



## Water Vole

### Ecology

The Water Vole (sometimes referred to as the water rat) is a rodent found throughout the UK.

The largest of the British voles weighing between 200-350g, it has a rounded body, blunt muzzle and short round ears, with thick fur which is commonly a reddishbrown, but can also be darker. Water Voles are frequently mistaken for Brown Rats.

The Water Vole's tail is about half its body length and furry, whilst the Rat's tail is longer and scaly. Juvenile Water Voles can be confused with adult Field Voles, however juvenile Water Voles are darker with large heads and much larger hind feet.

Water Voles swim well, but do not have webbed feet or use their tail as a rudder. When disturbed from feeding on the bank, Water Voles purposefully dive into the water with a loud plop to warn other voles. They are herbivores, feeding on a wide variety of waterside plants, and in the winter, on roots, bark, and bulbs.

Water Voles live in colonies, but string themselves out along a watercourse with contiguous territories. Territories are established by breeding females, low ranking females and juveniles are excluded from holding territories within a colony. Female territories are overlapped by the larger territories of males. Female territories are 30-150m and males' are 60-300m. Breeding lasts from March to October; the females annually produce 2-5 litters, each of 5-8 young.

### Habitat

Water Voles are found along banks of rivers, streams, canals, ditches, dykes, lakes and ponds. They prefer riparian sites with rushes, sedges and reeds, particularly those with a high layering of grasses and herbaceous species to provide cover and food all year round.

Each vole uses a series of burrows, including residential burrows, comprising many entrances, inter-connecting

tunnels, food storage and nest chambers, and bolt holes consisting of short tunnels ending in a single chamber. Above ground, the Water Vole's activity is largely confined to runs in dense vegetation within 2m of the water's edge.

### Conservation Status

The Water Vole is a critically endangered species, its population having suffered a catastrophic decline since 1900 as a result of habitat loss, changes in habitat management and predation. The decline has been most rapid in the last 30 years. The species has been lost from almost 90% of sites and its widespread survival is now seriously threatened. The resulting fragmentation of Water Vole populations makes them vulnerable to predation from American Mink. It is a UK BAP species, and the subject of many local BAPs. Populations are threatened

by habitat loss and degradation, population fragmentation, fluctuations in water level, predation, pollution and persecution.

### Legislation

Water Voles are fully protected under The Wildlife and Countryside Act 1981 (and amendments). Legal protection makes it an offence to:

- intentionally kill, injure or take (capture) a Water Vole;
- possess or control a live or dead water vole, or any part of a Water Vole;
- intentionally or recklessly damage, destroy or obstruct access to any structure or place that Water Voles use for
- shelter or protection or disturb water voles while they are using such a place;
- sell, offer for sale or advertise for live or dead Water Voles.

### Licence Application

Water Voles are not listed on the European Habitats Directive 1992 and so are not protected by the Conservation (Natural



Habitats, &c.) Regulations 2010. A licence is therefore not required under the Regulations. Furthermore, there is no provision for licensing otherwise unlawful actions for development or maintenance operations. Where, despite all efforts to minimise impacts, there remains a significant risk of killing or injuring water voles, a translocation licence for the purposes of conservation may be obtained from Natural England.

## Planning Policy

As a protected species, the Water Vole is covered by the requirements of the Department of the Environment's Planning Policy Statement on Nature Conservation (PPS9). This states that the presence of protected species is a material consideration when determining a planning application and suggests that planning authorities should consider attaching appropriate planning conditions or entering into planning obligations to secure the protection of the species. Planning authorities are therefore likely to take appropriate steps to check for the presence of protected species and ensure that Water Vole habitats are protected through the planning process.

## Water Vole Surveys

Whether a site has the potential to support Water Voles can be determined by an assessment of habitat suitability. If suitability for Water Voles is established, a search for burrows and signs of activity should be undertaken. Site surveys should include an assessment of all waterway banks up to 2m from the water's edge for signs of faeces, latrines, feeding stations, burrows and footprints. Surveys are best carried out between April and October when Water Voles are most active, and not during or just after heavy rain or high water.

## Impacts

Impacts to Water Voles generally occur as a result of modifications to the banks and land within 3m of the top of

the banks of a watercourse. Impacts such as these could constitute an offence under UK legislation. Impacts, which are not likely to constitute an offence but could impact negatively on the conservation status of Water Voles, are the introduction of pollutants to watercourses, the degradation of riparian habitat and the introduction of North American Mink and domestic cats. Habitat degradation e.g. by pollution, adverse management techniques  
Habitat fragmentation

## Mitigation

In the first instance attempts should be made to avoid impacts. As Water Voles confine the great majority of their activity to within 2m of the bank top it may be possible to leave wildlife corridors along ditches or undeveloped areas around ponds.

If impacts are unavoidable any mitigation planned should seek to retain the vole population on site, and translocations should only be considered if there remains a significant risk of killing or injuring the voles.

Consideration should be given to:

### Exclusion from development areas

The removal of surface vegetation from small areas to be developed and exclusion fencing can encourage Water Voles to move to nearby alternative areas. If appropriate, Water Voles can be successfully excluded for the duration of the development and then allowed to recolonise after work has been completed. Both the removal of vegetation and fencing are not always effective.

### Trapping, removal and release

If there is no prospect of avoiding the negative impacts on the Water Voles the colony may have to be translocated from the site under a licence issued by Natural England.

### Habitat creation

New habitat can be created to both compensate for that destroyed during development and to accommodate any



displaced animals. It may need to be created well in advance of works to allow time for establishment of vegetation.

### **Habitat restoration**

The restoration of vegetated bankside corridors to link fragmented populations can help to reverse local population declines or improve the viability of small populations. Less intensive grazing, removal of hardened banks and development of a wide buffer strip (3-5m) of low intensity management are all good examples of habitat enhancements.

This information was accurate, to the best of our knowledge, at the time of publication (07/06/2011). These notes are intended as guidance only. Professional advice from an ecological consultant should be sought in relation to protected species and development. Surveys, impact assessment and the design of mitigation strategies must be considered on a site-specific basis.