12 April 2012

# BRIEFING: Loddon Rivers Week
# How did we do?

We did it! A big thank you to seventy plus enthusiastic volunteers of varied backgrounds and ages for turning up to deliver habitat improvements for Loddon Rivers Week. The practical days ran as well as we could have ever hoped for. Even the glorious sun turned up each day! Thanks to the land owners and fishing clubs on each stretch of river and our merry band of organisers from the Loddon Champions Group including Wild Trout Trust, Blackwater Valley Countryside Partnership, Loddon Fisheries and Conservation Consultative and Hampshire and Isle of Wight Wildlife Trust and us at the Environment Agency.

It was really pleasing to meet new faces and actively help our rivers resilience, especially during times of drought. Improving drought resilience we say, but how? Read on… Especially if you want to know what the fish thought!

Did it inspire more work like this? Please feedback any comments to myself or Matt Drew matt.drew@environment-agency.gov.uk

## Rivers Week Summary

- Over 70 volunteers safely achieved > 30 habitat enhancements on the Blackwater, Loddon and Whitewater

- A draft EA flood defence consent advice pack is in circulation. This provides noddies guides for woody debris, backwaters and gravel. It is supplemented with a flood defence consent leaflet and main river map to enable viewers to see where EA consent is required by law. We welcome any feedback from you on the guides to richard.peddie@environment-agency.gov.uk

- We produced delegates packs providing the know how to enable groups to undertake habitat improvement in future. Local case studies are featured and the process from options appraisal to construction is covered. The Loddon Rivers Week pack can be viewed at www.lfcc.org.uk

- Eight teams, lead by experts, accomplished a variety of habitat improvement techniques. These techniques included creating gravel fish spawning grounds, installing large woody debris to change river morphology (shape) to scour pools, clean spawning grounds and improve habitat complexity, various refugia installed for fish and wildlife, planting and carefully selecting site won materials. We tackled fish passage at Arborfield by slowing water through the channel exit to facilitate upstream movement.

## How practical work links to ecology including fish

1. Spawning ground created at Hawley Meadows mimics that downstream where chub have been confirmed spawning. There may be space for up to a dozen new spawning fish on 5-8m2 of new gravels introduced. Nursery

habitat (hawthorn) was used downstream to increase refuge for drifting larvae.

2. More refuge gives fish and wildlife enhanced cover to find food, avoid predation and fast flows. This can increase the number of fish in a reach and make space for more fish coming through the ages. A post project fish survey at Hawley confirmed many more fish present than before (see graph below for site history and trial on adding, removing and adding woody habitats).

3. Work improves habitat complexity enticing a greater diversity and often density of fish, plants and wildlife

4. Enhances drought resilience by building more stages into in river channel habitats. This enables fish and wildlife to exist in better low flow habitats than without. During drought, the works could benefit spawning fish by keeping gravels cleaner for spawning or providing better refuge for juveniles, whilst adult fish will benefit from better protection against predation / poaching / high temperatures

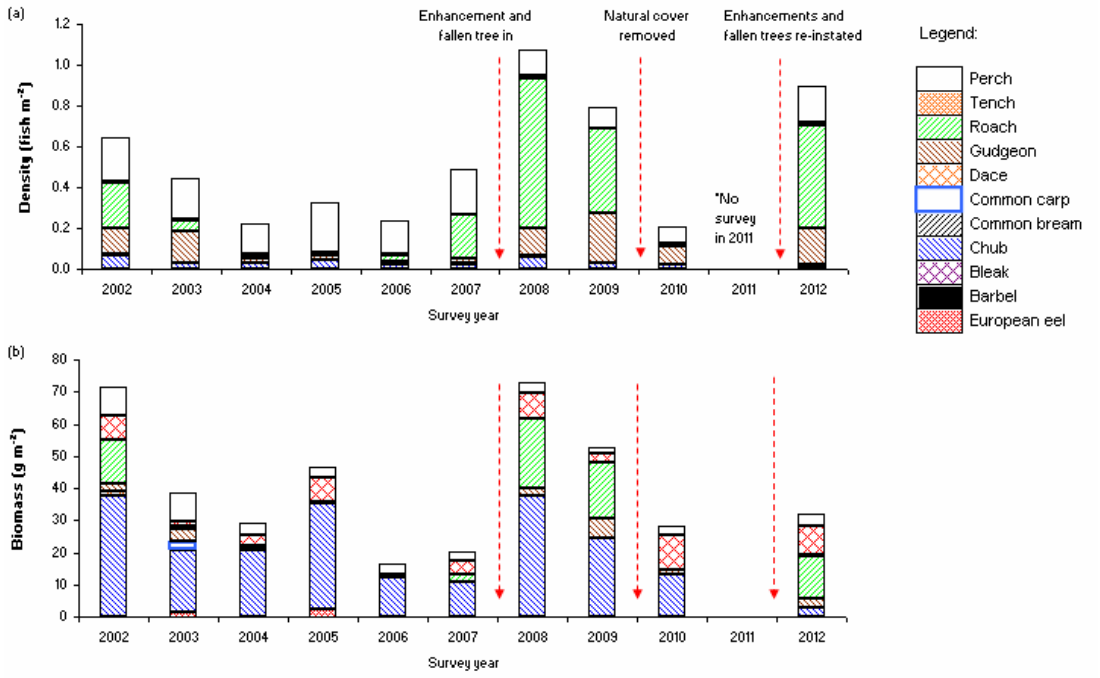
5. Creation of safer bird nesting sites away from bankside predators and disturbance for moorhens, coots and swans etc

## Day 1 Tuesday 20 March River Blackwater Hawley Meadows

In order: Site briefing, deciding how to arrange LWD, completed refuge below left and willow introduced at the bottom of the EA fish survey section that held 100's of roach!

In order: New gravel riffle using 3t material, deciding how to arrange LWD, enjoying the sun and BVCP's cake at lunch, a bag of fish caught during EA fish survey and a roach (380 fish in total), a species that will benefit from the works

**Below – bar chats showing fish density and biomass over time at Hawley including 2012 April 2 post project survey. Note big increase to density but not biomass which may be due to the large willow removed in 2010 that held over 20 big chub. These should be back in time – watch this space!**




Fish population (a) density and (b) biomass estimates at Hawley Meadows on the River Blackwater (NGR: SU8605059030).

# Day 2 Tuesday 22 March River Loddon Arborfield

In order: Brook lamprey found in bypass, working hard to construct flow attenuator to slow water for passing fish, we did it and hopefully made fish passage at the exit of the bypass easier!

The components of the completed work – 2 x flow attenuators, coir net bank protection, large and coarse woody debris

## Day 3 Saturday 24 March River Whitewater Potbridge


In order: securing large woody debris, the team, secured hinged willow and clean gravels, Loddon Fisheries and Conservation Consultative student volunteer Alan Ward getting amongst it!



In order: nursery habitat, large woody debris and nursery habitat side by side