

A Guide to Water Voles



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History of Water Voles

Water voles are some of the UK's most endangered mammals. Classified on the Red List in the UK, the population reached critical levels by the late 20th century after decades of habitat loss due to human activity and predation by American mink. By the 1990s, the water vole population is estimated to have fallen by 97%, with as few as 100,000 individuals left across the entire country. In Cornwall, they were gone entirely.

Until the mid-20th century, water voles would have been commonplace in our waterways and wetlands. People who grew up near rivers in the 1950s may remember seeing them as they went on childhood adventures along the riverbank. The plop-plop-plop of water voles making a break for the water as footsteps approached would have been one of the familiar sounds of the riverbank in Cornwall and beyond. Water voles also have their place in British literature – the well-known character 'Ratty' of Kenneth Grahame's 1908 novel *The Wind in the Willows*, isn't a rat but a water vole. Grahame spent childhood holidays in Cornwall and is thought to have taken inspiration for the book's setting from the area around the River Fowey.





An American Mink

Sadly, their place as fondly thought of characters of the British waterways wasn't enough to save the water vole from its decline. The industrialisation of the countryside, the straightening of rivers and the constant expansion of the 20th century fragmented water voles' habitats. Then in the 1920s American mink were brought into the UK for use in the fur trade. Mink farms existed all over the country including Cornwall right up to the eventual ban on them in 2000. The resulting escapees from 80 years of mink farming have had a catastrophic impact on native wildlife, the water vole being a particular victim. Unlike their native mustelid predators, American mink will happily navigate a water vole burrow system to reach its prey and wipe out whole colonies in days. The combination of habitat fragmentation and over-predation by American mink has pushed the water vole to the brink of oblivion in the UK.

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Water Voles and Biodiversity

Thought of as a keystone species, water voles have an important role in the health of wetland environments. Water voles are voracious munchers of around 227 different species of plant – essentially anything edible that grows on a river bank is on the menu. That grazing benefits the local plant diversity and stops the domination of grasses. Water voles on average eat around 80% of their body weight daily – even more so for pregnant females.

All that eating makes a water vole into an enticing meal for many predators and anything big enough will take one. That goes for winged predators such as sparrowhawks and herons to land mammals and even waterborne hunters such as pike, making water voles incredibly important members of the local food chain.

The haven from the threat of predation for the water vole should be its burrow – when there are no mink around that is. These burrow systems can go up to 6 metres from the water's edge and can be quite complex containing different chambers for nesting and nursing, and often have an underwater entrance which is useful for quick getaways when predators are around. Water vole burrows create a drying effect on the soil, which encourages microbial activity and is good for soil health.

Even without American mink in an area populated by water voles, we would still expect to lose up to around 70% of the population each winter through harsh conditions, food scarcity and increased threat of predation. To counter that loss, water vole breeding season begins in late spring when the first of up to five litters a year are born. Within around six weeks of that, those newborn water voles are also ready to mate and that high-stakes numbers game of survival continues.

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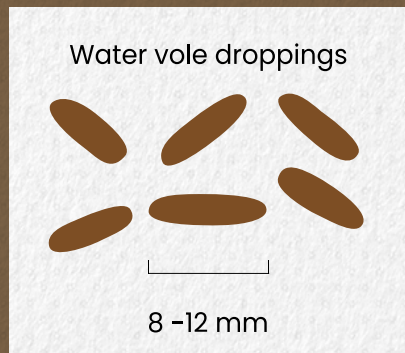


Water Vole Recovery in Cornwall

In 2013, a conservation group called the Westland Countryside Stewards (WCS) completed two water vole reintroductions. They released nearly 300 water voles into the Bude and Neet river catchments in North Cornwall. And for the first time in the 21st century, Cornwall had a population of water voles.

Skip ahead to 2022, Kernow Conservation received funding from rewilding organisation Mossy Earth, and working with our landowner partners the Trelusback Foundation for Wildlife Conservation, released around 100 water voles at the site formerly known as Trelusback Farm by the River Kennall catchment. After releasing a further top-up at that site in the summer of 2023, we released water voles at a site in the village of Carnkie on the upper Cober catchment.

By the end of 2023, we found water vole burrows several miles upstream from our original release site at Trelusback, close to the source of the River Kennall. Much further downstream, past the Kennall Vale Nature Reserve and the villages of Stithians and Ponsanooth, we found evidence of water vole activity, close to the point where the river becomes tidal. Around six miles of river system, with water voles at either end.



Signs of water vole recovery



Water vole sighting on the River Cober

2024 was another good year for water vole recovery in Cornwall, with reintroductions taking place at the Lost Gardens of Helligan, which released around 120 water voles near Mevagissey, Restormel, where the Duchy of Cornwall released around 80 into the Fowey, and at our third site near Stithians, which we hope will link up our previously released populations.

Sadly, across the UK, water vole populations are still in overall decline. But many more organisations like us are doing their best to restore and protect water vole populations in their parts of the country. In Cornwall, water voles are still absent from most of our 130-plus river valleys, so the work has only just begun.





“Since launching the Water Vole Project in 2022, we’ve carried out four water vole releases over three different sites, with close to 450 water voles released into the wild.”



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Water Vole Project

Since launching the Water Vole Project in 2022, we've carried out four water vole releases over three different sites, with around 450 water voles released into the wild. We have also been monitoring for American mink, with the possibility of them arriving in the areas where our water vole populations have established a very real danger. Thankfully, to date, we have not encountered any mink. We have a glimmer of hope that mink numbers themselves are in decline. It's thought that otter populations potentially displace mink, and when otter populations have also been making a comeback in recent years, the mink seems to be in decline. Anecdotally, we hear from people on the ground that although mink sightings were relatively common around 30 years ago, they haven't been seen in recent years.

We are currently funded by Natural England to monitor and remove American mink from the Lizard Peninsula and Gos Moor. With the help of volunteers, this aspect of the project will give us a clearer picture of mink populations in the area and hopefully open more locations for water vole reintroductions.

We also have plans for a further reintroduction in the autumn of 2025 at a yet-to-be-determined site in Cornwall.

If you're reading this guide, you or your business have probably contributed to this project in some way. We thank you for your support; we wouldn't be able to continue our work without the support of the people and communities we serve.



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Water Vole Project



2024 Water vole reintroductions

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