

EXCLUSIVE

WILDLIFE

THIS BEAVER KIT WAS BORN THIS YEAR TO ONE OF TWO FAMILY GROUPS ON THE RIVER OTTER



Beavers are back — but are they welcome?

A new study on the river Otter in Devon is looking at the pros and cons of reintroducing beavers, writes the Devon Wildlife Trust's Mark Elliott

Five Eurasian beavers have been released into the river Otter in East Devon, marking the start of a five-year trial that will examine whether this key element of our wetlands can be restored to a productive English landscape without causing any major issues.

It is difficult to overstate the significance of this event, which has been running since March. The reason wetland enthusiasts get so excited about beavers is because of their ability to engineer their environment to the benefit of many plants and animals. They are a true “keystone species”.

Beavers feel safest in water. In upper catchments where deep water doesn't exist, they create it so that they can explore and exploit their territory. The patchwork of pools, rivulets and canals they build, surrounded by boggy multi-layered woodland, are quickly colonised by sedges (caddisflies) and



The University of Exeter is able to monitor all water entering and leaving the enclosed beaver site, showing how the new ponds that are formed by the dams the animals build store and clean the water

dragonflies, while birds such as woodcock and teal also enjoy the huge variety of habitats generated.

We lost this keystone species about 400 years ago when it was hunted to extinction in Britain, primarily for its meat and fur. Though beavers are widespread in parts of Scotland, the opportunity to bring them back to England came through an unusual route. Two family groups of beavers had

established themselves on the lower river Otter, presumably having escaped from a private collection or after being released illegally. They have clearly been on the river for a number of years and secured the affection of many of the local residents and even some of the farmers who have campaigned to have them remain.

They were lucky with their choice of hosts, with both of the key landowners, on whose land they chose to set up >>



In the Devon Wildlife Trust's enclosure, beavers have built several dams, creating complex wetland habitats

home — David and Vicki Laurence and Clinton Devon Estates — supporting the project and understanding the beavers' potential to help restore ecosystems.

Clinton Devon Estates adopts a long-term perspective to land management and has highlighted the need to ensure that management strategies are in place to cope with any conflicts that arise in the future. This is generally the philosophy adopted by many of the landowners in the valley.

Future conflict?

This may be partly because the beavers have been on the river since 2007 without causing any of the problems that some feared. That is not to say that there will not be any conflicts in the longer-term, as their numbers grow and they start to spread further. In particular, when they move out of the deeper water of the lower reaches of the river towards the headwater streams, they may start to build dams to hold water.

If this happens, scientific teams from two universities are ready to monitor their impacts as part of specialist PhD research projects. Professor Paul Kemp's team of fisheries specialists from Southampton University will try to compare any short-term impacts of beaver dams on fish migration and spawning gravels, with the longer-term benefits that result from the increased habitat diversity, water resources and fish rearing habitats.

Meanwhile, Professor Richard Brazier will lead a team from the University of Exeter to look at how the dams hold water in the headwaters and regulate the flow downstream, potentially ensuring a more constant flow of clean water during dry periods — keeping invertebrates and fish alive and reducing the high flood peaks that can be so damaging.

“WOODCOCK AND TEAL ENJOY THE HUGE VARIETY OF HABITATS IN THE PATCHWORK OF POOLS, RIVULETS AND CANALS BUILT BY BEAVERS”



Beavers have been fitted with ear tags to allow individuals to be monitored from a distance

Better understanding

Since 2013, the University of Exeter and the Devon Wildlife Trust (DWT) have been studying the wetlands created by a family of beavers in an enclosure on private farmland in west Devon. DWT set up the project four years ago to get a better understanding of the impacts that beavers would have on scrub encroachment into grassland habitats.

Since then, the beavers have created a series of 13 dams across this tiny trickle of water that runs through the site. Richard's team installed high-tech monitoring equipment and preliminary findings have shown the benefits of the beavers' dams in holding back water.

It was this experience that allowed the DWT to demonstrate to government officials that it was capable of running the trial on the river Otter. Once the beavers had been shown to be free of all the diseases that might cause human and animal health problems, the

DWT was allowed to release them into the river from where they had been captured just a few weeks before. The trial is regulated by a range of conditions that include having an exit strategy in place should their impact be shown to be unacceptable.

Detailed monitoring of the beavers will show how they gradually colonise the river system, and the released animals were fitted with ear tags to allow individual beavers to be identified in the field.



Beavers breed and spread slowly and their fierce territorial behaviour regulates their populations, ensuring they don't exceed the capacity of the landscape. They only breed once a year and give birth to an average of three kits in May. However, they are secretive at this time and the vulnerable kits will often stay in or very close to the lodge for a couple of months, avoiding the attentions of potential predators such as foxes, birds of prey and otters.

The licence requires the DWT to study and mitigate any impacts on ecology and infrastructure, farming and fisheries. The findings will allow a detailed picture of the impacts of beavers in this lowland English landscape to be built up. The trial is a significant commitment and a fund-raising appeal has been launched. **■**

Mark Elliott is the Devon Beaver Project Lead for the Devon Wildlife Trust. To find out more or to support the trial, visit www.devonwildlifetrust.org

By turning open water into a patchwork of canals and rivulets, beaver activity can provide valuable habitat for birds

RIVER OTTER BEAVER TRIAL

The river Otter Beaver Trial is being led by Devon Wildlife Trust, in partnership with the University of Exeter, Derek Gow Consultancy and Clinton Devon Estates. Expert independent advice will be provided by the Royal Zoological Society of Scotland, Professor John Gurnell and Gerhard Schwab, an international beaver expert based in Bavaria. In addition to the support of DWT members and others who have donated to the appeal, the trial is also funded by the Royal Society of Wildlife Trusts (RSWT). The ongoing research work at the enclosed beaver trial near Okehampton, in Devon, is funded by Westland Countryside Stewards and early monitoring work on the river Otter is paid for by the Higher Education Innovation Fund, via the University of Exeter.