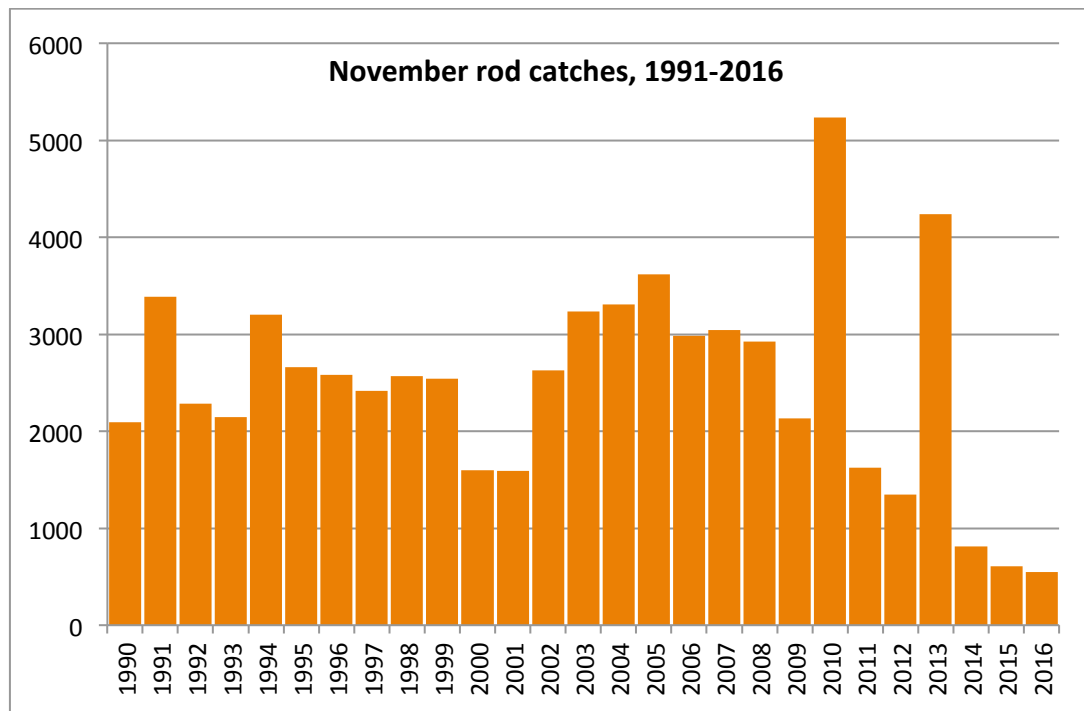




CATCH AND RELEASE FOR AUTUMN FISH?

- 1 With the fall in Autumn catches over the last few years, the question of catch and release (C & R) for Autumn salmon / females has been raised. The reduction has been particularly steep at the end of the season in November.



- 2 The aim of C & R is to increase the number of fish escaping to spawn and so increase the number of eggs deposited and therefore the number of fry in the river.
- 3 For this to be of value, there has to be a shortfall in fry numbers that can be remedied by having more fish escaping to spawn. If the river is already fully stocked with fry, then there is no point in it. As Salmon produce large numbers of eggs – the rule of thumb is that just 200 x 8lb females will produce one million eggs – relatively few spawners are needed to produce huge numbers of eggs.
- 4 The “*Carrying Capacity*” of the catchment, the number of feeding territories available for fry to hold, is finite and is easily outstripped by the number of eggs deposited by Salmon. This leads, in normal circumstances, to massive mortalities amongst newly hatched fry as their numbers are reduced down to the number of feeding territories available for them to hold.
- 5 The evidence from electro-fishing is that there is no shortfall in normal years in fry numbers in the areas of the river where Autumn fish can be expected to spawn and which it is possible to electro-fish: the main channels of the Teviot and upper Tweed and the lower zones of the Leader and the Gala. The floods and high water of the winter of 2015/16 did severely reduce fry numbers in those areas for Summer 2016 but these have since returned to normal. Maps of electro-fishing results in these areas in normal years can be found at:-

<http://www.tweedfoundation.org.uk/html/reports.html>

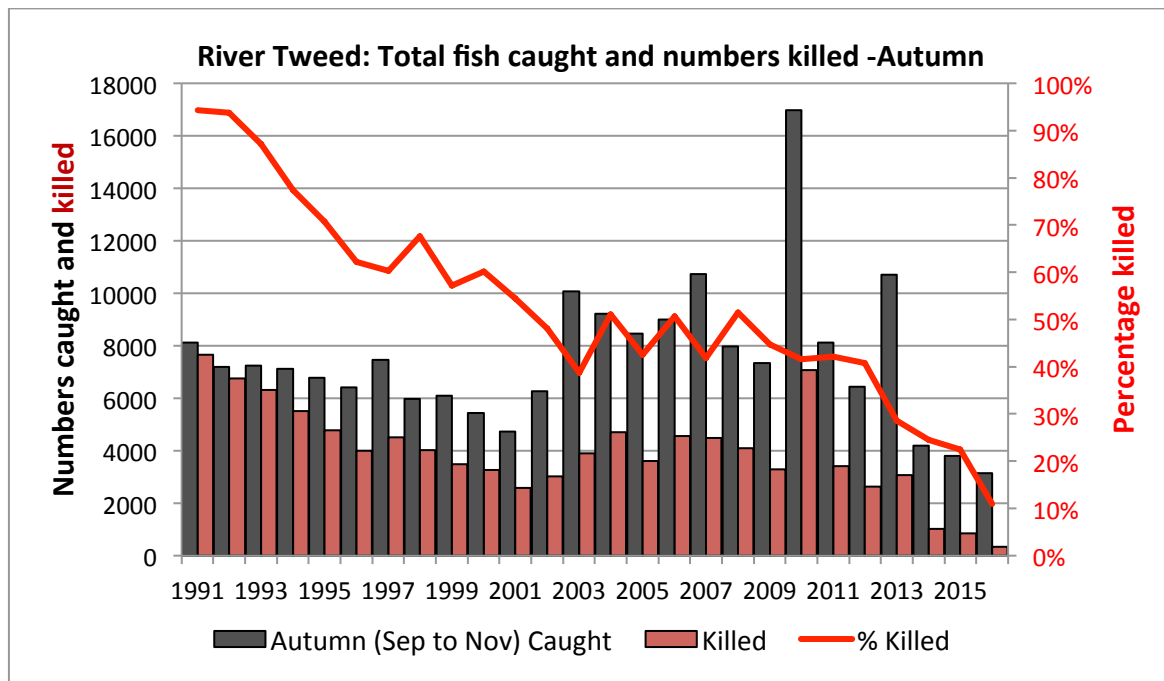
6 There is a question though over the types of salmon that are spawning to produce the fry in these areas of the catchment. As is clear from the graph at Para 1 above, the numbers returning late in the season are in steep decline, assuming catches to reflect stocks, which is generally, though not always, the case. Conversely, catches in July and August are generally increasing (conditions allowing).

7 However, the angling catch rate of late fish is very low, less than 10%, meaning that at least 9 out of 10 late running fish are not affected by angling. This is very different from Spring Salmon where angling can take up to 40% of the fish.

8 This decline in later running grilse and increase in Summer salmon is being seen generally throughout the British Isles and is not unique to the Tweed. A presentation on these changes and how they have happened before on the Tweed and elsewhere can be found at:-

<https://www.youtube.com/watch?v=5DjuyMzxpt4>

9 The overall assessment is therefore that there is no evidence of any shortage of fry in the areas of the catchment where later running fish spawn and as the angling catch rate of such fish is less than 10%, mandatory Catch and Release of such fish would have only a small effect. Additionally, as the graph below shows, 90% or so of Autumn fish that are caught are already released:



10 However, run-timing is known now to have a genetic base, so very late running fish could well represent a particular genetic trait and it could be a useful precaution to allow as many of these as possible to spawn, maximising their input to the fry population and making sure that their type will be maintained within the Tweed catchment till the environment again changes in their favour. Given the changes in the environment over the years it is a necessary part of salmon management to preserve the diversity of salmon types within a catchment so there is always at least one type that will do well under whatever the current conditions might be.

11 There is also the point that late running hen fish are of no use for smoking: all their fat has gone into their eggs so there is no point in killing them anyway and, traditionally, hen fish caught in Autumn were released.

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