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:

H7150 - Depressions on peat substrates of the *Rhynchosporion*

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	**7150 - Depressions on peat substrates of the Rhynchosporion**

2. Maps

2.1 Year or period	2018-
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	Natural England (2015). Hydrological Functioning Theme Plan. Restoring the hydrology of Natura 2000 terrestrial wetlands. IPENS programme Tratt, R., Eades, P., Shaw, S., Wheeler, B. & Parnell, M. (2017) Development of Inventories for Annex 1 Wetland Habitats in England. Draft report to Natural England, Telford. http://jncc.defra.gov.uk/pdf/Article17Consult_20131010/H7150_ENGLAND.pdf MAINSTONE, C., HALL., R. & DIACK, I. 2016. A narrative for conserving freshwater and wetland habitats in England. Natural England Research Reports, Number 064. http://publications.naturalengland.org.uk/publication/6524433387749376 Natural England (2014) Climate Change Adaptation Manual - Evidence to support nature conservation in a changing climate (NE546)http://publications.naturalengland.org.uk/publication/5629923804839936 Diack, I. (2016) Review of SSSI series for Raised Bogs. Unpublished Natural England report Meade, R. (2015 et seq.) VEGETATION, HABITAT AND ECO-HYDROLOGICAL INTERPRETATION OF NEW FOREST MIRES. Unpublished reports to Natural England, Telford. Wheeler, B. & Wilson, P. (2014) Survey of EC Habitats Directive Annex I wetland habitats in the Dorset heaths. Unpublished Report to Natural England, Telford. Stroh, P.A., Leach, S.J., August, T.A., Walker, K.J., Pearman, D.A., Rumsey, F.J., Harrower, C.A., Fay, M.F., Martin, J.P., Pankhurst, T., Preston, C.D. and Taylor, I. (2014). A Vascular Plant Red List for England. Botanical Society of the British Isles. Stallegger, M. (2008) Management of Natura 2000 habitats. 7150 Depressions on peat substrates of the Rhynchosporion. Report to the European Commission.

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		

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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			

5. Area covered by habitat

5.1 Year or period	2018-018-		
5.2 Surface area (in km²)	a) Minimum 4.28	b) Maximum	c) Best single value 4.28
5.3 Type of estimate	Minimum		
5.4 Surface area Method used	Based mainly on expert opinion with very limited 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 expert opinion with very limited 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	Improved knowledge/more accurate data The change is mainly due to: Improved knowledge/more accurate data		
5.15 Additional information			

6. Structure and functions

6.1 Condition of habitat	a) Area in good condition (km²)	Minimum 1.6	Maximum 1.6
	b) Area in not-good condition (km²)	Minimum 2.68	Maximum 2.68
	c) Area where condition is not known (km²)	Minimum 0	Maximum 0
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		

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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
Modification of hydrological conditions, or physical alteration of water bodies and drainage for forestry (including dams) (B27)	H
Mixed source air pollution, air-borne pollutants (J03)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	H
Extensive grazing or undergrazing by livestock (A10)	M
Management of fishing stocks and game (G08)	M
Drainage (K02)	H
Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)	M
Droughts and decreases in precipitation due to climate change (N02)	M

Threat	Ranking
Modification of hydrological conditions, or physical alteration of water bodies and drainage for forestry (including dams) (B27)	H
Mixed source air pollution, air-borne pollutants (J03)	H
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	H
Extensive grazing or undergrazing by livestock (A10)	M
Management of fishing stocks and game (G08)	M
Drainage (K02)	H
Reduced fecundity / genetic depression (e.g. inbreeding or endogamy) (L05)	M
Droughts and decreases in precipitation due to climate change (N02)	M

7.2 Sources of information

7.3 Additional information

8. Conservation measures

8.1 Status of measures	a) Are measures needed?	Yes

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	b) Indicate the status of measures: Measures identified, but none yet taken
8.2 Main purpose of the measures taken	
8.3 Location of the measures taken	
8.4 Response to the measures	Medium-term results (within the next two reporting periods, 2019-2030)
8.5 List of main conservation measures	

Reduce diffuse pollution to surface or ground waters from agricultural activities (CA11)

Reduce/eliminate air pollution from agricultural activities (CA12)

Adapt/change forest management and exploitation practices (CB05)

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

Manage drainage and irrigation operations and infrastructures in agriculture (CA15)

Habitat restoration/creation from resources, exploitation areas or areas damaged due to installation of renewable energy infrastructure (CC07)

Restore habitats impacted by multi-purpose hydrological changes (CJ03)

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	Restoration of mire habitats within which H7150 is nested continues largely on SAC sites, so prospects for area and range slightly positive. Negative as a result of atmospheric deposition.

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	

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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	4.28
	b) Maximum	4.28
	c) Best single value	4.28
11.2 Type of estimate		Best estimate
11.3 Surface area of the habitat type inside the network Method used		Based mainly on expert opinion with very limited 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		Based mainly on expert opinion with very limited data
11.6 Additional information		Area estimate based on JNCC habitat areas spreadsheet, as in 2013. Slight increase due to raised bog, valley bog, wet heath and transition mire restoration programmes that have brought about incresaed wetness on sites and minor increases in typical species, largely on SAC sites. No information available on H7150 on Blanket Bog, although area thought be v small due to degree of degradation. Ongoing restoration programmes on H7130 may be expected to lead to suitable conditions for habitat to develop, although historical loss of typical species from these areas may prevent full development without some species re-introduction.

12. Complementary information

12.1 Justification of % thresholds for trends	
12.2 Other relevant information	

Distribution Map

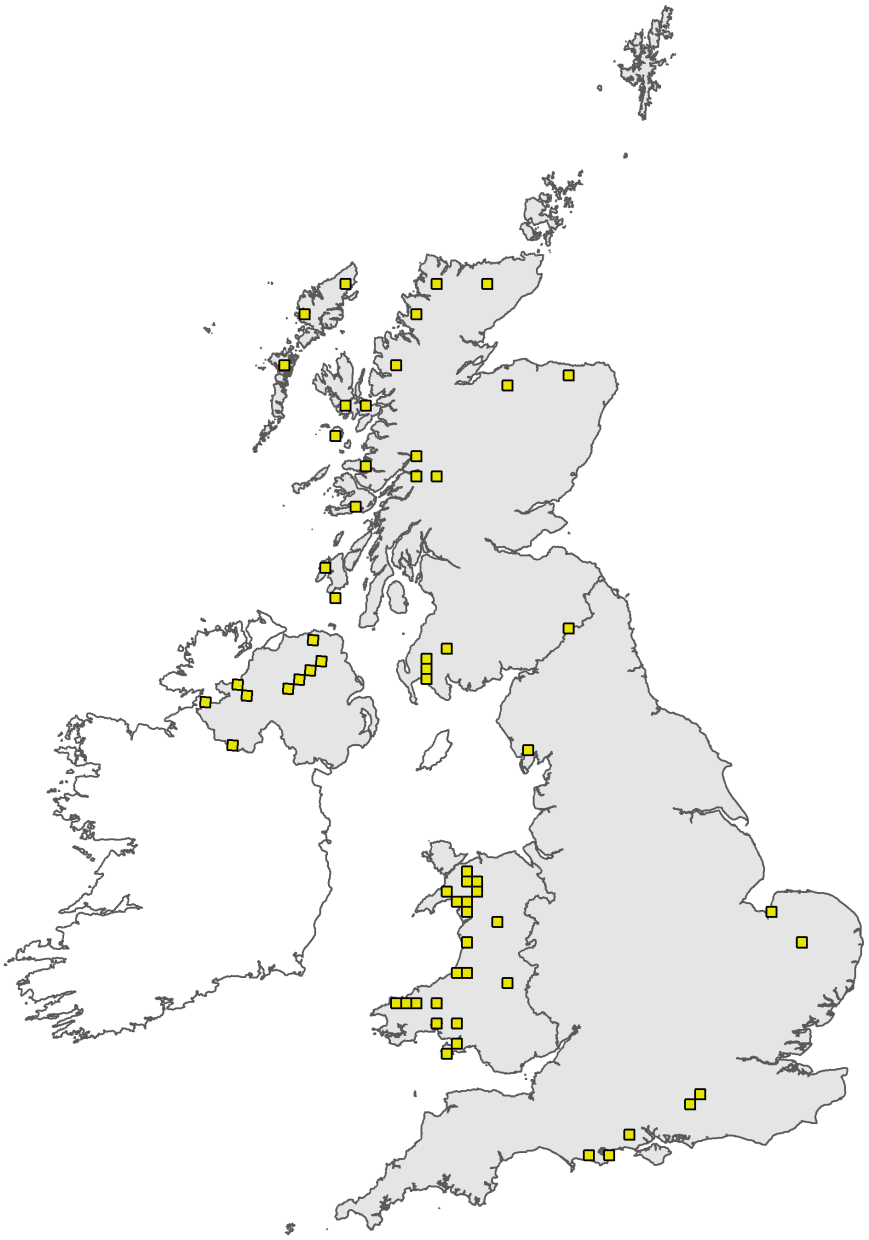

Figure 1: UK distribution map for H7150 - Depressions on peat substrates of the *Rhynchosporion*. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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

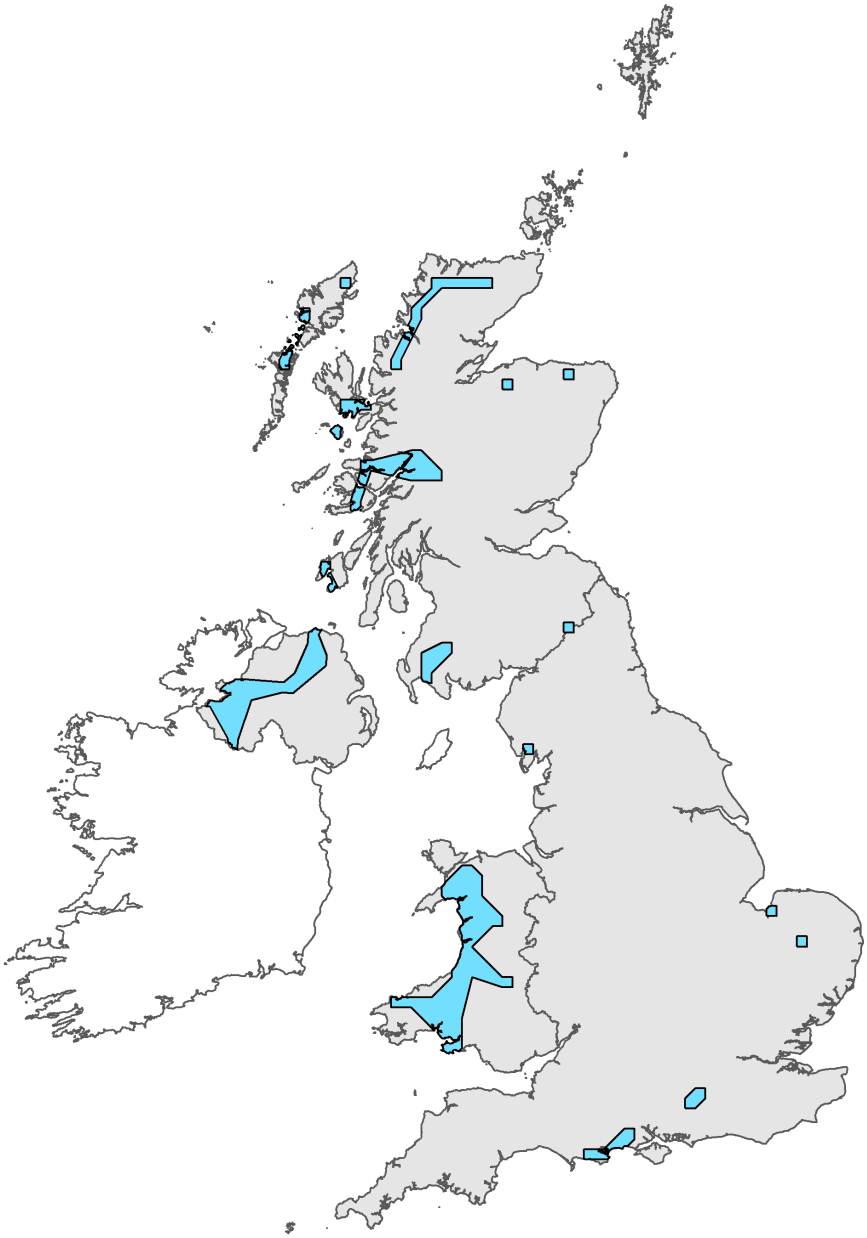

Figure 2: UK range map for H7150 - Depressions on peat substrates of the *Rhynchosporion*. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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: 7150

Field label	Note
2.2 Distribution map	Based on distribution of the eponymous species (suggest using BSBI maps), rather than previous maps which under-represent previous and current likely distribution of habitat. While not all vegetation with Rhynchospora alba should be regarded as the Annex 1 habitat, the presence of the species is likely to indicate the presence or potential presence of the habitat across the wider site, and in addition provides a far better indication of natural range than previous maps.

Habitat code: 7150 Region code: ATL

Field label	Note
5.4 Surface area; Method used	Fairly spurious figure based on JNCC estimate of cover. The nature of this habitat - embedded as generally small areas within larger high quality mire and heath complexes makes measurement of its area very difficult and probably of little value. Tratt et al., (2017) recommend recording of pools and bare peat supporting R alba and other characteristic species as points, linked to a polygon records for the 'parent' habitat, e.g. raised bog, blanket bog, transition mire, or the the two wet heath Annex 1 habitats (H4010 and H4020). Current estimates (Tratt et al., 2017) suggest it occurs in at least 17 SACs, eight more than recorded by JNCC, and has the potential to occur in several more as hydrological damage is repaired in mire SACs.
9.1 Future prospects of parameters	Restoration of mire habitats within which H7150 is nested continues largely on SAC sites, so prospects for area and range slightly positive. Negative as a result of atmospheric deposition.
11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network	Area estimate based on JNCC habitat areas spreadsheet, as in 2013. Slight increase due to raised bog, valley bog, wet heath and transition mire restoration programmes that have brought about incresaed wetness on sites and minor increases in typical species, largely on SAC sites. No information available on H7150 on Blanket Bog, although area thought be v small due to degree of degradation. Ongoing restoration programmes on H7130 may be expected to lead to suitable conditions for habitat to develop, although historical loss of typical species from these areas may prevent full development without some species re-introduction.