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## Case Study 2



COMPLETED

### Slamannan Bog Restoration Project Buglife Scotland



Photo: Scott Shanks

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<https://www.scotlink.org/publication/still-delivering-the-goods/>

# 2

## Slamannan Bog Restoration Project Buglife Scotland



### Background

This project was part of the **EcoCoLIFE project** which was a partnership between NGOs, SEPA and SNH (the coordinating beneficiary; now known as NatureScot). Buglife led on the bog restoration work at Fannyside Muir.



### Project aims

The Slamannan Bog Restoration Project aimed to restore at least 150 hectares (ha) of degraded raised bog habitat at Fannyside Muir and improve the ecological coherence of Fannyside Muir with the wider Slamannan Plateau.



### Project Timescale

September 2014 to November 2018.



### SBS Objectives

The aims from the **2020 Challenge for Scotland's Biodiversity**:

1

To protect and restore biodiversity on land and in our seas, and to support healthier ecosystems.

Over 850 species have been recorded on the bog. The work to restore the peatland has seen increases in the populations of Black darter dragonflies and the ground beetle *Agonum ericeti* – indicator species of increased connectivity on peatlands.

2

To connect people with the natural world, for their health and wellbeing and to involve them more in decisions about their environment.

This project engaged with numerous volunteers in ditch blocking, scrub clearing and biological recording. A programme of community engagement activities was also delivered.

3

To maximise the benefits for Scotland of a diverse natural environment and the services it provides, contributing to sustainable economic growth.

The restoration of peatland habitats such as at Fannyside Muir bring multiple benefits, particularly through carbon sequestration and water retention. This helps our environment to be more resilient to climate change.





### Project Summary

The Slamannan bog restoration project has restored over 230 hectares of degraded lowland raised bog habitat in the Central belt of Scotland, with a focus on an area of the Slamannan Plateau called Fannyside Muir.

Fannyside Muir is a large area of peatland just west of the town of Cumbernauld in the Scottish Central Belt. The site has been subject to wide-ranging and long-term adverse management, including drainage for commercial peat extraction and historical afforestation.

Part of the restoration site is within the Slamannan Plateau Site of Special Scientific Interest and is designated as a Special Protection Area, as Taiga bean geese use it as a winter roosting site.

With the help of volunteer work parties and specialist contractors, over 4,300 dams have been installed on drainage ditches to retain water in the bog and allow recovery of peat-forming Sphagnum mosses. Twenty-six hectares of the driest and most degraded parts of Fannyside Muir have been 'cell-bunded'. This technique creates a landscape of shallow pools, a few inches deep, on the surface of the bog and blocks small ditches and cracks in the peat. Dragonflies and wading birds have colonised these pools almost immediately. Over 30ha of conifers and 54ha of birch scrub and gorse were also removed to prevent damage to the bog surface which contributes to drying out of the peat.



### Climate Impacts

Peat soils in Scotland contain almost 25 times as much carbon as all other soils in the UK. The carbon stored in Scotland's soils, notably peat and peaty soil, is equivalent to over 180 years of greenhouse gas emissions from Scotland at current emission rates. Healthy peatlands keep carbon locked up and continue to absorb more carbon. Degraded bogs emit carbon dioxide and other greenhouse gasses, which contribute to climate change. Restoring peat-forming habitat that has previously been damaged ensures that the bog remains as a long-term carbon sink and significantly reduces greenhouse gas emissions.

Raised bogs also help maintain the quality of water by absorbing atmospheric pollutants and retaining carbon, which can significantly pollute streams downstream of degraded bogs. Healthy bogs function as sponges, regulating and slowing the movement of rainwater which helps to prevent flooding.



### People Information

**Direct employment:** There was one full time post to deliver this project.

**Volunteers:** Contributed 102 days to practical conservation work, such as ditch blocking, scrub clearing) or monitoring (invertebrate surveys, hydrology surveys, etc.

**Wider engagement:** A programme of community engagement activities was also delivered. This included illustrated talks, guided walks, and workshops. In addition, the project was featured at the LIFE conference '**Bringing bugs back to LIFE**' in September 2018 and the LIFE webinar '**Stepping up to save bugs**' in June 2020.



### Successes and achievements

The overall outcome was the restoration of over 230ha of degraded peatland and a 31% increase in connectivity with the surrounding area, by the deployment of:

- > **4,300** dams installed on drainage ditches.
- > **26** hectares of cell bunding to re-wet driest areas.
- > **30** hectares of conifers and **54** hectares of birch and gorse scrub removed.
- > Over **850** species recorded, including **35** invertebrate species of conservation concern.
- > Over **100** volunteer days.

Further work, led by Buglife, is now underway on the Slamannan Plateau to restore nine more degraded lowland raised bogs.



### Issues and challenges

The biggest challenge was scheduling the restoration work to prevent disturbance of other wildlife interests. Most of the site is a SPA for Taiga bean geese which meant that work could not happen near the roost pools when the geese were present through the winter months. The presence of other breeding birds and reptiles meant that restoration work during the summer was also difficult. This left a small window in the spring and autumn when work could take place across the whole site.



### Funding

The project had a total budget of **£323,784**, with contributions including:

LIFE+:	<b>£109,059</b>
WREN:	<b>£193,446</b>
SNH (Peatland Action):	<b>£21,279</b> (Third party contribution for WREN funding)



### Further information

<https://www.buglife.org.uk/projects/slamannan-bog-restoration/>  
<https://cdn.buglife.org.uk/2019/07/Fannyside-Report-year-4.pdf>  
<https://www.ecocolife.scot/>