Words and Photographs James Fair

SAVING RATTY

It's exactly a century since Wind in the Willows became a childhood classic. Since then, the animal that inspired one of its best-loved characters, 'dear old Ratty', has all but disappeared. James Fair visits two schemes working to protect the beguiling water vole.

Coming off the M6 at junction 25 and taking the A49 into Wigan isn't the most obvious path to tread for a heart-warming nature ramble.

A few miles before you reach the town centre, you peel off to the right and head down Carr Lane, a redbrick housing estate offering little hope that a wildlife wonderland is just around the corner.

The sharp-eyed traveller, however, might notice gangs of shimmering starlings foraging for grubs on the well-kept lawns, and wonder where they came from.

At the end of Carr Lane is Hawkley Hall High School, a specialist engineering college. Nearby Westwood power station was demolished as recently as 1989, while Ince Moss Colliery closed in 1962. Remote and rural Lancashire this isn't: one of the last places you'd expect to be a hotspot for Britain's fastest declining mammal – the water vole, or Ratty of *Wind in the Willows* fame, whose hundredth birthday publishers are celebrating this year.

Behind the school is a series of large lakes, which formed when the ground above the colliery subsided, and which now make up a local nature reserve called Wigan Flashes.

I arrive here on a warm June morning to be met by Richard Gardner, one of two conservation officers working for the North West Lowlands Water Vole Project.

Wigan Flashes consists of willow and birch copses, reedbeds, ditches and the open lakes (or flashes). We set off down a path and soon come to a concrete bridge that spans a slow moving stream with tall sedges growing from the riverbed and dense rushes and grasses on either side.

The surest sign that water voles are about are their droppings.

In the middle of the stream lies a wooden plank, something not entirely unexpected in this post-industrial landscape. "There's your first sign that water voles are present," Richard says; and as I peer a little closer, I see the plank has two or three small piles of brown, lozenge-shaped droppings. "A latrine," he adds with satisfaction.

Having worked as a journalist for BBC Wildlife magazine for the best part of nine years, I am now accustomed to the boundless pleasure that anyone involved in studying wildlife gets from finding animal poop – indeed, I feel a surge of excitement myself, these days, at the simple discovery of a fox scat. It goes with the territory.

For Richard, who will spend the best part of the next three years surveying sites for signs of water voles all over Cheshire and Lancashire, finding droppings will be his fastest route to building up a picture of where they are present and where they are not. Water voles leave the droppings as territorial markers, a signal to others that they are around – for males, it may be a question of warding off potential rivals, for females a way of pulling in suitors.

The project has been funded through the Sita Trust, the Landfill Communities Fund, the Esmée Fairbairn Foundation, the Greater Manchester Ecology Unit, United Utilities and the Environment Agency. And as well as surveying sites, Richard is offering advice to landowners about how best to manage areas for water voles, with grants available through higher-level environmental stewardship schemes.

We have barely gone a few yards along the stream when Richard points to the ground. "There's your second sign," he says, and I see a hole in the ground where the vegetation within a 10cm radius is short and brown. It's a water vole burrow, and the short grass shows where they have been feeding. As we carry on, there are burrows every few yards (some of them will be part of the same network). "This is great," says Richard. "Last time I was here, there were only five burrows, so it shows they are doing well."

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Wigan Flashes


Water vole droppings


Jenny Holden

The calamitous decline of the once-common water vole in Britain in the second half of the twentieth century epitomises just how unthinkingly ignorant we were – and still are, in some cases – about our impact on wildlife.

We destroyed their habitat by concreting riverbanks; we overstocked pastures so that their burrows caved in and their food source was grazed; and finally – just to make sure – we released thousands of non-native American mink, which unlike native predators such as otters or stoats, could both get into their burrows to eat their kits and hunt them in the water. Poor Ratty didn't stand a chance, and at the beginning of the twenty-first century, it was estimated the water vole had disappeared from 94 per cent of its range.

There's gunfire echoing off a distant fell – an unlikely place to find a rare, shy mammal.

The fact that water voles are thriving here in Wigan Flashes suggests, then, that mink are largely absent. And while most people who come out for an early morning stroll with their dog probably won't glimpse a water vole, there are those that do. "Some people are really fascinated by them," Richard says. "They're very cute, and to see them munching away is really something. I think it's important that people connect with them – there is a danger that they could be seen as a cost, because they are a protected species."

Wigan Flashes isn't just important for its water voles, either. With 70 hectares of reedbed, it has 0.5 per cent of the entire freshwater reedbed habitat in the UK.

The site is also being managed for bitterns, and they are starting to have some success. Cetti's warblers, a nationally scarce migrant, are here too, and in the winter it's a congregating spot for wildfowl. "Only ten or fifteen years ago, this place was like the Wild West," reserve warden Helen Sephton tells me. "People thought they could use it as they liked. There was hunting, shooting, fishing and burnt-out cars." So, it's also evidence that a community can 'retake' an area and find pride in their wildlife.

A week earlier, and nearly a hundred miles north, I found myself visiting an equally unlikely site in which to find a rare, shy British mammal.

There's gunfire going off in short bursts, which echoes disturbingly off a distant fell. I'm standing by a small, mountain stream in the MOD's training estate of Warcop in the Eden river valley. With me is Jenny Holden, who runs the Cumbria Water Vole Project.

While Richard Gardner has been employed to survey the Wigan area for water voles, up here Jenny has a different task. It's already known that water voles have disappeared from most of Cumbria, apart from a few isolated populations in the northern Pennines. But sites like Warcop – military training exercises not withstanding – provide excellent habitat for them, so Jenny is in the second year of a three-year project to release captive-bred water voles. The hope is that they will recolonise the area and eventually spread into other sites within the Eden catchment.

Jenny is putting out some data-loggers today, so that she can get some information on what the 71 water voles she released here a couple of weeks ago are up to. Each animal has had a microprocessor inserted under its skin. If and when it passes through a metal loop (carefully placed by a latrine, so there's a good chance at least one water vole will), this will be recorded by the logger.


A data-logger

Jenny sees the water vole first – the best way is to just sit by the river and wait.

"The reason this site was chosen was because the MOD is not about to go anywhere and it is committed to its conservation activity," Jenny says. One aspect of this is mink control, which the MOD is carrying out, in part because it has a black grouse project that's dependent on reducing predator numbers.

It's Jenny, of course, who sees the water vole first. The best way to see them is just to sit by the side of the stream and wait, so as the day warms up, that's just what we do. But I'm having one of those horrible, myopic moments that would cause me to miss an elephant in a flowerbed.

Thankfully, the creature obligingly swims out into the centre of the stream, and even though I am staring at its backside, I can immediately tell from the small, rounded ears and short, furry tail that this isn't a rat. It pulls into an overhanging ledge and out of sight. Later, we encounter another water vole (or possibly the same one), which dives into the stream with the distinctive, diagnostic 'plop'.

"Did you enjoy that?" Jenny asks, but since I'm grinning like a loon, it's pretty obvious what the answer is. It's the first time I've seen a water vole, and there's something undeniably life affirming about watching a small, furry mammal .

The sighting is proof, in some small way, that environmental ills can be redressed.

Setting up a data-logger

that swims like a clockwork toy. But it's more than that – the sighting is proof, in some small way, that environmental ills can be redressed.

Later, we drive up to Alston Moor to see if we can find any of that North Pennine population. Though we have no luck there, on the way back we stop in the village of Melmerby, best known for its organic bakery and café. Just down the road, there's a lovely babbling brook with verdant grass and wildflowers growing profusely on either side. It feels like a throwback to a distant era, and sure enough, as we inspect the site, two water voles – this year's youngsters, Jenny thinks – appear briefly, a sign of the future in more ways than one.

James Fair has worked for BBC Wildlife magazine for the past nine years and has also written travel articles for the Sunday Times, Telegraph and Guardian. In a previous life, he ran a rainforest reserve in Ecuador and brought up a baby bear in Bolivia.

HOW TO SPOT A WATER VOLE

- First, you need to find a slow moving river or stream with lush bankside vegetation. Look for reeds, sedges, bullrushes and grasses, though water voles are catholic in their taste and are known to feed on at least 227 different plant species.
- Ideally, the bank will be quite steep, so that they can dig burrows into it, with small ledge-like mudflats at the bottom, where they can feed. But upland water voles will do well in faster-moving water courses, while lowland water voles can also live alongside canals.
- Second, look for burrows along the riverbank. There may be two or three close together (part of a network) and they will have a diameter of about 10 to 15cm. If the vegetation around the burrow has been closely cropped, you're in luck.
- The surest sign that water voles are about are their droppings, which they often leave in large piles (known as latrines) on stones and rocks in the middle of streams as territorial markers. The droppings are smooth, lozenge-shaped and greenish-brown (though the colour is quite variable). Rat droppings are larger, darker and more knobbly.
- Finally – if you are confident there are water voles about – sit and wait. They make a distinctive plop when they dive (rats don't), and despite their name, they don't swim especially well. They are about the size of a brown rat, but with a much blunter nose, smaller, more rounded ears and a shorter, furry (not scaly) tail.

WATER VOLE FACTS

- Like rats and mice, water voles are rodents. As their name suggests, they are at home in water, and would have once inhabited slow moving rivers and streams throughout mainland Britain.
- Research carried out in the late 1980s first pointed to the water vole's dramatic decline. It showed they had disappeared from 67 per cent of their traditional habitat and estimated they would have gone from 94 per cent of their range by the end of the 20th century, with habitat loss and predation by American mink being the main factors in their plummeting numbers.
- There are two distinctive water vole races in the UK. Lowland water voles are the kind found in Lancashire and Cheshire, while upland water voles are found in the North Pennines and areas of Scotland.
- Earlier this year, Defra amended the Wildlife and Countryside Act 1981, extending protection to include water voles themselves – prior to this only the water vole's habitat was protected, despite the huge population loss in the past two decades. They are now a Biodiversity Action Plan species, and the aim is to restore them to their former widespread distribution by 2010.
- On average, a water vole will only live for five months, with an estimated 70 to 80 per cent mortality over the winter. But a female water vole can have several litters a year with up to five kits in a litter, and those born early in the year may even be breeding towards the end of the season.