

EUROPEAN WATER VOLE

(*Arvicola amphibius*)

General Information

Water voles are the largest species of vole in Britain and are sometimes mistaken for brown rats, which can be found in a similar habitat. Water voles live in colonies but string themselves out along a watercourse. Breeding females have territories of 30–150m and fiercely defend them, while males have larger home ranges of 60–300m that overlap those of several females. Females mark their territories using discrete latrine sites, close to the burrows and at the boundaries. Latrines are flattened piles of droppings topped with fresh ones.

Water voles are active during the day. They do not hibernate over winter but do spend more time in their burrows, often cohabiting with members of the same colony and so are less visible above ground.

Their diet consists of reeds, grasses, rushes, sedges, water plants and wetland plants in the spring and summer and roots, rhizomes, bulbs and bark in the autumn and winter. Very occasionally insects and other invertebrates are eaten.

GB IUCN status **Endangered**



Habitat Requirements

Grassy banks along slow-moving rivers, ditches, streams, lakes, ponds, canals, as well as marshland and upland. They dig burrows in steep grassy banks, which often include underwater entrances.

Species Pressures

Water voles have undergone one of the most serious declines of any wild mammal in Britain during the 20th century. The intensification of agriculture in the 1940s and 1950s caused the loss and degradation of habitat, but the most rapid period of decline was during the 1980s and 1990s as the invasive predator American mink spread. Between 1989 and 1998, the population fell by almost 90 per cent. Water voles used to be found in nearly every waterway in England, Scotland and Wales but are now thought to have been lost in up to 90% of these sites. Threats include habitat loss and fragmentation from unsympathetic riverside management, predation by non-native American mink and pollution.

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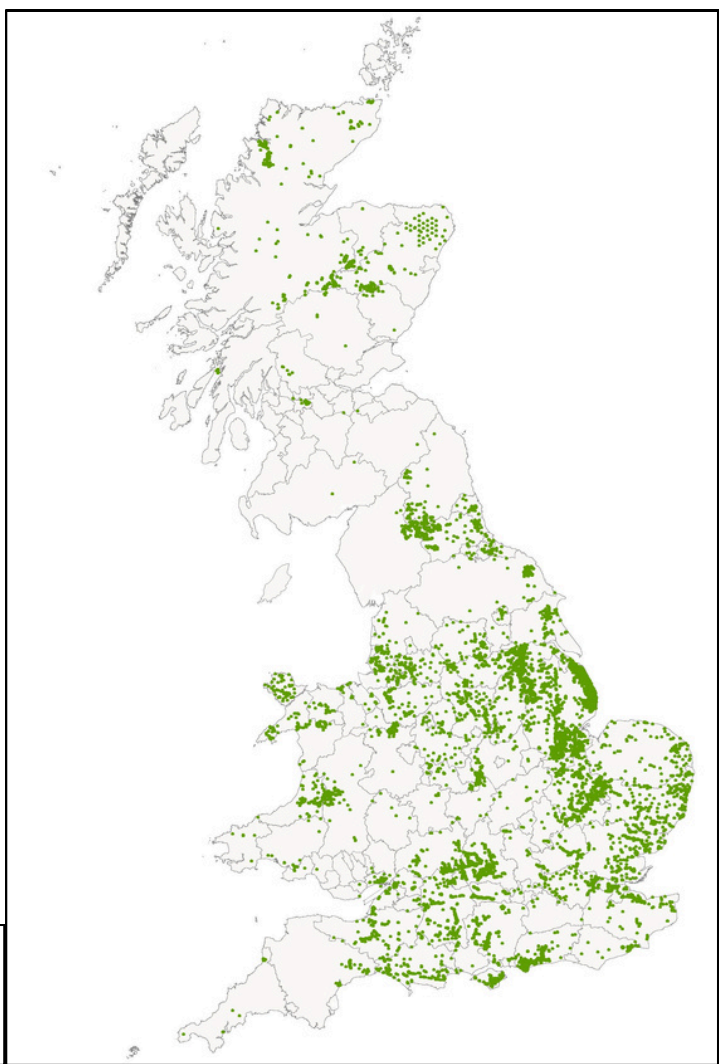
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Distribution

Formerly widespread and common in England, Wales and Scotland, ranging from Cornwall to the extreme north-east of Scotland. They are still widespread but patchily distributed and have undergone one of the largest declines of any mammal in Britain. This long-term decline has continued in the last 20 years.

Water voles absent from Ireland and most British offshore islands except Anglesey, the Isle of Wight and the Sound of Jura Islands.

Water vole presence across the UK between 2009-2017. Data supplied by the Wildlife Trusts and Local Record Centres. Map produced by Hampshire and Isle of Wight Wildlife Trust (Ordnance survey licence no. 100015632) Crown copyright 2019. 49,203 presence records.



Conservation Actions 'Potential Measures'

American Mink Control

- Mink distribution should be monitored, and their numbers reduced, to lessen their impact on native wildlife.
- Implement well-planned, sustained and coordinated approaches to achieve total eradication of mink from large landscapes and river catchments, with landowners working cooperatively,
- Mink rafts, designed by the Game and Wildlife Conservation Trust (GWCT), are the best way to monitor and humanely trap mink. Remote monitoring devices can be fitted to mink rafts, enabling users to manage multiple rafts simultaneously across large areas.

Sympathetic management of river banks

- Reduce livestock grazing along waterways, fencing off buffer zones of 2m or more from the water's edge to reduce trampling. Create drinking bays or use off-stream watering troughs or pasture pumps.
- Control the number of trees and scrub along waterways to ensure they do not dominate the banks or shade out other vegetation which water voles rely on for food and shelter.
- If cutting is required, bankside vegetation can be cut on a two-year rotation (or longer), leaving one bank uncut each year. Cutting should take place in late summer, from late September. De-silting of ditches should occur on a five-year rotation and machinery should avoid crushing fragile banks.

Increase water vole habitat

- Encourage grassy buffer strips along watercourses, ditches and in-field ponds. Buffer strips of 4-6m wide should be planted along intensive grassland or cultivated fields.
- Remove redundant artificial bank revetments to allow water voles to build burrows and for vegetation to grow.
- Restore or create new wetland habitats, such as ponds, scrapes, and ditches, ideally linking up to existing good habitat to allow water voles to move across the countryside.