

# WATER VOLE *Arvicola terrestris*

Water Voles and anywhere they use for shelter or resting are protected by UK legislation. The greatest threat to Water Vole populations is through loss of suitable habitat through agricultural intensification and predation by the non-native mink.

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Water Vole © Michelle Waller

## Legal and Conservation Status

- UK Protected Species
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in England
- Cumbria Biodiversity Action Plan species

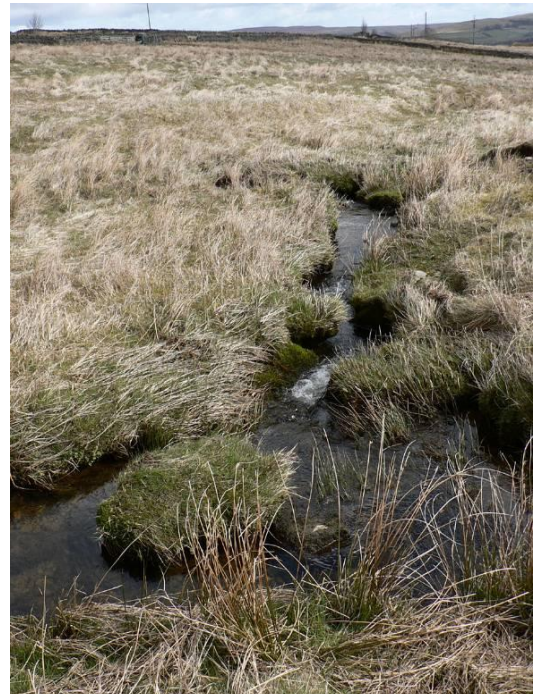
### ***The Water Vole is protected under:***

- Section 9 of the Wildlife and Countryside Act 1981 (as amended) (Schedule 5).

### ***It is an offence to:***

- Intentionally kill, injure or take a wild Water Vole.
- Have in possession or control any live or dead Water Vole or any part of it.
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place which Water Voles use for shelter or protection.
- Intentionally or recklessly disturb Water Voles while they are occupying such a place.

(This summarizes the main points of the law.)



Water Vole habitat, Alston © Stephen Hewitt

## Habitat

Water Voles live in and around streams, rivers and other water bodies. Water Voles have been shown to prefer banks greater than 1m high, with slopes of less than 35°, and vegetation down to the water's edge.

It is widely thought to be a mainly lowland species, found at higher densities on slow flowing streams, 1-3m wide, with muddy bottoms.

However, in upland moorland areas, such as the North Pennines, Water Voles are found on small upland streams, possibly at altitudes that mink do not normally reach. In the absence of suitable banks to burrow they can build nests of reeds and grasses in tussocks of grass.

### ***Cumbria Key Habitats that are particularly important for Water Voles include:***

Rivers

Lakes, Ponds and Tarns

## Ecology

Water Voles live along waterways, in burrows, above and below the water. They are active both day and night, usually for periods of 2-4 hours. They leave their droppings in latrines which often show a trampled mass of old droppings with fresh ones on top.

In summer, they actively range along waterways, but most of the winter is spent within the burrow, although they do not hibernate and need a year round food supply. They are herbivorous, and eat green shoots in preference to fruits and seeds; they rely more on below-ground rhizomes during the winter.

The low life expectancy of Water Voles (average life-span 5 months) if coupled with high predation rates and low immigration from other vole populations, can lead to local extinctions of populations.

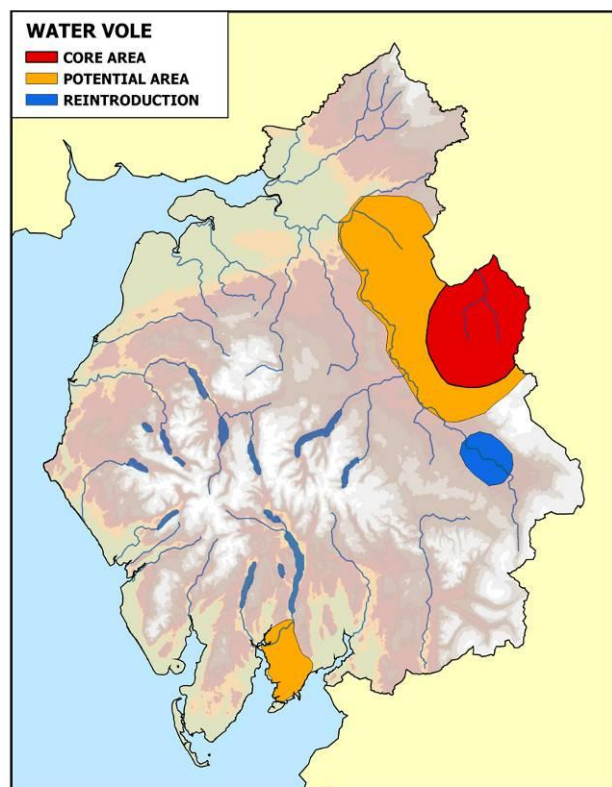
## Distribution

Water Voles were once common throughout Cumbria from Furness to the Scottish borders (Macpherson, 1892).

Declines have been due to habitat degradation and loss, habitat fragmentation and predation, especially by Mink.

Recent survey work by Cumbria Wildlife Trust Mammal Group and others has found that the core population remains in the Alston area. A nearby population has recently been found on a couple of streams in the Eden catchment, in the Renwick/Melmerby area.

There may still be isolated, small populations in parts of Cumbria where Water Voles have been recorded post 1980 but not in recent surveys. The potential area may, therefore, be more extensive than shown.



Water Voles could potentially occur throughout Cumbria however the presence of mink throughout the county, and slow re-colonisation rates, make it unlikely that this will occur in the near future. Reintroductions and mink control on the River Eden may extend the population as shown on the plan, with appropriate habitat enhancement.

## Conservation Issues

Predation by mink is thought to be the main cause of declines in Water Vole populations. This is exacerbated by habitat loss and fragmentation due to heavy grazing of river banks, river engineering, dredging and clearance of bankside vegetation, and culverting. Water pollution by chemicals such as PCBs and heavy metals, and inputs from agriculture and sewage works could have a detrimental effect.

## Planning Considerations

- Part IV of ODPM Circular 06/2005: Biodiversity and Geological Conservation sets out the wide range of legislative provisions for conservation of species protected by national and international law. It emphasizes the need for ecological surveys to establish the presence of protected species and for protection measures to be in place through conditions and/or planning obligations before planning permission is granted. It also advises that local authorities should consult Natural England before the planning decision is made.
- Any modification or management of the banks can impact upon resident Water Voles, such as ditch clearance, flood alleviation works and culverting.
- Any proposed development which may affect the rivers or streams within the Water Voles' current range will potentially affect Water Vole habitat and distribution and should therefore require a Water Vole/Water Vole habitat survey.
- It should be noted that, since it is possible that there may still be isolated, small populations in parts of Cumbria where Water Voles have been recorded post 1980 but not recently, developments that significantly affect suitable watercourses should consider the possibility of Water Voles being present.
- Any development that would impact upon Water Vole or Water Vole habitat would require adequate protection and mitigation measures.
- In areas where Water Voles may occur the potential for enhancement and long-term management of the river/streamside habitat should be maximised.

## Enhancement Opportunities

- Reduction in the amount of habitat damage, disturbance and burrow destruction by promoting better and more timely bank-side management, e.g. so as not to affect both banks at the same time.
- Protection and/or creation of enhanced bank-side vegetation through fencing and planting and reduced grazing levels, especially within the Water Vole re-introduction area.

## Further Information

[Cumbria Water Vole project](#), Cumbria Wildlife Trust and Eden Rivers Trust

[Water voles – the law in practice. Guidance for planners and developers](#), Natural England 2008

[Water voles and development: Licensing policy](#), Natural England 2008

[Disturbance and protected species: understanding and applying the law in England and Wales](#)

Water Vole Conservation Handbook, 2<sup>nd</sup> Edition, 2006, The Wildlife Conservation Research Unit, hard copy can be ordered from the WCRU, University of Oxford, Tel: 01865 271289 or from [www.nhbs.com](http://www.nhbs.com).

[UK Biodiversity Action Plan](#)

[Cumbria Biodiversity Action Plan](#)

## Contacts

- **Environment Agency**, Alastair Driver, National Conservation Manager, Tel: 07836 600868, [alastair.driver@environment-agency.gov.uk](mailto:alastair.driver@environment-agency.gov.uk)
- **The Cumbria Water Vole Project**, Cumbria Wildlife Trust, Plumgarths, Crook Road, Kendal, Cumbria, LA8 8LX Tel: 01539 816300, [watervole@cumbriawildlifetrust.org.uk](mailto:watervole@cumbriawildlifetrust.org.uk)
- **The Environment Agency**, Northern Area Office, Ghyll Mount, Gillan Way, Penrith 40 Business Park, Penrith, Cumbria, CA11 9BP Tel: 08708 506506
- **Natural England**, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL, Tel: 0300 060 2122, [cumbriaplanning@naturalengland.org.uk](mailto:cumbriaplanning@naturalengland.org.uk)

## Current Action in Cumbria

- A reintroduction project of Water Voles into the Warcop area was initiated in 2007, with further releases in 2010. This project has been coordinated by the Cumbria Water Vole Project based at Cumbria Wildlife Trust in partnership with Eden Rivers Trust.
- A few sites are appropriately managed by landowners in conjunction with the Environment Agency and the Cumbria Water Vole Project.
- Trapping of mink occurs widely throughout Cumbria for Water Voles, most intensively on the River Eden catchment where an organised control project is in place, managed by Cumbria Water Vole Project.