



BLANKET BOG

INTERPRET RESULTS

6A



Aim

This guide explains how to interpret results for Blanket bog* and Blanket Bog Analysis** and to guide actions in the context of deer management objectives.

The effects of different impact levels

The table below summarises the likely effects of different levels of impact. Further details can be found in the Guide to Upland Habitats¹.

Trampling impacts are often higher than browsing impacts in blanket bog, as herbivores may use it more for access than for feeding.

Blanket bog browsing and trampling impacts

Impact	Effects
HIGH	Reduction in vegetation height; reduction in typical bog species; increase in non-typical species; damage to pool edges; increase in bare peat, risk of peat erosion and evidence of trampling. Probable reduction in heather size and cover over time leading to a reduction in the food available to deer or livestock, particularly in winter.
MEDIUM	Some reduction in bog moss and other typical species; some increase in non-typical species; moderate risk of erosion, over longer timescales than when impacts are High. Probably some reduction in heather size and cover over time leading to a reduction in the food available to deer or livestock, particularly in winter.
LOW	Unrestricted growth of typical species; diverse structure; low risk of erosion; bare peat may revegetate. Where bog surfaces have been dried out (e.g. by drainage) undesirable species (trees, scrub) may spread.

Browsing impacts on Blanket Bog

Impact	Interpretation	Possible management actions
HIGH, HIGH/MED or MEDIUM	Heather provides the main indicator of browsing. Loss or high impacts on heather will result in other negative impacts to the habitat which is not acceptable. Blaeberry is usually browsed at different times, it may be more tolerant of impact. If it replaces heather in many plots, allow for this in management.	Identify which herbivores may be causing impacts. Examine whether impacts can be reduced by changing stocking levels, grazing timing, or culling as appropriate. Watch out for other impacts such as a shrinking bog moss cover, or reduction in heather height. Monitor % browsing and other indicators in subsequent HIA cycles to check the need for further adjustments to management.
LOW or LOW/MEDIUM	Heather plants often increase in size and cover under light grazing conditions.	Blanket bogs should be wet and therefore heather growth may be stunted. A diverse dwarf shrub structure is desirable, but increasing tree or shrub cover will dry out the bog so balance is required.

Trampling Impacts on Blanket Bog habitat

Impact	Interpretation	Possible management actions
HIGH, HIGH/MEDIUM or MEDIUM	Bare peat is not resilient to trampling or erosion, which can lead to drying or peat loss with gullying or haggling. High impacts put peatland restoration at risk.	Identify which herbivores are causing impacts and whether impacts can be reduced by changing stocking levels, grazing timing, or culling. Other indicators, e.g. bog moss and bare peat cover may be giving cause for concern. Check 'plot attributes' and 'comments' for other significant. Monitor HIAs to check the need for adjustments to management.
LOW or LOW/MEDIUM	Blanket bog should be stable or (under low impacts), recovering. If the cover of bare ground or bog moss is stable or increasing, go to a), if not then go to b).	a) Adjust herbivore management according to whether 'stable' or 'recovery' is desired. Consider undertaking peatland restoration. b) If bare peat is increasing or bog moss decreasing, check what else might be causing the decline. Consider peatland restoration, but be aware of the risks if decline is ongoing.

Blanket bog – additional information

Additional information	Effects and Interpretation
Changes in bare peat cover	An increase suggests loss of habitat condition and risk of erosion, trampling, or other factors, may be too high. A decrease means revegetation, improving condition and suitable management and other factors. Comparing bare peat and trampling assessments will clarify the role of trampling.
Changes in bog moss cover	A decrease suggests deterioration. Comparing cover and trampling results may suggest the cause. An increase suggests improving condition. This occurs most readily where moss is abundant, slow where it is sparse, or not occur at all where it has been absent. If the water table is low, restoration may help.
Presence of herbivores	Knowledge of herbivore distribution and site use can aid interpretation. Different herbivores have different weights and hoof-types, factors that have a strong influence on the type and severity of impacts.
Dwarf-shrub height change	Growth is limited by factors such as exposure, waterlogging, or burning, but decreasing or long-term stable heather height may indicate high browsing pressure. A comparison with results for the browsing assessment may suggest the cause.
Burning	Knowledge of burning on a site can aid interpretation of herbivore impacts and how they use the site. The Muirburn Code ² states that burning should not be carried out on peatland.

Trends to note and inform deer management (in addition to main HML results)

Impact	Trends
Height of dwarf-shrubs	Between assessments, note changes in the average dwarf-shrub height for each plot. A 'change' is an increase or decrease of more than 2cm in the average height per plot. Count the number and type of changes across the management unit.
Dwarf-shrub cover	Between assessments note changes in the cover of heather and other dwarf-shrubs. A 'change' is an increase or decrease of two or more quadrats in a plot. Count the number and type of changes across the management unit.
Presence of bare peat	Note changes between assessments. A 'change' is an increase or decrease in bare peat of two or more quadrats in a plot. Count the number and type of changes across the management unit.
Hoof prints in bare peat	Note changes between assessments. A 'change' is an increase or decrease in the number of quadrats with hoof prints in a plot. Count the number and type of changes across the management unit.
Presence of bog mosses <i>Sphagnum</i>	Note changes between assessments. A 'change' is an increase or decrease of two or more quadrats in the amount of bog moss in a plot. Count the number and type of changes across the management unit. This should also include trampling on <i>Sphagnum</i> moss. this is mentioned above and should be included in the trend information as this will pick up trampling issues before they become excessive resulting in bare peat.

* Blanket Bog
** Blanket Bog Analysis

¹ Guide to Upland Habitats, Surveying Land Management Impacts. Angus Macdonald, Penny Stevens, Helen Armstrong, Philip Immirzi and P Reynolds. Scottish Natural Heritage.

² Muirburn Code <https://www.nature.scot/doc/guidance-muirburn-code>