

Landscape Scale Conservation Case Study

East Ayrshire Coalfield Nature Network

Delivering peatland conservation in a landscape shaped by mining

Summary

The East Ayrshire Coalfield Environment Initiative (CEI) is an environmental charity working to conserve, enhance and promote the natural heritage of the East Ayrshire Coalfields. The area has a long history of coal extraction, which has resulted in the loss and fragmentation of habitats including important raised and blanket bog. Since 2013 the CEI has worked in partnership with the local authority and conservation bodies to enhance degraded bog habitat and promote peatland conservation within the local communities.



Low ground pressure excavators re-wetting blanket bog at Airds Moss by installing peat dams in ditches © CEI 2015

“This has been a fantastic project to restore the blanket bog in a location where much of much of this extremely valuable habitat has been destroyed, damaged or is under constant threat. We are extremely grateful to CEI for their hard work on our behalf and this has been a great example of partnership working at its best.” Gerry McAuley, RSPB Scotland

Challenges

East Ayrshire's coalfield region is a landscape of contrasting land uses. The area includes a range of wetland, moorland and bog habitats, including blanket bog and lowland raised bogs which provide specialised habitat for biodiversity. While the bog habitats in the area represent some rich areas for wildlife, many have been damaged by drainage and fragmented by other land uses and this has disrupted the hydrological processes that maintain active (peat-forming) bog systems. Initial work to enhance bog habitats has enabled improvement and provided some benefit to the biodiversity of the region but much more work is needed to create ecological linkages between areas of particular biodiversity value.

Climate change is a huge threat to bogs that are in unfavourable condition. Degraded bogs have less resilience to extreme weather patterns such as drought and flooding, which can result in exposure of the underlying peat and loss of stored carbon, contributing to greenhouse gas emissions.

The solution

Enhancing peatland at a landscape scale has the potential to help conserve nature *and* deliver multiple benefits for people including carbon storage, natural flood management, and protect important "wild" areas that hold cultural and spiritual significance.

The Nature Network project's team of two staff work closely with project partners to deliver a busy programme of habitat enhancement, awareness raising and practical activities. Partnership working has been key to delivering peatland enhancement at this scale.

Existing enhancement sites have been used to demonstrate the benefits of a healthy bog and facilitate land manager engagement. The CEI are working with land managers to access agri-environment funding to deliver peatland enhancement at key sites within the network.

The CEI run a programme of volunteer activities with the aim of connecting local people with the natural environment through tasks that help conserve bogs in the Coalfields. Volunteers have the opportunity to get involved in practical conservation work, learn identification and survey skills, and help monitor our enhancement sites. The CEI also visits local communities and schools to promote bogs, their wildlife and conservation. People of all ages and abilities are given an opportunity to visit a bog and experience wildlife first hand.

"I think the work done by the CEI is really important. It goes a long way in raising local awareness of environmental issues in this area and the importance of the many wildlife habitats within the environment." Tom Wilson, CEI volunteer and wildlife artist

Outcomes

The CEI have used the expertise of the partnership and taken advice from others experienced in peatland enhancement to use the best available methods, ensuring the best possible results. Skilled contractors have been using a range of techniques, including constructing peat and plastic piling dams, creating trench bunds, tree felling and scrub clearance. The project has not shied away from trying out innovative techniques to solve tricky drainage issues; deep trench bunding has so far proved successful in restricting water run-off via peripheral drains that couldn't be dammed in the usual way. High-tech equipment is being used to monitor changes to the water table so that the technique can be evaluated effectively. The results of water level and vegetation monitoring are being analysed and reports shared with others to contribute to the wider understanding of peatland enhancement.

The CEI's dedicated volunteers are helping to monitor habitat condition and wildlife at each enhancement site. There is a big emphasis on developing volunteers' field skills and this benefits both the project and the volunteers in gaining experience for future employment. The project staff and partners would not be able to tackle this huge task without their help, and the valuable data is being fed into national recording schemes.

The Nature Network project will run until March 2018, with several new sites in the pipeline for restoration.

Facts and figures

Since 2013, the project has achieved:

- ***Six phases of peatland enhancement completed at four sites***
- ***350 hectares of peatland habitat enhancement***
- ***4620 peat dams installed***
- ***4,435 metres of deep trench bund installed***
- ***569 volunteer days completed***
- ***150+ individuals have volunteered***
- ***604 young people have had an outdoor learning experience***



*Right: Map of East Ayrshire Coalfields/
Nature Network project area © CEI*



New Cumnock Primary pupils exploring Airds Moss RSPB Reserve © CEI 2015

The partnership



The CEI's bog conservation work has been made possible with funding from the LIFE+ financial instrument of the European Community, Scottish Natural Heritage Natural Projects, East Ayrshire Council, SEPA Water Environment Fund, the Heritage Lottery Fund, Cumnock and Doon Valley Minerals Trust, Forestry commission Scotland and Peatland Action Fund.



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