

Wessex Silvicultural Group: Field Meeting Notes

Meeting 2: The Challenges of Silviculture within a Designated Habitat (New Forest, May 16th 2018)

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Formally proclaimed in 1079 by William the Conqueror and later as *Nova Foresta* in the Domesday Book 1086, the New Forest has been subject to multiple designations and legislations including being designated as a Site of Special Scientific Interest in 1971 and a National Park in 2005.

First Stop

Prior to entering the compartment the Forest Design Plan was outlined wherein the direction is to move towards a return to native species over a 200-300 year cycle using selective thinnings. There will be a move away from a clear fell system to one which closely resembles Continuous Cover Forestry, the overall vision being conversion from a largely conifer-dominated environment to mixed broadleaf, with increased associated biodiversity.



Standing within the first woodland block.

A short discussion followed which touched on more of the history of the forest. This included discussion around the Enclosure Act 1773 and the effect that the boundaries generated had on the landscape, as well as the history of the open forest pastures and the focus to move back toward this type of landscape.

The canopy at this first site was largely dominated by a combination of beech and oak, with small amounts of regeneration evident at ground level. The occasional Douglas fir could be seen and the majority of regeneration consisted of this species. It was revealed that the Douglas fir would be allowed to run its course and grow naturally, partially due to the long timescales planned for, but also to maintain some regeneration on the ground in an area which was considered to have a large deer population.

Discussions ensued before a number of points were agreed upon. First, that failures could potentially arise if the structure of the stand is not sufficiently diversified. Second, that due to the shade it casts, beech is not considered to be a suitable nurse crop for establishing trees. Finally, it was felt that the removal of large amounts of the canopy and the remaining Douglas fir could promote the growth of bracken.

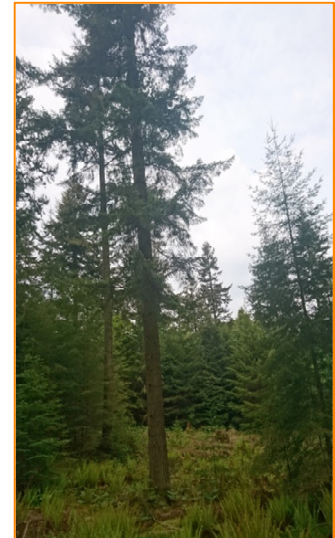
Second Stop

The area was largely open with a ground layer of bracken, bordered by a block of coniferous woodland with a well-developed, dense conifer understory. Questions arose and debate ensued around the conversion of the block to mixed broadleaf plantation.

Questions were raised as to whether the conifers should be removed, or whether the managers should consider the block a source of future income and allow the trees to continue to productivity. The latter was considered favourable, bearing in mind the time stipulations of the Forest Design Plan and the large costs that would be associated with converting such a well-established block.

It was also highlighted that certain coniferous species that have long been present in our landscape including Scots pine and Douglas fir bring their own levels of biodiversity both above ground with, for example, nesting bird species, and below with mycorrhizal associations.

Should conversion happen, it was suggested that beech would not be a suitable species as it has a profound effect on soil properties. It was also recommended that any conversion should be slow and steady, taking advantage of the long timescales allowed for.



Stop 2 showing dense regeneration of Douglas fir.

Stop Three

This site was largely dominated by conifer regeneration with a limited overstorey of Douglas fir and silver birch. It was explained that efforts at this site had previously focused on a crop of western hemlock, which had since been removed because of the soil altering properties of this species. The part of the site that was occupied by western hemlock made up less than 50% of the overall block, the majority of the remainder having a significant broadleaf component.



The regenerating understory at stop 3 following the removal of western hemlock.

The subsequent regeneration of Douglas fir and Scots pine had been encouraged, alongside any broadleaf regeneration that had been tubed to protect from deer damage. The block was considered to be at an early stage of development, the limited remaining canopy reflecting the earlier large scale operation.

The question was raised as to how encouraging conifer natural regeneration meets the objective of the Forest Design Plan. In response, the 200-300 year timescale was referred to and the benefits acknowledged in allowing for the continued encouragement of conifers to provide future income.

The immediate removal of the remaining overstorey was discussed, being seen as a requirement to further promote the growth of the naturally regenerating trees and to ensure a future crop. Manipulating the existing stand structure was considered more efficient and less costly than the process of restocking the site. Finally, it was felt that the next intervention at this site would be vital should the managers try to convert the remainder of the block, and could also be a costly exercise.

Stop Four

The final stop of the day was a fenced off block consisting of a mixed broadleaf crop, predominantly oak nursed by birch. The site had previously been converted from a 1970s Douglas fir stand and utilised a combination of French sessile oak and pedunculata oak from the UK, with large amounts of natural regeneration. Some of the birch had been respaced, largely in halos around the oak, allowing the oak to become apically dominant. The approach employed at this site was largely praised by the group.



It was confirmed that management of the block had been costly, through both the pruning carried out and the attempt to convert the site quickly. However, the block was considered to have been largely successful overall with a recommendation to focus on the best trees in 30 years time.

Around 70-80% of the trees at this site had been pruned in recent years, which raised some concerns amongst the group. There were suggestions that such an exercise must have been costly, and that such early pruning could potentially reduce final stand quality.

Stop 4, which was considered promising following an expensive pruning exercise with oak being nursed by birch.