

Plastic tree tubes and why conservation in our National Parks is going wrong

Description

The tree tube problem



Tree tubes by the most popular starting point to Carn an Tuirc, part of the Pearls in Peril Project. How much of the plastic will end up in the River Clunie, be swept down the River Dee and out into the North Sea?

The theme of the Spring/Summer issue of Reforesting Scotland was climate change. It ended with an excellent piece by a forest manager, Willie McGhee, on ‘Seas of plastic in the countryside’. His guesstimate is that in Scotland we may have used 200 million plastic tree tubes in the countryside over the last 40 years. His concern was the environmental cost of this plastic, that little is recycled and that

much of it will ultimately end up in the world's oceans.



How many years will it take for these trees, part of the Pearls in Peril Project, to offset, even temporarily, the carbon brought up above the earth's surface by the tubes around them?

Willie McGhee could have added that since plastic products are derived from oil, every tube that is used reduces any benefit that tree planting has as a means of locking up carbon and mitigating climate change. Where the tree dies, the impact of the plastic tree tube in terms of carbon accounting is completely negative.

There is one reference to tree tubes in the UK Forestry Standard, all 232 pages of it ([see here](#)), and that is not about their impacts. That standard is not fit for use in Scotland, let alone our National Parks, yet the Loch Lomond and Trossachs National Park adopted it lock, stock and barrel in its Trees and Woodland Strategy last year.



An example of how tree tubes eventually break up scattering fragments of plastic over the countryside

Currently, most plastic tree tubes are left forgotten in the countryside. That is why Willie McGhee's piece, he is also a member of the Forest Policy Group, was so welcome. He covered some of the costs and challenges of recycling on the premise that we shouldn't be allowing tree plastic to litter the countryside .

Recycling, however, is unlikely to solve the problem even it was made a requirement for all woodland planting. First the recycled plastic would need to be recycled into something nonpolluting. Plastic at present commonly gets recycled into our clothes which just delays the time it takes for it to get into our oceans ([see here](#)).



Example of a tree tube losing its usefulness while a tree is young

Second, the lifetime of tree tubes varies considerably, with some becoming redundant or damaged almost immediately, while others last for years. To prevent broken off bits of plastic entering soils and river systems there would need to be regular clear-ups. The costs of that would be phenomenal.

The best and only effective solution is to stop using plastic tree guards. That means either the forest industry starts using tree tubes made from biodegradable materials or, better, they start questioning what it is about ecological processes and forestry systems in Scotland that has led to such widespread use of plastic tree guards and address those issues. Our two National Park Authorities, with their statutory duty to promote nature conservation, should be taking a lead here. Unfortunately, up until now they have formed part of the problem. I will illustrate this with two examples.

The Pearls in Peril project

Parkswatch has commented on the postage stamp planting around Glen Shee (photos above) and Balmoral on a couple of occasions in the last year ([see here](#)) and ([here](#)). This planting formed part of the Pearls in Peril Project. After David Attenborough's Blue Planet the use of plastic tree guards along watercourses now looks unwise, to say the least. How, therefore, did this well-intended conservation project end up doing something damaging to the natural environment?

Pearls in Peril (PiP) ([see here](#)) was a UK wide project, funded by the EU LIFE programme, which was targeted at 'saving' the freshwater pearl mussel. It ran from 2012-17 and included a wide range of actions in rivers across Scotland. The Dee catchment in the Cairngorms was just one river system among several and the postage stamp planting just one action among many ([see here](#)). One of the key objectives of the PiP project was to increase levels of riparian woodland in areas where the freshwater pearl mussel survived. Research has shown this could help the freshwater pearl mussel by mitigating the impacts of global warming and rising water temperatures, stabilising river banks and reducing the amount of silt flowing into them and providing more food for salmonids which young freshwater pearl mussels use to hitch a lift.



Postage stamp planting, muirburn and grazing by River Clunie, Invercauld

The problem the project faced in that Dee catchment was that much of land was owned by private landowners and used for sporting purposes. While I have no insight into what negotiations took place, the evidence on the ground is clear. Landowners like Invercauld did not want to give up land used for grazing, whether by sheep or deer, or for grouse shooting. The project was therefore reduced to postage stamp planting. It is likely that those working on the Pearls in Peril Project had to sweat an arm and leg even to achieve that.

Having secured agreement to small pockets of woodland, the problem then was how to protect them from grazing. Given muirburn and overgrazing, they would be likely to attract deer from miles around. Hence the high plastic tree guards although, as has been observed, when trees do pop out the top they are the perfect height for deer to browse without bending their necks!

A deer fence round each pocket as originally was done at the Loch Garry tree planting scheme years ago might have addressed the issue but would have had a much larger landscape impact, been more expensive and wouldn't have addressed the problems caused by voles whose numbers tend to increase dramatically as soon as grazing pressure from larger herbivores reduces. On land that has been turned into grouse moor, there is almost nothing left to eat them. Mammalian predators such as foxes, stoats and weasels are treated as vermin and relentlessly persecuted. Alongside this, the design of the pockets would make it almost impossible for kestrel and short-eared owl, to hunt. Imagine an owl trying to descend on a vole through this thicket of tubes without garrotting itself on the fence!

The Cairngorms National Park Authority rightly has committed in its National Park Partnership Plan to landscape scale conservation but ends up doing postage stamp conservation with damaging consequences. Good intentions end up achieving the opposite. The explanation for this failure lies in the power of landowners and is why land reform is central to conservation issues in our National Parks.

Plastic tubes and planning



Upper Glen Falloch hydro scheme turbine house, surrounded by plastic tree tubes next to the river

Both our National Parks are committed to increasing areas of native woodland and, powerless to tackle landowners, the main way they have done this is through the planning system. Planting native trees has become almost a precondition for getting developments in the countryside approved. Indeed, as was demonstrated by the Loch Lomond and Trossachs National Park Authority's discussion of the Hunter Foundation Planning Application at Ross Priory ([see here](#)), it often appears that as long as a developer promises to plant native trees, any development will be found acceptable.

At present the way these planning conditions are worded promotes the use of plastic tree tubes and contain no provisions for their removal. For example the proposed condition for Ross Priory stated:

17. Detailed Landscape Planting Scheme: The development hereby approved shall only take place in accordance with a Detailed Landscape Planting Scheme which shall be submitted and in addition shall incorporate the following information:

1. Planting methods and measures to ensure establishment of all planting;

2. Planting methods and measures to ensure establishment of all planting;

Since plastic tree tubes and fencing are much cheaper than sorting out the underlying problems which stop trees from regenerating naturally, their use is effectively being promoted by the planning system. What was no doubt originally well-intentioned now appears almost recklessly stupid. Our National Park Authorities could and should stop plastic guards being used in any tree planting promoted by the

planning system.

The implications for conservation in our National Parks



Rowan and birch regeneration in Glen Feshie without a tree tube in sight

The wider lesson from the damaging use of plastic tree tubes is that conservation measures, like conservation projects, should not be developed in isolation but need to consider the environment as a whole. We need landscape scale conservation, as at Glen Feshie, not environmental tinkering.

Category

1. Cairngorms

Tags

1. CNPA
2. conservation

3. forestry
4. grouse moors
5. landed estates
6. rewilding
7. Scottish Government
8. scottish natural heritage

Date Created

December 12, 2020

Author

nickkempe

default watermark