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:

S1327 - Serotine (*Eptesicus serotinus*)

WALES

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 (Wales information only)**
1.2 Species code	**1327**
1.3 Species scientific name	**Eptesicus serotinus**
1.4 Alternative species scientific name	
1.5 Common name (in national language)	Serotine

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 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?	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

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5. Range

5.1 Surface area (km²)		
5.2 Short-term trend Period		
5.3 Short-term trend Direction	Uncertain (u)	
5.4 Short-term trend Magnitude	a) Minimum	b) Maximum
5.5 Short-term trend Method used		
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 c) Unknown d) Method	
5.11 Change and reason for change in surface area of range	Improved knowledge/more accurate data Use of different method The change is mainly due to:	Use of different method
5.12 Additional information		

6. Population

6.1 Year or period	2016-2017	
6.2 Population size (in reporting unit)	a) Unit b) Minimum c) Maximum d) Best single value	number of map 1x1 km grid cells (grids1x1)
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	number of individuals (i) 1000 57000
6.5 Type of estimate	95% confidence interval	
6.6 Population size Method used	Based mainly on extrapolation from a limited amount of data	
6.7 Short-term trend Period	2007-2018	
6.8 Short-term trend Direction	Unknown (x)	

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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	
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	Improved knowledge/more accurate data Use of different method The change is mainly due to: Use of different method
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 expert opinion with very limited data	
7.3 Short-term trend Period	1999-2016	
7.4 Short-term trend Direction	Unknown (x)	
7.5 Short-term trend Method used	Insufficient or no data available	
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 mixed farming and agroforestry systems to specialised (e.g. single crop) production (A03)	M

Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05)	H
Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06)	H
Use of other pest control methods in agriculture (excluding tillage) (A23)	H
Clear-cutting, removal of all trees (B09)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	H
Construction or modification (e.g. of housing and settlements) in existing urban or recreational areas (F02)	H
Increases or changes in precipitation due to climate change (N03)	M

Threat	Ranking
Conversion from mixed farming and agroforestry systems to specialised (e.g. single crop) production (A03)	M
Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05)	H
Abandonment of grassland management (e.g. cessation of grazing or mowing) (A06)	H
Use of other pest control methods in agriculture (excluding tillage) (A23)	H
Clear-cutting, removal of all trees (B09)	M
Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)	H
Construction or modification (e.g. of housing and settlements) in existing urban or recreational areas (F02)	H
Increases or changes in precipitation due to climate change (N03)	M

8.2 Sources of information

8.3 Additional information

9. Conservation measures

9.1 Status of measures	a) Are measures needed?	Yes
	b) Indicate the status of measures	Measures identified and taken
9.2 Main purpose of the measures taken		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		Long-term results (after 2030)

9.5 List of main conservation measures

Restore small landscape features on agricultural land (CA02)
Other measures related to agricultural practices (CA16)
Adapt/change forest management and exploitation practices (CB05)
Prevent conversion of natural and semi-natural habitats, and habitats of species into agricultural land (CA01)
Reinstate appropriate agricultural practices to address abandonment, including mowing, grazing, burning or equivalent measures (CA04)
Reduce impact of transport operation and infrastructure (CE01)
Other measures related to residential, commercial, industrial and recreational infrastructures, operations and activities (CF12)

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

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

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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

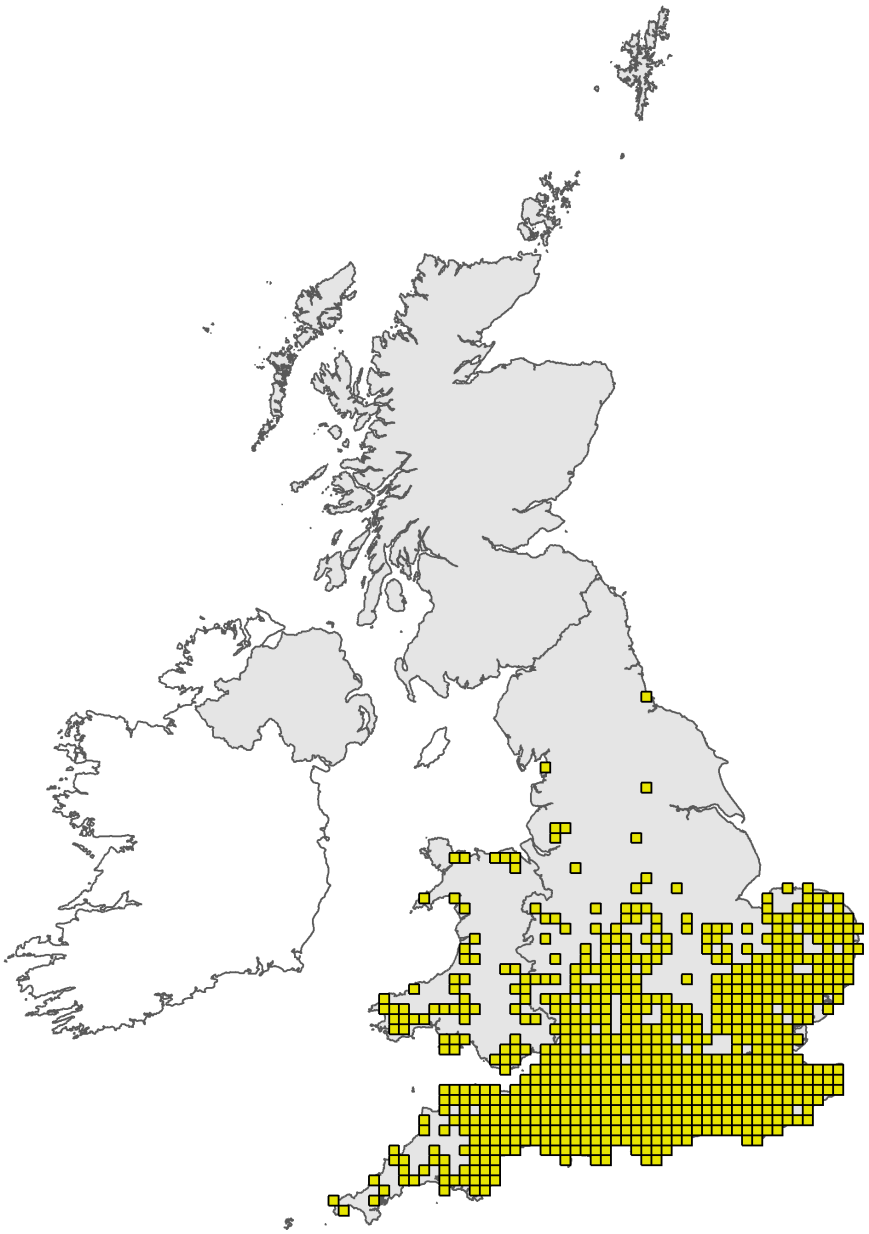

Figure 1: UK distribution map for S1327 - Serotine (*Eptesicus serotinus*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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

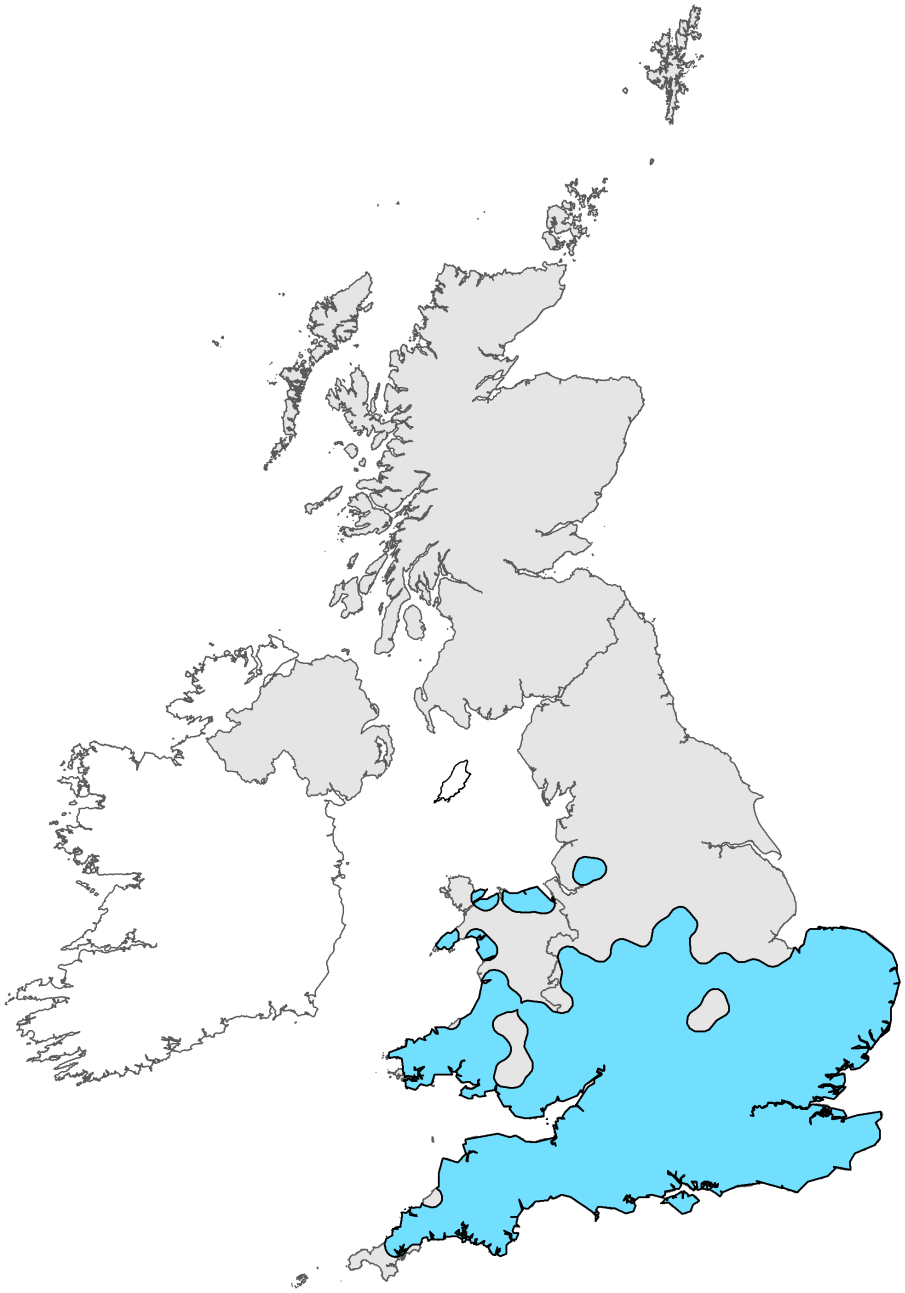

Figure 2: UK range map for S1327 - Serotine (*Eptesicus serotinus*).Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

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: Eptesicus serotinus (1327)

Field label	Note
2.2 Year or Period	This time period has been selected as distribution has been calculated using data from Mathews et al. 2018.
2.4 Distribution map; Method used	E. serotinus is most commonly recorded south of a line from the Wash to south Wales. Records come from a combination of reports of bats in houses and bat detector surveys as part of the NBMP and for surveys for developments. The greater use of bat detectors has extended the known distribution northwards in recent years, though few roosts are known in much of this area, and the species calls can be confused with cluttered/FM calls of Nyctalus species. Across the UK there is also some evidence for a westward expansion of the population, possibly corresponding with a population decline in the east (Moussy et al. 2015). Genetic evidence also suggests that there must be some gene flow across the English Channel (Moussy et al. 2015). The species is monitored by field survey and colony counts in the NBMP. A maternity roost was discovered in 2011 on the north Wales coast (CCW licence reports). Since then several other roosts have been found however the true distribution and population of the species in this region is unclear. Maternity roosts are known within south Wales. There appears to be distinct structuring of the population in England, in contrast with continental Europe, based on population genetics data. Three populations in the South of England have been identified (East; West and Isle of Wight) and these have only low levels of gene flow (Smith et al. 2011, Moussy et al. 2015). Serotines in south Wales have been shown to be linked to England's Western population however the north Wales serotines are a distinct population which are most closely related to the eastern population suggesting that this is not a recent increase in population or distribution (Aegerter J. pers comm.). The current records are likely to underestimate the distribution of this species.

Species name: Eptesicus serotinus (1327) Region code: ATL

Field label	Note
5.3 Short term trend; Direction	Given the significant change to the method for range determination we are uncertain of the nature and degree of change in short-term range trend for this species.
5.11 Change and reason for change in surface area of range	Area of land (including unsuitable habitat) contained within the range is given as 12,499 km2 for Wales (Mathews et al. 2018). Range is based on presence data collected between 1995-2016. Areas that contain very isolated records may not have been included in the area of distribution. The range has been 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 2013 and 2007 whereby a 45km alpha hull value was used for all species with a starting range unit of individual 10km squares. The new method has led to much finer detail maps being produced underpinned by data gathered at a much finer resolution, leading to the production of a more accurate FRR. Added to which acoustic detectors have changed considerably over the years in both accuracy and sensitivity, which also adds to the production of this value.

6.4 Additional population size	Based on Mathews et al. 2018 methodology: a) Unit = Individuals b) Minimum = 1,000 c) Maximum = 57,000 d) Best Single Value: 18,700 Mathews et al. 2018 population estimates were derived by first calculating the adult bat density (bats/km2) within poor, average and good habitat and then multiplying this with the total habitable area within their range to give lower, median and upper population estimates. Habitable area was defined as all habitats within the range excluding montane habitats since these are unlikely to provide suitable locations for roosts. Because of the landscape-wide movements of bats and their dependency on a matrix of habitats and roosting locations, it is not currently possible to make more refined estimates of the area of suitable habitat within the range. Details of calculations are as follows: Adult bat density (bats/km2) Median density=[(median n. bats/roost[1]) * (p female [2]) * (n roosts/typical km2 average habitat)]* 2 Lower limit=[(lower plausible n. bats/roost) * (p female min) * (plausible n. roosts/typical km2 poor habitat)]* 2 Upper limit = [(upper plausible n. bats/roost) * (p female max) * (plausible n. roosts/typical km2 good habitat)]* 2 [1] roost is typical maternity roost in the pre-parturition period. n. is number of adults. [2] p female : proportion female. p female min and p female max are lowest and highest plausible proportions of adult females in typical maternity roost Population size Total Adult Population = Median adult density (bats/km2) * total habitable area within range (km2) Lower Limit=Lower limit adult density (bats/km2) * total habitable area within range (km2) Upper Limit=Upper limit adult density (bats/km2) * total habitable area within range (km2)
6.8 Short term trend; Direction	No trend data is available for Wales and therefore unknown has been selected. The National Bat Monitoring Programme roost count data (BCT 2018a) states that the population of serotine in Great Britain is considered to have been stable since 1999. However, this finding should be treated with caution as serotine is encountered relatively infrequently during surveys and therefore the level of uncertainty associated with these trends is relatively large, meaning trends for this species are more difficult to detect. In addition, it should be noted that serotine bats can be confused with other Nyctaloid bats when detection is based on heterodyne bat detectors, as used in the field survey. The 12 year trend for Great Britain has shown field survey results indicate a 1.8% increase while roost counts show a -6.1% decline. These trends are not statistically significant and field survey results are considered more statistically robust than roost counts.
6.10 Short term trend; Method used	A reliable trend cannot be drawn for Wales due to insufficient available data.
6.16 Change and reason for change in population size	The difference in population size between reporting rounds is most attributable to a change in methodology, although more data are also available. The 1995 population estimate for Great Britain (Harris et al. 1995) was based on very limited information, extrapolating from the known size of Pipistrellus pipistrellus colonies in relation to size of serotine colonies following the methods described by Speakman (1991). The new estimate, taken from Mathews et al. 2018 is considered to be more robust.

7.1 Sufficiency of area and quality of occupied habitat	Area: 12,500 km2. Habitable area as given by Mathews et al. 2018 has been used as a proxy for occupied habitat. The habitable area calculation defined all the area within the range as habitable excluding montane habitat since this is unlikely to include suitable locations for maternity roosts. Quality: Unknown. Although we do not have a reliable measure of the quality of the occupied habitat the GB population trend for the species is stable and therefore the area and quality of occupied habitat is likely to be sufficient to maintain the species at FCS and this is also likely to be the situation in Wales. E. serotinus requires a complex mosaic of habitats to support foraging, roosting and commuting behaviour. Boye & Dietz, 2005 provide a good overview of this species' habitat requirements. In most cases the foraging areas are open fields with woodland edge, but occasionally within woodland. In agricultural landscapes the bats prefer pasture with tree rows for protection from wind. In addition, forest edges, river banks, parks, tree rows, gardens and amenity areas are appropriate foraging areas. The species also forages around streetlights. E. serotinus feeds mainly on beetles, especially ground chafer and dung beetles, moths and midges. In maternity colonies the bats commuted an average of 6.5 km to and from distinct foraging sites and used up to five sites per night (Catto et al. 1996). In towns the serotine rarely forages further than one km from the roost. Preferred summer roosts include crevices and other narrow holes in houses. Until now maternity colonies have only been recorded in buildings. The bats roost below the ridge of a roof, behind fascia boards, in ventilation holes of new housing blocks, or in the extension slits of bridges. Single animals, males in most cases, sometimes use tree holes or bat boxes. The serotine changes its roost site or hanging place if the microclimate in the roost becomes uncomfortable, e.g. if temperatures rise too much. Winter roosts are in cellars, mines and caves, in old buildings and crevices in walls. Bats occasionally hibernate in their summer roosts. Summer and winter roosts are thought to be less than 50 km apart, but there is little evidence to support this, though Hutterer et al. 2005 described the species as sedentary but occasionally performs dispersal flights. Overall: Yes
7.2 Sufficiency of area and quality of occupied habitat; Method used	The habitable area has been taken from Mathews et al. 2018, which defined all the area within the range as habitable excluding montane habitat since this is unlikely to include suitable locations for maternity roosts. The habitable area within the range is noted as 12,500 km2, but it is unlikely that the entirety of this area forms suitable habitat. To obtain a proper estimate of suitable habitat used by the species, it would be necessary to first identify all of the foraging and roosting habitat located within the current range boundary; determine whether or not each of these features were being used; and subsequently calculate the combined area of all currently used habitats. This process would require very detailed habitat information at a fine scale across the UK. We do not currently have this level of information.
7.3 Short term trend; Period	range information taken from Mathews et al. 2018
7.4 Short term trend; Direction	There is insufficient data on any change in the level of suitable habitat or any change in the quality of habitat for the species. This is extremely difficult question to answer as this is a generalist species, using a mosaic of habitats across a large area.

8.1 Characterisation of pressures/ threats	Pressures: Pressures can generally be divided into those that affect roosts and those that affect commuting and foraging (including prey availability). A05 - Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.), E01 - Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) and F02 - Construction or modification (of e.g. housing and settlements) in existing urban or recreational areas: Changes in building practices to improve energy efficiency mean that new buildings may offer fewer roosting opportunities (Mitchell-Jones 2010). Despite legal protection, the species remains vulnerable to to accidental and deliberate loss of roost buildings through renovation, development or exclusion as a result of phobia. One of the primary historic pressures for E. serotinus has been the disturbance and destruction of roost sites. This species roosts almost exclusively in buildings, and is therefore particularly vulnerable to anthropogenic factors, such as development, building renovation and timber treatment. High dependency on building roosts and crevice-dwelling nature makes the species particularly vulnerable to issues connected to breathable roofing membranes, there are many case reports of entanglement (Waring, Essah et al. 2013). Development pressure is likely to result in greater loss of suitable foraging habitat over time. This includes road construction, where collision may also be a risk. A03 - Conversion from mixed farming and agroforestry systems to specialised (e.g. single crop) production, A05 - Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.), A06 - Abandonment of grassland management (e.g. cessation of grazing or of mowing), A23 - Use of other pest control methods in agriculture (excluding tillage) and B09 - Clear-cutting, removal of all trees: Serotines forage over lowland farmland, parkland and woodland edges. Agricultural and forestry practices that remove or modify these habitats, or affect the biomass of suitable insect prey (including changes in water quality) could negatively affect populations. Increased intensity farming practices may also have led to reductions in insect prey abundance and diversity; this species is thought to be reliant on different types of insect prey at certain stages of the reproductive cycle (Catto et al. 1994, 1996). N03 - Increases or changes in precipitation due to climate change: High juvenile fatality rates in the first few months of life are observed; the species is potentially particularly vulnerable to poor summer weather connected to climate change (Harbusch, Racey 2006; Chauvenet et al. 2014) Threats: D01 - Wind, wave and tidal power, including infrastructure: This species is one that is considered to be at medium risk from fatalities associated with wind farms from studies in the European Continent (Rodrigues et al. 2015). Current research is considering this, but it is too soon to assess the risk that wind turbines pose to serotine populations in England and Wales. A05 - Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.), E01 - Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) and F02 - Construction or modification (of e.g. housing and settlements) in existing urban or recreational areas: One of the primary historic pressures for E. serotinus has been the disturbance and destruction of roost sites. This species roosts almost exclusively in buildings, and is therefore particularly vulnerable to anthropogenic factors, such as development, building renovation and timber treatment. On the other hand, increases in human dwellings may have provided more suitable roost sites for this species over time. Traditionally the south and particularly the south east of England have been strongholds of its distribution, and this region is under great development pressure, which is likely to result in greater loss of suitable foraging habitat over time. A03 - Conversion from mixed farming and agroforestry systems to specialised (e.g. single crop) production, A05 - Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.), A06 - Abandonment of grassland management (e.g. cessation of grazing or of mowing), A23 - Use of other pest control methods in agriculture (excluding tillage) and B09 - Clear-cutting, removal of all trees: Increased

	intensity farming practices will also lead to reductions in insect prey abundance in the future, because this species is thought to be reliant on different types of insect prey at certain stages of the reproductive cycle (Catto et al. 1994, 1996). N03 - Increases or changes in precipitation due to climate change: High juvenile fatality rates in the first few months of life exacerbated by poor summer weather connected to climate change is likely to increase.
9.5 List of main conservation measures	Legal and administrative measures continue to be required to ensure that the protection provided by the legislation is effective and that habitats for the species are managed appropriately. CA02 - Restore small landscape features on agricultural land, CA16 - Other measures related to agricultural practices, CB05 - Adapt/change forest management and exploitation practices, CA01 - Prevent conversion of natural and semi-natural habitats, and habitats of species into agricultural land, CA04 - Reinstate appropriate agricultural practices to address abandonment, including mowing, grazing, burning or equivalent measures, CE01 - Reduce impact of transport operation and infrastructure, CF12 - Other measures related to residential, commercial, industrial and recreational infrastructures, operations and activities: Serotine bats hunt over pastures and in deciduous or mixed woodland. Environmental land management schemes in the agricultural and forestry sectors are now widely used to ensure these habitats in the vicinity of roosts are well-managed and provide appropriate insect food at the correct time of year. Agri-environmental schemes can be a tool to promote the restoration of small landscape features on agricultural land. Planning at landscape scale is required to conserve commuting routes and foraging areas.
10.1 Future prospects of parameters	10.1a Future prospects of -range. The future prospects of range for this species is considered to be unknown in Wales. E. serotinus current range is likely to be under recorded. Should the species be recorded in new areas in the future it will be difficult to distinguish between recent range increase and simply the discovery of long existing populations outside of the currently predicted range, which is based on modelling of current data. 10.1b Future prospects of -Population The future prospects of population for this species is considered to be unknown in Wales. E. serotinus is a rare and data deficient species within Wales; the GB trend data from the NBMP shows a very small increase which is not statistically significant; this is likely to be reflective of the trend in Wales however this cannot be confirmed in Wales and therefore the future prospects of population is considered to be unknown. 10.1c Future prospects of -Habitat of the species The future prospects of habitat of the species is considered to be overall stable in Wales. E. serotinus uses a mosaic of habitats; currently available habitat is considered sufficient to maintain the species at FCS and there are no specific wide scale threats to the habitat for the species. There is therefore no reason to assume that the current reported trend will not continue over the next 12 years.