Salmon slump spawns fears for species' future in British rivers

Will Humphries
Southwest Correspondent

An annual salmon count has revealed a "catastrophic" collapse in the number of juveniles in one of the country's most important rivers for the species.

Conservationists monitoring juvenile wild Atlantic salmon on the River Frome in Dorset normally aim to count and tag 10,000 over a four-week period in the summer but this year tallied a record low of 3,226. This follows a previous record low of 4,593 last year.

Bill Beaumont, a senior research assistant at the Game & Wildlife Conservation Trust (GWCT), said: "Last year was the worst we've ever had, but this year has been catastrophic. This follows on from yet another year where we have seen a new record low number of adults returning from sea to spawn, confirming the continued steep decline of salmon in our rivers."

Numbers of wild Atlantic salmon have crashed by about 80 per cent in the past 40 years. Rivers that had tens of thousands of salmon in the 1980s today hold only a few hundred, and wild Atlantic salmon are now classified as endangered in the UK. The species is on the International Union for Conservation of Nature Red List, alongside elephants, pandas and polar bears.

In an attempt to identify the causes, a GWCT research team spends four weeks on the Frome in late summer catching, weighing, measuring and microchipping the juvenile salmon, known as parr, that hatched in spring.

Based at their river laboratory near Wareham, workers from the charity headed to a different section of the Frome every morning, trying to cover as much of the habitat on the 20-mile river as possible. The count has taken place for the past 20 years.

Dylan Roberts, head of fisheries at GWCT, said that salmon "could disappear from our UK rivers in the next 30 years".

Researchers had seen a "huge increase in the growth of algae between spring and autumn" on the Frome, he revealed, which reduced oxygen levels in the water and smothered and killed off crucial habitats for juvenile salmon and the insects upon which they fed.

"The algae grows excessively due to high levels of nutrients — nitrate and phosphate which are released into rivers from sewage, septic tank discharges and running off agricultural land," Roberts said.

There has also been an increase in the amount of mud running from riverbanks and ploughed fields into the river, where it smothers and suffocates salmon eggs.

"To create a better future for salmon, we need to tackle these issues together and at scale," Roberts said. "To date, projects have been too small and patchy, mainly due to a lack of funding and bureaucratic challenges around farming and conservation."

GWCT developed the Farmer Clusters concept in 2012, bringing together neighbouring landholders to save threatened species in their local area.

In 2022 the trust supported the launch of the Environmental Farmers Group, which acts as an umbrella group for those seeking funding to improve habitats and help reduce emissions. It currently represents 541 farmers over an area of 341,404 hectares,

Colin Smart, from the Dorset group, said it was planning to develop a catchment conservation plan for the Frome.

"Farmers do care about the environment and can make a real difference but also need to produce food and make a living," he said. "They need adequate compensation to put the right measures in place."

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Maps chart decline of grasslands since 1930

England and Wales have lost almost a third of their grasslands including wildflower-rich meadows over the past 90 years, a study of maps from the 1960s has suggested (Adam Vaughan writes).

Schoolchildren and students took part in the "second land use survey" during the 1960s, marking out Britain's grasslands, wetlands, heathlands and other habitats, along with urban development and farming.

More than a hundred of the resulting 7,040 maps have now been digitised, allowing researchers to fill a gap between existing digital records of the first land use survey in 1930 and modern satellite mapping.

"It has really shed light on a missing piece about our history of land use change," said Professor Richard Pywell at the UK Centre for Ecology and Hydrology, a study author.

He said the destruction of habitats probably peaked in the 1960s. Grasslands, which include meadows, shrank by 29 per cent in area between 1930 and 2020, his team's analysis found. Increased mechanisation on farms, new agrochemicals and crop-growing were largely to blame. Semi-natural habitats including heathland and wetland had declines of 42 per cent over 90 years. Most of that loss took place between 1930 and 1960.

Urban areas expanded from 13 per cent of land in 1930 to 14 per cent in 1960 and 20 per cent in 2020. Meanwhile, the amount of land covered by trees rose from 6.1 per cent in 1930 to 12.1 per cent in 2020.

The 1960s survey was a huge undertaking by about 3,000 volunteers.

The study, published in the journal Landscape Ecology, comes at a time of heated debate over competing needs for land to meet housebuilding and clean energy targets while providing habitat for plants and wildlife, and ensuring food security.

Anti-nature rhetoric is unfair, Thunderer, page 30



Grasslands have reduced by a third. Left, a meadow of a bygone era

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