



UK priority species pages – Version 2

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SPECIES PAGES FOR 2007 UK BAP PRIORITY SPECIES

(see endnotes for an explanation of the various components of this compilation).

Arvicola terrestris (Linnaeus, 1758)

Water Vole

1 General information

| | |
|---------------------|---------------------|
| Level 1 | Terrestrial mammals |
| Level 2 | terrestrial mammal |
| On 1997 UK BAP list | Species Action Plan |

2 UK BAP criteriaⁱ

| 1. International threat | 2. International responsibility (2a) + moderate decline in UK (2b) | 3. Marked decline in the UK | 4. Other important factor(s) |
|-------------------------|--|-----------------------------|------------------------------|
| False | False | True | True |

3 Evidence for Criteriaⁱⁱ

| | |
|--------------|---|
| Criterion 1 | |
| Criterion 2a | |
| Criterion 2b | |
| Criterion 3 | 88% recent decline (1989 to 1998) in number of individuals |
| Criterion 4 | Vulnerable to impacts of non-native species - the mink. Reasons for being placed on BAP list have not been ameliorated. |

4 Distribution by Country

| England | Scotland | Wales | Northern Ireland | International Waters |
|---------|----------|-------|------------------|----------------------|
| Y | Y | Y | N | |

5 Distribution Information

| | |
|--|---------------------|
| Distribution data source | Stage 1 information |
| Distribution data notes | |
| number of sites (where less than or equal to 10) | |
| Units used for number of sites | |

6 Actions identified by expertsⁱⁱⁱ

| Action number | Action text | Reporting category |
|---------------|---|--|
| 1 | Key sites: 1. Continue and extend the National Key Sites for water voles initiative. 2. Identify Regional Key Areas for water voles following agreed methodologies. | Species-specific awareness raising |
| 2 | Establish and maintain a national water vole database and GIS. Continue or establish (as appropriate) and maintain a programme of regular monitoring in National and Regional Key Areas and at a sample of other sites. | Monitoring/survey |
| 3 | Maintain and, where appropriate, extend the area of suitable water vole habitat in National and Regional Key Areas | Priority habitat action |
| 4 | Reduce the impact of mink predation, prioritising action in Regional Key Areas. | Wider "landscape" action |
| 5 | Ensure appropriate protection of the water vole and its habitat under the Wildlife and Countryside act. | Species-specific legislative action (protection or site designation) |

7 Signpost to Priority Habitat^{iv}

| |
|---|
| Priority Habitat Name |
| Fen/swamp: Lowland Fens |
| Fen/swamp: Upland Flushes, Fens and Swamps |
| Rivers and Streams: Rivers (including Chalk rivers) |

8 Additional information from specialists^v

| Attribute | Value |
|--------------------------------------|--|
| NBN current scientific name | Arvicola terrestris |
| NBN common name | Water Vole |
| classification level 1 | Terrestrial mammals |
| classification level 2 | terrestrial mammal |
| Latest UK Population/extent Estimate | 875000 (E: 486000; S:354000; W: 35000) |
| Units of measurement | Individuals |
| Start date (year) | 1989 |
| Starting estimate | 7294000 |
| End date (year) | 1998 |
| Ending estimate | 875000 |
| Proportion left | 0.119961612 |
| decline | 88 |
| over observed years | 9 |
| decline over 25 years | 100 |
| Additional comments/ information | Sustained long term decline also reflected in range contraction. |

| | |
|---|---|
| decline over 25% in UK | yes |
| Crit2 satisfied Yes/No/ Unknown | no |
| Crit3 satisfied Yes/No/ Unknown | yes |
| Confidence in assesment crit 3 | high |
| Comments on UK decline and confidence in assessment | High confidence in assessment, water vole populations continue to decline. |
| Factor | Vulnerable to impacts of non-native species - the mink. Reasons for being placed on BAP list have not been ameliorated. |
| Crit4 satisfied (Yes/ No/ Unknown) | yes |
| Confidence in assesment crit 4 | medium |
| 1st source | TMP report |
| 2nd source | National Water Vole Survey |

10 Species designations^{vi}

| Abbreviation | Reporting Category | Designation | Designation description | Year | Source | Comment |
|----------------------------------|---|---|--|------|--|---|
| BAP:2007 | Biodiversity Action Plan UK list of priority species | Priority Species | The UK List of Priority Species and Habitats contains 1150 species and 65 habitats that have been listed as priorities for conservation action under the UK Biodiversity Action Plan (UK BAP). | 2007 | UK list of Priority Habitats and Species | status on former BAP list: Species Action Plan |
| WACA:Sch5_sect9.1(kill/injuring) | Wildlife and Countryside Act 1981 | Schedule 5 Section 9.1 (killing/injuring) | Section 9.1. Animals which are protected from intentional killing or injuring. | 2008 | Wildlife and Countryside Act Schedules 1,5 and 8 (protected birds, animals and plants) | Geographic constraint=Applies throughout GB, but only since 12/08/2008 in Wales |
| WACA:Sch5_sect9.1(taking) | Wildlife and Countryside Act 1981 | Schedule 5 Section 9.1 (taking) | Section 9.1 Animals which are protected from taking. | 2008 | Wildlife and Countryside Act Schedules 1,5 and 8 (protected birds, animals and plants) | Geographic constraint=Applies throughout GB, but only since 12/08/2008 in Wales |
| WACA:Sch5_sect9.2 | Wildlife and Countryside Act 1981 | Schedule 5 Section 9.2 | Section 9.2 Animals which are protected from being possessed or controlled (live or dead). | 2008 | Wildlife and Countryside Act Schedules 1,5 and 8 (protected birds, animals | Geographic constraint=Applies throughout GB, but only since 12/08/2008 in Wales |

| | | | | | | |
|--------------------|-----------------------------------|-------------------------|---|------|--|---|
| | | | | | and plants) | |
| WACA:Sch5_sect9.4a | Wildlife and Countryside Act 1981 | Schedule 5 Section 9.4a | Section 9.4 Animals which are protected from intentional damage or destruction to any structure or place used for shelter or protection. | 1998 | Wildlife and Countryside Act Schedules 1,5 and 8 (protected birds, animals and plants) | |
| WACA:Sch5_sect9.4b | Wildlife and Countryside Act 1981 | Schedule 5 Section 9.4b | Section 9.4 Animals which are protected from intentional disturbance while occupying a structure or place used for shelter or protection. | 1998 | Wildlife and Countryside Act Schedules 1,5 and 8 (protected birds, animals and plants) | |
| WACA:Sch5Sect9.4c | Wildlife and Countryside Act 1981 | Schedule 5 Section 9.4c | Animals which are protected from their access to any structure or place which they use for shelter or protection being obstructed. | 2007 | Wildlife and Countryside Act Schedules 1,5 and 8 (protected birds, animals and plants) | Geographic constraint=Does not apply to Scotland |
| WACA:Sch5_sect9.5a | Wildlife and Countryside Act 1981 | Schedule 5 Section 9.5a | Section 9.5 Animals which are protected from being sold, offered for sale or being held or transported for sale either live or dead, whole or part. | 2008 | Wildlife and Countryside Act Schedules 1,5 and 8 (protected birds, animals and plants) | Geographic constraint=Applies throughout GB, but only since 12/08/2008 in Wales |
| WACA:Sch5_sect9.5b | Wildlife and Countryside Act 1981 | Schedule 5 Section 9.5b | Section 9.5 Animals which are protected from being published or | 2008 | Wildlife and Countryside Act Schedules | Geographic constraint=Applies throughout GB, but |

| | | | | | | |
|--|--|--|-------------------------------|--|--|--------------------------------|
| | | | advertised as being for sale. | | 1,5 and 8 (protected birds, animals and plants) | only since 12/08/2008 in Wales |
|--|--|--|-------------------------------|--|--|--------------------------------|

UK BAP 2008 reporting^{vii}

(nb this only applies to species on the original 1997 UK BAP priority species list)

11 General status

| Country | Attribute | Value |
|---------|-------------------------------|------------------------|
| England | | |
| | Date | 2008 |
| | Status unknown | No |
| | Value | 699 |
| | Units | Occupied 10 km squares |
| | Accuracy | Partial survey |
| | Adequate data | Yes |
| | Data on NBN | Some |
| | Refer to LBAP data | No |
| | Edits made by reporting group | |
| Wales | | |
| | Date | 2008 |
| | Status unknown | No |
| | Value | 79 |
| | Units | Occupied 10 km squares |
| | Accuracy | Partial survey |
| | Adequate data | Yes |
| | Data on NBN | Some |
| | Refer to LBAP data | No |
| | Edits made by reporting group | |

| | | |
|----------|-------------------------------|---|
| Scotland | | |
| | Date | 2008 |
| | Status unknown | No |
| | Value | 128 |
| | Units | Occupied 10 km squares |
| | Accuracy | Partial survey |
| | Adequate data | Yes |
| | Data on NBN | Some |
| | Refer to LBAP data | No |
| | Edits made by reporting group | |
| UK | | |
| | Date | 2008 |
| | Status unknown | No |
| | Value | 901 |
| | Units | Occupied 10 km squares |
| | Accuracy | Partial survey |
| | Adequate data | Yes |
| | Data on NBN | Some |
| | Refer to LBAP data | No |
| | Data source / comments | There are still gaps in the data, because not all areas occupied by water voles have been surveyed since 1st Jan 2003, which is the cut-off we have chosen for data acceptance for this reporting process. Conversely it is possible that water voles may have disappeared from a few 10K squares between the time of the survey and the date of this report. These relatively minor shortcomings in the data apply throughout England, Scotland and Wales. |
| | Edits made by reporting group | |

8 Trends

| Country | Attribute | Value |
|---------|-------------------------------|--|
| Wales | | |
| | Date | 2008 |
| | Status unknown | No |
| | Trend | Declining (slowing) |
| | Accuracy | Partial survey |
| | Adequate data | Yes |
| | Data on NBN | Some |
| | Refer to LBAP data | No |
| | Data source / comments | Localised range expansion through conservation effort in North Wales is currently being outweighed by continued population fragmentation in South Wales, which is probably due to mink predation and habitat fragmentation through development. |
| | Edits made by reporting group | |
| UK | | |
| | Date | 2008 |
| | Status unknown | No |
| | Trend | Fluctuating - probably increasing |
| | Accuracy | Partial survey |
| | Adequate data | Yes |
| | Data on NBN | Some |
| | Refer to LBAP data | No |
| | Data source / comments | Data is better than ever but not comprehensive. However the signs are that, even if we discount the fact that there is a large amount of additional survey information available since the last reporting round, the species is slowly expanding its range overall. This is due to concerted habitat creation, enhancement and management, in combination with sustained catchment -scale mink control which has led to localised range expansions, especially in England and North Wales. Continued fragmentation of populations is continuing due to mink predation, catastrophic flood events, etc, |

| | | |
|----------|-------------------------------|--|
| | | especially in South Wales, Northern England and Scotland, but at a national scale, the positive rang expansions are now just about outweighing the declines. |
| | Edits made by reporting group | |
| Scotland | | |
| | Date | 2008 |
| | Status unknown | No |
| | Trend | Fluctuating - probably increasing |
| | Accuracy | Partial survey |
| | Adequate data | Yes |
| | Data on NBN | Some |
| | Refer to LBAP data | No |
| | Edits made by reporting group | |
| England | | |
| | Date | 2008 |
| | Status unknown | No |
| | Trend | Fluctuating - probably increasing |
| | Accuracy | Partial survey |
| | Adequate data | Yes |
| | Data on NBN | Some |
| | Refer to LBAP data | No |
| | Edits made by reporting group | |

9 Successes

| Success text | Success category 1 | Success category 2 | England | NI | Scotland | Wales | Edits by reporting group |
|---|-------------------------------------|---|---------|----|----------|-------|--------------------------|
| The addition of water vole to Section 9(1) of the Wildlife and Countryside Act in April 2008 has ensured even better consideration for the conservation of the species when development plans etc are being considered. This was achieved as a direct result of the evidence and advice provided by the UK Water Vole BAP Steering Group partner organisations. At present full legal protection only applies in England, but Wales are expected to follow suit soon and Scotland within the next couple of years. | Policy, legislation and designation | Beneficial changes in UK legislation | Yes | No | No | Yes | |
| Strategic habitat management and enhancement in conjunction with sustained mink control has led to significant localised water vole range expansions in several areas. A very large number of partners have been involved in these projects and prime examples of such areas include the Somerset Levels and Moors, the Chichester Coastal Plain in Sussex, River Axe (Devon), River Chess (Bucks) and Malltraeth Marshes on Anglesey | Species and habitat management | Species range increase - through colonisation | Yes | No | No | Yes | |
| The National Water Vole Key Sites Project run by Royal Holloway University of London and funded by the Environment Agency, Natural England and PTES, is providing very valuable information regarding the population trends of water voles in around the Key Sites, showing positive trends overall, and on the suitability of various upland areas for consideration as Key Sites, to be determined by the UK Water Vole BAP Steering Group in 2009. It is also assessing the impact of ELS and HLS on water vole distribution and abundance and is acting as a major point of contact for advice to landowners and tenants in and around the existing National Key Sites. | Research, survey and information | Impacts/ threats - improved understanding | Yes | No | No | Yes | |

| | | | | | | | |
|--|----------------------------------|---|-----|----|-----|-----|--|
| For the first time ever, we have a 99% accurate database of all water vole records, compiled over a period of 10 months in 2008 by the Hants Wildlife Trust from many varied sources, funded by the EA, PTES, SNH and the Wildlife Trusts themselves. This database was used to compile this BAP progress report and it will be managed and updated from now on by the WTs. The next step is to use the data to create local water vole alert maps for use in the town and country planning screening process. | Research, survey and information | Coordinated recording scheme / database established | Yes | No | Yes | Yes | |
|--|----------------------------------|---|-----|----|-----|-----|--|

10 Threats

| Threat category 1 | Threat category 2 | England | NI | Scotland | Wales | Edits made by reporting group |
|---|--------------------------------|---------|----|----------|-------|-------------------------------|
| Natural disasters | Storms / flooding | Yes | No | Yes | Yes | |
| Invasive/non-native species | Predation | Yes | No | Yes | Yes | |
| Habitat loss / degradation - infrastructure development | Housing infrastructure | Yes | No | Yes | Yes | |
| Habitat loss / degradation - management practice | Inappropriate ditch management | Yes | No | Yes | Yes | |

15 Constraints

| Rank | Constraint category 1 | Constraint category 2 | Constraint summary | England | NI | Scotland | Wales | Solution category | Solution summary |
|------|-----------------------|-----------------------|--------------------|---------|----|----------|-------|-------------------|------------------|
| | No data entered | | | No | No | No | No | No data entered | |

11 State of Knowledge

| State of knowledge category | Notes | Edits made by reporting group |
|--|--|-------------------------------|
| Knowledge sufficient to effectively deliver the plan targets | After app. 12 years of research and survey effort, we now know enough to achieve and sustain the range and population of water voles in the UK. However we also now know that the targets that we set in 2005 were too "soft" due to the paucity of collated data at that time and so we need to aim for a significant exceedence of the targets in all three countries. | |

ENDNOTES

ⁱ An explanation of these criteria is included at Annex 3 of [UK Biodiversity Action Plan; Report on the Species and Habitat Review](#). BRIG (ed. Ant Maddock) 2007. This review was organised in two stages. Stage 1 looked at the scientific evidence for selecting the UK List of Priority Species and Habitats while stage 2 considered the conservation action needed for these species and habitats and provided signposts to the means of implementing action.

ⁱⁱ The information on evidence and the species distribution is as presented on the UK BAP website. Users can download a spreadsheet of the [Stage 1 species evidence](#) from the home page of the UK BAP website.

ⁱⁱⁱ Actions were assigned to each and every priority species by expert groups convened at Stage 2 of the Review process. These were subsequently categorised into “signpost categories”. This information is as shown on the UK BAP website See the link for [categorisation \(signposting\) of UK priority species](#).

^{iv} Where a species action is clearly linked to a BAP priority habitat, the name of the relevant habitat or habitats was identified by the stage 2 expert group.

^v This information has been derived from Stage 1 of the priority species review, and is presented in the “marine”, “terrestrial invertebrates” and “other terrestrial species” sheets within the spreadsheet of the [Stage 1 species evidence](#). The information presented here varies according to the taxonomic group. Please note that some of these data have been written for other Expert Group members and may not be of great value to a wider audience.

^{vi} Information on conservation designations has been extracted from JNCC’s collation of information on [species designations](#). The designations shown in version 2 of these pages are as at December 2010.

^{vii} As part of the 2008 UK BAP reporting round lead partners of national plans were asked to answer a number of specific questions. The data will be analysed and used for the UK and country level reports. All of the responses provided through BARS as part of the 2008 reporting exercise are available to [download](#). Note that in the December 2010 version of these pages (version 2) includes corrections to previously truncated text fields.