

# World Rivers Day

September 2023

For nearly two decades, World Rivers Day has celebrated the world's waterways. In the face of prolonged biodiversity decline, 2021-30 is the UN Decade on Ecosystem Restoration - a worldwide call to action to protect and revive ecosystems, for the benefit of people and nature. Scotland's biodiversity, too, is declining. The Scottish Rewilding Alliance is calling for the Scottish Government to declare Scotland a Rewilding Nation and ensure that 30% of Scotland is rewilding by 2030. Restoring our rivers is an essential part of achieving this vision.

Organisations, communities and landowners across Scotland have been restoring Scotland's riparian habitats for years. While data from the Scottish Environment Protection Agency shows that 66% of Scotland's water environment is in good or better condition, in order to withstand future climate and ecological shocks, we need Scotland's waters to be healthy - and wild. It is time to scale up this essential work. Rewilding is the ultimate nature-based solution, allowing us to turbo charge nature recovery while empowering local communities.

## Rewilding our rivers

Rewilding is an approach to land management that seeks to work with natural processes to restore ecosystems and reconnect society with the natural world. We believe rewilding has a crucial role to play in our efforts to reduce flood risk and adapt to the impacts of the climate emergency. Rewilding projects are long lasting, involve communities in decision-making and improve the area for wildlife as well as people.

Already, damage from flooding costs the Scottish economy up to £250m each year. The cost of our planned flood defence schemes has risen to nearly £1 billion. Drought risk is set to increase in coming years, bringing negative impacts for agriculture, forestry and biodiversity. Biodiversity is in decline and many habitats are in an unfavourable condition. Pollution from agricultural run-off and sewage overflows threaten human and animal health.



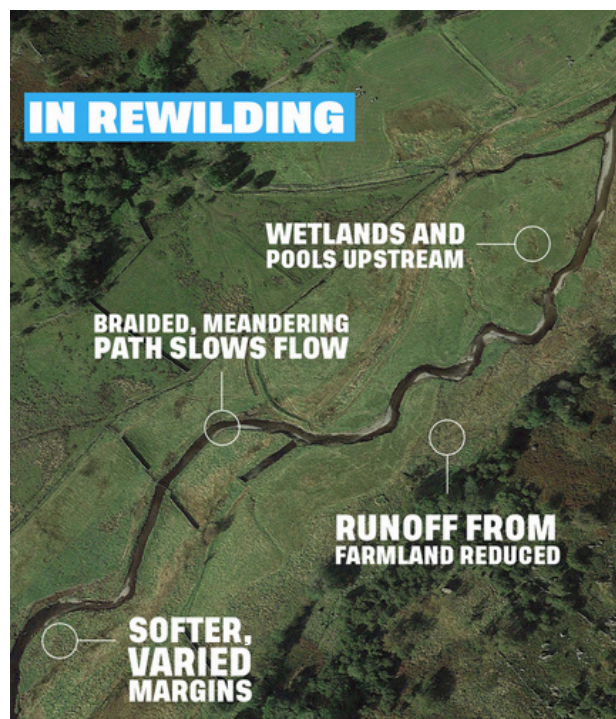
**THE SCOTTISH  
REWILDING ALLIANCE**

Scotland has more than 125,000km of rivers and streams, from small burns to deep, wide rivers. Rewilding our rivers would contribute to the Scottish Government's commitments on nature and climate change, as well as create positive benefits for people.

## Wilder, healthier rivers

What does a wilder, healthier river look like?

- Braided river systems slow the flow of water downstream, helping prevent floods, drought and wildfires.
- Beaver-created wetlands or herbivore wallows filter water and create habitat for other species.
- Tree coverage along the river banks creates shade, bringing water temperatures down so migratory fish such as trout and salmon can survive.
- Structurally complex habitat around river systems traps runoff from the land, preventing sediment and chemicals from polluting our waterways.



## Case study: Glassie Farm



Glassie Farm in Aberfeldy is part of the growing wave of landowners in Scotland committing to nature restoration and while fostering community engagement.

Running through the farm is a burn that meanders through a treeless area. The burn runs unimpeded to the River Tay, so during peak flows it can contribute to flood waters downstream. The lack of trees shading the burn exposes fish and other wildlife to increased thermal stress as temperatures rise.

Upstream, the burn runs through a conifer plantation, where large amounts of decomposing pine and spruce needles leach acidic compounds into the river, lowering the pH and affecting the ability of wildlife to swim, eat, reproduce and grow.

In the absence of beavers, Glassie Farm have trialled artificial beaver dams to see if they can help change the landscape to benefit biodiversity and the local community. They aim to increase in-stream habitat and woody structure, providing food and shelter for fish, invertebrates and amphibians. The artificial dams will mitigate flood damage and droughts, as well as contributing to a positive perception of the benefits that real beavers could bring. Increased tree cover along the burn will also reduce water temperatures.



# Achieving wilder rivers

River systems do not exist in isolation from the land that surrounds them. In order to create healthier rivers, the area surrounding a river system also has to be restored. This might include wide 'buffer strips' around a river, or a focus on landscape-scale restoration that seeks to return the dynamic processes that nature needs to thrive - in other words, rewilding.

Encouraging beavers to return to Scotland could go a long way in helping to rewild our rivers and wetlands. The dams they build and woody debris they place in watercourses can significantly slow the movement of water downstream. Following the reintroduction of beavers to Belgium, one study found a significant lowering of the height of flood water downstream of dams and an increase in the interval between major floods. The wetlands that beavers create also provide food, shelter and homes for all kinds of wildlife including dragonflies, butterflies, brown trout and bats.

## Recommendations

Thanks to the past efforts of the organisations, communities and land managers seeking to restore rivers, Scotland is in a strong position to begin rewilding its rivers. We need to both scale up existing initiatives and take a landscape-scale view of river restoration, rewilding at scale around river systems, to give nature the best possible chance of recovery.

- Scale up support for existing riparian restoration projects, including allowing existing projects to bid for funding that enables the rewilding of entire river systems.
- Create routes for communities - rural and urban - to get involved in riparian restoration, connecting them with nature and empowering them to restore their rivers.
- Identify where natural regeneration of tree cover along rivers could be prioritised.
- Review existing and planned rural subsidy schemes to ensure they adequately support efforts to restore riparian corridors at as large a scale as possible.
- Ensure that Scotland's strategic river basin management plan contains actions that support large-scale ecological restoration around river systems.
- Increase effort to expand beaver wetlands in Scotland, including translocation of beavers to more publicly owned land.

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Images on page 2 courtesy of Rewilding Britain