



BRINGING BACK BEAVERS TO SCOTLAND

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Scottish Beaver Trial: Project Update No. 18 1st February 2013

This is the 17th update on the Scottish Beaver Trial (SBT) and covers activity between 4th October 2012 and 1st February 2013.

Project Background

The SBT is a partnership project between the Royal Zoological Society of Scotland (RZSS), the Scottish Wildlife Trust (SWT) and host Forestry Commission Scotland (FCS) to undertake a time-limited, five-year trial reintroduction of Eurasian beavers (*Castor fiber*) to Knapdale, Mid-Argyll.

The licence for the Trial was granted by the Scottish Government in May 2008, with the first beavers being released in May 2009. The Trial will run until 2014. Scottish Natural Heritage (SNH) coordinates the independent scientific monitoring of the trial, reporting progress to the Scottish Government and monitoring how the conditions of the licence are being addressed on the ground.

What's been happening in Knapdale?

As I sit down to write this, rivers and burns across the west of Scotland are bursting their banks as a result of the huge and sudden input of rainfall combined with snow melt that we have seen over the past few days. A quick look at the weather forecast (which is something that the SBT team have to do very frequently) shows that another Atlantic depression is due to make landfall tomorrow night and therefore water levels are set to rise further. Unlike the winters in the first two years of the Trial which were very cold and dry, this winter like last year, is turning out so far to be a mild and wet one. The effect that these variable weather patterns are having on the Knapdale beavers throws up some interesting questions about beaver behaviour and their physiological adaptations and we hope the scientific monitoring work of the Trial will in time be able to help answer.

Beavers are well adapted to life in cold and wet climates. They do not hibernate like some other mammal species, but do reduce their activity levels and therefore their energy expenditure during the coldest periods. SBT field staff observations from Knapdale during the big freezes of 2009 and 2010 indicated that the beavers spent more time in or very close to their lodges when the surrounding water lochs were frozen, although they will venture out onto the ice and even gnaw diving holes through it to gain access to the water beneath. Their thick, dense fur can grow an extra 5 millimetres in length during the late summer as they get their winter coat, but their real key to survival over the lean winter months is all about preparation and for the hard working beaver this means lots of eating and lots of food gathering in the run up to winter. A beaver will eat tonnes of green and woody vegetation over the spring and summer seasons, in order to gain as much body weight as possible to see them through to the following growing season. I sometimes wonder whether humans have a similar instinctive urge to bulk up for the winter; at least that is what I tell myself as I have another mince pie over the festive period. Fat stores are particularly important for them for this purpose and along with fat reserves in the main body cavity (intra-peritoneal) and under the skin (sub-cutaneous), their main site for storing fat is in the tail and health monitoring work at Knapdale has supported research from elsewhere which shows that beaver tails change volume throughout the year, as they are larger in spring and summer and reduce volume through the winter as fat stores are used up. Beavers also deliberately store food in the autumn in caches attached to their lodges and occasionally within the lodge itself. This

behaviour allows beavers access to food throughout the winter, even if frozen conditions make foraging further afield more difficult.



SBT Field Officer taking beaver tail measurements © SBT

During a recent nocturnal observation session at one of the Knapdale lochs I was lucky enough to watch a pair of beavers diving for plant tubers close to their lodge, whilst another family member wrestled with sticks embedded in the food cache in pursuit of an evening snack. The trip had not started well as the canoe that I and a colleague were paddling had to break through a thin sheet of rapidly forming ice on the small lochan which created crashing noises that seemed to fill the near silence of the Knapdale night. Any nearby beavers would surely now be swimming away in the opposite direction, but as we stopped our ice breaking voyage it soon became apparent that the shattering noises were continuing, but these were coming instead from a pair of beavers less than 30 metres away who were busy crashing and clattering their way through the icy surface in pursuit of plant tubers seemingly oblivious or at least unconcerned at our own noisy arrival.

As this story of just one night shows, the Knapdale beavers have been busy getting on with their lives unaware of all the attention that surrounds them. Since my last update the SBT Field Team have been concentrating on trapping the beavers in order to carry out annual health checks and also to attach 'Geotags' and depth-temperature recorders on some animals so that their movements and behaviours can be accurately logged and monitored. Of the six beavers trapped so far all have been in good body condition for the time of year and we have been able to retrieve some good quality data from the geotags and recorders once retrieved. Like all the scientific data collected as part of the monitoring of the Trial, this information is then passed onto independent monitoring partners via SNH. The data is then analysed by these partners and fed into published reports which will assist the Scottish Government when they consider the outcomes of the Trial and the wider question of any future beaver reintroductions in Scotland. All of the Knapdale beaver families have shown signs of continued lodge and dam building and there has also been some very active periods of canal construction, as beavers dig channels from the main water bodies into the surrounding woodland in order to access new areas of feeding and in doing so changing the habitats in these areas – this is real ecosystem engineering in action. Undoubtedly people have been aware of this engineering behaviour for a very long time and interestingly a beaver is found on the crest of the Institution of Civil Engineers;



Crest of the Institution of Civil Engineers, taken from a lock gate on the Caledonian Canal © SBT



Knapdale beaver canal, January 2013 © SBT

The Dubh Loch beaver family has been the focus of a great deal of monitoring attention over the past few months as a result of some fascinating and perhaps worrying activity and changes in behaviour here. Roisin Campbell Palmer, our Field Operations Manager who leads the SBT Field Team explains further:

“It looks like the structure of this family group has changed as the adult male Bjornar appears to have now formed a new pairing with his fully grown daughter Mille and this pair have built a new lodge towards the southern end of their territory on nearby Loch Coille Bharr, although they are still regularly seen on and around the Dubh Loch feeding in this area of rich habitat. The original adult female Katrina remains living at the original lodge on the Dubh Loch itself. This change in relationship is unusual especially whilst Katrina still survives, but is not thought to be completely

unprecedented, as beaver research in other parts of Europe, has indicated similar examples of inter-family pairings. Two of the beaver pairs here at Knapdale have already swapped partners during the Trial. You may remember that we were delighted to discover that three kits had been born at the Dubh Loch lodge last summer. Although parentage was not confirmed, Mille did show obvious signs that she was suckling young and it may have been a result of the ageing Katrina coming to the end of her reproductive life combined with Mille being sexually mature that the new pairing was formed. Despite a huge amount of observation work from the SBT Field Team and volunteers over the last few months, these three kits have not been seen since the autumn 2012. We are currently unable to confirm whether or not that these young beavers have died as it is not unknown for beavers to evade observation for relatively long periods of time. They could reappear, but it is looking increasingly unlikely. While this is sad news, this is not unusual in a wild beaver population and a natural occurrence in the wild, and we already seen kits from previous years being predated at Knapdale, but for all three to disappear is particularly disappointing and we will continue to try and establish what has happened here. On a more positive note the first female kit born last year to new parents Trude and Eoghann on Lochan Buic is doing well and has been seen throughout the winter period, often on top of the lodge feeding or trying to help her parents with building. She seems to be growing bigger and adapting well to the Scottish environment.”

Monitoring the beavers and their effects

As mentioned above the independent monitoring programme associated with the Scottish Beaver Trial results in the production and publishing of a range of scientific reports by SNH. You can read all the reports published to date by going to the SNH website at www.snh.gov.uk/protecting-scotlands-nature/safeguarding-biodiversity/reintroducing-native-species/scottish-beaver-trial/the-monitoring-programme

Interpretation & Educational Activities

Since my last update there have been 17 Scottish Beaver Trial related talks, guided walks and events to a total audience of 561 people over the late autumn and winter period. Seven school groups from the Argyll area had beaver lessons from Oly Hemmings (our Education Ranger pictured below) or one of our education colleagues from SWT and RZSS. Oly and the SBT Education Team are just putting the finishing touches to a new fun Beaver lesson which will be available for children to experience within the coming weeks, so please contact Oly at ohemmings@swt.org.uk if you know of a class or youth group that might like to share this lesson. A training day for teachers wishing to lead beaver related activities will also be taking place in Knapdale on 14th March – again please contact Oly if you are a teacher wishing to take up this opportunity.

Once again we will be running our popular spring and summer guided walks again this year. There will be four public guided walks over the coming Easter holiday period and our summer walks will run twice weekly from late May until late August. Please keep a regular eye on the SBT website, Facebook page and Twitter site to get all the latest Trial news and events as they appear.



Children from Little Learners Nursery, near Oban learn about beavers, Feb 2013 © SBT

Liaison Work

SBT staff are increasingly called upon to provide information and expertise on beavers to groups and organisations involved in current or potential beaver reintroduction projects elsewhere in Scotland or the UK. Both Roisin and I sit on the Tayside Beaver Study Group, which is tasked to investigate the status and effects of the larger, unlicensed population of wild beavers living on parts of the River Tay catchment. This work aims to compliment the outputs of the SBT and assist the decision making process regarding any potential future reintroductions of Eurasian beavers to Scotland, to be made by the Environment and Climate Change Minister and the Scottish Government in 2015. SNH recently published a survey report on the Tay beaver population, which estimates that as many as 150 beavers could be living wild across the Tay catchment. You can see this report on the SNH website at <http://www.snh.gov.uk/publications-data-and-research/publications/search-the-catalogue/publication-detail/?id=1961>

Television and Media Activities

Since my last update the SBT has appeared on BBC's 'The One Show' on the 14th December 2012, where they focused on Olympic gold medal winning canoeist, Tim Baillie's visit to Knapdale. The ITV 'Wild Britain' series presented by Ray Mears will also feature the Argyll forests and Knapdale beavers and this programme is set to air on ITV south of the border on Friday 8th February and we hope it will be aired on STV soon afterwards. Last week we welcomed another film crew, this time from the BBC 'Winter Up-Close' series. Despite the very wet and windy weather they managed to get some great footage, so make sure you keep an eye out for this series which is due out in the near future.

Several weeks back we ran another children's competition to name two of our young beavers. The two lucky winners have just been picked and to find out the names that were chosen you'll need to keep a look out on our blog, Facebook page and Twitter account.

NEWS RELEASE:

On Thursday 28th February we will be hosting a joint event with the Heart of Argyll Tourism Alliance at the Cairnbaan Hotel. **'The Beaver Tourism Experience'** is an opportunity for Argyll-based tourism providers to find out what the SBT can provide them and their customers. See the flyer below:



Join the Scottish Beaver Trial for the Beaver Tourism Experience
When: Thursday 28 February 2013, 11am – 2pm
Where: Cairnbaan Hotel (Nr Lochgilphead) followed by a visit to Knapdale Forest
Event organised in collaboration with the Heart of Argyll Tourism Alliance

This free event will be an opportunity to:

-  Acquire a Beaver Tourism Toolkit featuring images and video for use on your website
-  Experience the Trial through the eyes of an expert on a loch-side guided tour
-  Discover how beavers have been a boost for other business in the Heart of Argyll

The Scottish Beaver Trial is a groundbreaking conservation project right here in the Heart of Argyll. It has attracted national media attention and is soon to feature on Ray Mear's *Wild Britain* TV series and BBC's *British Winter Up-close*. To capitalise on this interest and to launch the 2013 guided walks programme, the Scottish Beaver Trial and the Heart of Argyll Tourism Alliance invite you to benefit from our brand new Beaver Tourism Experience.

"The presence of beavers in Argyll is creating a boom for local businesses. Alongside beautiful landscapes and fresh cuisine, visitors have the unique opportunity of seeing Scotland's first wild beavers." Darren Dobson, Owner, Cairnbaan Hotel

[Click here to book your place on the Beaver Tourism Experience now](#)

For more information: 0131 312 7765 / scottishbeavers.org.uk/tourism

The Beaver Tourism Experience is the first in a series of 'Getting to know you' events for tourism providers in the Heart of Argyll. The next event will take place at Kilmartin House Museum on Thursday 7 March 2013. For more information please visit: www.heartofargyll.com

Year of Natural Scotland 2013  

All up-to-date information on the Trial can be found at the **SBT website** www.scottishbeavers.org.uk and for regular news from the Field Team make sure you look up to the **Official SBT blog** <http://blog.scottishbeavers.org.uk> Remember that you can also now follow us on Facebook and Twitter. Recent reports and updates can be viewed on the SBT website in Beaver Facts > Publications and News > Project Updates.

If you have any questions about the Scottish Beaver Trial then please visit our website or contact me at:

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