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British Lichen Society

23rd May 2024
Peatland Protection Team, Defra
Seacole Building
2 Marsham Street
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By email: HGBConsultation@defra.gov.uk

Dear Peatland Protection Team,

Heather and Grass Burning Consultation:
Proposed amendments to The Heather and Grass etc. Burning (England) Regulations 2021.

Background

About The British Lichen Society:

The British Lichen Society https://www.britishlichensociety.org.uk was formed in 1958 and has the following aims:

- to promote and advance the teaching and study of lichens;
- to encourage and actively support the conservation of lichens and their habitats;
- to raise public awareness of the beauty of lichens and of their importance as indicators of the health of our environment.

The Society is one of the leading societies studying lichens worldwide and produces a journal of international standing, The Lichenologist.

The BLS Conservation Committee oversees the BLS role to support the conservation of lichens and their habitats. The Committee consists of members with a wide range expertise in a range of ecological fields including researchers at academic institutions, botanic gardens, ecological fieldworkers, ecological consultants and advisory staff of conservation organisations and wildlife trusts.

Peat bogs and lichens

Lichens assemblages can be rich and regionally or nationally important on acid bogs, especially on the drier sections and in hagged areas. Those larger lichens recorded by vegetation ecologists can be a prominent and significant part of the vegetation on bogs as evidenced by the vegetation descriptions in the National Vegetation Classification (Rodwell, 1992).

There have been limited detailed studies of bog lichen assemblages, but some of those have shown that important assemblages can occur, especially a study of the Whitelee bogs south of Glasgow, where an exceptionally rich assemblage of *Cladonia* species was found (Douglass, 2024). This lichen assemblage is assessed as nationally important (SSSI quality) using the Heathland, Moorland and Coastal Heathland Index (Sanderson et al., 2018). The assemblages were much richer than those found on the drier moorlands in the area. At a contrasting lowland site, Sanderson (2021) in an initial survey of the lichens of Fenn's, Whixall & Bettisfield Mosses NNR in Shropshire, found a regionally

significant lichen assemblage. This was surviving in a region where nearly all drier heathland had been lost, with the bogs providing a refuge for heathland lichens in general.

Published longtime monitoring studies have shown sensitivity of lichens to management changes, as in Smith et al. (2003), where removal of sheep grazing resulted in a decline in lichen diversity, reflecting increased vegetation hight. Harris at al. (2011) and Lee et al. (2013) show increased lichen cover and diversity associated positively with prescribed burning and prescribed burning and low-intensity sheep-grazing respectively.

The assemblages can show continuity with adjacent low productivity wet moorland but in other areas, especially those with grassy more productive moorland, the lichen assemblages on bogs can be richer than those on the drier moorland. In lowland areas, they may be the only acidic terricolous lichen assemblages surviving regionally.

There is a lack of detailed surveillance of lichen diversity on bogs and no advice on conserving lichen assemblages during bog restoration and the BLS feels that more research is required.

Response to the consultation

A1: Do you agree with the proposal to change the boundaries of the Regulations to LFA to protect more upland peatlands?

This is a much more accurately targeted proposal than the previous one of including all deeper peat in SACs and means that the impacted sites will nearly entirely be blanket bog peat. To achieve more accurate targeting, however, we suggest that the proposals are restricted to the Severely Disadvantaged LFAs, which is where the Blanket Bog peats are found.

Of particular concern to the BLS are the Lizard Heaths in Cornwall, including Goonhilly Downs SSSI and the West Lizard SSSI, which are in a Disadvantaged LFA. These have no areas of deep peat outside of very small valley mires and have internationally important heaths with outstanding lichen assemblages, where prescribed fire is absolutely vital in their conservation. The prescribed burning both encourages an important assemblage of fire dependant lichens but also aids in control of wild fire and the protection of a unique assemblage of fire sensitive serpentine rock lichens. The recent Lizard Species Recovery project included the revival of prescribed burns across this area. Initially this was not thought to be an issue as there is very little peat here, but the recently published England Peat Map https://england-peat-map-portal-ncea.hub.arcgis.com, created using AI, has hallucinated large areas of deep peat where they do not exist (remarkably estimating depths of over 150cm where only a few centimetres of humus exist). This suggests that, given the apparent unreliability of the England Peat Map outside of the Severely Disadvantaged LFAs the proposals are limited to the these, where it does appear to be impressively accurate, at least in Northern England.

A2: Please provide your thoughts, if any, on the proposal to remove protection from those SSSIs that fall outside of the LFA.

The earlier definition also covered lowland valley mire and fen peat, which have very different ecologies, and would now be excluded. In these habitats careful long rotation prescribed fire regimes can be an important feature in restoring and managing these habitats, for which there is no creditable alternative. As these were all SSSIs, any proposals for prescribed burning are already covered by consent mechanisms for SSSIs making previous licensing proposal an unnecessary extra step.

A3: Do you agree with the proposed change of the prohibition of burning on peat over 40cm deep to peat over 30cm deep?

For blanket bog peat we agree that this appears a sensible precautionary change.

A4: we have no views on question A4.

A5: Do you agree that ground (d) because the specified vegetation is inaccessible to mechanical cutting equipment and any other method of management is impracticable should be removed?

Yes the BLS agrees with this, ground (a) of the licencing (exceptions for the conservation, enhancement or management of the natural environment for the benefit of present and future generations) provides an adequate means to argue that burning is appropriate on a given site. We are concerned at the somewhat prejudicial language here, however, "burning should be a last resort, used only when more sustainable methods are not feasible". This implies that cool controlled burns are somehow uniquely damaging, which is not something we are aware is fully supported by the science (Davies et al, 2016, Harris et al., 2011 & Lee et al., 2013). In the case of lichens, mechanical cutting is not a substitute for prescribed burning as cutting results in the ground surfaces being buried in a layer of loose fine litter that inhibits lichen regowth. Cool burns remove this litter. We fully agree, however, that on deep peat the use of prescribed fire does need special control and licensing as it is potentially damaging if misapplied.

A6: Do you agree with adding 'research' as a ground to apply for a licence under the Regulations?

Yes, more data is clearly needed.

A7: Would you support a move to link the revised Heather & Grass Management Code to the Regulations, making it compulsory to follow rather than advisable?

A8: Would you support a move to make it a requirement to complete an accredited training course prior to burning under a licence granted under the Regulations?

Yes for both A7 & A8, prescribed burning has an important role to fulfil, especially beyond bogs, in biodiversity conservation and in the reduction of wild fire risks. For this we need better burning rather than no burning or less burning. Managed burns need to be carried out to the highest standards to increase public confidence in prescribed burning as a management tool or risk losing what support exists.

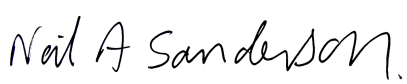
B & C We have no views on sections B & C.

D1: Do you have concerns about the impacts of burning on the environment?

The BLS is concerned that the positive role of burning in promoting biodiversity on moorland and heathland is not as widely appreciated as it should be. Negative attitudes that confuse the impact of either wild fire or badly executed burns with careful controlled burning are especially worrying. The BLS, does however, have concerns that habitats that are sensitive burning, such as large rock outcrops within moorland, can be negatively impacted by both wild fire or badly executed burns. To counter this better prescribed burning is required and the BLS fully supports licencing, education and research to this end.

D2: we have no views on question D2.

Yours sincerely, Neil A Sanderson



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