

SHOULD BEAVERS BE REINTRODUCED ACROSS THE UK?

THE DILEMMA

Beavers were hunted to extinction in the UK, but over the past six years or so, they have been making a comeback. The first beavers in the wild for almost 500 years appeared by surprise in Devon in 2014. They had escaped from captivity and set up home on the River Otter.



Beavers can chop down trees with their super strong teeth

A five-year study of those beavers has found that they have reduced flooding, lowered pollution and increased populations of fish, amphibians and other wildlife. The report concluded that beavers bring more benefits than drawbacks. The Government, who is considering whether or not to allow wild beavers to return to England, is studying the report.

Late last year, it was announced that three families of beavers – as many as 12 animals – will be introduced on land managed by the National Trust this spring. It's part of the Trust's plans to ease flooding and improve biodiversity. The beavers will be kept in fenced enclosures so that their impact on local ecology and the river can be studied.

The plan is to release two families on an estate in Somerset, and another family on the border of West Sussex and Surrey. The beavers are being transferred to England from Scotland, where they have been successfully breeding on the River Tay since being reintroduced without official permission in 2006.

However, not everybody agrees that reintroducing beavers is a good thing. Farmers in particular are angry that the beaver population in Scotland has been growing. There were around 150 in 2012, but it is now estimated there are 450 living in the River Tay and River Forth. Farmers say beavers clear parts of their land in order to build their homes and dams.

The National Farmers Union, which represents farmers, is opposed to reintroducing beavers "because of concerns about the damage to farmland and farming operations caused by their physical activities and the risks of them spreading disease".

But is it time the Government took the lead and reintroduced beavers across England? After the



devastating floods this year, is it time we use beavers to help reduce the risk of flooding?

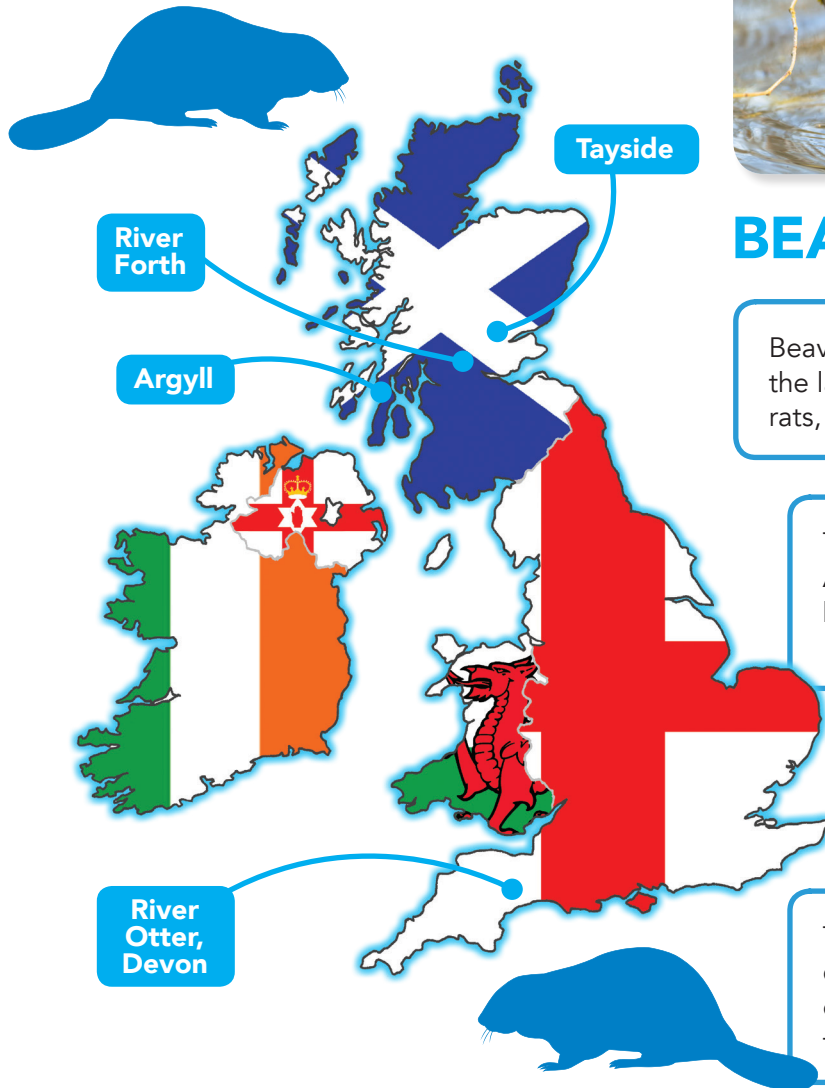
DEFINITION

biodiversity – The variety of life in a particular place. It includes all living things, from plants and trees to bugs, fish and mammals.



WHERE ARE THEY NOW?

This is where the UK's current beaver population is based.



BEAVER FACTS

Beavers are part of the rodent family, which is the largest group of mammals, and includes rats, mice and hamsters.

There are two species of beaver: the American beaver, which weighs 27 kilograms on average, and the Eurasian beaver, which can be found in Europe.

Beavers are amphibious, which means they live in or around water.

They have big, strong teeth that are constantly growing, and the outer enamel of their teeth is made of iron! That's why they can chop trees down.

They are usually active at night.

Beavers spend most of their time eating and constructing dams out of branches, stones and mud. These dams form ponds that often cover many hectares.

Beavers are plant-eaters and do not eat other animals. They feast on leaves, roots and bark from trees including aspens, willows and maple, as well as water plants.

Beavers give off a substance called castoreum from their bum, and it's used as a food flavouring and in perfumes!

We use the expressions "busy as a beaver" and "eager beaver" because beavers are such hard-working animals.

DID YOU KNOW?

In the 17th century, the Catholic Church decreed that the beaver could be considered a fish and eaten on Fridays during Lent, when Catholics traditionally don't eat meat!

BEAVERS IN BRITAIN

In February 2014, three adult Eurasian beavers were filmed eating and playing on the River Otter in east Devon. Eurasian beavers were very common in the UK centuries ago, but were eventually hunted to extinction in England and Wales for their warm fur, medicinal value, meat and even to make perfume. Until 2014, all the beavers in England in recent times had been kept in captivity. Scotland is slightly different because they have been returned to the wild in special schemes.

Beavers are described as a “keystone species”, which means that they have a large impact on the wildlife around them. Unlike American beavers, Eurasian beavers build small dams, but they can still make a big change to their environment by altering the flow of rivers with all the twigs and branches they pull into the water.

REINTRODUCING BEAVERS



Beavers have been reintroduced in more than 200 sites across 24 other European countries since 1924.

In 2009, 11 beavers from Norway were released into the Argyll forest in Scotland. A small number of beavers also escaped from a wildlife park in Perthshire, Scotland and set up home in the River Tay, a salmon river. The River Tay family was going to be captured by Scottish authorities who described them as “illegal”, despite not apparently causing any harm to the surrounding environment or fish stocks.



The Scottish government changed its mind and has let these beavers stay as a protected species. These two returns to the Scottish wild came after an unsuccessful attempt to reintroduce beavers in 2005. Ministers cancelled the scheme after protests from farmers, fishermen and landowners who argued that the beavers would damage salmon and trout rivers and create floods in farmland and fields by building dams.

People in favour of reintroducing beavers say that beavers actually create rich riverside habitats by felling trees, and they help to prevent flooding by slowing the speed of river flows and increasing the size of wetlands, which are areas of land filled with water that contain their own ecosystem.

BEAVER BENEFITS

Beavers create habitats in or around freshwater ponds, lakes, rivers, marshes and swamps. Their home, known as a lodge, allows hundreds of other species to return and flourish.

In his book *Feral*, environmentalist and journalist George Monbiot lists a number of examples of how beavers can help the wider environment. In Wyoming, USA, streams in which beavers live contain 75 times as many waterbirds as streams that have no beavers. In Sweden and Poland, where beavers are allowed to live in the wild, trout are larger in ponds where beavers live than in ponds where they do not. Young salmon grow faster and are in better condition in places where beavers make their dams.



A beaver lodge

Through their tree felling and clearing of spaces, beavers create nooks and crannies for lots of other creatures, such as otters, frogs and reptiles. Beavers also slow down the speed of water in a river and their dams filter out the sediments containing dangerous bacteria, which means beavers may actually prevent disease rather than encourage it.



A dam built by beavers

GROWING FLOOD RISK

The devastating floods caused by Storms Ciara and Dennis this year have put the effects of climate change in the spotlight. Studies have shown that Storm Desmond, a major storm in 2015, was made 40% more likely due to climate change.

Tewkesbury in Gloucestershire was devastated by Storm Dennis



Getty

As the risk of flooding in the UK increases dramatically, environmentalists argue that beavers could provide an excellent and natural form of defence in many parts of the country.

REINTRODUCING AND REWILDING



Nature beginning to take over old rail lines in Wales

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Dr Michael Byrne, lecturer in climate science at the University of St Andrews, says the link between the rise in floods and climate change is certain: "These storms are nothing new, going back 100 years, but, because we are now more than 1°C warmer as a whole versus pre-industrial times, every degree means 7% more water in the atmosphere and more rain in these heavy rain events. When they come, they bring more rain, 100 per cent for certain, because of climate change."

Reintroducing beavers to the wild and letting them stay there is part of a bigger idea known as "rewilding". Rewilding lets nature take control of a landscape, allowing a piece of land to return to its wild state. It reverses centuries of change caused by humans and allows nature to take command once more. Trees grow, attracting insects that attract birds and, over time, the natural ecosystem is restored. Supporters of rewilding argue that wild land and

wildlife should be kept wild, and not controlled or tamed by humans for their own needs. Various animals that once roamed free in the wild in Britain became extinct over time, including wild boar, elk, reindeer and the beaver. Rewilding campaigners believe that by returning certain animals to the UK and not getting involved in how nature develops over time, we will be benefiting the wider environment and encouraging natural processes that have been damaged by human interference.



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Alasdair Cameron of Friends of the Earth says that allowing beavers to stay in the wild "is an opportunity to create a richer, better environment for ourselves and our children, where we can experience the beauty of animals that are an important part of our ecosystems".



FARMERS' OBJECTIONS

A farm near a river could be visited by eager beavers



Even if the reintroduction of beavers benefits the environment, many farmers have real concerns. One told the *Daily Telegraph* newspaper that he was spending as much as £5,000 a year removing beaver dams from his land in Scotland. He said: "In the past six years there's been far more damage being created, more bank erosion, more trees coming down, more dams being built, more and more evidence of them causing issues."

Some farmers are also worried about beavers spreading a tapeworm called *Echinococcus multilocularis* (EM). The tapeworm is carried by many animals and it is present in most of Europe, though not in the UK. EM can lead to serious health

problems among animals, and even death.

But EM cannot be transmitted from beaver to beaver, and Public Health England, an organisation whose aim is to "protect and improve the nation's health and wellbeing", believes that having beavers in the wild does not significantly increase the risk of EM reaching the UK.

DID YOU KNOW?

Beverley in Yorkshire (pictured), Beverston in Gloucestershire, Barbon in Cumbria and the Beverley Brook river in London are all named after beavers.



YES, BEAVERS SHOULD BE REINTRODUCED ACROSS THE UK



1. THEY BOOST BIODIVERSITY

Beavers are known as “ecosystem engineers”, because when they create dams they also create homes for countless flora, fauna, insects and wildlife. They are actively good for the wider environment.

2. THEY PROTECT AGAINST FLOODING

Flooding will only become a bigger problem as climate change continues. Beavers have been proven to reduce the risk of floods, so it makes sense that we continue to reintroduce them.

3. WE MADE THEM EXTINCT

Human hunting of beavers is what drove them to extinction in Britain. It's our duty, therefore, to help reintroduce this animal to the wild. We should fix the problem we created.



NO, BEAVERS SHOULD NOT BE REINTRODUCED ACROSS THE UK



1. THEY RISK DESTROYING FARMLAND

Some farmers have already complained of the enormous damage caused by beavers felling their trees and chopping up their land. If the beaver population gets bigger, farmers will suffer and that in turn could affect our food supply.

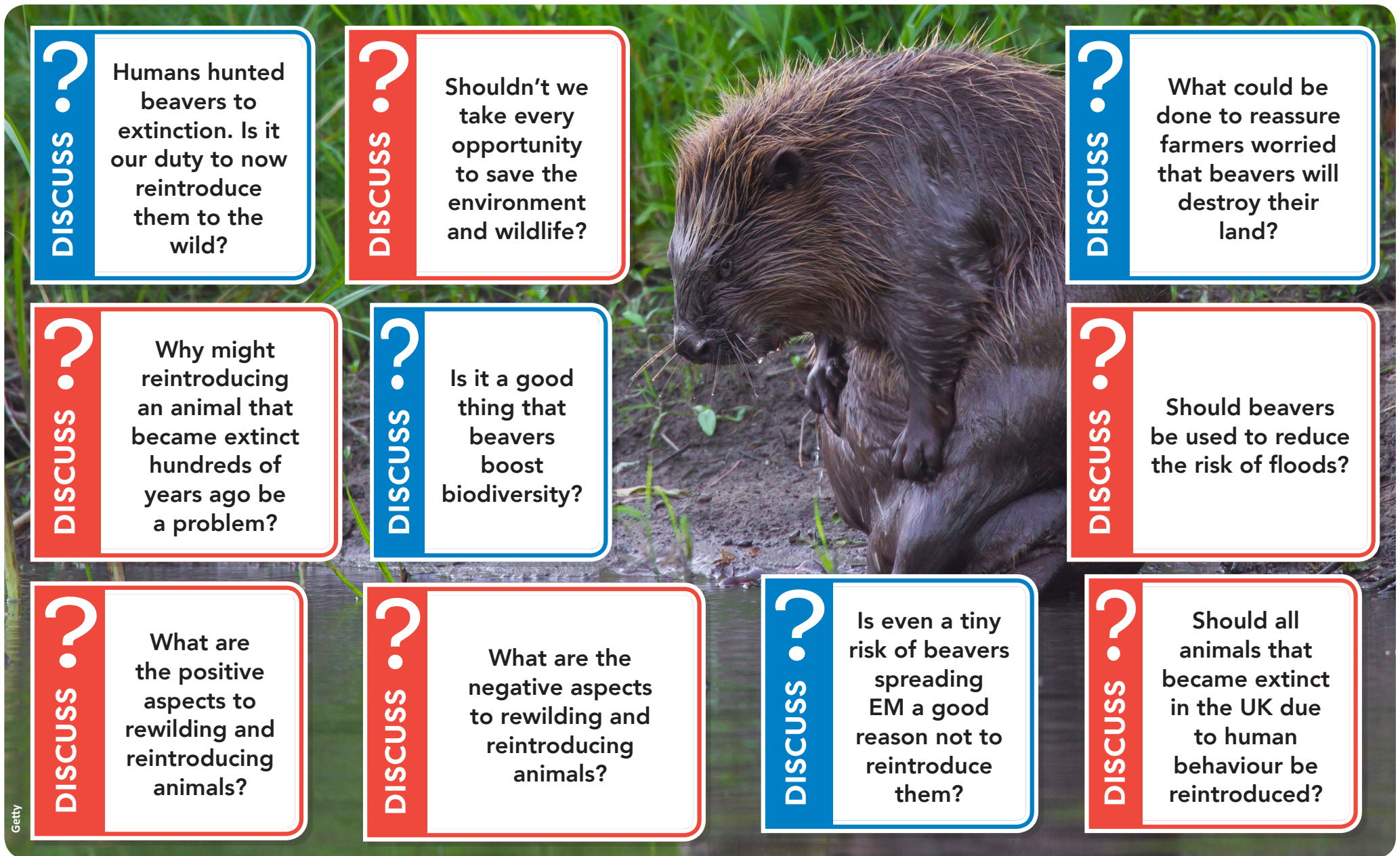
2. THEY ARE NO LONGER A NATIVE SPECIES

Yes, humans are responsible for making the Eurasian beaver extinct in Britain. But what's done is done. We cannot be responsible for reintroducing every extinct animal. It's very risky and could damage today's ecosystem.

3. THEY COULD SPREAD DISEASE

The UK is one of only four European nations not to have any cases of the EM disease. Even if the risk of beavers spreading it is small, it's not a risk worth taking.





DISCUSS 

Humans hunted beavers to extinction. Is it our duty to now reintroduce them to the wild?

DISCUSS 

Shouldn't we take every opportunity to save the environment and wildlife?

DISCUSS 

What could be done to reassure farmers worried that beavers will destroy their land?

DISCUSS 

Why might reintroducing an animal that became extinct hundreds of years ago be a problem?

DISCUSS 

Is it a good thing that beavers boost biodiversity?

DISCUSS 

Should beavers be used to reduce the risk of floods?

DISCUSS 

What are the positive aspects to rewilding and reintroducing animals?

DISCUSS 

What are the negative aspects to rewilding and reintroducing animals?

DISCUSS 

Is even a tiny risk of beavers spreading EM a good reason not to reintroduce them?

DISCUSS 

Should all animals that became extinct in the UK due to human behaviour be reintroduced?