

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

2019-2024

Conservation status assessment for the species:

S1320 - Brandt's bat

(Myotis brandtii)

England



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This report was produced by JNCC in collaboration with Natural England.

This document should be cited as:

Natural England and JNCC. (2026). Conservation status assessment for the species: S1320 Brandt's bat (*Myotis brandtii*).

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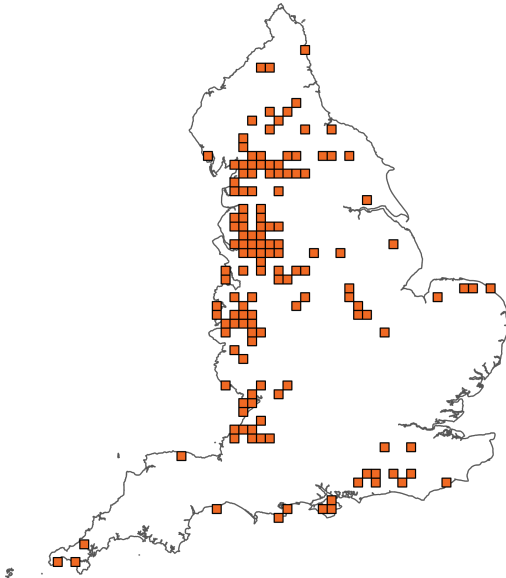
Important note - Please read

- 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: Brandt's bat

Distribution Map



Range Map

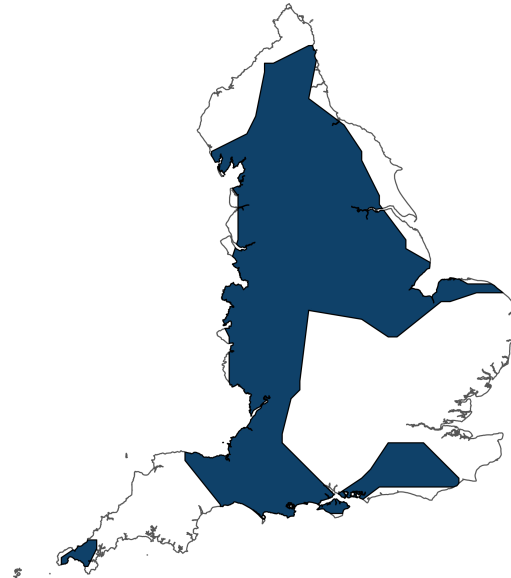


Figure 1: England distribution and range map for S1320 - Brandt's bat (*Myotis brandtii*). Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority. The 10km grid square distribution map is based on available species records within the current reporting period.

Table 1: Table summarising the conservation status for S1320 - Brandt's bat (*Myotis brandtii*). 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-inadequate (U1)

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)

Unfavourable-inadequate (U1)

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National Level

1. General information

1.1 Country	England
1.2 Species code	S1320
1.3 Species scientific name	<i>Myotis brandtii</i>
1.4 Alternative species scientific name	
1.5 Common name	Brandt'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

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) 69,786.4

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 (km ²)	109,200
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	No
f) Other reason	No
g) Main reason	Use of different method

5.12 Additional information

No additional information

6. Population

6.1 Year or period 1995-2024

6.2 Population size (in reporting unit)

a) Unit	number of map 1x1 km grid cells
b) Minimum	
c) Maximum	
d) Best single value	396

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	number of individuals
b) Minimum	
c) Maximum	
d) Best single value	22,500
e) Type of estimate	Best estimate
6.6 Population size; Method used	Based mainly on expert opinion with very limited data
6.7 Short-term trend; Period	1995-2024
6.8 Short-term trend; Direction	Stable
6.9 Short-term trend; Magnitude	
a) Estimated minimum	
b) Estimated maximum	
c) Pre-defined range	
d) Unknown	
e) Type of estimate	
f) Rate of decrease	
6.10 Short-term trend; Method used	Based mainly on expert opinion with very limited data
6.11 Long-term trend; Period	
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 No

b) Genuine change

c) Improved knowledge or more accurate data

d) Different method

e) No information

f) Other reason

g) Main reason

6.17 Additional information

Accurate predictions of population size cannot be made as very few roosts are known, only hibernation count data are used and it is highly likely that there is considerable misidentification of the species. It is therefore unknown whether there has been a change in population size between reporting rounds, but trend data from hibernation counts remain stable.

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 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 1995-2024

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)
PA07: Intensive grazing or overgrazing by livestock	Ongoing	High (H)
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)
PE01: Roads, paths, railroads and related infrastructure	Ongoing and likely to be in the future	High (H)
PF01: Conversion from other land uses to built-up areas	Ongoing and likely to be in the future	Medium (M)

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)
PF05: Sports, tourism and leisure activities	Ongoing and likely to be in the future	Medium (M)
PJ11: Desynchronisation of biological / ecological processes due to climate change	Only in future	Medium (M)

8.2 Sources of information

See section 14 References

8.3 Additional information

PF05: Recreational caving can disturb hibernating bats

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	High (H)
MB01: Prevent conversion of (semi-) natural habitats into forests and of (semi-) natural forests into intensive forest plantation	Medium (M)
MB04: Adapt/manage reforestation and forest regeneration	High (H)
MB05: Adapt/change forest management and exploitation practices	Medium (M)
MB06: Stop forest management and exploitation practices	Medium (M)
ME01: Reduce impact of transport operation and infrastructure	High (H)
MF01: Managing the impacts of converting land for construction and development of infrastructure	High (H)
MF03: Reduce impact of outdoor sports, leisure and recreational activities (incl. restoration of habitats)	Medium (M)
MF10: Other measures related to residential, commercial, industrial and recreational infrastructures, operations and activities	Medium (M)
MJ02: Implement climate change adaptation measures	Medium (M)

9.6 Additional information

No additional information

10. Future prospects

10.1a Future trends of parameters

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

10.1b Future prospects of parameters

aii) Range Unknown

bii) Population Unknown

cii) Habitat for the species Unknown

10.2 Additional information

No additional information

11. Conclusions

11.1 Range Favourable (FV)

11.2 Population Unknown (XX)

11.3 Habitat for the species Unknown (XX)

11.4 Future prospects Unfavourable-inadequate (U1)

11.5 Overall assessment of Conservation Status Unfavourable-inadequate (U1)

11.6 Overall trend in Conservation Status Unknown

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

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Norberg, U.M., Rayner, J.M. 1987. Ecological morphology and flight in bats (Mammalia; Chiroptera): wing adaptations, flight performance, foraging strategy and echolocation. *Phil. Trans. R. Soc. Lond. B.* 316, 335-427.

Parsons, K.N., Jones, G., Davidson-Watts, I., Greenaway, F. 2003. Swarming of bats at underground sites in Britain—implications for conservation. *Biological Conservation.* 111, 63-70.

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Ruedi, M., and Mayer, F. 2001. Molecular systematics of bats of the genus *Myotis* (Vespertilionidae) suggests deterministic ecomorphological convergences. *Molecular phylogenetics and evolution.* 21, 436-448.

Russ, J. 2012. *British bat calls: a guide to species identification*. Pelagic publishing.

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Speakman, J. 1991. The impact of predation by birds on bat populations in the British Isles. *Mammal Review.* 21, 123-142.

Vaughan, N., 1997. The diets of British bats (Chiroptera). *Mammal Review* 27, 77-94.

Main pressures

8.2 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
1.5: Common name	<p>Myotis brandtii is a cryptic species that is often confused with Whiskered bats (<i>M. mystacinus</i>) and Alcatloe bats (<i>M. alcathoe</i>), despite whiskered and Brandt's bat being only distantly related (Ruedi and Mayer 2001). Brandt's bat was only being recognised as a separate species in the UK in 1970; and Alcatloe bat, first described in 2001 was only identified in Britain in 2010 (Jan et al. 2010). It remains likely that the species are still frequently confused. They can roost in the same buildings as the much more common <i>Pipistrellus</i> spp. (Dietz and Keifer 2016) and may be overlooked as a consequence. In addition there is a high degree of overlap in the echolocation parameters. When recorded in cluttered environments – which they commonly frequent – there is also a high degree of similarity with the calls of other members of the <i>Myotis</i> genus (Russ 2012). Therefore confidence in the correct species identification using acoustic records alone is low. Genotyping has even revealed errors in identification of species in the hand, highlighting the difficulties of monitoring this group of small <i>Myotis</i> (Brown 2016).</p>
5.12: Additional information	<p>As explained under 5.5, the change in range is not considered to be a genuine change but is due to a change in available data and the way the maps have been generated for this reporting round compared to the previous reporting round 2013-2018.</p>
2.3: Distribution map	<p>The previous distribution estimate (JNCC 2019) for the species was based on all known records of whiskered/ Brandt's bats since 1995 and is similar to that reported by Arnold (1993). The species were combined due to difficulties in distinguishing between them. The 2013 Article 17 Report (Joint Nature Conservation Committee 2013) was based on records described as Brandt's bats only. The current estimate differentiates the species once again, due to available source data (see section 2.5). The change in range therefore reflects the differing methodologies rather</p>

	<p>than a known change in range. Brandt's bat is widely distributed across England, though probably less common in eastern England, however historic under recording and uncertainty over identification limits the accuracy of the range data. There is no evidence to suggest that this species range has declined for the specified time period.</p>
5.3: Short-term trend; Direction	<p>The difficulty of separating this species from <i>M. mystacinus</i> in terms of physical appearance and via echolocation calls limits the availability of data. Both <i>M. brandtii</i> and <i>M. mystacinus</i> are monitored through the National Bat Monitoring Programme (NBMP), however, the data is combined from the two species which limits its use. Because of this high probability of misidentification, a joint species' range was derived using all available data for whiskered and Brandt's bats combined for the last reporting round (JNCC 2019). However, it should be noted that records from both swarming sites and roosts are patchier for Brandt's than for whiskered bats. The estimated range is therefore likely to be less reliable for Brandt's bats. Expert opinion suggested that there is a ratio of approximately 10:1 of captures of whiskered compared with Brandt's bats at swarming sites, woodland and hedgerows (Mathews et al 2018). The precise degree of overlap of the distributions of the species is unknown, but genotyping of bats captured at swarming sites across England confirms the previously reported general pattern of the ratio of Brandt's: whiskered bats increasing from West to East and from South to North in Britain (Richardson 2000). There is no evidence to suggest that this species range has declined for the specified time period.</p>
6.5: Additional population size	<p>A previous reporting round (Joint Nature Conservation Committee 2013) gave a population estimate of 22,500 for England from Harris et al. 1995. It is stated that this estimate was based on expert judgement and extrapolation from limited field surveys. The 1995 population estimate for Great Britain was based on very limited information, extrapolating from known size of <i>Pipistrellus pipistrellus</i> colonies in relation to size of Brandt's colonies following the</p>

methods described by Speakman (1991) and Harris et al (1995). Harris et al's (1995) reliability rating of the estimate was 5, indicating that little confidence can be placed on the estimate. Although the estimate dates from 1995, NBMP data indicate that the population trend for this species (1997-2023) is stable (Bat Conservation Trust 2024). Better data are needed to provide a reliable population estimate.

6.8: Short-term trend;
Direction

The whiskered/Brandt's bat Hibernation Survey index show no significant change since the baseline year of monitoring (1999) or over the last five years. The combined population of whiskered and Brandt's bat in England is considered to have been stable in the long-term (since 1999) and the short term (since 2017) to 2023 (BCT 2024). However, this trend should be interpreted with caution as it combines data from two species with differing ecological requirements and potentially differing conservation status. This uncertainty has been compounded by the discovery of Alcahoie bat in the UK in 2010, a third cryptic species in this species group. The distribution of Alcahoie bat in the UK is poorly known although it is thought to be localised and rare. It is likely to have occurred in the UK prior to its discovery in 2010, so it is possible that counts of whiskered/Brandt's bat made during the Hibernation Survey may also include Alcahoie bat. Further work is required to facilitate the reliable identification of these species and their differing ecological needs.

6.15: Favourable
Reference Population
(FRP)

A favourable reference value for Great Britain has been set at 29,500 and remains the same as for the last reporting round. There is no figure for England and difficulties in assessing the population for this species prevents the calculation of a meaningful figure. The GB figure was set at the current estimate in 2013 as it was believed to be big enough to be viable and no lower than the population in 1994. There is limited historic and current information for this species and the current trend data is not considered to be very robust as it is combined with whiskered bat. More data are required to assess population trends and absolute abundance.

6.16: Change and reason for change in population size	Accurate predictions of population size cannot be made as very few roosts are known, only hibernation count data are used and it is highly likely that there is considerable misidentification of the species. It is therefore unknown whether there has been a change in population size between reporting rounds, but trend data from hibernation counts remain stable.
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, this assessment is based primarily on anecdotal observations from bat workers in the field and stable trends in the NBMP bat hibernation surveys.
7.1: Sufficiency of area and quality of occupied habitat	Brandt's bats require a complex mosaic of habitats to support foraging, roosting and commuting behaviour. The species has wing morphology and echolocation calls allowing highly manoeuvrable flight, indicating adaptation to foraging in edge or cluttered habitats (Norberg and Rayner 1987). Coniferous woodland, mixed woodland, forest edges and clearings are all frequently used, especially wetland areas (Berge 2007, Boye and Dietz 2005). Tree lines and hedges also play an important role as hunting grounds (Dietz and Kiefer 2016). It has a broad dietary range, feeding on Diptera (including midges and brown lacewings) and Lepidoptera (moths) but also gleans Araneida (spiders) and diurnal Diptera from vegetation (Vaughan 1997, Berge 2007). The species is negatively affected by habitat isolation and may be particularly vulnerable to increased forest patchiness (Ekman & DeJong 1996). In England, a radiotracking study found the species had a maximum foraging distance of 2.3 km from the roost (Berge 2007). Loose bark and large holes in tree trunks are the original roost sites of Brandt's bats, but tree holes and bat boxes are also used, especially by males during mating time. Maternity colonies are more commonly found in buildings in wall crevices or roof lofts, and more rarely in trees, bridges and bat boxes (Schober and Grimmberger 1989). Winter roosts are commonly in disused mines and caves,

	<p>occasionally in cellars (Berge and Jones 2008). The species also swarms at underground sites August - October, with a peak in early August (Parsons et al 2003). These sites should also be considered important habitat features for the species. There is thought to be a sufficient amount of habitat in GB to support a viable population of the species.</p>
<p>7.2: Sufficiency of area and quality of occupied habitat; Methods used</p>	<p>There is some detailed information on the habitat requirements/limitations of this species, but the total area of suitable habitat is unknown as the species depends on a matrix of habitats in a landscape. 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 GB. We do not currently have this level of information.</p>
<p>9.6: Additional information</p>	<p>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. Road design, construction and operation measures such as provision of safe crossing structures and the loss of and severance of bat habitat and lighting may mitigate impacts to bats. Brandt's bats hunt within woodland and field boundaries. 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. Impacts of recreation (caving) on swarming and hibernation sites need to be limited.</p>
<p>10.2: Additional information</p>	<p>The range for Brandt's bats is likely to have remained stable as the species is relatively widespread. The population appears to be stable as shown continuously</p>

through the NBMP trend data, however this trend should be interpreted with caution as it combines data from two species (Whiskered and Brandt's bats) with differing ecological requirements and potentially differing conservation status. There is insufficient data on any change in the level of suitable habitat or any change in the quality of habitat for the species, however given that the population appears to be increasing and range is stable it is considered that the habitat can also be considered to be stable.

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 smooting 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). The range is likely to have remained stable and any changes are perceived to be an artefact of the differing methodologies used to produce the range map (see section 2.5).

2.5: Additional
information

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.

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. Given the long lifespan of bats, this approach is considered appropriate. 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.

6.2: Population size

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 396 1x1km grid squares in England.

5.10: Favourable Reference Range (FRR)

The favourable reference range is based on presence data collected between 1995-2016 to formulate the extent of occurrence. Areas that contain very isolated records may not have been included in the area of distribution. This 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. The area within the range is likely to be overestimated because the range is based jointly on whiskered/Brandt's bats, and Brandt's bat is generally considered rarer and more patchily distributed. The quality of this information is therefore low

6.17: Additional information

Accurate predictions of population size cannot be made as very few roosts are known, only hibernation count data are

used and it is highly likely that there is considerable misidentification of the species. It is therefore unknown whether there has been a change in population size between reporting rounds, but trend data from hibernation counts (combined counts of whiskered and Brandt's bats) remain stable.

11.5: Overall
assessment of
Conservation Status

The overall assessment for Brandt's bat is 'unfavourable inadequate' primarily due to the lack of information known about this species and lack of knowledge of future prospects.