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REPORT

to

DAVIDSON RADCLIFFE LTD., C. DAVIDSON & SONS,

Mugiemoss Mills, Aberdeen

and

WIGGINS TEAPE (UK) PLC.,

Stoneywood Mill, Aberdeen

on

CATCHES OF BROWN TROUT IN THE RIVER DON, ABERDEENSHIRE

- PRELIMINARY ANALYSIS OF AN ANGLER'S RETURNS

by

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REPORT ON CATCHES OF BROWN TROUT IN THE RIVER DON, ABERDEENSHIRE

- PRELIMINARY ANALYSIS OF AN INDIVIDUAL ANGLER'S RETURNS

INTRODUCTION

The first report on catches of brown trout in the R. Don (Report No. 2; Alabaster, 1983) was based on the returns of anglers taking part in competition fishing in the year 1981. Although the fishing effort involved was relatively small, it was concluded that the catching efficiency and weight of fish caught at Grandhome were probably at least as high as elsewhere in the river.

The present study is based on copies of extracts from the fishing log of an individual angler (Graham A. Reid) fishing through the seasons 1969-1983 inclusive, except for the year 1971 when the angler carried out no fishing anywhere. Less than half the fishing effort was made in the R. Don, where it amounted to over 1400 hours, of which about 1.6% was directed at Grandhome. The angler's overall efficiency was 1.13 fish/h which is well above average and similar ~~to~~^o the performance found for the competition anglers (Report No. 2).

MATERIAL AND METHODS

The sites fished on the R. Don, named and delineated as on the map produced by Lewis (undated), are as follows:

1. Whitehaugh Fishings (Alford)
2. Inverurie Burgh Fishings (Inverurie)
3. Kintore Burgh Fishings (Kintore)
4. Upper and Lower Fintry 'House' Fishings (Fintry)
5. Parkhill Fishings (Upper Parkhill)
6. Lower Parkhill Fishings (Lower Parkhill)
7. Upper Cruives No. 2 and Lower Cruives No. 1 (Grandhome)

In the log, the starting times of fishing were recorded to the nearest 15 minutes and the duration of fishing trips was recorded to the

nearest 30 minutes, or more accurately, if known. The weights of fish were given to the nearest 4 oz (28.4 g), but only fish over 10 inches (25.4 cm) were counted. Details of the method of fishing, water temperature and flow were also recorded but are not considered further in the present report.

The years when the sites were fished are shown in Table 1.

TABLE 1. Years when fishing sites on the R. Don were fished *by an individual angler*

YEAR	S	I	T	E	S		
	1	2	3	4	5	6	7
1969-70	*	*			*		
1972	*	*	*		*		
1973	*	*	*		*		
1974-75	*		*		*		
1976	*	*	*		*		
1977-79			*	*	*		*
1980			*	*	*	*	*
1981-82			*	*	*	*	
1983			*	*	*		*

The average number of brown trout caught per hour and the average weight of brown trout caught were calculated for each site for each year. However, in the present analysis, the results for Sites 1 and 2 are excluded because they do not overlap in time with those of Site 7 (Grandhome); those for Site 6 are excluded because they relate to a small number of years, and it is known that, over such a period, angling performance can change markedly with experience at a site.

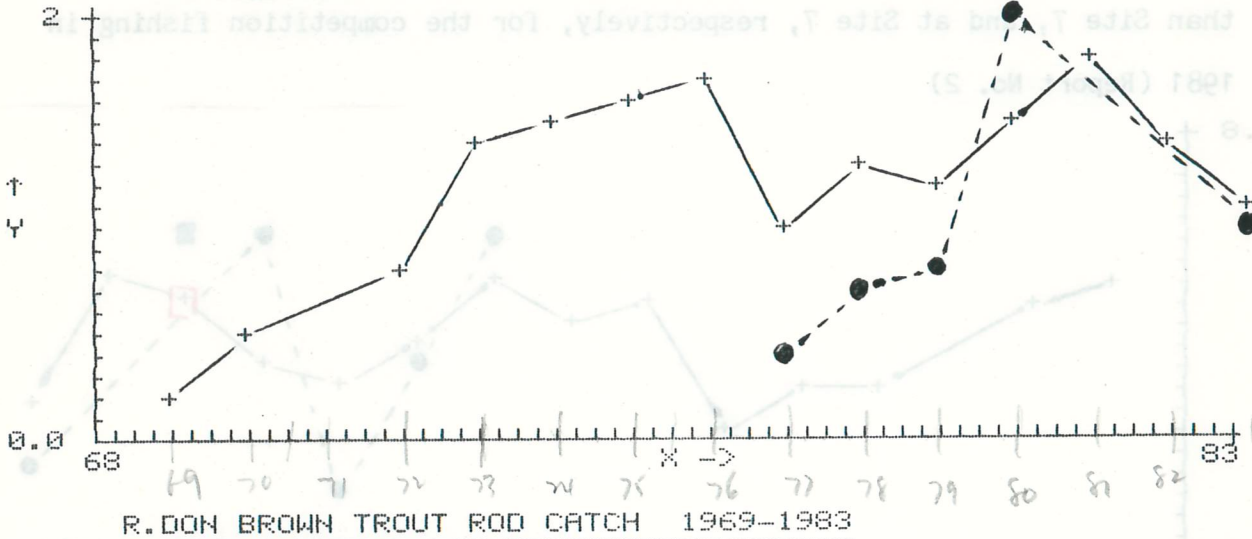
RESULTS

The results are summarised in Figs. 1 and 2 for average catch per

6.8
~~1.5~~ - 60
 1 4

hour and, in Fig. 3 for average weight.

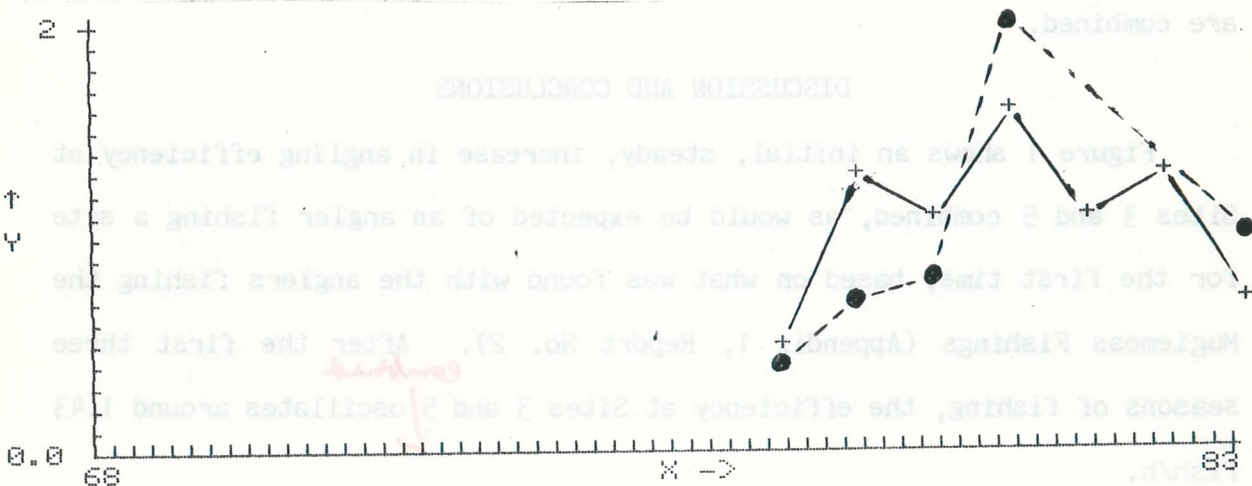
FIG. 1. Angling efficiency for brown trout caught by an individual angler in the R. Don, Aberdeenshire between the years 1969 and 1983 at Sites 3 and 5 combined (crosses) and Site 7 (solid circles)



WHERE:- X IS YEAR

Y IS AN ANGLER CATCH-EFFICIENCY - NO./H

Fig. 2. Angling efficiency for brown trout caught by an individual angler in the R. Don, Aberdeenshire between the years 1977 and 1983 at Site 4 (crosses) and Site 7 (solid circles)

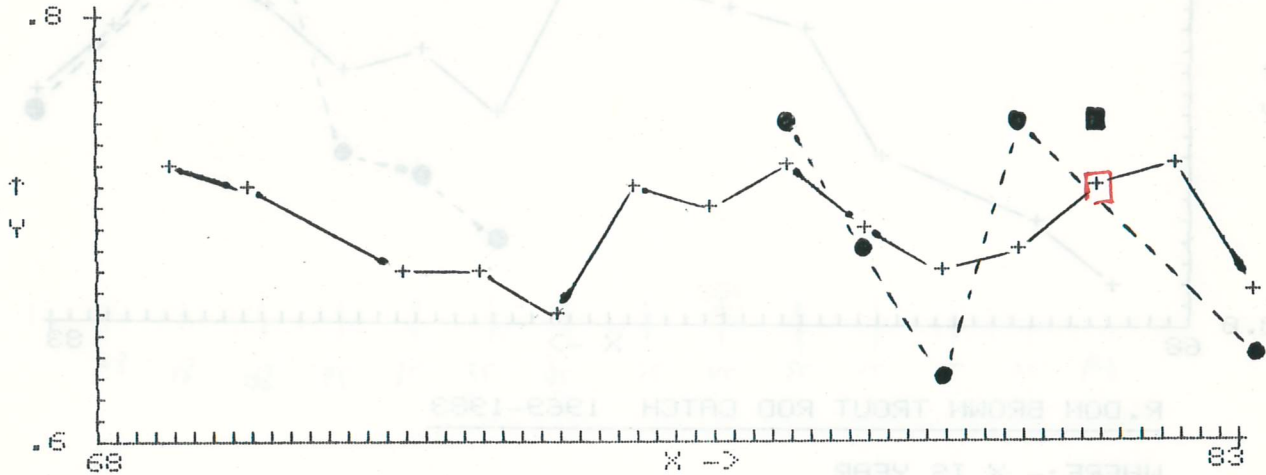


WHERE:- X IS YEAR

Y IS AN ANGLER CATCH-EFFICIENCY - NO./H

Handwritten notes in red ink: "6.8" and "1.5" with arrows pointing to the y-axis.

Fig. 3. Average weight of brown trout caught by an individual angler in the R. Don, Aberdeenshire in the years from 1969 to 1983 for Sites 3 and 5 combined (crosses) and Site 7 (solid circles). Also the open and solid squares indicate the results found for the R. Don, at sites other than Site 7, and at Site 7, respectively, for the competition fishing in 1981 (Report No. 2)



R. DON BROWN TROUT ROD CATCH 1969-1983

WHERE:- X IS YEAR

Y IS AVERAGE WEIGHT - LBS

In Figs. 1 and 2 the results for Sites 3 and 5, which were similar, are combined.

DISCUSSION AND CONCLUSIONS

Figure 1 shows an initial, steady, increase in angling efficiency at Sites 3 and 5 combined, as would be expected of an angler fishing a site for the first time, based on what was found with the anglers fishing the Mugiemooss Fishings (Appendix 1, Report No. 2). After the first three seasons of fishing, the efficiency at Sites 3 and 5 ^{combined} oscillates around 1.43 fish/h.

A similar tendency for the efficiency to increase in the first few years is seen in the results for Site 7 (Grandhome). After the first three years the efficiency averages 1.37 fish/h, a value similar to that found ^(1.43 fish/h)

*combined**(1977-1983) to similar level (1.46) found*

for Sites 3 and 5 after the first 3 years, and also during the same period (1980-1983).

In Fig. 2 a comparison is made between Sites 4 and 7, both of which were fished for the first time in 1977. Again the initial increase in efficiency is evident at Site 4, as well as at Site 7 and, thereafter, catches tend to be similar or, perhaps, rather lower at Site 4 than elsewhere. Thus there is no marked and consistent difference between the two sites over the period 1977-1983.

It is therefore concluded that, during the period 1977-1983, the overall efficiency of angling for brown trout at Grandhome was within the same range as that for other parts of the R. Don, being of the same order as found for competition angling, although higher than that generally found for anglers fishing the Mugiemoos Fishings.

The average weight of the fish caught (Fig. 3) varies about a mean of 0.69 lbs at Sites 3 and 5 combined and of 0.68 lbs at Site 7 (Grandhome). The average for all sites for the whole period is 0.70 lbs. There are no trends with time at any of the sites.

It is therefore concluded that the weight of brown trout caught at Grandhome during the period 1977-1983 was within the range normal for other parts of the R. Don.

These two conclusions - that angling efficiency and trout weight at Grandhome are normal - are supported by the evidence presented in Report No. 1 from an examination of the results of competition fishing.

SUMMARY

There is good evidence that, during the period 1977-1983, the effluents from Stoneywood and Mugiemoos Mills did not have any overall adverse effects on either brown trout angling success or the average weight of the brown trout caught in the R. Don at Grandhome, as compared with other parts of the river upstream of the Mills.

REFERENCES

Alabaster, J.S. (1983) Report to Davidson Radcliffe Ltd., C. Davidson & Sons, Mugiemooss Mills, Aberdeen and Wiggins Teape (UK) PLC, Stoneywood Mill, Aberdeen on Catches of Brown Trout in the River Don, Aberdeenshire. Report No. 2, September, 1982, 6pp + Appendix 1, 27pp.

Lewis, J. R. (undated) Fisherman's Map of Salmon Pools on the River Don. Waverley Press (Aberdeen) Limited.

SUMMARY

There is good evidence that, during the period 1977-1983, the effluents from Stoneywood and Mugiemooss Mills did not have any overall adverse effects on either brown trout angling success or the average weight of the brown trout caught in the R. Don at Grandhouse, as compared with other parts of the river upstream of the Mills.