversity. Bramble provides a food source for over 50 species of moth, and bracken cover can host over 40 species of invertebrates. On the northern side are older trees: 100- to 130-year-old sweet chestnut, birch, and large beech.

There is plenty of lying and standing deadwood which is so important for woodland ecosystems, as well as piles of brash and logs, which all play a part in habitat provision. Part of the site still remains unexplored because to the density of the planting. Three or four longitudinal brash piles traverse the contours of the site and remain from when the site was clear-felled some years ago.

Managing for the future

Our plans for the future management of Arrishes Wood will be dictated by the resident and visiting species. We want to aid the foraging and feeding habits of the bats, and to create and maintain habitat for the migratory



nightjar and woodcock, which have very specific habitat requirements. If the woodland remains unmanaged and becomes in effect a closed canopy, they will generally seek alternative habitat. Ground-nesting nightjars prefer young plantations, so we intend to provide two or three 20-30-metre clearings. Most of the gorse will be left in place, although some will be cut back to ground level to provide varying degrees of ground cover and structure. A small amount of coppicing in these clearings will also enhance the woodland structure.



Top: Arrishes Wood contains a young Sitka spruce plantation, which Steve and Tamara have begun to thin.

Right: One of the perks of woodland ownership is the plentiful supply of logs.

The Sitka we remove will be used as dead hedging around our borders, thus creating further habitat. All dead wood, lying and standing (as long as it's safe) will remain in situ; the standing dead wood is especially good for woodpeckers. We will also reinstate the rotational coppice cycle of the sweet chestnut to give varying heights in the scrub areas. We coppiced two this February and their regrowth has been amazing. We have planted a diverse selection of hedging plants – dog rose, dogwood, field maple, hazel, crab apple, hawthorn, blackthorn and oak.

The three ponds will only get better over time, but they are already home to mosquito larvae, diving beetle, pond skaters, dragonflies and broad-bodied chasers. To give an idea of the importance of insect life within a wood, a tiny pipistrelle bat, which can fit inside a matchbox, can consume up to 3,000 insects per night!

The west to east ride will be widened this winter by taking out two to three rows of Sitka (they are all below minimum felling quota size). We will strim back some of the gorse and bramble with a mulching blade and leave most of the birch regeneration. By varying the edging

effect, we will achieve a scalloped edging, which is favoured by butterflies.

This summer I have strimmed a narrow pathway through the long grass because of the prevalence of ticks, but in future the grass edging will only be cut back on rotation. Last year we sowed some Yellow Rattle seeds which are great for allowing wildflowers to come through, and perhaps by next July we will be able to collect enough seed from our own wood to place in new areas. Fortunately, the resident roe deer seem to ignore it!

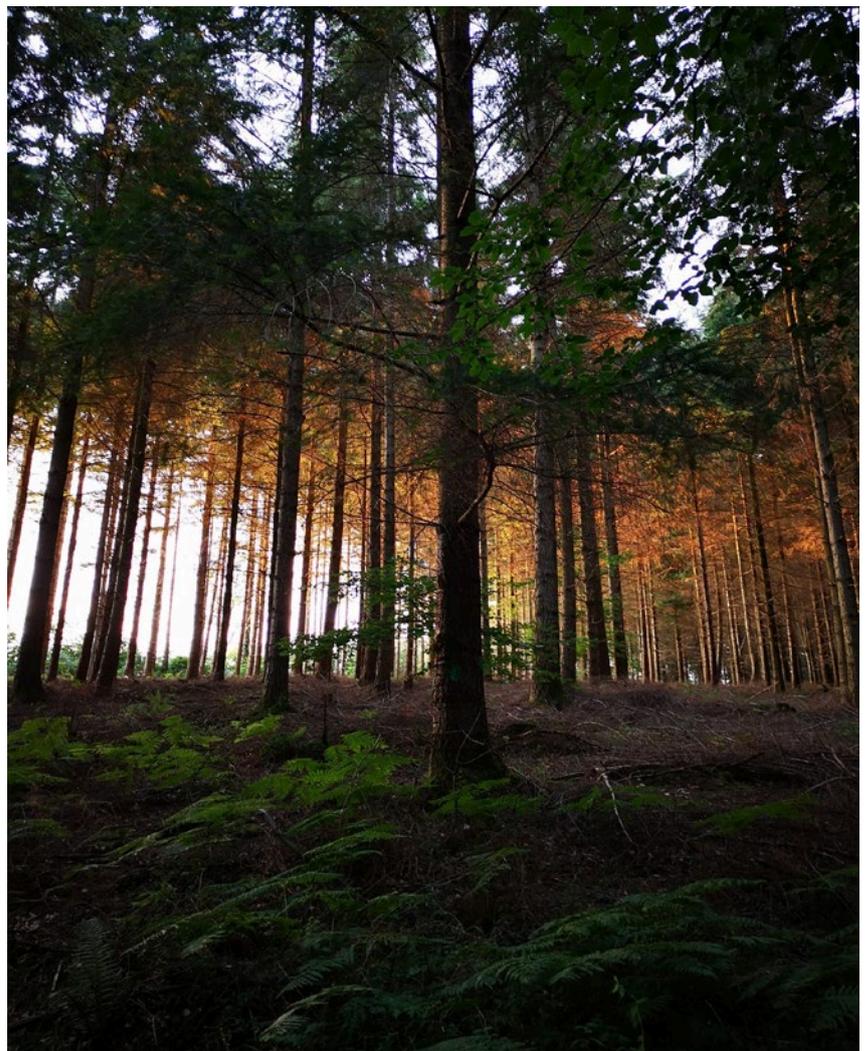
Finally, we have consulted an agroforestry specialist to help us with planting new species in the light of climate change challenges. We wanted to plant some varieties of apple that would be traditionally suitable to south Devon, but now realise we need to consider varieties that currently grow in northern France.

There is a huge task ahead, but we know the rewards will be fantastic. Would we have done anything differently if we were to start off again? We would have purchased more woodland!

Nightjar *Caprimulgus europaeus*



Nightjars are extremely hard to spot, and it is often their call that signals their presence. European nightjars prefer nesting in pine forests. Perfectly camouflaged, nightjar can fly up to 6km from their nest site to feed. Habitat loss means that they are a Species of European Conservation Concern, although habitat restoration is going some way to increase numbers in the UK. There is more information here from the **British Ornithologists' Union**.



STEVE DAVEY is charting his family's journey in managing his woodland on a new website, www.woodlandwildlife.co.uk. It includes beautiful photographs of the woods and the wildlife he is working to conserve.

A gap in the canopy plan?

As community woodland director **RICHARD GAVENS** gets to grips with tree-planting grants, he wonders whether government rhetoric regarding planting matches practical actions. Why are trees and planting paraphernalia still taxed?

As a director/volunteer of a small woodlands community interest company (CIC) in south-east Cornwall, I'm always struggling with limited financial resources. The group has recently taken on the lease of the 66 acres we manage after increasing our level of involvement over the preceding years.

Our first task was to replant 8 acres of larch clear-felled due to *Phytophthora Ramorum*. Of course, we were able to claim the Woodland Regeneration Grant (WRG) – after learning the administrative equivalent of a new language – but even with this system you need to supply the purchase cash up front. A free-roaming herd of fallow deer in Cornwall raises protection costs, and the grant falls short of supplying basic planting materials, which must include tree guards. We have therefore broken the planting down into annual instalments to allow the recycling of the funds available.

The publicity around tree planting seems to have reached fever pitch lately, and one would have thought that things should be getting much easier on all fronts. The Woodland Trust are giving away free trees. Volunteers for planting are not difficult to find. The government's **25-year Environment Plan** aims for carbon neutrality by 2050 and Sir William Worsley has been appointed as Tree Champion 'to bolster planting rates'. In Cornwall, the local council has set out the ambitious '**Forest for Cornwall**' plan and, of course, parliament has declared a 'Climate Emergency'. So how does all this translate at ground level?

While planning for this winter's planting, the daftness of the current government policy vs. legislation reality struck me. If everyone wants more trees planted, why are they still taxing them?

The purchase of trees, tree guards and stakes all generate 20% VAT. Effectively, this means that we are returning 20% of the Woodland Regeneration Grant back to the government. To small CICs like ours, the removal of VAT from trees and planting essentials would make a massive 20% difference to our annual planting capabilities. And isn't taxation supposed to be heading in a more environmentally

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If everyone wants more trees planted, why are they still taxing them?

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progressive direction? (Plastic tree guards are a definite sub-debate here.)

Granted, VAT thresholds and charitable statuses within some parts of the forestry industry already nullify a large proportion of VAT (and conversely make it less costly for the government to remove entirely). However, with 42% of English woodland classified as small (under 20ha) and 19% being less than 3ha in size, the number of possible beneficiaries from a policy change is huge. It is surely in these same small woodlands where there are some of the best opportunities to encourage healthy management and wildlife corridor creation.

The debate isn't political – it seems to me to be a matter of common sense catching up with rhetoric. With parliament being responsible for scrutinising existing legislation, every one of our representatives is equally culpable for this farcical situation. There is an EU angle too, as the homogenisation of tax rates is currently the dominant legal reality (although Ireland currently operates a 13.5% reduced rate on trees, which was introduced before 1991).

Having written to Defra and HMRC, I have received standard monotone responses. Defra neatly swerved the issue, replying 'Unfortunately, Defra cannot deal with VAT and taxation matters.' The reply from HMRC at least explained the current tax scenario and acknowledged the possibilities of change.

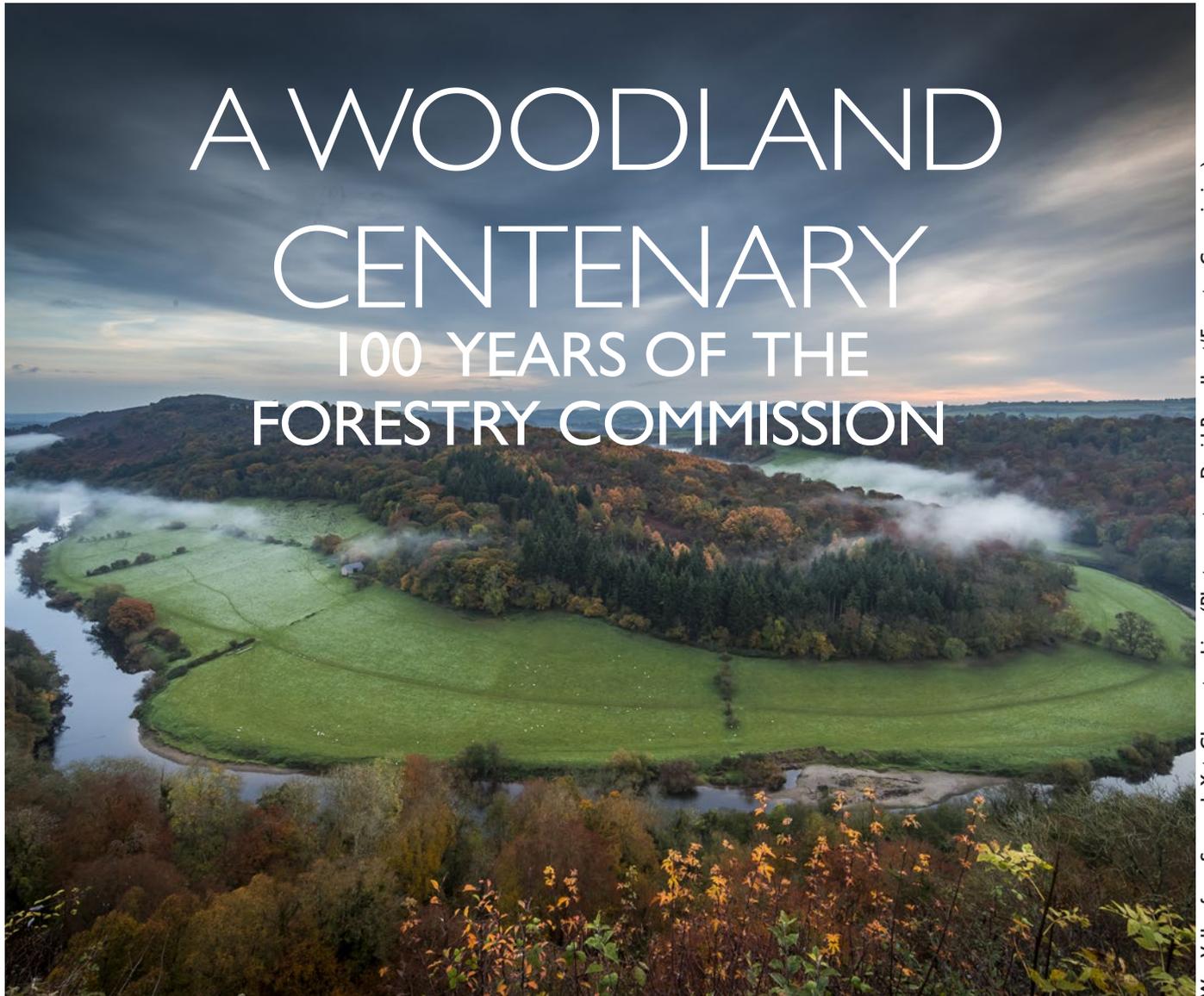
Do we accept this status quo, or do we champion a really positive change, one that will send a message loud and clear about the benefits of trees and woodlands and environmentally orientated taxation?

Whatever happens in the Brexit debate will clarify who we need to persuade, but it is still up to us to fight for a policy change that's beneficial.

I have started a petition to '**Remove VAT from the sale of trees, tree guards & other tree planting products.**' Petition fatigue aside, I hope it will garner debate and attention – please follow the link above to sign it.

Richard Gavens is a director at Pigshill & Clarrick Woods CIC in south-east Cornwall.





Wye Valley from Symonds Yat, Gloucestershire. (Photo courtesy David Broadbent/Forestry Commission)

To celebrate the Forestry Commission's centenary, we have asked a few of the great and the wood to share their memories and to reflect on the direction the Commission might take in the changing world of the 21st century.

Having been a forester now for about 40 years, I sometimes forget just how hard it was to get a start in the sector. Back in the late 1970s, the Forestry Commission (FC) was celebrating its diamond anniversary, and I was confounding my Gloucestershire County Hall careers advisors because 'forestry' didn't appear on their list. 'You can be a farmer,' they kept saying.

I was determined to work in the woods and applied to Newton Rigg, the National School of Forestry in Cumbria. They were very helpful, but said I needed several years of



DOUGAL DRIVER is CEO of Grown in Britain, the organisation which certifies UK woodlands and their products. A Chartered Forester, he remembers his early career with the Forestry Commission in the 1980s.

experience before they could accept me on their three-year sandwich course. So, undeterred, I applied to the Forestry Commission for pre-college work experience. However, they said I need a place at college first . . . 'Hmm,' I thought, 'this Forestry lark is not opening its arms to me. Maybe a farmer I shall be.'

As luck would have it, I had a second cousin who knew a chap who knew Ken Rankin, founder of the Economic Forestry Group and the pioneer of forestry investment. A temporary contract was soon in the offing from the wonderful Bill

and Mike at Forest and Land Management down in Somerset.

Two scorching summers weeding three-metre high brambles later, followed by one freezing winter doing everything else in the woods, I moved to the Forestry Commission which took me on because I now had a place at college. Wareham, Ringwood, Savernake and Halton were just a few of the staging posts for me. Starting as an unskilled labourer, I was gradually allowed to branch out and the certificates stacked up, which made college relatively straightforward. There was one tricky point in the middle year at the FC in the Welsh valleys, where my very English accent and boyish looks did not go down well when I had to lower the piece-work rate for the Timberjack skidder gang, each one an ex-miner! I learnt hard lessons that stayed with me.

The 1980s was an interesting decade for the Commission in southern England. Controversial new broadleaved-focused planting policies were rolled out; landowners became very upset by the new ancient woodland and semi-natural ancient woodland maps; and everyone was trying to work out what to do with their three-row mixtures. At the time, visits by the ICF and the RFS (and many others) were often dominated by discussions on what to do with a crop of squirrel-ravaged beech that had been overtaken by three rows of Norway spruce, themselves only supposed to be a 'nurse' crop.

The following decades saw a range of priorities emerge, including 'woods for wildlife', 'woods for water' and 'woods for people'. I am pleased to say that the UK Forestry Standard and modern silviculture now recognises that it is 'woods for all', and that it is just a question of the location that dictates which element you emphasise.

Forty years on, following a very

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It is now a time for the FC to step up to the plate and grasp the huge opportunities that today's world demands.

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enjoyable journey through every grade aligned with the FC, I finally left the civil service as a director in 2011. The FC was always by my side and now, as I get invited to FC board meetings and to chair FC committees, I reflect on all the people I have met along the way. Many are now gone, but I feel fortunate to have known them and I look forward to the 'third age' of my career, meeting and working with many more.

For many employees, the Forestry Commission is a family that has an amazing kudos. It has huge brand-awareness in society and with the people it touches. It has been bold and it has been quiet. It is now a time for the FC to step up to the plate and grasp the huge opportunities that today's world demands: integrated landscapes, more timber in construction and more trees to filter pollutants and carbon from the air and cool our planet down.

The spotlight is on forestry more than ever in our history, and all parts of the FC and the forestry world need to engage with the politicians and the public who are looking for solutions. It is a truly fantastic opportunity, and it is now the Forestry Commission's time to be bold again and to shine brighter than ever before.

TIMELINE



1919

The Forestry Commission is founded in the wake of the First World War, when Britain's timber resource is at an all-time low: woodland covers 5% of England and Wales.



1939–1945

By 1939 the FC is the biggest landowner in Britain. In response to the wartime shortage of forestry workers, the Woman's Timber Corps is formed. By the end of the war, almost one-third of the available timber has been cut down. The 1945 Forestry Act recognises the importance of a national forestry policy.



1946–1965

1951 The Felling Act bans the felling of trees without a licence.

1964 Unlimited public access granted to the public forest estate.



SIMON LLOYD is Chief Executive of the Royal Forestry Society. He has more than 30 years of commercial business management experience and owns and manages woodlands in Herefordshire.

The thriving woodland we see now bears little resemblance to that of the post-war years.

We would have been poorer both in canopy cover and in innovation if it had not been for the Forestry Commission. It has undoubtedly led the way in the re-forestation of the country and facilitated the creation of an internationally competitive processing industry.

In recent decades the Forestry Commission has highlighted the non-timber value of forests – opening up woodland sites that are now the number one tourist

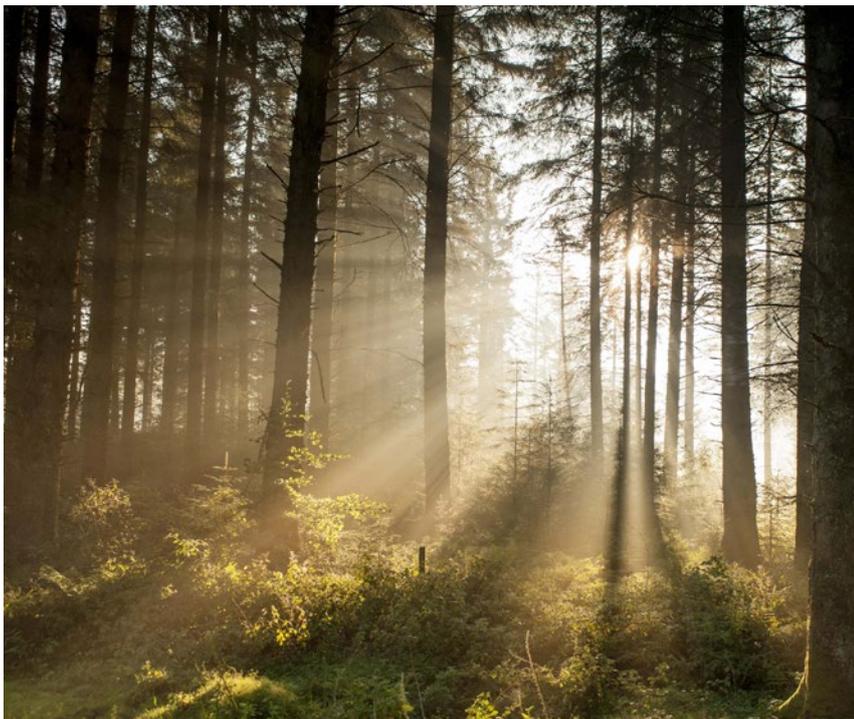
destination in the country with more than 240 million visits a year.

As we face increasing challenges from pests, diseases and climate change, the world-class research institution that is Forest Research continues to play an enormously important role with its applied research, helping inform silvicultural practice in the private sector. Its trial plots, planted over many decades, are a rich if underexploited source of learning which may now help deliver answers for future planting.

For private woodland owners, Forestry Commission woodland officers have often been a well respected and valued resource to turn to, although sadly in recent years increasingly tied up in red tape largely not of their making.

Nothing is perfect and the Forestry Commission has been too slow to change policy and regulation to encourage climate change adaptation and mitigation. That is a top priority for the foreseeable future and requires strong leadership to ensure that policy and research priorities support the shift in long established woodland management practice and received wisdoms.

Bellever Woods, Devon (Photo courtesy Forestry Commission)



TIMELINE



1966–1980

1967 The Forestry Act consolidates all legislation from 1919 and is the base for the Commission's powers and responsibilities today.

1976 FC celebrates the planting of the two millionth acre and by 1980 mechanisation has transformed working practices. Timber production increases three-fold in 20 years.



1981–2000

1987 The Great Storm blows down 50 million trees. The vast majority of fallen timber is salvaged and sold.

1989 Community Forest Initiative launched to restore the urban fringe and green belt.



2001–2019

2010 The government announces it will sell off 15% of the forest estate by 2015. They back down in 2013 in the face of public opposition.

2019 UK forestry cover stands at 13%.

In 2019 we will celebrate the centenary of the first Forestry Act, which created the Forestry Commission and recognised the importance of forestry to the UK.

Over subsequent decades, our island was brought back from the brink of complete deforestation, with less than 5% tree cover, to the present level of 13%. Within lifetimes, we have seen newly-created timber plantations mature into productive and multi-benefit forests.

The past century rediscovered UK forestry in a society which had lost its forest culture. But in the coming century, forestry will become crucial to our society's very existence. The International Panel on Climate Change reported in October 2018 that keeping global temperature increase within 1.5° is imperative to avoid far-reaching consequences; and the deadly wildfires that have destroyed the town of Paradise in California provide a horrific reminder of what this means. A report launched



CAROLINE AYRE, National Manager for England, endorses Confor's review of the Forestry Commission and its view on the future of forestry in Britain.

by the Committee on Climate Change states that to contribute sufficiently to this urgent global effort, up to 50,000 hectares new woodland creation per year for the next thirty years will be required, focusing on fast-growing conifers to be manufactured into timber products which lock up the carbon for as long as possible.

Confor is keen to celebrate this first 100 years, but to also look to the future. This is why we are using the term Forestry Century 'celebrating the past, excited about the future' in our celebrations in 2019.

We want everyone who engages with the Forestry Century to reflect on how far we have come, but also to realise the potential that exists and hopefully be inspired to work with us to realise that potential – a resurgence of tree planting, more wood being harvested to make into low-carbon, everyday products and more people working in and enjoying our woods and forests.

Grizedale Forest, Cumbria (Photo courtesy Forestry Commission)



LINKS

Visit the website [Celebrating 100 Years of Forestry](#) to learn more about the history of the Forestry Commission.

The [Forestry Commission](#) is made up of three parts: Forest Services are the government's expert forestry advisors; [Forest Research](#) delivers forestry and tree-related research to England, Scotland and Wales; and [Forestry England](#) manages the nation's forests.

Grown in Britain

Grown in Britain currently waive their fee to register woods under 20 hectares.

Royal Forestry Society

The largest and most eminent charity promoting woodland management in England, Wales and Northern Ireland.

[Confor](#) (Confederation of Forest Industries) The voice of the forestry and wood sector.

BOG OAK

FROM THE FENS



What do you do with a 13-metre-long tree trunk that happens to be 5,000 years old? The Fenland Black Oak Project team explain how they have crafted a unique table from a rare piece of Fenland bog oak.

In 3000 BC, the fens of eastern England were covered in dense forest made up of giant oak trees. Most of these trees eventually died standing in water and were preserved in anaerobic conditions. Some 5,000 years on, tree remains are occasionally disturbed by agricultural cultivation. When they emerge from the soil, the ancient timbers deteriorate very quickly unless they are wrapped, milled into planks and dried out. The hardwood timber is highly prized for its age, rarity and beauty, but finds are not that unusual. When a Fenland farmer investigated the source of a sharp jolt on his plough in 2012, he wasn't overly surprised to discover a piece of bog oak. What was surprising was the sheer size.

Cabinet maker and black oak specialist Hamish Low, who is the project lead on the Fenland Black Oak Project, said, 'Bog oak is not that unusual, but finding a tree that's worth conserving is quite rare.' Hamish believes that bog oak is the UK's rarest and most valuable timber, and of course, resources are finite.

Having emerged from the rich Fenland soil in 2012, it was quickly christened the





Left and below: Lifting the original 6-ton tree trunk from the Fenland bog required a 14-ton excavator and two tele-handlers. Specialist milling equipment was flown in from Canada and the resulting black boards were transported to a specially constructed 14-metre drying kiln at the Building Crafts College in Stratford, east London.

Jubilee Oak and a seven-year project began to extract and preserve the timber with a view to creating a unique piece of furniture.

A vast sawmill was flown in from Canada, and a bespoke 14-metre-long drying kiln was constructed. During nine months of careful drying out, 400 gallons of water were extracted and finally ten long sequential boards emerged. Beautiful and pretty much priceless, they are now being used to create a table for the nation at the Building Crafts College in Stratford, east London. The magnificent black boards will rest on a bronze understructure, creating a strikingly long and totally unique table.

When completed, the 13-metre-long table will be on display for 18 months in Ely Cathedral, ‘the lantern of the Fens,’ which is surrounded by the fields that surrendered the black oak. It will then be displayed at locations around the UK.

Follow the progress of **Fenland Black Oak Project** on their website.



“
Large tables are symbolic at traditional ceremonies and state events. The Jubilee Oak represents an opportunity to make the greatest of them all.
 ”



BUILDING A PIZZA HUT IN THE WOODS



Looking for a project in the woods which is great fun, draws people together and has a practical and useful outcome with minimal costs? Then look no further:

DAVID ALTY explains how to build a cob oven, the original woodland pizza hut.

Cob is an ancient building material, made from mud, straw, sand and water. It's the world's oldest, cheapest and easiest method of construction and the resulting oven is wood-fired – what could be simpler? Constructing a cob oven is a communal activity, so I was delighted to guide north Cumbria owners Paul and Claire and their small team of enthusiastic volunteers.

As with many projects, the first stage was planning. Where to site the oven is important – a good working space is vital

and the spot should not be too exposed to the weather. Some form of shelter (such as a tarp) is essential as the finished oven isn't waterproof. We chose a sheltered spot close to the fence line.

We then considered what size the oven should be. Too small and the oven won't hold enough heat for effective cooking. Too large is OK, but the bigger the oven, the longer it will take to heat up and the more fuel it will consume to achieve and maintain working temperature. Around 50cm to

60cm internal diameter is ideal for most family purposes. We decided on an internal diameter of 58cm.

Having settled on a size, the next thing to consider was a plinth. The main function of this is to raise the oven to a comfortable working height – scrabbling on the floor cooking pizza isn't much fun! Like a good pizza, the oven itself depends on achieving a really good base. The choice of construction material is really down to what you have to hand: stone, bricks or blocks, a timber or steel frame, or even a handy bank or natural ledge, as long as it is strong enough to support the weight. We had a supply of redundant stone, so this was our obvious building material.

Base

As the base on which the oven sits will also function as the cooking floor, the base material is vitally important. Given that temperatures of around 300-400° are quite achievable, most solid surfaces, such as concrete or a stone slab, will crack with the temperature differential. Bricks from the inside of a storage heater make ideal base material. It is possible to buy these new, but it is relatively easy to source discarded ones. Another option is fire bricks, although they are designed to insulate, rather than retain heat, so storage heater bricks are by far the best option. They are unbelievably tough and very difficult to cut, so the plinth should be constructed to hold a whole number of bricks with sufficient width to accommodate the oven on the top.

Once we had constructed the plinth, it was left overnight for the mortar to dry. On our return the next day we added a layer of glass bottles which were bedded in sand. This helps to insulate the oven from the plinth and minimises heat loss. If your plinth is made of a flammable material then it is advisable to use vermiculite as the insulating material. This layer was then covered in a second layer of sand which was made smooth and level. The storage heater bricks were now bedded into the sand ensuring that the finished surface was flat and level. It really is worth spending sufficient time and attention at this stage to get the oven floor really smooth, as once the oven is built it can't be adjusted.

Sandy former

As the cob is not self-supporting until dry, a 'former' must be made from sand to create the desired shape and size of the oven (see photo on page 16). My preferred shape echoes the narrower half of an egg; this shape is very strong and also more pleasing to the eye than a simple hemisphere. Make sure that the sand is not too dry and not too wet, otherwise catastrophic collapse can happen at the last stage, much to everyone's dismay. Once the former had been smoothed to an even shape, we covered it in damp newspaper. We are not talking papier maché here – two or three layers of damp paper will suffice. This provides a layer of separation between the cob and the sand which makes removing the sand from the oven easier. More importantly, if this is not done then sand sticks in the cob only to fall out when the oven is fired, resulting in one of the more unusual and less appealing pizza toppings: sand.



First, construct a sturdy plinth, then ensure that the top surface is flat, fireproof and heat resistant. Old bottles bedded in sand help to insulate the plinth and are topped with more sand and old bricks from a storage heater.

Cob: dirt cheap

Having got this far, we now needed to make some cob. Although you can dig up some mud and mix it with sand and straw, we used pre-prepared clay and sharp sand. The use of sharp sand is very important as the individual particles are angular and give structural strength. Building sand is not suitable as the particles are round and smooth, which is great for mortar but not for cob.



Use a tarp to mix the dry ingredients for the cob, then add water to make up a damp mix resembling a dead seal. The cob is then formed into hand-sized bricks, which are laid around the edge of the sandy former in overlapping courses. Once the bricks are snugly and evenly fitted, the whole ovoid structure is smoothed off and left to dry for a couple of weeks before firing.

The dry components were mixed by rolling them to and fro in a tarp. Once they were evenly combined, water was gradually added until the cob started to come together. When it started to resemble a dead seal on the beach we considered it more or less done. With cries of glee, shoes and socks were discarded and the cob was enthusiastically trod. The shoe removal refuseniks stood by to roll up the flattened cob ready for further treading.

While the materials amalgamated and the cob rested, we enjoyed a Jacob's join lunch. When we returned to the cob, we started to fashion hand-sized loaves or bricks. Our hands were wet, which helped to moisten the slightly dry cob. Better too dry than too wet! Working around the shape of the former, courses of overlapping bricks were laid, each one carefully pressed into place. The temptation to pat the oven must be resisted. Patting only serves to draw water out from the mixture – a bit like when one stands on the sand at the water's edge and paddles one's feet, with resulting sinkage. We took great care to ensure consistent wall thickness and that each brick had an inward sloping top surface. Any basal bulging was removed using an old saw, this being the best tool for the job. A new saw can be used, but it would very quickly become an old saw!

Who would have the honour of topping off with the final brick? This fell to Pete by dint of his towering height. The oven was now smoothed off using plastering floats, always using an upward fluid motion. Any small holes or depressions were filled with remaining cob. At last, a perfectly smooth prolate hemi-spheroid stood before us, the result of all our efforts. Two final tasks remained: the first, to mark the position of the door opening. The second, to set a date a couple of weeks hence, when hopefully the oven would be dried sufficiently to allow opening, the removal of the former, firing and ultimately, pizza!





Four weeks later ...

The oven was covered in a rough tarpaulin shelter which was waterproof enough to keep out the rain, but sufficiently loose to provide airflow. A month later, with considerable excitement and not a little trepidation, the covers were whisked away. August had been wet, and the oven hadn't dried quite as much as we would have liked. However, it seemed hard enough to proceed with opening.

We used a slater's pick to chip around the marked-out door position and open it up. The cob was gingerly chipped away to within 2cm of the line and the finished edge was achieved using a cheap chisel and a rubber mallet.

This was the moment of truth. Would the cob have dried sufficiently to be self-supporting? With a square-ended bucket trowel we began to dig out the sand that had served as the former.

Success! Once the sand was completely removed, the oven stood, magnificent to behold, and ready to be fired.

Using hardwood kindling sticks and birch bark firelighter, a small fire was ignited at the oven entrance. As it became established, and an ember bed started to form, the fire was gradually expanded and pushed towards the centre of the floor. Wisps of steam started to appear on the cob surface as the residual moisture was forcibly expelled.

In the meantime, our chef had arrived with his array of ingredients and an impressively risen bowl of dough. Slowly, the oven temperature rose throughout the afternoon until it had achieved a temperature sufficient for cooking. The embers were pushed to the inner circumference and a few sticks added to maintain a ring of fire. The cooking floor was then cleared using a blast of air from a huffy-puffy pipe and we were ready to cook. The inaugural pizza went in and we watched to see if all our efforts had paid off.

There was a resounding cheer as the pizza blistered and rose, the cheese bubbled and the base crusted. The first offering was gratefully devoured by the willing helpers, and pizza followed pizza, with the oven declared a topping success by all comers.

Contact David Alty about oven-building in your wood: djalty@hotmail.com. The whole event will be seen on **Woodlands TV soon.**



CAMERA TRAP

To capture the wild life in your woodlands – be it animal or unauthorised human activity – it might be worth installing a motion-sensitive wildlife camera. Woodland owner **BRUCE EDELSTEN** reviews two Suntek cameras.

The Suntek HC-700G and HC-801M provide similar functionality in differing formats. They are battery-powered weather-proof trail or wildlife cameras. Image capture is triggered by movement, with the photos stored on a memory card. With a phone SIM installed, images can be sent to a mobile phone via MMS or email. Both cameras can send a still image, but not video.

At the front of both cameras is the passive infra-red (PIR) sensor, camera lens and infra-red LED flash. The front of the 700G has a small display which, via an included remote keypad, gives access to a configuration menu. Underneath is a fiddly off-test-on switch, USB connector, SIM and memory card slots, and the compartment for six AA batteries.

The 801M hinges open to reveal the display with integrated keypad, the switch, USB connector, SIM and memory card slots, and the compartment for eight AA batteries.

On the top of the 700G is the antenna and external power input. The 801M also has the antenna on top, while the external power input it is on the underside.

Both have tripod mounts and slots at the back for straps or tie-wraps. The 700G is waterproof to IP54 and the 801M to IP65. Images are 1280 x 720 24-bit pixels. Depending on the image size (1/6/12/8 MP) selected, and the nature of the image, attachments are up to about 150kb. Images are stamped with the date, time, phase of the moon,



Cameras mounted on a Scots pine. The 700G is in a partial enclosure for extra protection.

temperature and battery state. Both cameras record 1080p video clips, and the 700G is also capable of HD.

Both cameras are configured using a combination of the display menu and a Windows program. You will also need to configure email settings and it might be useful to create a separate email account for the camera's messages.

After testing, the camera has to be mounted somewhere with a good view, pointing away from the sun. Make sure that there are no branches within range – if they blow in the wind, you will receive an avalanche of images. The camera responds to a number of SMS text messages: *500* will prompt it to email an image, which helps testing and can provide reassurance that the camera is still working.

In theory, with a standby current of

0.1ma, the batteries should last several months. However, taking and sending images uses more power and battery performance drops dramatically in the cold. The cameras can be powered by a 12-volt car battery, although this presents a different set of challenges and it is not possible to turn the power on remotely. Even with an external power supply, it is necessary to move the switch from 'off' to 'test', and to wait while the camera performs a self-test and finds a phone signal before switching to 'on', which can be awkward if the camera is positioned high up a tree.

The 801M (currently £126.88 from Amazon) is possibly a better product than the 700G (£102.99), with better waterproofing and a better form factor. However, the field of view, which claims to be 120°, is noticeably less than the 700G's 120°. The 801M's display is on the inside, and it can be tricky to achieve the best position, a process that involves emailing images before repositioning the camera.

Trail cameras provide two useful functions: alerts and reassurance. Visitors nosing around usually depart rapidly when they notice the cameras, and their presence will trigger a photo and an email. If there have been no alerts for a while, users can initiate an image via SMS to provide reassurance that nothing untoward has happened and that the cameras are still working.

For more details visit the Suntek website: www.cnsuntek.com

TROUBLE-FREE CHAINSAWING

For many owners a chainsaw is a vital necessity and a key tool in the armoury of woodland management. Petrol chainsaws can handle anything a woodland throws at them, but is it worth considering a more lightweight cordless machine? **JUDITH MILLIDGE** looks at the options.

What do you buy the woodland owner who has everything? You could do worse than a cordless chainsaw. Granted, cordless saws do not (yet) have the power or the longer bars of their petrol brethren, but as we've noted before in these pages, they're quieter, lighter and battery technology is gradually improving to give longer usage times.

We've owned our wood for over a decade and Jon's chainsaw arsenal includes one electric chainsaw and two petrol Stihls. Countless spare chains, sharpeners, cans of oil and tools for fixing the Stihl litter the workshop. Those who want a chainsaw that will simply switch on and cut timber without something going mysteriously wrong should perhaps consider a cordless version. Without a petrol engine, there are simply fewer moving parts to worry about. Chain oil and sharpening are the only regular maintenance that is needed.

We have acquired a Stihl MSA 200 with an AP 300 lithium-ion battery. The new addition to the family started at the touch of a button and we tried it out cross-cutting some pine felled three months ago. The 14-inch bar coped remarkably well with the 12-inch-diameter logs, and the battery lasted long enough for us to cut enough logs to fill the back of the Land Rover. What more could you want?

Well, in an ideal world the battery would last longer. The chainsaw was not in operation for the advertised 45 minutes of battery life and when it gave out after about 25 minutes, it was too hot to recharge immediately. Was this because we

worked it too hard on over-sized timber? Battery life seems to be rather like vehicle manufacturers' mpg versus real-world mpg – a triumph of hope over experience. The MSA 200 may overheat when used constantly, which requires the battery to be removed and the chain to rest for a few moments. Keeping the chain sharp is key to reducing the

burden on the motor and the battery.

So perhaps this is not the best choice for a day of sectioning felled trucks, although it has sufficient torque to cut through most of the trunks in our wood with little difficulty. Users should probably plan to take two fully charged batteries to the woods and perhaps buy an inverter so that the battery can be recharged from a car's 12-volt port.

At 5.3kg, this machine is considerably lighter than a petrol saw and the quiet buzz in operation is a welcome contrast to the throaty roar of the average petrol chainsaw. Where the MSA 200 really comes into its own is for those jobs where short bursts of power are needed, such as snedding, pruning and coppicing. It certainly packs more of a punch than I envisaged a battery-powered saw would.

Currently, Stihl are offering this chainsaw with two batteries and charger as a promotion for £665 (the offer is buy one battery and get the second half price). It's not cheap, but for us, the money saved in fuel, servicing and the hours of frustration when something fails, make it worthwhile.

For more details, visit the Stihl website, www.stihl.co.uk



Stihl MSA 200 C-B Chainsaw with AP 300 li-ion battery.



WOODLANDS AWARDS 2019

Fabulous autumn colours by David East



This is the third year of the Woodlands Awards, and there are 48 winners, listed below. Big congratulations to them all! They represent a huge amount of hard work, commitment and expert knowledge in woodlands and the woodland environment – plus a fair dose of wry humour in some of our more light-hearted Awards categories. More details of the winning entries will be posted on the sponsor's website: www.woodlands.co.uk/woodlands-awards.

WOODLAND BLOGS

Mike and Tracy Pepler for
peplers.blogspot.com

David Ward for
woodlander23.wordpress.com

Suz Williams for
coppicingsuz.wordpress.com

SMALL WOODLAND WEBSITES

Alan Waterman for
woodlandwildflowers.com

Led by the Wild for
www.ledbythewild.co.uk

FOREST SCHOOLS

Nant y Glyn Forest School
Be Free Forest School
Four Seasons Forest School
Green Earth Learning

WHOLE WOOD OWNERS' COORDINATORS

Bernie Burnett
John Nickson



Dogs on a log: Jimmy and Jenny
by Steve Davey

WOODLAND DOGS

Moo-Moo presented by Jonny Thompson
Dorothy presented by Rob Finley
Elsie presented by Dan Milnes
Pip presented by Liz Watson
Herbie presented by Sue Davis and Sarah Axon
Alfie presented by Kerry Evans
Cassie presented by Daniel Sharp
Jimmy & Jenny presented by Steve Davey

WOODLAND PHOTOGRAPHY

Martin Garwood
Jenni Greenow
David East
Cathy Ryan
Justin James
Sarah and David Alty
Sue Price
Jasper Sharp

WOODLAND HAIR (AND/OR BEARD)

Matt Marples

WOODLAND SCULPTURE

Rob Elliott
Graeme McIntosh

WOODLAND CONTRACTORS

Liam Lambert
Robert Wilson
Richard Evans

WOODLAND COURSES

Explore the Great Outdoors
Phil's Chainsaw Training

COMMUNITY WOODS

Heartwood Community
Woodfuel Group
Vert Woods

WOODFAIR TRADE STANDS

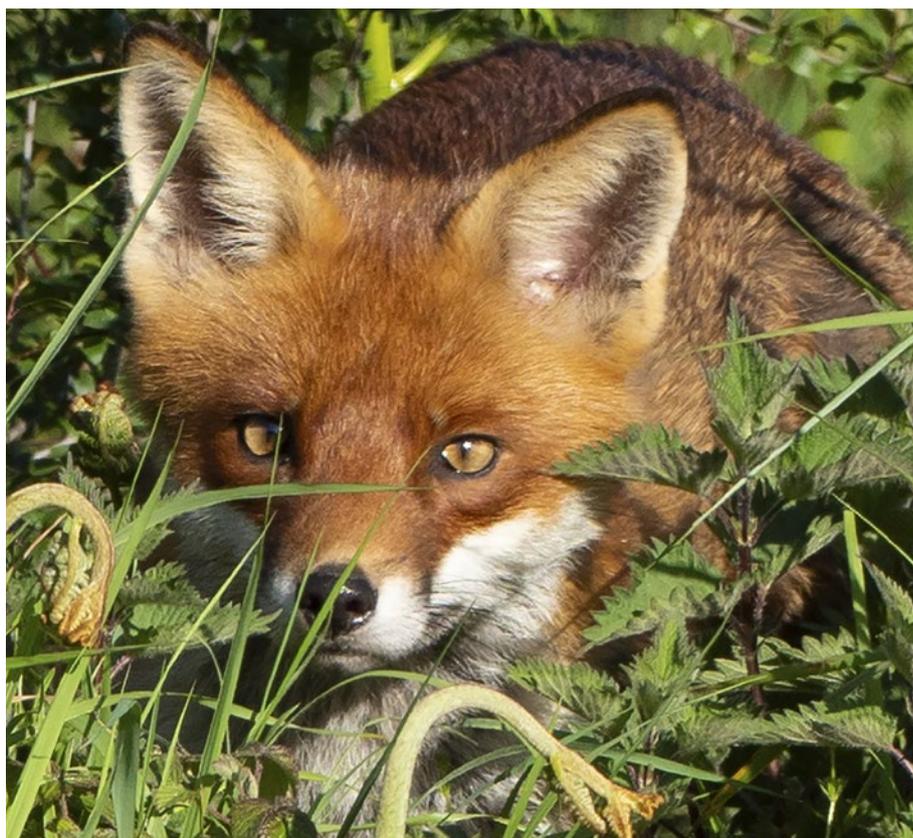
1948 Original Equipment
Backwoods Survival School
Sean Hellman

REGIONAL AND NATIONAL WOODLAND ORGANISATIONS

The Forest of Marston Vale
Llais y Goedwig

WOODLAND BOOKS OF THE YEAR

'Cherry' Ingram
Naoko Abe (Chatto & Windus)



Fox by Cathy Ryan

The Little Book of Trees
Caz Buckingham and Andrea
Pinnington (Fine Feather Press)

The Magic & Mystery of Trees
Jen Green (illustrated by Claire
McElfatrick) (Dorling Kindersley/ RHS)

Forest Craft
Richard Irvine (GMC Publications)

The Glorious Life of the Oak
John Lewis-Stempel (Doubleday)

Wilding
Isabella Tree (Picador)



Four Seasons Forest School by Lucy Ryan



Robin by Martin Garwood

BOOK REVIEWS

PROFESSOR JULIAN EVANS reviews a commemorative history of the Forestry Commission.

BRITISH FORESTS: THE FORESTRY COMMISSION 1919-2019

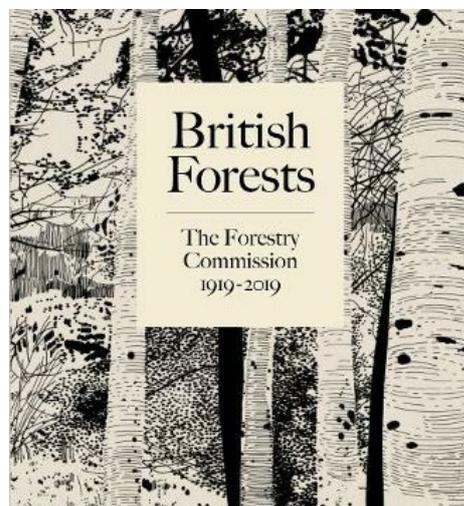
Profile Books Ltd
Hardback 256 pages £25
ISBN 978-1788163132

Celebrating the Forestry Commission's centenary always required a book and what is on offer is an interesting compendium. It is in three parts: history, then six chapters called 'Among the trees' ranging from silviculture to arts and recreation, and a final part comprising pen-pictures of all the major public forests throughout Great Britain. Ian Gambles, Head of Forestry England, is the overall editor. In his Introduction he hopes the book will share something of the story, will outline the challenges faced, and '... invite you in, to visit and enjoy the nations' forests, to see and explore more.'

British Forests: The Forestry Commission 1919-2019 is well written and a pleasure to read. More perhaps could have been made of the Commission's considerable achievements: in the Introduction woodland cover is said to have doubled since 1919 whereas at over 13% today it has nearly tripled. And our urban trees and forests are not only 'the lungs of the city', but air filters too.

The account of the 'Formation of the Forestry Commission' is fascinating. It reminds us that all great endeavours are a mix of vision, determination and good fortune. The next 71 pages detailing the Commission's history, decade by decade, are a delight: action, anecdote, and activity are traced in sufficient detail to inform and entertain. Establishing Forest Parks in the 1930s, long before National Parks, the contribution of 6,000 lumberjills to the war effort, the introduction of felling licences in the 1950s, Sylvia Crowe's impact on landscaping a decade later, two attempted privatisations, and the ramifications of devolution are all there.

Part 2 begins with Silviculture and is as fine a summary as any, with pleasing reference to the Beddgelert high altitude



species trial, coping with inhospitable soils, the suite of 'forest gardens' (tree collections), and other trials and experiments which so informed practice. Broadleaves and squirrels get appropriate mention, as do the critics of the forests of exotic monoculture that dominated the immediate post-war period. This chapter also presents the challenges of today and, as with much of the book, weaves in modern updates when tracing the history or first introduction of an idea or practice.

The Habitats chapter really tells the story of a 'Damascene conversion', to quote the authors, namely how plantation conifer-driven forestry evolved in a generation to more sympathetic approaches recognising site history, habitats, ancient woodland ecology, the place of broadleaves, the environment and the multitude of interests public forests attract. This is followed by a chapter entitled Forest Science and underscores the role research played for example in the development of successful afforestation, the invention of tree shelters (translucent tubes) so useful for small-scale plantings, and the place of inventories of Britain's forest estate that have proved so valuable. It concludes with the authors' list of 'great' experiments – I looked in vain for Crumbland, Gwent where free growth of oak has been (and still is) so eloquently demonstrated over 70 years.

Forest Hazards rightly gets a chapter to itself, detailing fires, storms and most notably pests and diseases with

the principal threats summarised. It indicates just how vulnerable our trees and forests are and how the situation is getting worse owing to climate change and the woefully under-regulated worldwide trade in plant material.

Arts and Recreation also have their own chapter which reflects priorities in the 21st century. Indeed most people's love for the public forest estate is its best guarantor for the future. But just reading this chapter bringing together theatre, sculpture, hiking trails, car rallies, mountain biking, holiday cabins, 'go ape' and much more shows that public funds for public good is already embedded in Commission thinking.

Why conclude part 2 with 'Cities'? The reason, as British Forests explains, is the Commission's unsung contribution through community forests, the hosting of DEFRA's Arboricultural Information and Advisory Service at Alice Holt, all the work on 'brownfield' restoration in the South Wales valleys, and, for example, the elm enclave in Brighton and Hove which is symbolic of all the tree health advice Forest Research has furnished. One could go on, but the Forestry Commission in its magnificent 100 years has impacted every corner of the land.

The final part of the book highlights the major public forests in each of the

devolved nations. It is not exhaustive, but reading them just shows what a wonderful and diverse public estate we enjoy, from the native pine woods of Glen Affric to what was once Europe's largest planted forest (the Kielder complex) to the sand dune habitat of Pembrey in south Wales. Each forest is described in a couple of lines, followed by a note of important wildlife visitors might see, and a paragraph of highlights.

Readers of Living Woods should enjoy this look at Britain's state forest service providing context, perhaps, for their own patch or interest in woodland.

Ian Gambles and his team of authors are to be congratulated on this work.

'Think global, act local' – **ANGUS HANTON** is inspired by the energy-saving tips and advice in converting your home to renewable energy.

THE RENEWABLE ENERGY HOME HANDBOOK

Lindsay Porter

Veloce Publishing

Hardback 192 pages £24.99

ISBN 978-1845847593

You may think that YouTube is totally taking over from more traditional guidebooks, but this handbook shows there is still an important place for the printed guide.

It's much easier to take up onto the roof, read in the loo, and for writing notes in the margins. Homeowners often wonder how to use less power and yet stay warmer, but it's hard to know where to start. *The Renewable Energy Handbook* doesn't begin with renewable energy at all – it starts with saving energy, insulating the house and monitoring. I love this approach because this is where the low-hanging fruit is – changing those 50 watt light bulbs for 7 watt LED bulbs that give out exactly the same amount of light and a lot less heat. I also like this way of thinking because it's not just about heating, but about cooling too – when you insulate your house you stay cooler in the hot summers as well as warmer in winter. Whilst these are helpful generalisations, what's also needed is actual measurement and there are now very cheap ways to measure your electricity consumption – the handbook recommends the Eco-Eye devices that tell you in real time how much 'juice' you are using.

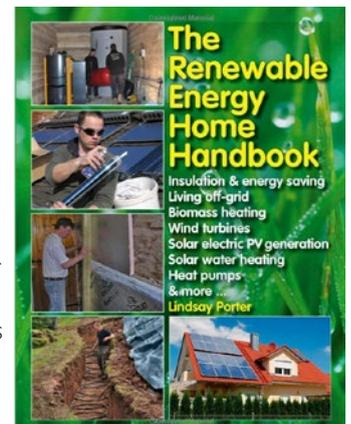
This handbook is the epitome of 'think global, act local', as it starts with an explanation on why cutting our CO₂ emissions is essential for the planet, and ends up, 170 pages later, with how to use a Makita 18v cordless drill to install a radiator.

Throughout, Lindsay is the practical geek, holding your hand as you insulate pipes and work out which way your solar panels should face. And his expertise in making homes greener goes back a long way – in the 1970s he discovered from Swedish builders that making an eco-house costs very little more than constructing a 'gas-guzzling' building.

Most home owners will stay connected to the grid but take less electricity from it, but the handbook does take you through the practicalities getting off-grid with the use of battery back-up. Many people will want to put in solar thermal for heating the hot water (what children call 'sunshine water') and Lindsay wants you to understand every stage. The process is fully illustrated and explained – some pages have 10-12 pictures. There must be well over 1,500 photos and illustrations in the handbook.

Projects you could undertake with the handbook include putting in insulation, a solar thermal system, solar panels for creating electricity, a ground source heat pump, an air source heat pump or a wind turbine. More whacky, but logical, ideas include an exercise bike generator – why not use cycling energy to light your home? Another often-overlooked idea is putting in a heat recovery system to take out heat from waste-water and air leaving your home.

If you're putting in solar panels yourself or putting up a domestic wind turbine then the £25 investment in this book has to be a bargain. Reading it might lead you to the same experience the author had: 'until I started on this book, I thought I knew quite a lot about renewable energy ... but I discovered how much I didn't know.'



SYMBOLS IN TREES

Need to repel witches or protect your cattle? **CLARE GIBSON** explains how to use rowan trees to your advantage.

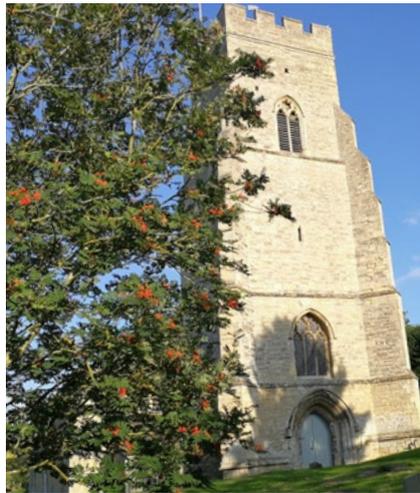
Contemplating the rowan's many names reveals a fascinating insight into this graceful native tree's characteristics, history and symbolism.

The clusters of gorgeous orange-red berries borne by rowan trees in summer and autumn provide a feast for the birds, which is why one of the rowan's names in German is *Vogelbeere*, or 'bird berries'. Its binomial name, *Sorbus aucuparia*, is equally descriptive, being derived from the Latin which, when roughly translated, means 'service tree' and 'catching fowl' – indeed, fowlers used to attract birds to their nets with rowan berries. The rowan's most common alternative name, 'mountain ash', reflects the high altitudes that it tolerates and the similarity of its leaves to those of the ash. While the name 'rowan' and variants such as roan are thought have Old Norse roots and to mean 'redden', some of its alternative names have far less prosaic origins.

Witchbane

'Witchbane', 'witchen', 'witchwood', and other variations on the word 'witch', identify the rowan as a tree that has the power to repel witches. The tree has long stood as a symbol of protection against malign supernatural influences. The belief that it has the ability to vanquish unearthly destructive agencies can be traced back to those berries, whose fiery hue evokes blood, itself a potent symbol of life. In traditional belief, the colour red was believed to have the power to deflect evil's dark energy, while the pentagram (a shape that can be seen at the base of rowan berries) was also thought to protect against evil. Their apotropaic reputation caused

rowans to be planted near houses; rowan branches to be fixed above doorways; and bunches of rowan twigs or crosses fashioned from them tied with red ribbons to be hung from windows and other entry points. Some people carried a piece of rowan bark or a twig in their pockets, or placed it under their pillows or attached it to a bedhead to protect them while they were sleeping. Rowans were commonly planted in Welsh graveyards to ensure that the sleep of the dead was not disturbed, and to prevent restless souls from wandering.



In a more agricultural age, livestock and dairy products were especially valued as a source of income and nourishment. Cattle were thought to be at special risk from witches at the start of May, which is why cow byres and milking sheds were bedecked with boughs of rowan. In some parts of the British Isles, it was customary to tie rowan twigs to cows' tails with red string; in other places, a cow's horns were wreathed with rowan foliage. Butter and milk churns were sometimes similarly protected from being stolen or their contents spoiled by being encircled with rowan branches, while German butter

paddles were often fashioned from rowan wood for the same purpose. In pagan Ireland, the rowan was regarded as being sacred to Brigid, the goddess of livestock who presided over such arts and crafts as spinning. It is probably no coincidence that spindles and spinning wheels were traditionally made from rowan wood.

Tree of life

More of the rowan's names – such as the quickbeam or quicken-tree – have 'quick' in common, which is derived from the Old English *cwicu*, 'living', indicating the rowan's status as a tree of life. In earlier times, some communities tried to give their livestock extra vitality, as well as protect them from witchery, by repeatedly tapping a rowan-tree rod against their flanks. Another springtime custom was to encourage sheep to jump through hoops fashioned from rowan boughs. And according to Irish mythology, a single berry from rowan tree in the forest of Dooros had the power to turn back the clock so that a 100-year-old would revert to the age of 30.

The Norse *Prose Edda* tells how, when the god Thor was in danger of drowning in the River Vimur, he eventually hauled himself to safety by grabbing the branch of a rowan growing on the riverbank. Envisaged with a beard as red as rowan berries, Thor is the Norse god of thunder and lightning, and its association with Thor is one of the reasons why the rowan was thought to avert lightning strikes and storms.

So if its beauty weren't recommendation enough for planting a rowan tree, an appreciation of its overwhelmingly protective symbolism would surely tip the balance in its favour.

LEAVES OF POETRY

HOME PLANTATION

This is an oak I have planted;
My hands will not stretch round its
bole.
Others may take it for granted;
To me it is part of my soul.

This is the stump of a thinning,
Cut to an inch of the ground.
Fuel for the hearth we were winning,
Stacked with the faggots I bound.

First among many another,
A rabbit here fell to my shot
To be carried in triumph to mother
And proudly consigned to the pot.

My jacket was rent into tatters:
To the lining its forearm was frayed.
Stock-proof – the feature that matters –
And trim was the hedge that I laid.

Here I would walk as a lover
At a memorable time of my life,
Planning ahead with the other
Shortly to join me as wife.

Such is the passage of time! In
Blithe laughter the saplings now
sway.
For the branches are sturdy for
climbing –
Among them our children can play.

This is an oak they have planted,
Sprouting as high as their knees.
Those who plant acorns are granted
Timeless memorials – trees!

GEORGE DARWALL

JUST UP A BUMPY TRACK

Just up a bumpy track,
Enter an oasis of calm,
Leave your troubles far behind,
Cast off any worries here.

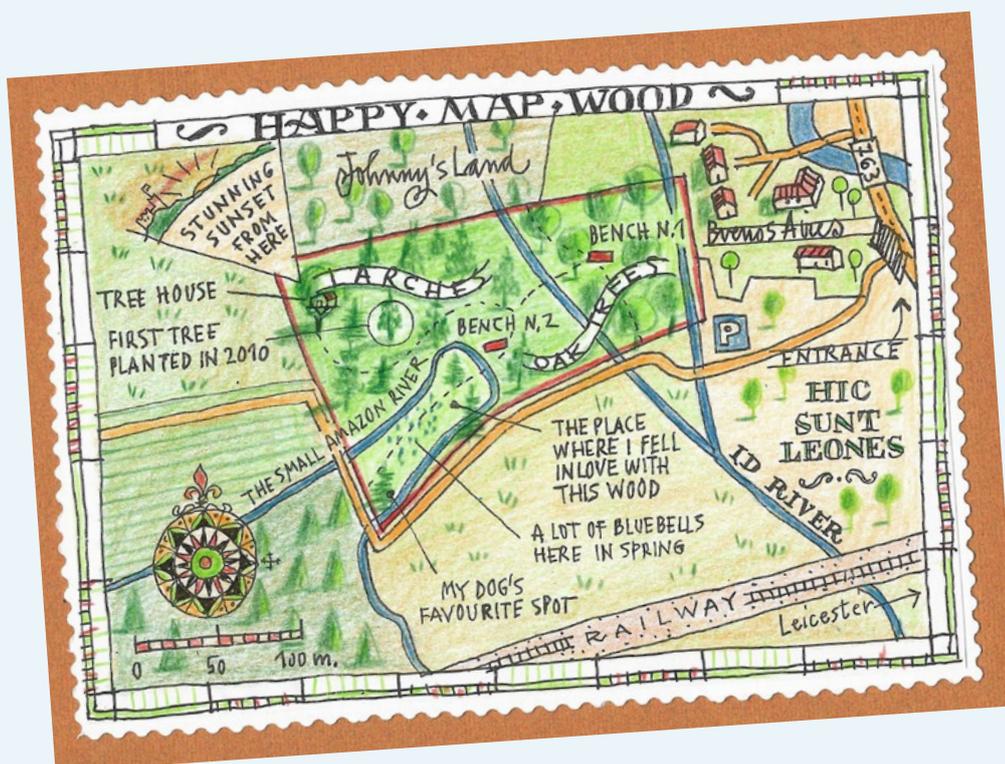
Green leaves shelter you now,
A fire crackles so fiercely,
Wrapped up in the wood's comfort,
Friendly faces welcome you in.

Those troubled thoughts drift away,
Gaze into the flickering flame,
Return to a peaceful state,
Magic has been working here today.

DEBBIE LEWIS

*Thanks to Debbie Lewis and Living
Woods stalwart George Darwall for
sharing their poems.*

MAPPING YOUR WOODLAND



We have often recommended software or online resources which will help produce a really accurate map of your woodland. This [video from Woodlands TV](#) takes mapping back to its pen and ink roots.

Using a step-by-step approach, Italian artist, Michele Tranquillini demonstrates a simple and fun way to make an illustrated map of your own woodland and explains how to convey the personal story of your wood. It might not be acceptable for a formal management plan, but it's far more creative and fun.

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