

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

**2019-2024**

Conservation status assessment for the species:

**S1331 - Leisler's bat**

***(Nyctalus leisleri)***

**England**



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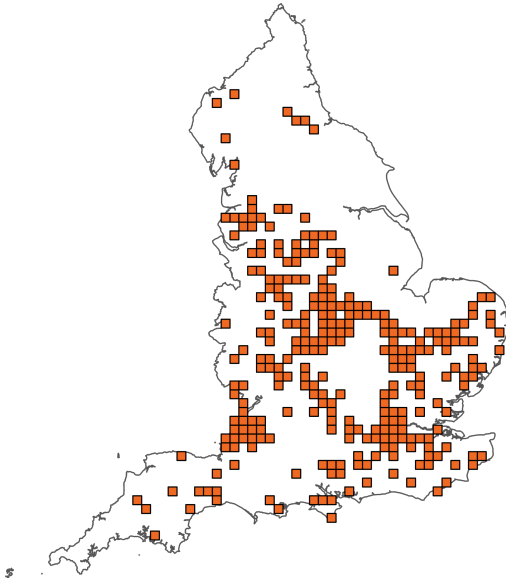
### **Important note - Please read**

- The information in this document represents the England 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 England, 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).

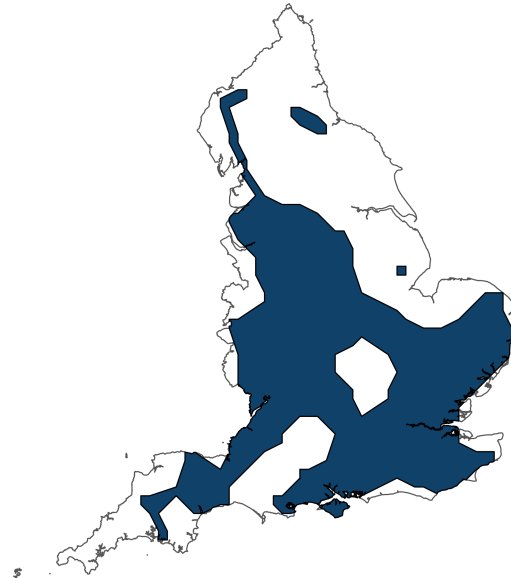
Further details on the approach to the Habitats Regulations Reporting 2019-2024 are available on the [JNCC website](#).

## Assessment Summary: Leisler's bat

### Distribution Map



### Range Map



**Figure 1:** England distribution and range map for S1331 - Leisler's bat (*Nyctalus leisleri*). 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 S1331 - Leisler's bat (*Nyctalus leisleri*). 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)

**Unfavourable-bad (U2)**

### Breakdown of Overall Conservation Status

**Range** (see section 5)

**Favourable (FV)**

**Population** (see section 6)

**Unfavourable-bad (U2)**

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

**Unknown (XX)**

**Future prospects** (see section 10)

**Unfavourable-bad (U2)**

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## National Level

### 1. General information

1.1 Country	England
1.2 Species code	S1331
1.3 Species scientific name	<i>Nyctalus leisleri</i>
1.4 Alternative species scientific name	
1.5 Common name	Leisler's bat
Annex(es)	IV

### 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	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**

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### **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>	-	-	-	-	-	-

---

### **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>) 68,248.87

5.2 Short-term trend; Period 1995-2024

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 Insufficient or no data available

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 (km <sup>2</sup> )	69,353
b) Pre-defined increment	
c) Unknown	No
d) Method used	Expert opinion
e) Quality of information	low

### 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	Yes
f) Other reason	Yes
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 map 1x1 km grid cells
b) Minimum	
c) Maximum	
d) Best single value	532

<b>6.3 Type of estimate</b>	Best estimate
<b>6.4 Quality of extrapolation to reporting unit</b>	low
<b>6.5 Additional population size (using population unit other than reporting unit)</b>	
<b>a) Unit</b>	number of individuals
<b>b) Minimum</b>	
<b>c) Maximum</b>	
<b>d) Best single value</b>	9,750
<b>e) Type of estimate</b>	Best estimate
<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>	Unknown
<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>	
<b>6.12 Long-term trend; Direction</b>	
<b>6.13 Long-term trend; Magnitude</b>	
<b>a) Minimum</b>	

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**b) Maximum**

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**c) Confidence interval**

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**d) Rate of decrease**

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**6.14 Long-term trend; Method used**

**6.15 Favourable Reference Population (FRP)**

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**ai) Population size** 89,000

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**a ii) Unit** number of adults

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**b) Pre-defined increment**

---

**c) Unknown** No

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**d) Method used** Expert opinion

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**e) Quality of information** low

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

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**a) Change** No

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**b) Genuine change**

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**c) Improved knowledge or more accurate data**

---

**d) Different method**

---

**e) No information**

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**f) Other reason**

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**g) Main reason**

**6.17 Additional information**

Limited accurate data for this species means that it is not possible to provide an assessment of changes in population size for this species at this time.

**6.18 Age structure, mortality and reproduction deviation** Unknown

## 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?	Unknown
c) If No or Unknown, is there a sufficiently large area of unoccupied habitat of suitable quality?	Unknown

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

a) Sufficiency of area of occupied habitat; Method used	Based mainly on expert opinion with very limited data
b) Sufficiency of quality of occupied habitat; Method used	Insufficient or no data available

7.3 Short-term trend; Period 2013-2024

7.4 Short-term trend; Direction Unknown

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

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	Medium (M)
PA05: Abandonment of management/use of grasslands and other agricultural and agroforestry systems (e.g. cessation of grazing, mowing or traditional farming)	Ongoing	Medium (M)
PA15: Use of other pest control methods in agriculture (excluding tillage)	Ongoing	Medium (M)
PB02: Conversion from one type of forestry land use to another	Ongoing	Medium (M)
PB04: Abandonment of traditional forest management	Ongoing	Medium (M)
PB05: Logging without replanting or natural regrowth	In the past but now suspended due to measures	Medium (M)
PB07: Removal of dead and dying trees (including debris)	Ongoing	High (H)
PB08: Removal of old trees (excluding dead or dying trees)	Ongoing	High (H)
PB09: Clear-cutting, removal of all trees	Ongoing	High (H)
PB14: Forest management reducing old growth forests	Ongoing	High (H)
PD01: Wind, wave and tidal power (including infrastructure)	Ongoing and likely to be in the future	High (H)
PE01: Roads, paths, railroads and related infrastructure	Ongoing and likely to be in the future	Medium (M)
PF01: Conversion from other land uses to built-up areas	Ongoing and likely to be in the future	High (H)

PF02: Construction or modification (e.g. of housing and settlements) in existing built-up areas	Ongoing and likely to be in the future	Medium (M)
PJ11: Desynchronisation of biological / ecological processes due to climate change	Only in future	High (H)

## 8.2 Sources of information

See section 14 References

## 8.3 Additional information

PJ11: There is limited current evidence on the risks or potential benefits to bats from the desynchronisation of biological and ecological processes due to climate change. While some changes, such as longer foraging seasons or increased prey availability in certain regions, could have positive effects, there is insufficient evidence to confirm this. Many bat species rely on precise seasonal cues for hibernation and foraging, and disruptions in food availability, such as shifts in insect emergence, could negatively impact their survival. Hibernating bats depend on stored energy and the predictable availability of prey upon emergence. Therefore, despite the uncertainty, it is important to consider this factor when assessing the broader impacts of climate change on bats.

## 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 National Site Network

### 9.4 Response to measures

Long-term results (after 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
MA02: Restore small landscape features on agricultural land	High (H)
MA03: Maintain existing extensive agricultural practices and agricultural landscape features	Medium (M)
MA14: Other measures related to agricultural practices	Medium (M)
MB05: Adapt/change forest management and exploitation practices	Medium (M)
MB01: Prevent conversion of (semi-) natural habitats into forests and of (semi-) natural forests into intensive forest plantation	High (H)
MB04: Adapt/manage reforestation and forest regeneration	High (H)
MB06: Stop forest management and exploitation practices	High (H)
MC03: Adapt/manage renewable energy installation, facilities and operation (excl. hydropower and abstraction activities)	High (H)
MF10: Other measures related to residential, commercial, industrial and recreational infrastructures, operations and activities	Medium (M)
MJ02: Implement climate change adaptation measures	Medium (M)
ME01: Reduce impact of transport operation and infrastructure	High (H)

## 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

<b>aii) Range</b>	Good
<b>bii) Population</b>	Bad
<b>cii) Habitat for the species</b>	Unknown

## 10.2 Additional information

No additional information

## 11. Conclusions

<b>11.1 Range</b>	Favourable (FV)
<b>11.2 Population</b>	Unfavourable-bad (U2)
<b>11.3 Habitat for the species</b>	Unknown (XX)
<b>11.4 Future prospects</b>	Unfavourable-bad (U2)
<b>11.5 Overall assessment of Conservation Status</b>	Unfavourable-bad (U2)
<b>11.6 Overall trend in Conservation Status</b>	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

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b) Minimum

---

c) Maximum

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d) Best single value

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### **12.2 Type of estimate**

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**12.3 Population size inside the network; Method used**

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

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

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

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**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

- Festa, F., Ancillotto, L., Santini, L., Pacifici, M., Rocha, R., Toshkova, N., Amorim, F., Benítez-López, A., Domer, A., Hamidović, D. and Kramer-Schadt, S., 2023. Bat responses to climate change: a systematic review. *Biological Reviews*, 98(1), pp.19-33.
- Bat Conservation Trust. 2018. The State of the UK's Bats 2017. Bat Conservation Trust, London. Available at ([http://www.bats.org.uk/pages/results\\_and\\_reports.html](http://www.bats.org.uk/pages/results_and_reports.html)) Bat Conservation Trust., 2010. Leisler's bat, *Nyctalus leisleri*. Bat Conservation Trust, London.
- Harris, S., Morris, P., Wray, S. & Yalden, D. 1995. A review of British Mammals: population estimates and conservation status of British mammals other than cetaceans. JNCC, Peterborough. JNCC., 2013. Third Report by the United Kingdom under Article 17 on the implementation of the Habitats Directive from January 2007 to December 2012.
- 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.
- Dietz, C., Kiefer, A., 2016. Bats of Britain and Europe. Bloomsbury, United Kingdom.
- Howe, C.V. and Downs, N. C. In Press. Definition of favourable conservation status for Leisler's bat. RP2976. Natural England. JNCC., 2019. Fourth Report by the United Kingdom under Article 17 on the implementation of the Habitats Directive from January 20013 to December 2018. <https://jncc.gov.uk/jncc-assets/Art17/S5003-UK-Habitats-Directive-Art17-2019.pdf>
- Mathews, F., Roche, N., Aughney, T., Jones, N., Day, J., Baker, J., Langton, S., 2015. Barriers and benefits: implications of artificial night-lighting for the distribution of common bats in Britain and Ireland. *Phil. Trans. R. Soc. B* 370, 20140124.
- McAney, K., 2006. A conservation plan for Irish vesper bats, Irish Wildlife Manuals, National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.
- Mitchell-Jones, T.J. 2010. Bats in houses - the conservation challenge. Pp 365-378 in *Species Management: challenges and solutions for the 21st century*.
- Rodrigues, L., Bach, L., Dubourg-Savage, M.-J., Karapandža, B., Kovač, D., Kervyn, T., Dekker, J., Kepel, A., Bach, P., Collins, J., Harbusch, C., Park, K.J., Micevski, B., Minderman, J., 2014. Guidelines for consideration of bats in wind farm projects - Revision 2014

Russ, J., Briffa, M., Montgomery, W., 2003. Seasonal patterns in activity and habitat use by bats (*Pipistrellus* spp. and *Nyctalus leisleri*) in Northern Ireland, determined using a driven transect. *Journal of Zoology* 259, 289-299

Russ, J.M., Hopkirk, A., Lucas, T., C, D, Gueguen, S., Boston, E., In Prep. Roost selection, activity and dispersal of Leisler's bat, *Nyctalus leisleri* (Kuhl, 1818) during the pre-hibernal and hibernal periods. <https://www.hopkirkandruss.co.uk/wp-content/uploads/2022/06/roost-selection-leislars-bat.pdf>

Rydell, J., Bach, L., Dubourg-Savage, M.-J., Green, M., Rodrigues, L., Hedenström, A., 2010. Bat mortality at wind turbines in northwestern Europe. *Acta Chiropterologica* 12, 261-274. Shiel, C., Fairley, J., 1999. Evening emergence of two nursery colonies of Leisler's bat (*Nyctalus leisleri*) in Ireland. *J* 47, 439-447.

Shiel, C., Shiel, R., Fairley, J., 1999. Seasonal changes in the foraging behaviour of Leisler's bats (*Nyctalus leisleri*) in Ireland as revealed by radio telemetry. *Journal of Zoology* 249, 347-358.

## Main pressures

### 4.2 Sources of information

PJ11: Festa, F., Ancillotto, L., Santini, L., Pacifici, M., Rocha, R., Toshkova, N., Amorim, F., Benítez-López, A., Domer, A., Hamidović, D. and Kramer-Schadt, S., 2023. Bat responses to climate change: a systematic review. *Biological Reviews*, 98(1), pp.19-33.

## 15. Explanatory Notes

Field label	Note
5.5: Short-term trend; Method used	Range is based on presence data collected between 1995-2024. Areas that contain very isolated records may not have been included in the distribution. The range map has been produced following the same methodology that was used in 2007 and 2013 whereby a 45km alpha hull value has been used for all species with a starting range unit of individual 10km squares. In 2018 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. That process led to the production of much finer detailed maps being produced. However, this approach to mapping was not an option for this reporting round (2018-2024) - see section 2.5.
6.8: Short-term trend; Direction	The limited data for this species means that it is not possible to provide an assessment of the population trend for this species at this time. Although, Leisler's bat is included in the National Bat Monitoring Programme too few data are currently available to permit the calculation of a trend. The estimate by Harris et al (1995) was based largely on expert opinion, taking into account the ratio of Leisler's roosts to pipistrelle roosts or the ratio of Leisler's bats to serotines. The estimate was considered to have poor reliability. No data are available to update these estimates.
6.15: Favourable Reference Population (FRP)	The favourable reference population comes from an unpublished report (Howe and Downs In Press) and based on expert opinion. The confidence in this favourable value is low. The unit is number of individuals which varies from

	<p>the unit used for 'population 6.2'. Information is not available to present in the same units.</p>
2.3: Distribution map	<p>The widespread use of broadband bat detectors has significantly increased the number of records and extended the known distribution of Leisler's bat. However, while the species makes loud echolocation calls that are readily recorded on modern broadband bat detectors, there is considerable overlap in the call parameters of the other Nyctaloid bats, <i>N. noctula</i> and <i>Eptesicus serotinus</i>. Many acoustic records are not supported by regional records of bats identified in the hand (or by molecular analysis of droppings), raising doubts about their validity. Leisler's bat is considered migratory in Europe, but thought to undergo only local dispersal within the UK (Shiel et al 1999). It is widely distributed through central and southern England, rarer in the north and the south-west.</p>
5.11: Change and reason for change in surface area of range	<p>Range is given by Mathews et al. (2018) as 68,400 km<sup>2</sup> (area of suitable habitat within range). Range was not estimated for England in the 2013 Article 17 report (JNCC 2013). Habitable area was defined as all areas within the range excluding montane habitat since this is unlikely to include suitable locations for maternity roosts. There is no evidence to suggest that this species range has declined for the specified time period and any changes are considered to be an artifact of the different methods used.</p>
6.5: Additional population size	<p>Very few roosts are known and the species is under-recorded in Britain. There are no data on roost density estimates and it considered unlikely that most maternity roosts in Britain are known. No population genetics study has been conducted, and therefore no alternative metrics of population size were available. The estimate by Harris et al (1995) was based largely on expert opinion, taking into account the ratio of Leisler's roosts to pipistrelle roosts or the ratio of Leisler's bats to serotines. The estimate was considered to have poor reliability. No data are available to update these estimates.</p>

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7.1: Sufficiency of area and quality of occupied habitat

Leisler's bats forage in woodland, pasture and riparian habitats and along woodland margins, even close to major roads and around street lights. It has been seen foraging over beaches and sand dunes and shows no clear habitat associations (Shiel and Fairley 1999, Shiel et al 1999, Waters et al 1999, Mathews et al 2015). The average home range area can approach 18 square km and foraging flights can be up to 13km from the roost. Leisler's bats not as dependent on tree roosts as *N. Noctula* and use a wide range of buildings. Leisler's have occasionally been found in caves, tunnels and buildings during the hibernation period (BCT 2010, McAney 2006), but tree roosts are likely to be utilised the most with roosts in deciduous trees being used almost exclusively after November in Ireland (Russ et al in prep).

In order to obtain an estimate, 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. Therefore, area estimate is Unknown. There is thought to be a sufficient amount of habitat in the UK to support a viable population of the species

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7.2: Sufficiency of area and quality of occupied habitat; Methods used

Leisler's bat shows no clear habitat associations. In order to obtain an estimate, 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

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8.1: Characterisation of pressures

Leisler's bat is primarily a tree-roosting species, so would be vulnerable to loss of roost opportunities in dead, dying or damaged trees. The species also utilises buildings as

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maternity sites, so could be vulnerable to roost loss through the demolition or alteration of buildings or changes to construction methods (Mitchell-Jones, 2010). Pressures that affect the biomass of flying insects, such as the widespread use of pesticides, could also affect this species. Despite the fact that Leisler's bats will forage high above the ground, when light levels are high on emergence from roosts, they will follow linear landscape elements such as hedgerows (Russ et al 2003), indicating the importance of these features within the landscape. Therefore the loss of these features might be expected to impact on the species. Leisler's bats have a high risk of collision with wind turbines as they fly and forage in open areas and are known to be killed by wind turbines in Europe (Rodrigues et al 2014, Rydell et al 2010).

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9.6: Additional information

Legal and administrative measures continue to be required to ensure that the protection provided by the legislation is effective and that protected habitats for the species are managed appropriately. Wind turbine design and operation needs to take into account the likely impact on bats, e.g. in relation to mortality and habitat fragmentation. Leisler's bats hunt over cattle-grazed pasture 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. Planning at landscape scale is required to conserve commuting routes and foraging areas.

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5.12: Additional information

There is no evidence to indicate a decline in the range of this species during the specified time period; any apparent changes are likely the result of differing survey methodologies. However, challenges in accurately identifying and surveying this species make it difficult to accurately determine whether changes have occurred.

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6.18: Age structure, mortality and reproduction

The age structure, mortality, and reproduction rates remain unknown due to a lack of formal studies. While there is no evidence to indicate any deviations from typical patterns,

	<p>this assessment is based primarily on anecdotal observations from bat workers in the field.</p>
2.5: Additional information	<p>For the 2026 Regulation 9A reporting round, distribution datasets for all features have been generated using existing Natural England source data, along with additional datasets provided under Open Government Licence (OGL) or Creative Commons (CC-BY) licence for Regulation 9A reporting. A key methodological change involves the reinterpretation of source data, which has led to adjustments in mapped distribution and, consequently, changes in range for some features.</p> <p>In some cases, the available data does not fully capture the complete distribution of a feature. To mitigate this, the presence data collection period for this species has been set from 1995 to 2024. Where observed changes in distribution are due to the mapping methodology rather than actual shifts in range, these will be clearly identified in the assessment text, with any resulting range adjustments explained.</p>
6.2: Population size	<p>Due to difficulties in identification and survey of this species, it is not possible to estimate population size at this time. The species has been recorded in 532 1x1km grid squares in England.</p>
5.10: Favourable Reference Range (FRR)	<p>The favourable reference range comes from an unpublished report (Howe and Downs In Press) and based on expert opinion. The favourable value for range and distribution is 68353 km<sup>2</sup> which would maintain the current predicted range. The confidence in this favourable value is low.</p>
11.1: Range	<p>Overall the range is favourable as it is believed to be stable. Although the current range is slightly smaller than the FRR. This is believed to be an artifact of the differing methods used and available data</p>
11.2: Population	<p>Due to difficulties in identification and survey of this species, it is not possible to accurately estimate population size. The best available population estimate from Harris et al. (1995), although considered likely to be an underestimate, is &gt;50% lower than the favourable</p>

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reference population value, hence the population status is overall considered to be unfavourable-bad.

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11.5: Overall  
assessment of  
Conservation Status

The overall assessment for Leislers bat is 'unfavourable bad'. A lack of robust information about the population level of this species in England is a significant driver of this assessment.