



Beavers in Scotland

Everything you need to know

Produced by NatureScot on behalf of the Scottish Beaver Advisory Group

All About Beavers

What are beavers?



Beavers are **native Scottish animals** that live in and around freshwater such as rivers, streams and lochs.

They were common in Scotland for many years until they were hunted to extinction about 400 years ago.

Now, **beavers are back in Scotland with their population expanding and growing.**

So, it is important to understand more about beavers and the benefits, opportunities, and impacts they can bring.

Beaver facts

- Beavers are **semi-aquatic animals** with waterproof outer fur, webbed back feet and a large, flat tail which acts like a rudder when swimming.
- They can hold their breath under water for up to 15 minutes.
- Beavers are **the second largest rodent in the world**. An adult beaver is longer than 1m, up to 0.5m in height, and weighs over 20kg.
- They **live in freshwater such as rivers, streams and lochs**. But they can travel via saltwater.
- Beavers **live in family groups** typically of two to five animals but sometimes up to 10.
- Beavers are **herbivores**, eating inner bark of trees as well as shoots, leaves and roots. They have large, very strong teeth which they use to **fell trees for food and building**.
- Beavers **build 'lodges' to live in with underwater entrances and exits**, or burrows which may not be visible from above. They also build dams to create deep water ponds to protect themselves. They **feel safest in water**.
- They **use logs, sticks, mud, stones and vegetation as building materials**.
- Beavers also **use their large tail as a warning system**, slapping it off the water's surface to alert other beavers to danger.

Beaver myth busting

Beavers don't eat fish. They are herbivores, living on plants found in and around water, bark, and young tree shoots.

Beavers don't breed a lot. They have one litter of kits a year, usually born in May.

Beavers can be hard to see. This is because they are mainly active at night.

Beavers don't carry significant risk of disease. Beavers undergo disease screening and health checks as part of the translocation process.

Beavers won't keep increasing indefinitely. They strongly defend their territory, so there will be a limit to the number of beavers found in one area of water.

Beavers won't eventually fell all trees. Their preferred foods are willow, aspen and poplar, which can re-sprout in response to beavers cutting them down.

Scotland's beaver history

- **16th Century** - Beavers hunted to extinction.
- **2000s** - Decision to trial reintroduction of beavers in Scotland at Knapdale Forest in Argyll. Around this time, beavers were also confirmed in Perthshire due to accidental or illegal release.
- **2016** - It is announced that the **beaver populations in both Knapdale and Tayside can stay, with the populations allowed to spread naturally from these areas.**
- **2019** - Beavers legally recognised as a European Protected Species in Scotland.
- **2021** - Policy changes to actively expand the beaver population through planned releases into new areas.
- **2021** - Survey finds that the population has more than doubled to around 1,000.
- **2022** - Scotland's Beaver Strategy published supporting a vision of beaver restoration, while at the same time managing any negative impacts.
- **2023 – 2025 - More than 150 beavers released to the wild** including releases to Loch Lomond, the Forth catchment, the Cairngorms National Park, Knapdale, Tayside, the Trossachs and the Beaully catchment.

Beavers in Scotland now

Beavers are a legally protected species in Scotland.

This aims to protect and restore their populations to a 'favourable conservation status'.

Scotland's beaver population will continue to grow.

This is partly through planned releases to new suitable areas, as well as through natural expansion as young beavers grow up, leave their family units and start families of their own.

As beavers are wild animals, no individual or organisation is responsible for beavers.



Scotland's Beaver Strategy



Responsibility for managing beaver impacts is shared by many organisations and communities that manage land, water resources, and assets.

The Scottish Beaver Advisory Group, which is made up of a wide range of partner organisations, guides delivery of Scotland's Beaver Strategy.

This sets out a vision and actions for the beaver population being **actively expanded into appropriate areas, maximising the benefits of beavers while minimising negative impacts.**

Beaver Benefits

Beaver benefits



Beavers have many benefits for climate and nature.

They are known as **‘ecosystem engineers’** because their activities shape and create wetland areas that benefit many other animals and plants.

They can also:

- reduce flooding
- improve water quality
- bring socio-economic benefits such as providing tourism business opportunities

Beaver Behaviour

Beaver behaviour

Why do beavers fell trees?

Beavers fell trees for building material as well as bark for food.

They prefer trees with soft wood such as willow, birch, alder, aspen, ash, poplar and hazel, but what they will eat is relative to what is available.

Beavers and riverside woodlands lived together for thousands of years. Their current appearance has been changed by the absence of beavers. Native trees are adapted to live with beavers and if felled most will regrow, with the tree's root system helping to strengthen riverbanks.

It also opens up woodland canopy, allowing more light to reach the ground, enabling the regeneration of vegetation, increasing the diversity of plants and improving feeding opportunities for other wildlife.



Beaver behaviour



Why do beavers build dams?

Beavers build dams to create deep water ponds to protect themselves. They feel safest in water.

Beavers also build dams to create safe access to larger areas of habitat for feeding.

They build 'lodges' to live in with underwater entrances and exits, or burrows which may not be visible from above.

Beaver behaviour

Where do beavers look for food?

Beavers mostly look for food and building materials close to the water's edge (within around 20m or so).



Beaver Impacts

Beaver impacts



While beavers bring benefits to land and the environment, **in some situations they can have negative impacts** such as damaging property and infrastructure, causing problems for land management or other important species.

Common impacts

- **Tree felling** – Sensitive or important trees may require protection to prevent them from being felled, such as fencing around areas of trees or wrapping individual trees with wire mesh.
- **Burrowing** – Burrowing can undermine and weaken structures, including river banks, infrastructure and paths, posing a risk to the safety of the public and farm machinery. Burrowing into floodbanks and bunds can increase the risk of erosion and collapse, leading to flooding of agricultural land and damage to crops.
- **Damming** – Damming can cause localised flooding problems for land managers and people, and in some situations affect the habitats and passage of migratory fish.



Managing the impacts of beaver behaviour



There are several ways to manage the impacts of beavers, but it's important to choose the **right approach for each location and situation** to avoid further problems.

Because beavers are a legally protected species there are very **specific rules around removal of beavers or their dams.**

If mitigation measures are in place, it is important not to tamper with these as this can create further or prolonged issues and you may be committing an offence.

Anyone experiencing negative impacts caused by beaver for the first time should seek advice.

Managing impacts

When beavers became a protected species in Scotland, a hierarchy for beaver management was put in place.

This follows these steps:

- 1. Accommodation** (wherever possible)
- 2. Mitigation/management** (when required)
- 3. Translocation** (if necessary)
- 4. Lethal control** (as a last resort)

Managing impacts

Many of these impacts have potential cost implications for land managers if land used for agriculture is affected, or they need to install mitigation measures.

Free advice is available from NatureScot to help support managing the impacts of beaver.

In some cases, funding may be available to support mitigation works or projects that trial new mitigation approaches.

Information & Advice

Information & advice

NatureScot provide free expert advice to all on living with beavers and where appropriate, how to manage beaver activity.

Licences for translocation of beavers and removal of dams must be obtained from **NatureScot**.

nature.scot/beaversinscotland

The Beaver Trust provides a range of advice on beavers and how to live alongside them including educational advice and activities.

Beavertrust.org

Farm Advisory Service can provide advice for land managers.

fas.scot/environment/biodiversity/rewilding-beavers/