

**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:

S1034 - Medicinal leech (*Hirudo medicinalis*)

IMPORTANT NOTE – PLEASE READ

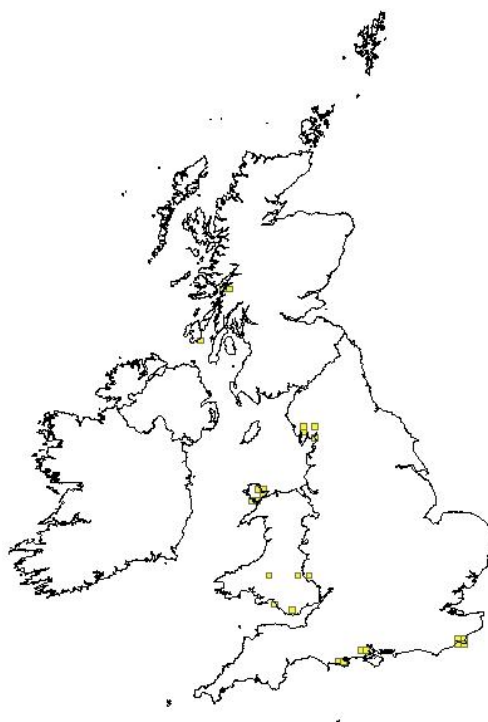
- The country-level reporting information contained in this document is a contribution to the Article 17 UK report for the habitat/species concerned.
- It has been provided by **Scottish Natural Heritage** and refers only to the state of the habitat/species in **Scotland** - it does not constitute an 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	S1034
	0.2.2 Species scientific name	<i>Hirudo medicinalis</i>
	0.2.3 Alternative species scientific name Optional	
	0.2.4 Common name Optional	Medicinal leech

1.1 Maps

1.1.1 Distribution map		Sensitive	True
	Kirkland 2012 (unpublished report)		



1.1.2 Method used - map	Complete survey/Complete survey or a statistically robust estimate
	There are only two known extant localities for <i>H. medicinalis</i> in Scotland, the 'Black Lochs' (north and central), near Oban, and Loch nan Dìgl on Islay. A complete survey was carried out in 2012. Two sampling methods were employed: splash sampling and searching under stones in deeper water.
1.1.3 Year or period	2012

1.1.4 Additional distribution map	False
1.1.5 Range map	

2.1 Biogeographical region & marine regions	ATL
2.2 Published sources	"Kirkland 2012 (unpublished report) Maitland 1996, 1997 (SNH reports)"
	Kirkland 2012 (unpublished report) Maitland 1996, 1997 (SNH reports)

2.3 Range	
2.3.1 Surface area Range	There are only two known extant sites in Scotland
2.3.2 Method used Surface area of Range	Complete survey/ Complete survey or a statistically robust estimate Kirkland 2012 (unpublished report)
2.3.3 Short-term trend Period	2001-2012
2.3.4 Short term trend Trend direction	stable
2.3.5 Short-term trend Magnitude	a) Minimum
	b) Maximum
2.3.6 Long-term trend Period	1997-2012
2.3.7 Long-term trend Trend direction	stable
2.3.8 Long-term trend Magnitude Optional	a) Minimum Kirkland 2012 (unpublished report) Maitland 1997 (SNH report) No analysis carried out, assessment based on expert opinion species found in 1997 and found again in 2012. Data quality good.

	b) Maximum	
2.3.9 Favourable reference range	a) Value in km²	
	Of the 2 known sites, one was not cited in the previous report. However, in absence of more reliable information, we don't object using this value	
	b) Operator for FRR	
	c) FRR is unknown (indicated by "true")	False
	d) Method used to set FRR	
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?	True
	Of the 2 known sites, one was not cited in the previous report. However, in absence of more reliable information, we don't object using this value	
	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)	a) Unit	number of map 1x1 km grid cells

Optional (<i>if 2.4.1 filled in</i>)	b) Minimum	3
	Individuals recorded post-1997 at 2 separate colonies in 3 1x1 km grid squares	
	c) Maximum	4
	Available suitable habitat to populations at 2 separate colonies in 4 1x1 km grid squares	
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	2012-2012	
2.4.5 Method used Population size	Complete survey/ Complete survey or a statistically robust estimate	
	There seems to be insufficient knowledge of the species' ecology and behaviour to allow an effective sampling methodology to be proposed, and further research may be needed in order to devise one.	
2.4.6 Short-term trend Period	2001-2012	
2.4.7 Short-term trend Trend direction	stable	
2.4.8 Short-term trend Magnitude	a) Minimum	
	b) Maximum	
	c) Confidence interval	
2.4.9 Short-term trend Method used	Estimate based on expert opinion with no or minimal sampling	
	Kirkland 2012 Maitland 1999	
2.4.10 Long-term trend –	1997-2012	

Period		
2.4.11 Long-term trend	stable	
Trend direction		
2.4.12 Long-term trend Magnitude Optional	a) Minimum	
	b) Maximum	
	c) Confidence interval	
2.4.13 Long term trend Method used	1	
	Kirkland 2012 Maitland 1999 No analysis carried out, assessment based on expert opinion species found in 1997 and found again in 2012. Data quality good.	
2.4.14 Favourable reference population	a) Number of individuals/agreed exceptions/other units	87
	Of the 2 known populations, one was not cited in the previous report. However, in absence of more reliable information, we don't object using this value	
	b) Operator	
	c) FRP is unknown indicated by "true"	False
	d) Method used to set FRP	
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
	Of the 2 known populations, one was not cited in the previous report. However, in absence of more reliable information, we don't object using this value	
	b) Improved knowledge/more	True

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

2.5 Habitat for the species		
2.5.1 Area estimation	<p>Medicinal leech is usually found in small water bodies with a muddy substrate and fringing vegetation. This species requires relatively warm water (19-23°C) in which to feed and breed. Egg cocoons are laid on marginal plants. Medicinal leeches feed on the blood of vertebrates and it is thought that mammalian or possibly avian blood is required to enable successful breeding.</p> <p>It is unknown whether the amount of habitat in the UK is sufficient to support a viable population of the species.</p>	
2.5.2 Year or period		
2.5.3 Method used Habitat for the species		
2.5.4 Quality of the habitat	a) Habitat quality	Moderate
	Land management appears to have changed little in recent years. However, there are signs of <i>Rhododendron ponticum</i> encroachment.	
	b) Assessment method	Land management appears to have changed little in recent years. However, there are signs of <i>Rhododendron ponticum</i> encroachment.
	Land management appear to have changed little in recent years. However, there are signs of <i>Rhododendron ponticum</i> rhododendron encroachment.	
2.5.5 Short-term trend Period	2001-2012	
2.5.6 Short-term trend Trend direction	stable expert opinion - Kirkland 2012 Land management appears to have changed little in recent years. However, there are signs of <i>Rhododendron ponticum</i> encroachment.	
2.5.7 Long-term trend Period	1997-2012	
2.5.8 Long-term trend Trend direction	stable	

2.5.9 Area of suitable habitat for the species	a) Value in km²	
	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	
A01: Cultivation	H	
A04: grazing	H	

2.6.1 Method used – Pressures	based only on expert judgements Kirkland 2012
--------------------------------------	---

2.7 Threats		
a) Threat	b) Ranking	c) Pollution qualifier
	H = high importance M = medium importance L = low importance	
A04: grazing	H	
I01: invasive non-native species	H	
K03: Interspecific faunal relations	H	
H01: Pollution to surface waters (limnic & terrestrial, marine &	M	X

brackish)		
F03: Hunting and collection of wild animals (terrestrial)	L	

2.7.1 Method used – Threats	expert opinion
	Literature and 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 (<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