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

2019-2024

Conservation status assessment for the species:

S1358 - Polecat

(*Mustela putorius*)

Wales

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JNCC

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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: Polecat

Distribution Map

Range Map

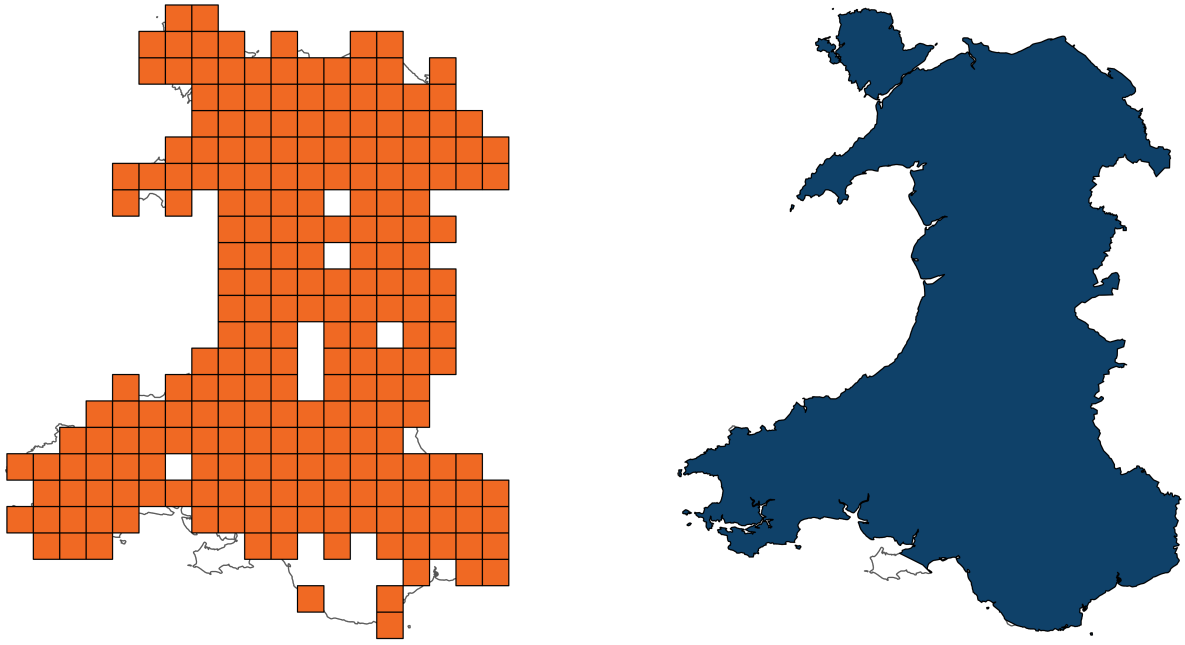

Figure 1: Wales distribution and range map for S1358 - Polecat (*Mustela putorius*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority. The 10km grid square distribution map is based on available species records within the current reporting period.

Table 1: Table summarising the conservation status for S1358 - Polecat (*Mustela putorius*). 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)

Favourable (FV)

Breakdown of Overall Conservation Status

Range (see section 5)	**Favourable (FV)**
Population (see section 6)	**Favourable (FV)**
Habitat for the species (see section 7)	**Favourable (FV)**
Future prospects (see section 10)	**Favourable (FV)**

List of Sections

National Level

1. General information

1.1 Country	Wales
1.2 Species code	S1358
1.3 Species scientific name	*Mustela putorius*
1.4 Alternative species scientific name	
1.5 Common name	Polecat
Annex(es)	V

2. Maps

2.1 Sensitive species	No
2.2 Year or period	1995-2024
2.3 Distribution map	Yes
2.4 Distribution map; Method used	Complete survey or a statistically robust estimate

2.5 Additional information

No additional information

3. Information related to Annex V Species

3.1 Is the species taken in the wild / exploited?	No

3.2 What measures have been taken?

a) Regulations regarding access to property	No
b) Temporary or local prohibition on 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
Other measures	No
Other measures description	

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

a) Unit

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) Minimum	-	-	-	-	-	-
c) Maximum	-	-	-	-	-	-
d) Unknown	No	No	No	No	No	No

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 (km²)	20,683.97
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	
e) Type of estimate	
f) Rate of decrease	
5.5 Short-term trend; Method used	Complete survey or a statistically robust estimate
5.6 Long-term trend; Period	
5.7 Long-term trend; Direction	
5.8 Long-term trend; Magnitude	
a) Minimum	
b) Maximum	
c) Rate of decrease	

5.9 Long-term trend; Method used	

5.10 Favourable Reference Range (FRR)

a) Area (km²)	
b) Pre-defined increment	Current range is less than 2% smaller than the FRR
c) Unknown	No
d) Method used	Reference-based approach
e) Quality of information	moderate

5.11 Change and reason for change in surface area of range

a) Change	Yes
b) Genuine change	No
c) Improved knowledge or more accurate data	No
d) Different method	Yes
e) No information	No
f) Other reason	No
g) Main reason	Use of different method

5.12 Additional information

No additional information

6. Population

6.1 Year or period	1995-2024

6.2 Population size (in reporting unit)

a) Unit	number of individuals
b) Minimum	13,700
c) Maximum	20,000

d) Best single value	16,800
6.3 Type of estimate	95% confidence interval
6.4 Quality of extrapolation to reporting unit	

6.5 Additional population size (using population unit other than reporting unit)

a) Unit	
b) Minimum	
c) Maximum	
d) Best single value	
e) 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	2013-2024
6.8 Short-term trend; Direction	Stable
6.9 Short-term trend; Magnitude	
a) Estimated minimum	
b) Estimated maximum	
c) Pre-defined range	
d) Unknown	
e) Type of estimate	
f) Rate of decrease	
6.10 Short-term trend; Method used	Based mainly on expert opinion with very limited data
6.11 Long-term trend; Period	2000-2024
6.12 Long-term trend; Direction	Increasing
6.13 Long-term trend; Magnitude	

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)

ai) Population size	
aii) Unit	
b) Pre-defined increment	Current population is less than 5% smaller than the FRP
c) Unknown	No
d) Method used	Reference-based approach
e) Quality of information	moderate

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)

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

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

a) Sufficiency of area of occupied habitat; Method used	Based mainly on extrapolation from a limited amount of data
b) Sufficiency of quality of occupied habitat; Method used	Based mainly on extrapolation from a limited amount of data
7.3 Short-term trend; Period	2013-2024
7.4 Short-term trend; Direction	Stable
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
PA04: Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.)	Ongoing and likely to be in the future	Medium (M)
PA15: Use of other pest control methods in agriculture (excluding tillage)	Ongoing and likely to be in the future	Medium (M)
PG11: Illegal shooting/killing	Ongoing and likely to be in the future	Medium (M)
PG13: Bycatch and incidental killing (due to fishing and hunting activities)	Ongoing and likely to be in the future	Medium (M)
PG14: Poisoning of animals (excluding lead poisoning)	Ongoing and likely to be in the future	High (H)
PI02: Other invasive alien species (other than species of Union concern)	Ongoing and likely to be in the future	Medium (M)
PM07: Natural processes without direct or indirect influence from human activities or 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

a) Are measures needed?	No
b) Indicate the status of measures	

9.2 Main purpose of the measures taken	
9.3 Location of the measures taken	
9.4 Response to measures	

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
No conservation measures	

9.6 Additional information

No additional information

10. Future prospects

10.1a Future trends of parameters

ai) Range	Overall stable
bi) Population	Overall stable
ci) Habitat for the species	Overall stable

10.1b Future prospects of parameters

aii) Range	Good
bii) Population	Good
cii) Habitat for the species	Good

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	Favourable (FV)
11.4 Future prospects	Favourable (FV)
11.5 Overall assessment of Conservation Status	Favourable (FV)
11.6 Overall trend in Conservation Status	Stable

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

a) Unit
b) Minimum
c) Maximum
d) Best single value

12.2 Type of estimate

12.3 Population size inside the network; Method used

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

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

12.6 Short-term trend of habitat for the species inside the pSCIs, SCIs and SACs network; Direction

12.7 Short-term trend of habitat for the species inside the pSCIs, SCIs and SACs network; Method used

12.8 Additional information

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

Aderyn Local Environmental Records Centre data, accessed May 2024

Birks, JDS. 2008. The polecat survey of Britain 2004-2006. Vincent Wildlife Trust, Ledbury

Birks, JDS. 2015. Polecats. Whittet Books Ltd.

Birks J, Kitchener A. 1999. Ecology of the polecat in lowland England. The distribution and status of the polecat Mustela putorius in Britain in the 1990s. London.

Costa M, Fernandes C, Birks JDS, Kitchener AC, Santos-Reis M, and Bruford MW. 2013.The genetic legacy of the 19th-century decline of the British polecat: evidence for extensive introgression from feral ferrets. Molecular Ecology, 22, 5130–5147.

Croose E. 2016. The distribution and status of the polecat (Mustela putorius) in Britain 2014-2015. The Vincent Wildlife Trust.

Emmett, BA & the ERAMMP team (2025). ERAMMP Report-105: Wales National Trends and Glastir Evaluation. Report to Welsh Government (C208/2021/2022) (UKCEH 08435) https://erammp.wales/sites/default/files/2025-03/Report%20105.%20Wales%20National%20Trends%20and%20Glastir%20Evaluation.pdf

Forest Research (2024) Forestry Statistics 2024 Chapter 1: Woodland Area & Planting. https://cdn.forestresearch.gov.uk/2024/10/Ch1_Woodland-WA-amendment.pdf

Heald KA, Millins C, Kitchener AC, Banyard AC, Hantke G, Sainsbury KA, McDonald M and Meredith A. 2020. Investigating infectious disease threats to the recovery of the European polecat in Britain. MAMMALIAN BIOLOGY, 100 (4). pp. 439-444.

Langley PJW & Yalden DW. 1977. The decline of the rarer carnivores in Great Britain during the nineteenth century. Mammal Review 7: 95-116.

Mathews F, Kubasiewicz LM, Gurnell J, Harrower C, McDonald RA, Shore RF. 2018. A review of the population and conservation status of British Mammals. A report by The Mammal Society under contract to Natural England, Natural Resources Wales and Scottish Natural Heritage. Natural England, Peterborough. ISBN 978-1-78354-494-3.

Sainsbury KA, Shore RF, Schofield H, Croose E, Pereira MG, Sleep D, Kitchener AC, Hantke G, McDonald RA. 2018. Long-term increase in secondary exposure to

anticoagulant rodenticides in European polecats Mustela putorius in Great Britain. Environmental Pollution 236: 689-698.

Main pressures

8.2 Sources of information

No sources of information

15. Explanatory Notes

Field label	Note
2.4: Distribution map; Method used	The map updates the recorded distribution with new data since the previous reporting round and covers the years 1995-2024.
5.3: Short-term trend; Direction	Polecat range in Wales was complete in the 2013 and 2019 reporting rounds, and there has been no significant change. See 5.11
5.11: Change and reason for change in surface area of range	The mapped range of polecat in Wales in this reporting round is 20,684 km2. This compares to 20,552km2 in 2019 and 20,643 km2 in 2013. Whilst there have been new records these are within the previously mapped range and these changes to the total range area are a result of changes in the approach to range calculation. The 2019 range was taken from Mathews et al. (2018) whereby an alpha hull value of 20km was drawn around the presence records, which represented the best balance between the inclusion of unoccupied sites (i.e. where records are sparse but close enough for inclusion) and the exclusion of occupied areas due to gaps in the data (i.e. where records exist but are too isolated for inclusion). An additional 10km buffer was added to the final hull polygon to provide smoothing to the hull and to ensure that the hull covered the areas recorded rather than intersecting them. This differs from the approach taken in this reporting round, and also the 2013 and 2007 reports, whereby a 45km alpha hull value was used for all species with a starting range unit of individual 10km squares. Given the extent of polecat records in Wales, these differences in range calculation approach have only resulted in small changes to the total area. The VWT are currently co-ordinating the 4th national

	polecat survey (2024 – 2025) but this will not be complete until 2026.
6.2: Population size	Wales: a) Unit = individuals b) Minimum = 13,700 c) Maximum = 20,000 d) Best single value = 16,800 (95% CIs 13,700 - 20,000).
6.6: Population size; Method used	The Population estimate used in the last reporting round (Mathews et al. 2018) has been carried forward as no new comprehensive survey has been conducted since then. Expert opinion and available contextual information (such as polecat range) suggests that there is no significant change in population size. Therefore, the previous estimate remains valid for this reporting period. The method utilised to estimate population size was to multiply habitat-specific density estimates by the extent of these habitats within the geographical range. Where multiple estimates were available, the median value was used to produce the 'best' estimate, and 95% confidence intervals were created. Where possible, population sizes were adjusted to account for the percentage of occupied habitat within the species' range. Occupancy data were only included where studies used standardised surveys and reported both presence and absence. In the absence of data on percentage occupancy, 100% was assumed. As a generalist species, polecat population density estimates in the literature are not habitat-specific. Population sizes were therefore calculated by multiplying the population density by the total area of the species' distribution, with urban areas removed. Occupancy data was taken from Birks & Kitchener (1999). The risk of over-representation of polecat range due to confusion with polecat-ferrets is small in Wales due to the high (>95%) verification of records as true polecats (Croose 2016).
6.10: Short-term trend; Method used	In the 1990s Birks & Kitchener (1999) established a polecat monitoring system to determine population density estimates using co-ordinated live-trapping by volunteers in 136 1km squares within the species' range at that time.

	These data were used to derive winter population density estimates for the 'current core' polecat range (101 animals per 10-km square) and for the 'current fringe' (69 animals per 10-km square). These density estimates were used with the results of the distribution survey to calculate the total population size in 1997, which was estimated to be 17,691 in Wales (Birks & Kitchener 1999). In 2008 this estimate was updated using the range data from the 2004-2006 survey to take into account the expansion of the polecat's range to give an estimated population size of 18,448, an increase of 4.3% since 1997 (Birks, 2008 – table 5.14). In the last reporting round the population estimate for polecats in Wales was 16,800 (Mathews et al. 2018). When compared to the 2004-06 estimate of 18,448 this represented an 8.9% decrease. However, whilst both Birks (2008) and Mathews et al. (2018) have utilised the Birks & Kitchener (1999) density estimates to calculate population size, they have been applied in a different manner, and it is therefore not possible to make a meaningful comparison between the two estimates. There has been no update to the population estimate since the last reporting round and therefore the current population estimate is based on the figures from Mathews et al. 2018. Polecat range in Wales has remained stable and there is no other evidence to suggest declines in polecat density. It is therefore presumed that population size has remained stable with the previous estimate remaining valid in this reporting round.
6.12: Long-term trend; Direction	Differences in methodologies for calculating population size in Wales mean that it is not possible to calculate long term trend in population size (Birks & Kitchener 1999, Birks 2008, Mathews et al. 2018). However, the complete recovery of the polecat's range in Wales since the 1930s

	(Langley & Yalden 1977) and its ongoing expansion in England (Croose 2016,) indicates that in the long term the population has increased.
6.16: Change and reason for change in population size	It has not been possible to update the polecat population estimate since the last reporting round. However, polecat range in Wales has remained stable and there is no other evidence to suggest declines in polecat density, and therefore it is presumed that population size has remained stable. See 6.10.
6.18: Age structure, mortality and reproduction	Comprehensive data on the current age structure, mortality and reproduction of the polecat population in Wales is not available, however its range and population size appear to be stable and there is no reason to conclude that these other population parameters deviate significantly from the norm.
7.1: Sufficiency of area and quality of occupied habitat	The polecat occupies a wide range of habitats, with a general association with lowlands. A radio-tracking study (Birks & Kitchener, 1999) found that woodland edges, field boundaries and farm buildings were preferred habitats, with open fields and suburban areas least favoured; farm buildings were most used during winter months. Unlike elsewhere in Europe, polecats in Britain do not show a preference for riparian habitats and this is likely to be due to the avoidance of competition with mink and due to the abundance of rabbits throughout their range which provides a source of food away from riparian habitats (Birks, 2015). Mathews et al. (2018) estimated the area of suitable habitat in Wales to be 19,800 km2. Since that time the area of woodland has increased as a result of woodland creation (Forest Research, 2024) and analysis of satellite imagery by the Environment and Rural Affairs Monitoring and Modelling Programme (ERAMMP) found an increase of 4% in new and restored hedgerows and a 9% increase in both width and height of hedgerows (Emmett et al. 2025).
7.2: Sufficiency of area and quality of occupied habitat; Methods used	Given the generalist nature of polecat habitat use, Mathews et al. (2018) calculated suitable habitat to be total range

	size minus the area of urban and gardens. This analysis has not been updated but can still be relied upon.
7.5: Short-term trend; Method used	An analysis of the short term trends of polecat habitat was not possible, but the generalist nature of the polecat's habitat use and the stable polecat range since the last reporting indicates that occupied habitat is also stable.
8.1: Characterisation of pressures	Pressures: Polecat populations are still subject to significant pressures which could affect numbers. Although the polecat is found in a wide range of habitats, it has a clear association with hedges and woodland edges and avoids open habitats (Birks & Kitchener, 1999, Birks 2015). Removal of such features affects availability of suitable habitat (PA04). Polecats are vulnerable to secondary poisoning by rodenticides with lethal and sub-lethal effects (PA15, PG14, Birks 2015). A study of road-kill polecats found second generation anti-coagulant rodenticides to be present in 71% of animals tested, representing a 1.7-fold increase in the rate of detection over the previous 25 years (Sainsbury et al. 2018). Illegal persecution (PG11) and accidental trapping (PG13) still represent a risk to polecats. Croose (2016) reported several incidents of polecats killed or injured in Fenn and cage traps. Hybridisation with feral ferrets Mustela furo (PI02) remains an issue, although a study found that true polecats were found most frequently in Wales and hybrids were most frequent outside Wales (Costa et al. 2013) and Croose (2016). Polecats remain at risk from road traffic accidents (PE01), but the rate of mortality does not appear to be affecting populations.

	Further investigation is needed to assess impacts of certain pathogens (e.g. Toxoplasma gondii and Leptospira serovars) on polecat populations in Britain (Heald et al. 2020) Threats: Polecat populations are likely to continue to be subject to the same pressures described above. In Wales, the risk of secondary poisoning may represent the greatest threat. This risk may be exacerbated by an apparent decline in rabbit populations (Croose 2016, Mathews et al. 2018), the main prey of the polecat, which could result in polecats consuming more rats (PM07) thereby increasing their risk of exposure.
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) the area of occupied habitat is sufficiently large for the long-term survival of the species (ii) the quality of occupied habitat is suitable for the long-term survival of the species; and (iii) the short-term trend in area of habitat is stable.
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 good; and (iii) the Future prospects for Habitat for the species are good.
11.5: Overall assessment of Conservation Status	Overall assessment of Conservation Status is Favourable because all of the conclusions are Favourable.

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. This FRV was reviewed by Welsh experts and considered appropriate for use in Wales based on current population trends and abundance.
5.10: Favourable Reference Range (FRR)	The UK-level FRV for range 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. This FRV was reviewed by Welsh experts and considered appropriate for use in Wales based on current distribution and trends.