

**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:

S1528 - Marsh saxifrage (*Saxifraga hirculus*)

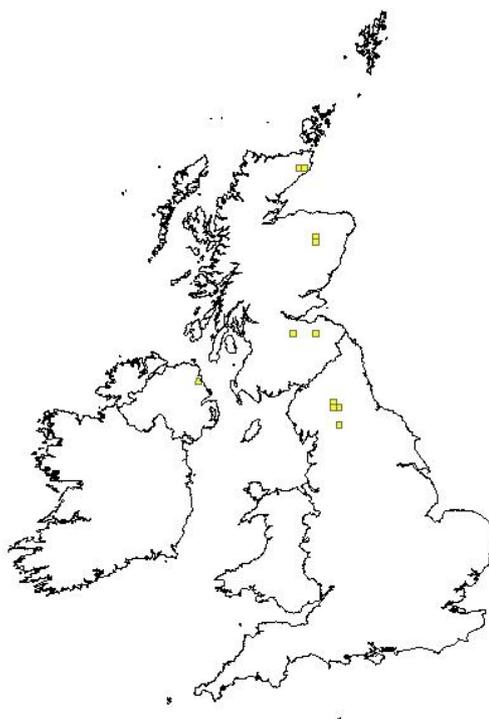
**IMPORTANT NOTE – PLEASE READ**

- 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 **Natural England** and refers only to the state of the habitat/species in **England** - 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>	
<b>0.2 Species</b>	<b>0.2.1 Species code</b>	<b>S1528</b>
	<b>0.2.2 Species scientific name</b>	<b><i>Saxifraga hirculus</i></b>
	<b>0.2.3 Alternative species scientific name</b> Optional	
	<b>0.2.4 Common name</b> Optional	<b>Marsh Saxifrage</b>

<b>1.1 Maps</b>		
<b>1.1.1 Distribution map</b>		<b>Sensitive True</b>



<b>1.1.2 Method used - map</b>	<b>Complete survey/Complete survey or a statistically robust estimate</b> The survey by Roberts, 2009, provides almost complete coverage of known sites.
<b>1.1.3 Year or period</b>	<b>2007-2012</b> The NBN data requires that 2005 data be used to give the full picture (NY82). The survey by Roberts, 2009, recorded the plant at localities in this hectad so it has certainly been recorded during the reporting period.
<b>1.1.4 Additional</b>	<b>False</b>

<b>distribution map</b>	
<b>1.1.5 Range map</b>	

<b>2.1 Biogeographical region &amp; marine regions</b>	ATL
<b>2.2 Published sources</b>	<p>"KELLY, P. 1999. Survey of the historic localities of <i>Saxifraga hirculus</i>. Report to English Nature.</p> <p>PRESTON. C. D., PEARMAN, D.A. &amp; DINES, T.D. 2002. New Atlas of the British and Irish Flora. Oxford University Press</p> <p>ROBERTS, F. J., 2009. Marsh Saxifrage, <i>Saxifraga hirculus</i>, Status of English sites in 2009. report commissioned for Natural England.</p> <p>ROBINSON, L.M. (2008) The discovery of <i>Alopecurus borealis</i> and <i>Carex vaginata</i> in the Yorkshire Dales (VC65) with observations on <i>Saxifraga hirculus</i>. B.S.B.I. News, 107, 6-7."</p>

<b>2.3 Range</b>	
<b>2.3.1 Surface area Range</b>	
<b>2.3.2 Method used Surface area of Range</b>	<p><b>Complete survey/Complete survey or a statistically robust estimate</b></p> <p>The survey by Roberts, 2009, provides almost complete coverage of known sites.</p>
<b>2.3.3 Short-term trend Period</b>	<b>2001-2012</b>
<b>2.3.4 Short term trend Trend direction</b>	<p><b>stable</b></p> <p>Since the Habitats Directive came into force in 1994, expert opinion is that the range has remained relatively stable. The largest declines occurred in northern England during the 1950s and 1960s, due to heavy over-grazing.</p>
<b>2.3.5 Short-term trend Magnitude</b>	<b>a) Minimum</b>
	<b>b) Maximum</b>

<b>2.3.6 Long-term trend Period</b>	<b>1989-2012</b>	
<b>2.3.7 Long-term trend Trend direction</b>	<b>stable</b>	
	Since the Habitats Directive came into force in 1994, expert opinion is that the range has remained relatively stable. The largest declines occurred in northern England during the 1950s and 1960s, due to heavy over-grazing.	
<b>2.3.8 Long-term trend Magnitude</b>  Optional	<b>a) Minimum</b>	
	<b>b) Maximum</b>	
<b>2.3.9 Favourable reference range</b>	<b>a) Value in km<sup>2</sup></b>	
	<b>b) Operator for FRR</b>	
	<b>c) FRR is unknown (indicated by "true")</b>	<b>False</b>
<b>2.3.10 Reason for change</b>  Is the difference between the reported value in 2.3.1 and the previous reporting round mainly due to...	<b>a) Genuine change?</b>	<b>False</b>
	<b>b) Improved knowledge/more accurate data?</b>	<b>False</b>
	<b>c) Use of different method (e.g. "Range tool")?</b>	<b>False</b>

<b>2.4 Population</b>		
<b>2.4.1 Population size estimation</b> (using individuals or agreed exceptions where possible)	<b>a) Unit</b>	
	<b>b) Minimum</b>	
	<b>c) Maximum</b>	
<b>2.4.2 Population size estimation</b> (using population unit other than individuals) Optional ( <i>if 2.4.1 filled in</i> )	<b>a) Unit</b>	<b>number of localities</b>
		Localities is used, as in the last reporting round.
	<b>b) Minimum</b>	<b>18</b>
		Roberts, 2009, found the plant at 18 localities, and in 41 more-or-less discrete colonies, in England.
<b>2.4.3 Additional information on population estimates / conversion</b> Optional	<b>a) Definition of "locality"</b>	<b>Localities can include a number of different colonies in reasonably close proximity. Localities are separated by larger tracts of unsuitable habitat, and though not defined in the survey by Roberts, they are mapped accurately and are believed to correspond with previous definitions.</b>
	<b>b) Method to convert data</b>	
	<b>c) Problems encountered to provide population size estimation</b>	
<b>2.4.4 Year or period</b>	<b>2007-2012</b>	The complete survey by Roberts was undertaken in 2009 and all known recent English sites were visited. The NBN data for the same period is incomplete with no records for NY82 more recently than 2005.
<b>2.4.5 Method used Population size</b>	<b>Complete survey/ Complete survey or a statistically robust estimate</b>	
<b>2.4.6 Short-term trend Period</b>	<b>2001-2012</b>	
<b>2.4.7 Short-term trend Trend direction</b>	<b>stable</b>	In 2007 the plant was recorded from only 11 localities in England so the current total of 18 appears to be a significant increase. This is not the case, however, as the 2009 survey was comprehensive and all the sites visited were previously known localities rather than new sites. The apparent increase is therefore not real but reflects fuller survey data.

<b>2.4.8 Short-term trend Magnitude</b>	<b>a) Minimum</b>	<b>63</b>
	This apparent increase is misleading for reasons explained under 2.4.7	
	<b>b) Maximum</b>	<b>63</b>
	<b>c) Confidence interval</b>	
<b>2.4.9 Short-term trend Method used</b>	<b>Complete survey/Complete survey or a statistically robust estimate</b>	
<b>2.4.10 Long-term trend – Period</b>	<b>1989-2012</b>	
<b>2.4.11 Long-term trend Trend direction</b>	<b>decrease</b>	
	The survey by Roberts in 2009 was comprehensive. It does refer to the loss of some individual colonies suggesting a that low but unquantified level of loss is occurring: 'The lowest [altitude] site, Balderhead, appears to have been lost in recent times through moorland gripping.'	
<b>2.4.12 Long-term trend Magnitude</b> Optional	<b>a) Minimum</b>	
	<b>b) Maximum</b>	
	<b>c) Confidence interval</b>	
<b>2.4.13 Long term trend Method used</b>	<b>3</b>	
	Since the Habitats Directive came into force in 1994, expert opinion is that the population has remained relatively stable. The largest declines occurred in northern England during the 1950s and 1960s, due to heavy over-grazing.	
<b>2.4.14 Favourable reference population</b>	<b>a) Number of individuals/agreed exceptions/other units</b>	

	<b>b) Operator</b>	
	<b>c) FRP is unknown indicated by "true"</b>	<b>False</b>
	<b>d) Method used to set FRP</b>	
<b>2.4.15 Reason for change</b> Is the difference between the value reported at 2.4.1 or 2.4.2 and the previous reporting round mainly due to:	<b>a) Genuine change?</b>	<b>False</b>
	<b>b) Improved knowledge/more accurate data?</b>	<b>True</b>
	<b>c) Use of different method (e.g. "Range tool")?</b>	<b>False</b>

<b>2.5 Habitat for the species</b>		
<b>2.5.1 Area estimation</b>	<b>0.0085</b> The area of suitable habitat remains unknown, as in the last reporting round. The comprehensive survey by Roberts (2009) found the area actually occupied by the plant to be only c.8490 square metres (<1Ha), although the number of ramets was estimated at 450000.  It is unknown whether the amount of habitat in the UK is sufficient to support a viable population of the species.	
<b>2.5.2 Year or period</b>	<b>2009-2009</b>	
<b>2.5.3 Method used Habitat for the species</b>	<b>Complete survey/Complete survey or a statistically robust estimate</b>	
<b>2.5.4 Quality of the habitat</b>	<b>a) Habitat quality</b>	<b>Moderate</b>
	<b>b) Assessment method</b>	<b>Expert opinion following comprehensive survey.</b>
	Full survey in 2009.	

<b>2.5.5 Short-term trend Period</b>	<b>2001-2012</b>	
<b>2.5.6 Short-term trend Trend direction</b>	<b>stable</b> Historically, habitat has declined in both quality and area as a result of overgrazing and agricultural drainage. Just prior to the last reporting round, grazing had reduced at the four English sites, and habitat was thought to be relatively stable, if not slightly increasing. At least one colony does appear to have been lost recently, however, due to moorland gripping.	
<b>2.5.7 Long-term trend Period</b>		
<b>2.5.8 Long-term trend Trend direction</b>		
<b>2.5.9 Area of suitable habitat for the species</b>	<b>a) Value in km<sup>2</sup></b>	
	<b>b) Absence of data indicated as '0'</b>	
<b>2.5.10 Reason for change</b> Is the difference between the value reported at 2.5.1 and the previous reporting round mainly due to	<b>a) Genuine change?</b>	<b>False</b>
	<b>b) Improved knowledge/more accurate data?</b>	<b>False</b>
	<b>c) Use of different method (e.g. "Range tool")?</b>	<b>False</b>

<b>2.6 Main pressures</b>		
<b>a) Pressure</b>	<b>b) Ranking</b>	<b>c) Pollution qualifier</b>
	H = high importance M = medium importance L = low importance	
A04.01.02:	H	
A04.03:	H	
J02.05:	H	

The lowest altitude site, Balderhead, appears to have been lost in recent times through moorland gripping. Heavy sheep grazing was in the past believed to be the main threat to this species. Grazing pressure have now been reduced on some sites. Exclusion of stock in order to provide more habitat for other threatened species (e.g. Black Grouse) has led to losses from some exclosures, so inadequate grazing is also a pressure

(Robinson, 2008).

**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	
A04.03:	H	
A04.01.02:	M	
J02.05:	M	

The lowest altitude site, Balderhead, appears to have been lost in recent times through moorland gripping. Heavy sheep grazing was in the past believed to be the main threat to this species. Grazing pressure have now been reduced on some sites. Exclusion of stock in order to provide more habitat for other threatened species (e.g. Black Grouse) has led to losses from some exclosures, so inadequate grazing is also a pressure (Robinson, 2008).

**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****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*)**

<b>3.1 Population</b>		
<b>3.1.1 Population size</b>  Estimation of population size included in the SAC network	<b>a) Unit</b>	<b>number of localities</b>
	<b>b) Minimum</b>	<b>16</b>
	Nearly all localities are within SACs, apart from a very few of the smallest populations. Of SAC units containing the plant 12 are considered to be in favourable condition (5906Ha); 6 in unfavourable recovering condition (7352.33Ha). The areas are essentially meaningless as far as the plant is concerned as the total English population is in area area of <1Ha. The proportion in favourable or recovering condition is more significant.	
	<b>c) Maximum</b>	<b>16</b>
<b>3.1.2 Method used</b>	<b>Estimate based on partial data with some extrapolation and/or modelling</b>	
<b>3.1.3 Trend of population size within the network</b> (short-term trend)	<b>stable</b>	

<b>3.2 Conservation measures</b>													
Conservation measures taken (i.e. already being implemented) within the reporting period and provided information about their importance, location and evaluation.													
<b>3.2.1 Measure</b>	<b>3.2.2 Type</b>					<b>3.2.3 Ranking</b>  H = high importance M = medium importance L = low importance	<b>3.2.4 Location</b>  where the measure is PRIMARILY applied			<b>3.2.5 Broad evaluation of the measure</b>			
	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

2.1: Maintaining grasslands and other open habitats	Y	Y	Y			H			Y	Y				
6.1: Establish protected areas/sites	Y					H	Y			Y				
6.3: Legal protection of habitats and species	Y					M			Y	Y				

Nearly all the plants and all but two localities are within SACs. Agri-environment schemes have been able to address historic problems of overgrazing of some sites. The plant is protected under the Wildlife and Countryside Act 1981 (Schedule 8), as amended.