

Report under The Conservation of Habitats and  
Species Regulations 2017 (as amended),  
Regulation 9A

**2019-2024**

Conservation status assessment for the species:

**S1654 - Early gentian**  
**(*Gentianella anglica*)**

**Wales**



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### **Important note - Please read**

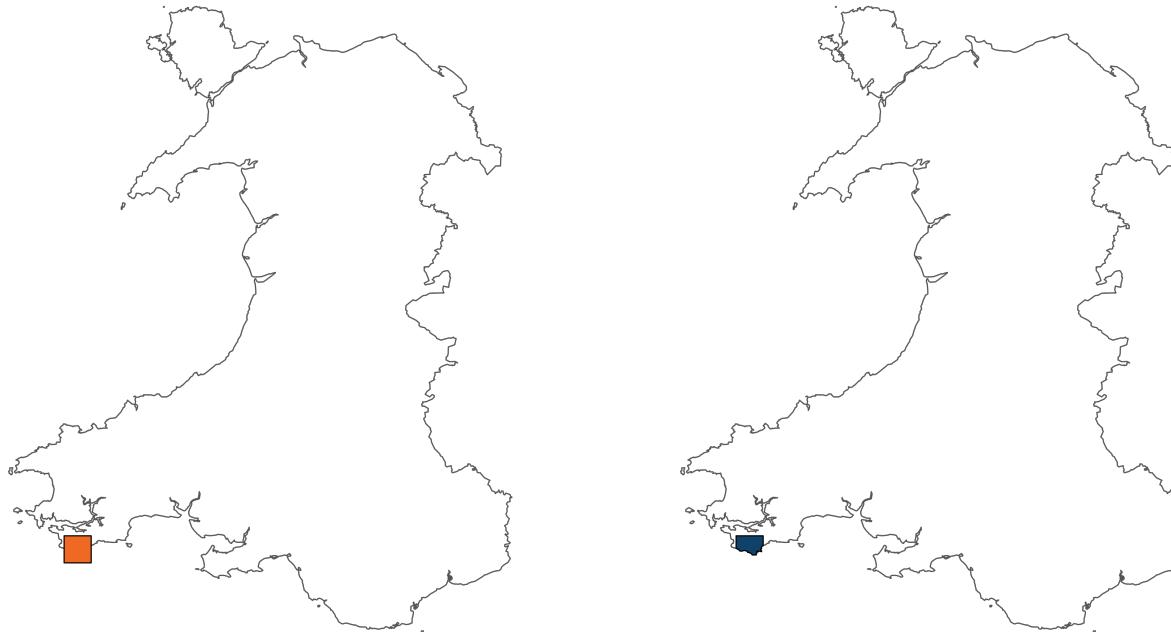
- The information in this document represents the Wales Report under The Conservation of Habitats and Species Regulations 2017 (as amended), Regulation 9A, for the period 2019-2024.
- It is based on supporting information provided by Natural Resources Wales, which is documented separately.
- The Habitats Regulations reporting 2019-2024 Approach Document provides details on how this supporting information contributed to the UK Report and the fields that were completed for each parameter.
- Maps showing the distribution and range of the species are included.
- Explanatory notes (where provided) are included at the end. These provide additional audit trail information to that included within the assessments. Further underpinning explanatory notes are available in the related country 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 National Site Network coverage for Annex II species).

Further details on the approach to the Habitats Regulations Reporting 2019-2024 are available on the [JNCC website](#).

## Assessment Summary: Early gentian

### Distribution Map

### Range Map



**Figure 1:** Wales distribution and 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 10km grid square distribution map is based on available species records within the current reporting period.

**Table 1:** Table summarising the conservation status for S1654 - Early gentian (*Gentianella anglica*). Overall conservation status for species is based on assessments of range, population, habitat for the species, and future prospects.

### Overall Conservation Status (see section 11)

Unknown (XX)

### Breakdown of Overall Conservation Status

**Range (see section 5)**

**Favourable (FV)**

**Population (see section 6)**

**Favourable (FV)**

**Habitat for the species (see section 7)**

**Unknown (XX)**

**Future prospects (see section 10)**

**Unknown (XX)**

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## National Level

### 1. General information

<b>1.1 Country</b>	Wales
<b>1.2 Species code</b>	S1654
<b>1.3 Species scientific name</b>	<i>Gentianella anglica</i>
<b>1.4 Alternative species scientific name</b>	
<b>1.5 Common name</b>	Early gentian
<b>Annex(es)</b>	II, IV

### 2. Maps

<b>2.1 Sensitive species</b>	No
<b>2.2 Year or period</b>	2019-2024
<b>2.3 Distribution map</b>	Yes
<b>2.4 Distribution map; Method used</b>	Based mainly on expert opinion with very limited data

### 2.5 Additional information

No additional information

### 3. Information related to Annex V Species

#### 3.1 Is the species taken in the wild / exploited?

#### 3.2 What measures have been taken?

##### a) Regulations regarding access to property

##### b) Temporary or local prohibition on the taking of specimens in the wild and exploitation

##### c) Regulation of the periods and/or methods of taking specimens

##### d) Application of hunting and fishing rules which take account of the conservation of such populations

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**e) Establishment of a system of licences for taking specimens or of quotas**

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**f) Regulation of the purchase, sale, offering for sale, keeping for sale, or transport for sale of specimens**

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**g) Breeding in captivity of animal species as well as artificial propagation of plant species**

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#### **Other measures**

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#### **Other measures description**

### **3.3: Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)**

#### **a) Unit**

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**Table 2:** Quantity taken from the wild during the reporting period (see 3.3a for units). For species with defined hunting seasons, Season 1 refers to 2018/2019 (autumn 2018 to spring 2019), and Season 6 to 2023/2024. For species without hunting seasons, data are reported by calendar year: Year 1 is 2019, and Year 6 is 2024.

	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ year 6
<b>b) Minimum</b>	-	-	-	-	-	-
<b>c) Maximum</b>	-	-	-	-	-	-
<b>d) Unknown</b>	-	-	-	-	-	-

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### **3.4: Hunting bag or quantity taken in the wild; Method used**

### **3.5: Additional information**

No additional information

## Biogeographical Level

### 4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs ATL

### 4.2 Sources of information

See section 14 References

## 5. Range

5.1 Surface area (km<sup>2</sup>) 57.98

5.2 Short-term trend; Period 2013-2024

5.3 Short-term trend; Direction Stable

5.4 Short-term trend;  
Magnitude

a) Estimated minimum

b) Estimated maximum

c) Pre-defined range

d) Unknown Yes

e) Type of estimate

f) Rate of decrease

5.5 Short-term trend; Method used Based mainly on expert opinion with very limited data

5.6 Long-term trend; Period 2001-2024

5.7 Long-term trend; Direction Stable

5.8 Long-term trend;  
Magnitude

a) Minimum

b) Maximum

c) Rate of decrease

<b>5.9 Long-term trend; Method used</b>	Based mainly on expert opinion with very limited data
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### 5.10 Favourable Reference Range (FRR)

<b>a) Area (km<sup>2</sup>)</b>	
<b>b) Pre-defined increment</b>	Current range is less than 2% smaller than the FRR
<b>c) Unknown</b>	No
<b>d) Method used</b>	Reference-based approach
<b>e) Quality of information</b>	moderate

### 5.11 Change and reason for change in surface area of range

<b>a) Change</b>	No
<b>b) Genuine change</b>	
<b>c) Improved knowledge or more accurate data</b>	
<b>d) Different method</b>	
<b>e) No information</b>	
<b>f) Other reason</b>	
<b>g) Main reason</b>	

### 5.12 Additional information

No additional information

## 6. Population

<b>6.1 Year or period</b>	2024-
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### 6.2 Population size (in reporting unit)

<b>a) Unit</b>	number of localities
<b>b) Minimum</b>	
<b>c) Maximum</b>	

<b>d) Best single value</b>	1
<b>6.3 Type of estimate</b>	Best estimate
<b>6.4 Quality of extrapolation to reporting unit</b>	
<b>6.5 Additional population size (using population unit other than reporting unit)</b>	
<b>a) Unit</b>	
<b>b) Minimum</b>	
<b>c) Maximum</b>	
<b>d) Best single value</b>	
<b>e) Type of estimate</b>	
<b>6.6 Population size; Method used</b>	Based mainly on expert opinion with very limited data
<b>6.7 Short-term trend; Period</b>	2013-2024
<b>6.8 Short-term trend; Direction</b>	Stable
<b>6.9 Short-term trend; Magnitude</b>	
<b>a) Estimated minimum</b>	
<b>b) Estimated maximum</b>	
<b>c) Pre-defined range</b>	
<b>d) Unknown</b>	
<b>e) Type of estimate</b>	
<b>f) Rate of decrease</b>	
<b>6.10 Short-term trend; Method used</b>	Based mainly on expert opinion with very limited data
<b>6.11 Long-term trend; Period</b>	2001-2024
<b>6.12 Long-term trend; Direction</b>	Stable
<b>6.13 Long-term trend; Magnitude</b>	

a) Minimum

b) Maximum

c) Confidence interval

d) Rate of decrease

**6.14 Long-term trend; Method used** Based mainly on expert opinion with very limited data

### **6.15 Favourable Reference Population (FRP)**

a) Population size

aii) Unit

b) Pre-defined increment Current population is less than 5% smaller than the FRP

c) Unknown No

d) Method used Expert opinion

e) Quality of information

### **6.16 Change and reason for change in population size**

a) Change No

b) Genuine change

c) Improved knowledge or more accurate data

d) Different method

e) No information

f) Other reason

g) Main reason

### **6.17 Additional information**

No additional information

**6.18 Age structure, mortality and reproduction deviation** No deviation from normal

## 7. Habitat for the species

### 7.1 Sufficiency of area and quality of occupied habitat (for long-term survival)

<b>a) Is area of occupied habitat sufficient?</b>	Unknown
<b>b) Is quality of occupied habitat sufficient?</b>	No
<b>c) If No or Unknown, is there a sufficiently large area of unoccupied habitat of suitable quality?</b>	Unknown

### 7.2 Sufficiency of area and quality of occupied habitat; Method used

<b>a) Sufficiency of area of occupied habitat; Method used</b>	Complete survey or a statistically robust estimate
<b>b) Sufficiency of quality of occupied habitat; Method used</b>	Complete survey or a statistically robust estimate

**7.3 Short-term trend; Period** 2013-2024

**7.4 Short-term trend; Direction** Uncertain

**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

No additional information

## 8. Main pressures

### 8.1 Characterisation of pressures

**Table 3:** Pressures affecting the species, including timing and importance/impact ranking. Pressures are defined as factors acting currently and/or during the reporting period (2019–2024). Rankings are: High (direct/immediate influence and/or large spatial extent) and Medium (moderate direct/immediate influence, mainly indirect and/or regional extent).

Pressure	Timing	Ranking
PA08: Extensive grazing or undergrazing by livestock	Ongoing and likely to be in the future	Medium (M)
PI03: Problematic native species	Ongoing and likely to be in the future	Medium (M)
PI04: Plant and animal diseases, pathogens and pests	Ongoing and likely to be in the future	Medium (M)
PK03: Mixed source air pollution, air-borne pollutants	Ongoing and likely to be in the future	High (H)
PK04: Atmospheric N-deposition	Ongoing and likely to be in the future	Medium (M)
PM07: Natural processes without direct or indirect influence from human activities or climate change	Ongoing and likely to be in the future	Medium (M)
PJ03: Changes in precipitation regimes due to climate change	Only in future	Medium (M)

## 8.2 Sources of information

See section 14 References

## 8.3 Additional information

No additional information

## 9. Conservation measures

### 9.1: Status of measures

<b>a) Are measures needed?</b>	Yes
<b>b) Indicate the status of measures</b>	Measures identified and taken
<b>9.2 Main purpose of the measures taken</b>	Maintain the current range, population and/or habitat for the species

<b>9.3 Location of the measures taken</b>	Only inside National Site Network
<b>9.4 Response to measures</b>	Medium-term results (within the next two reporting periods, 2025–2036)

### 9.5 List of main conservation measures

**Table 4:** Key conservation measures addressing current pressures and/or anticipated threats during the next two reporting periods (2025–2036). Measures are ranked by importance/impact: High (direct/immediate influence and/or large spatial extent) and Medium (moderate direct/immediate influence, mainly indirect and/or regional extent).

Conservation measure	Ranking
MA05: Adapt mowing, grazing and other equivalent agricultural activities (e.g. burning)	High (H)
MI06: Controlling and eradicating plant and animal diseases, pathogens and pests	Medium (M)
MK01: Reduce impact of mixed source pollution	Medium (M)
MM01: Management of habitats (others than agriculture and forest) to slow, stop or reverse natural processes that occur without direct or indirect influence from human activities or climate change	High (H)

### 9.6 Additional information

Only part of the measures identified have been taken.

## 10. Future prospects

### 10.1a Future trends of parameters

<b>ai) Range</b>	Overall stable
<b>bi) Population</b>	Unknown
<b>ci) Habitat for the species</b>	Unknown

### 10.1b Future prospects of parameters

<b>a ii) Range</b>	Good
<b>b ii) Population</b>	Unknown

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<b>cii) Habitat for the species</b>	Unknown
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## **10.2 Additional information**

No additional information

## **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 reason for change in conservation status**

This field is not reported as the period 2019-2024 marks the first instance in which conservation status has been assessed at the national level, meaning no comparisons to previous reports can be drawn.

## **11.7 Change and reason for change in conservation status trend**

This field is not reported as the period 2019-2024 marks the first instance in which conservation status has been assessed at the national level, meaning no comparisons to previous reports can be drawn.

## **11.8 Additional information**

No additional information

## **12. UK National Site Network (pSCIs, SCIs, SACs) coverage for Annex II species**

### **12.1 Population size inside the pSCIs, SCIs and SACs network**

<b>a) Unit</b>	number of localities
<b>b) Minimum</b>	
<b>c) Maximum</b>	
<b>d) Best single value</b>	1
<b>12.2 Type of estimate</b>	Best estimate
<b>12.3 Population size inside the network; Method used</b>	Based mainly on expert opinion with very limited data
<b>12.4 Short-term trend of population size within the network; Direction</b>	Stable
<b>12.5 Short-term trend of population size within the network; Method used</b>	Based mainly on expert opinion with very limited data
<b>12.6 Short-term trend of habitat for the species inside the pSCIs, SCIs and SACs network; Direction</b>	Unknown
<b>12.7 Short-term trend of habitat for the species inside the pSCIs, SCIs and SACs network; Method used</b>	Insufficient or no data available
<b>12.8 Additional information</b>	

No additional information

### 13. Complementary information

#### 13.1 Justification of percentage thresholds for trends

No justification information

#### 13.2 Trans-boundary assessment

No trans-boundary assessment information

#### 13.2 Other relevant information

No other relevant information

## 14. References

### Biogeographical and marine regions

#### 4.2 Sources of information

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

Botanical Society of Britain & Ireland. BSBI Online Plant Atlas 2020 <https://plantatlas2020.org/>

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: [https://webarchive.nationalarchives.gov.uk/ukgwa/20180804120034mp\\_](https://webarchive.nationalarchives.gov.uk/ukgwa/20180804120034mp_/) [http://jncc.defra.gov.uk/pdf/Article17Consult\\_20131010/S1654\\_WALES.pdf](http://jncc.defra.gov.uk/pdf/Article17Consult_20131010/S1654_WALES.pdf)

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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

Rich, T.C.G., McVeigh, A. & Stace, C. A. (2018) New taxa and new combinations in the British flora. Edinburgh Journal of Botany.

Rich, T.C.G., McVeigh, A. (2019) Gentians of Britain and Ireland. BSBI Handbook No. 19. BSBI.

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

Stace, C.A. (2019) New Flora of the British Isles. 4th ed. C & M Floristics.

Stroh, P.A., Walker, K.J., Humphrey, T.A., Pescott, O.L & Burkmar, R.J. eds (2023). Plant Atlas 2020. Mapping Changes in the Distribution of the British and Irish Flora. 2 Volumes. Princeton: Botanical Society of Britain and Ireland & Princeton University Press. <https://doi.org/10.2307/j.ctv2x6f08m>

Sutton, M. (2012). Survey of Stackpole NNR grasslands, heaths, dunes and coast. Matt Sutton Ecology. CCW Internal Report.

Wilkinson, K. (2004) Limestone Coast of South West Wales SAC Monitoring. *Gentianella anglica* (1654) Monitoring Round 1 (2000 –2006). Countryside Council for Wales internal report.

Wilkinson, K. (2009) Limestone Coast of South West Wales SAC Monitoring. *Gentianella anglica* (1654) Monitoring Round 2 (2007-2012). Countryside Council for Wales internal report.

Wilkinson, K. (2015) Limestone Coast of South West Wales SAC Monitoring. *Gentianella anglica* (1654) Monitoring Round 2 (2012-2018). Natural Resources Wales internal draft report.

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

Winfield M.O, Wilson P.J, Labra. M, Parker J.S. (2002) A brief evolutionary excursion comes to an end: the genetic relationship of British species of *Gentianella* sect. *Gentianella* (Gentianaceae). *Plant systematics and Evolution* 237, pp. 137 –151.

## Main pressures

### 8.2 Sources of information

No sources of information

## 15. Explanatory Notes

Field label	Note
2.4: Distribution map; Method used	There are recent records for <i>Gentianella amarella</i> subsp. <i>anglica</i> sensu stricto from just one 10 km sq. in Wales and this population (at Stackpole National Nature Reserve) is still extant. The leading taxonomic specialist in this field has found candidate material from other Welsh sites to be indeterminate (Rees & Rich, 2012). No comprehensive surveys have been done at the known location in Wales since 2015 but a brief visit confirmed presence in 2024 (J. Woodman pers. Comm).
5.3: Short-term trend; Direction	See 5.11
5.11: Change and reason for change in surface area of range	There has been no change to the recorded 10km square distribution of <i>Gentianella amarella</i> subsp. <i>anglica</i> in Wales, where it is confined to a single site. Within that Stackpole site, the last detailed assessment was undertaken in 2015 (Wilkinson 2015). There has been no systematic assessment since then but a brief visit confirmed presence in 2024.
6.2: Population size	<p><i>Gentianella amarella</i> subsp. <i>anglica</i> is known from a single locality in Wales, Stackpole Warren, where it occupies dry slacks within a perched dune system.</p> <p>In last reporting round (based on 2015 survey) 40 individuals (best single value) were recorded at Stackpole.</p> <p>Population estimates are complicated by the wide inter-annual fluctuations in abundance of this annual species and the difficulty in splitting from diminutive examples of subsp. <i>amarella</i> that occur here..</p>
6.6: Population size; Method used	The <i>Gentianella anglica</i> population at Stackpole Warren was monitored approximately once every six years as part of NRW's SAC monitoring programme. Monitoring focuses on the condition of the plant's habitat and the local distribution of individuals conforming to the morphological

	<p>description of <i>G. anglica</i>. There has been no monitoring since 2015 here. Brief visit in 2024 confirmed presence but time of year was not ideal and confidence about identification is 80%.</p>
6.8: Short-term trend; Direction	<p>While there has been no change in the number of localities from which <i>G. amarella</i> subsp. <i>anglica</i> is recorded in Wales, the trend in numbers of individual plants remains uncertain because verifiable counts of <i>G. amarella</i> subsp. <i>anglica</i> are difficult if not impossible, as taxonomic identification of material in the field is imprecise and many individuals cannot be assigned to <i>G. amarella</i> subsp. <i>anglica</i> (or other supposedly related taxa) with any degree of confidence. Counts of candidate <i>G. amarella</i> subsp. <i>anglica</i>' can vary throughout the growth season as material approximating to this taxon either grows into or is replaced by other variants. There also appears to be significant differences between observers, due to differences in sampling and measurement technique and / or the overlapping range of taxonomic characters. A brief visit in 2024 confirmed presence.</p>
6.10: Short-term trend; Method used	<p>The population of <i>G. amarella</i> subsp. <i>anglica</i> at Stackpole Warren NNR was the focus of regular (six yearly) and comprehensive monitoring, focussing on the frequency and distribution of plants conforming to the morphological description of <i>G. amarella</i> subsp. <i>anglica</i> and the condition of its supporting habitat. Despite this detailed monitoring, the difficulties associated with confidently assigning individual plants to the taxon, along with the unknown scale of natural inter-annual fluctuations in population size mean that a trend in population numbers cannot be identified. A brief visit in 2024 confirmed presence at the locality but no count of individuals was undertaken.</p>
6.18: Age structure, mortality and reproduction	<p>There is no reason to suspect that the reproduction, mortality or age structure of the <i>Gentianella anglica</i> population in Wales is deviating from the normal.</p>
7.1: Sufficiency of area and quality of occupied habitat	<p>SAC monitoring of <i>Gentianella amarella</i> subsp. <i>anglica</i> at Stackpole Warren in 2015 (Wilkinson, 2015), revealed that the habitat was in unfavourable condition for the species</p>

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largely as a consequence of the encroachment of bracken, *Rubus caesius* and other more robust /competitive species within the short, open-turved, dry slack habitat that the Gentian requires at this site. No detailed monitoring has been undertaken since then.

It is unknown whether or not the area of currently occupied habitat at Stackpole is sufficient to maintain a population in the longer term. The species is only known from a small and environmentally homogeneous area (0.21 ha) of dry slack habitat (Sutton, 2012) within the wider perched dune system which effectively limits the size of the population making it more vulnerable to stochastic effects and chance events.

The extent of suitable but unoccupied habitat in Wales is unknown, but likely to be very limited. The steep, mostly south-facing chalk downland slopes the species is associated within its core range in southern England are absent from Wales and dry slack habitat of the kind that *G. amarella* subsp. *anglica* currently occupies at Stackpole is extremely restricted, with few if any sites other Welsh sites providing similar conditions.

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7.2: Sufficiency of area and quality of occupied habitat; Methods used	The habitat for the species at Stackpole Warren (part of the Limestone Coast of South West Wales SAC) has been systematically recorded as part of NRW's SAC monitoring programme (Wilkinson, 2015). No detailed monitoring has been undertaken since 2015.
7.4: Short-term trend; Direction	Common Standards monitoring of the habitat for <i>Gentianella anglica</i> at Stackpole Warren (Wilkinson, 2004, 2009, 2015) shows no clear trend in habitat extent or condition. There is some evidence of localised encroachment by bracken and <i>Rubus caesius</i> and decreases in the extent of bare ground within the monitoring plots perhaps suggesting a minor reduction in habitat quality, but these changes are too small to be confident that they represent a genuine and ecologically significant change in habitat condition.

7.5: Short-term trend; Method used	Both the species and its habitat were the focus of regular systematic monitoring at its only site in Wales. This has not occurred since 2015. A brief visit in 2024 confirmed presence of the subspecies and the presence of suitable habitat, but none of this was systematic.
8.1: Characterisation of pressures	<p>Pressures:</p> <p>The habitat for <i>Gentianella anglica</i> is reliant on suitable levels of grazing to maintain the open structure on which the species depends. Under-grazing (PA08) in combination with other drivers such as excess deposition of atmospheric nitrogen may be contributing to the encroachment of <i>Rubus caesius</i> and other coarse species into the core habitat for the species at its one Welsh site (PI03).</p> <p>In Wales <i>G. anglica</i> occupies open areas of dry slack habitat within a fossilised perched dune system. These areas are threatened by habitat succession (PM07) which is likely to be exacerbated by excess N deposition (PK03) and under-grazing (PA08). Gentian's as annual / biennials, are subject to fluctuations in population sizes year on year mainly down to weather conditions impacting germination. Increasing extremes , and droughting due to climate change will have an impact on future prospects (PJ03).</p> <p>The current estimated deposition rate for atmospheric nutrient nitrogen at Stackpole is 10.3 kg N ha<sup>-1</sup> yr<sup>-1</sup> (NRW Site Profile). This rate exceeds the Critical Load mapping value for grey dunes (H2130) and calcareous grasslands (H6210) which represent the two closest Annex I habitat types to the vegetation in which <i>G. anglica</i> occurs. Excess nutrient nitrogen in these habitats is likely to accelerate natural successional processes and encourage the spread of nitrophilous species at the expense of <i>G. anglica</i> and other small herbs.</p> <p>Rabbits are important grazers at Stackpole and play a key role in maintaining the open and short-grazed turf occupied by the gentian. Populations have in the past been</p>

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adversely impacted by both myxomatosis and rabbit haemorrhagic disease (PI04).

Plants of *Gentianella* conforming to the published description of *G. amarella* subsp. *anglica* at Stackpole are closely associated with larger numbers of plants clearly assignable *G. amarella* subsp. *amarella*, alongside individuals with intermediate morphology and an overlapping flowering period.

Threats:

All the listed pressures are considered current and likely to continue to have an impact over the next twelve years.

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9.1: Status of measures	Management of the grazing unit at Stackpole NNR is the main factor in maintaining and restoring habitat for this species. However excess deposition of atmospheric nitrogen, ongoing successional processes and weather extremes, within a largely fossilised perched dunes system and the threat to the rabbit population posed by rabbit haemorrhagic disease and other pathogens present challenges to which there are at present no clear solutions.
9.5: List of main conservation measures	MA05 & MM01 – Continued management of the grazing unit at Stackpole NNR is the main factor in maintaining the habitat for this species. Focussed management of the bracken and coarse vegetation within the dune hollows where the Gentian occurs should be a priority, with management in other adjacent hollows a secondary priority. Management should be through grazing and cutting / mowing (Wilkinson 2015)

MI06, Measures to reduce the threat of Myxomatosis and Rabbit Haemorrhagic Disease to the local rabbit population (which is important in maintaining the habitat for 'G. anglica') have not yet been undertaken. However, steps such as vaccination and bolstering of the population are to be trialled at other sites as part of a recently approved LIFE project on Welsh dunes and could potentially be extended

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	<p>to Stackpole if successful.</p> <p>MK01, National regulations and local controls are in place controlling emissions of reactive nitrogen and other atmospheric pollutants from various sectors and sources.</p>
10.1: Future trends and prospects of parameters	<p>Future prospects of range</p> <p>The range and 10km square distribution of '<i>Gentianella anglica</i>' in Wales is considered unlikely to change in the short to medium-term.</p> <p>Future prospects of population</p> <p>Habitat change is considered to represent the most significant threat to the population of <i>G. amarella</i> subsp. <i>anglica</i> at its one Welsh site. This threat is only partially addressed by either existing or proposed conservation measures and are considered likely to result in a decline in the population of plants meeting the description of <i>G. amarella</i> subsp. <i>anglica</i>.</p> <p>Future prospects of habitat for species</p> <p>Habitat succession exacerbated by excess deposition of atmospheric nitrogen represents a significant threat to the extent and condition of the habitat for <i>G. amarella</i> subsp. <i>anglica</i> at Stackpole. Although ongoing active management of the NNR (notably through manipulation of grazing timing and intensity, and bracken control) should to some extent mitigate these impacts they are considered unlikely to completely negate them.</p>
11.1: Range	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.
11.2: Population	Conclusion on Population reached because: (i) the short-term trend direction in Population size is stable; (ii) the current Population size is approximately equal to the

	Favourable Reference Population; and iii) reproduction, mortality and age structure not deviating from normal.
11.3: Habitat for the species	Conclusion on Habitat for the species reached because: (i) it is unknown whether the area of occupied habitat is sufficiently large for long-term survival (ii) the quality of occupied habitat is not suitable for the long-term survival of the species; and (iii) it is unknown whether there is a sufficiently large area of occupied and unoccupied habitat of suitable quality for long term survival (iv) the short-term trend in area of habitat is uncertain.
11.4: Future prospects	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.
11.5: Overall assessment of Conservation Status	Overall assessment of Conservation Status is Unknown because two or more of the conclusions are Unknown.
12.1: Population size inside the pSCIs, SCIs and SACs network	The only known population of <i>Gentianella anglica</i> in Wales falls within the Limestone Coast of South West Wales SAC.
12.3: Population size inside the network; Method used	The population of <i>Gentianella anglica</i> at Stackpole is subject to regular monitoring as part of NRW's SAC monitoring programme.
12.4: Short-term trend of the population size within the network; Direction	While there has been no change in the number of Welsh SAC from which <i>G. amarella</i> subsp. <i>anglica</i> is recorded in Wales, the trend in numbers of individual plants remains uncertain. Verifiable counts of <i>G. amarella</i> subsp. <i>anglica</i> are difficult if not impossible, as taxonomic identification of material in the field is imprecise and many individuals cannot be assigned to <i>G. amarella</i> subsp. <i>anglica</i> with any degree of confidence. Counts of candidate <i>G. amarella</i> subsp. <i>anglica</i> can vary throughout the growth season as material approximating to this taxon either grows into or is replaced by other variants. There also appears to be significant differences between observers, due to differences in sampling and measurement technique and / or the overlapping range of taxonomic characters (NRW,

	2013). Detailed monitoring was last undertaken in 2015 for this subspecies. A brief visit in 2024 confirmed presence at this location.
12.5: Short-term trend of population size within the network; Method used	The population of <i>G. amarella</i> subsp. <i>anglica</i> at Stackpole Warren NNR was the focus of regular and comprehensive monitoring, focussing on the frequency and distribution of plants conforming to the morphological description of <i>G. amarella</i> subsp. <i>anglica</i> and the condition of its supporting habitat. Despite this detailed monitoring, the difficulties associated with confidently assigning individual plants to the taxon, along with the unknown scale of natural inter-annual fluctuations in population size mean that a trend in population numbers cannot be identified. No detailed monitoring for this species has been done since 2015. A brief visit in 2024 confirmed presence at Stackpole.
6.15: Favourable Reference Population (FRP)	The UK-level FRV for population was developed by JNCC using an audit trail based on the year the FRV was first established and any changes made in subsequent reporting rounds. The audit may draw from any combination of the 2007, 2013, or 2019 Habitats Directive reports and reflects the full rationale used for the 2019 Article 17 reporting. Following expert review, a Wales-level FRV was derived based on population trend and abundance data specific to Wales, rather than adopting the UK-level value.
5.10: Favourable Reference Range (FRR)	The revised FRV has been set as less than 5% smaller than the FRP (only one locality)