

Fishing Catch Record Collection in a Small Village Fishing Club (modified 2014)

The Purpose of the Catch Record Collection

Hutton Rudby Fly Fishing Club is a small village fishing club with about 50 members with the fishing along about two miles of the River Leven, a spate river running off the North Yorkshire moors and joining the River Tees near Yarm. It has stocked its stretch of river with brown trout almost every year since it was formed in 1920.

Since 2009 its members have been asked to keep records of their catches in a logbook. The purpose has been to measure the quality of members' fishing and to guide decisions aimed at improving it.

The Method

Members were asked at the Club 2009 AGM to record their catches in a logbook and to send them to the Club secretary at the end of the season for analysis. They agreed.

The logbook was designed with advice from the Environment Agency, in particular to record fish lengths in ranges compatible with existing EA data. The fish were stocked as in previous years: 200 brown trout introduced in March and 200 in June. They were marked before introduction by clipping the adipose fin and also by marking each fish at the supplying fish farm with one or two spots according to whether the fish was stocked in March or June.

At the end of the season the logbooks were collected and their data analysed using a spreadsheet which was standard over the years of the project. Importantly the analysed results were fed back to members in the Club's annual newsletter and discussed at the Club's AGM to maintain members' interest and participation

The Analysed Results and Effect on Stocking Policy

The key data from the analysis over the seasons 2009 to 2013 are shown in the table below.

The analysis of the figures from our logbooks has had an important impact on the Club's stocking policy. It shows that when we stocked twice per season with 200 11" to 13" brown trout each time in 2009 and 2010, at a cost of £1800 per season (today's value), over 80% of our members caught less than 3 stock fish. Since we had 30 paying members, a member who caught 1 stock fish paid about £60 for the privilege. Since the biggest fish take up the best feeding positions the place of the stock fish would be taken by the biggest natural fish and it can be argued that the member catching one stock fish in effect pays £60 to catch a fish at most a couple of inches longer than a natural fish.

In addition, although we only caught 46% of all stocked fish in 2009 and 25% in 2010, with only 7% killed, we found no fish stocked in previous years were caught and few of the fish stocked mid-season were caught.

Presented with this evidence members voted at the 2011 AGM to discontinue stocking for a trial year and to spend the cash saved on habitat improvement. Subsequently, in the 3 years after ceasing to stock, not one of the marked fish stocked in previous years was caught, providing further evidence that the availability of stock fish to be caught in the seasons after stocking is reduced virtually to zero.

It is also highly significant that at every AGM since 2011 members have been asked to vote on the stocking policy and have at every AGM voted not to stock fish.

Year	2009	2010	2011	2012	2013
Total number of members	66	56	52	52	48
Number of potentially active members:	58	49	44	44	40
Total hours fished by members:	882	582	497	685	554
Average river occupancy (% of 25 weeks x 7 days x 5 hours):	1	0.7	0.6	0.8	0.6
% of members who fished <3 times:	40	32	32	42	48
Total number of fish stocked:	400	400	0	0	0
Total number of stock fish caught:	185	103	0	0	0
% of 400 stock fish caught:	46	25	0	0	0
Stock fish caught as a % of total catch:	13	15	0	0	0
% of members who caught < 3 stock fish:	85	82	100		
Total number of trout caught:	1248	574	861	1282	874
Average number of fish caught per member:	35	20	32	28	31
Average number of fish caught per angling hour:	1.6	1.2	1.7	1.9	1.6
Average size of native trout caught (inches):	7.5	6.7	7.3	6.7	6.7
Number of trout >10" caught:	231	51	121	130	84
Native trout >10" as % of total catch:	16	8	14	11	10
Maximum number of fish caught by a member:	206	141	222	221	194
Maximum average catch rate by a member:	4.6	3.4	3.4	5.9	5.2
Number of grayling caught in the season:	0	0	10	25	7

Conclusions on Fishing Quality

Using these statistics for their primary purpose, to measure the quality of fishing, has some difficulties, as can be seen from the variability of the numbers from year to year. Numbers of fish caught and average catch rates are strongly affected, not only by the weather and the number of members active on the river but also by which individual members fish. In our Club we have a handful of anglers who regularly catch large numbers of fish at high catch rates. If, as frequently happens, one or more of these high performers does not fish much the total season's catch can be reduced by 200 - 400 fish and the average catch rate will also be down. For example in 2010 our three top performers did not fish and the total number of fish caught was significantly reduced.

The average catch rates, per hour and per season, for all members are probably the most useful long term, overall figures for judging the quality of fishing. The percentage of fish greater than 10" long is also an important figure because every angler likes to catch a fish big enough to put up a fight. However the maximum number of fish caught and the highest catch rate by an individual are also good indicators: on a small stream if a good angler can catch around 200 fish at close to one every 10 minutes the quality may surely be considered good!

Grayling, Salmon and Sea-trout.

In 2010 the Environment Agency stocked our stretch of river with small grayling. We modified our logbooks to record grayling and found that 28 were caught in 2012 and 7 in 2013. We asked our members to look especially for small grayling, which would show they were breeding but none were recorded.

There was a lot of e-mail correspondence about the grayling caught, with photographs being exchanged, and about one suspected sea-trout, which was not proven but the correspondence led to a report of a sea-trout caught in the 1980s which was confirmed by scale identification.

This illustrates the potential of catch record collecting and the Club members' communications for assessing the effects of work on the river. The Environment Agency has reported salmon in the River Leven and our members' records will be important in seeing if their population increases.

The Effect on Habitat Improvement

The decision to stop stocking and to spend the money saved on river habitat improvement has had a highly beneficial effect this year. When the Club applied for and received an Environment Agency grant in 2013 to improve the river habitat, the Club had saved up enough cash to be able to make a substantial financial contribution to the project and achieve solid improvements along the whole of our stretch of river at very good value, the work carried out by the Tees Rivers Trust. Bankside trees were cut down to allow more light to the river and their trunks pinned to the river bed to construct groynes and underwater fish cover or tethered to the bank to give floating fish cover. Access steps were constructed at a popular river crossing point. Water crowfoot was planted in suitable water. Altogether over 100 constructions will have been made by the end of the project. The pictures below show examples of the work done. The benefits of this work will hopefully be shown in our future logbooks. We are hoping that the improved bankside cover will increase small fish survival rates while the large number of substantial midstream cover constructions will improve the survival chances of larger fish.

In the future we expect that increasingly, with the progress of the Catchment Based Approach to rivers management, for there to be movement towards both increased evidence-based direction of work and for anglers and their clubs to contribute more to habitat improvement. Our members' decisions to continue collecting catch record data and to keep their subscriptions at the level previous to ceasing to stock so that money is available to improve their fishing habitat will be in line with these trends.



Groynes and planted ranunculus



Underwater fish cover



Tethered tree fish cover



Flow improver fish cover



New access steps

Membership and Members' shared experiences

As well as information about fish catches, our data gives useful information about our members' fishing habits. For instance 30% of our members fish less than 3 times per season. When members fish so infrequently they might be expected to consider resigning their membership leading to a high turnover in membership. Logbook returns may help us to anticipate this and take corrective action or at least discuss the reasons with members. Finally, using logbooks has generated a lot more interest in members' individual catches and the internet allows them to share their experiences with pictures to bring them to life; for example, the first grayling caught in our stretch in living memory and a possible sea-trout, pictured below, which caused much correspondence, revealing that a longstanding member had a sea-trout positively confirmed by scale identification in the 1980s. Also pictured is a nice brown trout sent in by a pleased member.

In summary the logbooks have provided solid evidence for members to make important decisions as well as a means to encourage members to show their fellows what their fishing has been like, so that at the end of the season we all have a good appreciation of our fishing quality and how we might improve it.

John Gifford 2014



Scott's seatrout?



Colin's nice brown trout



I favour the Greenwell!