TO STOCK OR NOT TO STOCK?

Mixing stocked trout with wild fish can have its benefits, says Paul Gaskell of the Wild Trout Trust, but get it wrong and it could have a negative impact on your fishery and waste significant club funds.

Put your hand up if you know how stocking strategies are devised on the rivers that you fish. Keep your hand up if these strategies are based on anything other than the total number and size of fish that the membership or customers would like to catch in a season. To those with hands left in the air: how many of you have ever tried to get a sensible estimate of how many adult fish your beats could actually hold? You should also keep your hand up if the need to stock at all is ever questioned — and has it ever been considered that sport might actually be better in the absence or reduction of stocking?

Finally, keep your hand up if your stocking is carried out as a frequent, well-spread introduction of small numbers of fish throughout the season. Put your hand down if your fish go in during one or two “bulk” stocking events.

Anyone with an aching arm can put it down now and, perhaps, use it to pat themself on the back. The fact is, in the UK we hardly ever look at the number and size of fish our streams can hold as the determining factor for stocking programmes. This is very strange because any fish that are stocked where there is insufficient habitat to hold them will either bugger off downstream to another club’s water, or die. It is a bit like expecting ten or 20 people to share the same black cab and being astonished that some people have to walk.

Now let’s get one thing straight. Although the name says “Wild” Trout Trust, we routinely work with clubs who supplement their rivers with stock-fish. Why? Because there is always...
something you can do to help the wild components that are present and, to put it bluntly, stock fish need habitat, too. One anglers see the big benefits of a well-managed habitat. It may be that the need for stocking can be dramatically reduced or even eliminated, due to improved fishing (not to mention increases in fly hatches and other wildlife). The second thing to get straight is that these are sections of river that cannot, with the best will in the world, operate as a trout fishery in the absence of supplementary stocking (the habitat just would not support it). The third and final thing to highlight up front is that, in these days of generally increased “angler visits per year” wild fisheries will, almost without exception, only work where there is a very high proportion of catch-and-release fishing. With these things in mind, let us continue…

Q: Do you need to stock?
A: The real question here is whether your members are dead set on operating as a catch-and-kill club. On every UK river system that I can think of this will require supplementary stocking in order to maintain catch returns (and preserve the wild component of the fishery). If taking fish for the table is not the main priority of your members, you might be able to increase your catch returns (with a bigger size range of fish represented) by operating as a catch-and-release “wild” fishery. The money earned on stock fish could potentially be used to make sure your river can support self-sustaining trout populations (more on this next month).

Q: What is a sensible stocking density?
A: This is a million-dollar question as there are so many variables – and there is no true “one size fits all” answer. Accepting that caveat, within what parameters would it be sensible to operate? Well, it would be difficult to imagine an average density of adult trout (22 oz to 1 lb) that far exceeds one adult fish per 50 m2 (or 0.02 adult fish per m2). This assumes that there would be sufficient decent adult “live” within the total flyshy area as well as sufficient food to keep them there. Of course, there will be patches that are higher and lower than this density.

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A chain stream stock-fish. There is no “one size fits all” answer to the question of stocking densities.

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In real figures, what would this mean for a club that is fortunate to have, say, 10 km of river that averages about 5 m in width? Well, 0.02 fish per m2 x 10,000 m x 1 m wide = 600 adult fish. Is this in line with what your club stocks? Or is it too low? To put it further to perspective, an unrealistically high adult density of 0.05 per m2 would approach to 1,500 fish in the above example. If your stocking figures are approaching or even exceeding that sort of density, you might as well be throwing £10 notes off the back into the river.

Q: More stock-fish means more fish for anglers to catch, doesn’t it?
A: Not necessarily. Recent monitoring of the results of stocking in upland and chalkstream environments found surprisingly low retention of stock fish (whether diploid or triploid). In the upland environment, typically between two per cent and eight per cent of the stocked fish were retained in the reach where they were stocked (these were lost by downstream drift/overwash or mortality). In a chalkstream setting, the figures were a little higher – ranging between around eight per cent to a high of 30 per cent. Even if we are being generous, it suggests that you could easily be losing two-thirds of the fish that you are stocking (if not at least one-twentieths, if we are being more pessimistic). Short of – or even in conjunction with (if you are going to go that far!) maintaining stop nets at the top and bottom of beat boundaries, you can see that there is a high premium on making sure that you have high-quality ‘living’ fish in your stream to perennialise your fish to hang around. Where retention rates are higher, this will be due to greater availability of adult habitat and a plentiful food supply.

Q: We have our hatch of 600 fish and the season is about to start. Can we catch on and have some stocked?
A: There are ways to get the best out of your planned total number of stock fish. First of all, if it is early in the year (March, April) there will not be enough food to support and maintain a bulk introduction of stock fish. Alternatively, if your fishery has a run of migratory fish, it probably isn’t a good idea to plant loads of starving stock fish into your river just ahead of small (dissent) migrants, when they occur. Even when migratory populations are not present, the large increase in competition for food and habitat is best avoided. It is far better to go for trickle stocking of roughly equal numbers of fish across the season (weekly, if possible, or monthly, if not). Using the 600 fish example, it is best to keep numbers below 100 fish at a time, planted sensibly across the fishery. If your fish supplier has trouble delivering orders of fewer than 100 fish, then perhaps your club could invest in a trailer-mounted transport tank with air supply and collect small batches when needed. This is likely to pay for itself within one or two seasons.

Another key consideration is to insist on very diligent completion of catch returns so that fish taken for the table can be factored in to each restocking. Finally, it is a great idea to get to know rough numbers of existing stream-spawned adult fish and it is very sensible to identify your stock fish (via dye-marking or fin-clipping) so that you can return stream-bred fish and take only stock fish for the table, as well as record captures of wild fish.

Q: Remind me why I might want to consider the above suggestions?
A: Overall, you will enjoy better, more consistent fishing for quarry in good condition across the season – and will help to protect wild (possibly migratory) stocks. Trickle stocking attracts fewer predators and lower overall number of stock fish means less physical and therefore fewer fish taken from the stream – giving correnonates more reason to live offshore rather than following marine protein inland. Of course, it will also save your club money.