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River doctors to the rescue

Country Life
BRIAN CLARKE
FEATURES

Help is at hand for Britain's ailing rivers and their wildlife, reports Brian Clarke.

The streams that flow from the Southern Downs - the Test and Itchen in Hampshire, the Avon and Wylye in Wiltshire, the Kennet in Berkshire and the Frome in Dorset - are remarkable. Fed by springs that well up from the chalk - a process that leaves them as polished and clear as gin - they rarely flood. In their mineral-rich waters, trout wax fat and strong.

But not as fat and strong as they used to. Stricken by a combination of factors that are almost all man-made, there is scarcely a chalk stream from Dorset to Kent, or in the chalk belt from East Anglia to North Yorkshire, that is not a shadow of its former self, if it is flowing at all.

Enter the river doctors. The best-known of this small band of specialists is Simon Cain. If the river doctors cannot cure all the ills of a particular reach of river, they can improve their water levels and speeds, increase spawning potential for fish and boost plant and insect life.

It is relatively new work that has been hugely stimulated by the founding a couple of years ago of the Wild Trout Society. The WTS, mostly made up of conservation-conscious flyfishers concerned with the environmental pressures on Britain's native brown trout, has a raft of restoration projects under way in the west country, on the chalk streams, in the north of England and in Scotland. Last year, it staged a competition to find Britain's best river-habitat improvement projects. Schemes designed and executed by Cain came first and third.

A restless man, Cain stands 6ft 3ins in his chest waders. He is passionate about his work and, as he lists the factors which affect his rivers - changes in weather, land use and farming practices, dredging and drainage, rural housing and borehole abstraction - he becomes more restless.

"The whole character of rivers like the Avon has been changed by what we have done to them. They are more prone to flooding in winter, wide and shallow in summer, and are more silted. The labour and skills that once worked them has been lost. Habitat has been lost. Biodiversity has suffered."

It is mostly through the management of flows that river doctors such as Cain try to improve things. They will physically restructure whole reaches of river to create new habitats aesthetically - most commonly by using depleted flows to greater effect.

Cain has become famous for the way he uses brushwood. "Brushwood may have been around for a long time," he says, "but the ways I am using it are my own."

He takes me to a project on the Avon just a little along the road. A year ago, he says, a group of owners approached him for advice. A collectively-owned reach of once prime fly-fishing water had, after years of low flows and neglect, become an aquatic desert. It was devoid of water crowfoot because water speed had dropped, was covered with silt and bereft of the expected insect life and fish. One complication in the mix was that one owner had stopped off a sidestream upstream from another, so that all the water could be reserved for the main river. The sidestream, other than in high water, dried up. Was there a solution that could satisfy them all?

Cain drew up a plan, had it accepted and began work with his team last November. In December, when the river rose, they had to stop, but by then they had fixed a basic framework of brushwood bundles to the banks and stream bed, in line with the plan. All through winter the river raced over and through the tangled branches, dropping silt into the trap they created. In spring, when the river fell again, the exposed silt dried out on the in-filled branches and under water it continued to compact. Seed and plant fragments caught in it started to put down binding roots. The beginnings of a natural, earthen extension to the bank had been formed giving the now narrowed river curves, small promontories, bays and backwaters within the contours of the old, wide bed.

The fact that the river was now narrowed increased the speed of the water, which cleared the silt that had settled on the bed in previous years - and promoted an astonishing revival of water crowfoot.

"By May," said Cain, "the crowfoot had recovered to such an extent that the coots could walk from bank to bank on it and we had to get special permission from the Environment Agency to cut it back out of season. Trout moved in as soon as we stopped work. The fly life is coming back. The whole structure is becoming more stable every day. What's more, because in the process we raised the water level, water is now flowing freely down the course of the sidestream and fish have moved into that again, as well." So in a matter of months the river has been transformed.

A consistent result of such projects - not only Cain's but the work of others in the field - is that more habitat is created for wildlife, which quickly exploits it. Typical colonisers of the slower water and its margins include frogs, grasssnakes, wild flowers and butterflies. Wrens and wagtails love brushwood. Watervoles and otters have moved in.

"It's a bit like playing God," says Cain. "We really can make a difference. It may be small-scale in the context of things - but it is wonderful to make a contribution".