

https://youtu.be/XYo8_GJNauM

Monitoring beaver impacts on habitats and species to inform delivery of mitigation

International Beaver Symposium
UHI, Inverness

Jonathan Willet



Cairngorms
National Park

Pàirc Nàiseanta a'
Mhonaidh Ruaidh

Beaver dam, Upper Spey Catchment, © Pete Short



Ceud Mìle Fàilte gu Inbhir Nis
anns an Gàidhealtachd

JW - Madainn mhath, na h-uile
Duine

JW - Ciamar, a tha sibh?

Yous - Glè mhath, tapadh leibh
(gley vah, tapa leave)

JW - Math dha-rìribh

Slàinte mhath/ mhor

Biobhair air (Dòbhran) los
leathann



What is the Cairngorms National Park?

- New'ish. Created in 2003
- IUCN Category V(Protected Landscape)
- Huge. The Cairngorms National Park covers an area of 4,528 km² (1,748 mi²)
- Nearly twice as large as the next nearest in size – Lake District NP 2292 km²
- Just under twice the size of Luxembourg. 2586 km²
- 2% UK (6% of Scotland's) Landmass
- 25% of rare animal, insects, lichen & fungi
- Half the area designated for nature conservation

Four distinct aims set by Parliament



To conserve and enhance the natural and cultural heritage of the area



To promote sustainable use of the natural resources of the area



To promote understanding and enjoyment (including enjoyment in the form of recreation) of the special qualities of the area by the public



To promote sustainable economic and social development of the area's communities

Why did we do this?

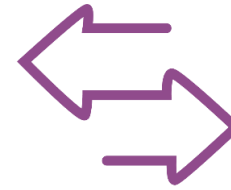
The Park Authority
believes beavers' benefits
far outweigh their
adverse impacts
And that any adverse
impacts can be
successfully
mitigated



Consultation Results

14 August to 25 September 2023

Conversations are still continuing



42

days of formal
engagement



515

online survey
respondents



393

comments
received, online or
at events



104

attendees at
events



84,833

people reached on
social media



2,537

likes, reacts and
shares



33,688

video views



18

site visits with
landowners and
managers

Licence Timeline

- I started on the 15 March 2023
- Licence submitted 20 October 2023
- The licence was approved on the 6 December 2023 – with conditions



Beavers Released Year 1

- Four releases, on the 18 December 2023 in January and March 2024
- All have settled in
- Two pairs bred with at least a kit each
- 18 plus at least 2 kits!



The female beaver leaves her crate at the first release site, December 2023 © Beaver Trust

Beavers Released Year 2

- Four releases in October and November
- 15 beavers
- 17 kits from 8 families
- 51 beavers in the Park
- 1 in Garmouth, 90km downstream



Male beaver released at Loch Morlich, November 2024 © Pete Short, CNPA.

Planned Releases Year 3

- 3 more pairs or families
- This Autumn/ Fall
- 2 more pairs/ families left to release in Years 4 and 5 and we fulfil the licence conditions

Levitating Rowan trees, upper Spey catchment © Jonathan Willet, CNPA



Why bother to monitor?

Part of our licence conditions

But we are doing lots more than we need to, we are fortunate to have the resource to do that

Sharing great stories

Looking to change the narrative around beavers

Monthly updates on beaver activity

Gaining a good understanding of what is going on where

Getting people involved - 66 people were involved in 60 kit watches in spring/summer 2025, helping us confirm breeding at 8 of the 9 beaver territories. 8 of the pairs produced 17 kits. Mainly volunteers.



Why bother to monitor?

Lots of data being gathered that hopefully skilled researchers can use.

Gathering baseline data prior to beaver colonisation
e.g. eDNA

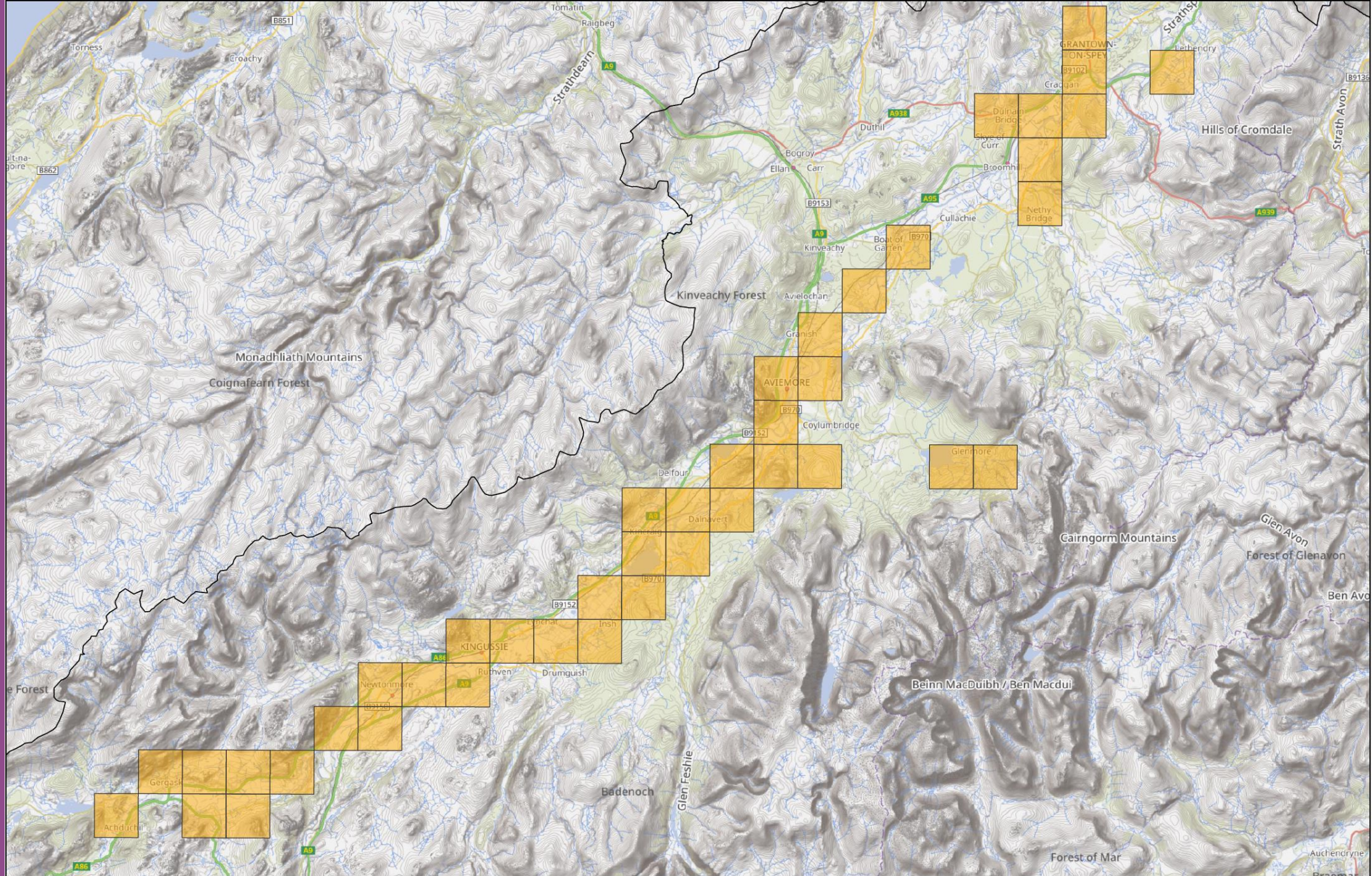
Beavers blamed for flood embankment breaching in
Tayside, anecdotal evidence for this. Beaver a
secondary impact

The pre-2020, 1 in 2 year flood (80% max flow) is now
10-15 times a year. This is the primary impact

Full survey of the Rivers Spey and Dulnain flood
embankment condition in 2024. 71km. £250K

Annual survey of poorest quality and fastest eroding
sections. 17km (only 3km of flood embankment,
the rest is riverbank)





Dam One, Somewhere on Wildland...

First footings appeared on the 1 November 2024, soon after the beavers' release. 40cm high, 2 metres wide

Maintaining an extra 5250m³ of water.

Beaver dam, Wildland Ltd © Jonathan Willet, CNPA



Dam Five

Main Drain, RSPB Insh Marshes

Maintaining winter (non-flood) water levels.
700,000m³ of water? Plus extra river water.

We said it was unlikely the beaver would
dam this drain...

RSPB Insh Marshes Main Drain Dam April 2025 © Pete Short, CNPA





Dam Seven

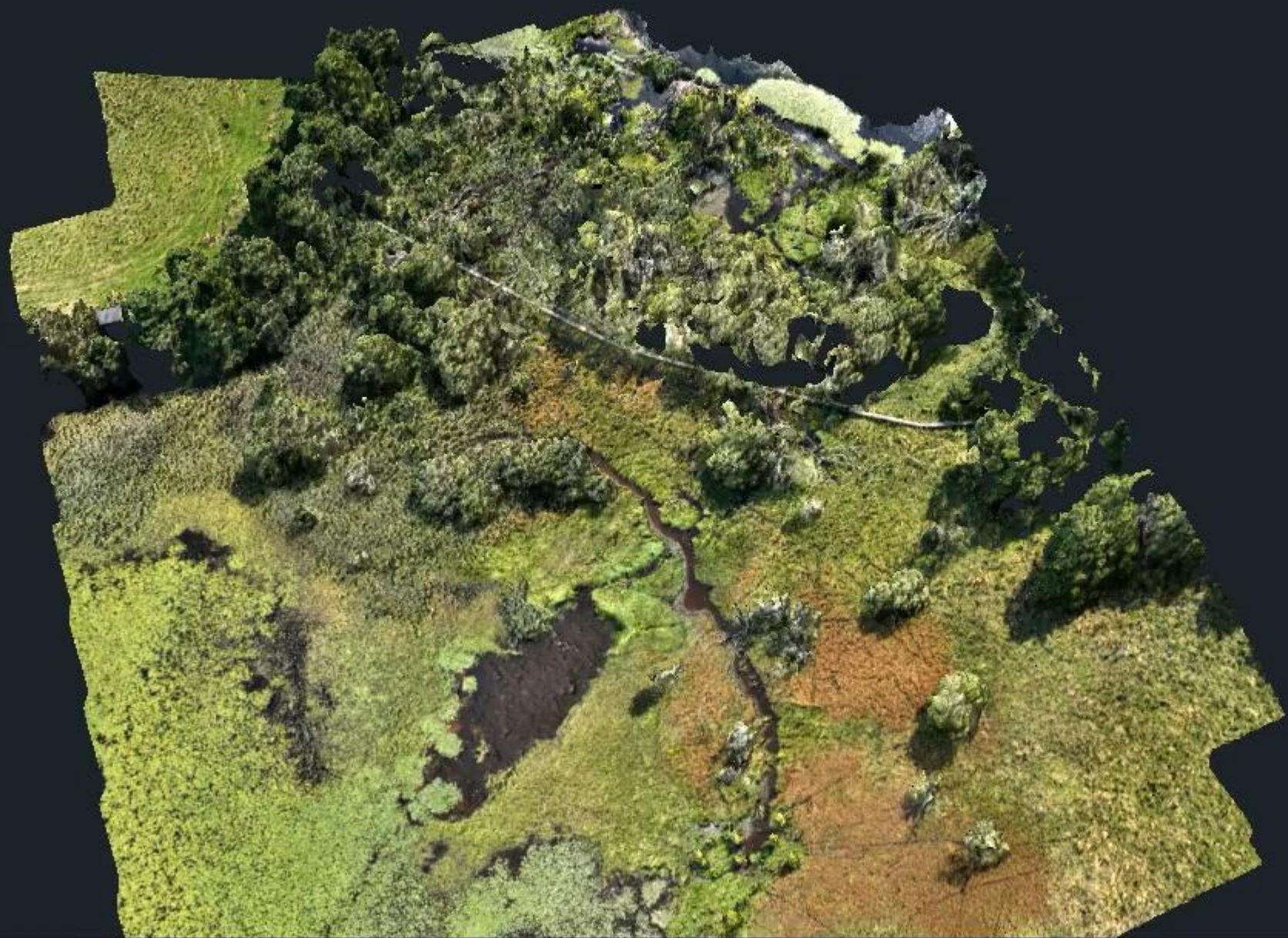
This one was built sometime in late April 2025, in response to the extremely dry weather. Mega lodge plus mega dam

Maintaining winter water levels during one of the driest Springs ever. 20-40,000m³ of water, compared with the level of the loch it is connected to

70m x 60cm









Mhairi Hall, local musician © Sally Mackenzie, CNPA

Any questions?

For more information ask Team Beaver at <https://cairngorms.co.uk/wildlife/beaver>

Or get in touch:

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Plus, Sarah Henshall and Andy Ford



Clockwise from the top: Sally Mackenzie and Jonathan Willet © Dave Craig, Spirit of the Spey
Geogina Lindsay © Duncan MacDonald, CNPA, Andy Smith and Pete Short © Pete Short, CNPA.



29.75 inHg - 8°C 11/13/2024 07:19PM CAMER13