

**European Community Directive  
on the Conservation of Natural Habitats  
and of Wild Fauna and Flora  
(92/43/EEC)**

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:

S4056 - Little ramshorn whirlpool snail (*Anisus vorticulus*)

## 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>S4056</b>                    |
|                    | <b>0.2.2 Species scientific name</b>                         | <b><i>Anisus vorticulus</i></b> |
|                    | <b>0.2.3 Alternative species scientific name</b><br>Optional |                                 |
|                    | <b>0.2.4 Common name</b><br>Optional                         |                                 |

| <b>1.1 Maps</b>               |  |                  |              |
|-------------------------------|--|------------------|--------------|
| <b>1.1.1 Distribution map</b> | <b>True</b>  | <b>Sensitive</b> | <b>False</b> |
|                               | The distribution map is based on species records which are considered to be representative of the range within the current reporting period. For further details see the 2013 Article 17 UK Approach document. |                  |              |



|                                |  |
|--------------------------------|--|
| <b>1.1.2 Method used - map</b> | <b>Complete survey/Complete survey or a statistically robust estimate</b>  |
|                                | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information  |
| <b>1.1.3 Year or period</b>    | <b>1999-2012</b>   |
|                                | The distribution map is based on species records which are considered to be representative of the range within the current reporting period. For further details see the 2013 Article 17 UK Approach document. |

|  |  |
|--|--|
| <b>1.1.4 Additional distribution map</b><br>Optional | <b>False</b>   |
| <b>1.1.5 Range map</b>                               | <b>True</b><br>The range map was produced by applying the UK range mapping tool to the distribution map presented in 1.1.4. The alpha value for this species was 20km. For further details see the 2013 Article 17 UK Approach document. |



|  |   |
|--|---|
| <b>2.1 Biogeographical region &amp; marine regions</b> | <b>ATL</b>  |
| <b>2.2 Published sources</b>                           | <p><b>Abrehart, T.R. (2012) Article 17 assessment on <i>Anisus vorticulus</i> in Suffolk, February 2012. Lot 3 An ecological survey including floral and faunal observations undertaken for Natural England by Abrehart Ecology</b></p> <p><b>Abrehart, T.R. (2012) Article 17 assessment on <i>Anisus vorticulus</i> in Norfolk and Suffolk, February 2012. Lot 4 An ecological survey including floral and faunal observations undertaken for Natural England by Abrehart Ecology.</b></p> <p><b>Abrehart, T.R. (2012) Article 17 assessment on <i>Anisus vorticulus</i> in Norfolk, March 2012. Lot 5 An ecological survey including floral and faunal observations undertaken for Natural England by Abrehart Ecology.</b></p> <p><b>Abrehart, T.R. (2012) Article 17 assessment on <i>Anisus vorticulus</i> in Suffolk, February 2012. Lot 3 An ecological survey including floral and faunal observations undertaken for Natural England by Abrehart Ecology.</b></p> |

**Willing, MJ. (2012) Article 17 assessment on *Anisus vorticulus* at Pevensey Levels SSSI, Lot 1, Down & Manxey Levels.**

**Willing. MJ & Killeen IJ (1999) *Anisus vorticulus*- A rare and threatened water snail. *British Wildlife*, August, pp 412-418.**

**Joint Nature Conservation Committee. 2007. Second Report by the UK under Article 17 on the implementation of the Habitats Directive from January 2001 to December 2006. Peterborough: JNCC.**

**Hinton. G, Priority BAP analyser spreadsheet, accessed for data gathered to 18 May 2011. Unpublished. UK distribution map data sources**

**A survey to determine the present status of *Anisus vorticulus* (Gastropoda: Planorbidae) at sites in Suffolk and Norfolk. Unpublished report for the Environment Agency. Mollusc (non-marine) data for Great Britain and Ireland (1670-1999)**

**Natural England - commissioned by David Heaver. Emailed to JNCC (LH) by David Heaver (NE) 21/08/2012**

**NBN Gateway data: Bristol Regional Environmental Records Centre GA001100Extracted by LH 19/09/2012 BRERC JNCC May 2012**

**NBN Gateway data: Conchological Society of Great Britain & Ireland GA000159Extracted by LH 19/09/2012 Mollusc (non-marine) data for Great Britain and Ireland**

**NBN Gateway data: Sussex Biodiversity Record Centre GA001076Extracted by LH 19/09/2012 SxBRC Full dataset for Environment Agency and Natural England use only.**

**NBN Gateway data: Wiltshire and Swindon Biological Records Centre GA001098Extracted by LH 19/09/2012 Wiltshire and Swindon Habitats Directive (Article 17) Species - Reporting Group Use Only**

UK Distribution Map data sources

A survey to determine the present status of *Anisus vorticulus* (Gastropoda: Planorbidae) at sites in Suffolk and Norfolk. Unpublished report for the Environment Agency.

Mollusc (non-marine) data for Great Britain and Ireland (1670-1999)

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|  |   |
|--|---|
|  | Directive (Article 17) Species - Reporting Group Use Only |
|  |   |

| 2.3 Range  |   |
|--|---|
| <b>2.3.1 Surface area Range</b>                          | <b>1919</b><br>The surface area of the range was calculated from the map presented in 1.1.5. For further details see the 2013 Article 17 UK Approach document.  |
| <b>2.3.2 Method used Surface area of Range</b>           | <b>Complete survey/ Complete survey or a statistically robust estimate</b><br>For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information   |
| <b>2.3.3 Short-term trend Period</b>                     | <b>2001-2012</b><br>For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information   |
| <b>2.3.4 Short term trend Trend direction</b>            | <b>stable</b><br>The short term trend direction was derived by comparing the range map in 1.1.5 with the range map produced in the 2007 report, by considering the range trend in the 2007 report, and by considering any further information provided by the UK country conservation agencies. For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.  |
| <b>2.3.5 Short-term trend Magnitude</b><br>Optional      | <b>a) Minimum</b>   |
|  |   |
|  | <b>b) Maximum</b>   |
|  |   |
| <b>2.3.6 Long-term trend Period</b><br>Optional          | <b>1989-2012</b><br>For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information   |
| <b>2.3.7 Long-term trend Trend direction</b><br>Optional | <b>decrease</b><br>The long term trend direction was derived by comparing the range map in 1.1.5 with the range map produced in the 2007 report, by considering the range trend in the 2007 report, and by considering any further information provided by the UK country conservation agencies. For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. |
| <b>2.3.8 Long-term trend Magnitude</b><br>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>1919</b>  |
|  | The FRV has been updated to the current range estimate as this is thought to be a better indication of the range when the Habitats Directive came into force in the UK in 1994. |              |
|  | <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><br>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> |
|  | The apparent increase in surface area of range is not thought to be genuine but due to improved data.   |              |
|  | <b>b) Improved knowledge/more accurate data?</b>  | <b>True</b>  |
|  | The apparent increase in surface area of range is not thought to be genuine but due to improved data.   |              |
|  | <b>c) Use of different method (e.g. "Range tool")?</b>  | <b>False</b> |
|  | Use of a revised UK range mapping tool had little effect on the calculation for surface area of range.  |              |

|  |                   |  |
|--|-------------------|--|
| <b>2.4 Population</b>  |                   |  |
| <b>2.4.1 Population size estimation</b><br>(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)<br>Optional ( <i>if 2.4.1 filled in</i> ) | <b>a) Unit</b>  | <b>number of map 1x1 km grid cells</b>   |
|  |   |  |
|  | <b>b) Minimum</b>   | <b>40</b>  |
|  | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information |  |
|  | <b>c) Maximum</b>   | <b>40</b>  |
| For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information                |   |  |
| <b>2.4.3 Additional information on population estimates / conversion</b><br>Optional   | <b>a) Definition of "locality"</b>  |  |
|  |   |  |
|  | <b>b) Method to convert data</b>  |  |
|  |   |  |
|  | <b>c) Problems encountered to provide population size estimation</b>  | <b>This species undergoes huge population fluctuations making the use of the population unit 'individuals' unhelpful</b> |
| For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information                |   |  |
| <b>2.4.4 Year or period</b>  | <b>2007-2012</b>  |  |
|  | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information |  |
| <b>2.4.5 Method used Population size</b>   | <b>Complete survey/Complete survey or a statistically robust estimate</b>   |  |
|  | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information |  |
| <b>2.4.6 Short-term trend Period</b>   | <b>2001-2012</b>  |  |
|  | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information |  |
| <b>2.4.7 Short-term trend Trend direction</b>  | <b>decrease</b>   |  |
|  | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information |  |
| <b>2.4.8 Short-term trend Magnitude</b><br>Optional  | <b>a) Minimum</b>   |  |
|  |   |  |
|  | <b>b) Maximum</b>   |  |
|  |   |  |
|  | <b>c) Confidence</b>  |  |

|   |   |   |
|---|---|---|
|   | <b>interval</b>   |   |
| <b>2.4.9 Short-term trend Method used</b>     | <b>Estimate based on partial data with some extrapolation and/or modelling</b>  |   |
|   | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information                   |   |
| <b>2.4.10 Long-term trend – Period</b>        | <b>1991-2012</b>  |   |
| Optional                                      | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information                   |   |
| <b>2.4.11 Long-term trend Trend direction</b> | <b>decrease</b>   |   |
| Optional                                      | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information                   |   |
| <b>2.4.12 Long-term trend Magnitude</b>       | <b>a) Minimum</b>   |   |
| Optional                                      |   |   |
|   | <b>b) Maximum</b>   |   |
|   |   |   |
|   | <b>c) Confidence interval</b>   |   |
|   |   |   |
| <b>2.4.13 Long term trend Method used</b>     | <b>Estimate based on partial data with some extrapolation and/or modelling</b>  |   |
| Optional                                      | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information                   |   |
| <b>2.4.14 Favourable reference population</b> | <b>a) Number of individuals/agreed exceptions/other units</b>   | <b>48</b>   |
|   | A revised FRV has been decided on because the population is now reported in occupied 1km squares rather than occupied 10km squares. |   |
|   | <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>A revised FRV has been decided on because the population is now reported in occupied 1km squares rather than occupied 10km squares. 48 1km squares is considered large enough to be viable and no lower than the population when</b> |



|   |  |   |
|---|--|---|
|   |  | <b>the Habitats Directive came into force in the UK in 1994. For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.</b>   |
|   |  | A revised FRV has been decided on because the population is now reported in occupied 1km squares rather than occupied 10km squares. 48 1km squares is considered large enough to be viable and no lower than the population when the Habitats Directive came into force in the UK in 1994. For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. |
| <b>2.4.15 Reason for change</b><br>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>  |
|   |  | The population unit has changed so it is not applicable to compare numbers. However, the increase in population using the old unit - occupied 10km squares - is not thought to be genuine but due to better data.   |
|   | <b>b) Improved knowledge/more accurate data?</b>       | <b>False</b>  |
|   |  | The population unit has changed so it is not applicable to compare numbers. However, the increase in population using the old unit - occupied 10km squares - is not thought to be genuine but due to better data.   |
|   | <b>c) Use of different method (e.g. "Range tool")?</b> | <b>False</b>  |
|   |  | The population unit has changed so it is not applicable to compare numbers. However, the increase in population using the old unit - occupied 10km squares - is not thought to be genuine but due to better data.   |

|                                    |   |
|------------------------------------|---|
| <b>2.5 Habitat for the species</b> |   |
| <b>2.5.1 Area estimation</b>       | The specific area of habitat occupied by this species in the UK is unknown.   |
|                                    | The area of grazing marsh in England is 2295 km squared, although this figure includes land surface in addition to the ditch areas, and will include marshes where anisus has not been recorded, or has been and is considered lost. For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.<br><br>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>  |
|                                    | For further details see the 2013 Article 17 UK Approach document and  |

|   |  |   |
|---|--|---|
|   | relevant country-level reporting information.  |   |
| <b>2.5.3 Method used<br/>Habitat for the species</b>  | <b>Absent data</b>   |   |
|   | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. |   |
| <b>2.5.4 Quality of the<br/>habitat</b>   | <b>a) Habitat quality</b>  | <b>Moderate</b>   |
|   | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. |   |
|   | <b>b) Assessment method</b>  | <b>Quality assessed using Natural England inventory grazing marsh habitat data and Common Standards Monitoring condition statistics</b> |
|   | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. |   |
| <b>2.5.5 Short-term trend<br/>Period</b>  | <b>2001-2012</b>   |   |
|   | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. |   |
| <b>2.5.6 Short-term trend<br/>Trend direction</b>   | <b>stable</b>  |   |
|   | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. |   |
| <b>2.5.7 Long-term trend<br/>Period</b>   | <b>1991-2012</b>   |   |
| Optional  | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. |   |
| <b>2.5.8 Long-term trend<br/>Trend direction</b>  | <b>decrease</b>  |   |
| Optional  | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. |   |
| <b>2.5.9 Area of suitable habitat<br/>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><br>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>  |
|   | Surface area of habitat is unknown and was reported as unknown in 2007 so no comparison is possible.               |   |
|   | <b>b) Improved knowledge/more accurate data?</b>   | <b>False</b>  |
|   | Surface area of habitat is unknown and was reported as unknown in 2007 so no comparison is possible.               |   |
|   | <b>c) Use of different method (e.g. "Range tool")?</b>   | <b>False</b>  |
|   | Surface area of habitat is unknown and was reported as unknown in 2007 so no comparison is possible.               |   |

| 2.6 Main pressures  |   |                        |
|---|---|------------------------|
| a) Pressure   | b) Ranking  | c) Pollution qualifier |
|   | H = high importance<br>(max 5 entries)<br>M = medium importance<br>L = low importance |                        |
| A04: grazing  | H   |                        |
| J02: human induced changes in hydraulic conditions                | H   |                        |
| H02: Pollution to groundwater (point sources and diffuse sources) | M   |                        |
|   |   |                        |

For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.

|                                      |  |
|--------------------------------------|--|
| <b>2.6.1 Method used – Pressures</b> | <b>based exclusively or to a larger extent on real data from sites/occurrences or other data sources</b>           |
|                                      | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. |

| 2.7 Threats  |   |                        |
|--|---|------------------------|
| a) Threat  | b) Ranking  | c) Pollution qualifier |
|  | H = high importance<br>(max 5 entries)<br>M = medium importance<br>L = low importance |                        |
| J02: human induced changes in hydraulic conditions | H   |                        |
| A02: modification of cultivation practices         | M   |                        |
|  |   |                        |

For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.

|                                    |  |
|------------------------------------|--|
| <b>2.7.1 Method used – Threats</b> | <b>expert opinion</b>  |
|                                    | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. |

| 2.8 Complementary information                         |   |
|---|---|
| <b>2.8.1 Justification of % thresholds for trends</b> |   |
| <b>2.8.2 Other relevant</b>                           | <b>This species seems to be naturally rare within the ditch systems</b> |

|  |   |
|--|---|
| <b>information</b>                     | <b>in which it occurs, even when the ditches support a number of other rare aquatic snail species and so have both good water quality and ditch management regimes.</b> |
|  | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.  |
| <b>2.8.3 Trans-boundary assessment</b> |   |

| <b>2.9 Conclusions (assessment of conservation status at end of reporting period)</b> |  |
|---|--|
| <b>2.9.1 Range</b>  | <b>a) Conclusion</b> <b>Favourable</b>   |
|   | Range has been assessed as Favourable because the surface area of range is equal to the FRV for range and the short term trend is stable.  |
|   | <b>b) Qualifier</b>  |
| <b>2.9.2 Population</b>   | <b>a) Conclusion</b> <b>Inadequate</b>   |
|   | Population has been assessed as Inadequate due to population size being below the FRV but not by more than 25%. The population short term trend is declining.  |
|   | <b>b) Qualifier</b> <b>declining</b>   |
| <b>2.9.3 Habitat for the species</b>  | <b>a) Conclusion</b> <b>Favourable</b>   |
|   | Habitat for species has been assessed as Favourable because there is thought to be sufficient area of habitat for the species to support a viable population, the habitat quality is moderate and the short term trend stable.   |
|   | <b>b) Qualifier</b>  |
| <b>2.9.4 Future prospects</b>   | <b>a) Conclusion</b> <b>Inadequate</b>   |
|   | Future prospects is assessed as Inadequate on the basis of assessments of the future prospects of the three parameters, range, population and habitat for species:<br><br>Range future prospects: Good<br>Population future prospects: Poor<br>Habitat future prospects: Good<br>Overall future prospects: Inadequate.<br><br>Natural England now have a Class Licence underpinned by a ditch management protocol for operation on <i>Anisus</i> ditches, and water quality is improving in many systems. This should hopefully stem declines, although as with all aquatics it does seem likely to be impacted in the future by droughts/ floods. |
|   | <b>b) Qualifier</b> <b>stable</b>  |

|  |   |
|--|---|
|  | Future trends for range and habitat are stable, and conservation measures may prevent future decline of population. |
| <b>2.9.5 Overall assessment of Conservation Status</b> | <b>Inadequate</b>   |
|  | The overall assessment has been assessed as Inadequate because population and future prospects are Inadequate.      |
| <b>2.9.6 Overall trend in Conservation Status</b>      | <b>stable</b>   |
|  | On balance, the overall trend is stable.  |

### 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><br><br>Estimation of population size included in the SAC network  | <b>a) Unit</b>   | <b>number of map 1x1 km grid cells</b>   |
|  |  |  |
|  | <b>b) Minimum</b>  | <b>19</b>  |
|  | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. |  |
|  | <b>c) Maximum</b>  | <b>19</b>  |
|  |  | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. |
| <b>3.1.2 Method used</b>   | <b>Complete survey/Complete survey or a statistically robust estimate</b>  |  |
|  | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. |  |
| <b>3.1.3 Trend of population size within the network</b><br>(short-term trend)<br><br>Optional | <b>stable</b>  |  |
|  | For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information. |  |

### 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<br>H = high importance<br>M = medium importance<br>L = low importance | 3.2.4 Location<br>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 |
| 4.0: Other wetland-related measures           |                    |                   |                | Y            |            | M   | Y  |            |                          |                                       |            | Y            |              |            |                  |
| 4.1: Restoring/improving water quality        |                    |                   |                | Y            |            | H   |  |            | Y                        |                                       |            | Y            |              |            |                  |
| 6.3: Legal protection of habitats and species | Y                  |                   |                |              |            | M   |  |            | Y                        |                                       |            |              |              |            | Y                |

For further details see the 2013 Article 17 UK Approach document and relevant country-level reporting information.