

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

Supporting documentation for the
Third Report by the United Kingdom under
Article 17

on the implementation of the Directive
from January 2007 to December 2012
Conservation status assessment for

Species:

S5003 - Alcatheo bat (*Myotis alcathoe*)

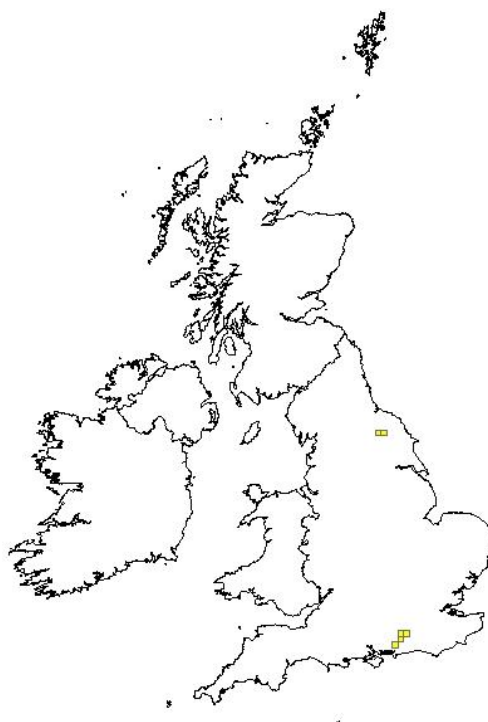
IMPORTANT NOTE – PLEASE READ

- The country-level reporting information contained in this document is a contribution to the Article 17 UK report for the habitat/species concerned.
- It has been provided by **Natural England** and refers only to the state of the habitat/species in **England** - it does not constitute an assessment for the whole of the UK.
- The Article 17 UK Approach document provides details on how this information has been used and, combined with information supplied by other Statutory Nature Conservation Bodies
- The format of the document is closely aligned to that set out by the European Commission for Member State reporting – as a result, some of the fields are not applicable at a country-level and have deliberately been left blank – in addition, the content of most fields is constrained by the EC reporting categories.

Reporting format on the 'main results of the surveillance under Article 11' for Annex II, IV & V species

| <i>Field name</i> | <i>Brief explanations</i> | |
|-------------------|--|-------------------------------|
| 0.2 Species | 0.2.1 Species code | S5003 |
| | 0.2.2 Species scientific name | <i>Myotis alcathoe</i> |
| | 0.2.3 Alternative species scientific name Optional | |
| | 0.2.4 Common name Optional | Alcathoe |

| 1.1 Maps | | |
|------------------------|--|-------------------------------|
| 1.1.1 Distribution map | | Sensitive False |
| | <p>Identification based on physical appearance alone is difficult as the species has similar characteristics to the Whiskered bat (<i>M. mystacinus</i>) and the Brandts bat (<i>M. brandtii</i>). However, the species has a distinctive echolocation call, which makes it possible to separate this species from other myotis species that are often found in England.</p> <p>Records shown on the distribution map originate from confirmed DNA analysis of wing biopsies collected primarily at swarming sites between 2003-2009 (Altringham, J 2012. pers communication).</p> | |



| | |
|-------------------------|---|
| 1.1.2 Method used - map | Estimate based on expert opinion with no or minimal sampling |
|-------------------------|---|

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| 1.1.3 Year or period | 2003-2012 |
| | The species was first described in 2001 from individuals caught in Greece. The species was first confirmed in England through the DNA analysis of wing biopsies collected primarily at swarming sites between 2003-2009. (Altringham, J 2012. pers communication). |
| 1.1.4 Additional distribution map | False |
| 1.1.5 Range map | |

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|--|--|
| 2.1 Biogeographical region & marine regions | ATL |
| 2.2 Published sources | "DIETZ, C., HELVERSEN, O. & NILL, D. 2009. <i>Bats of Britain, Europe and Northwest Africa</i> . A & C Black, London. 400pp. HELVERSEN, O. von., HELLER, G.K., MAYER, F., NEMETH, A., VOLLETH. M., & GOMBKOTO, P. 2001. Cryptic mammalian species: a new species of whiskered bat (<i>Myotis alcathoe</i> n. sp) in Europe. <i>Naturwissenschaften</i> , 88: 217-223. JAN, M. I., FRITH, K., GLOVER, A. M., BUTLIN, K. R., SCOTT, C. D., GREENAWAY, F., RUEDI, M., FRANTZ, A. C., DAWSON, D. A., & ALTRINGHAM, J.D. 2010. <i>Myotis alcathoe</i> confirmed in the UK from mitochondrial and microsatellite DNA. <i>Acta Chiropterologica</i> , Vol 12." |

| | |
|--|---|
| 2.3 Range | |
| 2.3.1 Surface area Range | |
| 2.3.2 Method used Surface area of Range | Estimate based on expert opinion with no or minimal sampling |
| 2.3.3 Short-term trend Period | 2003-2012 As this species has been relatively recently discovered in England there is insufficient data to allow an estimation of trend. |
| 2.3.4 Short term trend Trend direction | unknown The recent discovery of this species means that there is no information on historic occurrence and no information on trends in range or distribution. |
| 2.3.5 Short-term trend Magnitude | a) Minimum |
| | b) Maximum |
| | |

| | | |
|--|--|--------------|
| 2.3.6 Long-term trend Period | | |
| | | |
| 2.3.7 Long-term trend Trend direction | unknown | |
| | | |
| 2.3.8 Long-term trend Magnitude Optional | a) Minimum | |
| | | |
| | b) Maximum | |
| | | |
| 2.3.9 Favourable reference range | a) Value in km² | |
| | | |
| | b) Operator for FRR | |
| | | |
| | c) FRR is unknown (indicated by "true") | False |
| | | |
| 2.3.10 Reason for change Is the difference between the reported value in 2.3.1 and the previous reporting round mainly due to... | a) Genuine change? | False |
| | | |
| | b) Improved knowledge/more accurate data? | False |
| | | |
| | c) Use of different method (e.g. "Range tool")? | False |
| | | |

2.4 Population

| | | |
|--|--|------------------------------|
| 2.4.1 Population size estimation (using individuals or agreed exceptions where possible) | a) Unit | number of individuals |
| | The recent discovery of this species means that it is not possible to estimate population size at this time. | |
| | b) Minimum | |
| | c) Maximum | |
| 2.4.2 Population size estimation (using population unit other than individuals) Optional (<i>if 2.4.1 filled in</i>) | a) Unit | |
| | b) Minimum | |
| | c) Maximum | |
| | | |
| 2.4.3 Additional information on population estimates / conversion Optional | a) Definition of "locality" | |
| | b) Method to convert data | |
| | c) Problems encountered to provide population size estimation | |
| | | |
| 2.4.4 Year or period | 2012- | |
| 2.4.5 Method used Population size | Absent data | |
| 2.4.6 Short-term trend Period | 2003-2012 | |
| 2.4.7 Short-term trend Trend direction | unknown | |
| 2.4.8 Short-term trend Magnitude | a) Minimum | |
| | b) Maximum | |
| | c) Confidence interval | |
| | | |

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|---|--|--------------|
| | | |
| 2.4.9 Short-term trend Method used | Absent data | |
| | | |
| 2.4.10 Long-term trend – Period | | |
| | | |
| 2.4.11 Long-term trend Trend direction | unknown | |
| | | |
| 2.4.12 Long-term trend Magnitude Optional | a) Minimum | |
| | | |
| | b) Maximum | |
| | | |
| | c) Confidence interval | |
| | | |
| 2.4.13 Long term trend Method used | | |
| | | |
| 2.4.14 Favourable reference population | a) Number of individuals/agreed exceptions/other units | |
| | The recent discovery of this species means that it is not possible to provide an assessment of the favourable reference population for this species estimate at this time. | |
| | b) Operator | |
| | | |
| | c) FRP is unknown indicated by "true" | True |
| | | |
| | d) Method used to set FRP | |
| | | |
| 2.4.15 Reason for change Is the difference between the value reported at 2.4.1 or 2.4.2 and the previous reporting round mainly due to: | a) Genuine change? | False |
| | | |
| | b) Improved knowledge/more | False |

| | | |
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| | accurate data? | |
| | | |
| | c) Use of different method (e.g. "Range tool")? | False |
| | | |

| 2.5 Habitat for the species | | |
|--|---|---|
| 2.5.1 Area estimation | | |
| 2.5.2 Year or period | 2012- | |
| 2.5.3 Method used Habitat for the species | Estimate based on expert opinion with no or minimal sampling | |
| 2.5.4 Quality of the habitat | a) Habitat quality | Unknown |
| | b) Assessment method | <p>The sites where the presence of <i>M. Alcathoe</i> has been confirmed in England (Sussex and N. Yorkshire) are characterised by extensive areas of semi-natural woodland. This broadly seems to fit with the habitat types that the species are found in across Europe.</p> <p>Across Europe <i>M. Alcathoe</i> tends to be found by streams in dense deciduous woodland areas, riparian hardwood areas and mountain forests. <i>M. Alcathoe</i> tends to forage in areas of dense vegetation often near water bodies.</p> <p>Only a few roosting sites are known across Europe currently. Summer roosts and maternity colonies have been found in cracks/crevices in trees and caves are visited during the swarming period. Little is known about the roosting ecology of the <i>Alcathoe</i> bat in England, however, caves are visited during the swarming period, which is how the species was first discovered in this country.</p> <p>The two known sites are 350km apart, which suggests that the species is widespread across England and has gone unnoticed for many years due to its physical similarity to other myotid species.</p> |

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| 2.5.5 Short-term trend Period | 2001-2012 |
| 2.5.6 Short-term trend Trend direction | unknown |
| 2.5.7 Long-term trend Period | |
| 2.5.8 Long-term trend Trend direction | |
| 2.5.9 Area of suitable habitat for the species | a) Value in km² |
| | b) Absence of data indicated as '0' |
| | |
| 2.5.10 Reason for change Is the difference between the value reported at 2.5.1 and the previous reporting round mainly due to | a) Genuine change? False |
| | b) Improved knowledge/more accurate data? False |
| | c) Use of different method (e.g. "Range tool")? False |
| | |

| 2.6 Main pressures | | |
|---|--|-------------------------------|
| a) Pressure | b) Ranking | c) Pollution qualifier |
| | H = high importance M = medium importance L = low importance | |
| B02: Forest and Plantation management & use | H | |
| B03: forest exploitation without replanting or natural regrowth | H | |
| A07: use of biocides, hormones and chemicals | M | |
| G05: Other human intrusions and disturbances | M | |
| G02: Sport and leisure structures | L | |
| | | |

Pressures can generally be divided into those that affect roosts and those that affect commuting and

foraging (including prey availability).

M. alcathoe is primarily a woodland species as they use woodland trees to roost in and the wider woodland habitat to forage within. Forestry operations that prevent the maintenance or development of this resource are likely to have an adverse affect on this species. The species also uses caves to hibernate within and for swarming purposes. Activities which may affect future occupation of caves i.e. Mining may have an adverse affect on the population.

| | |
|--------------------------------------|--|
| 2.6.1 Method used – Pressures | based only on expert judgements |
|--------------------------------------|--|

| 2.7 Threats | | |
|---|--|-------------------------------|
| a) Threat | b) Ranking | c) Pollution qualifier |
| | H = high importance M = medium importance L = low importance | |
| B02: Forest and Plantation management & use | H | |
| B03: forest exploitation without replanting or natural regrowth | H | |
| A07: use of biocides, hormones and chemicals | M | |
| G05: Other human intrusions and disturbances | M | |
| G02: Sport and leisure structures | L | |
| | | |

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|------------------------------------|-----------------------|
| 2.7.1 Method used – Threats | expert opinion |
|------------------------------------|-----------------------|

| 2.8 Complementary information | |
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| 2.8.1 Justification of % thresholds for trends | |
| 2.8.2 Other relevant information | |

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| 2.8.3 Trans-boundary assessment | |

2.9 Conclusions (*assessment of conservation status at end of reporting period*)

Please refer to the United Kingdom assessment for this species.

**3 Natura 2000 coverage & conservation measures - Annex II species
(*only applies to species listed under Annex II of the Directive*)**

3.1 Population

| | | |
|---|-------------------|--|
| 3.1.1 Population size Estimation of population size included in the SAC network | a) Unit | |
| | b) Minimum | |
| | c) Maximum | |
| | | |
| 3.1.2 Method used | | |
| 3.1.3 Trend of population size within the network (short-term trend) | | |
| | | |

3.2 Conservation measures

Conservation measures taken (i.e. already being implemented) within the reporting period and provided information about their importance, location and evaluation.

| 3.2.1 Measure | 3.2.2 Type | 3.2.3 Ranking | 3.2.4 Location | 3.2.5 Broad evaluation of the measure |
|----------------------|-------------------|----------------------|--|--|
| | | H = high importance | where the measure is PRIMARILY applied | |

| | a) Legal/statutory | b) Administrative | c) Contractual | d) Recurrent | e) One-off | M = medium importance L = low importance | a) Inside | b) Outside | c) Both inside & outside | a) Maintain | b) Enhance | c) Long term | d) No effect | e) Unknown | f) Not evaluated |
|--|--------------------|-------------------|----------------|--------------|------------|---|-----------|------------|--------------------------|-------------|------------|--------------|--------------|------------|------------------|
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