The Dava Moor mega-fire/s â?? did muirburn mitigate the damage?

Description

Looking north to the Moray Firth from the Cairngorms National Park boundary boundary near Carn Glas Choire June 2022. The first mega fire appears to have started just right of this photo and burned the area right of the track where extensive muirburn is visible. Photo credit Nick Kempe.

I thought we lived in a world where science guided our decisions about how best to protect nature and the planet. Sadly this would appear not to be the case.

Vested interests and the voices of the powerful now hold sway, with science only deployed by government where there is good reason to expect itâ??s findings will support the desired pro-growth, neo-liberal narrative.

Such narratives, not founded on good science are increasingly hegemonic in debates about Scotlandâ??s natural heritage and especially in our National Parks.

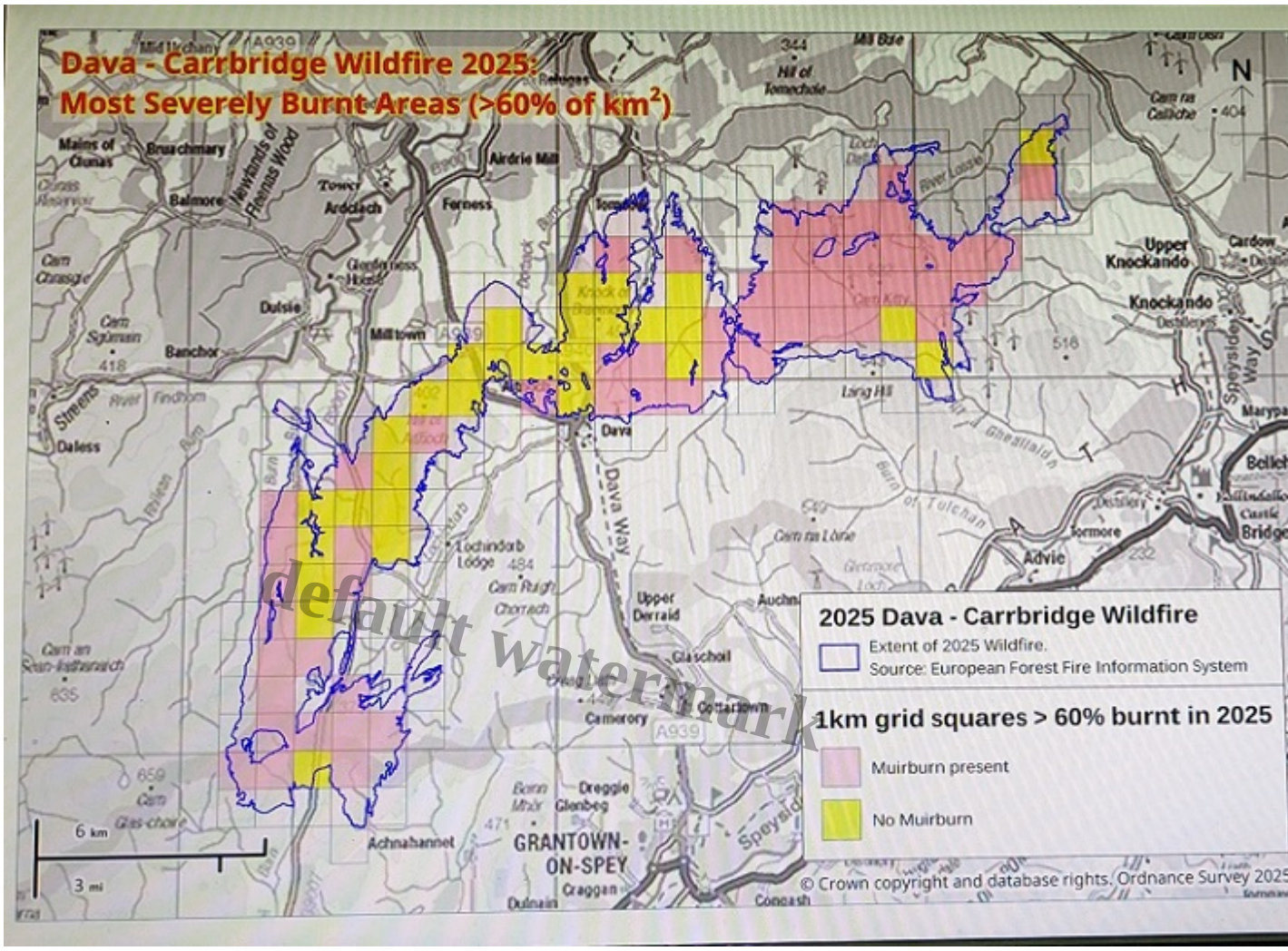
In â??Grouse Moor Worldâ?? supporters of muirburn argue that burning heather for grouse shooting must continue unchecked because the practice helps to mitigate dangerous wildfires. Jim Fairlie, the Scottish Government Minister responsible, is convinced. At a recent meeting with grouse moor managers on the site of the recent Dava fire he acknowledged and confirmed â??the crucial role that controlled muirburn plays in reducing fuel load to mitigate riskâ??.

Extensive muirburn on either side of the track. The wildfire mainly burned the area to the right of the track. Phone credit Nick Kempe June 2022

But does muirburn really mitigate wildfire damage? The recent Dava fires provide some insightful evidence to help answer this question.

The Dava Moor wildfires are the UKâ??s first official â??mega fireâ??, burning an area close to 10,000 hectares. Although the sources and causes of the Dava fire have not been officially confirmed (see here â?? end of post), there is data available which allows us to explore the role muirburn played in mitigating the fire.

Using the most recent satellite derived data from the European Forest Fire System (EFFIS), which is based on real time satellite imagery, we explored the relationship between the fire and the pre-existing management of the land.



Map credit Prof Douglas MacMillan and OS

Our findings are interesting.

- 68% of land affected by the Dava Mega fire has been managed using controlled muirburn.
- 67% of the total area that was most extensively burned (over 60% of land area incinerated within each km) was managed using controlled muirburn.
- Within each km the average area burned where muirburn had been practised was 56%. On non-muirburn areas the equivalent figure was 58%.

In summary, it looks as if the practice of muirburn actually made no difference to the extent of the Dava mega-fire.

This should come as no surprise to anyone who understands the relationship between fire dynamics and hydrology on moorland. Muirburn dries out the land by killing off the vegetation and drying out the peat, making it less resistant to fire. Muirburn also leaves behind lots of dead stems of heather which which provide perfect fuel for wildfire.

If you want to mitigate wildfires it seems to me that science actually points toward â??re-wettingâ?? moorland as a better wild fire mitigation strategy compared to perpetually burning them. Re-wetting is also better for nature, biodiversity and the climate.

But then again perhaps I just donâ??t understand Grouse Moor World sufficiently well.

[Ed. Note: Prof MacMillan first published this post on his linked-in feed]

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1. grouse moors
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