# Tree planting in the western Cairngorms (2) – the ill winds that should challenge forestry practice

## Description

Wind blown trees at the Highland Folk Park, Newtonmore. Photo credit Dave Morris

After Storm Arwen, Forestry and Land Scotland (FLS) issued a news release in December titled “A shot across the boughs” (see here) in which it stated that “*we will be dealing with the impact of November’s storm for months, and even years, to come, it is a timely reminder that we are right to pursue forest adaptation*.”

FLS estimated that Storm Arwen blew down about 8 million trees. That is over a third of the 22 million trees planted in Scotland in 2019-20 (see here). There have been at least five other damaging storms in the last six months and FLS has been issuing warnings about the “need” to fell mature trees on exposed sites in upland areas before they get blown over. We are in a position where Scotland risks

seeing more trees blown over in the next decade than will be planted.

On top of that there are the trees that are being felled because of disease – no less than 41 of FLS' plantations are currently being chopped down (see here). Far from helping to mitigate the impacts of climate change, the dominant model of forestry as it has been practised in Scotland for the last 100 years faces a terminal crisis.

While global warming seems to be driving increasingly intense storms, as we have experienced this winter, the underlying problem is less wind than the way the forest industry has planted and is still planting trees. I will illustrate the issues by what I saw in the course of a day on Speyside last Sunday.

Wind blown trees at the Highland Folk Park Newtonmore. Photo credit Dave Morris.

Setting out from Newtonmore with Dave Morris and Anne MacIntyre for a walk on the Speyside part of the Kinrara estate we passed the Highland Folk Park where a significant part of the Scots pine plantation had blown over. The plantation may or many not have been intended for commercial purposes but it was designed according to standard forestry practices.

Under the received forestry model, trees are planted close together at the same time to promote rapid growth. As a consequence they have shallow roots and develop into monolithic blocks which become

increasingly exposed to the wind as they grow older. The problem is then made worse as grazing pressure, both inside the deer fencing and out, prevents any younger trees from regenerating naturally around it. There is thus nothing to shelter the shallow rooted trees from the wind. The consequences are predictable. Once the trees reach a certain age, all it needs is a strong enough wind comes from the right direction and many will topple.


Scots pine on the hillside above Kinrara with Loch Alvie and the Cairngorms behind. Note the tree's wind-bashed appearance, the branches on the ground and its large roots

The contrast between what we saw in Newtonmore and what we saw on the hillside overlooking Loch Alvie at Kinrara was striking. There, in a far more exposed position, not a single one of the scattered pines had blown over, though there were plenty of signs of the storm passing. Had this hillside not been overgrazed and burned, it would have been covered in younger trees making these older pines even more resistant to wind throw.

While FLS announced in its new release that it is *"adapting forests by planting a greater mix of species at different times to create a patchwork of forests of uneven height – actions that will help to dissipate wind gusts and offer greater protection for the forest",* it has recently been planting trees in lines, close together and all in one go in the Glenmore Forest Park as I showed in my last post (see here).

The even greater folly of planting trees in plastic shelters was illustrated by what we saw along the newly dualled section of A9 south of Aviemore between Kincraig and Kinrara:

Note how the deer fence behind the tree tubes lacks any markings to reduce the number of birds flying into it. Photo credit Isla Kempe.



Normally saplings just bend to the wind but put a shelter round them and many will just blow over even when attached to a wooden stake.

How much public money has Transport Scotland wasted here? And how long will it take them to clear up the battered tubes that are shedding plastic into the natural environment?


We did not get a photo of the worst hit section, near the start of the dual carriageway heading north, where almost every tree in a tube had been blown over. While this photo does not at first sight look as bad, note how trees that are perhaps 12 foot tall but still clad in their plastic tubes have blown over. Note too how the larger older trees, most of which probably developed through natural regeneration and preceded the construction of the dual carriageway, are still standing.

## What needs to change

Wind throw is not a new problem, it has affected plantation forestry as practised in Scotland for many years and there have been systems to assess risk since the 1960s (see here). But such is the level of subsidy for planting trees and the power of the forest industry that it has carried on regardless until now.

FLS now appears to have recognised the need for change and stated in their news release *"that forest adaptation has to be a focus for the sector in the coming years if damage from storms like Arwen is to be minimised".* The changes they are proposing, however, are quite limited:

"*Modern, adaptive techniques include planting a greater mix of species to create a patchwork, which will help to dissipate wind gusts and offer greater protection for the forest.*

*Planting trees at different stages of a forest's development will create variation in the heights of trees within a forest, which will also help to dissipate gusts of wind."*

FLS' focus is still on planting trees rather than allowing more resilient forests to develop through natural regeneration.

Instead of planting large monolithic blocks of trees all in one go, it looks as if FLS is moving towards planting smaller blocks over the course of several years. How much that will reduce wind throw is unclear.

The regulator and disburser of grants, Scottish Forestry, appears even more conservative. The guidance they have put out following the storms (see here) is all about getting cash out to landowners and re-stocking areas that have been blown over as quickly as possible:

*"Felling permission for wind blow will normally include a condition to restock. We expect your restocking proposal to include the entire felled area. Consideration should be given to the resilience of the future stand in order to take account of wind events and other climate change related risks. Restocking proposals may include open ground and a change to the species being planted."*

Expecting landowners to give consideration to wind throw is meaningless and there is not a mention of natural regeneration. In response to climate change Scottish Forestry just appears to be re-packaging current industrial practices and perpetuating the current disastrous system.



There is another way, however, which is broadly termed "continuous cover forestry" (see here). This is commonly practised in the rest of Europe, avoids all clear fell – which creates new forest edges exposed to the wind – maintains the woodland canopy and uses natural regeneration rather than planting to enable new trees to take root. The forest is then managed through the selective felling to influence how the trees grow and what species grows where and how. It puts the skills back into forestry and would create local employment. But its far too slow and concerned about people and the natural environment to be contemplated voluntary by our extractive forestry system

Our National Parks could and should be taking a lead on promoting continuous cover forestry (outside of areas of forest that should be left to nature) and forcing Scottish Forestry and FLS to change, rather than accepting what they do.

**Category**

1. Cairngorms

**Tags**

1. forestry
2. Forestry and Land Scotland

**Date Created**
March 18, 2022
**Author**
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