

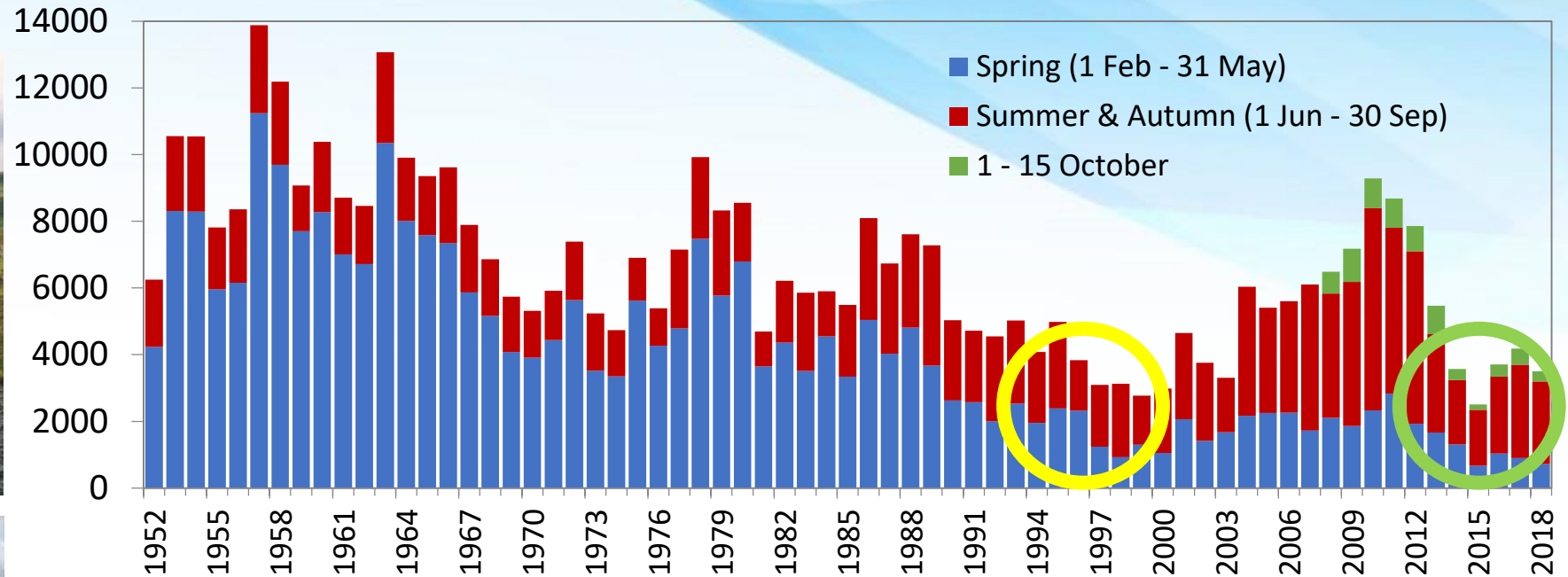
Dee Riparian Habitat Project

DDSFB & RDT

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The River Dee – Habitat Restoration: Background



- Habitat restoration started in late 90's due to decline in Salmon stocks.
- Early work concentrated on middle and lower catchment – Diffuse Pollution
- ~ 2015 – Start of tree planting on upper reaches

Habitat Restoration – Large Fenced Enclosures

- Current situation: Due to high grazer numbers, all riparian woodland we plant has to be protected
- Preferred method is large scale tree enclosures, usually deer-fenced.
- Funded through various means: forestry/agri schemes, project initiatives (LIFE, SNH, WT)
- So far: >175,000 native trees planted within large enclosures
- Locations and size dependent on hosting land managers
- Maintenance





Habitat Restoration – Small Enclosures

- Used in locations where deer-fenced large compartment not an option.
- Stock fenced, typically ~4 x 4m, 20 – 30 native trees per enclosure, usually protected by 1.2m tubes.
- 1,315 small enclosures to date, 33,000 trees.
- Funded through companies, individuals and project initiatives – no FGS or agri-env funding.
- Issues: not functioning woodland, expensive and high maintenance requirements.
- But: they start the process of getting trees established, seed source.
- Currently trial funded by CNPA using mob planting technique.





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Habitat Restoration – Large Woody Structures

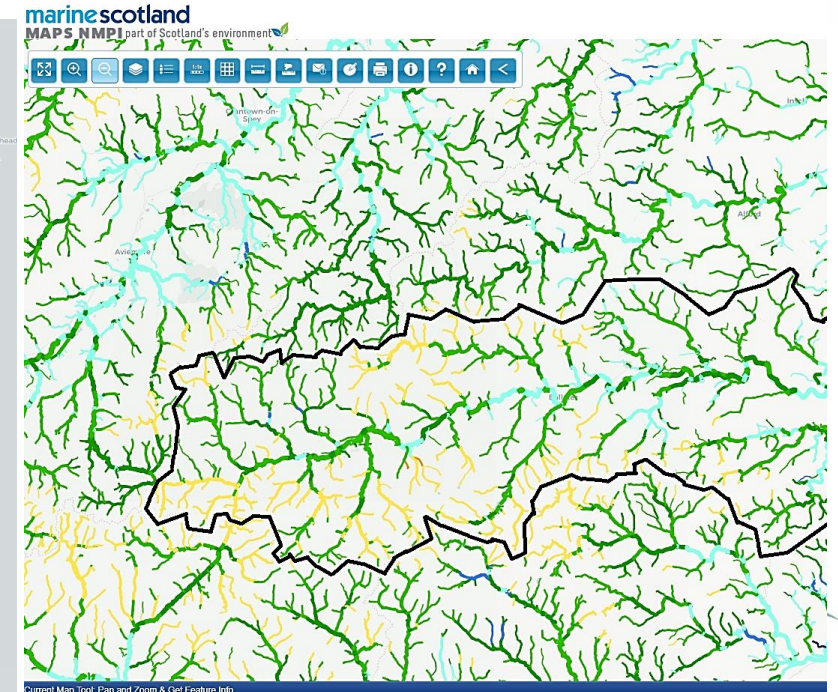
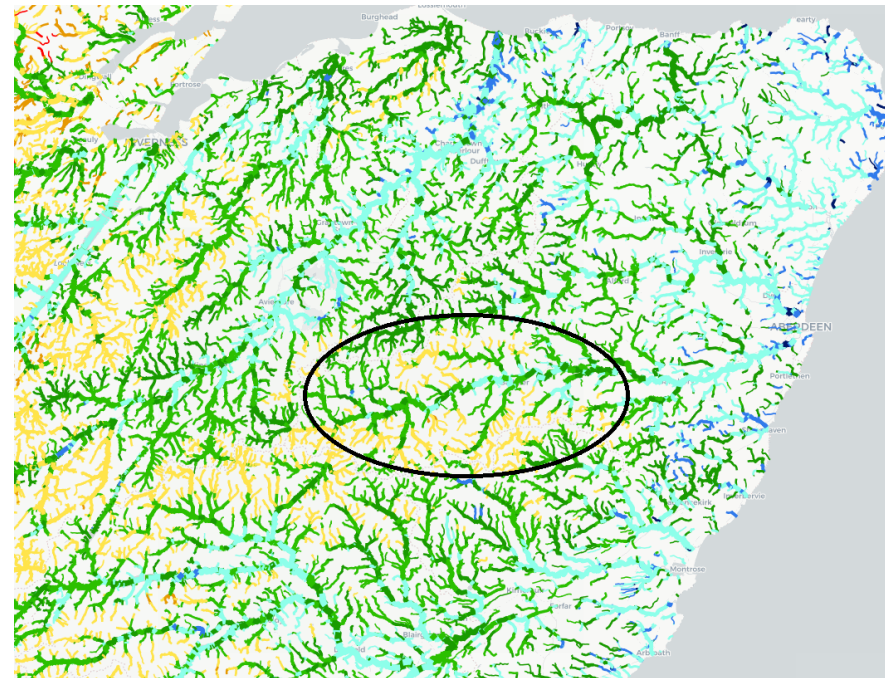
- Rare habitat that would have once been very common feature of our rivers.
- Fallen trees and large wood in a stream are the building blocks of instream habitat complexity.
- LWS create cover from predators, deep cool pools, help create spawning sites and trap nutrient.
- Design important – must be well-anchored.
- 64 LWS created in last 2 years.
- Generally supported by land managers.
- Monitored by PHD students, RDT and cbec.



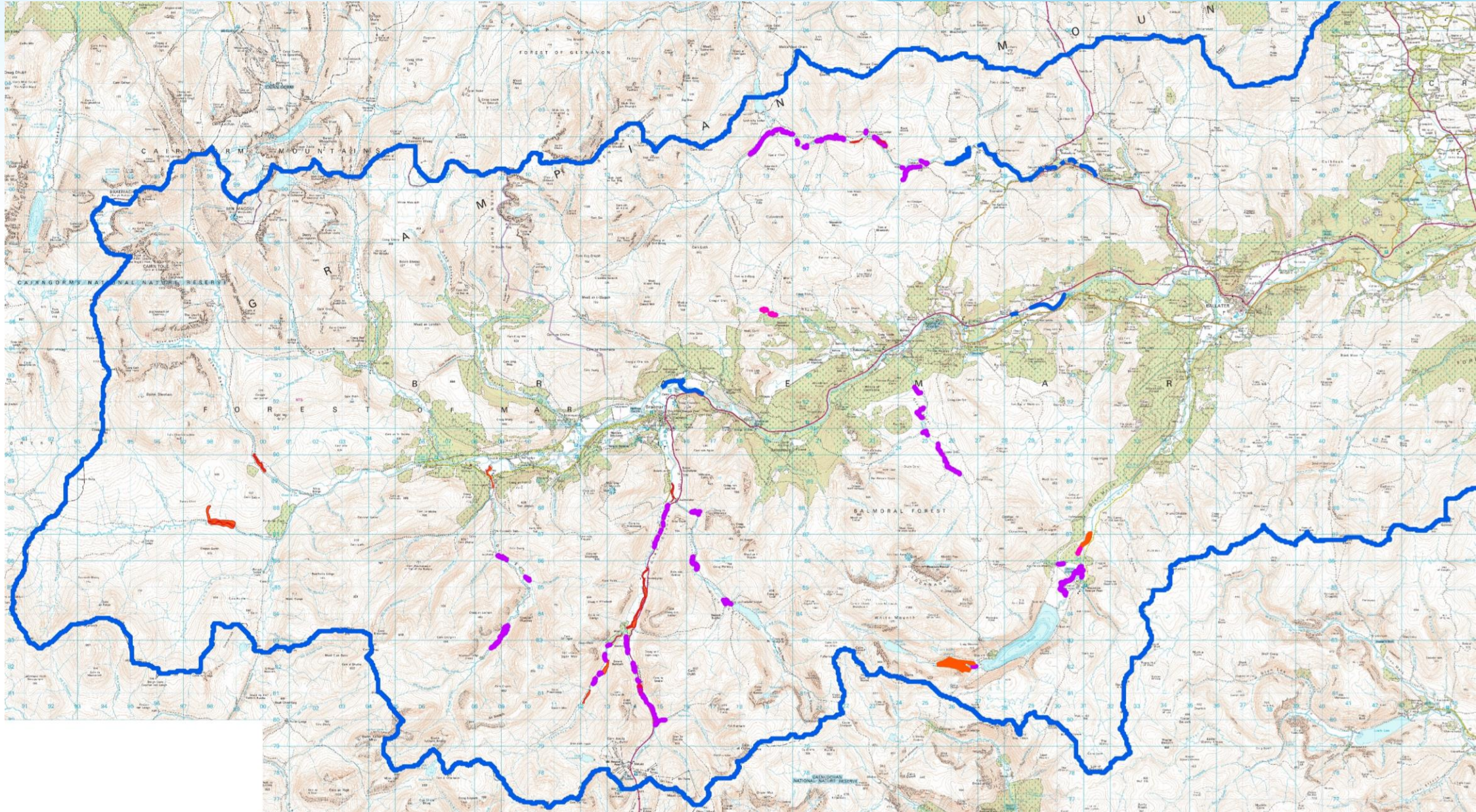


Habitat Restoration – Why?

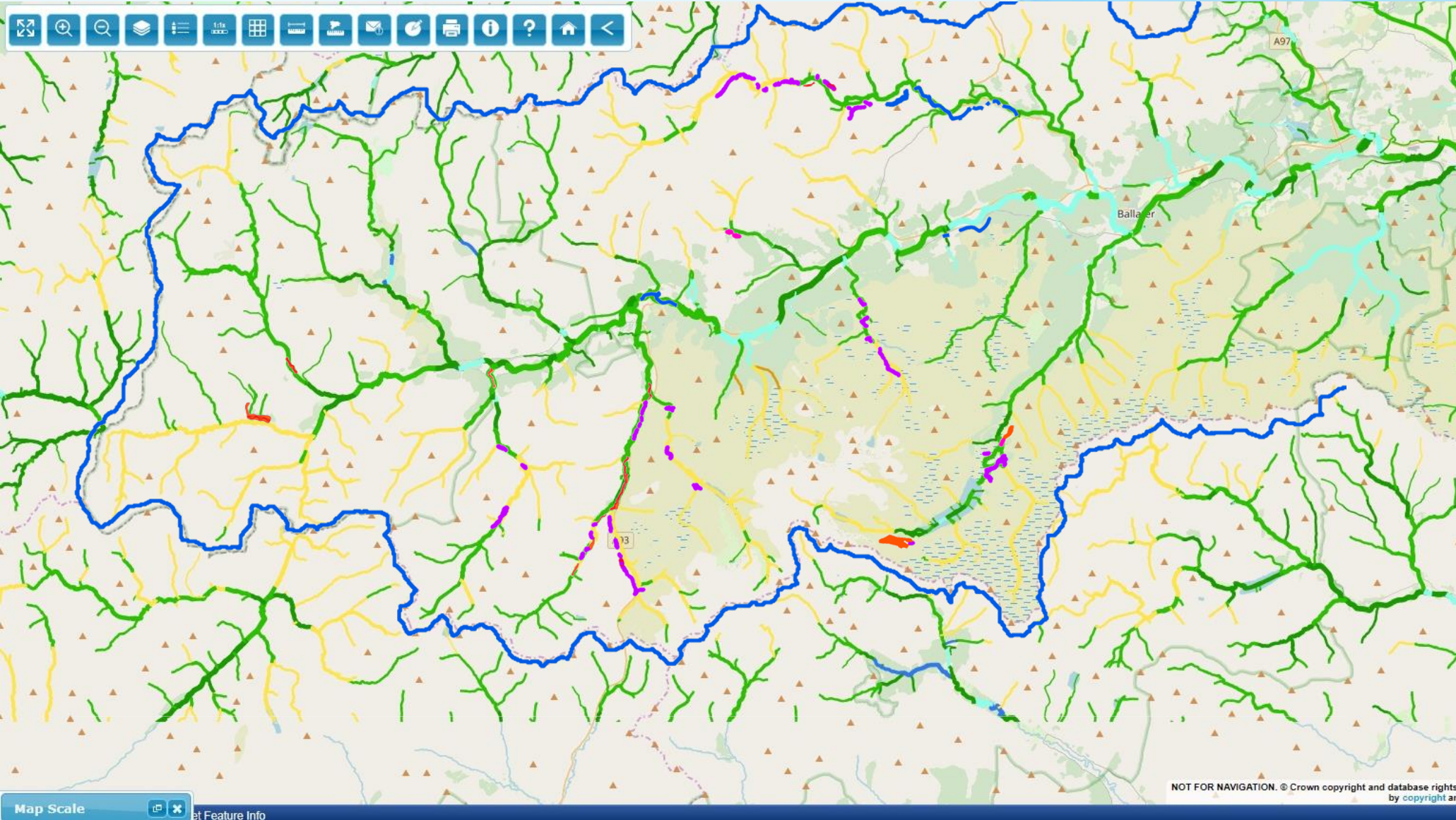
- Rivers in the Cairngorms have been substantially altered from their natural state.
- Summer peak temperatures potential stress on salmon.
- 50% shading can reduce summer temperatures by 2 - 3°C
- Up to 50% of the energy in a stream can be provided by good bankside vegetation.
- Rivers without trees are typically 30% wider than tree lined rivers.
- To reinstate a healthy river with natural process, more resilient to climate change.
- NFM, improved water quality, increased biodiversity, linking habitats and store carbon.



Habitat Restoration – Long Term Strategy



Habitat Restoration – Long Term Strategy



Habitat Restoration – Long Term Strategy



- 1 million riparian trees by 2035.
- Created more large wood structures
- Next: Investigate reinstating wetland, bog and flood plain connectivity and function.
- Restore functioning natural river process.
- Restore abundant salmon population.