# 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:

**H4060 - Alpine and Boreal heaths** 

**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	4060 - Alpine and Boreal heaths

#### 2. Maps

2.1 Year or period	2007-2018
2.2 Distribution man	Voc

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

#### **BIOGEOGRAPHICAL LEVEL**

#### 3. Biogeographical and marine regions

3.1 Biogeographical or marine region where the habitat occurs

3.2 Sources of information

#### Atlantic (ATL)

BACKSHALL, J., MANLEY, J., REBANE, M. 2001. Chapter 5: Montane areas. In: The Upland Management Handbook. English Nature, Peterborough.

BRITTON, A.J. & FISHER, J.F. 2007. Interactive effects of nitrogen deposition, fire and grazing on diversity and composition of low-alpine prostrate Calluna vulgaris heathland. Journal of Applied Ecology 44, 125-135.

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, 371-378TURAL ENGLAND. 2008. Chapter 3.4 Heathland. In: State of the Natural Environment 2008. Natural England.

PEARCE,I. S.K., WOODIN, J and VAN DER WAL, R. 2003. Physiological and growth responses of the montane bryophyte Racomitrium lanuginosum to atmospheric nitrogen deposition. New Phytologist, 160, Issue 1, pp 145-155.

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 pp105116. In: The UK National Ecosystem Assessment technical Report. UK National Ecosystem Assessment, UNEP-WCMC, Cambridge.

#### 4. Range

- 4.1 Surface area (in km²)
- 4.2 Short-term trend Period
- 4.3 Short-term trend Direction
- 4.4 Short-term trend Magnitude

Stable (0)

a) Minimum

b) Maximum

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

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 4.9 Long-term trend Method used 4.10 Favourable reference range

a) Minimum

b) Maximum

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 5.2 Surface area (in km²) 2007-2018

a) Minimum

b) Maximum

c) Best single 12.32

value

5.3 Type of estimate

5.4 Surface area Method used

5.5 Short-term trend Period

5.6 Short-term trend Direction

5.7 Short-term trend Magnitude

Best estimate

Based mainly on extrapolation from a limited amount of data

2007-2018

Stable (0)

a) Minimum

b) Maximum

Based mainly on extrapolation from a limited amount of data

c) Confidence

interval

5.8 Short-term trend Method used

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

d) Method

No change

5.14 Change and reason for change in surface area of range

The change is mainly due to:

No

5.15 Additional information

#### 6. Structure and functions

6.1 Condition of habitat

a) Area in good condition

Minimum 1.08

Maximum 1.08

Minimum 11.24

Maximum 11.34

condition (km<sup>2</sup>)

not known (km²)

b) Area in not-good

c) Area where condition is

Minimum 0

Maximum 0

6.2 Condition of habitat Method used

Based mainly on extrapolation from a limited amount of data

3

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

6.3 Short-term trend of habitat area in good condition Period
6.4 Short-term trend of habitat area in good condition Direction
6.5 Short-term trend of habitat area in good condition Method used
6.6 Typical species
6.7 Typical species Method used

2007-2018

Stable (0)

Based mainly on expert opinion with very limited data

Has the list of typical species changed in comparison to the previous No. reporting period?

#### 7. Main pressures and threats

#### 7.1 Characterisation of pressures/threats

6.8 Additional information

Pressure	Ranking
Intensive grazing or overgrazing by livestock (A09)	Н
Mixed source air pollution, air-borne pollutants (J03)	Н
Burning for agriculture (A11)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Other climate related changes in abiotic conditions (N09)	M
Change of habitat location, size, and / or quality due to climate change (N05)	M
Sports, tourism and leisure activities (F07)	Н
Threat	Ranking
Intensive grazing or overgrazing by livestock (A09)	M
Mixed source air pollution, air-borne pollutants (J03)	Н
Burning for agriculture (A11)	M
	141
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
bridges, viaducts, tunnels) (E01)	M

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 nex	kt two reporting periods, 2019-2030)

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

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 transport operation and infrastructure (CE01)

Adopt climate change mitigation measures (CN01)

Reduce impact of outdoor sports, leisure and recreational activities (CF03)

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)

11.2 Type of estimate

11.3 Surface area of the habitat type inside the network Method used

11.4 Short-term trend of habitat area in good condition within the network Direction

a) Minimum

b) Maximum

c) Best single value 8.37

Best estimate

Based mainly on extrapolation from a limited amount of data

Stable (0)

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

11.5 Short-term trend of habitat area in good condition within network Method used

11.6 Additional information

Based mainly on extrapolation from a limited amount of data

#### 12. Complementary information

12.1 Justification of % thresholds for trends

12.2 Other relevant information

## **Distribution Map**

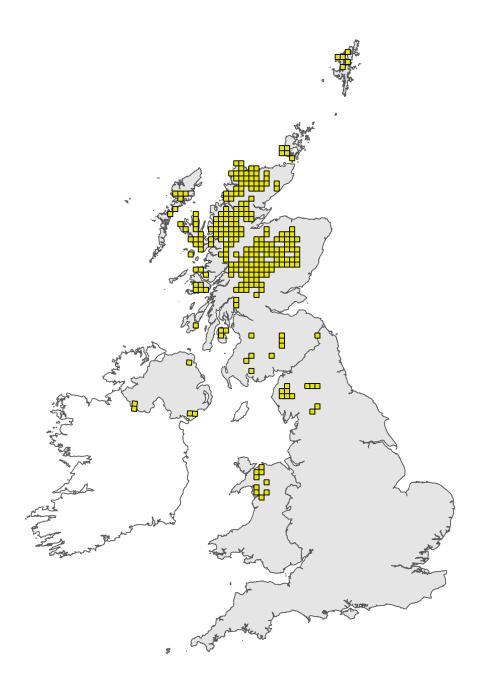


Figure 1: UK distribution map for H4060 - Alpine and Boreal heaths. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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

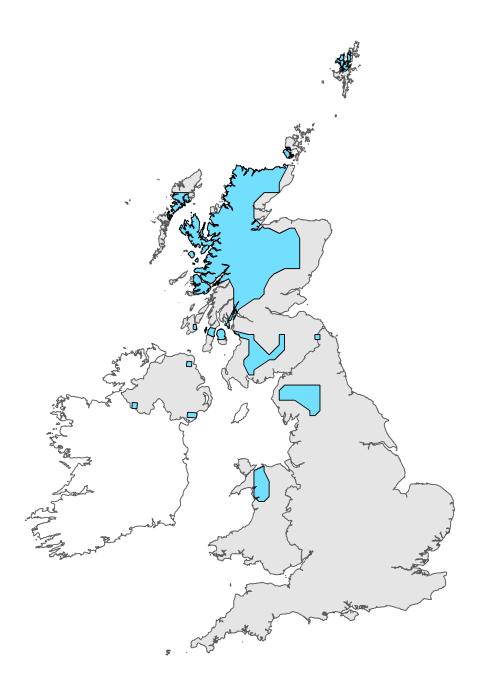


Figure 2: UK range map for H4060 - Alpine and Boreal heaths. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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: 4060	
Field label	Note
2.2 Distribution map	2013 UK Habitat Reporting data
Habitat code: 4060 Region cod	le: ATL
Field label	Note
5.13 Favourable reference area	Area of habitat in 2012 estimated to be 12.32 km2. There is no evidence to indicate that this has changed.
6.1 Condition of habitat	Personnel communication from Simon Webb (NE, Cumbria) is that alpine heaths/grasslands still suffering effects of over-grazing, for this reason, condition is recorded as slight decrease.
6.1 Condition of habitat	Condition figures same as 2012 report as no new data available.
6.1 Condition of habitat	Condition is reported in numbers of units rather than area. 1 unit = Favourable, 31 units = unfavourable recovering, 3 units = unfavourable no change and 1 unit = unassessed. No date is given for condition assessment visits.
8.1 Status of measures	Main threat is over-grazing and area in agri-environment agreement but further reductions in stocking density required.
8.3 Location of the measures taken	Total resource thought to be within designated site (SSSIs)
9.1 Future prospects of parameters	Alpine habitats likely to be impacted by climate shifts but recorded as unknown for time being due to lack of data.