

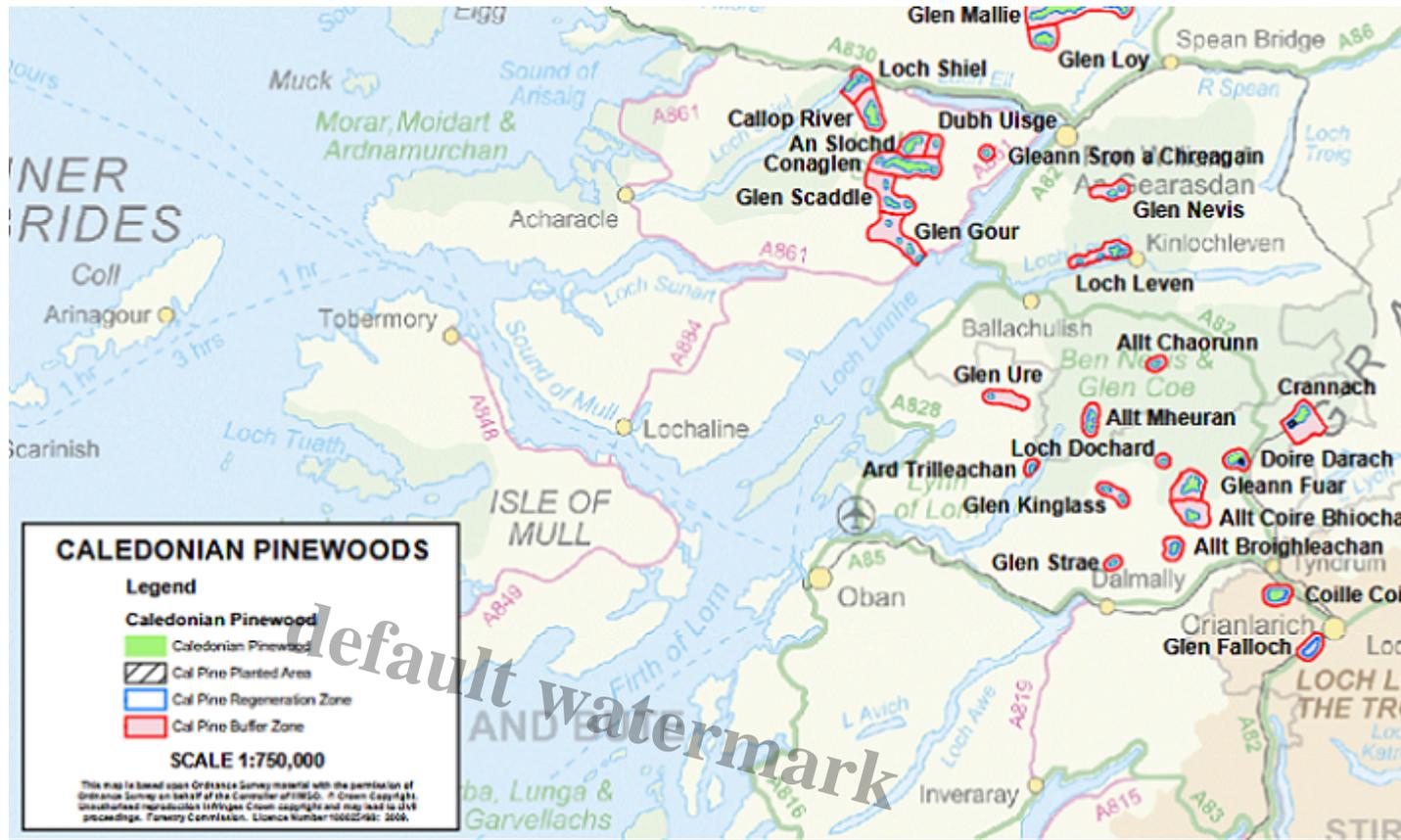
Caledonian pinewoods in peril â?? the Allt Broighleachan forest reserve

Description



Allt Broighleachan Caledonian Pinewood reserve, surrounded by sitka, with Ben Lui behind. Photo 2018

Last week I visited the Allt Broighleachan Caledonian Pinewood Reserve on the north side of Glen Orchy (and outside the Loch Lomond and Trossachs National Park) on my way to Glen Coe. It was my second visit, inspired in part by the Caledonian Pinewood Conference which took place last Autumn and which I viewed online because I went down with Covid just before. A video of the conference is available ([see here](#)) â?? I particularly recommend the presentation from James Rainey, ecologist from Trees for Life (whose presentation starts at 2.18.40).



The fragmented pinewoods in the South West., including Glen Falloch and Coille Coire Chuilc in the Loch Lomond and Trossachs National Park. Allt Broighleachan is the next pinewood north but cut off from them by a swathe of sitka plantations.

The focus of the conference was on the Caledonian pinewoods in Western Scotland, which tend to be less well known, smaller and more fragmented than those in the Cairngorms and are generally in a poor state. This is primarily a result of overgrazing by red deer and invasive non-native conifers but it appears climate change is also impacting on the speed and ability of Scots Pine in the west to regenerate.



Allt Broighleachan 2018. Photo credit Louise Brimelow 2018

It is something of a miracle that any Caledonian Pine Forest survives in Glen Orchy. The statistical account for the parish of Innishail and Glen Orchy in 1792 records: *“The highest parts of the parish abounded once with forests of the largest and the best firs, but these were cut down about sixty years ago by a company of adventurers from Ireland”*. This sealed the fate of those noble forests.

The timber from the extensive woods in Glen Orchy was floated to Loch Awe and then out through the Pass of Brander to the west. This was a consequence of events that took place far away. A law passed in England had forbidden the importation of live cattle from Ireland. This led to a surge in demand for wood there to construct barrels for salting beef and for leather tanning. Since Ireland by this time was almost completely deforested, the Irish were forced to source their wood abroad and in 1722 two Irish merchant adventurers signed a contract for selective exploitation of the timber in this area with the second earl of Breadalbane. The earl was lax in monitoring the contract, which would have been a challenge in any case because of the extent of his lands, and in the three years he was not looking the merchants felled almost all the trees leaving remnants at Allt Broighleachan and Allt Coire Bhiocair.



View north east up Glen Orchy from slopes Cruach nan Nighean. Pinewood reserve is the brownish area in the centre of the photo. Ben Dorain and Beinn an Dothaidh in far distance

The Forestry Commission acquired most of the land in Glen Orchy in the 1950s and 1960s before ploughing and planting it, surrounding the two areas of native pine wood. The vast majority of the Glen Orchy forest is now made up of sitka, with the exception of the pinewood remnants. There is also a strip of land along the River Orchy which was retained by the previous owners and is lined with naturally regenerated native broadleaved trees.



The entrance to the Allt Broighleachan reserve from the track leading to it from Glen Orchy. Note the sitka, both planted and self seeded, on the right and the Scots Pine visible just to the left of that over the deer fence

The former Forestry Commission established the Allt Broighleachain Pinewood as a Caledonian Forest Reserve in 1977 and it was designated as a Site of Special Scientific Interest in 1986. According to NatureScot's Site Management Statement on [Site link](#) (see here) the initial *focus of management was on the restoration of the diversity in age grouping and woodland structure within the site boundary of the site. However, in 1994 there was a change in emphasis and the site was viewed as a refuge from which pinewood habitat and species could colonise adjacent ground by way of regeneration and by group plantings of pine of local provenance*.

Moreover, *regeneration within the 1988 exclosures was poor and a more extensive exclosure was constructed. This involved the felling to waste of existing commercial plantations in Coire Thoraidh and Luib nan Coileach to create ground on which regeneration could occur. In addition, intensive culling within the CFR dramatically reduced deer numbers.*



View into Coire Thoraigh, where the commercial plantation was felled to create land for regeneration in the 1990s. Note how none of the fence around the reserve is marked and the ploughlines from the former plantation which are visible middle left.

The site management statement continues:

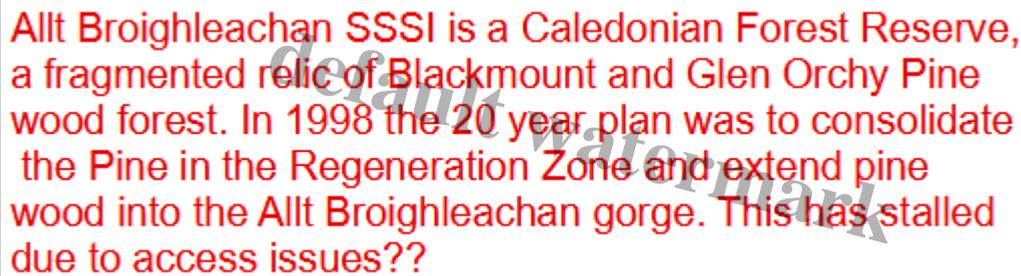
â??In 1998, an Endangered Habitat Action Plan was agreed between SNH and Forest Enterprise for the long-term management of the CFR [Caledonian Forest Reserve] , and adjacent ground. The initial 5-year objective was to promote regeneration within the core pinewood and regeneration areas. The 20-year objective is to extend regeneration within the CFR into areas above the existing fence in Coire Thoraigh and extend the reserve to the east into the Allt Broighleachan gorge. The 100-year objective is to increase the pinewood regeneration to 250 hectares [the original reserve and SSSI was 40 ha] and extend regeneration towards the Allt Coire Bhiocair pinewoods, 4 km to the northâ??. (my underlining). Admirable!



Self seeded sitka in the foreground with the cleared area(lower down than the photo above) in Coire

This objective was more ambitious than the guidelines adopted by the Forestry Commission in 2003 in 'The Management of Semi-natural Woodlands. 7 Native pinewoods' which set out the rationale for the management and expansion of Caledonian pinewoods. They recommended that 'natural regeneration is strongly preferred' for expansion and that 'planting should be the last resort'. There were to be two zones for expansion around the 'core' areas of Caledonian pinewood: a 'regeneration zone' of 100m, and a 'buffer zone' of 500m beyond the regeneration zone. It also recommended 'Exotic conifers, sometimes underplanted or planted within the regeneration zone in the past, should be removed as soon as is practical.'

Fast forward to Forest and Land Scotland's Glen Orchy Glen Lochy Land Management Plan (LMP) ([see here](#)) which was approved on 8th January 2024 and runs for 10 years.



Allt Broighleachan SSSI is a Caledonian Forest Reserve, a fragmented relic of Blackmount and Glen Orchy Pine wood forest. In 1998 the 20 year plan was to consolidate the Pine in the Regeneration Zone and extend pine wood into the Allt Broighleachan gorge. This has stalled due to access issues?

Extract from Location 'issues' objectives map

How much progress, if any, had been made on the 1998 plan is not stated but helps confirm my interpretation of what I saw on the ground, very little appears to have been achieved in the last 25 years.



A group of even-aged birch trees within the reserve with Scots Pine, one of the few younger pine I saw, in the foreground.

The main evidence I saw for natural regeneration within the reserve was of trees which, judging by their size, seeded about the same time, perhaps 15 years ago. There was very little evidence of any regeneration after that until far more recently:



Young sitka with browsed Scots Pine right

There were a few young Scots Pine saplings, evidence of recent regeneration, but many more sitka spruce saplings. The source of this problem is quite obvious, all the older sitka planted right up to the deer fence



Upper gate where the track leaves the reserve.

There was also some 'adolescent' Scots Pine, which also all appeared of a similar age:



These Scots Pine possibly date from conservation efforts 30-40 years ago when the reserve was first fenced.

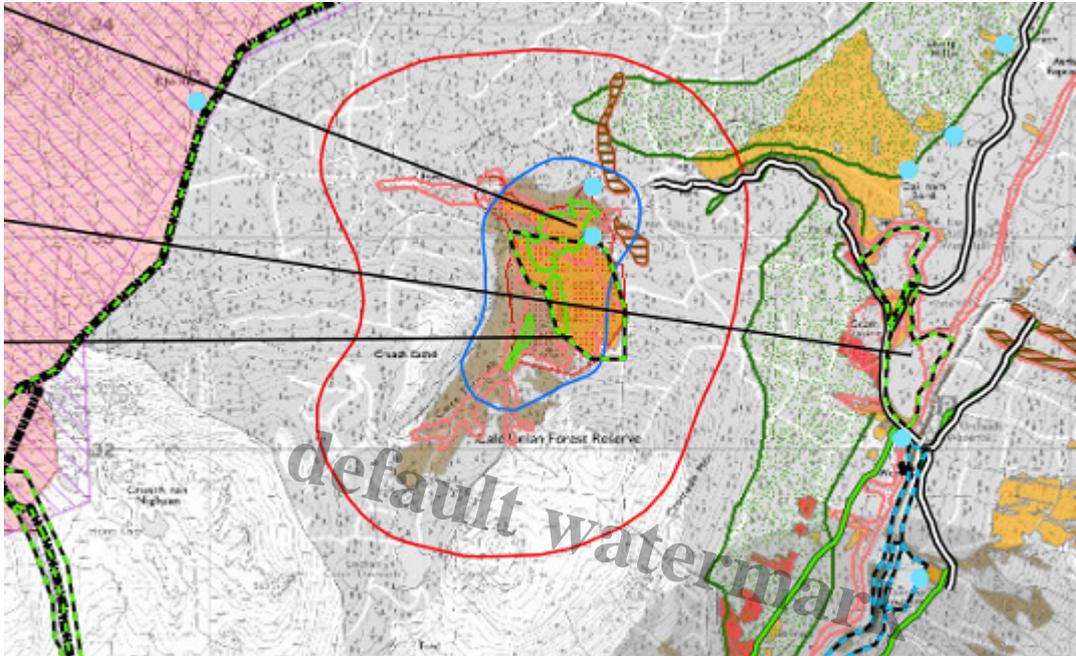
This evidence suggests that the Allt Broighleachan pinewood has only been regenerating naturally in three relatively short periods over the last 46 years. If correct, the implication is that in the intervening and longer periods deer have got in through the fences and prevented regeneration taking place. That is consistent with the statement in FLS's new LMP that restoration has stalled.

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Self- seeded Sitka within 100m of a mature Scots Pine and within the regeneration zone

As for the aspiration for the Caledonian Pinewood to expand beyond the fences, which was consistent with the 2003 guidelines on regeneration and buffer zones, that has gone nowhere.



Green line = Caledonian pinewood; Blue line the Regeneration zone; Red line = buffer zone; thin red line and red dots = SSSI; pink line native woodland; black and green line = deer fences (the line showing the inner fence is totally inaccurate, it encloses a far larger area but it is recorded on another map as being in poor condition).

This map from the LMP shows that almost all the buffer zone and part of the regeneration zone is planted with non-native conifers, predominantly sitka. While there is an argument that FLS should not harvest the sitka until they are ready to use, they don't appear to have made any attempt to fell the self-seeded sitka around the plantation and it is spreading out onto the hillside above creating a new problem.



Self-seeded sitka below Cruach nan Nighean (the open area in the bottom left corner of the map above). The surrounding deer fence at this point runs along the far side of Cruach nan Nighean.

Despite this evidence of what is happening in the core area and in the regeneration and buffer zones NatureScot in 2021 judged that the SSSI was in favourable condition and faced no negative pressures:

Native pinewood

Woodland

| | |
|-------------------------|---------------------------|
| Negative Pressures | Latest Assessed Condition |
| + No negative pressures | Favourable Maintained |
| | 28 Oct 2021 |

That judgement is in my view is completely wrong. Unfortunately NatureScot do not publish the evidence they use to reach their conclusions and one wonders whether any of their staff even visit the site? By chance an expert, Ron Summers, formerly a Principal Conservation Scientist at RSPB and author of a great book on Abernethy, surveyed 78 out of the 84 woods listed in the Caledonian Pinewood Inventory in 2021 (‘‘The effect of planted trees and self-seeding non-native conifers on the expansion and integrity of Caledonian pinewoods’’ • Scottish Forestry 77 No 3 Autumn/Winter 2023). I checked what he found at Allt Broighleachan when I got home and he, like me, recorded self-seeded sitka in the core zone and non-native plantation in the buffer zone.

Ron’s study found ‘‘at least 34 sites (40%) had non-native trees (seedlings, saplings and/or old trees) and shrubs that had self-seeded into or within core areas’’ and that ‘‘the probability of finding non-native conifers in core areas was greater in sites managed or part-managed by FLS’’.

Despite the obvious threat to the site from ‘‘sitka rain’’ • NatureScot’s site management statement which was last updated in 2008 does not even refer to the need to remove non-native

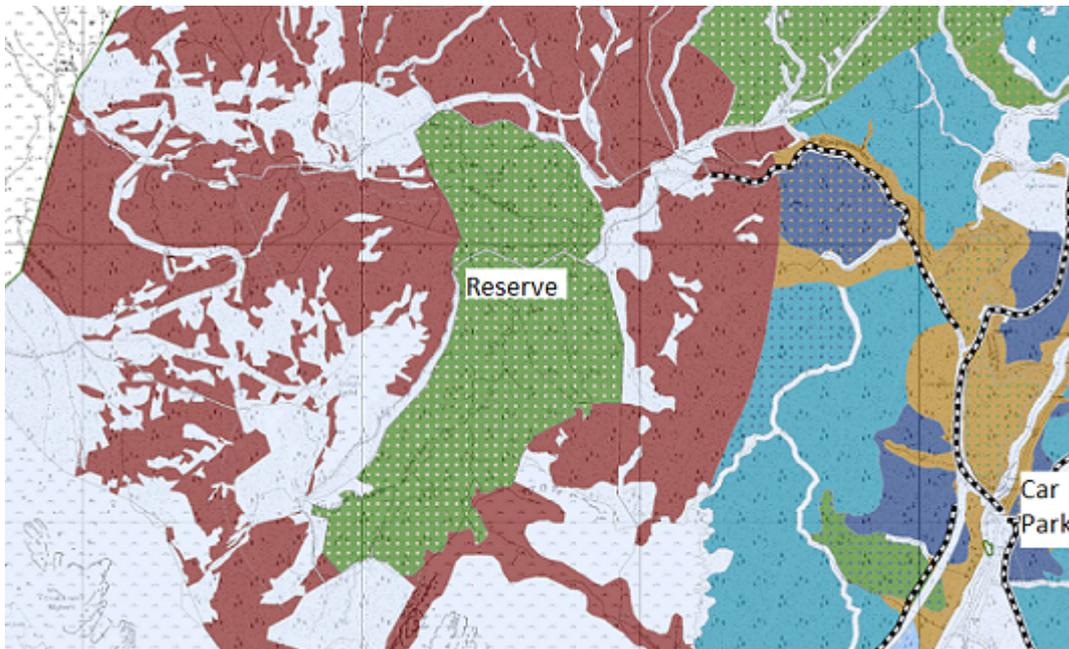
species but instead requires FLS to (1.2) Monitor regeneration of exotic species within cleared sections. It is no wonder so many of the remaining fragments of Caledonian Pinewood in Scotland are in such a poor state.

FLS's new LMP does propose removing much of the non-native conifer plantation which surrounds Allt Broighleachan and which has been adversely affecting it since it was declared a Caledonian Pinewood Reserve.



The red area is being felled 2024-27 and I observed harvesting operations during my visit and yellow 2028 to 2032

On the plus side FLS is not proposing to re-stock these areas with non-native conifers:



Green = Scots Pine; Brown = Native mixed/other broadleaves; grey = open areas

The total area for natural regeneration in Glen Orchy, however, is only 34 ha. That is far less than the 210 ha of natural regeneration agreed for Allt Broighleachan in the 1998 Endangered Habitat Plan. The vast majority of the brown area will be planted with native broadleaves which FLS claim will "protect and enhance the pinewoods".

Unfortunately, planting broadleaves will not prevent self-seeded sitka from getting established and shading out the broadleaves and there is nothing in the LMP about how FLS will deal with this problem. Moreover, unless FLS try to restore all the ploughlines (visible in the photos above) any planting will likely have to follow the raised lines above the drainage ditches replicating the existing plantation but with native species.

Time for a rethink about how to restore Scotland's native pinewoods

The Caledonian Pinewood Conference last year was prompted in large part because, after half a century of management which was supposed to put conservation first, many are in a little better state and some in a worse state than they were before. Allt Broighleachan exemplifies many of the issues. The pinewood restoration that has been taking place at Mar Lodge, Glen Feshie and the other estates in Cairngorms Connect, which involves reducing deer numbers and removing non-native conifers, is the exception not the rule.

While at the time, in 2003, the introduction by the Forestry Commission of regeneration and buffer zones appeared to be a positive step forward, in many places, as Allt Broighleachan and Ron Summer's research shows, they have been totally ineffective. This is in part because the Forestry Commission and other commercial forestry interests had already planted non-native conifers in and around the pinewoods and the failure to reduce deer numbers.

But it is also because the guidelines have been widely ignored by our public authorities: for example the guideline that "exotic conifers" should be "removed as soon as is practical" has been ignored at Allt Broighleachan while the guideline that "planting should be the last resort" has been ignored by the Loch Lomond and Trossachs National Park Authority at Glen Falloch ([see here](#)). Basically our public authorities, NatureScot, Scottish Forestry and our two National Parks have not been interested in using their powers to ensure pinewood restoration happens but instead left it up to individual landowners to decide what to do.

Rather than try and fix the problems with regeneration and buffer zones, a number of activists believe it is time to be far more ambitious and create "expansion zones" around all the pinewoods listed on the Caledonian Pinewood Inventory which comprise a tiny area compared to that which is planted with sitka. Des Thompson, former Principal Adviser on Biodiversity at NatureScot, presented some of these ideas at the end of the pinewood conference (also recommended viewing).

The basic concept is that the Caledonian expansion zones should cover all the ground in the catchment where a pinewood fragment is located and this demarcated on a map. The presumption against planting would be extended to the whole of this area and instead of FLS planting trees or Scottish Forestry paying landowners to do so through the Forestry Grant system resources would be redirected to weed out non-native conifers and reduce deer numbers. That would enable a significant proportion of

the small isolated pockets of Caledonian pinewood in the West to join up and landscape scale, instead of pocket sized, conservation.

The forthcoming Natural Environment (Scotland) Bill provides an opportunity for the Scottish Parliament to put such a vision for nature restoration into effect. Meantime Scottish Ministers should ensure FLSâ?? has the resources to enable nature restoration across itâ??s whole estate. Otherwise the public should conclude the acquisition of Glen Prosen in the Cairngorms ([see here](#)) was nothing more than a vanity project designed to deceive us that the Scottish Government and FLSâ?? were committed to restoring nature

Category

1. Cairngorms
2. Loch Lomond and Trossachs
3. Other parts Scotland

Tags

1. climate change
2. conservation
3. Deer
4. Fences
5. NatureScot
6. scottish forestry

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