

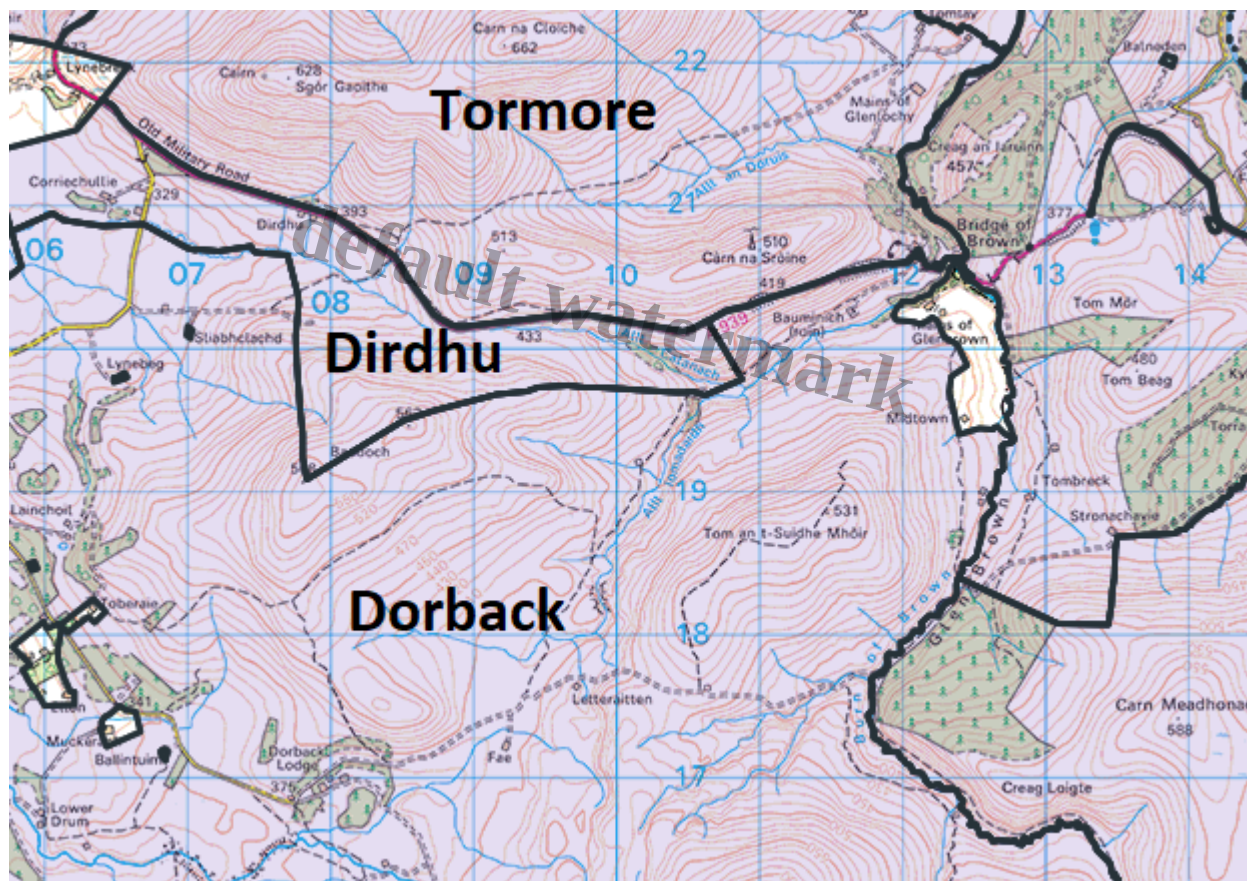
Oxygen Conservation's business model and the conservation of the Glen Brown Caledonian pinewood

Description



Looking south along the Alt Lornadaidh from below the old military road west of Bridge of Brown. The fenced areas in the foreground are part of the Dirdhu estate but all the land beyond is part of the Dorback Estate.

A month before large areas in Strath Nethy and Glenmore were consumed by fire, I went for a short walk to have a look at part of the Caledonian pinewood around Glen Brown which also lies within the Cairngorms National Park. This fragment of Caledonian pinewood is located on the Dorback Estate, which was purchased by Oxygen Conservation (OC) towards the end of 2024. At the time OC described their purchase, which was not vetted by any public body, as ‘‘one of the most significant natural capital acquisition (sic) in history’’ ([see here](#)).



The north east corner of the Dorback Estate where the Glen Brown Caledonian Pinewood is located

After a visit to the southern part of Dorback in January 2025, I had argued OC’s acquisition presented the opportunity for the Caledonian pinewood at Abernethy to expand northwards through natural regeneration and to save the capercaillie by removing deer fencing ([see here](#)). Ron Summers, who had previously worked as a scientist for RSPB at Abernethy, later alerted me to the parlous position of the Caledonian pinewood on the northern part of Dorback. He then suggested to OC, and their advisers TreeStory, that there was an opportunity for it to expand southwards through natural regeneration and eventually connect with Abernethy.

Having never visited the pinewood, I was keen to do so and stopped off on the former military road between Tomintoul and Grantown on my way back from my stay in Glen Livet ([see here](#) and [here](#)).



One of the core Caledonian pinewood zones on the northern west facing slopes of Tom an t-Suidhe Mhoir, consisting of a couple of mature Scots Pine, with muirburn patches above, viewed from below the Old Military Rd .

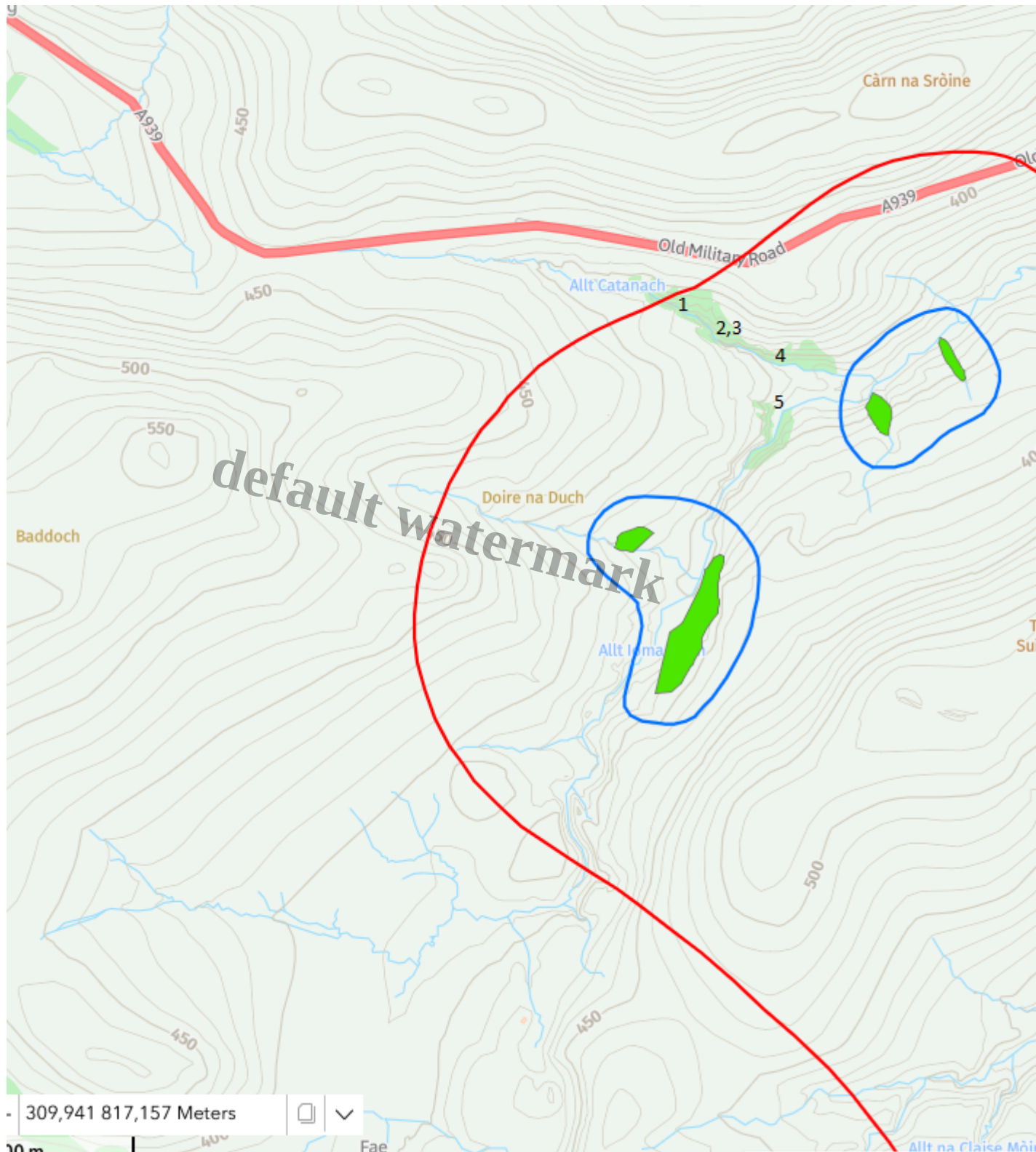
In the past intensive grouse moor management, including extensive muirburn, have served as a major constraint on the ability of the surviving Glen Brown Caledonian pine to spread back onto moorland naturally. OC announced they would stop “shooting birds” as soon as they bought Dorback, creating a major opportunity for the pinewood to regenerate and expand naturally.



Browsed Scots Pine seedling below the old military road on the Dirdhu estate.. None of the numbered Scots Pine along the Allt Catanach, the likely seed source for this and other saplings on this slope, are included in the Caledonian Pinewood Inventory core zone.

Scots pine seed blows uphill far more readily than is recognised in the literature and I saw evidence of that below the old military road. I have been unable so far to ascertain why the Scots pine along the Allt Catanach, the burn that runs below the road, are thought not to meeting the accepted definition of Caledonian pinewoods, i.e. that they are the *“lineal descendants of those of early post-glacial times”* and *“have been regenerated naturally from ancestors of like origin”*.

Establishing the origins of scattered Scots pine, however, and deciding what should be included in core zones of Caledonian Pinewood Inventory (CPI) sites like Glen Brown can present quite a challenge without genetic testing:



Extract from the CPI showing the core zones (dark green) of the Glen Brown Caledonian pinewood, regeneration zones and the wider red circle a buffer zone. The buffer extends beyond the Dorback c

(You can view CPI sites for anywhere in Scotland, including the rest of Dorback, on Scottish Forestry's map viewer ([see here](#)) - go to layers and then choose - Surveys and Inventories).

There are more Scots pine in the core zones along the Alt Lornadaidh than there are in Glen Brown which is why I chose to visit there. After a look around the woodland along the Allt Catanach, I headed to the track and to the Scots pine (tree 5) which is located just inside the Dorback estate. The new native woodland scheme on the Dirdhu estate had been planted right up to the deer fence and this mature Scots pine.

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Planted Scots Pine centre with naturally regenerated Scots Pine visible on the left close to Tree 5 on the Dorback Estate

Whether or not this Scots pine is a direct naturally regenerated descendant of the Scots pine which colonised this area after the last ice age, with grazing pressure reduced by fencing, it was surrounded by numerous naturally regenerated seedlings among the planted trees. There was no reason for planting here but Scottish Forestry map viewer shows (Case Ref 20FGS54325) that it paid out forestry

grants in 2022 to plant this area with Scots pine. That was both a complete waste of public money and a completely unnecessary intervention within what was supposed to be a buffer zone to protect the Caledonian pinewood.

Driven by planting targets, the risk is that Scottish Forestry now agree to similar planting proposals from OC on the Dorback estate.



Part of a small flock on sheep grazing the Bridge of Brown Caledonian Pinewood on the Dorback Estate 16th June 2026

Approaching the ruin at Rynelrich there was a small herd of sheep grazing by the edge of the largest Caledonian pinewood core zone. Whether these sheep belonged to OC or had managed to find a way through the extensive fencing, it appears that OC have failed to protect this Caledonian pinewood for which they are now responsible. Searching around the Caledonian pine on the right of this photo, it was hardly surprising I was unable to find a single Scots pine seedling.



Sheep on Kinrara October 2025. Is this the area OC now wants to plant with the help of the Spey Catchment Initiative?

This conservation management failure on the part of OC is not a one-off, as I have also observed sheep grazing along the River Dulnain on their land at Kinrara. This is where, according to what OC and TreeStory staff told Vicky Allan of the Herald last month ([see here](#)), OC are now in discussions with the Spey Catchment Initiative about planting more native woodland between the fenced blocks paid for by Scottish Forestry ([see here](#)). The way the system works is that if the land is grazed to bits, it is much easier for landowners to get grants for planting.



View towards the group of Scots pine just to the east of the ruins of Rynelrich croft (left of photo).

The largest group of Scots pine (12 trees) included in the CPI core zone were just to the west and above Rynelrich croft. Their survival, and that of the tree below the croft, are unlikely to be an accident,

but because the people who used to farm here wanted to retain some trees. Whatever the explanation for their survival, I found numerous seedlings in the heather moorland and along the track to the north of Rynelrich, some beyond the 100m regeneration zone shown on the CPI.

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Seedling to the north of Rynelrich croft

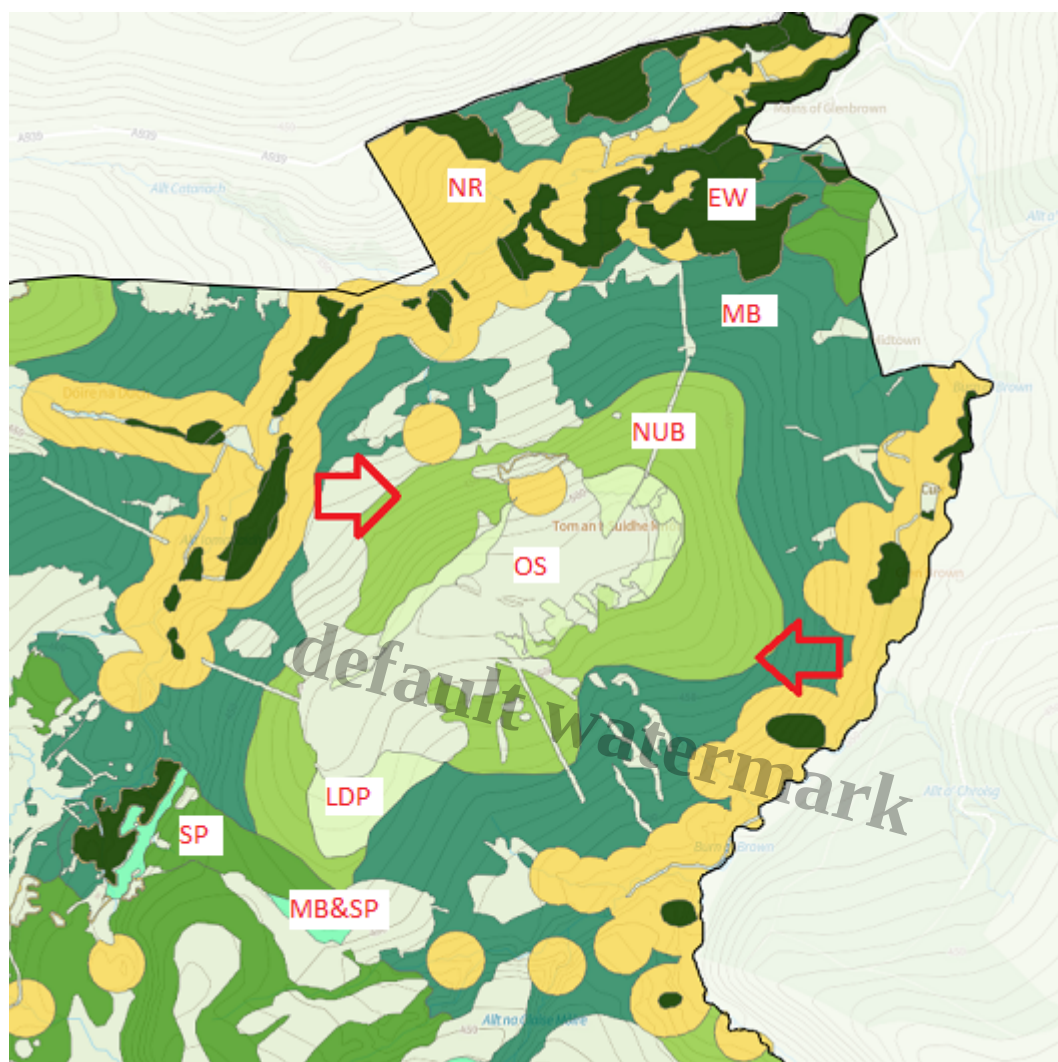
This regeneration process is not new but in the the last couple of hundred years every time a seedling has popped its lead shoot above the surrounding vegetation it has been eaten. With OC allowing sheep to remain on site, that process is likely to continue. Once they have exhausted the grassland, the sheep will move into the heather and eat what they can find. It would not surprise me if none of the seedlings I saw fail to survive to next year â??

OCâ??s plans for the Glen Brown Caledonian pinewood area

In April 2026 OC published ([see here](#)) what they describe as a masterplan for Dorback. This has a section native woodland expansion, which starts with the Caledonian pinewood on the estate, including Bridge of Brown:

â??It is our aim that Dorback Estate will be the site of an ambitious native woodland expansion project across the landscape from the Braes of Abernethy to Bridge of Brown. We are the custodians of two remnant Ancient Caledonian Pinewood sites (of only 84 that remain in Scotland), from the eastern portion of the Abernethy Forest to small pockets down Glen Brown and the Allt Lomadaidh. Our vision is to connect these fragments through continuous habitat progressions of native Scots Pine and mixed broadleaved woodlands, transitioning to open structured Montane Birch and willow dominated woodland at higher altitudes. We are aiming to enable the natural colonisation and spread of woodland and to plant native tree and shrub species, including Aspen, Birch, Scots Pine, Alder, Oak, Rowan, Willows, Bird Cherry, Hazel and Holly to expand the woodland further.

The vision to connect the Caledonian pinewood fragments sounds laudable but the proposal is do so by both â??natural colonisationâ?? AND planting. In practice, as this map extract shows, planting predominates:



Extract from map showing OC and TreeStory's planting proposals around the Glen Brown Caledonian pinewood fragments. I have added a key: EW = existing woodland, including both the core zones recorded on the CPI and other native woodland; NR = areas proposed for natural regeneration; MB = mixed broadleaves; NUB = native upland birch; LDP = low density planting; OS = open space; SP = Scots Pine.

The two main areas of yellow earmarked for natural regeneration do lie around the surviving Caledonian pinewood and other areas of native woodland, including that shown in my photos. These areas appear to be approximately 100m wide, the minimum distance used for the regeneration zones on the CPI. They are also likely to be the minimum that Scottish Forestry would require to approve this scheme (although TreeStory is proposing a "regeneration zone" only 50m in Glen Falloch ([see here](#))).

Not only that, but OC and TreeStory are proposing to insert three different types of woodland between the two halves of the Caledonian pinewood, mixed broadleaf, upland birch and low density planting. What species will be included in low density planting is not explained although this is described as a

type of woodland is now largely missing in the UK and Dorback is the ideal location for its return. OC and TreeStory's planting proposal, if approved, would appear to make it impossible for the two halves of the Glen Brown CPI site to join up, either by natural colonisation or planting.

OC and TreeStory are proposing to plant Scots pine to the south of the Glen Brown CPI site (bottom left of map extract). This is apparently with a view to creating a pinewood between the Caledonian pinewoods at Abernethy and Glen Brown, but this planting is similarly separated from Glen Brown by a proposed area of mixed broadleaves. Even from the perspective of those who wrongly believe you can restore the Caledonian pinewoods by planting, the proposals appear totally incoherent. From the perspective of someone who believes the primary aim of conservation should be to restore natural processes, it represents further vandalism to Scotland's pinewood heritage.

OC and TreeStory's map does not show the core, regeneration and buffer zones recorded on the CPI. Nor do they refer to the Forestry Commission's Guidance Note 7 on the management of semi-natural woodlands, which is about native pinewoods and still applies to Scotland ([see here](#)). This states:

Natural regeneration is strongly preferred to planting in native pinewoods. It conserves the local genotype, unless non-local stock is close by, favours the natural distribution of tree species in relation to site conditions and tends to create a more irregular structure and mixed species composition than planting.

It goes on to say:

Unless there is not a suitable local seed source for natural regeneration, planting should be the last resort [my emphasis], and planting proposals should only be advanced if the effect of a good seed year, together with ground preparation if appropriate, and protection against browsing has been adequately tested and found wanting.

OC and TreeStory appear to have decided to adopt tree planting as a first resort across Dorback and within the existing Glen Brown CPI buffer zone. They appear to have made no attempt to test natural regeneration in this area, although the evidence I saw suggests it would be extensive if sheep were removed from the site and deer numbers reduced:

Property	Planar Area (ha)	Sta gs	Hin ds	Calv es	Tot al	Den
CROWN	639	26	223	88	337	
DORBACK	5769	193	267	91	551	
GLENAVON	17815	285	259	99	653	
INVERCAULD (HOME BEAT)	10332	5	9	5	19	
Total	44575	520	758	282	1560	

Extract from Herbivore Management Plan for Dorback obtained through a Freedom of Information request to the National Park Authority. The data is from a 2023 survey

9.5 deer per square km is far too high for woodland to regenerate naturally. While OC have been reducing deer numbers since 2023, the fact they are proposing new fencing suggests numbers are well above the 2 deer per square km which would allow natural regeneration to establish quickly. As Guidance Note 7 explains:

“Mention has been made several times of the desirability of expanding most pinewoods outside their present boundaries, both because of their fragmented state and because they naturally tend to regenerate onto open moorland, so that over a period of centuries the woods alter their shape as their margins shift to and fro across hillsides. This expansion should be achieved wherever possible by natural colonisation following the principles outlined earlier. Expansion onto heather moorland soon after burning or removal of grazing can be quite rapid.” [my emphasis]

OC may have stopped burning at Dorback, creating very favourable conditions for the Glen Brown Caledonian pinewood to regenerate, but are undermining that potential by failing to reduce the number of large herbivores sufficiently.

OC’s business model

The problem, as I see it, is that if OC followed the Forestry Commission’s guidance, reduced grazing and allowed the existing native woodland, including the CPI sites around Glen Brown, to expand through natural regeneration they would likely go bust.

The background to their business model is well explained on the Community Benefits section of the Dorback website:

OXYGEN CONSERVATION DORBACK SOCIAL IMPACT STRATEGY

Introduction

Oxygen Conservation

We are a business set up to Scale Conservation. We are founded on the belief that there is an urgent need for the private sector to play a role in tackling the climate and biodiversity crises. Our goal is to protect and restore 250,000 acres of land by 2030 and demonstrate that people and business can live and work alongside nature. We aim to redefine what is possible in conservation and in business, delivering positive environmental and social impact first and generating a financial return as a result not as the purpose of what we do.

We Scale Conservation by raising private finance, acquiring land, and investing in the protection and restoration of the UK's natural capital assets. Each of our estates is beautifully unique, and for each estate we create a set of environmental and social targets that are bespoke to that landscape. We work to deliver these targets, restoring natural processes, protecting biodiversity, and creating new homes and jobs. This creates environmental and social impact, as well as a range of natural capital products such as carbon credits, that we sell to carefully selected partners so that we can deliver environmental and social impact at an even greater scale.

Our business model is centred around the sale of high quality, impactful natural capital credits generated through the protection and restoration of native woodlands, peatlands, grasslands, rivers, and native species within the UK. Alongside natural capital, we explore a range of other revenue streams to support the business case for investing in nature including renewables, built property, ecotourism, and regenerative agriculture. Our ambition is to demonstrate that private sector finance can be used to fund nature recovery at scale, reinvesting the profit we generate to further Scale Conservation. This will create a circular capital model which accelerates our impact over time, helping to unlock billions of pounds of investment in nature recovery and helping to build the natural capital economy.

The key point to understand about this business model is that investors expect a return on their money. OC and TreeStory were good enough to meet Dave Morris, Ron Summers and myself in Spring 2025. At the meeting we made the case for co-operating with the RSPB to remove the deer fence with Abernethy ([see here](#)) and for allowing the Caledonian pinewoods to expand through natural regeneration, including the point Ron raised about linking the Glen Brown and Abernethy sites through natural regeneration. The staff were quite open, informing us that natural regeneration would not be quick enough to generate the returns that were required by investors, unlike planting. Where we

disagreed was on the impacts of planting. The need to pay investors a return explains why the areas allocated for natural regeneration in Dorback's subsequent woodland expansion plan only meet minimum requirements.

The full impact of OC's finances on their conservation practice, however, only became apparent when when Andy Wightman revealed a few months ago that OC had paid £28,495,220 for the Dorback estate ([see here](#)). My understanding is that typically wealthy private investors expect returns of around 10% on their money and I have found nothing in anything I have read from OC suggesting they have agreed lower "conservation rates". I could be wrong of course but if that is the case at Dorback, it would mean the estate would need to generate around £2.8m in profit each year, primarily from the sale of carbon credits, to satisfy their investors. That is a huge sum to make out of nature.

The previous owners of Dorback had planted an area around Baddoch Hill, which they registered under the WCC. Sales of Pending Issuance Units from this could potentially provide a return to investors in the first few years after the standard initial interest/repayment holiday on investments. However, the only way to meet those financial commitments in the medium term is to restore peatland (which OC have started to do), with a view to selling peatland carbon code credits, and plant, plant, plant with a view to selling Woodland Carbon Code (WCC credits)..

The contradiction which in my view lies at the heart of OC's business model, is that planting does not create the sort of high quality natural capital assets they are claiming but instead, as with their proposals at Glen Brown, is undermining the potential of natural processes to restore nature.

It is worth highlighting that a similar contradiction lies at the heart of Scottish Forestry: as regulator SF are responsible both for protecting and restoring the woodland listed on the CPI they are also expected to deliver Scottish Government planting targets and oversee and promote the WCC as a means of meeting these.

The future of OC and the Caledonian pinewood at Glen Brown

A recent post by Richie Stockdale, Chief Executive of OC on Linked In makes very interesting reading ([see here](#)). It starts with the claim that:

Oxygen Conservation has been a data and technology company from before we were founded - the modelling work that became CLAUDIA predates the company itself. We built our AI and data infrastructure before large language models became a household concept, before every fund slapped "AI-enabled" on its pitch deck, and before the race to layer intelligence onto broken operating models became the defining feature of corporate strategy in 2025.

CLAUDIA ingests biophysical data, land registry records, soil carbon assessments, ecological surveys, planning designations, hydrology models, and natural capital pricing dynamics - in total more than 100 individual datasets. She models restoration potential across every land parcel in the UK.

Mr Stockdale's openness about OC's internal systems - many would treat this as a commercial secret - is to be commended, but the outcome at Dorback is what appears to be another fairly standard native tree planting scheme that undermines the potential of nature to restore itself.

A quote from the end of the post, under the heading “The Structural Bet” is equally significant:

“The investment logic is simple. If you believe that land will continue to appreciate, that carbon and nature markets will mature and reprice upwards, and that verified, high-integrity natural capital credits will command a structural premium over alternatives, then large-scale Scottish landscape is more than a good investment. Right now, it is the correct allocation: long-duration, inflation-protected, regenerating in value as the natural systems recover under management.

We built CLAUDIA to find the opportunities others haven’t modelled. We built Portfolio One to hold them. And now we’ve built the platform to replicate that process as we begin building Portfolio Two.”

The current evidence on land prices and the pricing of carbon markets suggests that OC may have bet wrong. If correct, that would mean it will have great difficulty repaying investors and will be vulnerable to financial collapse. The consequences of that are difficult to predict but might not necessarily be a bad thing, it could re-open the door to nature restoration driven by ecological science, not money.

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Category

1. Cairngorms

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1. Caledonian Pinewood
2. forestry
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