

# Science for Environment Policy

## The quality of sheep grazing is not reduced by upland bog restoration

**Restoration of upland bog** habitats by blocking drainage channels has caused concern among some sheep farmers that this will reduce the quality of grazing areas. However, UK researchers have shown that drainage does not encourage growth of plants favoured by sheep, nor do sheep use drained areas more. Therefore they conclude such restoration measures are unlikely to detrimentally affect sheep grazing.

**Upland blanket bogs** are important for clean water supplies, carbon storage and biodiversity protection and have been recognised as in need of protection by the EU Habitats Directive<sup>1</sup>. In the UK, which contains around 13% of the world's blanket bog peat, such habitats have been extensively drained in order to improve grazing for livestock, a process that damages bog vegetation. However, there have been very few studies into whether such drainage practices actually do provide improved grazing.

In this study, conducted under the LIFE Active Blanket Bogs in Wales project<sup>2</sup>, researchers examined a case study of an upland bog in Wales which has been drained in the past but is now undergoing restoration involving blocking drainage ditches. The researchers investigated two main factors: whether drainage ditches increased sheep's use of these wetter areas, and whether the presence of ditches increased the amount of grasses preferred by sheep.

Five sites were chosen within the area, totalling 4,743 hectares. At each site researchers laid out 30 transects, 15 of which spanned drainage ditches and the remaining 15 were at least 20 m from ditches. Ten 1 m<sup>2</sup> plots spaced along these transects were examined for evidence of sheep grazing and the percentage cover of different species of plants was also recorded.

The results demonstrated that the percentage cover of plants preferred by sheep did not differ between plots, regardless of how near they were to a drainage ditch. Furthermore, sheep tended to prefer areas without drainage ditches. The researchers stress that there are limitations to this study, for example, the measure of sheep grazing preferences was very basic and more in-depth behavioural studies would be beneficial. However, these results indicate that the value of blanket bogs as grazing areas is not significantly improved by drainage.

There is an urgent need to address landowners' and farmers' concerns regarding blocking drainage channels in upland bogs, since this is the main tool for restoring these valuable habitats. This study provides some reassurance that drainage ditches have not substantially made bog habitats more favourable for grazing sheep and therefore there will be no damaging effects if they are blocked. The researchers also go further to discuss the possibility that blocking ditches may have a positive effect, by reducing erosion of such ditches into deep gullies in which livestock can become trapped.



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**Contact:** :  
[ian.johnstone@rspb.org.uk](mailto:ian.johnstone@rspb.org.uk)

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