

**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*)

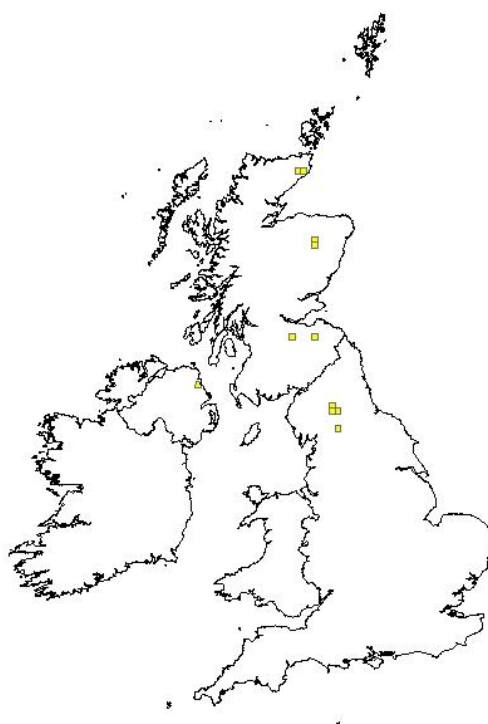
**IMPORTANT NOTE – PLEASE READ**

- 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 **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>	
<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>1.1 Maps</b>		
<b>1.1.1 Distribution map</b>		<b>Sensitive</b> <b>False</b>



<b>1.1.2 Method used - map</b>	<b>Complete survey/Complete survey or a statistically robust estimate</b> Preston et al. (2002) provides a complete inventory for the whole of the UK, and because this species is localised, it has been well-surveyed. Species recorded annually at its only site in NI on Garron Plateau.
<b>1.1.3 Year or period</b>	<b>2007-2012</b> Species recorded annually at its only site in NI on Garron Plateau since 2001.

<b>1.1.4 Additional distribution map</b>	<b>False</b>
<b>1.1.5 Range map</b>	

<b>2.1 Biogeographical region &amp; marine regions</b>	<b>ATL</b>
<b>2.2 Published sources</b>	<p>"Hackney, P. 1992 Flora of the North-east of Ireland. Third Edition. Institute of Irish Studies, the Queen's University of Belfast.</p> <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>Joint Nature Conservation Council 2010. UK priority species pages – Version 2 <i>Saxifraga hirculus</i> version 2."</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>Species monitored on an annual basis by NIEA staff since 2001 at its only site on Garron Plateau SAC.</p>
<b>2.3.3 Short-term trend Period</b>	<p><b>2001-2012</b></p> <p>Species monitored on an annual basis by NIEA staff since 2001 at its only site on Garron Plateau SAC.</p>
<b>2.3.4 Short term trend Trend direction</b>	<p><b>stable</b></p> <p>Species still present</p>
<b>2.3.5 Short-term trend Magnitude</b>	<p><b>a) Minimum</b></p>
	<p><b>b) Maximum</b></p>
<b>2.3.6 Long-term trend Period</b>	<p><b>1988-2012</b></p>
<b>2.3.7 Long-term trend Trend direction</b>	<p><b>stable</b></p> <p>Since 1988, the Garron location (near Collin Top) has been the only site for the species in NI. Species was previously recorded at Lough</p>

	Narron/Long Mountain in Co Antrim, but has not been seen since 1884, despite searching. There was also a second site for the species on the Garron Plateau at Crocknavar, but the species has not been recorded here since 1914.	
<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>	False
	<b>d) Method used to set FRR</b>	<p>The current range in NI is very restricted, being limited to one small flush in the Garron Plateau SAC. The species is clearly low risk from stochastic events. Although the current range is equal to the range in 1994 when the Directive came into force (i.e. the species not seen at either of its two other historic localities for decades), this would suggest that the 1994 range was not viable.</p> <p>In general, the favourable reference range should be at least as large as when the Habitats Directive came into force in 1994, this is equal to the current range. However, since the historic decline, the restricted range suggests that the 1994 value might not have been viable; therefore, the favourable reference range has been set at slightly greater than the current range.</p>
<b>2.3.10 Reason for change</b> Is the difference between the reported value in 2.3.1 and the previous reporting round	<b>a) Genuine change?</b>	False

mainly due to...	<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>
	<b>b) Minimum</b>	<b>1</b>
	<b>c) Maximum</b>	<b>1</b>
<b>2.4.3 Additional information on population estimates / conversion</b> Optional	<b>a) Definition of "locality"</b>	<b>The species occurs in a colony within a single flush on Garron Plateau SAC.</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>	
<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</b>	<b>stable</b>	

<b>Trend direction</b>		
<b>2.4.8 Short-term trend Magnitude</b>	<b>a) Minimum</b>	
	<b>b) Maximum</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>1988-2012</b> Existing colony on the Garron Plateau SAC was first recorded in 1920; refound in 1955 and 1980.	
<b>2.4.11 Long-term trend Trend direction</b>	<b>stable</b>	
<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>	
<b>2.4.14 Favourable reference population</b>	<b>a) Number of individuals/agreed exceptions/other units</b>	<b>1</b>
	<b>b) Operator</b>	

	<b>c) FRP is unknown indicated by "true"</b>	False
	<b>d) Method used to set FRP</b>	<b>The current trend is stable. However, this is in large part due to site management for the species. Without this management work it is likely that the species would have continued its historic decline. In addition despite management efforts, the species appears to be in decline at the colony; numbers of individual rametes has declined over time and it is now several years since the species flowered. This suggests that the current value may not be viable, although it may be within 25% of the favourable reference population.</b>  <b>The favourable reference population should therefore be more than the current situation.</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>	False
	<b>b) Improved knowledge/more accurate data?</b>	False
	<b>c) Use of different method (e.g. "Range tool")?</b>	False

<b>2.5 Habitat for the species</b>	
<b>2.5.1 Area estimation</b>	<b>0</b> Surface area unknown (see 2.5.1) - hence recorded as 0 km sq.  There is thought to be a sufficient amount of habitat in the UK to support a viable population of the species.
<b>2.5.2 Year or period</b>	<b>2007-2012</b>
<b>2.5.3 Method used Habitat for the species</b>	<b>Absent data</b> Species is found in upland base-rich flushes. There is no estimate of the

	extent of this habitat in NI; although these are widely distributed around NI, especially on the base- /calcareous rocks of Cos. Antrim, Londonderry (Tertiary Basalts) and Fermanagh (Carboniferous Limestone), they tend to be very small in extent.	
<b>2.5.4 Quality of the habitat</b>	<b>a) Habitat quality</b>	<b>Moderate</b>
	<b>b) Assessment method</b>	<b>Species is sensitive to grazing levels - too much grazing will not allow species to flower and set seed; too little grazing will allow species to be outcompeted by more vigorous species. Precise grazing levels not yet established, hence moderate assessment.</b>
<b>2.5.5 Short-term trend Period</b>	<b>2001-2012</b>	
	The species and its supporting habitat have been monitored annually since 2001; the habitat is stable.	
<b>2.5.6 Short-term trend Trend direction</b>	<b>stable</b>	
<b>2.5.7 Long-term trend Period</b>	<b>1988-2012</b>	
<b>2.5.8 Long-term trend Trend direction</b>	<b>stable</b>	
	Habitat believed to be stable since 1988.	
<b>2.5.9 Area of suitable habitat for the species</b>	<b>a) Value in km<sup>2</sup></b>	<b>0</b>
	Area of suitable habitat unknown - base-rich flushes small but widely scattered across NI.	
	<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>

## 2.6 Main pressures



a) Pressure	b) Ranking	c) Pollution qualifier
	H = high importance M = medium importance L = low importance	
A03: mowing / cutting of grassland	H	
A04: grazing	H	
J01: fire and fire suppression	H	
K05: reduced fecundity/ genetic depression	H	
J02: human induced changes in hydraulic conditions	M	

The following pressures have been identified using Common Standards Monitoring of the species:

#### A04 Grazing

Grazing levels crucial to maintaining the species - too little grazing will favour more competitive species; too much grazing will prevent species from flowering and setting seed.

#### A03 Mowing and Cutting

In the absence of achieving appropriate grazing levels, NIEA staff have had to physically cut vegetation to remove competing species.

#### J01 Fire

Small colony is very vulnerable to fire damage during dry weather.

#### J02

##### Change in hydrology

Species very sensitive to water balance - however, likelihood of anthropogenic changes to hydrology limited because of SAC status.

#### K05

Very small isolated colony under considerable threat of extinction due to genetic impoverishment.

#### 2.6.1 Method used – Pressures

**based exclusively or to a larger extent on real data from sites/occurrences or other data sources**

2.7 Threats		
a) Threat	b) Ranking	c) Pollution qualifier
	H = high importance M = medium importance L = low importance	
A03: mowing / cutting of grassland	H	
A04: grazing	H	
K05: reduced fecundity/ genetic depression	H	
M01: Changes in abiotic	H	

conditions		
J01: fire and fire suppression	M	

Threats similar to pressures - i.e.:  
Grazing, Cutting, Fire, Genetic depression,  
but Climate Change an additional future threat, since the species is so sensitive to hydrological regime.

**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

**Preston et al. (2002) provides a complete inventory for the whole of the UK, and because this species is localised, it has been well-surveyed.**

**Species recorded annually at its only site in NI on Garron Plateau.**

### 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

number of localities

#### b) Minimum

1

	<b>c) Maximum</b>	<b>1</b>
<b>3.1.2 Method used</b>	<b>Complete survey/Complete survey or a statistically robust estimate</b>	
<b>3.1.3 Trend of population size within the network (short-term trend)</b>	<b>stable</b>	

**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
2.1: Maintaining grasslands and other open habitats	Y			Y		H	Y			Y	Y	Y			
4.2: Restoring/improving the hydrological regime	Y			Y		H	Y			Y	Y	Y			
7.4: Specific single species or species group management measures	Y			Y		H	Y			Y	Y	Y			

The site is currently within the Garron Plateau SAC and management measures are in place to

maintain and enhance the colony. These involve fencing to control grazing and cutting the vegetation to prevent other species outcompeting the *Saxifraga hirculus*. It is possible that controlled grazing could be introduced in addition to cutting. The colony is not in good health however, with declining numbers of rametes and severely reduced flowering; translocation to other suitable sites within the Garron Plateau SAC may need to be considered, if viable seed can be collected from the colony.