

Wessex Silvicultural Group: Field Meeting Notes

2018 Study 'Regeneration: Renewal and Creation'

Meeting 3: Fingle Woods, Tuesday 10th July 2018

Theme: Ancient Woodland Restoration and role of Continuous Cover Forestry - Regeneration, restocking, CCF, PAWS and how the whole area is beginning a new journey under WT/NT oversight

The July 2018 Wessex Silvicultural Group meeting at Fingle Woods, Devon, was well attended in fine weather. Chaired by Prof. Julian Evans, the event was hosted by a team of three from the Woodland Trust and one from the National Trust, with additional expert input from soil scientist Dr Tim Harrod. Introductions were made at stop one, where the pioneering partnership between the Woodland Trust and the National Trust was explained.

Stop 1: Overlooking the Teign Valley

Project Manager for Fingle Woods, David Rickwood of the Woodland Trust, introduced the site from farmland overlooking the woods and the Teign Valley. He explained that the joint acquisition of Fingle Woods was the first collaboration of its kind between the National Trust and the Woodland Trust, with the charities embarking on the joint project with the explicit intention of sharing resources. The woods became the property of the Trusts in 2013, with the PAWS significance and history of management making their acquisition a priority.



Fingle Woods is a linear wood to the south of the River Teign dominated by conifers, the bulk of which (approximately 160 hectares) is Douglas fir, almost entirely unthinned at the time of acquisition. The woods were historically mostly oak coppice, possibly managed in this way for 1000 years, prior to their conversion to conifer in the early twentieth century. Today only small amounts of oak coppice remain.

Four years after Leonard Elmhirst married the very wealthy Whitney Straight in 1925, the woods were bought, forming part of their Dartington Estate. They were great philanthropists and their local

contribution is widely acknowledged. Elmhirst engaged W E Hiley, a lecturer in Forestry Economics at Oxford, to advise, and later employed him as Head of the Estate's Woodlands Department. Hiley oversaw the clearance of the natural tree stock and replanted with conifers, with the oak regrowth

intended to be shaded out by larch. The oak regrowth would be cut after 1-2 years to facilitate this. There was much local concern over the large-scale felling and restocking, but local people considered the Dartington Estate to have saved the wood and provided great employment within the community.

The woods were managed at their productive peak, when the Douglas fir was mature, by Fountains Forestry. The focus is now on restocking, with the intention to convert to ASNW over time. With the need for resilient woodland, consideration is being given as to whether the retention of some conifers would be advantageous. A pragmatic approach is being taken, and naturally regenerating conifers are accepted in some areas and removed in others as appropriate. The young trees are threatened by the large population of fallow deer, although stalking is providing good control. There is a deer larder on site with the venison making its way to the nearby Castle Drogo.

The current project aims to see Dartington's work through and manage the woods economically, making the woods pay. However the partnership acknowledges they are in the fortunate position of having financial backing by the Trusts, with the project also HLS sponsored.

The area is an historic beauty spot, popular in the Victorian and Edwardian periods, and painted by Turner, and retains its aesthetic appeal today.

Stop 2: Coleridge Wood

Coleridge wood covers 15 hectares. The stop here focussed on a south-facing slope that previously contained P47 and P71 larch. A Statutory Plant Health Order was served in 2015 requiring the felling of these trees. Remnants of the original oak coppice were amongst the P47 larch and this was retained during felling operations wherever possible, although some was inevitably damaged. However, sufficient numbers remained to require little restocking. The P71 site required a complete replant with sessile oak based on NVC W17b and W11a.



Soil profile at Fingle Woods

It was noted that, for their planting year, the larch were small. Discussion moved to soils, where Tim Harrod gave valuable insight - the local soil is free draining and prone to drought. It was evidently very stony, with rock depth and size variable and leaching rapid. The soil was considered good as a rooting medium until rocks were reached.

A suggestion was made that the centuries of coppicing for charcoal burning had removed nutrients (the presence of *Vaccinium* suggested acidity, but low nutrient levels) and caused the slow growth. Discussion then moved to the important role that the woodland would have played

in absorbing airborne pollution created across the valley by seventeenth century industry. A conflicting view was also offered - that the pollution would have more readily killed the trees rather than be absorbed.

Stop 3: Halls Cleave-Sub cpt 18g

Halls Cleave consists of 176 hectares of mid 1980s to early 1990s Douglas fir, almost exclusively on steep ground and unthinned. Lawrence Weston explained the Woodland Trust's gradual approach to PAWS restoration - opening gaps and promoting remnant features. There had been difficulty in getting oak to naturally regenerate under the Douglas fir, and the project is planned over a long period due to the scale of the operation. The Douglas fir is subject to trials linked to HLS, which would like the transition to CCF to be made. The trials involve two types of intervention - single tree selection and group felling/irregular shelterwood. Biodiversity is monitored, with a rapid ecological response already evident following intervention in dense stands. It was agreed that thinning would need to be undertaken at 20% to maintain stand stability, currently carried out in five year cycles. Interim income is good with the slow grown, tight grained Douglas fir being popular with producers of fencing materials and specialist markets such as tepee poles.

Stop 4: Return track to Fingle Bridge

Stop four saw Mick Bracken, Outreach Advisor for the Woodland Trust, explain the organisation's role in ancient woodland management outside of the Trust Estate.

Woodlands are assessed using a threat assessment in three phases, which looks at remnant features and their preservation. This assessment is divided into four categories:

1. Flora - as a soil indicator.
2. Deadwood – the presence of fallen, standing and stumps.
3. Living vegetation - pre-plantation, not necessarily veteran trees.
4. Archaeological features - including the use of LiDAR.



Remnant linear feature

When remnant features or indicators are identified, associated threats must also be recognised, with the intention of creating favourable conditions for that feature. When linear features are identified the margins are opened up, working back into the woodland. Zones are created to coincide with compartments to aid with management plans, and forestry agents are being trained by the Woodland Trust to use their system. There is currently a scheme in the South West funded by the National Trust to carry out PAWS assessments which may assist in providing financial forecasts to aid grant applications. The Woodland Trust are confident in their approach to PAWS restoration. Woodland owners employing this approach benefit from improved aesthetics which may in turn increase the monetary value of their woods.



To highlight the change in approach to managing woodlands it was remarked that it had been 50 years since aerial spraying of Agent Orange 2453 to eliminate oak regeneration went to parliament, with all agreeing that today most woodland owners are happy to invest in oak to promote biodiversity despite slower returns.

Stop 5: Final stop near Fingle Bridge

At the final stop the group discussed the wartime cutting of oak coppice, a task undertaken by gangs employed by Siegfried Maryon. Many local people were employed by Maryon, but mixed opinion remained. He was considered to be a self-promoting man whose actions could be considered both good (e.g. employment of many) and bad (e.g. raking off humus from hillsides).

The discussion moved to 1980s research into the nutritional status of stored oak coppice on Dartmoor and Exmoor. Julian Evans explained that nutrient problems were expected in long established coppice – the continuous removal of produce over many centuries potentially leading to a net loss of nutrients, especially phosphate – which may have resulted in the low yield class (2 or 4) of the oak. Foliar analysis was undertaken, showing the NPK ratio to be 10:1:5. Nutrient levels were relatively low, but the ratio of nutrients was not abnormal. Monitoring of the sites continued with fertiliser treatment which resulted in an increase in foliar phosphates. However, no obvious response to the treatment could be

seen in the trees, and up to five years later there was still no increase in growth. It was concluded that low nutrient levels were not the limiting factor in growth, rather that regrown shoots on old root systems matured as if old, despite an earlier physiological age (Evans, 1986).

Concluding comments

Julian Evans summarised the key elements of the day, reiterating the importance of forest soils in relation to growth and stability, the latter reinforced by the nearby “mobile” hillsides, where the level of erosion was seasonally increased by deer.

The importance of trials, research and experimentation was recognised and roundly applauded, and the pioneering collaboration at Fingle Woods given appreciation. It was surmised that there was a changing view of the Woodland Trust, with the organisation embarking on valuable work in educating and managing agents in their PAWS restoration work.

References/Further Reading

Evans, J. (1986) Nutrition experiments in broadleaved stands: II. Sweet chestnut and stored oak coppice. *Quarterly Journal of Forestry*. 80 (2), 95-104.

Fingle Woods blog: <https://finglewoods.org.uk>

Fingle Woods Facebook page: <https://www.facebook.com/finglewoods>

Weston, L., Bracken, M. and Rickwood, D. (2018) Wessex Silvicultural Group visit to Fingle Woods – supplementary notes.

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