Frome, Piddle & West Dorset Fisheries Association

To conserve and enhance the native fish–stocks and the natural habitat of the Frome, Piddle and West Dorset Rivers

The Frome Piddle & West Dorset Fisheries Association has been working to conserve and enhance the native fish stocks and the natural habitat on our local rivers in a practical and cost effective way based on good science since the 1960s.

The five year project outlined in this brochure is based on a series of research projects by GWCT and others. We aim to tackle the key stages of the salmon's development whilst in the river (where they are legally protected) in a practical way and to try to build a 'Noah's Ark' for the Frome Salmon, whilst taking action to limit the slaughter beyond the river mouth and on the high seas.
We are working in parallel with South West Rivers Association, putting Research into Practice as we have done over the past 30 years.

Aims & Objectives

To boost fertilised salmon egg numbers in the river to above Conservation levels by producing fertilised eggs at our local salmon hatchery .

To boost fry survival, especially in areas highlighted in the annual redd count. We will carry out temporary conservation protective fencing of the water crowfoot weed beds immediately downstream of known redds - this is based on research by GWCT and previous work by FPWDFA.

Based on research from the Samarch project, we plan to transport some tagged smolts from East Stoke to be released at Sandbanks / Studland, thus by-passing the problems in Poole Harbour. These measures are viewed as low risk and are supported by the EA and Natural England and are based on sound research. These form the F & P's Salmon Enhancement Project for the Frome.

Treasurer: Ruth Evans. **Vice Chairmen**: Charles Dutton 07789 767 233, and Richard Illingworth 079895 26682

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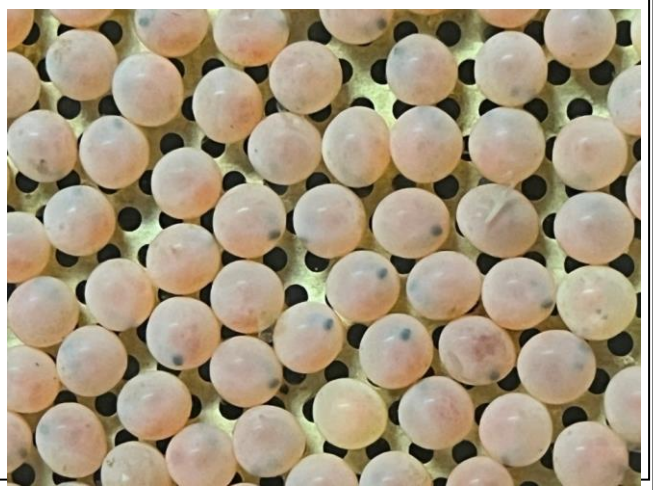

Smolt to Adult Supplementation

The salmon run in 2024 fell to only 401 fish - the lowest ever. The Altantic salmon is now classified as 'Endangered' by the IUCN. However the smolt run in 2025 was one of the highest at 21,000 estimated by GWCT, but because of the predation in Poole harbour and bycatch on the high seas, only about 1% of smolts returned as adults to breed.

The Environment Agency and Natural England have encouraged us to rear on salmon smolts to the adult breeding stage at a local river hatchery, thus still using the same water and making it as natural as possible.

This type of conservation work is pioneering and we will be working alongside GWCT to help form a 'Best Practice Guide' to help other rivers. We aim to increase the number of fertilised eggs in the river by producing 40 -50,000 eggs per year and planting these out in egg boxes to hatch. This type of work is done in Canada and Finland.

After about 18 months, the smolts will have reached adulthood and be ready for breeding and stripping. Genetic testing by collecting smolts over a period in April – May 2026, will ensure a genetic diversity among the parent fish, thus minimising any chance of in-breeding.

Because of the time involved and the period of the project, this is a costly operation.

Depending on growth rate of the adult fish, we aim to plant out the eyed ova using a number of different egg incubation boxes (EIBs) in the spring of 2027 / 28. We intend to trial three types of EIBs, all of which have EA approval, - Jorden Scottie egg boxes from Canada, the GWCT egg box system and the artificial redd system. The eyed ova will stay in these incubators for only a few days - maybe a week before hatching out into the gravels and later living in the weed racks. These incubators could raise egg hatching rates from 5% to 50% + Jorden Scottie egg incubators – picture right.

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Weed protective fencing.

In 2016/17 Jessica Marsh of GWCT studied fry survival numbers where there was ***ranunuclus*** weed compared to where the swans had grazed it off. There was a 400% difference in fry numbers. Ref. GWCT annual report 2019

The FPWDFA has trialled the use of electric fencing along the river bank for about 50m, ie small short sections where there is a concentration of redds and then to hang sewelling across the river. This works best where the river is narrower, and discourages swans from eating the weed, particularly those patches in the vicinity of redds.

In 2025, due the long dry summer, bankside vegetation did not grow. Large flocks of swans moved into the rivers to graze on the *ranunuclus* which was growing in the shallow water below the redds.

A new, better designed, sewelling has been made and we intend to fence off 10 – 12 areas each year, starting in 2026. Each site costs up to £2000 to equip and monitor per year.

The latest version of sewelling - note the floats along the main line.

'Smolts across the Harbour'. Ref: www.samarch.org.

The Samarch project was a cross Channel research project studying the survival of smolts after they left their natal rivers. Two rivers in France and the Tamar & Frome in England were studied. Out of the four rivers, the Frome had the worst survival rate by some measure; 40% survival compared to 70%. This dramatic drop is due to several factors, Poole Harbour has a double tide and the river mouth is a long way from the sea so the smolts struggle to reach the open sea in one go. Much of Poole Harbour has recently been designated as a bass nursery protection zone, and bass will, and do, eat smolts.

As a trial, our idea is to collect up 100 tagged smolts from GWCT East Stoke and transport them to either Sandbanks or Studland for a gradual release, (a smolt shuttle bus). They will be kept in a mobile keeping storage tank to acclimatise for a few days and then be released. At present less than 1% return, so even if 1 smolt survives, it will be an increase of a 100%.

SUMMARY

- **This is a 5 year project, blessed by the Environment Agency, Natural England and South West Rivers Association,**
- **It aims to help protect salmon fry and salmon smolts as they leave the river mouth,**
- **It aims to double the quantity of fertilised salmon eggs in the river without harming the natural adult population,**
- **It uses tried, tested and approved methods from around the world.**
- **This pioneering practical project works alongside and complements the much larger GWCT project, which is looking at reducing the levels of silt within the river.**

Costs

• **Capital Hatchery costs inc extra filters**	**£21,000**
• **Hatchery Running costs for 5 years**	**£35,000**
• **Fish medicine over 5 years**	**£5,000**
• **Egg box equipment, monitoring and fry Monitoring for 5 years.**	**£12,500**
• **Smolt capture and transportation for 5 years across Poole harbour**	**£7,500**
• **Weed Fencing equipment and monitoring for 5 yrs**	**£7,500**
TOTAL over 5 years	**£88,500**

We would welcome your support to help us to save this hugely Endangered species, the chalkstream Atlantic salmon is the rarest of all Atlantic salmon.