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:

H8240 - Limestone pavements

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	**8240 - Limestone pavements**

2. Maps

2.1 Year or period	1976-2005
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	References within - http://jncc.defra.gov.uk/pdf/Article17Consult_20131010/H8240_SCOTLAND.pdf SNH SCM database, extract A2298772, 2017, processed and summarised in A2498678. Limestone pavement feature type (JNCC, (2009), Common Standards Monitoring Guidance for Upland Habitats, Version July 2009 and previous versions) http://jncc.defra.gov.uk/page-2237

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	Improved knowledge/more accurate data	
	The change is mainly due to:	Improved knowledge/more accurate data
4.12 Additional information	NB Range entries and comments are made on the basis of Distribution maps and assumptions as to how these will affect previous range maps, without having seen new range maps. 1) Newly collated vegetation map information (HabMoS) has identified two occurrences of this habitat which did not appear in previous Article 17 reporting distribution maps. Both of the new occurrences are outwith the currently-mapped range and would increase the surface area of the range slightly around the edge. Both occurences are correct and the new distribution	

should be used. 2) For the previously-reported occurrences of the habitat, there is no evidence of any actual change in range in Scotland in the period 2006-2017. Within this period, persistence of the habitat has been confirmed in all the upland designated sites where it is a notified feature that have been checked (SCM database, extract A2298772).

5. Area covered by habitat

5.1 Year or period	2006-006-		
5.2 Surface area (in km²)	a) Minimum	b) Maximum	c) Best single value 3
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	2006-2017		
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	Complete survey or a statistically robust estimate		
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	Improved knowledge/more accurate data The change is mainly due to: Improved knowledge/more accurate data		
5.15 Additional information	Conclusions are based on absence of evidence of change in extent in Scotland in the period. Within this period, no loss of extent has been recorded on any site where it is a notified feature (SCM database, extract A2298772).		

6. Structure and functions

6.1 Condition of habitat	a) Area in good condition (km²)	Minimum 0.45	Maximum 0.45
	b) Area in not-good condition (km²)	Minimum 0.41	Maximum 0.41
	c) Area where condition is not known (km²)	Minimum 2.14	Maximum 2.14
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	2004-2016		
6.4 Short-term trend of habitat area in good condition Direction	Increasing (+)		

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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	Site Condition Monitoring provides a means of assessing the structure and function of H8240 in Scotland. Assessment is based on the results of assessments carried out between 2004 and 2016. Results are recorded on the SNH SCM database, from which data was extracted to A2298772 on 23/05/2017. Within this period, the proportion of H8240 on SACs considered to be in Favourable condition increased slightly from 13% to 15% between 2012 (based on assessments carried out between 2004 and 2010) and 2016. No H8210 is reported as recovering and 194ha is reported as declining, compared with 0ha and 5ha respectively in 2012. A further two SSSI features not overlapping SAC are considered to be Favourable with none Unfavourable, but extent data is not available. Overall, 194ha was assessed as declining in condition (Unfavourable declining or Favourable declining) with 5ha recovering (Favourable recovered, Unfavourable recovering, Unfavourable recovering due to management), compared to 5ha and 30ha respectively in 2012. There has been a slight increase in the proportion of habitat in Favourable condition, so the trend for extent in good condition shows improvement, but the figures for habitat recovering or declining suggest poorer future prospects.

7. Main pressures and threats

7.1 Characterisation of pressures/threats

Pressure	Ranking
Intensive grazing or overgrazing by livestock (A09)	H
Management of fishing stocks and game (G08)	H
Problematic native species (I04)	M

Threat	Ranking
Intensive grazing or overgrazing by livestock (A09)	H
Management of fishing stocks and game (G08)	H
Problematic native species (I04)	M

7.2 Sources of information	
7.3 Additional information	Trampling and grazing by sheep Deer grazing and trampling Bracken

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	Only inside 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		

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Adapt mowing, grazing and other equivalent agricultural activities (CA05)

Management of hunting, recreational fishing and recreational or commercial harvesting or collection of plants (CG02)

8.6 Additional information	Conservation measures are generally implemented through designation of protected areas, voluntary and statutory procedures (Deer Act), agri-environment schemes (SRDP). While some results are achievable in the short term, some attributes will recover only over longer timescales. Although conservation measures have been identified, implementation is patchy.

9. Future prospects

9.1 Future prospects of parameters	a) Range b) Area c) Structure and functions
9.2 Additional information	Range is considered likely to remain stable. Area is considered likely to remain stable. The slight improvement shown for Structure and function should continue, but the extent reported as recovering is significantly exceeded by that reported as declining. Given this, and the patchy nature of both pressures and application of conservation measures, it is considered that there is a slight deterioration in future trend for Structure and function.

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 3.05
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	Increasing (+)
11.5 Short-term trend of habitat area in good condition within network Method used	Complete survey or a statistically robust estimate
11.6 Additional information	Site Condition Monitoring provides a means of assessing the structure and function of H8240 in Scotland. Assessment is based on the results of assessments carried out between 2004 and 2016. Results are recorded on the SNH SCM database, from which data was extracted to A2298772 on 23/05/2017. Within this period, the proportion of H8240 on SACs considered to be in Favourable condition increased slightly from 13% to 15% between 2012 (based on assessments carried out between 2004 and 2010) and 2016. No H8240 is reported as recovering and 194ha is reported as declining, compared with 0ha and 5ha respectively in 2012. Overall, 194ha was assessed as declining in condition (Unfavourable declining or Favourable declining) with 5ha recovering (Favourable recovered, Unfavourable recovering, Unfavourable recovering due to management), compared to 5ha and 30ha respectively in 2012. There has been a slight increase in the proportion of habitat in Favourable condition, so the trend for extent in good condition shows improvement, but the figures for habitat recovering or declining suggest poorer future prospects.

12. Complementary information

12.1 Justification of % thresholds for trends	
12.2 Other relevant information	

Distribution Map

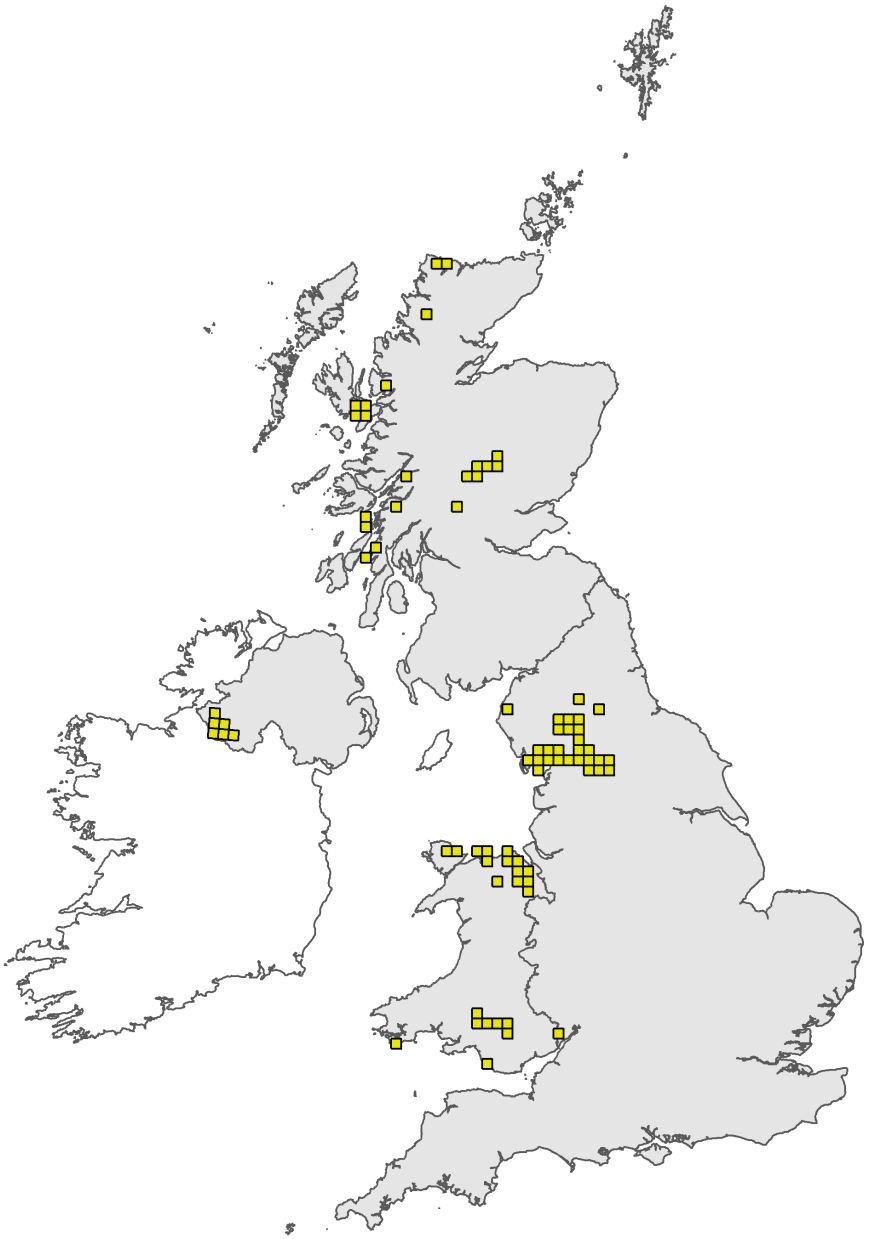

Figure 1: UK distribution map for H8240 - Limestone pavements. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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

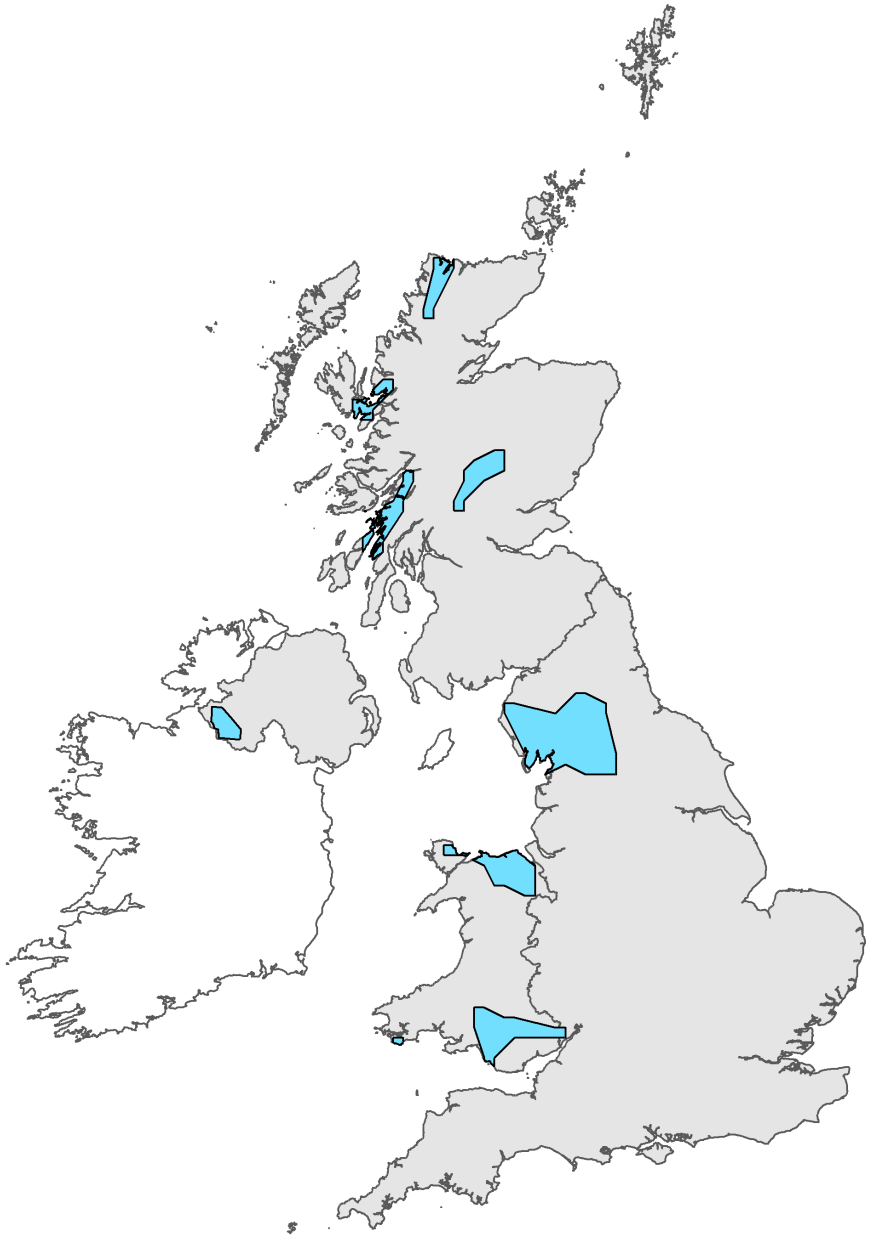

Figure 2: UK range map for H8240 - Limestone pavements. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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.