



The Sundew

Cumbria BogLIFE project newsletter

Welcome to the Bolton Fell Moss Cumbria BogLIFE Community newsletter. In this issue you can read about the restoration work that is taking place this winter, how we are monitoring greenhouse gases, and what we have been up to in the local community.

A bird's eye view....



This aerial view of Bolton Fell Moss really shows the extent of the restoration work that has already taken place. The re-profiling works mean that the bog is now starting to hold water and vegetation is starting to grow back.

Bringing Cumbria's Raised Bogs to LIFE



Cotton Grass at Bolton Fell Moss
(J Dunbavin, NE)

Project Site Locations



Restoration works by Deborah Land

We are in an exciting period on Bolton Fell Moss with most of the ditches blocked or filled in and most of the bare peat now safely under a blanket of donor bog vegetation and mulch. Water is being managed on the site through a system of bunds and shallow pools and exiting the site through a number of managed outflows. Our next tranche of work will concentrate largely on the edges of the bog.

Mending the Edges

The edge areas are often the most complicated in terms of the damage to the bog owing to a history of drainage and historical peat cutting. The peat is often dry and cracked with large cut faces which has enabled trees to take hold and flourish. The presence of these trees is deceptive and they are not the friend of the bog. The roots continue to grow through the peat causing more drying and cracking of the peat increasing the water loss from the site. They also act as interceptors of rainfall, preventing vital water from reaching the bog surface.



Trees and scrub grow on the large cut faces on the peat bog.

The works required to mend the edges of the bog will involve taking many of these trees down so that careful re-profiling and binding work can be carried out to the dry and damaged peat faces. Whilst this may look drastic, the land will soon heal and nature will find a natural balance with the restored water table and this will allow the appropriate vegetation to flourish in the right places. There will still be many areas where trees will proliferate adding to the tremendous diversity of habitats we are seeing develop on Bolton Fell Moss.

Balancing the water levels

In addition to the work on the periphery, there will also be the restoration to the final areas of old milling fields. These final two fields already support some bog vegetation but need a little help with the water levels and some additional re-vegetation



We have been re-vegetating Bolton Fell Moss Spreading a “living carpet” across the bare a mulch of *Sphagnum* Mosses, heather and cotton grass.

What would you like to see?

Restoration works are progressing well, and we will soon be in a position to start consulting with the local communities surround Bolton Fell Moss, to gather thoughts and opinions about what you would like to see happen here going forward. Events will be taking place after the New Year. This is your chance to have a say about the future of Bolton Fell Moss, so watch out for further information in the future!



Monitoring the Moss

Healthy bogs are amazing at taking up carbon from the atmosphere and storing it in the underlying peat. However, degraded bogs will release their stored carbon. Andy Cole, BogLIFE monitoring Officer, has been busy collecting gas samples from Bolton Fell Moss, to see if carbon emissions change after restoration, and if so, how quickly this happens.

Collecting the gas



Air tight chambers are placed on the peat and gas samples are taken using a syringe. Samples are taken from transparent (see picture) and dark chambers, allowing us to compare the effects of photosynthesis on carbon uptake and release.



The gas is then transferred in to a vial. Samples are taken every 5 minutes over a 15 minute period for each sample site. These vials are later sent off to be analysed in a lab.



Samples are taken from 4 different areas across the site, ranging from bare peat to areas covered in trees where the peat is much drier. In total 160 samples are taken during each visit!

Results

It's still early days, but initial results show most areas of Bolton Fell Moss are absorbing more carbon dioxide during the day than they are releasing. However, this seems to vary from site to site, so more research is needed to see how restoration might be effecting this.

If you would like to know more, or would like to help Andy in this work, please get in touch!

Bolton Fell Moss Community

Memories of the Mosses

Last summer we held a Memories of the Mosses event at Stapleton Village Hall, where people came to share their stories and memories of Bolton Fell Moss.

We held another of these events this summer, in Brampton. Initial interest has been good, and we are now in the process of contacting people who attended the events, to invite them to talk to us individually, and have their stories audio recorded! If you didn't make either event, but have a memory you would like to share, please get in touch.

Bewcastle Scouts bog bounce

Bewcastle cubs and scouts joined Natural England on a boggy adventure on Bolton Fell Moss in April. The theme of the evening was "properties of peat". Although a few wellies were temporarily lost in the bog, we think everyone made it home safely! We look forward to another evening at the bog with Bewcastle Cub and Scouts in September.



Peat has amazing water holding properties, as demonstrated by this structure built by Bewcastle Scouts. © Keelev Spate



Bog Beasties

Bogs are home to all sorts of special creatures. Our volunteer, Guy Broome, has been out on the moss with his light trap, finding out which moths have made it their home. Here are some of the more unusual bog specialist species he has found. All photos © Guy Broome



Grey Scalloped Bar - Lives on peat bogs and heathland. Food plants heather (*Calluna*) and Heath (*Erica*)

Manchester Treble Bar –peat bog specialist, larvae feed on cranberry and bilberry.



Light Knot Grass
A rare bog specialist, larvae feeds on bog myrtle and bilberry.

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Visiting Bolton Fell Moss

There is no public access at present to Bolton Fell Moss at present. Access with Natural England staff is possible for accompanied groups and during advertised community events. Watch this space though, as we will be consulting on future access options with the intention of providing some public access to the site.

If you would like to arrange a group visit, please get in touch.

Interested in seeing our other BogLIFE sites?

Roudsea Woods and Mosses NNR : Permissive access (a free permit) is required to visit this very special reserve, which Natural England leases from the Holker Estate. Find out more in the [reserve leaflet](#)
<http://publications.naturalengland.org.uk/publication/5794526008442880>

Wedholme Flow (part of the South Solway Mosses NNR):

Open access on this reserve, so visit any time. Find out more at:

<https://www.gov.uk/government/publications/cumbrias-national-nature-reserves/cumbrias-national-nature-reserves>

We need your help!

We are conducting research in to how people connect their local bogs. It would be great if you could help us. All you need to do is follow this link and you will be taken to the survey. It should take around 10 minutes to complete and will help us evaluate the impact of our work in the area. Thank you!

<http://www.smartsurvey.co.uk/s/EA85X/>

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