

**European Community Directive
on the Conservation of Natural Habitats
and of Wild Fauna and Flora
(92/43/EEC)**

Supporting documentation for the
Third Report by the United Kingdom under
Article 17

on the implementation of the Directive
from January 2007 to December 2012
Conservation status assessment for

Species:

S1378 - Cladonia subgenus Cladina subgenus of lichens *Cladonia
subgenus Cladina*

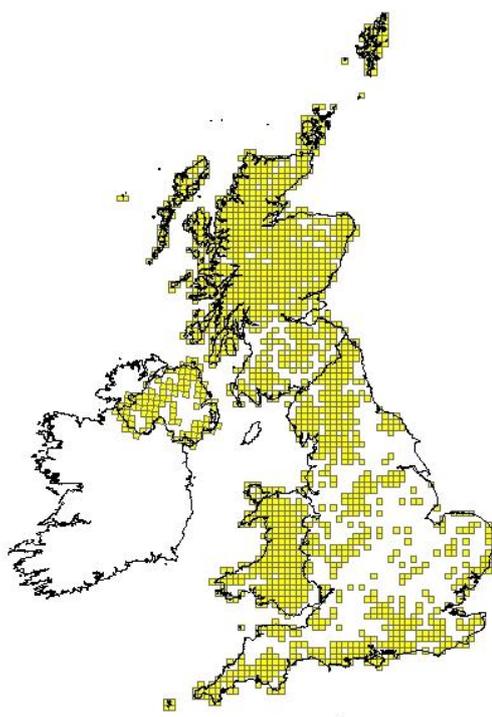
IMPORTANT NOTE – PLEASE READ

- The country-level reporting information contained in this document is a contribution to the Article 17 UK report for the habitat/species concerned.
- It has been provided by **Northern Ireland Environment Agency** and refers only to the state of the habitat/species in **Northern Ireland** - it does not constitute an assessment for the whole of the UK.
- The Article 17 UK Approach document provides details on how this information has been used and, combined with information supplied by other Statutory Nature Conservation Bodies
- The format of the document is closely aligned to that set out by the European Commission for Member State reporting – as a result, some of the fields are not applicable at a country-level and have deliberately been left blank – in addition, the content of most fields is constrained by the EC reporting categories.

Reporting format on the 'main results of the surveillance under Article 11' for Annex II, IV & V species

<i>Field name</i>	<i>Brief explanations</i>	
0.2 Species	0.2.1 Species code	S1378
	0.2.2 Species scientific name	<i>Cladonia subgenus Cladina</i>
	0.2.3 Alternative species scientific name Optional	
	0.2.4 Common name Optional	

1.1 Maps			
1.1.1 Distribution map		Sensitive	False



1.1.2 Method used - map	Estimate based on partial data with some extrapolation and/or modelling		
1.1.3 Year or period	2007-2012		
1.1.4 Additional distribution map	False		

1.1.5 Range map	

2.1 Biogeographical region & marine regions	ATL
2.2 Published sources	<p>"FOWLER, D. 2001 Transboundary air pollution: acidification, eutrophication and groundlevel ozone in the UK. National Expert Group on Transboundary Air Pollution</p> <p>SEAWARD, M. R. D. & HITCH, C. J. B. 1984 Atlas of the Lichens of the British Isles. Vol 1. The Journal of Applied Ecology</p> <p>Smith, C. W., Aptroot, A., Coppins, B. J., Fletcher, A., Gilbert, O.L., James, P.W. and Wolseley, P. A. 2009. The Lichens of Great Britain and Ireland. The British Lichen Society.</p> <p>WILLIAMS J.M. (ed) 2006 Common Standards Monitoring For Designated Sites: First Six Year Report 2006. Peterborough: Joint Nature Conservation Committee</p> <p>WOODS, R. G. & COPPINS, B. J. 2003 A Conservation Evaluation of Lichens. British Lichen Society, London."</p>

2.3 Range	
2.3.1 Surface area Range	Distribution records collated for this genus are, in most cases, incidental to habitat surveys. Although this genus occurs in many widespread habitats, it is particularly important to take fixed dunes, dune heath, dry heath, wet heath, Blanket bog and Raised bog habitats into consideration for this assessment. The area of suitable habitat is very difficult to determine for a genus.
2.3.2 Method used Surface area of Range	Estimate based on partial data with some extrapolation and/or modelling
2.3.3 Short-term trend Period	2001-2012
2.3.4 Short term trend Trend direction	unknown
2.3.5 Short-term trend Magnitude	a) Minimum
	b) Maximum
2.3.6 Long-term trend	1988-2012

Period		
2.3.7 Long-term trend Trend direction	unknown	
2.3.8 Long-term trend Magnitude Optional	a) Minimum	
	b) Maximum	
2.3.9 Favourable reference range	a) Value in km²	
	b) Operator for FRR	
	c) FRR is unknown (indicated by "true")	False
	d) Method used to set FRR	From the limited information available, this group of species appears to be relatively widespread, and the group as a whole does not appear to have suffered a noticeable historic decline in range. Based on expert opinion, the favourable reference range need not be larger than the current extent. The genus is widespread in its occurrence across NI, with around 110 10km square occurrences - hence range is assessed favourable.
2.3.10 Reason for change Is the difference between the reported value in 2.3.1 and the previous reporting round mainly due to...	a) Genuine change?	False
	b) Improved knowledge/more accurate data?	False

	c) Use of different method (e.g. "Range tool")?	False

2.4 Population		
2.4.1 Population size estimation (using individuals or agreed exceptions where possible)	a) Unit	
	b) Minimum	
	c) Maximum	
2.4.2 Population size estimation (using population unit other than individuals) Optional (<i>if 2.4.1 filled in</i>)	a) Unit	number of map 10x10 km grid cells
	b) Minimum	110
	c) Maximum	110
2.4.3 Additional information on population estimates / conversion Optional	a) Definition of "locality"	
	b) Method to convert data	
	c) Problems encountered to provide population size estimation	
2.4.4 Year or period	2007-2012	
2.4.5 Method used Population size	Estimate based on partial data with some extrapolation and/or modelling	
2.4.6 Short-term trend Period	2001-2012	
2.4.7 Short-term trend Trend direction	unknown	

2.4.8 Short-term trend Magnitude	a) Minimum	
	b) Maximum	
	c) Confidence interval	
2.4.9 Short-term trend Method used	Absent data	
2.4.10 Long-term trend – Period	1988-2012	
	<p>There is insufficient evidence to identify the current trend. Historically, large areas of heathland were lost, although these losses have slowed or stabilised. Pressures still exist, in particular grazing and burning. It is unknown whether these pressures are currently causing declines. Further, more than halving the levels of sulphur dioxide deposition since 1980 (Fowler, 2001) may even mean that the group is increasing as more habitat becomes available for colonisation.</p>	
2.4.11 Long-term trend Trend direction	unknown	
2.4.12 Long-term trend Magnitude Optional	a) Minimum	
	b) Maximum	
	c) Confidence interval	
2.4.13 Long term trend Method used	0	
2.4.14 Favourable reference population	a) Number of individuals/agreed exceptions/other units	0

	b) Operator	
	c) FRP is unknown indicated by "true"	False
	d) Method used to set FRP	Given the uncertainties over current population and trends, it would be inappropriate to suggest a favourable reference population at this time.
2.4.15 Reason for change Is the difference between the value reported at 2.4.1 or 2.4.2 and the previous reporting round mainly due to:	a) Genuine change?	False
	b) Improved knowledge/more accurate data?	False
	c) Use of different method (e.g. "Range tool")?	False

2.5 Habitat for the species	
2.5.1 Area estimation	<p>1800</p> <p>The principal habitats occupied by Subgenus Cladina in NI are blanket bogs, active raised bogs, heathlands and acid dunes, with other habitats including some stable shingle systems.</p> <p>From NI Countryside Survey, the estimated area of suitable habitat is as follows:</p> <p>H4010 N. Atlantic Wet heaths 58,306 ha H4030 European dry heaths 16, 751 ha H7110 Active raised bogs 8,355 ha H7120 Degraded raised bogs 10173 ha H7130 Blanket bogs 142, 375 ha * overlaps with wet heath Also small extent in dune heath and dune grassland</p> <p>Approx 180,000 ha</p>

	There is thought to be a sufficient amount of habitat in the UK to support a viable population of the species.	
2.5.2 Year or period	2007-2012	
2.5.3 Method used Habitat for the species	Estimate based on partial data with some extrapolation and/or modelling	
2.5.4 Quality of the habitat	a) Habitat quality	Moderate
	b) Assessment method	There is insufficient evidence to identify the current trend. Historically, large areas of heathland were lost, although these losses have slowed or stabilised. Pressures still exist, in particular grazing and burning. It is unknown whether these pressures are currently causing declines. Further, more than halving the levels of sulphur dioxide deposition since 1980 (Fowler, 2001) may even mean that the group is increasing as more habitat becomes available for colonisation.
2.5.5 Short-term trend Period	2001-2012	
2.5.6 Short-term trend Trend direction	unknown	
2.5.7 Long-term trend Period	1988-2012	
	Identifying trend in habitats that support the genus is difficult; the short-term habitat data suggest a flux between wet/dry heath and bog, with the longer-term trend probably a slow decline. It is possible that this decline has been halted in recent times.	
2.5.8 Long-term trend Trend direction	unknown	
2.5.9 Area of suitable habitat for the species	a) Value in km²	1800
	b) Absence of data indicated as '0'	
2.5.10 Reason for change Is the difference between the value reported at 2.5.1 and the previous reporting round mainly due to	a) Genuine change?	False
	b) Improved knowledge/more accurate data?	False

	c) Use of different method (e.g. "Range tool")?	False

2.6 Main pressures		
a) Pressure	b) Ranking	c) Pollution qualifier
	H = high importance M = medium importance L = low importance	
A04: grazing	H	
H04: Air pollution, air-borne pollutants	H	
J01: fire and fire suppression	H	

In the past, heathland and bog was lost primarily to agriculture, forestry, mineral extraction and development. Overgrazing and inappropriate burning regimes currently pose the greatest pressures (see below).

Natural erosion, coastal defence works, and recreation have contributed to declines in coastal dune systems.

List of most common current pressures (mostly identified through CSM monitoring of associated habitats):

J01 Burning
A04 Grazing
H04 Air Pollution

2.6.1 Method used – Pressures	mainly based on expert judgement and other data
--------------------------------------	--

2.7 Threats		
a) Threat	b) Ranking	c) Pollution qualifier
	H = high importance M = medium importance L = low importance	
A04: grazing	H	
H04: Air pollution, air-borne pollutants	H	
J01: fire and fire suppression	H	

2.7.1 Method used – Threats	expert opinion
------------------------------------	-----------------------

--	--

2.8 Complementary information	
2.8.1 Justification of % thresholds for trends	
2.8.2 Other relevant information	<p>Cladonia subgenus Cladina includes (in NI) the following species:</p> <p>C. arbuscula, C. ciliata, C. portentosa, C. rangiferina.</p>
	<p>Cladonia subgenus Cladina includes (in NI) the following species:</p> <p>C. arbuscula, C. ciliata, C. portentosa, C. rangiferina.</p>
2.8.3 Trans-boundary assessment	

2.9 Conclusions (<i>assessment of conservation status at end of reporting period</i>)
Please refer to the United Kingdom assessment for this species.

**3 Natura 2000 coverage & conservation measures - Annex II species
(only applies to species listed under Annex II of the Directive)**

3.1 Population		
3.1.1 Population size Estimation of population size included in the SAC network	a) Unit	
	b) Minimum	
	c) Maximum	
3.1.2 Method used		
3.1.3 Trend of population size within the network (short-term trend)		

3.2 Conservation measures

Conservation measures taken (i.e. already being implemented) within the reporting period and provided information about their importance, location and evaluation.

3.2.1 Measure	3.2.2 Type					3.2.3 Ranking H = high importance M = medium importance L = low importance	3.2.4 Location where the measure is PRIMARILY applied			3.2.5 Broad evaluation of the measure					
	a) Legal/statutory	b) Administrative	c) Contractual	d) Recurrent	e) One-off		a) Inside	b) Outside	c) Both inside & outside	a) Maintain	b) Enhance	c) Long term	d) No effect	e) Unknown	f) Not evaluated

--