

**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

Supporting documentation for the  
conservation status assessment for the species:

**S1358 - Polecat (*Mustela putorius*)**

**SCOTLAND**

## **IMPORTANT NOTE - PLEASE READ**

- The information in this document is a country-level contribution to 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.
- The 2019 Article 17 UK Approach document provides details on how this supporting information was used to produce the UK Report.
- The UK Report on the conservation status of this species is provided in a separate document.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Explanatory notes (where provided) by the country are included at the end. These provide an audit trail of relevant supporting information.
- 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; (iii) the field was not relevant to this species (section 12 Natura 2000 coverage for Annex II species) and/or (iv) the field was only relevant at UK-level (sections 9 Future prospects and 10 Conclusions).
- For technical reasons, the country-level future trends for Range, Population and Habitat for the species are only available in a separate spreadsheet that contains all the country-level supporting information.
- The country-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.

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

## NATIONAL LEVEL

### 1. General information

1.1 Member State	UK (Scotland information only)
1.2 Species code	1358
1.3 Species scientific name	<i>Mustela putorius</i>
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Polecat

### 2. Maps

2.1 Sensitive species	No
2.2 Year or period	1995-2016
2.3 Distribution map	Yes
2.4 Distribution map Method used	Based mainly on expert opinion with very limited 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?	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

Mathews, F., Kubasiewicz, L.M., Gurnell, J., Harrower, C., McDonald, R.A., Shore, R.F (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.

Langley, P.J.W. and Yalden, D.W. (1977). Decline of rarer carnivores in Great Britain during 19th century. Mammal Review, 7 (3-4), 95-116.

Birks, J.D.S. (2008). The Polecat Survey of Britain 2004-2006. A report on the Polecat's distribution, status and conservation. The Vincent Wildlife Trust.

Croose, E. (2016). The Distribution and Status of the Polecats (*Mustela putorius*) in Britain 2014-2015. The Vincent Wildlife Trust.

Birks, J.D.S. (2015). Polecats. Whittet Books Ltd.

Costa, Mafalda, Fernandes, C., Birks, J. D. S., Kitchener, A. C., Santos-Reis, M. and Bruford, Michael William (2013) The genetic legacy of the 19th-century decline of the British polecat: evidence for extensive introgression from feral ferrets. Molecular Ecology 22 (20) , pp. 5130-5147. 10.1111/mec.12456

### 5. Range

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

5.2 Short-term trend Period

5.3 Short-term trend Direction

Unknown (x)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

5.5 Short-term trend Method used

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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 (km<sup>2</sup>)

b) Operator

c) Unknown

d) Method

5.11 Change and reason for change in surface area of range

No change

The change is mainly due to:

5.12 Additional information

## 6. Population

6.1 Year or period

1997-2006

6.2 Population size (in reporting unit)

a) Unit

number of individuals (i)

b) Minimum

345

c) Maximum

483

d) Best single value

6.3 Type of estimate

Best estimate

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 expert opinion with very limited data

6.7 Short-term trend Period

6.8 Short-term trend Direction

Unknown (x)

6.9 Short-term trend Magnitude

a) Minimum

b) Maximum

c) Confidence interval

6.10 Short-term trend Method used

Insufficient or no data available

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

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6.15 Favourable reference population (using the unit in 6.2 or 6.4)

- a) Population size
- b) Operator
- c) Unknown
- d) Method

6.16 Change and reason for change in population size

No change  
The change is mainly due to:

6.17 Additional information

## 7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat

a) Are area and quality of occupied habitat sufficient (to maintain the species at FCS)? Yes

b) Is there a sufficiently large area of occupied AND unoccupied habitat of suitable quality (to maintain the species at FCS)?

7.2 Sufficiency of area and quality of occupied habitat Method used

Based mainly on extrapolation from a limited amount of data

7.3 Short-term trend Period

2004-2015

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

7.9 Additional information

## 8. Main pressures and threats

### 8.1 Characterisation of pressures/threats

Pressure	Ranking
Conversion from one type of agricultural land use to another (excluding drainage and burning) (A02)	M
Use of plant protection chemicals in agriculture (A21)	H
Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05)	M
Illegal shooting/killing (G10)	H
Poisoning of animals (excluding lead poisoning) (G13)	H
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Invasive alien species of Union concern (I01)	M
Threat	Ranking
Conversion from one type of agricultural land use to another (excluding drainage and burning) (A02)	M

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Use of plant protection chemicals in agriculture (A21)	H
Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05)	M
Illegal shooting/killing (G10)	H
Poisoning of animals (excluding lead poisoning) (G13)	H
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	M
Invasive alien species of Union concern (I01)	M

## 8.2 Sources of information

## 8.3 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 the measures

## 9.5 List of main conservation measures

## 9.6 Additional information

# 10. Future prospects

## 10.1 Future prospects of parameters

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

## 10.2 Additional information

# 11. Conclusions

## 11.1. Range

## 11.2. Population

## 11.3. Habitat for the species

## 11.4. Future prospects

## 11.5 Overall assessment of Conservation Status

## 11.6 Overall trend in Conservation Status

# Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

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

No change

The change is mainly due to:

11.8 Additional information

## 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

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 Additional information

## 13. Complementary information

13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information



## Distribution Map

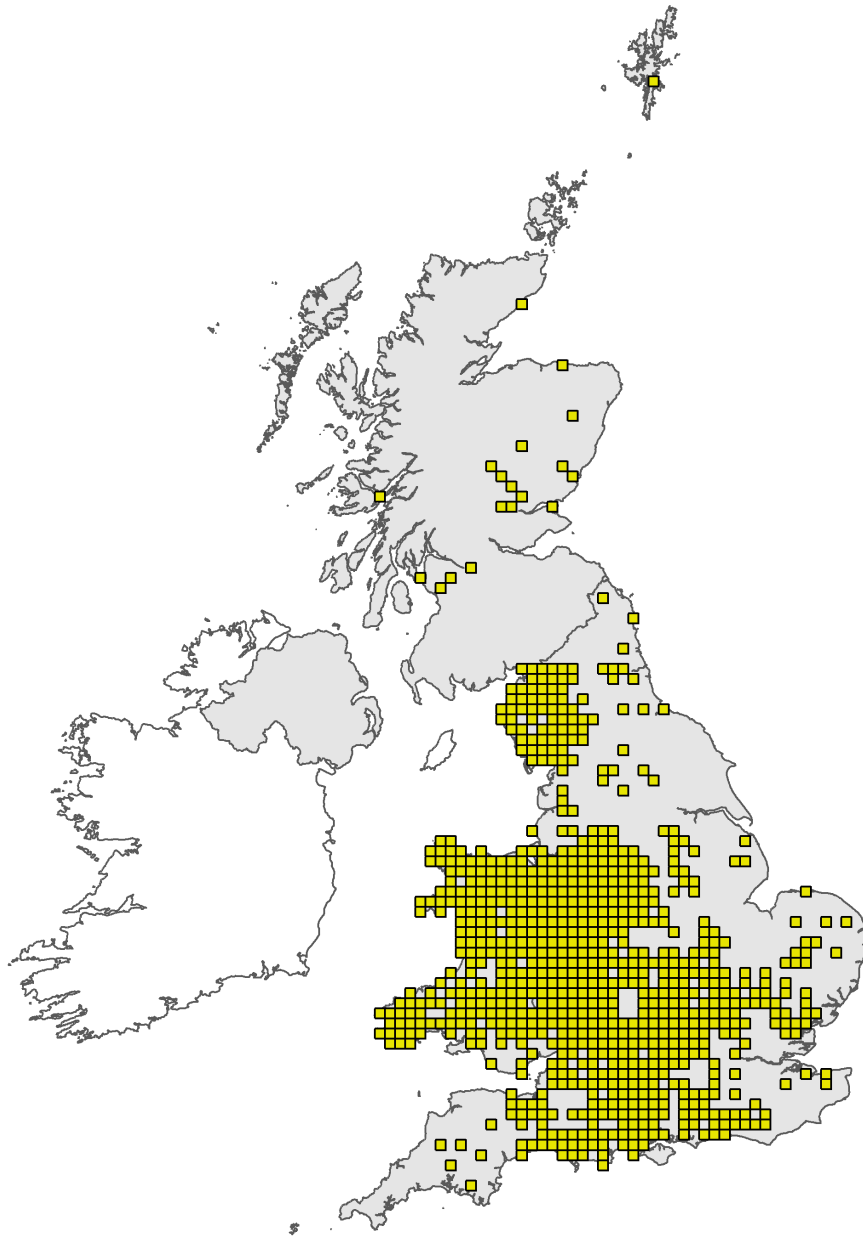


Figure 1: UK distribution map for S1358 - Polecat (*Mustela putorius*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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

## Range Map

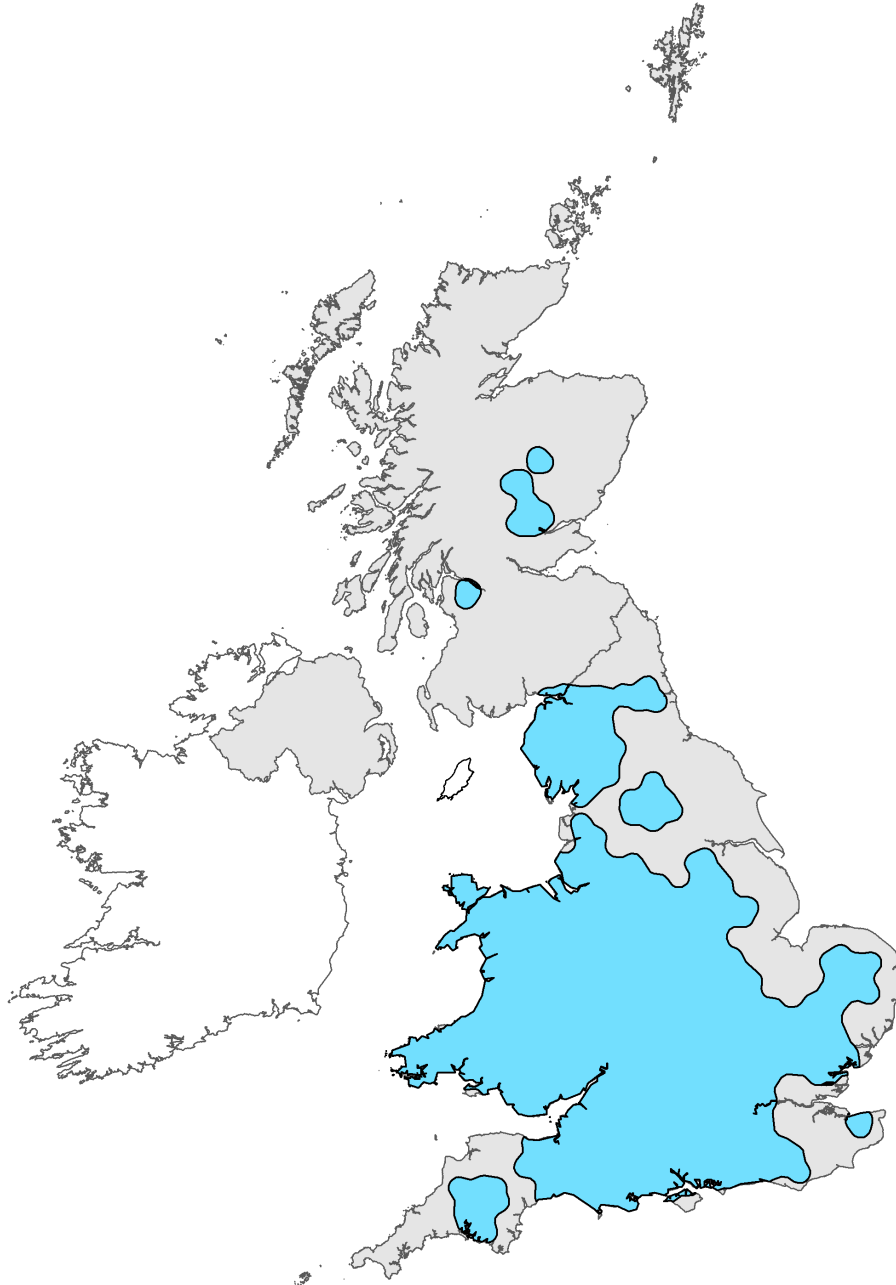


Figure 2: UK range map for S1358 - Polecat (*Mustela putorius*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The range map has been produced by The Mammal Society applying a range mapping tool as outlined in Matthews et al. (2018), 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.

# Explanatory Notes

## Species name: *Mustela putorius* (1358)

Field label	Note
1.5 Common name	Records of true polecat are sparse. Records of both polecats and polecat - ferrets come from Perth and Angus where an introduction was made in the 1990s. An introduction was made in Argyll in the 1970s and a population persisted for a while, but true polecats have not been rerecorded here in recent years. There are records of a true polecat and polecat-ferrets from Western Dumfriesshire and it has been proposed that this is an expansion from Cumbria, though western Dumfriesshire is some distance from the border.
2.3 Distribution map	The distribution of polecats in Scotland is poorly understood because there are few verified records of true polecats and the majority of reported polecats turn out to be polecat-ferrets. Given the high potential for misidentification, many of the available polecat records are considered unreliable. Birks (2008) and Croose (2016) indicate that Perthshire and Angus hold the majority of confirmed polecat records and, although there have been confirmed isolated records elsewhere, e.g in Caithness and Dumfriesshire, for the purposes of mapping range, we have only used the records collated by The Mammal Society for use in Mathews et al (2018) from within Perthshire and Angus. The distribution map is therefore probably conservative and does not include Dumfriesshire within the range, although the species is believed to be moving into this area from the Cumbrian population to the south.

## Species name: *Mustela putorius* (1358) Region code: ATL

Field label	Note
5.3 Short term trend; Direction	As the Scottish range for polecats is unclear and has been heavily influenced by deliberate releases in various locations over the past 4 decades, it is not possible to comment meaningfully on the direction of change in the species' range.
5.11 Change and reason for change in surface area of range	Any differences in the 2019 range compared to the 2013 range are due to recording effort and the fact that sightings of 'polecats' can be unreliable as they are easily confused with polecat-ferrets, which are more widespread. The true distribution is not well understood because of this.
6.1 Year or Period	The time period 1997-2006 is given here because these are the most recent years for which we have published population estimates. They derive from Birks (2008).
6.2 Population size	No estimate is given for Scotland in Mathews et al. (2018). Previous estimates (Birks 2008, Birks et al 1999) suggest that the Scottish population comprises only a few hundred animals. Given that there has been little change in the species' range since then, the current population is thought to be similar but there are no data to support this.
6.8 Short term trend; Direction	There are insufficient data to identify a population trend for Scotland.
6.16 Change and reason for change in population size	It is not possible to comment on this as we have no more recent population estimate than that used in the 2013 report.

7.1 Sufficiency of area and quality of occupied habitat	<p>Our knowledge of the polecat in Scotland is sparse, but as a generalist, there would appear to be no restrictions on habitat. Polecats are a generalist species in terms of their habitat. However, there is some evidence of a preference for woodland edge, field boundaries and farm buildings, with an avoidance of more open areas, as well as suburban and urban areas (Birks, 2015). 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).</p>
8.1 Characterisation of pressures/ threats	<p>Issues which continue to threaten polecats include road accidents, trapping mortality, secondary rodenticide poisoning, changes in agricultural practices and the loss of genetic integrity through hybridisation with feral domestic ferret <i>M. furo</i>. This may, especially the case in Scotland where true polecats derive from a small number of introductions. There is some evidence that introgression favours the wild (true polecat) type but this effect is likely to be swamped in Scotland. The status of the rabbit population in Britain may also have some impact with the British Trust for Ornithology's Breeding Bird Survey reporting a 57% decline in the rabbit population between 1995-2014 (Harris et al, 2015). It is not currently known how this will impact on the polecat population in the long-term.</p>
10.1 Future prospects of parameters	<p>Future prospects for range and population are both assessed as unknown because of the lack of reliable data in Scotland. Mathews et al. (2018) assess these as increasing, but this reflects the strong positive trend in both for England and Wales only. Habitat is assessed as stable as there is no evidence to suggest otherwise. Mathews et al. (2018) also conclude this for habitat.</p>