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

Conservation status assessment for the habitat:

H5130 - *Juniperus communis* formations on heaths or calcareous grasslands

UNITED KINGDOM

IMPORTANT NOTE - PLEASE READ

- The information in this document represents 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.
- It is based on supporting information provided by the geographically-relevant Statutory Nature Conservation Bodies, which is documented separately.
- The 2019 Article 17 UK Approach document provides details on how this supporting information contributed to the UK Report and the fields that were completed for each parameter.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Maps showing the distribution and range of the habitat are included (where available).
- Explanatory notes (where provided) are included at the end. These provide additional audit trail information to that included within the UK assessments. Further underpinning explanatory notes are available in the related country-level and/or UK offshore-level reports.
- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; and/or (ii) completion of the field was not obligatory.
- The UK-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**
1.2 Habitat code	**5130 - Juniperus communis formations on heaths or calcareous grasslands**

2. Maps

2.1 Year or period	2003-2017
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	England http://www.plantlife.org.uk/application/files/7614/8958/6210/JUNIPER_DOSSIER_13_2_17_CS.pdf Broome, A., Long, D., Ward, L.K., Park, K.J. 2017 Promoting natural regeneration for the restoration of Juniperus communis: a synthesis of knowledge and evidence for conservation practitioners. Applied Vegetation Science Vol 20 Issue 3 Condition of Juniper based on personal communication with site managers in North East England Scotland References within - http://jncc.defra.gov.uk/pdf/Article17Consult_20131010/H5130_SCOTLAND.pdf SNH SCM database, extract A2298772, 2017, processed and summarised in A2498679. Juniper heath and scrub (upland) feature type (JNCC, (2009), Common Standards Monitoring Guidance for Upland Habitats, Version July 2009 and previous versions) http://jncc.defra.gov.uk/page-2237 Wales Bunch, N., Cheffings, C., & Robinson, A. 2016 Decision-making guidance for managing Phytophthora infections in Vaccinium myrtillus populations JNCC Report No: 578 Defra 2014 Tree Health Management Plan Dines, T.D. & Daniels, A. (2006) Wales Juniper Inventory - An inventory of Juniper sites in Wales and an assessment of populations in Snowdonia Species Challenge Fund Report, Plantlife, UK Forestry Commission. 2012. Phytophthora austrocedrae on juniper factsheet. Forestry Commission. 2016. Distribution of confirmed infection of Phytophthora austrocedrae map. Guest, D. 2012. H5130 Juniperus communis formations on heaths or calcareous grasslands: Definitions adopted for mapping on calcareous sites in lowland Wales. CCW Internal Document. Guest, D. 2012. Assessing N deposition as a pressure for Article 17 reporting on habitats. CCW HQ internal document. Mallik, A.U. & Gimingham, C.H., 1983. Regeneration of heathland plants

following burning. Vegetatio, 53: 45-58.
NRW. 2017 Actions Database. NRW internal database.
Thomas, P.A., El-Barghathi, M. & Polwart, A., 2007. Biological Flora of the British Isles: Juniperus communis L. Journal of Ecology, 95(6): 1404-1440.
Turner, A. 2012. Assessment of the status of vegetation with Juniperus communis in the Cwm Bychan and Moel Meirch areas. CCW Internal Document.
Underhill-Day, J. C. 2005 A literature review of urban effects on lowland heaths and their wildlife J C Underhill-Day. RSPB. English Nature Research Reports Number 623.
Ward, L.K., & Lakhani, K.H., 1977. The conservation of juniper: the fauna of food plant island sites in southern England. Journal of Applied Ecology, 14, 121-135.
Welsh Government. 2015. Improving opportunities to access the outdoors for responsible recreation. Consultation Document WG 25568.

4. Range

4.1 Surface area (in km²)	13731.34	
4.2 Short-term trend Period	2007-2018	
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	Based mainly on extrapolation from a limited amount of data	
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	Yes
	d) Method	The FRR is unknown. The approach taken to set the FRR is explained in the 2007 and 2013 UK Article 17 habitat reports (see http://jncc.defra.gov.uk/page-4064 and http://jncc.defra.gov.uk/page-6563).
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	2000-2017			
5.2 Surface area (in km²)	a) Minimum	b) Maximum	c) Best single value	29.01
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				

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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)	29.01	
	b) Operator		
	c) Unknown	Yes	
	d) Method	The FRA is approximately equal to the current area. The FRA value has been updated to take account of improved information on the habitat area. The approach taken to set the FRA is explained in the 2007 and 2013 UK Article 17 habitat reports (see http://jncc.defra.gov.uk/page-4064 and http://jncc.defra.gov.uk/page-6563).	
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	9.36	Maximum	9.36
	b) Area in not-good condition (km²)	Minimum	3.43	Maximum	3.43
	c) Area where condition is not known (km²)	Minimum	11.22	Maximum	21.22
6.2 Condition of habitat Method used	Based mainly on extrapolation from a limited amount of data				
6.3 Short-term trend of habitat area in good condition Period	2002-2018				
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 extrapolation from a limited amount of 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					
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
Extensive grazing or undergrazing by livestock (A10)	M
Burning for agriculture (A11)	M
Management of fishing stocks and game (G08)	H
Problematic native species (I04)	M
Plant and animal diseases, pathogens and pests (I05)	H

Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02)	M
Increases or changes in precipitation due to climate change (N03)	M

Threat	Ranking
Intensive grazing or overgrazing by livestock (A09)	H
Extensive grazing or undergrazing by livestock (A10)	M
Burning for agriculture (A11)	M
Management of fishing stocks and game (G08)	H
Problematic native species (I04)	M
Plant and animal diseases, pathogens and pests (I05)	H
Natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices) (L02)	M
Increases or changes in precipitation due to climate change (N03)	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		Increase the population size and/or improve population dynamics (improve reproduction success, reduce mortality, improve age/sex structure) (related to 'Population')
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)
Prevent conversion of (semi-) natural habitats into forests and of (semi-)natural forests into intensive forest plantation (CB01)
Manage drainage and irrigation operations and infrastructures (CB14)
Management of hunting, recreational fishing and recreational or commercial harvesting or collection of plants (CG02)
Reducing the impact of (re-) stocking for fishing and hunting, of artificial feeding and predator control (CG03)
Management of problematic native species (CI05)
Other measures related to problematic species (CI06)
Management of habitats (others than agriculture and forest) to slow, stop or reverse natural processes (CL01)
Other measures related to natural processes (CL04)
Implement climate change adaptation measures (CN02)

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8.6 Additional information

9. Future prospects

9.1 Future prospects of parameters	a) Range	Unknown
	b) Area	Poor
	c) Structure and functions	Bad
9.2 Additional information	Future trend of Range is Overall stable; Future trend of Area is Negative - decreasing <=1% (one percent or less) per year on average; and Future trend of Structure and functions is Negative - decreasing <=1% (one percent or less) per year on average	

10. Conclusions

10.1. Range	Unknown (XX)
10.2. Area	Favourable (FV)
10.3. Specific structure and functions (incl. typical species)	Unfavourable - Bad (U2)
10.4. Future prospects	Unfavourable - Bad (U2)
10.5 Overall assessment of Conservation Status	Unfavourable - Bad (U2)
10.6 Overall trend in Conservation Status	Stable (=)
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	Conclusion on Range reached because: (i) the short-term trend direction in Range surface area is stable; and (ii) the Favourable Reference Range is unknown. Conclusion on Area covered by habitat reached because: (i) the short-term trend direction in Area is stable; and (ii) the current Area is approximately equal to the Favourable Reference Area. Conclusion on Structure and functions reached because habitat condition data indicates that more than 25% of the habitat is in unfavourable (not good) condition. Conclusion on Future prospects reached because: (i) the Future prospects for Range are unknown; (ii) the Future prospects for Area covered by habitat are poor; and (iii) the Future prospects for Structure and functions are bad. Overall assessment of Conservation Status is Unfavourable-bad because one or more of the conclusions is Unfavourable-bad. Overall trend in Conservation Status is based on the combination of the short-term trends for Range - stable, Area covered by habitat - decreasing, and Structure and functions - stable. If negative future trends for Area and Structure and functions are also taken into account, the Overall trend would be deteriorating.

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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 13.43
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 extrapolation from a limited amount of data
11.6 Additional information	

12. Complementary information

12.1 Justification of % thresholds for trends	
12.2 Other relevant information	

Distribution Map

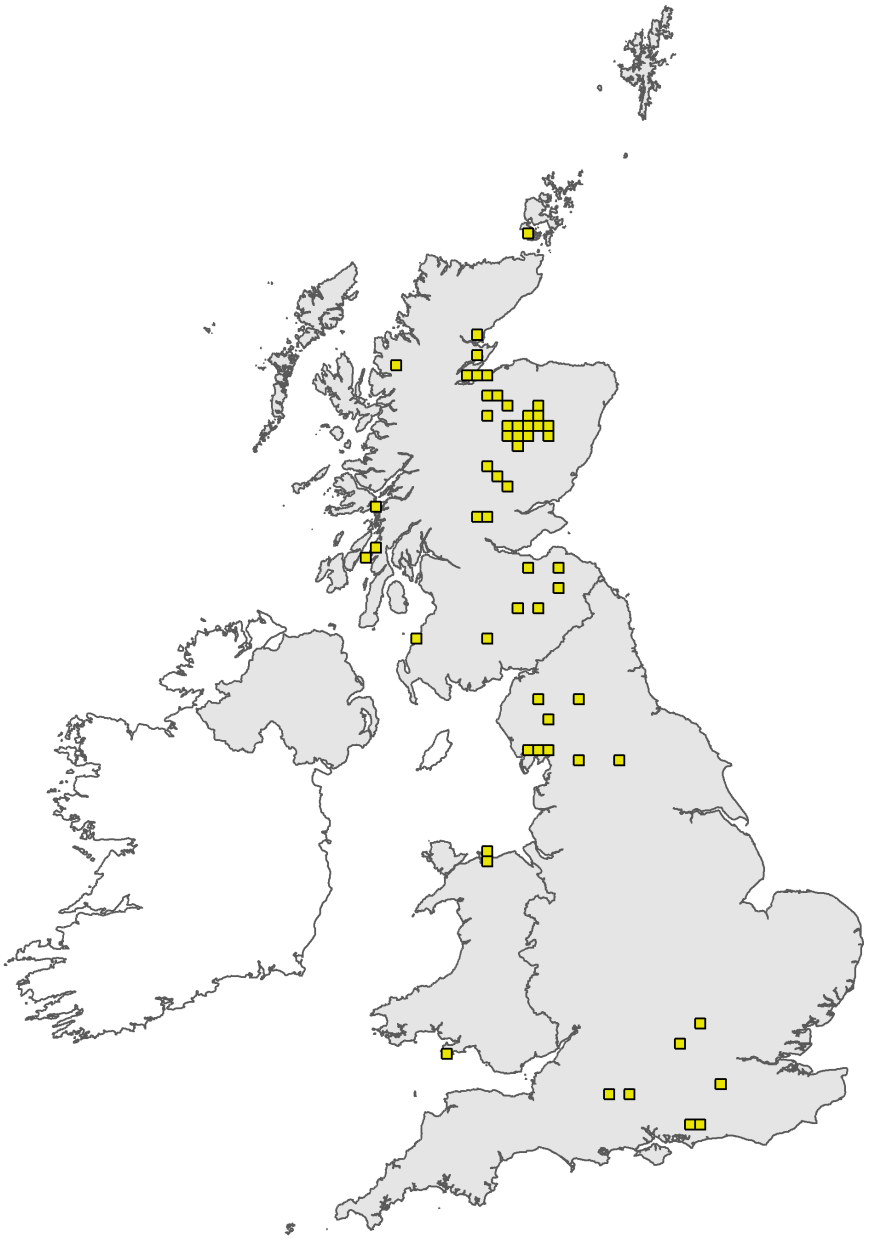

Figure 1: UK distribution map for H5130 - *Juniperus communis* formations on heaths or calcareous grasslands. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and 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

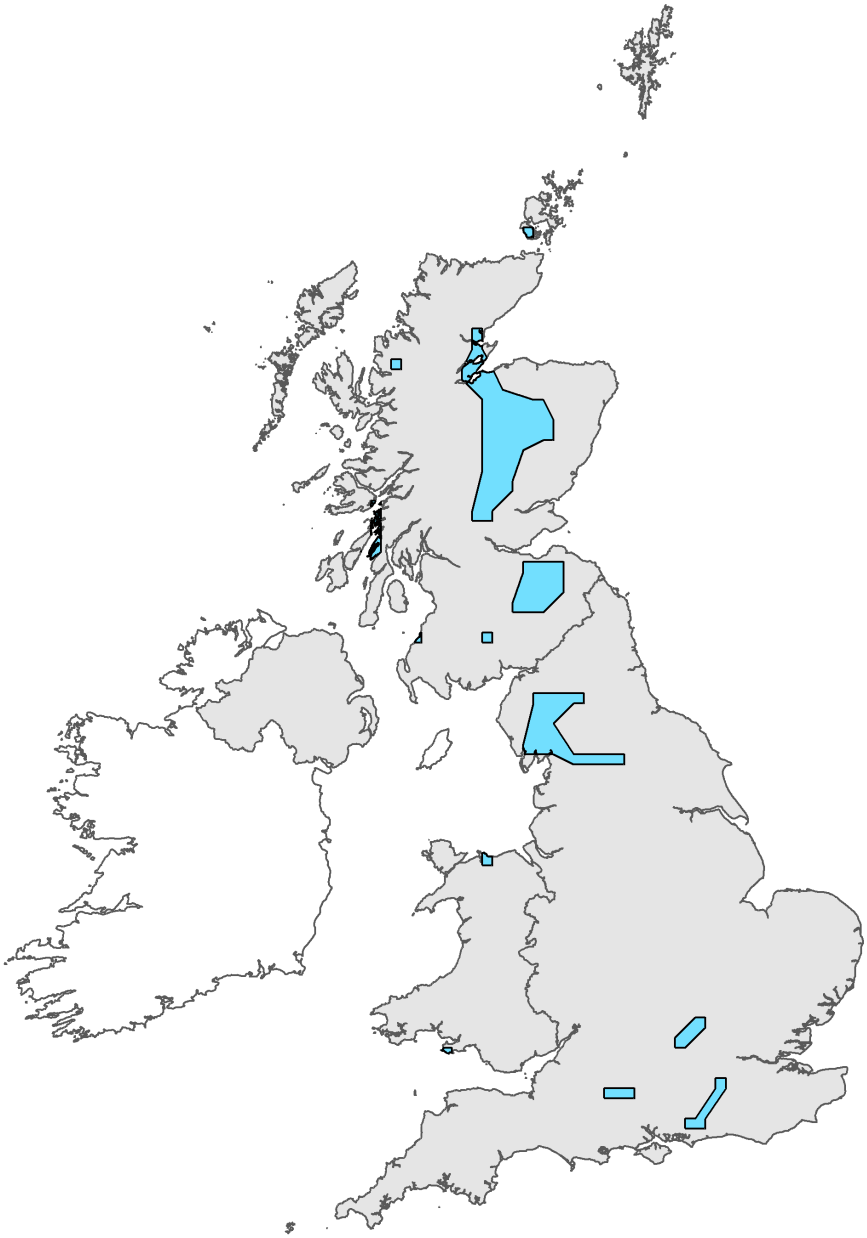

Figure 2: UK range map for H5130 - *Juniperus communis* formations on heaths or calcareous grasslands. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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.