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:

H2250 - Coastal dunes with *Juniperus* spp.

SCOTLAND

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 (Scotland information only)**
1.2 Habitat code	**2250 - Coastal dunes with Juniperus spp.**

2. Maps

2.1 Year or period	1987-2017
2.3 Distribution map	Yes
2.3 Distribution map Method used	Complete survey or a statistically robust estimate
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	https://www.environment.gov.scot/our-environment/habitats-and-species/habitat-map-of-scotland/ SNH internal memo: GIG analysis methodology - Map of Juniper on coastal dunes - mapping statement Internal ref A2355079 Angus, S. 2014. Juniper on sand dunes in Scotland (H2250). Unpublished SNH memo Internal ref A1391120 Dargie, T.C.D. 1994. The past and present status of Juniper (Juniperus communis) and gorse (Ulex europaeus) on part of the Morrich More SSSI, Ross-shire. Unpublished report to Scottish Natural Heritage. Inverness, Scottish Natural Heritage. Dargie, T.C.D. 2004. Morrich More SSSI: mapping the extent of accretion and erosion between 1988 and 2003. Unpublished report to Scottish Natural Heritage, Dingwall. SNH Contract No. AHLE02030430. Dargie, T. 2007. Morrich More SSSI grazing management project: final phase results. Unpublished report to Scottish Natural Heritage, Dingwall. Janine M Morris, Site Condition Monitoring of Coastal Habitats. (National Contract, Year 2009-2010) and Site Condition Monitoring of Coastal Habitats (National Contract, Year 2010-2011). Contract No: 25639 http://jncc.defra.gov.uk/pdf/Article17Consult_20131010/H2250_SCOTLAND.pdf

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	1987-2017		
5.2 Surface area (in km²)	a) Minimum	b) Maximum	c) Best single value 0.25
5.3 Type of estimate	Best estimate		
5.4 Surface area Method used	Complete survey or a statistically robust estimate		
5.5 Short-term trend Period	2007-2016		
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	The approach to the FRA has been changed and is now judged to be equal to the current area	
5.14 Change and reason for change in surface area of range	No change		
	The change is mainly due to:		
5.15 Additional information	We are gradually increasing our knowledge of the extent of H2250 - since 2012 we have more complete surveys from the two main sites for the habitat at Invernaver and Morrich More which have allowed us to update the area estimate for the habitat. However, more work remains to complete surveys of other small pockets of the habitat. Thus we do not have a complete survey of all sites but we do have more than limited information - so for box 5.4 I have chosen complete survey, although this is not yet the case for all sites. We have been trialling using Stereo CIR photo interpretation along with field survey to gain more accurate estimates of extent. In addition there is some evidence of expansion of the Juniper at Morrich More, along with recovery from the disease Phomopsis. However there are also threats from a planned golf course at Coul Links which would have an impact on area of the habitat.		

6. Structure and functions

6.1 Condition of habitat	a) Area in good condition (km²)	Minimum 0.24	Maximum 0.24
	b) Area in not-good condition (km²)	Minimum 0	Maximum 0

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	c) Area where condition is not known (km²)	Minimum 0.01	Maximum 0.01	
6.2 Condition of habitat Method used	Complete survey or a statistically robust estimate			
6.3 Short-term trend of habitat area in good condition Period	2014-2016			
6.4 Short-term trend of habitat area in good condition Direction	Increasing (+)			
6.5 Short-term trend of habitat area in good condition Method used	Complete survey or a statistically robust estimate			
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	Although the monitoring report state that the trend is stable, and this represents the official position (and these are verifiable) site visits indicate an expansion of area at Morrich More and also an improvement of condition there with a reduction in plants affected by Phomopsis.			

7. Main pressures and threats

7.1 Characterisation of pressures/threats

Pressure	Ranking
Other human intrusions and disturbance not mentioned above (H08)	M
Problematic native species (I04)	M
Sea-level and wave exposure changes due to climate change (N04)	M

Threat	Ranking
Other human intrusions and disturbance not mentioned above (H08)	M
Problematic native species (I04)	M
Sea-level and wave exposure changes due to climate change (N04)	H

7.2 Sources of information	
7.3 Additional information	Accidental fire on Morrich More caused by the MOD bombing range Phomopsis juniperivora Increase of saline intrusion at Morrich More (Juniper prefers higher ridges in microtopography at the site)

8. Conservation measures

8.1 Status of measures	a) Are measures needed?	No
	b) Indicate the status of measures	
8.2 Main purpose of the measures taken		
8.3 Location of the measures taken		
8.4 Response to the measures		

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8.5 List of main conservation measures

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

We are gradually increasing our knowledge of the extent of H2250 - since 2012 we have more complete surveys from the two main sites for the habitat at Invernaver and Morrich More which have allowed us to update the area estimate for the habitat. However, more work remains to complete surveys of other small pockets of the habitat. Habitat on the two SAC sites Invernaver and Morrich More is currrently reported as favourable.There is some evidence of expansion of the Juniper at Morrich More, along with recovery from the disease Phomopsis. However there are also threats from a planned golf course at Coul Links which would have an impact on area of the habitat.

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 0.24

11.2 Type of estimate

95% confidence interval

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

Complete survey or a statistically robust estimate

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 H2250 - Coastal dunes with *Juniperus* spp. 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 H2250 - Coastal dunes with *Juniperus* spp. 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.