

Testing peatland monitoring standards using the palaeoenvironmental record: are we doing all we can to promote carbon accumulation?

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Blanket peatlands are the most efficient British terrestrial habitat for carbon storage, and their protection is essential to meet greenhouse gas reduction targets. Many sites have become degraded as a result of centuries of intensive land use, with uncertain implications for carbon dynamics. Long-term monitoring data are required to characterise management related changes in carbon cycling given the range of timescales (annual, decadal, centennial) over which peatlands respond to forcings. Such data are lacking, presenting a key evidence gap in determining best-practice management of peatland environments. Presented here is an assessment of the impact of differing management histories on the properties of Welsh blanket peatlands. Findings suggest many vegetation communities which indicate favourable bog condition, as defined by UK Common Standards Monitoring, are not favourable for carbon accumulation. Refinement of habitat targets is clearly required if blanket bog is to be managed specifically to maintain or enhance future carbon sequestration.