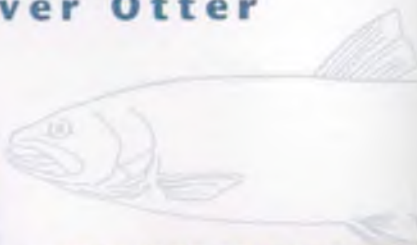


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ENHANCING The River Otter



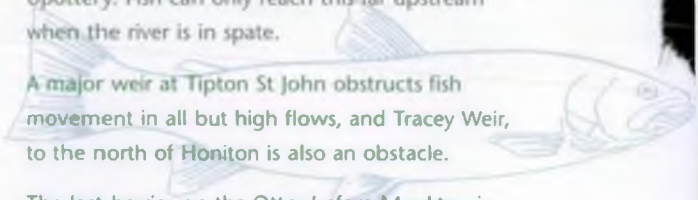
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OTHER OBSTACLES TO FISH MIGRATION

The prime spawning areas in the River Otter are currently above Monkton, between Honiton and Upottery. Fish can only reach this far upstream when the river is in spate.

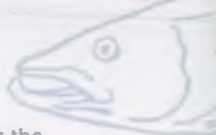

A major weir at Tipton St John obstructs fish movement in all but high flows, and Tracey Weir, to the north of Honiton is also an obstacle.



The last barrier on the Otter before Monkton is Langford Weir. This weir has a baulk fish pass - a timber pass placed at an angle to river flow - but the weir can still inhibit fish migration.

Barriers are considered to be partial obstructions and do not present the same degree of difficulty as Otterton before the fish pass was built.





From its source in the Blackdown Hills near the Devon and Somerset boundary, the River Otter flows 44 kilometres before reaching the sea at Budleigh Salterton. The largest tributary of the River Otter is the River Tale, which joins the Otter just north of Ottery St Mary.

Two other significant tributaries are the Rivers Love and Wolf. These, like the River Otter, rise on the slopes of the Greensand ridges of the Blackdown Hills.



The River Otter is most likely named after the animal, previously plentiful along the river; they are known to still use the catchment, but in small numbers.

The Otter catchment is underlain by important natural underground water storage areas, known as aquifers. These have been utilised for both public and private water supplies.

Little egrets are sometimes found on the estuary south of Otterton, along with shelduck, which breed in small numbers.



The meadows adjoining the lower reaches of the River Otter provide nest sites for lapwings, while curlew and other wader species breed on the wet heaths and moors of East Devon and the Blackdowns.

The Otter is especially important for kingfishers, with breeding recorded along the whole length. Sand martins, which also nest in holes in riverbanks are present on both the lower and middle reaches of the Otter. Grey wagtails and dipper are also abundant.





CONSTRUCTION

A large willow tree overhanging Otterton weir on the west bank of the river was in danger of collapsing into the river. Prior to work starting on the weir and fish pass the tree was coppiced and larger branches placed in piles to act as havens for wildlife, and willow sticks planted to stabilise the river bank and create future cover for the weir pool and associated wildlife.



High autumn river flows made working conditions difficult, but by using sandbags and siphons the weir was dried out sufficiently for its repair.



▲ *Moving fish upstream*

The pool immediately below the weir was drained to allow repairs to its lower section, where it had been undercut. Agency fisheries staff, using electric fishing techniques, removed fish from the pool – these included several large salmon and more than 100 sea trout – and these were safely placed upstream of the weir.

A large rectangular, shallow section of concrete was replaced on the west side of the weir, and also the wall next to the riverbank was strengthened and underpinned.

With the weir stabilised, work could now begin on construction of the pool and overspill fish pass.



Repairing the weir



THE FISH PASS



▲ Pre-construction

This was built on the west bank of the Otter as the main flow comes down this side of the river below the weir. Fish will therefore come up this side of the river and will naturally and easily find the pass entrance. The west bank is also easier for access and maintenance.

The foundations to the fish pass were excavated adjacent to the old wall and a concrete base laid down.



Pools were then created by sections of concrete, each with a smooth lip, which allow an overflow of water during the majority of the year.

The pool and overspill fish pass is a proven design, which will not block readily with trash and debris.



The £70,600 scheme was designed by consulting engineers Oscar Faber and was built by contractors E Thomas Construction. The design was approved by the Environment Agency's Fish Pass Group.



OTTER



The project was co-funded by the River Otter Association, Tesco, South West Water, Wessex Water, Viridor Waste, the Otter Valley Association, East Devon District Council and the Environment Agency. In addition the weir owner Clinton Devon Estates, and the owners of Otterton Mill House, Philip and Desna Greenhow, were fully supportive of the project.



In December 1999 a commemorative stone was unveiled next to the fish pass by Lord Clinton.

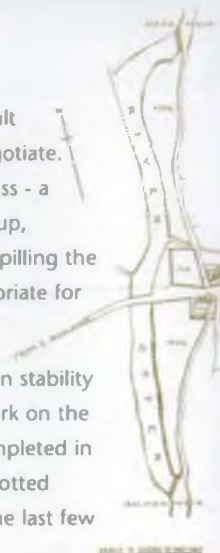
◀ *The concrete pool and overspill pass under construction*

▼ *The completed fish pass*



Otterton weir is the first and most difficult obstacle in the catchment for fish to negotiate. Surveys showed a 'pool and overspill' pass - a series of stepped pools which fish jump up, attracted by the fast flowing water overspilling the front of the next pool - would be appropriate for the weir.

The weir was initially repaired to maintain stability during construction of the fish pass. Work on the pass began in August 1999 and was completed in December 1999. Sea trout were even spotted attempting to use the fish pass during the last few weeks of construction.



▼ *Otterton Bridge and Church, 1825*

'The alterations in the weir at Otterton have been approved of by the Home Office and there is nothing now left but to carry out the same. Salmon are very numerous and might have been daily seen trying every effort to ascent the weir but without effect, the chevaux de frise entirely preventing them.'

Exeter Flying Post - 30 November 1865



▲ *The weir, painted in the 1930s*

Otterton Mill

One of the oldest surviving mills in Devon, Otterton Mill lies just downstream of Otterton weir. The mill is mentioned in the Domesday Book (1086) and is believed to have always stood on its present site.

Until the late 15th century the Otter Estuary was tidal beyond Otterton Bridge and small ships were able to work their way up to Otterton.

To harness water for the mill the mill leat was constructed during the Middle Ages and the weir constructed to take water into the leat.

Water is diverted through the leat, and controlled by sluice gates, which hold it back, or allow it to flow through the mill with maximum power.



For centuries local farmers and others were required by their leases to provide a workman to clean the leat. E.g. In 1770 William Jackson at Anchoring Farm, Otterton, had to provide '1 man to leat or 1/- fine'.

Otterton weir is found on the Tithe Map of 1844 and the 1865 plan shown above is a copy from this map. In the Rolle Estate records there is an item of 13/9d paid to Thomas Goss for 'Banks to Otterton Headweir' (23 March 1842).

The present mill building was altered in the 1850s and it is believed the weir was reconstructed about this time.

There has been only a 20-year period between 1066 and present day when the mill has been out of action.

ENHANCING THE RIVER OTTER

Records show that the River Otter in East Devon once had a healthy run of migratory salmonids – salmon and sea trout.

Augustus Grimble in his classic book 'The Salmon Rivers of England and Wales' (1913) said 'In 1866 Mr Buckland reported that "all obstacles to the ascent of salmon have now been removed, and the river Otter has been, during close time, full of salmon, which has not been known for forty years"'.¹

Below the mill weir on the River Otter at Otterton there was a fish trap for salmon, but this was abandoned in 1886 as salmon runs declined. By 1888 it appears that the Otter was again closed to migratory salmon and sea trout, with Otterton weir, near the river's tidal limit, being the main barrier to fish entering the river.

Since the turn of the century the Otter has been regarded as a trout river, although surveys by the Environment Agency show that sea trout were caught in small numbers and salmon were known to spawn in the river below Otterton Weir.

The Agency and its predecessors had always taken the line that, as the majority of fishery interests on the river regarded the Otter as a preserve for brown trout, this local desire should be respected, and the Agency would not actively promote the installation of a fish pass on the weir at Otterton.

However, following an initiative begun by Alan Knights of the River Otter Association, it became clear that there was a consensus of opinion amongst these fishery interests that the river should be opened up to migratory fish. The Environment Agency thus agreed to support this initiative, promoting with the River Otter Association, a fish pass on the weir at Otterton.

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▲ Map showing location of Otterton weir and fish pass

