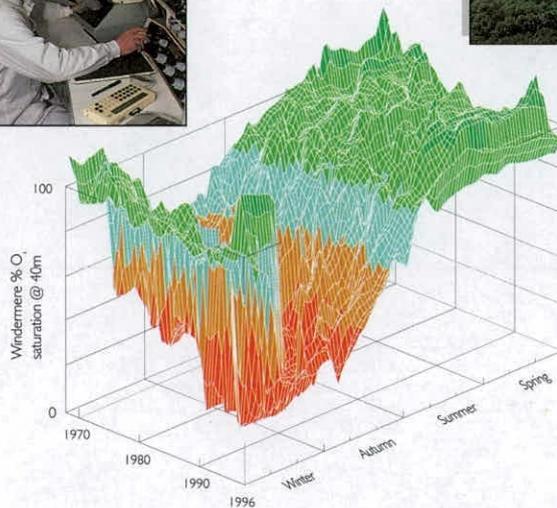


1997 SURVEY OF THE COARSE FISH OF THE RIVER TEES

Progress Report

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Report To: Environment Agency, North East Region
IFE Report Ref.No: RL/T11064F7/7



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Report Date:	October 1997
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1. INTRODUCTION

This report outlines the 1997 summer fry survey and the autumn adult survey on the lower R. Tees. This is the third sampling year after closure of the barrage.

2. SURVEY OF COARSE FISH FRY

This was planned for June and as previously, the timing was a compromise between sampling the dace before they left the margins and the appearance of all coarse fish species. 5425 fish fry of ten species were sampled. Species new to the survey were perch and grayling which were found in low numbers. The majority of the perch were found in Section 1 (Stockton) although individuals were found in Sections 2 and 21. Grayling fry were found in Section 20. Chub fry were found in all but 5 sections in 1997, unlike 1996 when chub fry were not found at all in June. Numbers of each species are shown in Table 1. The distribution of fry was different from last year with good numbers of dace, roach and chub fry found in the lower sections. The dace again showed a bimodal length frequency distribution indicating two separate spawning times. The numbers of dace were very much greater than in 1996 (2448 cf 932) whilst numbers of roach fry fell from 812 to 357.

Table 1. Number of fry of each species sampled in the R. Tees in June 1997

Species	Totals
Barbel <i>Barbus barbus</i> (L.)	24
Chub <i>Leuciscus cephalus</i> (L.)	702
Dace <i>Leuciscus leuciscus</i> (L.)	2448
Grayling <i>Thymallus thymallus</i> (L.)	3
Gudgeon <i>Gobio gobio</i> (L.)	903
Minnow <i>Phoxinus phoxinus</i> (L.)	717
Perch <i>Perca fluviatilis</i> L.	8
Roach <i>Rutilus rutilus</i> (L.)	357
Stone loach <i>Barbatula barbatula</i> (L.)	232
Three spined stickleback <i>Gasterosteus aculeatus</i> L.	31
Total	5425

3. SURVEY OF ADULT COARSE FISH SEPTEMBER 1997

This year, over twice as many fish as last year were caught. Over 8600 fish of 15 species were sampled from the lower R. Tees, in addition, eel numbers were estimated. Section 25 (Low Dinsdale) was not fished, due to the increased sampling effort in the lower reaches of the river. Section 1 was sampled as in the previous year. The numbers of each species caught are given in Table 2. For the first time in this study, roach outnumbered dace. Scales were taken from 641 fish for age analysis.

Bream were found for the first time in the September surveys. Young of the year were found in Section 1 and an older specimen was found in Section 21. Perch numbers have increased considerably from 9 in 1996 to 52 in 1997. Two adult salmon and 5 parr were caught this year as opposed to only 1 adult in 1996. In addition, a further 5 or 6 adults were seen but not caught. At least 6 sea trout, 3 of which were >50 cm in length were also caught. A further five salmonids were seen at the entrance to the fish pass below the barrage.

Table 2. Species list for the R. Tees and number of each species caught - September 1996

Species	Totals
Barbel <i>Barbus barbus</i> (L.)	11
Common bream <i>Abramis brama</i> (L.)	7
Chub <i>Leuciscus cephalus</i> (L.)	1937
Dace <i>Leuciscus leuciscus</i> (L.)	2427
Eel <i>Anguilla anguilla</i> (L.)	>150
Flounder <i>Platichthys flesus</i> (L.)	33
Grayling <i>Thymallus thymallus</i> (L.)	6
Gudgeon <i>Gobio gobio</i> (L.)	386
Minnow <i>Phoxinus phoxinus</i> (L.)	42
Perch <i>Perca fluviatilis</i> L.	52
Pike <i>Esox lucius</i> L.	2
Roach <i>Rutilus rutilus</i> (L.)	3721
Salmon <i>Salmo salar</i> L.	7
Stone loach <i>Barbatula barbatula</i> (L.)	3
Three spined stickleback <i>Gasterosteus aculeatus</i> L.	17
Trout (brown and sea) <i>Salmo trutta</i> L.	21
Total (without eels)	8672

4. TEMPERATURE

The Squirrel loggers were replaced by minilog data loggers at Low Moor and at Barwick Farm. A second logger was deployed at the latter site, 15 cm below the surface to test whether stratification was taking place in the summer. Although stratification is not proven, the temperature near the surface was, at times, three degrees higher than that at the bottom.

5. COST OF WORK DURING THE PERIOD APRIL 1997 - SEPTEMBER 1997

The cost of the work for the above period is £25365.

6. ANTICIPATED COSTS OF THE WORK IN THE PERIOD UP TO FEBRUARY 1998

As in the previous financial year, the costs are expected to be above that agreed in the contract.

7. PROGRAMME FOR THE NEXT REPORTING PERIOD

The data will be analysed and presented in the Interim Report in February, following the format used in previous years. An executive summary will be produced which will be of the format required for the RFAC meeting.