



Animals and the environment

TOOTHY GRIN

Iron in the enamel of a beaver's teeth makes them tougher than those of other mammals – but also turns them orange.



A beaver in its pond.

Eurasian Beavers

Beavers have thick fur, webbed feet and flat, scaly tails. They use their strong jaws and tough teeth to cut down trees, which they drag into place to build dams and lodges. Beavers mostly eat leaves, roots and bark from these felled trees, as well as plants that grow naturally in the water. They are good swimmers and can stay underwater for up to 15 minutes. The front teeth of beavers never stop growing through their lifetime – but they are constantly worn down by chewing, which prevents them from getting too long.



A pair of beaver kits.

Beavers reduce river flooding and pollution

Researchers have discovered that beavers have a positive effect on the environment. According to a new study, their activity helps to reduce flooding and pollution, and can boost populations of fish and other wildlife.

A team of scientists led by Professor Richard Brazier from the University of Exeter studied wild Eurasian beavers living on the River Otter, in Devon, for five years. Beavers build dams in rivers out of branches. These dams create pools of calm water where they can



A beaver's teeth are constantly worn down.

build their homes, which are called lodges. They burrow into river banks or use existing holes, with entrances hidden just underwater where they are safe from predators.

The researchers found that dams clean the river water because soil and pollution such as manure and fertiliser running off land nearby gets trapped and held by the tangled branches. As a result, there were 37% more fish in ponds created by the dams than in areas without beavers.

The dams also slow the speed at which flood water flows downriver

after heavy rain, reducing the risk of flooding to farmland and vulnerable villages. In places, the slower water spreads out across nearby unfarmed land, creating new wetlands that are a valuable wildlife habitat. A few small areas of farmland have also been flooded, but the report says this problem can be solved by removing parts of dams, perhaps, or running pipes through them to allow water to flow more freely.

Beavers were once hunted for their fur, and were wiped out in England in the 16th century. They appeared on the River Otter in 2008, but no one knows how they got there. In 2014, the Government planned to remove the beavers, but Devon Wildlife Trust persuaded officials to change their minds.



ECO TIP OF THE WEEK

UNDERSTAND THE FACTS

Many people are aware that we need to take action to tackle climate change (a long-term change in the world's weather patterns, caused mostly by human activity) but some people are confused by the details. This lack of knowledge might mean that they don't take the issue seriously, or accidentally harm the environment without realising what they're doing. It's important to understand what climate change really is, what causes it

and what can be done to tackle it. There are plenty of resources online to learn more about climate change. One of the best sites is run by the US space agency NASA. You can take a look at its Climate Kids website by visiting tinyurl.com/TWJ-climate. Test your friends on their knowledge, and share information with each other so you're better prepared to explain to others why tackling climate change is so important.

Share climate information with friends.





Beavers reduce river flooding and pollution

Hold a debate

Read the article and then try the following activities...

If these beavers are having such a positive effect on the environment, shouldn't we be introducing them across the whole country? Given the recent problems caused by rivers bursting their banks, there must be many communities that would welcome a natural and inexpensive approach to flood control. Or would it be just another example of humans finding a lazy answer to problems of their own making? Also, there are often unforeseen problems that result from our interference with nature's fine balancing act. Is that really a risk worth taking? What do you think?

Writing challenge!

Choose one of the following writing warm-ups.

1 Write an imaginary advertisement to beavers across Europe, offering them the job of looking after a river or stream in the UK. Remember to use an attention-grabbing headline and plenty of persuasive language, letting the beavers know the benefits of living and working here. Make sure you also include instructions for how the beavers should reply to the advertisement.

or

2 Write either a limerick about a beaver moving here from Europe (for example, the opening line could be something like 'There once was a beaver from Rome ...') or three verses of a new, beaver-focused version of the children's song 'Row, row, row your boat ...' that keeps the same rhyming and rhythm structure.

Investigate

Research a different example of an animal being introduced or reintroduced to a particular habitat, either deliberately or accidentally. Write a brief account of what the species was, where it was released and what the consequences were.