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

**2019-2024**

Conservation status assessment for the species:

# S1317 - Nathusius' pipistrelle

# (*Pipistrellus nathusii*)

**England**

NATURAL ENGLAND

JNCC

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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: Nathusius' pipistrelle

### Distribution Map

### Range Map

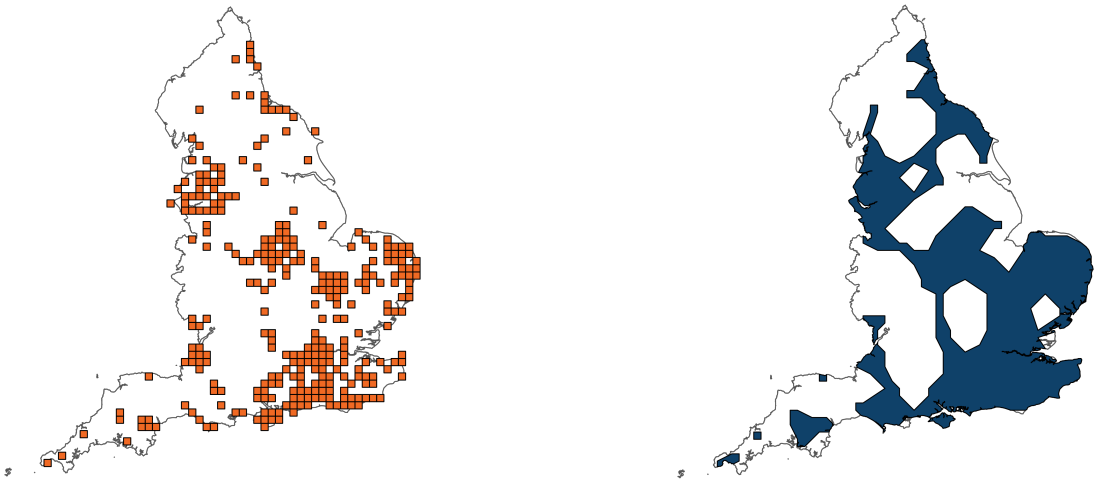

**Figure 1:** England distribution and range map for S1317 - Nathusius' pipistrelle (*Pipistrellus nathusii*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and 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 S1317 - Nathusius' pipistrelle (*Pipistrellus nathusii*). 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) | **Unknown (XX)** |
| **Habitat for the species** (see section 7) | **Unknown (XX)** |
| **Future prospects** (see section 10) | **Favourable (FV)** |

# List of Sections

# National Level

## 1. General information

| | |
|---|---|
| **1.1 Country** | England |
| **1.2 Species code** | S1317 |
| **1.3 Species scientific name** | *Pipistrellus nathusii* |
| **1.4 Alternative species scientific name** | |
| **1.5 Common name** | Nathusius' pipistrelle |
| **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 extrapolation from a limited amount of data |

### 2.5 Additional information

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, 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. Additionally, for the 2026 Regulation 9A reporting round the distribution datasets reported for all features have been created using existing Natural England source data and additional datasets made available to Natural England for Regulation 9a reporting under Open Government (OGL) or Creative Commons (CC-BY) license. The reinterpretation of source data is a methodological change which has resulted in

changes to mapped distribution and hence range for some features. In a few cases the available data is known to not reflect the full distribution of a feature. In order to attempt to overcome this issue, the date range for the collection of presence data for this species has been set at 1995-2024. Where apparent change is an artefact of the mapping approach, rather than real change in distribution it will be highlighted, and associated changes in range explained, in the assessment text.

## 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**

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

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

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

**Other measures**

**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** | - | - | - | - | - | - |

**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)** 63,623.09

**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** | Based mainly on extrapolation from a limited amount of data |
| **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** | |
| **c) Unknown** | Yes |
| **d) Method used** | |
| **e) Quality of information** | |

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

| | |
|---|---|
| **a) Change** | Yes |
| **b) Genuine change** | Yes |
| **c) Improved knowledge or more accurate data** | Yes |
| **d) Different method** | Yes |

| | |
|---|---|
| **e) No information** | No |
| **f) Other reason** | No |
| **g) Main reason** | Use of different method |

### 5.12 Additional information

As explained in the species audit, under 5.5, the change is range is largely due to a change in the way the maps have been generated for this reporting round compared to the previous reporting round 2013-2018.

## 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** | 527 |
| **6.3 Type of estimate** | Best estimate |
| **6.4 Quality of extrapolation to reporting unit** | low |

### 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** | 2019-2024 |

| | |
|---|---|
| **6.8 Short-term trend; Direction** | Increasing |
| **6.9 Short-term trend; Magnitude** | |
| **a) Estimated minimum** | |
| **b) Estimated maximum** | |
| **c) Pre-defined range** | |
| **d) Unknown** | Yes |
| **e) Type of estimate** | |
| **f) Rate of decrease** | |
| **6.10 Short-term trend; Method used** | Based mainly on extrapolation from a limited amount of data |
| **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** | |
| **d) Rate of decrease** | |
| **6.14 Long-term trend; Method used** | |
| **6.15 Favourable Reference Population (FRP)** | |
| **ai) Population size** | |
| **aii) Unit** | |
| **b) Pre-defined increment** | |
| **c) Unknown** | Yes |
| **d) Method used** | |
| **e) Quality of information** | |

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

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

### 6.17 Additional information

Since the last reporting round (2013-2018) there has been a continued effort to gain a better understanding of this species in GB. However, whilst there does seem to be a genuine increase in the number of Nathusius pipistrelle bats recorded in England it is difficult to assess what the scale of that increase may be without further analysis of the data.

| | |
|---|---|
| **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?** | Unknown |
| **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** | Insufficient or no data available |
| **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 |
|---|---|---|
| PA02: Conversion from one type of agricultural land use to another (excluding drainage and burning) | Ongoing and likely to be in the future | Medium (M) |
| 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) |
| PA14: Use of plant protection chemicals in agriculture | Ongoing and likely to be in the future | Medium (M) |

| | | |
|---|---|---|
| PA22: Drainage for use as agricultural land | Ongoing and likely to be in the future | High (H) |
| PB05: Logging without replanting or natural regrowth | Ongoing | Medium (M) |
| PB02: Conversion from one type of forestry land use to another | Ongoing | Medium (M) |
| PB09: Clear-cutting, removal of all trees | Ongoing | Medium (M) |
| 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 | High (H) |
| PA23: Physical alteration of water bodies (including dams, channels, etc.) | Ongoing | 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?** | 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 |
|---|---|
| MA01: Prevent conversion of natural and semi-natural habitats, and habitats of species into agricultural land | Medium (M) |
| MA02: Restore small landscape features on agricultural land | Medium (M) |
| MA09: Manage the use of natural and synthetic fertilisers as well as chemicals in agricultural for plant and animal production | Medium (M) |
| MA13: Manage agricultural drainage and water abstraction (incl. the restoration of drained or hydrologically altered habitats) | 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 | Medium (M) |
| MB05: Adapt/change forest management and exploitation practices | High (H) |
| MC03: Adapt/manage renewable energy installation, facilities and operation (excl. hydropower and abstraction activities) | High (H) |
| ME01: Reduce impact of transport operation and infrastructure | High (H) |

### 9.6 Additional information

Legal and administrative measures continue to be required to ensure that the protection provided by the legislation is effective. Knowledge gaps still exist for this species. There is a particular need to determine the resident and breeding status of the species and the main migratory routes it uses. There is also a need to quantify the risk posed by offshore and onshore wind turbines to this species. However, work is soon to be published which assesses the interactions of bat species with offshore wind farms in British waters (Hooker et al, In Prep).

## 10. Future prospects

### 10.1a Future trends of parameters

| | |
|---|---|
| **ai) Range** | Overall stable |
| **bi) Population** | |

| | |
|---|---|
| | Positive - increasing <=1% (one percent or less) per year on average |
| **ci) Habitat for the species** | Unknown |

### 10.1b Future prospects of parameters

| | |
|---|---|
| **aii) Range** | Good |
| **bii) Population** | Unknown |
| **cii) Habitat for the species** | Unknown |

### 10.2 Additional information

It is thought that the range of this species has been expanding in recent years, possibly linked with climate change (Lundy et al., 2010) in addition to the evident increase in observer effort through projects such as the National Nathusius pipistrelle project. Due to mapping methodolgy changes and data licensing issues as explained in previous sections of this report the range would appear to be stable. However, the future prospects for this species for future range expansion would appear to be good. Whilst there would appear to be an increase in the population of Nathusius pipistrelle bats due to increased observer effort and improved technology i.e. improved acoustic detectors, the extent to which records reflect individual migrants rather than larger populations is still unclear and further analysis of the data is needed. There is little information on occupancy for this species within geographic regions and across differing habitat types so it is not yet possible to determine the future prospects in terms of the habitat parameter for this species.

## 11. Conclusions

| | |
|---|---|
| **11.1 Range** | Favourable (FV) |
| **11.2 Population** | Unknown (XX) |
| **11.3 Habitat for the species** | Unknown (XX) |
| **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


Barlow, K., D. Hargreaves and F. Mathews (2016). Understanding the ecology, current status and conservation threats for Nathusius pipistrelle in Great Britain - a pilot study. Final Report to the Peopl's Trust for Endangered Species, People's Trust for Endangered Species.

Dietz, C., Helverson, O. and Nill, D., (2009). Bats of Britain, Europe and Northwest. A & C Black Publishers Ltd., Africa. p400.

Herman, J.S., (1992). The earliest record of Nathusius'pipistrelle from the British Isles. Scottish bats, 1, p.48.

Hooker, J., Lintott, P., Boughey, K., Worledge, L., Park., K. and Collins, J. (In Prep). Assessing migration of bat species and interactions with Offshore Wind Farms in British Waters. Natural England Commissioned Report.

Hutterer, R. (2005). Bat migrations in Europe; a review of banding data and literature. BfN, Bonn, Naturschutz und Biologische Viefalt 28.

Ijas, A., A. Kahlianen, V.V. Vasko and T.M. Lilley (2017). Evidence of the Migratory Bat, Pipistrellus nathusii, Aggregating to the Coastlines in the Northern Baltic Sea. Acta Chiropterologica., 19, 127-139

Joint Nature Conservation Committee. (2019). Fourth Report by the UK under Article 17 on the implementation of the Habitats Directive from January 2013 to December 2018. Peterborough: JNCC

Lundy, M., Montgomery, I. and Russ, J., (2010). Climate change-linked range expansion of Nathusius'pipistrelle bat, Pipistrellus nathusii (Keyserling & Blasius, 1839). Journal of Biogeography, 37(12), pp.2232-2242.

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.

Moussy, C., Hosken, D.J., Mathews, F., Smith, G.C., Aegerter, J.N. and Bearhop, S., (2013). Migration and dispersal patterns of bats and their influence on genetic structure. Mammal Review, 43(3), pp.183-195.

## Main pressures

### 8.2 Sources of information

No sources of information

## 15. Explanatory Notes

| Field label | Note |
| --- | --- |
| 1.5: Common name | Records for Nathusius' pipistrelle bats are highly dispersed. Nathusius' pipistrelle bat is widespread across Europe, though its abundance is unclear. It is known to undertake large-scale migrations, with most breeding in north eastern regions and hibernating in the south and west (Moussy et al., 2013; Paunovic et al 2016). Whilst, the migration patterns of Nathusius' pipistrelle bat are relatively well known in continental Europe from long-term, large-scale ringing studies (Hutterer, 2005, Ijas et al., 2017) the geographical origins of individuals found in the UK and their migration routes are much less well defined. The species was first recorded in the British Isles in 1940 (Herman, 1992). In 2014 the National Nathusius' Pipistrelle Project (NNPP) was established by the Bat Conservation Trust with the aims of determining the resident and breeding status of the species in Britain. Surveys conducted as part of the NNPP found that capture rates of Nathusius pipistrelle were highest in early April and late October, corresponding to periods during which migratory individuals are anticipated to be present in GB, having arrived in late summer and early autumn and departed again in the spring.The seasonal differences in capture rates suggest that the majority of the population of Nathusius pipistrelles in Great Britain is migratory, with a smaller population remaining during the summer breeding season (Hooker et al., 2025 In Prep). Additionally, if capture rates are assumed to be proportional to abundance, this suggests that the population of Nathusius pipistrelles resident in Great Britain is predominantly male, whereas the migratory population that arrives in the autumn is approximately 50:50 male to female. The low capture rate of juvenile Nathusius pipistrelles in Great Britain suggests that breeding attempts here are infrequent and sporadic (Hooker et al, 2025 In Prep). Few maternity roosts have been identified in England. |

| | |
|---|---|
| 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, 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). This has resulted in an apparent reduction in range from 70300km2 to 63623.09km2. The range however, is likely to have remained stable and this is an artefact of the differing methodologies used to produce the range map. |
| 6.8: Short-term trend; Direction | Since the last reporting round (2013-2018) there has been a continued effort to gain a better understanding of this species in GB. The National Nathusius Pipistrelle project which launched in 2014 and was put on hold in 2023 has added greatly to the number of records through trapping and ringing studies with the aid of acoustic lures. Analysis of the data suggests that the population of P. nathusii resident in GB is predominantly male, whereas the population that arrives here in the autumn is predominantly 50:50 male to female (Hooker et al, In Prep). Whilst, there does seem to be a genuine increase in the number of Nathusius pipistrelle bats recorded in England it is difficult to assess what the scale of that increasing trend may be without further analysis of the data. |

| | |
|---|---|
| 6.15: Favourable Reference Population (FRP) | It has not been possible to determine a favourable reference population for this species as there is too little data available for this species to be able to set a value. |
| 6.18: Age structure, mortality and reproduction | Due to the split in population between resident individuals and migrants, it is uncertain to what extent the population may deviate, if at all, from a naturally self-sustaining one at this point in time without additional survey and data analysis. |
| 7.1: Sufficiency of area and quality of occupied habitat | The area and quality of habitat for the species has been assessed as unknown as there is insufficient information available for this species to undertake this assessment. Although records of the species have improved greatly due to the National Nathusius Pipistrelle project, there is a general lack of information on Nathusius pipistrelle in GB. Most detector records come from within a few km of large freshwater lakes (Mathews et al, 2018). The species routinely forages in deciduous mixed woodlands, damp lowland forests, riparian forests but also coniferous forests, park landscapes and often over water bodies (Dietz et al, 2009). Roosting sites in Europe are primarily within trees, though the species adopts bat and bird boxes and can be found within residential buildings. This behaviour would seem to occur in England as well. However, in order to assess whether there is sufficient area and quality of habitat for this 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 England, which we do not currently have. |
| 7.2: Sufficiency of area and quality of occupied habitat; Methods used | The area and quality of habitat for the species has been assessed as unknown as there is insufficient information available for this species to undertake this assessment. Although records of the species have improved greatly due to the National Nathusius Pipistrelle project, there is a general lack of information on Nathusius pipistrelle in GB. |

| | |
|---|---|
| | Most detector records come from within a few km of large freshwater lakes (Mathews et al, 2018). The species routinely forages in deciduous mixed woodlands, damp lowland forests, riparian forests but also coniferous forests, park landscapes and often over water bodies (Dietz et al, 2009). Roosting sites in Europe are primarily within trees, though the species adopts bat and bird boxes and can be found within residential buildings. This behaviour would seem to occur in England as well. However, in order to assess whether there is sufficient area and quality of habitat for this 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 England, which we do not currently have. |
| 7.4: Short-term trend; Direction | As the area and quality of known occupied and unknown habitat cannot be assessed the short term trend direction is unknown. |
| 7.5: Short-term trend; Method used | There is insufficient information to assess the trend. |
| 8.1: Characterisation of pressures | Pressures can generally be divided into those that affect commuting and foraging (including prey availability). The species routinely forages in deciduous mixed woodlands, damp lowland forests, riparian forests but also coniferous forests, park landscapes and often over water bodies (Dietz et al, 2009). Roosting sites in Europe are primarily within trees, though the species adopts bat and bird boxes and can be found within residential buildings. This behaviour would seem to occur in England as well. Agricultural and forestry practices that remove or simplify these habitats or affect the biomass of insect prey could negatively affect populations. This is the only species in GB with clear evidence of considerable movement between GB and continental Europe. Recent capture and ringing effort has shown movement of the species between SW England and |

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| | the Netherlands, between SE England and Latvia, Estonia, Lithuania and Russia and Between NE England and Poland. In addition, records of Nathusius pipistrelle bat have been made in the English Channel using acoustis detectors installed on passenger ferries (Mathews er al, 2018). Stable isotope analyses of the fur samples collected as part of the Nathusius Pipistrelle project have provided evidence that at least part of the British population is derived from the east of Europe (Barlow et al., 2016). The species is known to be at high risk of collision with wind turbines based on evidence elsewhere in Europe, the growing number of records collected in high risk areas and increasing knowledge of migratory routes. |
| 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. Work is soon to be published that assesses the interactions of bat species with offshore wind farms in British waters (Hooker et al, In Prep). |
| 11.5: Overall assessment of Conservation Status | The overall assessment for Nathusius pipistrelle bat is judged to be favourable as both the range and population parameters are favourable and unknown respectively. |