

Thames Area Fisheries Newsletter

Summer 2022

Dry weather is coming - Protect your fishery!

Prolonged dry weather can affect fish stocks and the fisheries they support. Where water levels fall, low dissolved oxygen levels can put fish at risk, especially during warm weather and where there is a lot of weed growth. The Met Office has indicated that the chance of hot weather this summer is higher than normal. Fishery managers will be all too aware of the risks affecting their waters, and we have a comprehensive range of advice for them to access via the Angling Trust website:

<https://linesonthewater.anglingtrust.net/2022/06/09/summer-advice-for-fisheries/>



Caversham fish pass

Last year Reading Hydro, a Community Benefit Society (not-for-profit business) opened their twin turbine hydro-power generation facility on Caversham weir, Reading. The site is already generating renewable, low-carbon electricity from the power of the River Thames. But it has also provided a much-needed opportunity to install effective, multi-species fish passage around Caversham weir. The Environment Agency

Fisheries Team was instrumental in the development of the pass which, due to its mix of 'nature like' channel and technical baffles manages to not only ease the passage of fish past the huge obstacle of Caversham weir, but also to contribute an abundance of new flow dependent habitat for fish to live, feed and even reproduce in.



Clewer Stream Habitat Improvements

In February, Thames area fisheries officers helped members of the Civil Service Angling Society install several flow deflectors on the Clewer Mill Stream at Windsor racecourse. The project, delayed by almost 2 years due to Covid 19, was funded through FIP (the Fisheries Improvement Programme) which comes directly from fishing licence revenues. The funds paid for dozens of chestnut posts and 25 tonnes of gravel. The aim was to narrow the channel using pairs of flow deflectors. These were constructed by securing logs in the channel bed with the chestnut stakes and biodegradable manilla rope. The deflectors were installed pointing slightly upstream in a 'V' shape. The gravel was then introduced around the flow deflectors to create shallow riffles. By creating this faster flowing and self-cleansing section in the Thames backwater it

customer service line
03708 506 506

incident hotline
0800 80 70 60

floodline
03459 88 11 88

is hoped that flow loving species such as barbel and chub can be encouraged to spawn there, adding to the resilience of the Thames as a fishery.



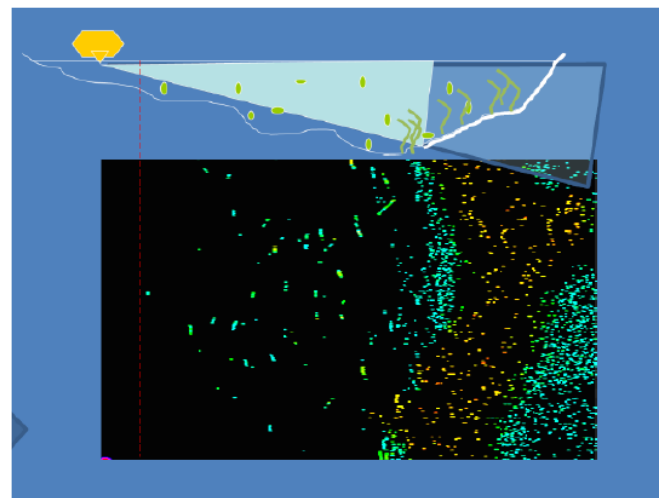
Thames Fish Surveys 2022 - Hydroacoustics

Since the early 90's fisheries staff have been using sound to collect fish density data on the River Thames. The data is collected in the first few hours of darkness by "pinging" a beam of sound across the river. The echo returns are then collected on a computer and translated into numbers of fish per 1000 cubic metres of water. The fish show up as green blobs of varying size on the computer screen and the data is linked to GPS so "hotspots" of higher fish density can be identified. This year the boat started collecting data at Iffley Lock and will hopefully end up at Teddington by mid-July.

During lockdown 25 years of data for some of the reaches in Oxfordshire were analysed in greater depth and a scientific paper was produced. This was subsequently published in the journal *Water - An Assessment of Hydroacoustic and Electric Fishing Data to Evaluate Long Term Spatial and Temporal Fish Population Change in the River Thames, UK* Authored by: Jim Lyons; Jon Hateley; Graeme Peirson; Frances Eley; Stuart Manwaring; Karen Twine Published in: **Water 2021, Volume 13, Issue 20, 2932**. The study identified areas of consistent high fish density, the relationship of these high-density areas with river features such as bridges and the influence high

flow out-of-bank events may have on fish populations in subsequent years.

The image below shows fish as they appear on the hydro-acoustic survey screen with an illustration of the acoustic beam leaving the boat above. The fish appear as greeny-blue blobs amongst the clear black of the open water. The bank or bed of the river appears as a much denser set of red returns. The kit picks up returns from submerged macrophytes as well, but these usually appear as a greeny-blue mess with less distinct individual tracks.



Upper Thames Tree Initiative

Anyone that fishes the upper River Thames above Oxford will know how important it can be to find 'cover'; that canopy of comfort that often dictates where fish feel secure enough to gather in numbers. More often than not, these features are provided by trees. In summer heat they offer a cool and shady retreat, whilst the same tree in winter is often submerged, where it's dense tangle of twigs and branches provides a safe-haven from flood flows and predators such as cormorants. Historically, many of the trees that help to provide these cool and sheltered retreats have been 'crack' willows, which as the name suggests, periodically fracture and topple into the channel, creating cover for fish, but also navigational hazards for the boats with which anglers share the waterway. Clearing the trees upsets fishing clubs and costs landowners to do so. With this in mind the Environment Agency Fisheries Team has been working with fishing

clubs and landowners to help to change the tree assemblage on popular upper Thames fisheries. By planting hundreds of smaller, but still native tree species such as hawthorn, blackthorn, dogwood, alder and pussy willow it is hoped that the fish will benefit from more sheltering features whilst the burden on landowners and clubs will decrease correspondingly. If you'd like advice on how to make your fishery more resilient to flooding, predation and climate change then contact your local EA Fisheries team today.

Below: The fragile Crack Willow, *Salix fragilis*, and a compact, low maintenance Hawthorn, *Crataegus monogyna*.



Gravel Recharge Benefits River Wey

In the 1990's significant habitat improvement work was carried out along the River Wey by the Environment Agency with the creation of several gravel riffles to improve fish spawning habitat. The River Wey, North Branch had some improvement work carried out at Snayles Lynch, Farnham. Recently, the old improvements have had a gravel 'recharge', essentially refreshing those spawning riffles by the addition of many tonnes of fresh gravel.

The Wey North Branch at this location has many species of fish including brown trout, chub, dace and minnow which will all benefit from the gravel introduction. For further information please contact Fisheries Officer Adrian Bicknell at: adrian.bicknell@environment-agency.gov.uk



New Fish Pass On The River Wey

The newly created Walsham fish bypass and spawning channel on the lower River Wey is due to be opened to flow soon. Although the by-pass channel is lined with gravel and planted with coir rolls seeded with marginal plants, we have given the channel a helping hand by transferring native plants such as Water Crowfoot and Starwort from the river nearby.

We hope that the plants will make the new channel as attractive as possible for fish, invertebrates, and wildlife. For further information on Walsham fish by-pass and spawning channel please contact Fisheries Officer, Adrian Bicknell at: adrian.bicknell@environment-agency.gov.uk

