

PAWS for thought

This autumn, the author attended a two-day workshop, run by Natural England, the Woodland Trust and Forest Enterprise England in the Wyre Forest, at which the state of and lessons learnt about PAWS restoration in lowland England came under the spotlight. Here are some of his musings.

Introduction

Like most things, forestry goes through fads or phases – but because of its innate long-term nature, what seemed the right thing to do at the time can look misguided several decades later, if and when the tree crop planted is no longer so relevant or lucrative, and priorities and policies have moved on.

Nelson's oaks in The Dean, or The Flow Country, are ancient and modern examples. The post-WWII policy of felling ancient semi-natural woodlands (ASNW) dominated by hardwoods, or under-planting them with softwoods to create Plantations on Ancient Woodland Sites (PAWS) to produce faster-growing trees and to create a 'strategic timber reserve', began to be questioned.

The case for PAWS

As a reminder, based on maps and ground verification, ASNW are areas that have been continuously wooded since at least 1600AD. PAWS are ASNWs converted to plantations, often using non-native species.

Most PAWS resulted from the government policy of creating this strategic timber reserve in around 1950-80. They then received scant attention in either forestry or conservation policies, and the two camps were also poles apart.

The official 'Broadleaves Policy' in the mid 1980s focused on protecting surviving ASNW by discouraging further conversion to conifers, bringing to a close the four decades when most PAWS were created.

The issue was contentious with timber growers then (and maybe still is), and with their trade organisations, as it would reduce the long-term productivity of the forest resource. The conservation lobby then concentrated on conserving untouched ASNW, and PAWS were even dubbed as 'lost' Ancient Woodland.

The push for PAWS

From the late 1990s, latent interest in restoring PAWS to native woodland has grown rapidly, in response to the Habitat Action Plan (targets and the requirements to conserve

their biodiversity value under the Forest Stewardship Council and UK Woodland Assurance Scheme certification standards). Those placed an onus on managers to assess their PAWS and produce a restoration strategy. And the fall in softwood timber prices aided the PAWS cause.

2002 saw the watershed PAWS report from the Oxford Forestry Institute and in 2005 came the Government's 'Keepers of Time' policy with a 2020 delivery date. The recent Independent Panel on Forestry affirmed the value of PAWS sites and their restoration.

Why bother with PAWS?

Nowadays, few would quibble with the need to conserve the best bits of remaining ancient woodlands in the British Isles.

Across England, 2.6% of the land is still ancient woodland – ie a quarter of the country's tree cover. Around 40% of that ASNW has been converted to PAWS.

Official policies advocate restoring much of that to a semblance of its former self where and when possible. Steps are underway to do this on property under the stewardship of the Forestry Commission or Natural England, plus NGOs like the Woodland, National and Wildlife Trusts.

So where are these PAWS and who owns them?

England has more than its fair share of PAWS. This article focuses on lowland England. The restoration scenario elsewhere and on upland sites may differ. But the overall thought processes still hold.

Given the popular image of a dark, gloomy PAWS compartment, it is a surprise to non-foresters to discover that conifer plantations account for only around half of the total PAWS cover, particularly as 'coniferous' embraces stands with up to a 20% broadleaf component. Many ancient woodlands were planted in 1960-80 with beech, oak and other broadleaf species, both native and exotic, but those are rarely restoration priorities.

ASNWs form 19%, or 213,000

hectares, of English woodland, with 23% classed as Sites of Special Scientific Interest (SSSIs); PAWS woodland accounts for an additional 13% cover (151,000 hectares) with 7.5% (11,500 hectares) in SSSIs. Although sites are distributed across the land, hotspots are in the Weald, North York Moors and The Dean. FCE is a major player, with 44,000 hectares of PAWS, so a third falls under their stewardship. But much is in private ownership.

Why a workshop now, and in the Wyre?

In forestry practice terms, PAWS restoration is in its infancy.

Over the past decade, interest and experience in restoring suitable PAWS sites has gathered momentum, and the time is right to stand back to take stock, share knowledge, brainstorm, and plan ahead.

The venue for the two-day workshop was the Wyre Forest. The event was based at the FC Callow Hill Visitors Centre, with a short visit to nearby NT Croft Castle to discuss veteran trees and protecting them within conifer stands.

The Wyre straddles the Worcestershire/Shropshire border and is the second largest tract of ancient woodland in England at 2,650 hectares. Roughly half is in the hands of FCE, and the balance is a National Nature Reserve (NNR) overseen by Natural England. 1,753 hectares are designated as SSSIs.

The 'Grow with Wyre Landscape Partnership Scheme', was set up to help restore the unique landscape, with a £4 million injection from the Heritage Lottery Fund. PAWS restoration has been a big part of that.

The actors

The star-studded cast of course leaders came from organisations with a strong vested interest in the recovery of ancient woodland, and experience of undertaking pioneer PAWS restoration. They included Christine Reid (National Woodland Specialist) and Saul Herbert (Senior Reserves Manager for Wyre Forest NNR) from Natural England, Richard Boles (Area Forester – Wyre), Jonathan Spencer (Forest

Planning & Environment Manager) from Forest Enterprise and Tim Hodges (National PAWS Adviser) with the Woodland Trust.

The script

Chris Reid kicked off proceedings with a series of searching questions worth reiterating here to get *Forestry Journal* readers thinking too. The big PAWS questions posed included:

- What ancient remnants are left and what threats are they facing?
- What sites should be prioritised for PAWS restoration? The most threatened? The most likely to recover? Those that are economically viable? Or as the chance arises?
- What are we restoring PAWS sites to? Can we turn the clock back and revert the woodland to what it was before; or are we producing a new future native woodland; or what? Should we look at tree species or provenances outside the current site-natives range? What will the end product resemble?
- How do we overcome the many challenges, such as how to finance restoration and management; pests and diseases; and climate change?
- What approaches and techniques will succeed? Clearfelling versus continuous cover forestry or heavy thinning; how to deal with conifer litter and brash; and addressing ongoing issues like control of conifer regeneration and deer management?
- How do you develop a management plan and monitor the changes and benefits?

The restoration process, or 'Let there be light!'

PAWS restoration is all about manipulating light levels.

At most sites the aim of PAWS restoration will be to create the conditions necessary to secure, enhance and promote development of valuable remnant features by removing the introduced tree species. The dream goal is to nurse back at least 80% of species native

to that site, bearing in mind both that past selection by man has influenced the native species around today, and the resilience of the trees there in the future.

Complete reinstatement of past conditions is unrealistic. At many sites there will have been subtle, irreversible changes and the current environment there (including climate and soil nutrient status) may be quite different from the original one.

What you cannot do is turn the clock back and expect that removing the conifers alone will result in the previous ancient woodland species and structure reappearing overnight!

PAWS restoration is a long haul; deciding when it has been achieved will be polemic.

So how do you set about PAWS restoration?

Each PAWS site needs to be assessed individually on its own merits – there is no one-size-fits-all method for restoration. You need to work with what is still surviving on PAWS from the ASNWs.

So step one is to identify what remains in terms of ground flora, old stools, veteran trees, and so forth, plus any other attributes like archaeological features.

Spring is the best season for checking out what ground flora may have clung on. Many native woodland plants are surprising resilient – and have evolved to survive for long periods under a wildwood canopy to burst into life again when a gap is opened naturally, letting light stream in.

With a site survey completed, you can weigh up whether restoration is a runner or a non-starter, and plan what to do in the short and long term.

If restoration seems a viable option, then a must is to take any immediate actions against further loss or deterioration of the desirable features. That can be followed up

later by whatever it takes to produce a robust and stabilised scenario that can then be gradually modified to benefit restoration.

A pragmatic approach is essential, rather than a knee-jerk reaction to remove all demon conifers at all cost. Experience has shown the need to work with Nature, adopt gradual approaches and often tweak existing scheduled forestry ops such as thinning.

Continuous cover forestry offers a lot for PAWS restoration too as a middle way.

Although some PAWS may still need clearfelling because of wind firmness or access, the practice of removing all shade-bearing conifers, and hoping for broadleaf regeneration whilst doing enrichment planting, has not worked. Too often, any tree regeneration aspired to has been swamped by rampant bracken or bramble.

The previous conifer crop comes into play too. The chances of successful restoration under a stand of lighter shading larch, Scots or Corsican is distinct from those under a dark canopy of Sitka or Western hemlock.

The workshop highlighted how nursing PAWS sites back to native woodland communities is a challenging task that requires greater management input than just recreating a novel stand of site natives through planting.

Common challenges were identified as grey squirrels, deer, tree diseases, economics, loss of productive conifer plantations, wind, site access and communication and dispelling myths (which is why I am penning this article!).

An ongoing impediment is not simply funding, but that any funds available may be ephemeral, rather than lasting the ideal minimum of ten to twenty years – a problem not unique to PAWS restoration in forestry!

PAWS and the private sector?

Many PAWS are in private hands. Woodland owners are not eco-philistines, but is it worth their while re-visiting PAWS restoration, which has not really taken off in the private sector for several reasons? And the monies tops the list.

Throughout the workshop, the hard economics of PAWS restoration were a constant talking point and stumbling block. There was an encouraging acceptance that, despite an owner's best, altruistic intentions, the monetary side was pivotal, and any fiscal support must be long term.

However, many conifer PAWS stands are approaching thinning, so sometimes planned forestry operations can be tweaked to work in the first steps towards restoration at no or low cost.

Lessons learnt

Everyone takes away something different from such workshops. Here are mine.

I went along to this gathering with some trepidation. Maybe I had hold of the wrong end of the proverbial stick, and expected to hear the once common clamour from the 40 or so invited participants to remove all conifers from all PAWS sites, at all costs and ASAP, echoing the rallying cry from some organisations a decade ago when PAWS restoration first burst onto the forestry agenda.

But far from it. Both policy and practice have moved on and are continuing to do so, evolving and becoming more pragmatic. I needed updating, and that was precisely what the workshop did.

For those working hands-on with PAWS in FC, NE or the WT, the pendulum is swinging back, away from the dogma to a far more down-to-earth stance of working with what you have, and within the economic framework available. The attitude to conifers is mellowing, and some of the realities of wanting to turn the

clock back on PAWS sites are surfacing with experience.

The breach in the past between 'conservation' and 'production' forestry is narrowing and being bridged – they are simply different points along a continuum.

What next?

Until now, the bulk of PAWS work has been done by the state or NGOs like the Woodland, National and Local Wildlife Trusts. But the private sector has not come on board yet. Will it ever, and under what circumstances?

Most owners of private woodlands have an altruistic streak, but a major determinant will nearly always be whether the figures stack up. If not, PAWS restoration work may never happen.

As a new development, The Woodland Trust has just secured funding from the Heritage Lottery Fund for an engagement project. It is recruiting ten forestry officers for a four-year project to connect with the owners and managers of private ancient woodlands in ten key areas of England – and to develop web-based resources to hand-hold those elsewhere on how to restore their PAWS.

Not all owners may want to go down the full restoration route, but the WT hopes to encourage them to at least maintain and enhance those ancient woodland remnants still surviving in their plantations.

The full project will be rolled out next spring, and a major updated WT report on PAWS is scheduled to go public within months.

For more on PAWS, try the 2013 FC Practice Guide *Choosing stand management methods for restoring planted ancient woodland sites* by Ralph Harmer and Richard Thompson, on the FC website.

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