

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

**Fourth Report by the United Kingdom
under Article 17**

on the implementation of the Directive
from January 2013 to December 2018

Conservation status assessment for the species:

S1015 - Round-mouthed whorl snail (*Vertigo genesii*)

UNITED KINGDOM

IMPORTANT NOTE - PLEASE READ

- The information in this document represents the UK Report on the conservation status of this species, submitted to the European Commission as part of the 2019 UK Reporting under Article 17 of the EU Habitats Directive.
- It is based on supporting information provided by the geographically-relevant Statutory Nature Conservation Bodies, which is documented separately.
- The 2019 Article 17 UK Approach document provides details on how this supporting information contributed to the UK Report and the fields that were completed for each parameter.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Maps showing the distribution and range of the species are included (where available).
- Explanatory notes (where provided) are included at the end. These provide additional audit trail information to that included within the UK assessments. Further underpinning explanatory notes are available in the related country-level reports.
- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; and/or (iii) the field was not relevant to this species (section 12 Natura 2000 coverage for Annex II species).
- The UK-level reporting information for all habitats and species is also available in spreadsheet format.

Visit the JNCC website, <https://jncc.gov.uk/article17>, for further information on UK Article 17 reporting.

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NATIONAL LEVEL

1. General information

1.1 Member State	UK
1.2 Species code	1015
1.3 Species scientific name	Vertigo genesii
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Round-mouthed whorl snail

2. Maps

2.1 Sensitive species	No
2.2 Year or period	2012-2018
2.3 Distribution map	Yes
2.4 Distribution map Method used	Based mainly on extrapolation from a limited amount of data
2.5 Additional maps	No

3. Information related to Annex V Species (Art. 14)

3.1 Is the species taken in the wild/exploited?	No																
3.2 Which of the measures in Art. 14 have been taken?	<table> <tr> <td>a) regulations regarding access to property</td><td>No</td></tr> <tr> <td>b) temporary or local prohibition of the taking of specimens in the wild and exploitation</td><td>No</td></tr> <tr> <td>c) regulation of the periods and/or methods of taking specimens</td><td>No</td></tr> <tr> <td>d) application of hunting and fishing rules which take account of the conservation of such populations</td><td>No</td></tr> <tr> <td>e) establishment of a system of licences for taking specimens or of quotas</td><td>No</td></tr> <tr> <td>f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens</td><td>No</td></tr> <tr> <td>g) breeding in captivity of animal species as well as artificial propagation of plant species</td><td>No</td></tr> <tr> <td>h) other measures</td><td>No</td></tr> </table>	a) regulations regarding access to property	No	b) temporary or local prohibition of the taking of specimens in the wild and exploitation	No	c) regulation of the periods and/or methods of taking specimens	No	d) application of hunting and fishing rules which take account of the conservation of such populations	No	e) establishment of a system of licences for taking specimens or of quotas	No	f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens	No	g) breeding in captivity of animal species as well as artificial propagation of plant species	No	h) other measures	No
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3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

b) Statistics/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ year 6
Min. (raw, ie. not rounded)						
Max. (raw, ie. not rounded)						
Unknown	No	No	No	No	No	No

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

BIOGEOGRAPHICAL LEVEL

4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

Atlantic (ATL)

4.2 Sources of information

England

Killeen, I.J.. 2015. Condition Monitoring of *Vertigo genesii* in Moor House-Upper Teesdale NNR/SAC. 2014 Report to Natural England.

Killeen, I.J. 2015b .Condition Monitoring of *Vertigo genesii* at Malham (Craven Limestone Complex SAC). Report to Natural England

Heaver, 2018. FAVOURABLE CONSERVATION STATUS: ENGLAND CONTRIBUTION: S1015 Round-mouthed Whorl Snail (*Vertigo genesii*). Draft statement. Unpublished, Natural England.

Scotland

Killeen, I., M. Willing & E. Moorkens. 2018b. Monitoring of *Vertigo* snail features at sites in Scotland: *Vertigo geyeri* and *Vertigo genesii*. Scottish Natural Heritage report.

Killeen, I.J. 2013b. Whorl snails (*Vertigo* spp.) surveillance in Scotland: a condition assessment of Geyer's whorl snail *Vertigo geyeri*, and the round-mouthed whorl snail *Vertigo genesii* in Perthshire and the Black Isle. Scottish Natural Heritage Report.

Littlewood, N.A. & Stockan, J.A. 2012. Surveillance of priority terrestrial invertebrates in Scotland. SNH report.

MIDAS - Management Information on Designated Areas in Scotland (SNH)

Pokryszko, B.M. 1990. The Vertiginidae of Poland (Gastropoda: Pulmonata: Pupiloidea) - a systematic monograph. *Annales Zoologici* 43: 133-257.

Pokryszko B.M. 1987. On the aphally in the Vertiginidae (Gastropoda: Pulmonata: Orthurethra). *Journal of Conchology* 32, 365-376.

Killeen, I.J. 2010. Condition Monitoring of *Vertigo genesii* in Moor House-Upper

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Teesdale NNR/SAC. Northumbrian Water and Natural England.
Moorkens, E. 2011. *Vertigo genesii*. The IUCN Red List of Threatened Species 2011: e.T22936A9399069

5. Range

5.1 Surface area (km ²)	726.29
5.2 Short-term trend Period	2007-2018
5.3 Short-term trend Direction	Stable (0)
5.4 Short-term trend Magnitude	a) Minimum b) Maximum
5.5 Short-term trend Method used	Based mainly on extrapolation from a limited amount of data
5.6 Long-term trend Period	
5.7 Long-term trend Direction	
5.8 Long-term trend Magnitude	a) Minimum b) Maximum
5.9 Long-term trend Method used	
5.10 Favourable reference range	<div>a) Area (km²) 726</div> <div>b) Operator</div> <div>c) Unknown</div> <div>d) Method</div> <div>The FRR is the same as in 2013. The value is considered to be large enough to support a viable population and no lower than the range estimate when the Habitats Directive came into force in the UK. For further information see the 2019 Article 17 UK Approach document.</div>
5.11 Change and reason for change in surface area of range	<div>Improved knowledge/more accurate data</div> <div>The change is mainly due to: Improved knowledge/more accurate data</div>
5.12 Additional information	The Range area has increased since 2013 due to improved knowledge of the distribution in Scotland. This is a result of an additional site being detected at Loch Loch (this site was in all likelihood occupied in 2012 but just not surveyed).

6. Population

6.1 Year or period	2013-2018
6.2 Population size (in reporting unit)	<div>a) Unit number of map 1x1 km grid cells (grids1x1)</div> <div>b) Minimum</div> <div>c) Maximum</div> <div>d) Best single value 18</div>
6.3 Type of estimate	Best estimate
6.4 Additional population size (using population unit other than reporting unit)	<div>a) Unit</div> <div>b) Minimum</div> <div>c) Maximum</div> <div>d) Best single value</div>
6.5 Type of estimate	

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6.6 Population size Method used	Based mainly on extrapolation from a limited amount of data	
6.7 Short-term trend Period	2007-2018	
6.8 Short-term trend Direction	Stable (0)	
6.9 Short-term trend Magnitude	a) Minimum b) Maximum c) Confidence interval	
6.10 Short-term trend Method used	Based mainly on extrapolation from a limited amount of data	
6.11 Long-term trend Period		
6.12 Long-term trend Direction		
6.13 Long-term trend Magnitude	a) Minimum b) Maximum c) Confidence interval	
6.14 Long-term trend Method used		
6.15 Favourable reference population (using the unit in 6.2 or 6.4)	a) Population size b) Operator c) Unknown d) Method	16 with unit number of map 1x1 km grid cells (grids1x1) The FRP is the same as in 2013. The value is considered to be large enough to support a viable population and no less than when the Habitats Directive came into force in the UK. For further information see the 2019 Article 17 UK Approach document.
6.16 Change and reason for change in population size	Improved knowledge/more accurate data Use of different method The change is mainly due to: Improved knowledge/more accurate data	
6.17 Additional information	The population size has increased since the 2013 reporting due to improved knowledge in England.	

7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat	a) Are area and quality of occupied habitat sufficient (for long-term survival)?	Unknown
	b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?	Unknown
7.2 Sufficiency of area and quality of occupied habitat Method used	Based mainly on expert opinion with very limited data	
7.3 Short-term trend Period	2007-2018	
7.4 Short-term trend Direction	Stable (0)	
7.5 Short-term trend Method used	Based mainly on extrapolation from a limited amount of data	
7.6 Long-term trend Period		
7.7 Long-term trend Direction		
7.8 Long-term trend Method used		

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7.9 Additional information

In England the sufficiency of area and quality of occupied habitat is considered adequate, whereas in Scotland this remains uncertain.

8. Main pressures and threats

8.1 Characterisation of pressures/threats

Pressure	Ranking
Abstraction from groundwater, surface water or mixed water (K01)	M
Droughts and decreases in precipitation due to climate change (N02)	M
Intensive grazing or overgrazing by livestock (A09)	H
Agricultural activities generating diffuse pollution to surface or ground waters (A26)	M
Active abstractions from groundwater, surface water or mixed water for agriculture (A30)	M
Drainage for use as agricultural land (A31)	M
Modification of hydrological flow or physical alteration of water bodies for agriculture (excluding development and operation of dams) (A33)	M
Threat	Ranking
Conversion from one type of agricultural land use to another (excluding drainage and burning) (A02)	M
Intensive grazing or overgrazing by livestock (A09)	H
Agricultural activities generating diffuse pollution to surface or ground waters (A26)	M
Active abstractions from groundwater, surface water or mixed water for agriculture (A30)	M
Drainage for use as agricultural land (A31)	M
Modification of hydrological flow or physical alteration of water bodies for agriculture (excluding development and operation of dams) (A33)	M
Abstraction from groundwater, surface water or mixed water (K01)	M
Droughts and decreases in precipitation due to climate change (N02)	M

8.2 Sources of information

8.3 Additional information

9. Conservation measures

9.1 Status of measures

- a) Are measures needed? Yes
- b) Indicate the status of measures Measures identified and taken

9.2 Main purpose of the measures taken

Restore the habitat of the species (related to 'Habitat for the species')

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9.3 Location of the measures taken	Both inside and outside Natura 2000
9.4 Response to the measures	Short-term results (within the current reporting period, 2013-2018)
9.5 List of main conservation measures	

Maintain existing extensive agricultural practices and agricultural landscape features (CA03)
Adapt mowing, grazing and other equivalent agricultural activities (CA05)
Manage drainage and irrigation operations and infrastructures in agriculture (CA15)

9.6 Additional information

10. Future prospects

10.1 Future prospects of parameters	a) Range Good b) Population Unknown c) Habitat of the species Unknown
10.2 Additional information	Future trend of Range is Overall stable; Future trend of Population is Unknown; and Future trend of Habitat for the species is Unknown. For further information on how future trends inform the Future prospects conclusion see the 2019 Article 17 UK Approach document.

11. Conclusions

11.1. Range	Favourable (FV)
11.2. Population	Favourable (FV)
11.3. Habitat for the species	Unknown (XX)
11.4. Future prospects	Unknown (XX)
11.5 Overall assessment of Conservation Status	Unknown (XX)
11.6 Overall trend in Conservation Status	
11.7 Change and reasons for change in conservation status and conservation status trend	a) Overall assessment of conservation status No information on nature of change The change is mainly due to: b) Overall trend in conservation status No change The change is mainly due to:
11.8 Additional information	Conclusion on Range reached because: (i) the short-term trend direction in Range surface area is stable; and (ii) the current Range surface area is approximately equal to the Favourable Reference Range. Conclusion on Population reached because: (i) the short-term trend direction in Population size is stable; and (ii) the current Population size is not less than the Favourable Reference Population. Conclusion on Habitat for the species reached because it is (i) unknown whether the area and quality of occupied and unoccupied habitat is sufficient for the long-term survival of the species; and (ii) the short-term trend in area and quality of

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the habitat is stable.

Conclusion on Future prospects reached because: (i) the Future prospects for Range are good; (ii) the Future prospects for Population are unknown; and (iii) the Future prospects for Habitat for the species are unknown.

Overall assessment of Conservation Status is Unknown because two of the conclusions are Unknown and two are Favourable.

Overall trend in Conservation Status is based on the combination of the short-term trends for Range - stable, Population - stable, and Habitat for the species - stable.

The Overall assessment of Conservation Status has changed between 2013 and 2019 because the conclusion for Range has changed from Unfavourable-bad to Favourable, the conclusion for Habitat for the species has changed from Favourable to Unknown and the conclusion for Future Prospects has changed from Unfavourable-bad to Unknown [note that the reason for change is due to less information/accuracy or certainty in the information available].

The Overall trend in Conservation Status has not changed between 2013 and 2019. However, as the Overall assessment of Conservation Status is Unknown, no trend is required to be reported.

12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

a) Unit number of map 1x1 km grid cells (grids1x1)
b) Minimum
c) Maximum
d) Best single value 12

12.2 Type of estimate

Minimum

12.3 Population size inside the network Method used

Based mainly on extrapolation from a limited amount of data

12.4 Short-term trend of population size within the network Direction

Unknown (x)

12.5 Short-term trend of population size within the network Method used

Based mainly on extrapolation from a limited amount of data

12.6 Additional information

13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

Distribution Map

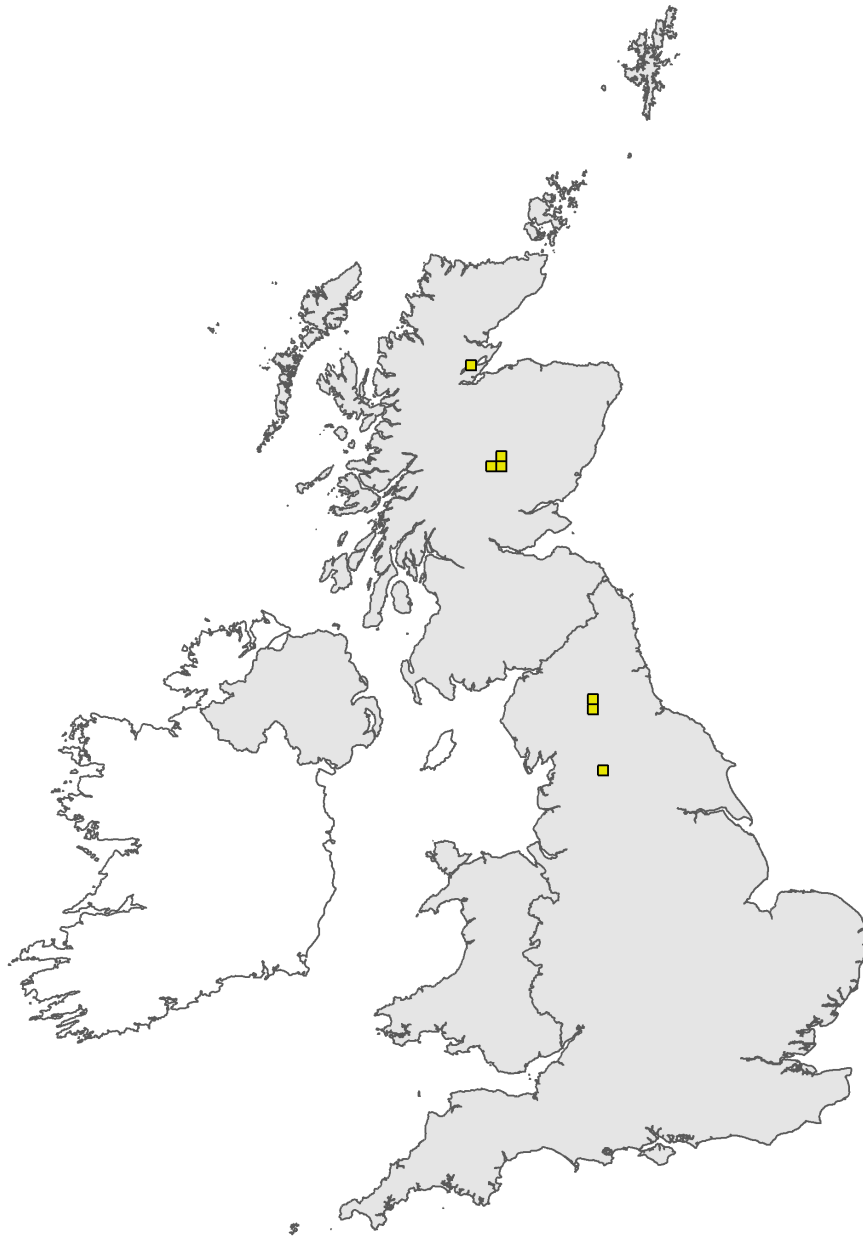


Figure 1: UK distribution map for S1015 - Round-mouthed whorl snail (*Vertigo genesii*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The 10km grid square distribution map is based on available species records within the current reporting period. For further details see the 2019 Article 17 UK Approach document.

Range Map

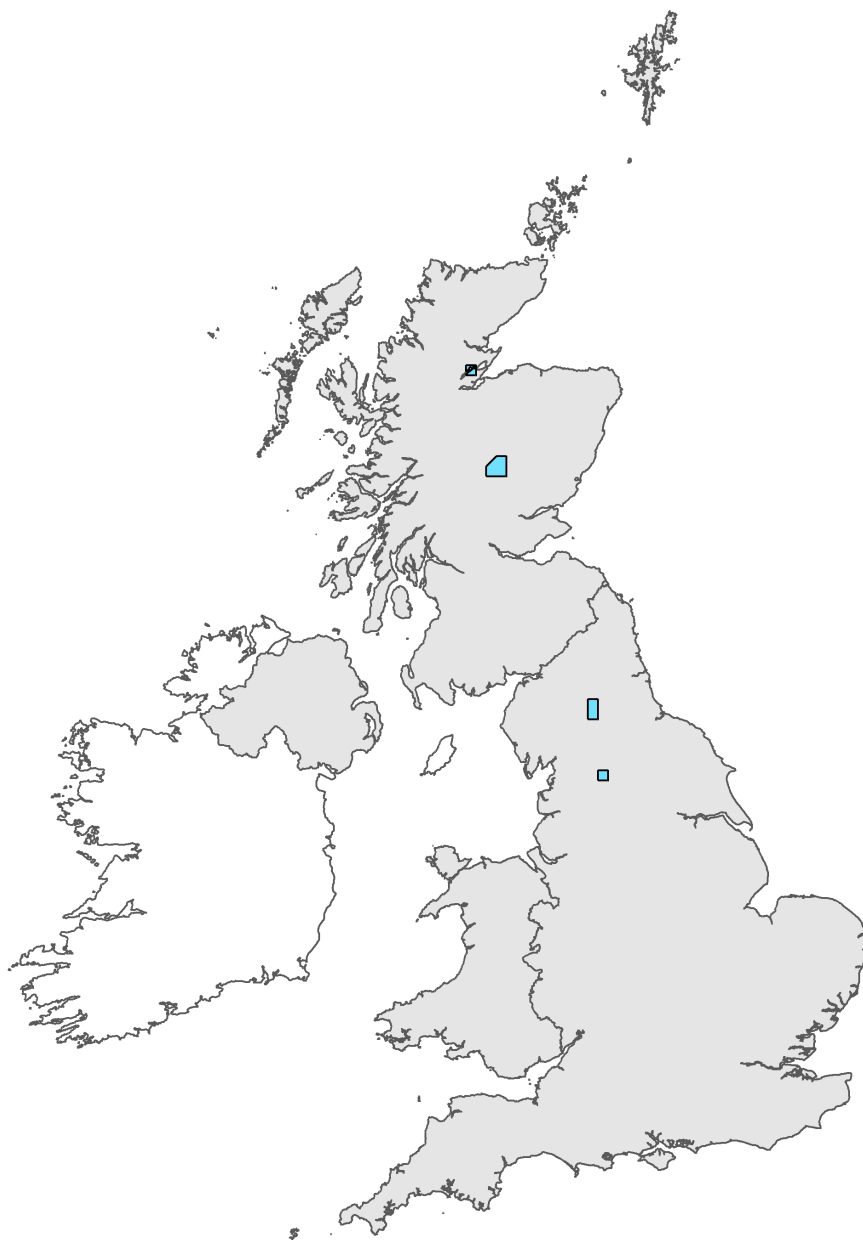


Figure 2: UK range map for S1015 - Round-mouthed whorl snail (*Vertigo genesii*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The range map has been produced by applying a bespoke range mapping tool for Article 17 reporting (produced by JNCC) to the 10km grid square distribution map presented in Figure 1. The alpha value for this species was 20km. For further details see the 2019 Article 17 UK Approach document.