



Beaver swimming © Niall Benwie

Return of the native

This spring, the Scottish Government will consider a licence for a trial reintroduction of beavers to Knapdale Forest, Mid-Argyll. Simon Jones, SWT’s Scottish Beaver Trial Project Manager, shares his passion for this effective woodland and wetland manager.

At long last, the European beaver (*Castor fiber*) is set to return to the wild. After more than 10 years of heated debate and procrastination the current Scottish Government is considering a licence application for a trial beaver reintroduction. If this happens SWT, in partnership with the Royal Zoological Society of Scotland (RZSS), will take forward this exciting and historic project.

Let us not underestimate the potential importance of this decision. If the trial is successful and there are wider reintroductions in Scotland then, given time, these animals will rejuvenate much of our decimated natural wetlands and riparian woodlands. It may sound sensationalist but this engaging tubby rodent really has the potential to transform and enrich our countryside.

Beavers are known as a “keystone species” whose presence can improve the natural functioning of an ecosystem and significantly modify habitats. The removal of keystone species can result in marked changes to ecosystems often with a

“This is a keystone animal which creates and manages wetland habitats in a most wonderful way, which is beneficial to a whole range of other wildlife and natural processes.”

Roy Dennis, Highland Wildlife Foundation and member of the Scottish Beaver Trial Steering Group

reduction in biodiversity. Research has shown how foraging and damming by beavers on rivers and lochs increases biodiversity through the creation of mosaics of wetland habitats (ponds, coppiced woodland and scrub, flooded water meadows, swampland, fens). These natural wetlands are rare in the United Kingdom and are home to a vast array of native wildlife including dragonflies, fish, waterbirds and pond plants.

Beavers bring other benefits too. Evidence from other countries indicates that beaver dams on river systems can improve water

quality and flow regulation. Freshwater is retained in periods of drought and flooding regulated by releasing water gradually. Silt and acidic and nutrient-rich run-off is also caught.

At a local level, the beaver allows good opportunities to develop wildlife tourism. A small taster of the public’s interest in this amphibious mammal was shown by its popularity on BBC’s Autumn Watch (November 2007). The beaver reintroduction has also become a symbol for a fresh approach to conservation. Environmental organisations, including SWT, look more and more to the importance of functioning ecosystems in the face of significant threats. The beaver also gnaws away at our collective moral consciences that we drove it to extinction - and yet it is within our power to bring the beaver back.

The United Kingdom is one of the last countries in Europe to reintroduce the beaver. Several years ago, Scottish Natural Heritage (SNH) decided to attempt to run a trial in Knapdale but in 2002 it was turned down by the previous government. SNH persevered and in 2007 the Scottish Government, through SNH, signalled its intent to reintroduce the beaver through the publication of the Species Action Framework; a document that provides a strategic approach to species management in Scotland.

Beaver basics

- Adults measure over 1 metre in length and weigh around 20kg
- They live in tight knit family groups consisting of an adult pair and 2-3 young
- They are active all year and are mostly nocturnal, although they can be seen at dusk in summer
- They spend their time in or very close to water
- They fell broadleaved trees near the water for food and timber for lodges and dams. The coppiced trees re-grow.
- They live in burrows or lodges which have a submerged entrance
- They do not like fast-flowing rivers or canal systems



European beaver © Niall Benwie



Beaver pelt © Allan Bantick



This is an example of how continuous occupation by a beaver family (since 1975) benefits habitats © Duncan Halley

What changes would we see in a wild beaver landscape?

This depends on the terrain and vegetation type. Beavers prefer sizeable areas of still water surrounded by broadleaved woodland and will not settle in coniferous-only areas. When colonising sites, such as large lochs or meandering rivers, their impact may not be obvious. In fact the only signs of their presence may be scattered felled trees along the banks and a few well worn tracks to and from the water's edge. If such sites are not available beavers will attempt to create their own water body by building a dam to back up water and create a safe environment. Such beaver lochans vary in size. In hilly areas such as Knapdale Forest any lochans will be long and thin because of the steep-sided valleys.

With such engineering behaviour beaver and man occasionally come into conflict. Beavers can block drainage culverts, fell orchard trees or feed on crops which are close to water. These problems in Europe are dealt with in a variety of ways but what we must accept if we have wild beaver populations in Scotland is that there *will* be some local problems and these *will* need to be addressed. The indication is that these problems tend to be on a small, local scale and there are proven methods to deter beavers. But with the absence of a natural predator, we cannot ignore that there may be times when beavers have to be managed.

So what is happening now?

Late in 2007 a local consultation on the

proposal to release beavers in Knapdale, Mid-Argyll showed overwhelming support from the people of Mid-Argyll. A licence application was submitted by SWT and RZSS to the Scottish Government in December 2007 for a five-year trial reintroduction in the Forestry Commission Scotland (FCS)-owned Knapdale Forest.

If the trial is approved approximately 20 beavers from Norway will be captured this autumn. The beavers will be quarantined for six months during which they will be monitored to ensure they are healthy and free of disease before release. If everything goes to plan, wild beavers will be released in family groups at separate locations within an unfenced, 15-km² area of Knapdale in spring 2009. Although there will be significant public interest in the released beavers, they will need some time to settle before public visitor facilities are developed. The trial will be independently monitored by SNH and FCS and will study the beavers and their impact on the natural environment and local economy of the area.

After five years of intensive radio-tracking, tagging, vegetation monitoring and sampling by scientists, the Scottish Government will then decide the long term future of beavers in Scotland. Beavers are already found in the UK in public and private enclosures. The number of people and organisations who wish to see wild beavers in Britain is increasing and I believe that the question is not *if* but *when* this will happen.

Get involved

Do you live in the Mid-Argyll area? Would you like to get involved in this exciting project? If the trial goes ahead we will be looking for volunteers. Email beavers@swt.org.uk

Simon Jones has worked for the Trust since 2000, previously as the Reserve Manager for the Central West area. He started his career in conservation as a volunteer with BTCV in Newcastle before working for Cleveland Wildlife Trust for four years as a warden. He lives in Strathblane and is a member of the Lomond Mountain Rescue Team.

Beaver tails

An extract from the diary of Allan Bantick (Chair of the Scottish Beaver Trial Steering Group and member of SWT's Council) on a beaver fact-finding trip to Norway

9.00 Wednesday 7 November 2007

We assembled for our first live trapping session on the River Sauar at Akkerhaugen. The temperature was already below freezing. Soon we found a female beaver and caught her in our net. The female was transferred nose-first from the net into a sack with its rear end exposed for examination. One of Frank's helpers knelt astride the beaver and lay gently but firmly on it to hold it still for the next phase which included taking samples of secretions from several of the beaver's very private and personal glands, removing old radio tags and fitting new ones, taking various measurements, scanning for an embedded chip to confirm the beaver's identity and weighing it before returning it to the water. We also had the chance to smell the castoreum and anal gland secretions for which the beaver is so renowned - an experience that not everyone wished to repeat!



Samples being taken as part of the monitoring programme in Norway © Allan Bantick