European Community Directive
on the Conservation of Natural Habitats
and of Wild Fauna and Flora
(92/43/EEC)

Fourth Report by the United Kingdom
under Article 17

on the implementation of the Directive
from January 2013 to December 2018

Supporting documentation for the
conservation status assessment for the species:

S1326 - Brown long-eared bat (*Plecotus auritus*)

NORTHERN IRELAND
IMPORTANT NOTE - PLEASE READ

- The information in this document is a country-level contribution to the UK Report on the conservation status of this species, submitted to the European Commission as part of the 2019 UK Reporting under Article 17 of the EU Habitats Directive.

- The 2019 Article 17 UK Approach document provides details on how this supporting information was used to produce the UK Report.

- The UK Report on the conservation status of this species is provided in a separate document.

- The reporting fields and options used are aligned to those set out in the European Commission guidance.

- Explanatory notes (where provided) by the country are included at the end. These provide an audit trail of relevant supporting information.

- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; (iii) the field was not relevant to this species (section 12 Natura 2000 coverage for Annex II species) and/or (iv) the field was only relevant at UK-level (sections 9 Future prospects and 10 Conclusions).

- For technical reasons, the country-level future trends for Range, Population and Habitat for the species are only available in a separate spreadsheet that contains all the country-level supporting information.

- The country-level reporting information for all habitats and species is also available in spreadsheet format.

Visit the JNCC website, https://jncc.gov.uk/article17, for further information on UK Article 17 reporting.
Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

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<th>NATIONAL LEVEL</th>
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<td>1.1 Member State</td>
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<td>1.2 Species code</td>
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<td>1.3 Species scientific name</td>
</tr>
<tr>
<td>1.4 Alternative species scientific name</td>
</tr>
<tr>
<td>1.5 Common name (in national language)</td>
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<td>3.1 Is the species taken in the wild/exploited?</td>
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<tr>
<td>3.2 Which of the measures in Art. 14 have been taken?</td>
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<tr>
<td>a) regulations regarding access to property</td>
</tr>
<tr>
<td>b) temporary or local prohibition of the taking of specimens in the wild and exploitation</td>
</tr>
<tr>
<td>c) regulation of the periods and/or methods of taking specimens</td>
</tr>
<tr>
<td>d) application of hunting and fishing rules which take account of the conservation of such populations</td>
</tr>
<tr>
<td>e) establishment of a system of licences for taking specimens or of quotas</td>
</tr>
<tr>
<td>f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens</td>
</tr>
<tr>
<td>g) breeding in captivity of animal species as well as artificial propagation of plant species</td>
</tr>
<tr>
<td>h) other measures</td>
</tr>
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3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

<table>
<thead>
<tr>
<th>a) Unit</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>b) Statistics/quantity taken</th>
<th>Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Season/year 1</td>
</tr>
<tr>
<td>Min. (raw, ie. not rounded)</td>
<td></td>
</tr>
<tr>
<td>Max. (raw, ie. not rounded)</td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td>No</td>
</tr>
</tbody>
</table>

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

Atlantic (ATL)

Murphy, S.E., Greenaway, F. and Hill, D.A. (2012) Patterns of habitat use by...

5. Range

<table>
<thead>
<tr>
<th>5.1 Surface area (km²)</th>
<th>5.2 Short-term trend Period</th>
<th>5.3 Short-term trend Direction</th>
<th>5.4 Short-term trend Magnitude</th>
<th>5.5 Short-term trend Method used</th>
<th>5.6 Long-term trend Period</th>
<th>5.7 Long-term trend Direction</th>
<th>5.8 Long-term trend Magnitude</th>
<th>5.9 Long-term trend Method used</th>
<th>5.10 Favourable reference range</th>
<th>5.11 Change and reason for change in surface area of range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Stable (0)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>a) Minimum</td>
<td>b) Maximum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The change is mainly due to:</td>
</tr>
</tbody>
</table>

5.12 Additional information

6. Population

<table>
<thead>
<tr>
<th>6.1 Year or period</th>
<th>6.2 Population size (in reporting unit)</th>
<th>6.3 Type of estimate</th>
<th>6.4 Additional population size (using population unit other than reporting unit)</th>
<th>6.5 Type of estimate</th>
<th>6.6 Population size Method used</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994-2018</td>
<td>number of map 1x1 km grid cells (grids1x1)</td>
<td>Best estimate</td>
<td>number of individuals (i)</td>
<td></td>
<td>Complete survey or a statistically robust estimate</td>
</tr>
</tbody>
</table>
### 6. Short-term trend

#### Period
- 2007-2018

#### Direction
- Stable (0)

#### Magnitude
- a) Minimum
- b) Maximum
- c) Confidence interval

#### Method used
- Complete survey or a statistically robust estimate

### 7. Habitat for the species

#### Sufficiency of area and quality of occupied habitat

- a) Are area and quality of occupied habitat sufficient (to maintain the species at FCS)? Yes
- b) Is there a sufficiently large area of occupied AND unoccupied habitat of suitable quality (to maintain the species at FCS)? Based mainly on extrapolation from a limited amount of data

#### Period
- 2007-2018

#### Direction
- Uncertain (u)

#### Method used
- Insufficient or no data available

### 8. Main pressures and threats

#### Characterisation of pressures/threats

<table>
<thead>
<tr>
<th>Pressure</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Removal of small landscape features for agricultural land</td>
<td>H</td>
</tr>
</tbody>
</table>
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8.2 Sources of information

8.3 Additional information

<table>
<thead>
<tr>
<th>Threat</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.) (A05)</td>
<td>H</td>
</tr>
<tr>
<td>Logging without replanting or natural regrowth (B05)</td>
<td>H</td>
</tr>
<tr>
<td>Removal of dead and dying trees, including debris (B07)</td>
<td>M</td>
</tr>
<tr>
<td>Clear-cutting, removal of all trees (B09)</td>
<td>H</td>
</tr>
<tr>
<td>Forest management reducing old growth forests (B15)</td>
<td>M</td>
</tr>
<tr>
<td>Roads, paths, railroads and related infrastructure (e.g. bridges, viaducts, tunnels) (E01)</td>
<td>M</td>
</tr>
<tr>
<td>Construction or modification (e.g. of housing and settlements) in existing urban or recreational areas (F02)</td>
<td>H</td>
</tr>
<tr>
<td>Residential or recreational activities and structures generating noise, light, heat or other forms of pollution (F24)</td>
<td>H</td>
</tr>
<tr>
<td>Tree surgery, felling/removal of roadside trees and vegetation for public safety (H05)</td>
<td>M</td>
</tr>
<tr>
<td>Closure or restricted access to site/habitat (H06)</td>
<td>M</td>
</tr>
</tbody>
</table>

9. Conservation measures

9.1 Status of measures

a) Are measures needed? Yes

b) Indicate the status of measures Measures identified and taken

9.2 Main purpose of the measures taken

Maintain the current range, population and/or habitat for the species

9.3 Location of the measures taken

Both inside and outside Natura 2000

9.4 Response to the measures

Medium-term results (within the next two reporting periods, 2019-2030)
### 10. Future prospects

#### 10.1 Future prospects of parameters
- a) Range
- b) Population
- c) Habitat of the species

#### 10.2 Additional information

### 11. Conclusions

#### 11.1. Range

#### 11.2. Population

#### 11.3. Habitat for the species

#### 11.4. Future prospects

#### 11.5 Overall assessment of Conservation Status

#### 11.6 Overall trend in Conservation Status

#### 11.7 Change and reasons for change in conservation status and conservation status trend

- a) Overall assessment of conservation status
  - No change
  - The change is mainly due to:

- b) Overall trend in conservation status
  - No change
  - The change is mainly due to:

#### 11.8 Additional information

### 12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

#### 12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

- a) Unit
- b) Minimum
- c) Maximum
- d) Best single value

#### 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
13. Complementary information

13.1 Justification of % thresholds for trends
13.2 Trans-boundary assessment
13.3 Other relevant Information

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

12.6 Additional information
Figure 1: UK distribution map for S1326 - Brown long-eared bat (*Plecotus auritus*). Coastline boundary derived from the Oil and Gas Authority’s OGA and Lloyd’s Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The 10km grid square distribution map is based on available species records within the current reporting period. For further details see the 2019 Article 17 UK Approach document.
The range map has been produced by The Mammal Society applying a range mapping tool as outlined in Matthews et al. (2018), to the 10km grid square distribution map presented in Figure 1. The alpha value for this species was 20km. For further details see the 2019 Article 17 UK Approach document.
<table>
<thead>
<tr>
<th>Field label</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.3 Short term trend; Direction</td>
<td>The calculation of surface area range in the previous Article 17 Report was based on the number of occupied 10km sq records for this species in Northern Ireland 2001-2012. Based on the number of records between 2001-2012 and 1989-2012 respectively they suggest the population was stable in the short and long term, and it is likely that this trend has continued.</td>
</tr>
<tr>
<td>5.5 Short term trend; Method used</td>
<td>Brown long-eared records have been collected since 1985 by the NIBG, BCT and BCI, yet they have a scattered distribution in Northern Ireland and there is currently no scheme in place to monitor populations of this species. There may be a number of additional incidental records from other sources that have not been added to species databases. The omission of these records will affect the interpretation of the overall distribution of the species within this report.</td>
</tr>
<tr>
<td>5.11 Change and reason for change in surface area of range</td>
<td>Available evidence suggests that there has been 'no' change in the surface area of this species' range.</td>
</tr>
<tr>
<td>6.1 Year or Period</td>
<td>Due to inconsistent recording, population estimates (1x1km squares presence) for all bat species have been based upon available data from the period 1994-2018.</td>
</tr>
<tr>
<td>6.5 Type of estimate</td>
<td>Based upon estimate used in 2013 Report. This estimate was based on a number of assumptions that are as yet untested and should be treated with caution.</td>
</tr>
<tr>
<td>6.6 Population size; Method used</td>
<td>The incidental records used in this report are collected by NI Bat Group, Bat Conservation Trust and Bat Conservation Ireland are available from databases managed by CEDaR, NI Bat Group, Bat Conservation Ireland and the National Biodiversity Data Centre. It is thought there are additional incidental records from other sources that have not been added to these databases. The omission of these records will affect the interpretation of the overall distribution and population estimate of the species within this report.</td>
</tr>
<tr>
<td>6.16 Change and reason for change in population size</td>
<td>There is patchy distributional data for this species and no long term monitoring of roost site use or population size. As a result there is no method to estimate population trends, while there is also no short and long term trend data on habitat availability. Hence no change reported in population size.</td>
</tr>
<tr>
<td>7.4 Short term trend; Direction</td>
<td>Brown long-eared bats can occupy a variety of habitats. There is little information on habitat associations of the species available. Given that there have been no systematic surveys carried out across brown long-eared bat sites in all of the possible habitats to assess their condition in relation to brown long-eared bat requirements, we cannot infer any directional trend between this period and the last for 'habitat for the species' with confidence. Therefore the short-term trend direction for the habitat for the species has been reported as 'uncertain'.</td>
</tr>
<tr>
<td>8.1 Characterisation of pressures/ threats</td>
<td>Brown long-eared bats feed in open deciduous and coniferous woodland, parkland and gardens. There are many similarities with other bat species in terms of Threats and Pressures - i.e. - A05: Removal of small landscape features for agricultural land parcel consolidation (hedges, stone walls, rushes, open ditches, springs, solitary trees, etc.); B05: Logging without replanting or natural regrowth; B07: Removal of dead and dying trees, including debris; B09: Clear-cutting, removal of all trees; B15: Forest management reducing old growth forests; E01: Roads, paths railroads and related infrastructure (e.g. bridges, viaducts, tunnels); F02: Construction or modification (of e.g. housing and settlements) in existing urban or recreational areas; F24: Residential or recreational activities and structures generating noise, light, heat or other forms of pollution; H05: Tree surgery, felling/removal of roadside trees and vegetation for public safety; H06: Closure or restrictive access to site/habitat</td>
</tr>
<tr>
<td>10.1 Future prospects of parameters</td>
<td>The future prospects for the habitat for the species have been reported as 'unknown' because there is insufficient monitoring data available to accurately interpret habitat trends. We cannot infer any directional trends in the habitat for the species between this period and the last with confidence, due to the quality and amount of data available to us for all reporting periods.</td>
</tr>
</tbody>
</table>