

SALMON AND TROUT FARMING IN SCOTLAND

REPORT OF DAFS ANNUAL SURVEY FOR 1985

Responses to a Departmental questionnaire from all known Scottish rainbow trout and salmon farming companies are summarised in the following paragraphs and attached Tables 1-5. The co-operation of the fish farming industry in completing these questionnaires is gratefully acknowledged.

Rainbow Trout

Returns received from 62 companies (56 in 1984) operating 86 farm sites (76 in 1984) predominantly in the central and southern areas of Scotland show that trout production reached 2,256 tonnes compared to 2,082 tonnes in 1984 of which some 141 tonnes (146 tonnes in 1984) were used for restocking angling waters.

Comparison by system of production between 1984 and 1985 showed that pond production increased from 866 to 920 tonnes and freshwater cage production from 932 to 1,105 tonnes whereas tank and seawater cage production fell from 197 to 150 tonnes and 87 to 81 tonnes respectively. The returns show that the top 5 companies operating 9 sites produced 1,151 tonnes or 51% of the total Scottish production.

Purchase and sales of fry/fingerlings were respectively 7.47 and 8.95 millions a considerable increase compared to 5.93 and 5.33 millions in 1984. Purchases were less than sales indicating a surplus of young fish in Scotland, a reversal of the position in the previous few years.

A total of 18.01 million ova were laid down for hatching in 1985 (20.4 million in 1984) comprising 4.88 million from UK sources (7.6 million in 1984) and 13.13 million (12.74 million in 1984) from foreign sources.

Total manpower employed was 190 (180 in 1984) of whom 69 were part-time and 121 full-time.

Atlantic Salmon

Returns received from 104 companies (67 in 1984), operating 66 freshwater and 128 seawater sites (46 and 83 respectively in 1984) showed that production was 6,921 tonnes (3,912 in 1984). The new form of the return showed that 2,659 tonnes comprising 827,856 fish (av wt 3.21kg) were from the 1983 smolt intake. The 1984 smolt intake produced 4,262 tonnes comprising 1,970,425 fish (av wt

2.16kg) of which 2,040 tonnes comprising 1,084,140 fish (av wt 1.88kg) were harvested between January to August and 2,222 tonnes comprising 886,285 fish (av wt 2.51kg) were harvested between September and December. Of the 128 seawater sites 119 employed sea cages and 9 used land-based tanks pumping seawater. The latter produced 445.4 tonnes (6.44%).

Returns from the sea sites showed that 5,585,695 smolts (5,062,723 S1's and 522,972 S2's) were put to sea in 1985. Using this data and that from the 1983 and 1984, annual returns of smolts put in seawater it can be estimated that production in 1986 should be 9,860 tonnes. Using the 1986 estimate of 7,565,500 smolts (7,091,000 S1's and 474,500 S2's) from the Scottish smolt producers and assuming none are exported then production in 1987 from Scottish grown smolts should be 13,949 tonnes.

Smolt production in 1985 was 6,177,220 (5,655,620 S1 and 521,600 S2 smolt (9.2%) compared to 3.628 million (17.6% S2's) in 1984. The difference between the smolt producers 1985 figure and that recorded as going to sea (5,585,695) is mostly made up by exports to Norway but a small discrepancy of approximately 100-150,000 remains.

Some 2,601,480 smolts (2,356,980 S1's and 244,500 S2's) amounting to 42% of total production were the subject of sales. In addition it was recorded that approximately 5.5 million fry/parr were the subject of movement between sites. Of the 66 freshwater sites 44 used tanks and produced 70% of the smolts in 1985 and estimate to produce 69% in 1986 whereas the rest of the smolts are produced in 22 freshwater cage sites.

Numbers of ova laid down in 1985 were 16,151,000 (14.9 million in 1984) of which 12,366,000 were from Scottish farmed broodstock, 1,313,000 were from Scottish wild fish and 2,472,000 were from foreign farmed broodstock.

Total manpower employed was 721 (515 in 1984) made up from 550 at sea sites (402 full-time and 148 part-time) and 171 (126 full-time and 45 part-time) at freshwater sites.

Table 4 shows how production is divided between sites. The 5 companies with the biggest 1985 tonnages produced 4,419 tonnes (63.8%) compared to 2,571 (66%) in 1984. Table 5 shows how salmon developments in the Western and Northern Isles are progressing relative to the rest of Scotland.

There was 563 air freight shipments to the USA carrying appropriate health certificates of freedom from VHS virus and the agent of Whirling Disease comprising 430 tonnes of chilled salmon carcasses (188 shipments comprising 87 tonnes in 1984). There are now 58 salmon farm sites appropriately qualified to send carcasses to the USA.

DAFS

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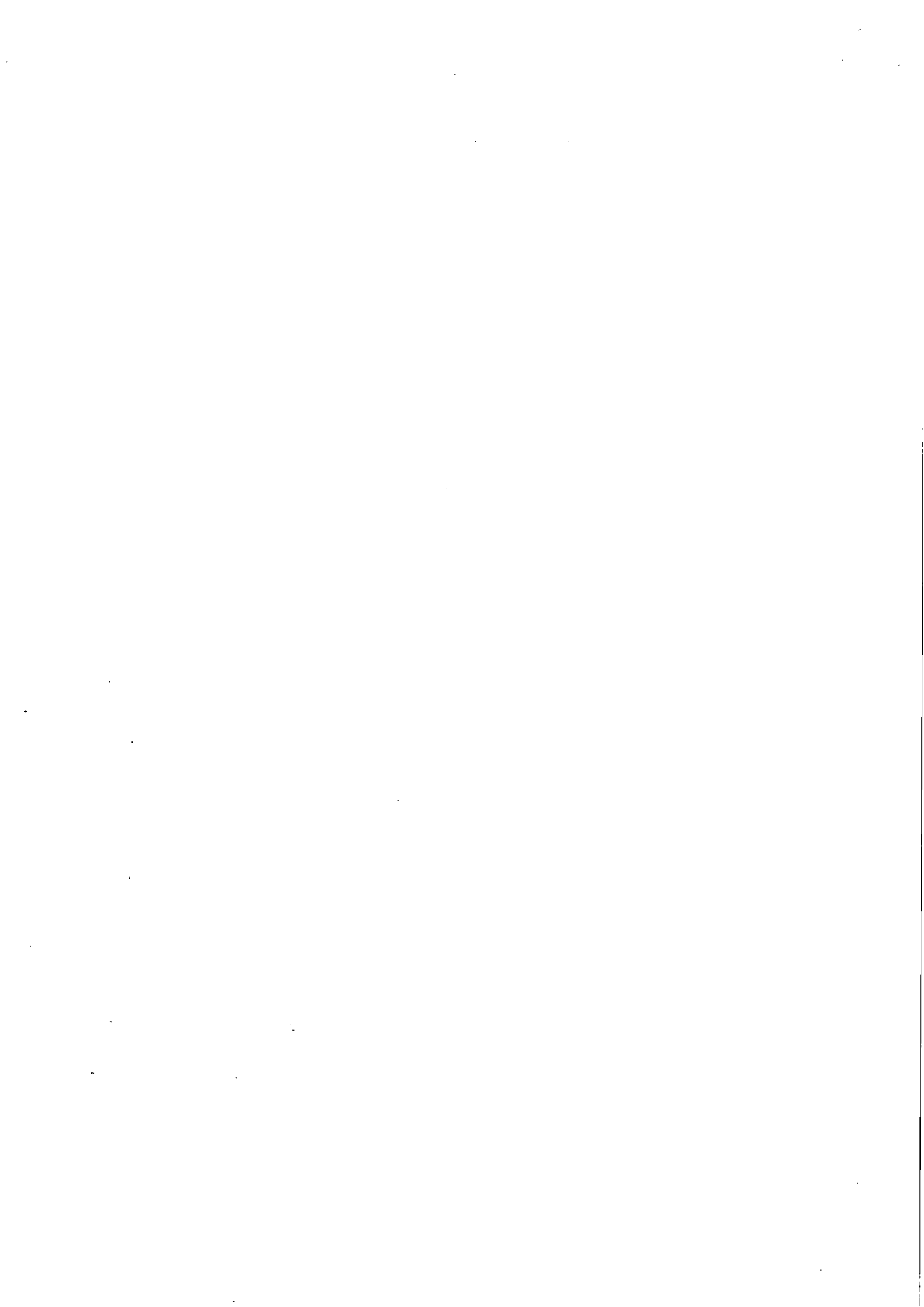


Table 1

RAINBOW TROUT

NO. OF COMPANIES	NO. OF SITES	STAFF		
		Full-time	Part-time	Total
62	86	121	69	190

EGG SOURCES AND NUMBERS ('000)

Own Broodstock	Other UK Farms	Foreign	Total	Fry/Fingerling Bought	Production ('000) Sold
2,837	2,049	13,126	18,012	7,473.4	8,955

PRODUCTION (TONNES)

Table	Restock	Total
1,955	141	2,256

Table 2

Analyses of Rainbow Trout Farm Sites by System and Scale of Production

System	Production (tonnes)						Totals		% Contribution of each system
	0	<10	10-25	26-50	51-100	>100	No. of farms	Tonnes	
Ponds	3	13	9	4	5	1	35	920	41
Tanks	13	8	2	1	1	0	25	150	6
FW Cages	4	2	6	0	0	5	17	1105	49
SW Cages	1	5	3	0	0	0	9	81	7

Table 3

DAFS SCOTTISH FISH FARM SURVEY 1985

ATLANTIC SALMON

TOTAL NUMBER OF COMPANIES - 104

FRESHWATER

NO. OF SITES			STAFF		
Tanks	Cages	Total	Full-time	Part-time	Total
44	22	66	126	45	171

EGG SOURCES AND NUMBERS ('000)

SCOTTISH FARMS	SCOTTISH WILD	FOREIGN	TOTAL
Own Broodstock 8,914	1,313	2,472	16,151
Other Farms 3,452			

FRY/PARR TRANSFERRED

Into Farms	Out of Farms
5,530,195	5,494,195

SMOLTS ('000)

Produced			Sold			Produced in 1986 (estimate)		
S1	S2	Total	S1	S2	Total	S1	S2	Total
5,655.6	521.6	6,177.2	2,356.9	244.5	2,601.4	7,091	474.5	7,565.5

SEAWATER

NO. OF SITES			STAFF		
Cages	Tanks	Total	Full-time	Part-time	Total
119	9	128	402	148	550

SMOLTS TO SEA ('000)

S1	S2	Total
5,062.7	522.9	5,585.6

PRODUCTION - 1984 SMOLT INTAKE

Jan-Aug	Sept-Dec		Total
Tonnes	Nos ('000)	Tonnes	Nos ('000)
2,040	1,084.1	2,222	886.2
			4,262
			1,970.4

PRODUCTION - 1983 SMOLT INTAKE

Tonnes	Nos ('000)
2,659	827.8

TOTAL 1985 PRODUCTION

Tonnes	Nos ('000)
6,921	2,798.2

Table 4

Grouping of Atlantic Salmon Sea Farm Sites by the Scale of Their Production in 1985

Production (Tonnes)	0	<10	10-25	26-50	51-100	101-200	201-300	>300	Totals	
									Sites	Tonnes
No of Sites	47	13	15	12	15	15	9	2	128	6921
% Share of Production	0	0.8	3.8	6	15.8	33.7	31	8.9		

Table 5

Comparison of Atlantic Salmon Developments in the Western and Northern Isles with the Rest of Scotland in 1985

Area	Production tonnes	%	Smolts to Sea in 1985	No. Farm Sites		No. Companies
				FW	SW	
Orkney and Shetland	754.4	11	672,700	2	34	29
Western Isles	1036.4	15	931,900	23	36	32
Rest of Scotland	5130.2	74	3,981,095	41	58	43

