Fontley salmon genetic sample collection (August 2018):

We visited PSFFA's fishery at Fontley on 31st August, 2018, to try to obtain adipose fin clips from salmon parr for genetic analysis (to be collected by low-voltage, backpack electric fishing). The objective is to shed some light on the origin of Meon salmon and their degree of relatedness to Test, Itchen and other chalkstream populations.
We needed at least 40 clips in total and had already collected about 20 from between Titchfield and the M27.

I must admit, I wasn't hopeful that Fontley would deliver, as the section that we'd seen from under the M27 looked pretty uninspiring. However, whilst walking down to the bottom boundary in readiness to fish back up, I was taken aback at the quality and naturalness of the physical habitat, as well as the numbers of fish I could see.

Wading and fishing the entire fishery was a revelation: the physical habitat was remarkably natural and varied, especially the quality of the pool-riffle sequences, the gradient and the abundance & variety of woody debris and boulders.
The fishing technique involved capturing only small salmonids and allowing all other fish to swim away, so we gained not only a fairly good estimate of salmon parr abundance but also observed most other fish in the reach.

We completed our salmon sample fairly easily, with clips taken from 35 parr from Fontley: we caught additional parr, but had no more fin clip storage vials. The forty or so parr we did catch probably represent around half the number present, as our catch efficiency was low in the fast flow and we saw that we missed many.

Having conducted numerous fish surveys throughout the Meon catchment over the past 18 years or so, I have never seen such abundance of salmon parr at any other location, so I'm confident to conclude that the Fontley reach is probably of high importance to the sustainability of Meon salmon.

When one electric fishes in a river, especially with a small backpack unit, one can clearly appreciate the specific habitats occupied by different species and by differently sized individuals of species. Without exception, all salmon parr were in the fastest flowing sections, especially where flow is pinched or passes over boulders or cobbles – the greatest concentration was on and around the riffle directly downstream of where bridge at the top of the fishery. If a piece of water appears to be too fast flowing for any fish to be able to reside there – then it's probably ideal for salmon parr, as they'll get it to themselves.

Juvenile trout occupy habitats with slightly less water velocity and are often found in surprisingly slow marginal shallows, especially around woody debris and vegetation, as well as on shallow riffles. Young of the year, one year old and adult wild brown trout were abundant throughout the fishery.

Every pool capable of holding sea trout held several, especially around tree roots. Eels were exceptionally abundant, with a wide range of sizes from this year's elvers to much larger specimens preparing to emigrate ("silvering up").

We encountered a range of coarse and minor species: perch, dace, chub, bullhead, stone loach and minnow (possibly others that I can't recall).
As a whole, the fish community that we observed was as large and diverse as could be hoped for in this reach – it is clearly providing what the fish need in terms of habitat and sustenance.

The abundance of salmon parr makes the reach uniquely valuable. Therefore, I'd like to propose the following basic principles for future fishery management:

- Maintain the reach as a wild fishery – stocking of any kind is likely to be detrimental.
- Do nothing that may modify or degrade the natural sinuosity, pool-riffle sequences and bankside vegetation.
- Allow woody debris, including whole fallen trees and branches to remain in the channel with no interference unless absolutely necessary.
- Maintain a "patchy" canopy of light and shade: consider managing several "skylight" patches, to encourage weed growth on some riffles.
- Consider increasing salmon & trout parr habitat quality by placing some large flints, evenly spaced, on riffles that are otherwise devoid of cover.
- Most importantly, recognise that the best features of this fishery are the result of neglect and do not undertake any kind of intervention unless carefully considered and justified.

I hope that's of interest.

Regards,

Dom.

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