European Community Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (92/43/EEC)

Fourth Report by the United Kingdom under Article 17

on the implementation of the Directive
from January 2013 to December 2018

Supporting documentation for the
conservation status assessment for the habitat:

H6150 - Siliceous alpine and boreal grasslands

ENGLAND

IMPORTANT NOTE - PLEASE READ

- The information in this document is a country-level contribution to the UK Report on the conservation status of this habitat, submitted to the European Commission as part of the 2019 UK Reporting under Article 17 of the EU Habitats Directive.
- The 2019 Article 17 UK Approach document provides details on how this supporting information was used to produce the UK Report.
- The UK Report on the conservation status of this habitat is provided in a separate document.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Explanatory notes (where provided) by the country are included at the end. These provide an audit trail of relevant supporting information.
- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; and/or (iii) the field was only relevant at UK-level (sections 10 Future prospects and 11 Conclusions).
- For technical reasons, the country-level future trends for Range, Area covered by habitat and Structure and functions are only available in a separate spreadsheet that contains all the country-level supporting information.
- The country-level reporting information for all habitats and species is also available in spreadsheet format.

Visit the JNCC website, https://jncc.gov.uk/article17, for further information on UK Article 17 reporting.

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

NATIONAL LEVEL

1. General information

1.1 Member State	**UK (England information only)**
1.2 Habitat code	**6150 - Siliceous alpine and boreal grasslands**

2. Maps

2.1 Year or period	2007-2018
2.3 Distribution map	Yes
2.3 Distribution map Method used	Based mainly on extrapolation from a limited amount of data
2.4 Additional maps	No

BIOGEOGRAPHICAL LEVEL

3. Biogeographical and marine regions

3.1 Biogeographical or marine region where the habitat occurs	**Atlantic (ATL)**
3.2 Sources of information	BACKSHALL, J., MANLEY, J., REBANE, M. 2001. Chapter 5: Montane areas. In: The Upland Management Handbook. English Nature, Peterborough. CUMBRIA BIOLOGICAL DATA NETWORK. 2010. Montane Habitats. http://www.lakelandwildlife.co.uk/biodiversity/pdfs/Montane habitats 100121 finished.pdf HORSFIELD, D. 2010. UK BAP PRIORITY HABITAT ACTION PLAN: Mountain heaths and willow scrub. Scottish Natural Heritage (Produced on behalf of UK BAP Upland Group). JONES, M.L.M., OXLEY, E.R.B & ASHENDEN, T.W. 2002. The influence of nitrogen deposition, competition and desiccation on growth and regeneration of Racomitrium lanuginosum (Hedw.) Brid. Environmental Pollution, 120, 371-378. UKREATE. 2010. The impacts of acid and nitrogen deposition on montane heath. DEFRA. Http://ukreate.defra.gov.uk/PDFs/Leaflets/Montane.pdf VAN DER WAL, R., BONN,A., MONTEITH,D., REED, M., BLACKSTOCK, K., HANLEY,N., THOMPSON,D., EVANS,M., ALONSO,I., ALLOTT,T., ARMITAGE,H., BEHARRY,N., GLASS,J., JOHNSON,S., McMORROW,J., ROSS,L., PAKEMAN,R., PERRY,S & TINCH,D. 2011. Chapter 5: Mountains, Moorlands and Heaths pp105-116. In: The UK National Ecosystem Assessment technical Report.

4. Range

4.1 Surface area (in km²)		
4.2 Short-term trend Period		
4.3 Short-term trend Direction	Stable (0)	
4.4 Short-term trend Magnitude	a) Minimum	b) Maximum
4.5 Short-term trend Method used		
4.6 Long-term trend Period		
4.7 Long-term trend Direction		
4.8 Long-term trend Magnitude	a) Minimum	b) Maximum
4.9 Long-term trend Method used		
4.10 Favourable reference range	a) Area (km²)	
	b) Operator	
	c) Unknown	No
	d) Method	

4.11 Change and reason for change in surface area of range	No change The change is mainly due to:
4.12 Additional information	

5. Area covered by habitat

5.1 Year or period	2018-018-			
5.2 Surface area (in km²)	a) Minimum	b) Maximum	c) Best single value	10.78
5.3 Type of estimate	Best estimate			
5.4 Surface area Method used	Based mainly on extrapolation from a limited amount of data			
5.5 Short-term trend Period	2007-2018			
5.6 Short-term trend Direction	Stable (0)			
5.7 Short-term trend Magnitude	a) Minimum	b) Maximum	c) Confidence interval	
5.8 Short-term trend Method used	Based mainly on extrapolation from a limited amount of data			
5.9 Long-term trend Period				
5.10 Long-term trend Direction				
5.11 Long-term trend Magnitude	a) Minimum	b) Maximum	c) Confidence interval	
5.12 Long-term trend Method used				
5.13 Favourable reference area	a) Area (km²) b) Operator c) Unknown No d) Method			
5.14 Change and reason for change in surface area of range	No change The change is mainly due to:			
5.15 Additional information				

6. Structure and functions

6.1 Condition of habitat	a) Area in good condition (km²)	Minimum	0.17	Maximum	0.17
	b) Area in not-good condition (km²)	Minimum	6.1	Maximum	6.1
	c) Area where condition is not known (km²)	Minimum	3.95	Maximum	3.95
6.2 Condition of habitat Method used	Based mainly on expert opinion with very limited data				
6.3 Short-term trend of habitat area in good condition Period	2007-2018				
6.4 Short-term trend of habitat area in good condition Direction	Stable (0)				
6.5 Short-term trend of habitat area in good condition Method used	Based mainly on expert opinion with very limited data				
6.6 Typical species	Has the list of typical species changed in comparison to the previous reporting period?				No
6.7 Typical species Method used					

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6.8 Additional information

7. Main pressures and threats

7.1 Characterisation of pressures/threats

Pressure	Ranking
Intensive grazing or overgrazing by livestock (A09)	H
Mixed source air pollution, air-borne pollutants (J03)	M
Sports, tourism and leisure activities (F07)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Burning for agriculture (A11)	M
Temperature changes (e.g. rise of temperature & extremes) due to climate change (N01)	M
Change of habitat location, size, and / or quality due to climate change (N05)	M

Threat	Ranking
Intensive grazing or overgrazing by livestock (A09)	H
Mixed source air pollution, air-borne pollutants (J03)	H
Sports, tourism and leisure activities (F07)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Burning for agriculture (A11)	M
Temperature changes (e.g. rise of temperature & extremes) due to climate change (N01)	H
Change of habitat location, size, and / or quality due to climate change (N05)	H

7.2 Sources of information

7.3 Additional information

8. Conservation measures

8.1 Status of measures	a) Are measures needed?	Yes
	b) Indicate the status of measures	Measures identified and taken
8.2 Main purpose of the measures taken		Restore the habitat of the species (related to 'Habitat for the species')
8.3 Location of the measures taken		Both inside and outside Natura 2000
8.4 Response to the measures		Medium-term results (within the next two reporting periods, 2019-2030)

8.5 List of main conservation measures

Adapt mowing, grazing and other equivalent agricultural activities (CA05)
Reduce impact of mixed source pollution (CJ01)
Reduce impact of outdoor sports, leisure and recreational activities (CF03)
Reduce impact of transport operation and infrastructure (CE01)

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Implement climate change adaptation measures (CN02)

8.6 Additional information

9. Future prospects

9.1 Future prospects of parameters	a) Range b) Area c) Structure and functions
9.2 Additional information	

10. Conclusions

10.1. Range	
10.2. Area	
10.3. Specific structure and functions (incl. typical species)	
10.4. Future prospects	
10.5 Overall assessment of Conservation Status	
10.6 Overall trend in Conservation Status	
10.7 Change and reasons for change in conservation status and conservation status trend	a) Overall assessment of conservation status No change The change is mainly due to: b) Overall trend in conservation status No change The change is mainly due to:
10.8 Additional information	

11. Natura 2000 (pSCIs, SCIs, SACs) coverage for Annex I habitat types

11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network (in km² in biogeographical/ marine region)	a) Minimum b) Maximum c) Best single value 7.83
11.2 Type of estimate	Best estimate
11.3 Surface area of the habitat type inside the network Method used	Based mainly on extrapolation from a limited amount of data
11.4 Short-term trend of habitat area in good condition within the network Direction	Stable (0)
11.5 Short-term trend of habitat area in good condition within network Method used	Based mainly on expert opinion with very limited data
11.6 Additional information	

12. Complementary information

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12.1 Justification of % thresholds for trends

12.2 Other relevant information

Distribution Map

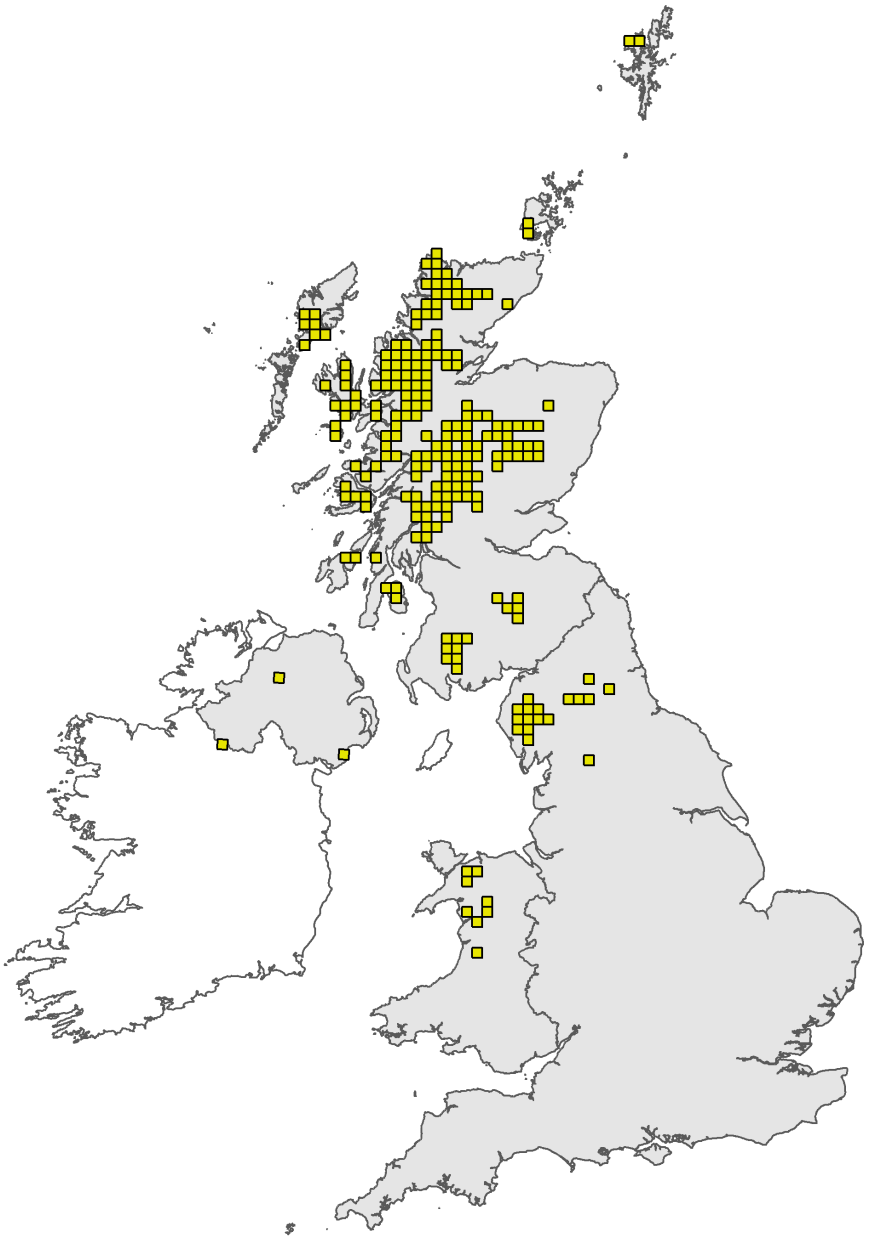

Figure 1: UK distribution map for H6150 - Siliceous alpine and boreal grasslands. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The 10km grid square distribution map is based on available habitat records which are considered to be representative of the distribution within the current reporting period. For further details see the 2019 Article17 UK Approach document.

Range Map

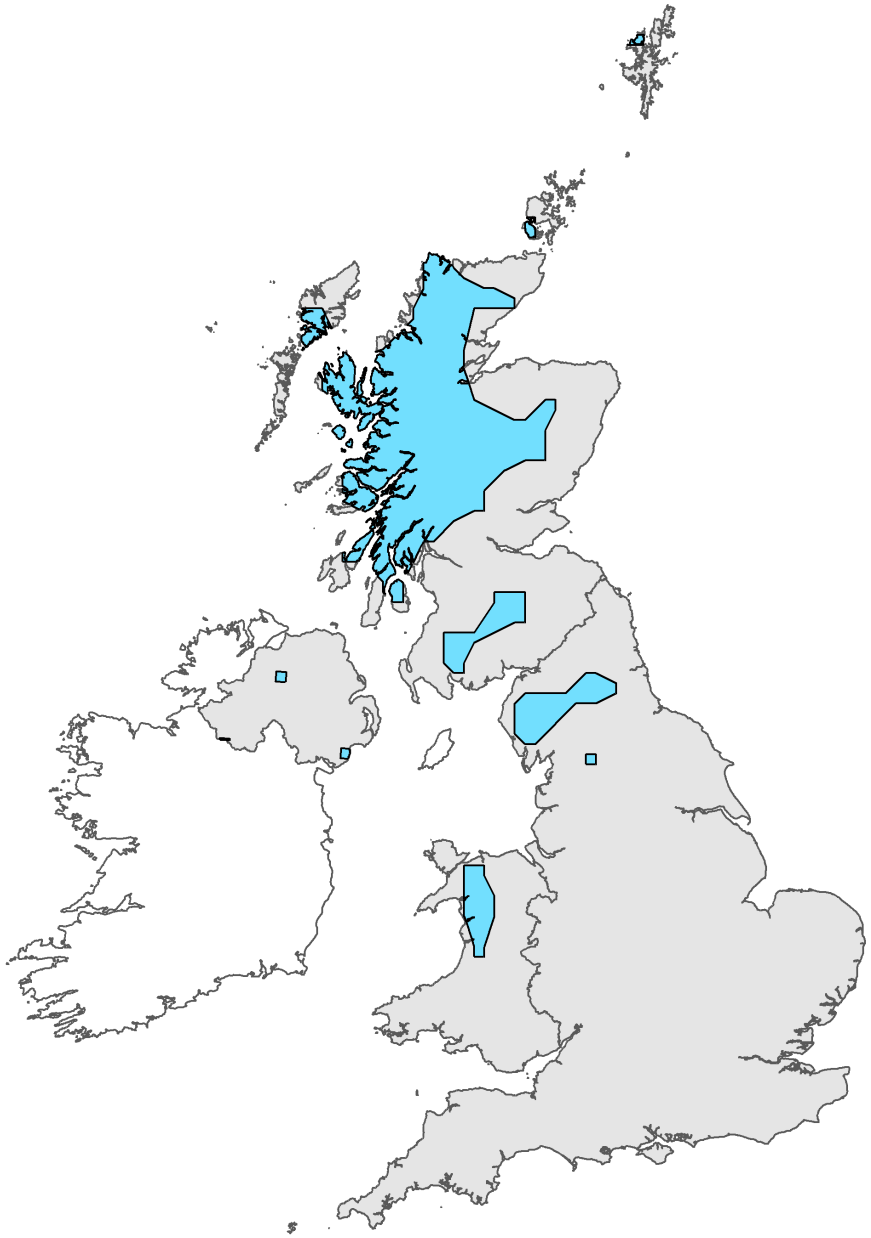

Figure 2: UK range map for H6150 - Siliceous alpine and boreal grasslands. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The range map has been produced by applying a bespoke range mapping tool for Article 17 reporting (produced by JNCC) to the 10km grid square distribution map presented in Figure 1. The alpha value for this habitat was 25km. For further details see the 2019 Article 17 UK Approach document.

Explanatory Notes

Habitat code: 6150

Field label	Note
2.2 Distribution map	2013 UK Habitat Reporting Data

Habitat code: 6150 Region code: ATL

Field label	Note
4.1 Surface area	Data from 2012 used.
4.3 Short term trend; Direction	Based on agri-environment agreement being in place.
5.2 Surface area	Using data produced for 2012 reporting. No additional data from that date
6.1 Condition of habitat	Condition reported by number of units not area. Only 6 out of 41 units assessed since 2012. Personal communication from S. Webb (NE, Cumbria) indicates that over-grazing remains a negative pressure upon the alpine habitats in the Lake District despite sites being in management agreements.
8.1 Status of measures	Grazing is the one measure that can be enacted at site level. Over-grazing is reported to be occuring still so measure will be reviewd when the management agreement is reviewed.
8.4 Response to the measures	It appears to be the case that whilst management agreements in place that vegetation response is very slow (over-grazing still occuring in places) and it remians uncertain as to whether further interventions will be required in order to see improvements over the short-to-medium timescale.
9.1 Future prospects of parameters	Unknown as uncertainty in terms of vegetation response, climate changes and changes in agricultural practice that may occur following exit from European Union.