

**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:

S1400 - Large white-moss (*Leucobryum glaucum*)

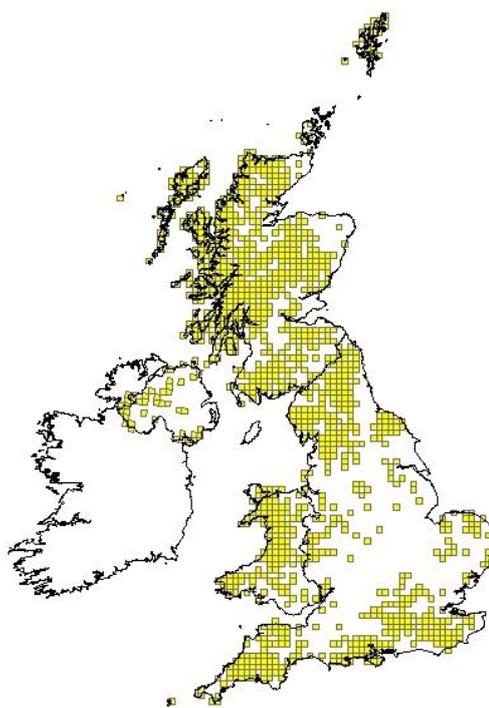
IMPORTANT NOTE – PLEASE READ

- 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	S1400
	0.2.2 Species scientific name	<i>Leucobryum glaucum</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			

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2.1 Biogeographical region & marine regions	ATL
2.2 Published sources	<p>"Atherton, I., Bosanquet, S., and Lawley, M. 2010. Mosses and Liverworts of Britain and Ireland- a field guide. British Bryological Society, Plymouth.</p> <p>HILL, M. O., PRESTON, C. D. & SMITH A. J. E. 1992. Atlas of the Bryophytes of Britain and Ireland; Volume 2, Mosses (Except Diplolepidae). Harley Books</p> <p>Holyoak, D.T. 2003. The Distribution of Bryophytes in Ireland. Broadleaf Books, Glamorgan."</p>

2.3 Range			
2.3.1 Surface area Range			
2.3.2 Method used Surface area of Range	<p>Estimate based on partial data with some extrapolation and/or modelling</p> <p>General bryophyte mapping work has two date classes in the UK: up to 1950, and 1950 to present. Although a new atlas is in preparation, and there has been increased recording in recent years, it is unsafe to assume that squares without recent records, but with a record post-1950 represent recent losses. This will only be known if a new date class is included in mapping work, and comprehensive coverage is gained for this date class. Therefore, post- 1950 records is the closest estimate of the current range.</p> <p>With over 40 10km square records for NI, the species is widespread, although it is likely that there are additional records for the species that are not currently on the database.</p>		
2.3.3 Short-term trend Period	<p>2001-2012</p> <p>Hill et al. (1992) provides reasonable survey coverage for the whole of the UK. However, the date class is large and it is possible that there may have been significant changes within the last 50 years. Therefore, there is no way of assessing changes since 1950, and biases in recording effort mean that it is unsafe to assume that squares without recent records, but with a current record (post-1950) represent recent losses.</p> <p>Hence, no definitive assessment of either short-term or long-term trend can be made.</p>		
2.3.4 Short term trend Trend direction	unknown		
2.3.5 Short-term trend Magnitude	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">a) Minimum</td> <td></td> </tr> </table>	a) Minimum	
a) Minimum			

	b) Maximum	
2.3.6 Long-term trend Period	1988-2012	
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	The trend and current extent are unknown. Since the species is widespread, it is reasonable to assume that the 1994 range was equivalent to the favourable reference range.
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.	False

	"Range tool"?)	

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
	Current distribution data suggests 43 occupied 10km squares. However, this should be treated with caution, as data cover an unknown period, so it is impossible to confirm current occupied squares. It is also possible that the species may occur in additional 10km squares.	
	b) Minimum	43
	c) Maximum	43
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	1991-2012	
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	
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	
	b) Operator	
	c) FRP is unknown indicated by "true"	False

	d) Method used to set FRP	The trend and current population are unknown. Since the species is abundant, it is reasonable to assume that the 1994 population was equivalent to the favourable reference population. However, there is no estimate for this.
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	0	Hill et al. (1992) states: "The main habitats include acidic woodland, damp and wet heathland, moorland, and various types of mire from lowland valley bogs and fens to upland blanket bog. Although patchy in its occurrence, it may be locally plentiful and an important structural component of the ground vegetation, forming massive hummocks which become colonized by other bryophytes and vascular plants. It does not grow directly on base-rich outcrops, but is very occasionally found in grass-heath on acid soil overlying limestone." 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	Absent data	
2.5.4 Quality of the habitat	a) Habitat quality	Unknown
	b) Assessment method	L. glaucum has a fairly broad ecological range, but the most common habitats are acidic woodland and mires, from wet heath through to valley mires, raised bogs and even fens.

2.5.5 Short-term trend Period	2001-2012	
	<p><i>Leucobryum glaucum</i> is found across such a diversity of habitats that it is difficult to report a trend that is applicable to all. Many wetland areas have suffered from historical declines in both area and quality as a result of hydrological changes (often resulting from changes in land use and urban development) and pollution incidents.</p> <p>Increased protection of wetland areas probably means that this decline has slowed, and it is impossible to provide a definitive assessment of either short-term or long-term trend.</p>	
2.5.6 Short-term trend Trend direction	unknown	
2.5.7 Long-term trend Period	1988-2012	
2.5.8 Long-term trend Trend direction	unknown	
2.5.9 Area of suitable habitat for the species	a) Value in km²	0
	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	
H01: Pollution to surface waters (limnic & terrestrial, marine &	H	

brackish)		
J01: fire and fire suppression	H	
J02: human induced changes in hydraulic conditions	H	

Pressures largely based upon condition assessments of associated habitats (i.e. blanket bog, wet heath, dry heath, lowland raised bog).

A04 Grazing
J01 Fires
J02 Drainage
H01 Water pollution

2.6.1 Method used – Pressures	mainly based on expert judgement and other data
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2.7 Threats		
a) Threat	b) Ranking	c) Pollution qualifier
	H = high importance M = medium importance L = low importance	
A04: grazing	H	
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	H	
J01: fire and fire suppression	H	
J02: human induced changes in hydraulic conditions	H	
M01: Changes in abiotic conditions	H	

Pressures largely based upon condition assessments of associated habitats (i.e. blanket bog, wet heath, dry heath, lowland raised bog).

A04 Grazing
J01 Fires
J02 Drainage
H01 Water pollution
M01 Climate change

It is difficult to predict what impacts climate change may have on the species.

2.7.1 Method used – Threats	expert opinion
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2.8 Complementary information**2.8.1 Justification of % thresholds for trends****2.8.2 Other relevant information**

L. glaucum has a fairly broad ecological range, but the most common habitats are acidic woodland and mires, from wet heath through to valley mires, raised bogs and even fens.

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2.8.3 Trans-boundary assessment**2.9 Conclusions (*assessment of conservation status at end of reporting period*)**

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

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