

# Water Vole



Water Vole: (Photograph by James Mortimer)

## Introduction

The Water Vole, Ratty of 'Wind in the Willows' fame, is the largest of the British vole species. It was once a frequent inhabitant of the banks of rivers, lakes, ditches and dykes where the gentle 'plop' as it entered the water used to be a common occurrence. However, during the past century the Water Vole population has witnessed an alarmingly rapid decline.

This dramatic decline is believed to be one of the largest of all current British mammals. The numbers have been in serious decline since the 1900's and more recently a survey by the Vincent Wildlife Trust (1989) revealed that Water Vole populations were absent from 67% of previously occupied areas.

### Our objective for Water Vole is:

To contribute to the UK BAP by sustaining a stable Water Vole population in the Scarborough area.

The Water Vole builds its nest in extensive burrow systems on the banks of rivers, ditches and ponds and likes tall lush bank side vegetation. It is known to feed on over 200 species of plants including some broad-leaved species. Reedbeds, water meadows and expanses of wetland with tussocks of grass, sedge, rush or Common Reed can provide a more secure habitat than linear features in terms of refuge from predators. Ponds can also provide good habitat, isolated from American Mink. Water voles may also be present away from watercourses in rush or sedge beds, where they build above ground nests in the tussocks.

As Water Voles have particular habitat requirements, this means that they do not easily adapt to changes in their habitat. They breed prolifically in the summer months, though mortality during the winter is high.

The Water Vole is not currently a protected species in the UK, however, the Government has recommended full protection in the 2005 W&CA review. It does, however, receive limited protection from

its inclusion in Schedule 5 of the Wildlife and Countryside Act 1981. It has recently been given priority species status in the UK Biodiversity Action Plan. Their burrows and habitat are protected by law and it is an offence to obstruct Water Vole's use of this habitat.

Though Water Voles can be found in sub-optimal habitat, conditions preferred include slow flowing watercourses, less than 3m wide, around 1m in depth and without extreme fluctuations in water level. Suitable shore type for burrowing, are earth or clay, vegetated and with a stepped or steep bank of 45 or more. Water levels are obviously important, with dry areas to retreat to in times of flooding.

Cover from predators and food provided by tall riparian and water plants is important, but sites excessively shaded by shrubs or trees are less suitable, though some willow is valuable, with the flowers providing an important food source for pregnant females in early spring. Animals do not hibernate but spend most of their time in their burrows, so adequate autumn food supplies are stored. Connections between colonies to allow the functioning of meta-populations is beneficial.

The best opportunities for Water Vole conservation are likely to be on agricultural ditches, ponds and wetlands, rather than the main rivers. There are huge potential opportunities for this species through incentives for sympathetic ditch management, which will be available under the Entry Level Scheme of the Environmental Stewardship Scheme. There may be opportunities under the Higher Level Scheme, depending on what targets are selected.

There are also habitat creation opportunities as part of flood alleviation schemes and gravel pit restoration schemes.

## Status and Distribution

The Water Vole was formerly common along the banks of waterways. However, during the 20th century it has declined significantly in both numbers and distribution, leaving populations scarce and fragmented in the north and west and strongest and most widespread in southern and eastern Britain.

Two national surveys carried out by the Vincent Wildlife Trust in 1989-1990 and 1996-1998 have shown that the decline of Water Vole has now

### Links to Habitat Action Plans and Guidance Notes.

Priority habitats associated with the Water Vole:

**Wetland, Rivers and Streams, Open Water**

Action Plans have been prepared for those in bold.

developed into a serious population 'crash' with a further loss of 60% of the occupied sites between 1990 and 1998. The Water Vole population in Yorkshire has crashed by 97% from previously occupied sites between 1990 and 1998.

Recent surveys have shown that, whilst the species is quite widespread in the borough, the populations are very low and dispersed. Many of its old haunts, such as the Derwent and the River Hertford have very few animals, although some of the side ditches to the River Hertford and some of the drains in the Vale of Pickering, such as at Brompton, still hold some. They have also been recorded from Muston and Hunmanby. There are particularly healthy populations on the North York Moors outside of the Scarborough BAP area.

## Threats

There are two main problems associated with this species. One is the loss of suitable habitat, as a result of over-zealous bank management, re-grading, vegetation or erosion control, inappropriate spoil disposal, livestock grazing and river engineering. The second is the predation by American Mink, which can have a devastating impact on Water Voles, particularly where populations are already fragmented. Water Voles are also preyed upon by cats, dogs, Stoats and owls. These problems increase the isolation of colonies through fragmentation of suitable habitat and loss of corridors for re-colonisation, which results in unviable populations. Sub-optimum water levels: both flooding and drying of watercourses and wetlands leave Water Voles even more vulnerable to predation.

There is evidence of poisoning by rodenticides, sometimes following mis-identification of Water Voles as Brown Rats, as well as persecution by deliberate shooting.

## Current action

National surveys are undertaken by the Vincent Wildlife Trust and both the EA and YWT organise local surveys. Both YWT and NEYEDC collate records and YWT gives advice on Water Vole conservation and related wetland issues. Some conservation management is undertaken by organisations including YWT, EA, Yorkshire Water, landowners and the Internal Drainage Boards (IDB) and American Mink are controlled by

some landowners, fisheries managers and gamekeepers. There has been national research on the interaction between American Mink and Water Vole completed by Wildcru and the EA.

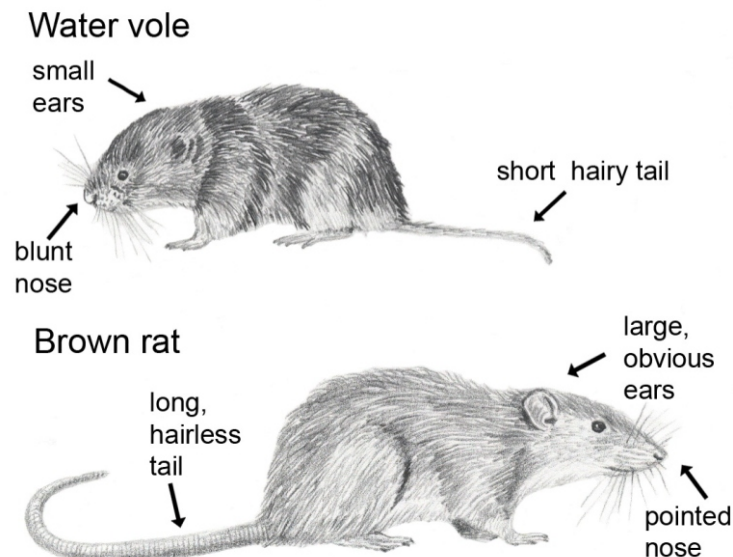
The Water Vole Conservation Handbook is currently being up-dated in the light of new Water Vole research and conservation experience and the EA and EN have published a Water Vole Habitat Management Handbook and EN has published 'Water Vole: Guidance for planners and developers.'

The YWT has also released an initiative 'Know your Vole', to help promote the public's ability to distinguish between the Water Vole and the Brown Rat and thus prevent unnecessary killings and poisoning. The picture below shows the difference between these two species.



Water Vole Latrine:  
(Photograph by James Mortimer)

Drawing by James Mortimer.



## What you can do to help:

**Report all sightings of Water Vole to NEYEDC or Scarborough Borough Council.**

**Avoid polluting ponds and waterways.**