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:

S1833 - Slender naiad (*Najas flexilis*)

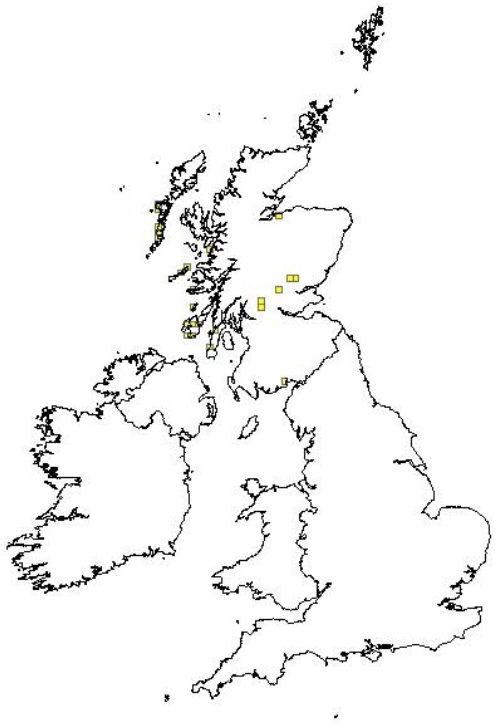
IMPORTANT NOTE – PLEASE READ

- 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

Field name	*Brief explanations*	
0.2 Species	**0.2.1 Species code**	**S1833**
	0.2.2 Species scientific name	***Najas flexilis***
	0.2.3 Alternative species scientific name Optional	
	0.2.4 Common name Optional	**Slender Naiad**

1.1 Maps			
1.1.1 Distribution map		**Sensitive**	**False**



1.1.2 Method used - map	**Complete survey/Complete survey or a statistically robust estimate**
	The plant is no longer present at its single former English locality, Esthwaite Water, where it was last recorded in c1982.
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	**"PRESTON, C.D., PEARMAN, D.A. & DINES, T.D. 2002. New Atlas of the British & Irish Flora. Oxford University Press.** **WINGFIELD, R. 2004. The Ecology of Najas flexilis. Scottish Natural Heritage Commissioned Report No. 017."**

2.3 Range		
2.3.1 Surface area Range		
2.3.2 Method used Surface area of Range	**Complete survey/Complete survey or a statistically robust estimate**	
	The plant is no longer present at its single former English locality, Esthwaite Water, where it was last recorded in c1982.	
2.3.3 Short-term trend Period	**2001-2012**	
2.3.4 Short term trend Trend direction	**stable**	
	There are no English records of the plant during the period covered by the Directive.	
2.3.5 Short-term trend Magnitude	**a) Minimum**	
	b) Maximum	
2.3.6 Long-term trend Period	**1989-2012**	
2.3.7 Long-term trend Trend direction	**stable**	
	There are no English records of the plant during the period covered by the Directive.	
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	
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 *(if 2.4.1 filled in)*	**a) Unit**	**number of localities**
	b) Minimum	**0**
	c) Maximum	**0**

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		
2.4.5 Method used Population size	**Complete survey/Complete survey or a statistically robust estimate**	
	Esthwaite Water has been intensively surveyed for its aquatic macrophytes so the plant can be confidently stated to have been lost from this site.	
2.4.6 Short-term trend Period		
2.4.7 Short-term trend Trend direction		
2.4.8 Short-term trend Magnitude	**a) Minimum**	
	b) Maximum	
	c) Confidence interval	
2.4.9 Short-term trend Method used		
2.4.10 Long-term trend – Period		
2.4.11 Long-term trend 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		
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	
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		
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**	
	b) Assessment method	
2.5.5 Short-term trend Period		
2.5.6 Short-term trend Trend direction		
2.5.7 Long-term trend Period		
2.5.8 Long-term trend Trend direction		
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	
F01.01:	H	
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	H	
H04.02:	H	
I01: invasive non-native species	M	

Water quality in the lake has suffered (eutrophication) from a combination of fish farm discharges, sewage works discharges and diffuse sources, all of which have been or are being tackled at this site. More nutrient-rich conditions favour the non-native aquatic macrophyte Elodea nuttallii, which is present at the site.	
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	
H01: Pollution to surface waters (limnic & terrestrial, marine & brackish)	H	
H04.02:	H	
I01: invasive non-native species	M	

Natural England has bought out the fish farm, the fish farm cages have been removed and there is an agreed reduction of stocking of rainbow trout, to cease by 2013. United Utilities has re-built Hawkshead Waste-water treatment works to a higher standard so future discharges should be of much higher water quality. Natural England has also targeted the catchment for Higher Level Stewardship agreements with management options to reduce diffuse pollution. All these measures aim to improve the water quality. NE has entered into a partnership project with Centre for Ecology and Hydrology to take a sediment core and try to find and germinate Najas seed, with a view to reintroduction from the original seed source.	
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)

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	**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	M = medium importance L = low importance	a) Inside	b) Outside	c) Both inside & outside	a) Maintain	b) Enhance	c) Long term	d) No effect	e) Unknown	f) Not evaluated
4.1: Restoring/improving water quality	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					L	Y				Y				
7.2: Regulation/ Management of fishery in limnic systems	Y	Y				H	Y					Y			
7.4: Specific single species or species group management measures		Y	Y			H	Y				Y				

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