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:

H3140 - Hard oligo-mesotrophic waters with benthic vegetation of *Chara* 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	**3140 - Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.**

2. Maps

2.1 Year or period	2007-
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	Previous report SCM Database

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 d) Method	 No
4.11 Change and reason for change in surface area of range	No change The change is mainly due to:	
4.12 Additional information	The range is based upon the estimate used in the previous round. Newly collated vegetation map information (HabMoS) has identified some new potential occurrences of this habitat which did not appear in previous Article 17 reporting distribution maps. However, these have not been ground truthed. Therefore the maps and range submitted for the previous reporting period will be used again.	

5. Area covered by habitat

5.1 Year or period	2007-007-			
5.2 Surface area (in km²)	a) Minimum	b) Maximum	c) Best single value	3.77
5.3 Type of estimate	Minimum			

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5.4 Surface area Method used	Based mainly on expert opinion with very limited data		
5.5 Short-term trend Period	2007-2017		
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	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	Because the area of each loch tends to be relatively stable the area of the habitat closely reflects the number of lochs and in turn the underlying geology. We are not aware of any changes and it is therfore likely that the the Area covered by the habitat remains stable.		

6. Structure and functions

6.1 Condition of habitat	a) Area in good condition (km²)	Minimum 3.61	Maximum	
	b) Area in not-good condition (km²)	Minimum 0.16	Maximum	
	c) Area where condition is not known (km²)	Minimum	Maximum	
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	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 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	There are four SACs for this feature in Scotland all are currently favourable. The total area of H3140 loch listed within the site accounts is 377ha only Loch Toronish 16ha in the South Uist Machair is considered unfavourable although it may not be a good match for this habitat.			

7. Main pressures and threats

7.1 Characterisation of pressures/threats

Pressure	Ranking
[illegible]	[illegible]

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and terrestrial) (J01)

Threat	Ranking
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	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	Maintain the current range, population and/or habitat for the species	
8.3 Location of the measures taken	Both inside and outside Natura 2000	
8.4 Response to the measures	Long-term results (after 2030)	

8.5 List of main conservation measures

Reduce impact of mixed source pollution (CJ01)
Adopt climate change mitigation measures (CN01)
Manage water abstraction for public supply and for industrial and commercial use (CF11)
Reduce impact of outdoor sports, leisure and recreational activities (CF03)
Reduce diffuse pollution to surface or ground waters from agricultural activities (CA11)

8.6 Additional information: All of the SAC sites are considered in favourable condition however treats and pressures have been identified

9. Future prospects

9.1 Future prospects of parameters
- a) Range
- b) Area
- c) Structure and functions

9.2 Additional information: Survey has identified Elodea canadensis within some of the sites and this may have an adverse impact which could be difficult to reverse.

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

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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 3.77
11.2 Type of estimate	Minimum
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

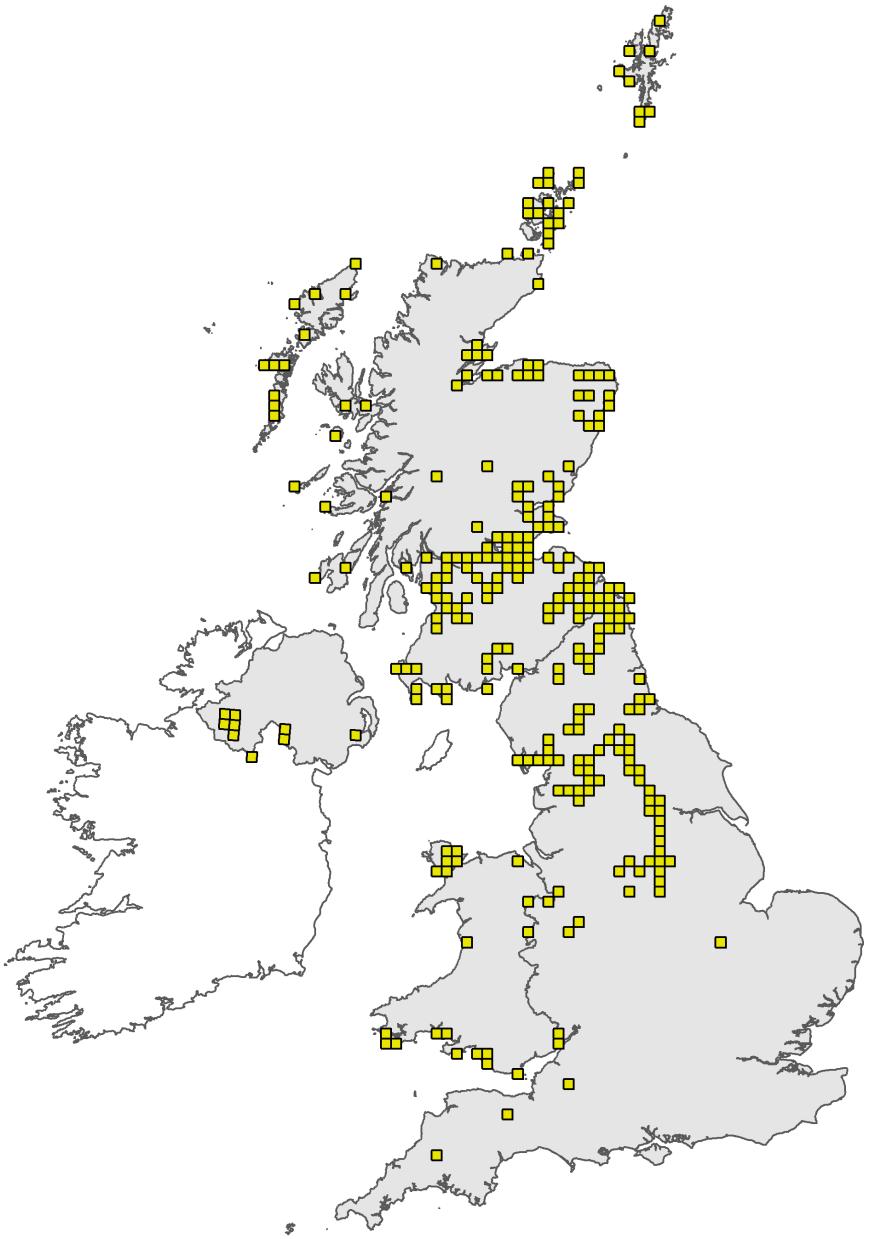

Figure 1: UK distribution map for H3140 - Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and 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

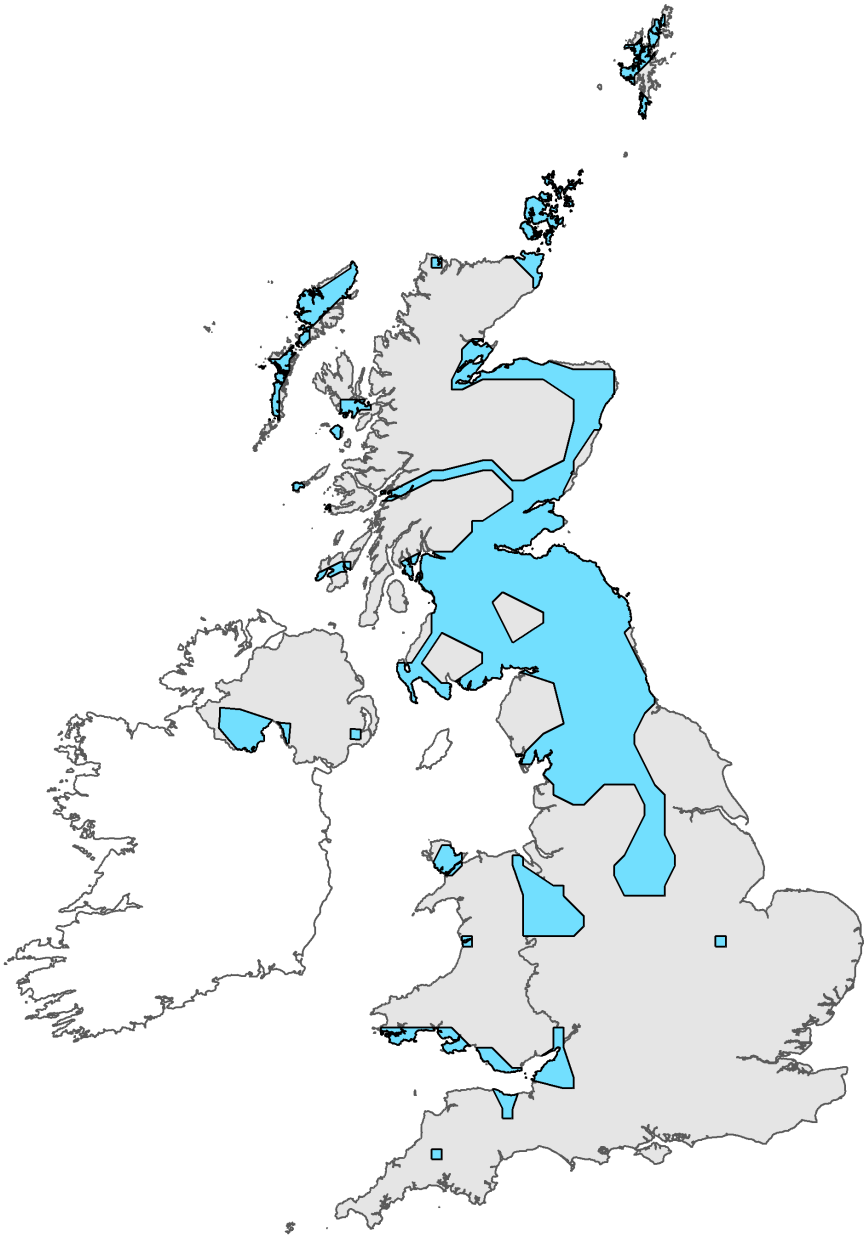

Figure 2: UK range map for H3140 - Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas 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.

Explanatory Notes

Habitat code: 3140 Region code: ATL

Field label	Note
4.3 Short term trend; Direction	No evidence of change in Scotland has been collected since the last reporting round. The habitat continues to be present in sites where it is a notified feature . The range is unlikely to have genuinely changed significantly. Although downgrading is possible all 3 of the SAC are considered to be in favourable condition.
5.2 Surface area	The surface area is a minumum based upon the area of the waterbodies identified in the Site Selection Statement
5.6 Short term trend; Direction	There is no evidence of loss of extent at any of the sites monitored