

# Falklands peatlands richest examples in the world

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THE Falkland Islands have the highest proportion peat cover of any part of the UK including the UK Overseas Territories. At least 40% of the Falkland Islands are deep peats, storing an estimated 934 metric tons of carbon, equivalent to the carbon stored by a forest the size of the entire archipelago! Falkland peat soils are not only extensive, but they are also globally unique – holding some of the richest examples of peatlands in the world.

But while Falklands peat flaunts the highest rates of carbon sequestration of any terrestrial habitat – with islands such as Beauchêne and Kidney Island holding some of the highest carbon stores in the world; the benefits of Falklands peat stretch beyond carbon sequestration.

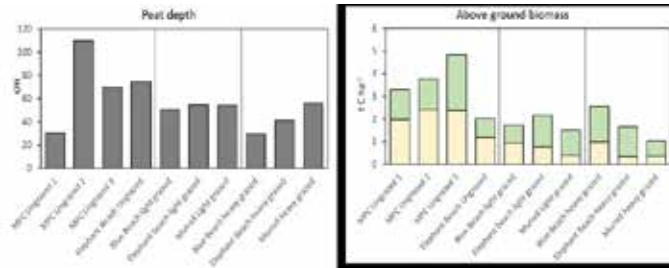
Peatlands here hold unique wildlife, provide safe drinking water and grazing land. They give recreational opportunities that improve our physical health as well as our emotional and mental wellbeing, and when in good condition, can buffer against flood, drought and fire. So, efforts to understand, protect and, where needed, restore them are essential to mitigate against climate change, conserve biodiversity and provide measurable economic and health benefits.

For three years, Falkland Conservation's Darwin Plus Peat-Wetlands Project has carried out 174 surveys across the Falkland Islands, many on remote islands where the best peatlands remain. We found an array of habitats from incredible carbon reservoirs rich in wildlife to hectares of bare peat and clay patches that are eroding at alarming rates. We developed conservation scoring for habitats based on 'nativeness', conservation status (e.g. rarity, endemic, non-native) and invasion risk. This is important as it provides evidence of how close to a native habitat an area of land is, as well as the richness of the plot, based on the species it supports.

The project results show that as soil depth increases, mean conservation scores also increase. This suggests that native habitats are



Above: impact of drying. Below: Soil properties Chris Evans



still forming peat soils, or at least aren't eroding as fast as those with lower conservation scores. In the absence of grazing, and on lightly grazed camps, soils were deeper than on heavily grazed camps and this translated into greater above and below ground carbon. Soil under native habitats, those with a dense sward, also held greater moisture, one of the most important factors for peat formation. During the surveys, we noted a significant step change in habitat quality on remote islands where the vegetation had never been grazed, with the exception of geese. Some of the deepest soils were found at these sites – but there were also great examples on both East and West Falkland.

The project adds to earlier work that suggests a total cessation of grazing over 250,000 ha of grazed white grass bog (Evans et al. 2020) would lead to an annual CO2 removal of around 67000 tons each year for up to 100-150 years. In summary, the closer to 'native' a plot of land is, the better

it is for carbon storage, soil moisture and wildlife.

However, one of the difficulties with the survey method, is that it's time-consuming and requires a level of expertise, making it onerous for landowners to conduct repeat monitoring. As a result, one of the project outputs has been to develop a slimmed down version that is simple, quick, and suitable for long-term monitoring – specifically the type of monitoring that is required to meet the Responsible Wool Standard (RWS). This easy-to-use survey, which we have called the 'Falkland Islands Habitat Condition Assessment', uses plants, birds, soil cover and vegetation measures to assign a score to areas of peatland in order to classify them. We hope the Habitat Assessment will become a common value by which we manage our land across the Falkland Islands and help farmers to report against the RWS, as part of the biodiversity and pasture management criteria. The assessment can be downloaded at: [https://falk-](https://falklandsconservation.com/downloads/)

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As part of the project's legacy, we developed a list of potential actions that could help foster an island-wide agri-environment scheme, or something similar. One of the more important recommendations was to develop fire plans that ensure capacity is available to tackle wildfires across the Falklands, including on remote islands. It's worrying that the project legacy could be undermined if a single fire can wipe out ten thousand years of accumulated soil and carbon, along with its associated habitat and biodiversity.

The recent Bird Island fire brought this into stark reality. During the project, we visited this incredible island to carry out surveys and found an outstanding habitat abundant with fur seals and sea birds as well as good indicator species like Cobb's wren. Now the habitat of over half a million birds, and thousands of years of soil accumulation, has been lost in just a few days. After New Island, Bird Island is probably the most important breeding location in the world for thin-billed prions – whose habitat on Bird Island is still at risk from smouldering embers. While the actions of a small group of people significantly reduced this risk, the fate of such places cannot be left to chance, or to small teams of volunteers. The Falkland Islands are globally important for seabird populations, and this brings a global responsibility. Under climate change scenarios, fire risk will likely increase so, the development of robust plans to tackle them needs to be taken seriously.

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