A consultation response by the

British Lichen Society (BLS)

THE FUTURE GRANT SUPPORT FOR FORESTRY CONSULTATION February 2023

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 lichen assemblages of Britain add significantly to the biodiversity of many British habitats and maintaining this diversity relies on appropriate management. Some of these assemblages are not only nationally important but of international significance. For example Britain retains a relatively high proportion of certain lichen assemblages that have undergone widespread declines in Europe through habitat loss, inappropriate management and pollution (see Sanderson *et al.* 2018[1]) namely those associated with:

- Temperate rainforest including coastal hazelwoods
- Old trees of open places (woodland pasture and parkland)
- Ancient woodlands in general (*including* woods in less oceanic areas such as sub-oceanic and boreal woodland, and including upland pasture woodlands)
- Non-montane heathland including coastal heath
- Coastal base-rich dunes, machair, and shingle
- Well-lit acid watercourses with stable rock outcrops and low silt loads
- Metal-rich (metalliferous) habitats

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.

The BLS is happy for this consultation response to be published or otherwise made available to any interested parties/the public. The BLS is happy to be contacted again in relation to this consultation response (andy.acton.esm@gmail.com).

Andy Acton, BLS Conservation Committee

Neil Sanderson, BLS President

[1] Sanderson, N.A., Wilkins, T.C., Bosanquet, S.D.S and Genney, .R. 2018. Guidelines for the Selection of Biological SSSIs Part 2: Detailed Guidelines for Habitats and Species Groups. Chapter 13 Lichens and associated microfungi. Joint Nature Conservation Committee, Peterborough.

Question 1

Do you agree that grant support for forestry should continue to be improved and developed as a discrete scheme within the overall package of land support?

- ☐ Yes
- ☐ No
- ☐ Not Sure

Please explain your answer in the text box.

QUESTION 1- **Yes**

Previous grant schemes have not adequately considered that some of the options they support have potentially negative implications on the lichen flora. This is important because lichens are key features of ancient semi-natural woodlands in Scotland, and the populations in Scotland are of national and international significance especially (but not only) in western Scotland.

Potential negative impacts largely relate to over-reliance on deer fenced exclosures to exclude all browsing (an unnatural situation), targets for very high levels of regeneration (well above levels necessary for ecological continuity of ancient woodland habitat) and inflexibility of schemes (e.g. fixed targets for regeneration and fixed term lengths for fences).

There have been some trials at woodland grazing schemes involving cattle which can help address these issues, and areas where regeneration has been secured by deer control (which is preferable to browsing exclusion), but most schemes rely on exclusion of browsing via large scale deer fencing.

Any future grant scheme should be developed and improved to take account of the requirements of lichens (see answer to question 2).

It is recognised that some schemes fail because of deer incursions early on in a scheme but it is not widely recognised that a major limitation (in terms of biodiversity and) of some previous schemes has been a requirement for abundant regeneration and fence maintenance/replacement with new fences beyond the point at which it is necessary to maintain ecological continuity for rich lichen floras. Some regeneration is necessary, but too much successful regeneration is damaging to rich lichen floras on old trees. Widespread thicket regeneration is poor for diversity and damaging to rich lichen floras, as is the increase in shade that leads to widespread infilling of woodland glades.

Flexibility and allowing for adaptive management should be built into schemes during the planning/proposal stages. This might be important to achieve biodiversity benefits/mitigate against biodiversity losses - for example reintroduction of stock *before* the typical lifetime of a scheme fence (c. 20 years) might be necessary (as determined by monitoring) to prevent shade threats to lichen floras and minimise the need for more interventionist techniques such as halo thinning/woodland restructuring.

Question 2

Are there any changes that would allow for better complementarity between the forestry and agriculture funding options?

- ☐ Yes
- ☐ No
- ☐ Not Sure

Please explain your answer in the text box.

QUESTION 2 - Yes See explanation below and the text box for question 1

Grazing/browsing

Conditions suitable for the development of diverse ancient woodland lichen floras arise under traditional grazing regimes. Some continued level of browsing is essential to maintain suitable woodland conditions for lichens.

The Scottish Forestry Implementation Plan (2022-25) aims to 'increase the biodiversity and health of all our woodland'. Lichens add significantly to the biodiversity of Scottish Woodlands. An essential feature of maintaining and increasing the biodiversity interest of our woodlands will be grant support for ***appropriate levels*** of browsing within wooded landscapes (ideally including woodland grazing by large herbivores such as cattle). Sustained very high browsing for long timescales is bad but so too is exclusion of browsing from large areas (e.g. via large scale deer fencing) for inappropriate timescales (significant negative impacts can potentially occur within 5-10 years of exclusion). Exclusion of browsing ('abandonment') is highly likely to lead to poor habitat conditions for rich lichen floras and actually reduce resilience and reduce biodiversity interest.

This will not only be likely to be detrimental to existing woodland lichens but potentially to other key woodland features such as bryophytes and glade-dependent butterflies).

Sufficient funding/support for appropriate woodland grazing would benefit the woodland lichen flora other woodland features such as glade-dependent butterflies, and farming. Appropriate monitoring would be required to ensure browsing levels are maintaining/establishing conditions appropriate for lichens.

To fully integrate woodland into rural landscapes we should not only rely on jobs created through management for timber (e.g. fencing and harvesting), but more jobs related to management of deer numbers at the landscape scale, utilisation of deer as a food source, and appropriate woodland stock management.

Monitoring woodland condition (including condition for lichens)

Given that browsing exclusion for 10 years can potentially be very damaging to rich lichen floras, use of fencing should be done only once the potential negative impacts have been considered, and if fencing is adopted used then *regular monitoring of conditions in key areas for lichens* (e.g. in ancient woodland including PAWs remnants) is essential; the means to address any issues highlighted by the monitoring is essential. Fences should only be a very temporary measure to secure a flush of regeneration. Any proposed deer fences designed to completely exclude browsing should be limited in extent and duration depending on the baseline monitoring.

Question 5

How could the current funding package be improved to stimulate woodland expansion and better management across a wide range of woodland types, including native and productive woodlands?

Please explain your answer in the text box.

Given the fragmented nature of our remaining ancient woodland, increasing resilience should include increasing habitat connectivity at the landscape scale, via restoration schemes that restore woodland in a lichen 'friendly' way that

1) Do *not* compromise interest on the existing woodlands/woodland fragments (as these will be our future lichen colonisation sources).

   and

2) Establishes suitable habitat for lichen colonisation at least in the vicinity of existing ancient woodland (diverse structured woodlands including significant areas with open canopy woodland and with glades, rather than widespread areas of dense thickets progressing to dense continuous high forest).

Ensuring 1) and 2) will require suitable guidance to applicants, appropriate advice/planning and crucially ongoing management. It is crucial that ongoing management is adaptive and guided by appropriate monitoring (i.e. of condition for key features such as lichen habitat, and not just herbivore impacts) and this should be grant supported. Ongoing management is likely to provide appropriate jobs and support local communities (see answer to question 2).

Question 6

Do you agree that it should be a requirement of grant support that woodlands are managed to ensure that they become more resilient to the impacts of climate change and pests and disease?

- ☐ Yes
- ☐ No
- ☐ Not Sure

How can the grant scheme support this?

Yes

This is important but it is also important to ensure that it is the full suite of ecological features of a woodland that we aim to ensure are resilient, not just the presence of trees. Appropriate management to ensure a resilient fully functioning ecosystem and resilience of the associated biodiversity is crucial. This should be guided by appropriate monitoring of woodland features that are important for the full suite of biodiversity including lichens and bryophyte. Condition for rich lichen and bryophyte floras is dependent on continuity of appropriate high quality, appropriately structurally diverse woodland, and restoration of high quality habitats, not just trees. Establishing resilient fully functioning ecosystems will require ongoing management

Resilience of functioning ecosystems

In order to ensure our internationally important lichen floras are as resilient as possible to threats such as climate change and pests/disease we need to manage our woodlands appropriately. Exclusion of browsing ('abandonment') is highly likely to lead to poor habitat conditions for rich lichen floras and actually reduce resilience and reduce biodiversity interest.

As per Given the fragmented nature of our remaining ancient woodland, increasing resilience should include increasing habitat connectivity at the landscape scale, via restoration schemes that restore woodland in a lichen 'friendly' way that

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Question 7

Which of the following measures would help reduce the barriers for crofters and farmers wanting to include woodland as part of their farming business? Please select all that apply.

Better integration of support for woodland creation with farm support mechanisms	☐
Knowing where to get reliable advice	☐
Clearer guidance on grant options	☐
Flexibility within options	☐
Intervention level	☐
Support with cashflow	☐
Information on how current land use could continue with trees integrated throughout	☐

Are there others not listed above?

Support for better integration, advice provision, clear guidance and information on continuation of current land use integrated with trees will all be very important.

Land abandonment is not good for lichens so the BLS strongly supports measures that support farmers wanting to include woodland as part of their business, and that this is done in an integrated way including options for expansion of high quality lichen habitat and how to manage this with low level grazing.

Grant options need to support appropriate levels of grazing ideally by large herbivores such as cattle. Support should include novel approaches (e.g. 'no fence collars' for cattle to minimise use of fences and allow for extensive grazing whilst still having effective control of stock movement.

Question 15

The primary purpose of FGS is to encourage forestry expansion and sustainable forest management, of which a key benefit is the realisation of environmental benefits. How can future grant support better help to address biodiversity loss in Scotland including the regeneration and expansion of native woodlands?

Please explain your answer in the text box.

The FGS could better help biodiversity loss by

- Ensuring all proposed expansion/management is dependent on following appropriate guidelines (e.g. ASR guidance in the rainforest zone, but similar guidance should be develop for other zones e.g. pinewoods, upland birchwoods),
- Ensuring all proposed schemes in sensitive areas (crucially including IPAs and not just limited to SSSIs) consider and assess the likely risks of any proposed restoration *techniques* and management on the *likely* conservation interest (including lichens and bryophytes in addition to the more obvious features such as birds and mammals). Obvious red flags should be raised where deer fences for example include areas of ancient woodland; in such instances an impact assessment is strongly recommended.
- Provides funding support for knowledge gaps (including specialist input where necessary to management plans and monitoring)
- Provides funding support for effective monitoring. Not just of the amount and extent of regeneration and of herbivore impacts but crucially monitoring of key woodland features that are important for the known *and* likely interest of a site (e.g. of woodland condition for lichens and bryophytes).
- Provides funding support for effective and timely implementation of mitigation.
- Provides support for stock grazing at appropriate levels to achieve significant biodiversity benefits in terms of woodland conditions for lichens (see answers to questions 2 and 7).
- Address BLS issues and concerns with current Forestry EIA regulations (2021) see below:

Issues and/concerns with current Forestry EIA Regulations (2021)

The Forestry EIA Regulations (2021) aims to ensure applicants have assessed suitability of the design and evaluated the positive and negative impacts of the proposal. A project is judged as not likely to have a *significant* effect if the affected area is below 20ha, *unless* the affected area is a *sensitive* area (defined in the Forestry EIA regulation as, for e.g. SSSI or National Park). The issues here are that:

1) Many sites of importance for lichens are *not* designated SSSIs or within a National Park,
2) Even if they are designated or within a National Park, the importance of the lichen flora at a site might not be recognised - for example, they might not be designated specifically for lichens (and yet the lichen flora may be of national/international importance).

The suggested thresholds above which assessment of impacts are required are thus, alone, insufficient to ensure the protection of our lichen flora. Inclusion of The Plantlife Important Plant Areas (IPAs) formally as one of the 'sensitive areas' would be one way to help address these issues. This would include for example the West Coast of Scotland Important Plant Area (IPA) which includes the rainforest zone.

It is recommended that as a minimum, clear unambiguous guidelines are adopted that ensure all proposed schemes (regardless of size or location) that are to be grant funded formally consider the following as a condition of funding:

1) With proposed schemes in 'sensitive areas' applicants need to apply for a formal opinion to see if consent is needed before work begins. It is recommended that any scheme affecting areas likely to support any biodiversity interest that is potentially sensitive to impacts of a scheme impacted (e.g. including old woodland lichen floras outwith recognised 'sensitive areas' such as SSSIs) and it is important this is considered at the outset of the whole process; presumably Forestry area staff would be the first point of call for an opinion to see if consent and more formal assessment is needed. For example ancient woodland remnants will be likely to harbour notable lichen interest. Relevant Forestry staff in area offices will need sufficient knowledge/training/resources to be able to make timely decisions on the applicants 'screening opinion request form' and know when to advise on whether specialist input would be likely to be required.
2) Ideally the current interest on site would also be directly assessed at least as a formal desk exercise, but in many cases this would be likely to require specialist input (bearing in mind information on this will in many cases be lacking for lichens and that absence of records is not evidence of absence so insufficient reason to not formally consider lichens).
3) Based on the precautionary principle it should be assumed that some key areas that do not appear to be included in the 'sensitive' under current Forestry EIA regulations are of high lichen interest in the absence of clear evidence to the contrary (e.g. ancient woodland remnants in the West Coast of Scotland IPA.
4) Funding for baseline desk and/or field surveys should be available to fill existing knowledge gaps and guide mitigation. In some cases the input of the landowner/manager may be sufficient, but in other cases ecologists would need to be consulted. The Alliance for the Scotland's Rainforest (in consultation with BLS) are currently developing guidelines on appropriate monitoring for restoration projects in the rainforest zone. It is important that appropriate monitoring is sufficiently grant funded, including the possibility of funding for specialists where required.

Question 16

Herbivore browsing and damage can have a significant impact on biodiversity loss and restrict regeneration. How could forestry grant support mechanisms evolve to ensure effective management of deer populations at:

Effective control of deer numbers at the landscape scale through culling is essential to minimise the reliance on deer fencing. Any grants for deer fencing should be clear about why they are required, be located appropriately (minimising inclusion of stands ancient woodland woodland) and crucially, the potential negative impacts of deer fencing on ancient woodland should be appropriately assessed (especially on lichens and bryophytes but also other features). This should include the likelihood of unintended impacts on features outwith the proposed fence (potentially deer welfare implications, and increased deer pressure in the absence of effective culling at the landscape scale).

Funding support for deer management groups, local training, increased deer stalking, local deer larders, distribution networks is desirable to facilitate control of deer numbers at the landscape scale.

Herbivore impact assessments are important but it is crucial that effective management of sites should not just rely solely on the results of herbivore impact assessments. In order to maintain/enhance the lichen interest the current site condition is also important, and an understanding of how particular browsing levels are impacting site condition. For example in the absence of preferred browsers such as cattle, deer can be a useful browsing tool to prevent/control excessive tree regeneration in ancient woodland.

Question 17

If you wish to make any other relevant comments, please do so in the text box below.

The introduction for section 5 (*Forest delivering for biodiversity and the environment)* considers the potential negative impact of deer fences on the landscape and some bird species but does not acknowledge the well-documented negative impact of deer fences on key features such as high quality lichen floras when they exclude browsing from ancient woodland. Given the national/international importance of the Scottish woodland lichen flora (not only in the rainforest but the pinewoods and upland birchwoods) and the potential negative impact of inappropriately sited deer fences the BLS feels this should be explicit from the outset in all discussion on the impact of fences, and impacts of fences should always be considered during the planning/proposal stage.

More generally, the BLS is concerned that lichen habitats and lichen species can be easily scoped out or not adequately considered during assessment of likely impacts of changes in land management due to inadequate consideration of ecologically important/notable habitats/species (e.g. Scottish Biodiversity List species) that are, for e.g., associated with:

1) Ancient woodland *outwith* the rainforest zone
2) Ancient Woodland outwith Natura/SAC sites
3) Ancient Woodland within SSSIs that are *not specifically* designated for lichens (but where lichen interest might nevertheless be very high)
4) Some saxicolous habitats in open ground habitats (e.g. calcareous schists)
5) *Lichen-rich* moorland/heathland (as per Sanderson *et al.*, 2018)
6) Coastal base-rich dunes, machair, and shingle habitats
7) Well-lit acid watercourses with stable rock outcrops and low silt loads

Lichen floras of international, national (Scottish), UK and regional importance.(including species that are threatened/vulnerable at these various scales) are associated with all of the above and any appropriate assessment needs to carefully consider these and, if they are scoped out, provide adequate reasons why.