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1998 SURVEY OF THE COARSE FISH OF THE RIVER TEES

Progress Report

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1. INTRODUCTION

This report outlines the 1998 summer fry survey and the autumn adult survey on the lower R. Tees. This is the fourth 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. 5869 fish fry of eleven species were sampled. Numbers of each species are shown in Table 1. As in 1997, good numbers of dace, roach and chub fry found in the lower sections. Fry of these three most common species were particularly abundant in Section 1A, the closest to the barrage. These fish may be vulnerable to washout at high discharge when the barrage gates are lowered.

The dace again showed a bimodal length frequency distribution indicating two separate spawning times.

The expected increase in perch fry following the increases seen in the September adult surveys in previous years was not apparent.

Table 1. Number of fry of each species sampled in the R. Tees in June 1998

Species	Totals
Barbel <i>Barbus barbus</i> (L.)	21
Bullhead <i>Cottus gobio</i> (L.)	1
Chub <i>Leuciscus cephalus</i> (L.)	628
Dace <i>Leuciscus leuciscus</i> (L.)	2043
Grayling <i>Thymallus thymallus</i> (L.)	4
Gudgeon <i>Gobio gobio</i> (L.)	136
Minnnow <i>Phoxinus phoxinus</i> (L.)	1868
Perch <i>Perca fluviatilis</i> L.	10
Roach <i>Rutilus rutilus</i> (L.)	869
Stone loach <i>Barbatula barbatula</i> (L.)	230
Three spined stickleback <i>Gasterosteus aculeatus</i> L.	5
Total	5869

3. SURVEY OF ADULT COARSE FISH SEPTEMBER 1998

This year, significantly more fish were caught than in any other year of the survey, either before or since the barrage was constructed. Over 11000 fish of 15 species were sampled from the lower R. Tees and in addition, eel numbers were estimated. Section 25 (Low Dinsdale) was included, as it is the last scheduled survey of the river. All sections previously fished were sampled although fishing in Section 9 was curtailed for safety reasons due to anglers and canoeists who persistently refused to keep clear of the boat. Section 1 was sampled as in the previous year, split into 5 sub-sections.

The numbers of each species caught are given in Table 2. Roach were found in similar numbers to 1997 but dace and chub numbers were considerably higher with counts up >1300 and >1000 respectively. These three species accounted for 93% of the total catch.

Scales were taken from 607 fish of all the species of angling importance for age analysis.

No young of the year bream were found this year although one older specimen was found. Perch numbers continued to increase although not as rapidly as was expected. Pike numbers increased markedly with 28 fish caught, the majority of which were probably age 0+ (scales taken for ageing). Seven adult salmon were caught this year and others were seen. This is the highest number in any survey. Four of the fish were captured in Section 1. Their condition ranged from fresh silver fish with sea lice to red fish also with sea lice suggesting that the latter had been resident in the estuary for a considerable period of time. Six sea trout were also caught including specimens of 70 cm and 75 cm in length. Eel numbers were slightly higher than in 1997 although noticeably low in the lower sections

4. TEMPERATURE

The minilog data loggers at Low Moor and at Barwick Farm were down loaded in June and September. The results will be presented in the final report.

5. ANGLING DATA

Yarm Angling Club continue to send results from matches. These data show seasonal changes in distribution of fish which cannot be collected from annual electrofishing surveys.

Table 2. Species list for the R. Tees and number of each species caught - September 1998

Species	Totals
Barbel <i>Barbus barbus</i> (L.)	4
Common bream <i>Abramis brama</i> (L.)	1
Chub <i>Leuciscus cephalus</i> (L.)	2950
Dace <i>Leuciscus leuciscus</i> (L.)	3786
Eel <i>Anguilla anguilla</i> (L.)	>230
Flounder <i>Platichthys flesus</i> (L.)	9
Grayling <i>Thymallus thymallus</i> (L.)	1
Gudgeon <i>Gobio gobio</i> (L.)	420
Minnow <i>Phoxinus phoxinus</i> (L.)	237
Perch <i>Perca fluviatilis</i> L.	73
Pike <i>Esox lucius</i> L.	28
Roach <i>Rutilus rutilus</i> (L.)	3729
Salmon <i>Salmo salar</i> L.	7
Stone loach <i>Barbatula barbatula</i> (L.)	1
Three spined stickleback <i>Gasterosteus aculeatus</i> L.	8
Trout (brown and sea) <i>Salmo trutta</i> L.	17
Total (without eels)	11271

6. COST OF WORK DURING THE PERIOD APRIL 1998 - SEPTEMBER 1998

The cost of the work for the above period is £30,000.

7. ANTICIPATED COSTS OF THE WORK IN THE PERIOD UP TO FEBRUARY 1999

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

8. PROGRAMME FOR THE NEXT REPORTING PERIOD

The data will be analysed and presented in the Final 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 RFWAC meeting. In addition, results from all years will be analysed, conclusions drawn and recommended sampling protocol for the future will be presented.