Wildlife is thriving in the Mersey’s rich and varied habitats.

Words Chris Baines  Photographs Colin McPherson, Steve Young
Heart of the Mersey

Nature lies at the very heart of the River Mersey. The rhythmic rise and fall of the tide exposes miles of mud and sand, making the Mersey estuary one of the richest feeding grounds in Europe for a host of migratory ducks, geese, and wading birds. If this were the region’s only habitat, its international designation as a Specially Protected Area would still be justified. In fact, the Mersey and the many miles of streams and rivers that feed it make up a remarkable mosaic of different habitats. The tidal estuary may offer the most dramatic natural spectacle but there is a wealth of more modest wildlife to be found in landscapes as varied as the moorland of the high Pennines, the rich farmland of the lowland plain and the green spaces of the inner city.

The hills to the east

The Mersey is a relatively short river. Its source is less than 70 miles from the sea, but it rises in surroundings that could hardly be more different from the grand Victorian docks and civic buildings of the port of Liverpool. The river is born in a wild and windswept landscape of heather moorland, haunted by the rippling cries of curlew and the indignant “go-back, go-back, go-back” of red grouse. This is nesting territory for birds such as golden plover, oystercatcher and redshank, where blankets of sphagnum moss soak up the rain, build up the peat and offer a toehold for wild plants such as cotton grass, sundew and bilberry.

Recovery of a working river

The streams of the Mersey’s gathering grounds would once have flowed down from the moors to pass through unpolluted countryside all the way to the Irish Sea, but for most of the last 200 years that link has been badly damaged. Industry and housing was built over the open countryside and changed the landscape forever. But it was pollution that finally wiped out most of the wildlife. From the early 19th century onwards, the lowland stretches of the river were poisoned by sewage and industrial effluent and, as a consequence, the Mersey almost died. In parts its fish life disappeared completely, and even as recently as the late 1980s the soap suds were thought to be the most polluted estuary in Europe.

More recently the quality of the Mersey has improved miraculously, until now about 50 different fish species can be found once more. Many of them may only be occasional visitors – and the impressive swordfish that now resides in a Liverpool museum was probably a one-off – but there are at least ten fish species that have firmly re-established themselves in the river and its estuary.

The Atlantic salmon is undoubtedly the greatest symbol of success. Two centuries ago, wild Mersey salmon was a staple diet in the region’s workhouses – so common that the parish poor complained. With the coming of the industrial revolution, this sensitive species disappeared completely, but now it has returned as living proof of the Mersey’s clean up.

Even so, there are still some serious problems for the Mersey’s fish. A relatively recent problem is the complex chemicals found in a range of household and industrial products that act as ‘endocrine disrupters’ – chemicals known to stimulate gender change in some fish. By contrast the pesticide DDT is a much older pollution problem. It was first manufactured on the banks of the Mersey in the 1940s and even though its use has been banned for years, disturbance of the mud in which it lies can still cause serious problems. However, although it may be difficult to see the shoals of fish that are now swimming beneath the surface, the growing numbers of kingfishers and cormorants, otters and grey seals are visible proof that the river is on the mend.

An urban mosaic

Long stretches of the Mersey flow through a crowded urban landscape. Nevertheless, anyone flying overhead can look down on an almost seamless canopy of trees and greenery – a living tapestry of parks, tree lined avenues, school grounds and cemeteries. There are also nearly a million private gardens here and many of them have garden ponds, flower borders, bird feeders and nesting boxes. These garden glades within the shelter of the urban forest are becoming the habitat of choice for many woodland bird species as well as hedgehogs, squirrels, toads and foxes.

The natural streams and smaller rivers have always helped to weave the landscape together, but two and a half centuries of industrialisation have added other ecological corridors to the network. The first commercial canal in the country was constructed here, along the Sankey valley, back in 1757. An entire network of canals soon followed. The anglers who line the canal banks are testament to the fish life living in these man-made waterways, as are the kingfishers and herons. Miles of traffic free towpaths offer easy access to an abundance of colourful wild plants and animals.

By comparison the railway corridors are relatively inaccessible. The passing trains cause little real disturbance and, as a consequence, railway cuttings and embankments function as linear wildlife sanctuaries. The foxes that raid the bins by night, the hedgehogs that feed among the flowerbeds and the colourful butterflies that sip nectar from back garden buddleia bushes – these species and many more breed in the relative seclusion of wild railway land.

Grand public parks are another important feature of the urban landscape close by the Mersey. Many of them have ornamental lakes as well as sweeping lawns, flowerbeds and shrubbery, and they are especially valuable for wildlife because of their big trees. They have become a stronghold for such species as the nuthatch, tawny owl and tree creeper. There are woodpeckers and sparrow hawks thriving here as well as such familiar woodland birds as thrushes, robins, tits, blackbirds and wrens. Some of the older parks have good populations of wild mushrooms in the autumn, as well as butterflies and beetles, and popular creatures such as squirrels, bats and hedgehogs.

Where park keepers make space for dead wood, fallen leaves and wildflowers, public parks offer a real countryside experience for people living in the heart of town – and this idea was invented on Merseyside. Birkenhead Park is world renowned as the inspiration for New York’s Central Park and there are hundreds of towns and cities all around the world that can trace the origins of their local “breathing place” back to its roots beside the Mersey.
A world class wetland

Dumping untreated sewage into a river uses up the oxygen in the water, so as the region’s human population grew, the wildlife living in the lower reaches of the river began to suffocate. However, thanks to a massive amount of investment in new sewerage treatment works, the tidal estuary is once more the natural crowning glory of the Mersey. It serves as a nursery for the fish of the North Atlantic and a terminus for enormous numbers of migratory wild birds.

The Mersey estuary’s particular ecological importance lies in the huge rise and fall of the tides – the second largest in the world. Vast sandbanks and tidal mudflats are covered, uncovered and re-covered twice each day and the hidden wildlife living within provides the food supply for many other more spectacular creatures. A walk across the sand and mud at low tide reveals millions of clues to the wild wealth that is living down below. Mud dwellers such as lugworms and cockles produce telltale tunnels and waste heaps, but it is the wild birds that really give the game away. Keen birdwatcher Colin Wells has been monitoring bird life on the Rivers Dee and Mersey since the 1980s, and he regards the recovery of shelduck numbers as particularly significant. These handsome birds patrol the Mersey’s wettest, softest mud, sweeping their bills from side to side, harvesting the microscopic snails that live there. These tiny snails are extremely sensitive to chemical pollution but they have responded very positively to the Mersey clean up. Now, one in five of the UK’s shelducks – a staggering 19,000 birds – spends the summer months around the Mersey.

The numbers of wading birds are every bit as impressive. Half the UK population of dunlin – 40,000 modest looking little brown birds – winter here, along with similar numbers of knot. These birds feed in large flocks that constantly chase the water’s edge, and one of the Mersey’s most entrancing wildlife spectacles is the sight of clouds of these birds, flying in perfectly synchronised formation back and forth over the shallows of a changing tide.

Individually, oystercatchers are much more striking to look at, with black and white plumage and carrot-orange beaks and legs. Their principal food is cockles, and an oystercatcher’s long straight beak is well suited to plunging deep into the mud to dig them out. These birds are also commonly seen in twos and threes, probing for earthworms on the ornamental lawns, golf links and playing fields of Merseyside.

Apart from the grey heron, curlews are the largest of the estuary’s wading birds. They have mottled brown plumage, long legs and a distinctive downward curving beak that is ideally adapted for extracting juicy lugworms from deep in the mud. When spring comes, these birds of the winter shoreline fly back to the hills to breed – an annual to-ing and fro-ing along the length of the River Mersey that must have been a feature of the region for thousands of years.

On a typical winter’s day there may be as many as 100,000 individual waders feeding on the mudflats and beaches of the Mersey estuary. There are many more that touch down for a few days of refuelling on their journeys between summer breeding grounds in the arctic and winter feeding grounds as far south as the coast of sub-Saharan Africa. They share their tidal habitat with wintering ducks and swans and geese and, all in all, the bird life of the Mersey estuary is as grand a wildlife spectacle as any in the British Isles. This is officially one of Britain’s top ten wetland sites.

Colin Wells admits that it is difficult to get close to the most impressive of the Mersey estuary’s wild birds, since so many of the richest low tide feeding areas are such a long way from shore. The development of webcam and closed circuit TV technology is making it easier to show many more people just how much spectacular bird life there is on the Mersey estuary’s far horizons. However, as Colin says, nothing quite compares with the thrill of watching wild birds at first hand, with the wind in your face and your feet in the mud.

Story of the Mersey salmon

“At times the river literally teemed with fish, so plentiful that, after human needs were met, pigs were fed with salmon, and herrings were used to manure the fields.”

*History of Garston and its Church,* by Reverend J. M Swift,

“On the Mersey was formerly a valuable fishery, which in 1763, was let for £400 per annum; it abounded with salmon and smelts of a very superior kind, but has now greatly declined, not only in the quantity, but also in the size and flavour, of the fish.”


Pollution from the industrial revolution ruined the Mersey as a salmon river, and by the 1960s the Mersey estuary was virtually lifeless.

Following a massive clean up, in 1999 salmon were spotted in one of the Mersey’s tributaries for the first time in living memory. In 2001, three were caught and measured at Woolston weir near Warrington. Then in 2005, young salmon were found in the headwaters of the River Goyt, proving they were again breeding in the Mersey system.

ABOVE: SALMON PARR FOUND IN THE RIVER GOYT, SUMMER 2005
BELOW: MERSEY SALMON COURTESY OF THE ENVIRONMENT AGENCY
“There is a wealth of wildlife in landscapes as varied as the moorland of the high Pennines, the rich farmland of the lowland plain and the green spaces of the inner city.”

A model for sustainable urban living

Urban living can all too easily put nature out of sight and out of mind, and yet we all depend on natural life support systems for our survival. Already more than half the people on Earth are living in cities, and the proportion is rising rapidly. We need to make space for nature close to home and the five million people who live near the Mersey and its tributaries have an enviable head start. For more than two centuries this region has been exploiting nature – making it work for people – but in recent years that relationship has been reversed, and now wildlife is making a welcome comeback, thanks to human ingenuity and intervention. That is good news for the region’s birds and fish and wildflowers – but it also very good news for the millions of people who live and work beside the River Mersey.