

**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:

S1654 - Early gentian (*Gentianella anglica*)

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	1654
1.3 Species scientific name	<i>Gentianella anglica</i>
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Early gentian

2. Maps

2.1 Sensitive species	No
2.2 Year or period	2013-2018
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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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
 PRESTON, C.D., PEARMAN, D.A. & DINES, T.D. 2002. New Atlas of the British & Irish Flora. Oxford: Oxford University Press.
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https://www.plantlife.org.uk/application/files/6414/7913/4066/Brief20sheet20-20Early20gentian20Gentianella_briefing_sheet.pdf
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 WILSON, P. J. 1999 The distribution and status of *Gentianella anglica* (Pugsley) E. Warb. English Nature Species Recovery Programme/ Plantlife (Back from the Brink Project) Report No. 119
 WILSON, P.J. 2000. Early gentian *Gentianella anglica* (Pugsley) E. Warb.: survey and monitoring work in 1999. English Nature Species Recovery Programme/ Plantlife Report, No. 147
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BSBI Distribution Database (accessed July 2018)

Wales

Centre for Ecology and Hydrology 2018. Air Pollution Information System. Site Relevant Critical Loads. Stackpole SSSI. Available from: <http://www.apis.ac.uk/> [Accessed 5th July 2018]

Natural Resources Wales 2013. 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: S1654 - Early gentian (*Gentianella anglica*). Available from: http://jncc.defra.gov.uk/pdf/Article17Consult_20131010/S1654_WALES.pdf [Accessed 5th July 2018]

Rees, I. & Rich, T.C.G. (2012) Spring flowering by *Gentianella amarella* s.l. in Anglesey (v.c.52) pp.43-4. BSBI News (121)

Rich, T.C.G., Holyoak, D.T., Margetts, L.J. & Murphy, R.J. (1997) Hybridisation between *Gentianella amarella* (L.) Boerner and *G. anglica* (Pugsley) E. F. Warb. (*Gentianaceae*) *Watsonia* Vol. 21 p.p. 313-325

Sell, P.D. & Murrell J.G. (2009) *Flora of Great Britain and Ireland*, Volume 3: *Mimosaceae* - *Lentibulariaceae*. CUP Cambridge.

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5. Range

5.1 Surface area (km ²)	6911.61
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

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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	a) Area (km²) b) Operator Approximately equal to (≈) c) Unknown d) Method The FRR has changed since 2013 and is approximately equal to the current range. An FRR operator has been used because it has not been possible to calculate the exact FRR. The FRR is considered to be sufficient to maintain a viable population and is no less than when the Habitats Directive came into force in the UK. For further details see the 2019 Article 17 UK Approach document.
5.11 Change and reason for change in surface area of range	Use of different method The change is mainly due to: Use of different method
5.12 Additional information	The current range surface area calculation for the 2019 reporting does not represent the actual range surface area. It is considered to still be the range area calculated in the 2013 reporting as 14,673.47km². This is because of a change in the availability of underpinning survey mapping data compared to 2013. This has resulted in an apparent decrease in range area, but this is not genuine change. Expert opinion considers the trend to be stable. The current range surface area is considered to be above the FRR set in 2007, which was 12,407km². For further information see the 2019 Article 17 Approach document.

6. Population

6.1 Year or period	2013-2018
6.2 Population size (in reporting unit)	a) Unit number of localities (Localities) b) Minimum c) Maximum d) Best single value 71
6.3 Type of estimate	Minimum
6.4 Additional population size (using population unit other than reporting unit)	a) Unit b) Minimum c) Maximum d) Best single value
6.5 Type of estimate	
6.6 Population size Method used	Based mainly on extrapolation from a limited amount of data
6.7 Short-term trend Period	2003-2018
6.8 Short-term trend Direction	Decreasing (-)

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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	154 with unit number of localities (localities) The FRP 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.
6.16 Change and reason for change in population size	Genuine change The change is mainly due to: Genuine change	
6.17 Additional information	As a UK endemic species, the UK is permitted to set the most appropriate reporting unit for this species, which is 'localities'. The population has declined at a rate of $\leq 1\%$ (one percent or less) over the reporting period and is more than 25% below the FRP.	

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)? b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?	No No
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	2004-2018	
7.4 Short-term trend Direction	Uncertain (u)	
7.5 Short-term trend Method used	Based mainly on expert opinion with very limited data	
7.6 Long-term trend Period		
7.7 Long-term trend Direction		
7.8 Long-term trend Method used		
7.9 Additional information	The continued slow loss of sites is assumed to have contributed to the decline in population of this species. It is therefore reasonable to assume that either habitat quality or quantity is insufficient to maintain a favourable population of	

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the species.

8. Main pressures and threats

8.1 Characterisation of pressures/threats

Pressure	Ranking
Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06)	H
Extensive grazing or undergrazing by livestock (A10)	H
Application of synthetic (mineral) fertilisers on agricultural land (A20)	M
Threat	Ranking
Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06)	H
Extensive grazing or undergrazing by livestock (A10)	H
Application of synthetic (mineral) fertilisers on agricultural land (A20)	H

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

Maintain the current range, population and/or habitat for the species

9.3 Location of the measures taken

Both inside and outside Natura 2000

9.4 Response to the measures

Medium-term results (within the next two reporting periods, 2019-2030)

9.5 List of main conservation measures

Prevent conversion of natural and semi-natural habitats, and habitats of species into agricultural land (CA01)

Maintain existing extensive agricultural practices and agricultural landscape features (CA03)

Reinstate appropriate agricultural practices to address abandonment, including mowing, grazing, burning or equivalent measures (CA04)

9.6 Additional information

10. Future prospects

10.1 Future prospects of parameters

- a) Range Poor
- b) Population Bad
- c) Habitat of the species Poor

10.2 Additional information

Future trend of Range is Negative - decreasing $\leq 1\%$ (one percent or less) per

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year on average; Future trend of Population is Negative - decreasing $\leq 1\%$ (one percent or less) per year on average; and Future trend of Habitat for the species is negative - slight/moderate deterioration. 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	Unfavourable - Bad (U2)
11.3. Habitat for the species	Unfavourable - Inadequate (U1)
11.4. Future prospects	Unfavourable - Bad (U2)
11.5 Overall assessment of Conservation Status	Unfavourable - Bad (U2)
11.6 Overall trend in Conservation Status	Unknown (x)
11.7 Change and reasons for change in conservation status and conservation status trend	a) Overall assessment of conservation status No change The change is mainly due to: b) Overall trend in conservation status Use of different method The change is mainly due to: Use of different method
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 decreasing by 1% per year or less; and (ii) the current Population size is more than 25% below the Favourable Reference Population. Conclusion on Habitat for the species reached because: (i) the area of occupied and unoccupied habitat is not sufficiently large and (ii) the habitat quality is not adequate for the long-term survival of the species; and (iii) the short-term trend in area of habitat is uncertain. Conclusion on Future prospects reached because: (i) the Future prospects for Range are poor; (ii) the Future prospects for Population are bad; and (iii) the Future prospects for Habitat for the species are poor. Overall assessment of Conservation Status is Unfavourable-bad because one or more of the conclusions are Unfavourable-bad. Overall trend in Conservation Status is based on the combination of the short-term trends for Range – stable, Population – decreasing, and Habitat for the species – uncertain. Overall assessment of Conservation Status has not changed since 2013.

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The reason for the change on the Overall trend in Conservation Status between the 2013 and 2019 reporting is due to the removal of the Future prospects trend from the 2019 method used to assess Overall trend.

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 localities (localities)
b) Minimum
c) Maximum
d) Best single value 36

12.2 Type of estimate

Best estimate

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

Stable (0)

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 S1654 - Early gentian (*Gentianella anglica*). 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

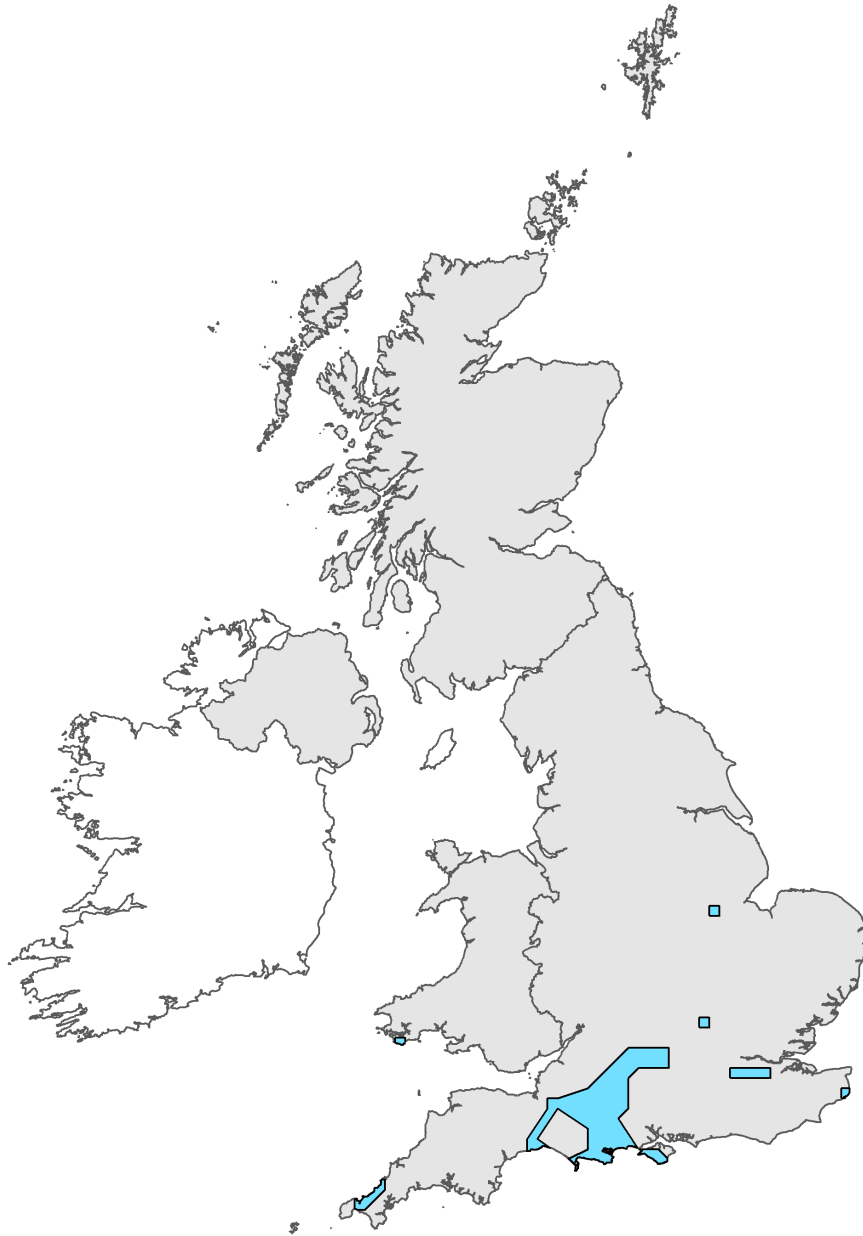


Figure 2: UK range map for S1654 - Early gentian (*Gentianella anglica*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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.