

# **Salmonid and freshwater fisheries statistics for England and Wales, 1987**

I. C. Russell and A. Buckley

Fisheries Laboratory Lowestoft, 1989

**Fisheries Research Data Report No 16**

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD

DIRECTORATE OF FISHERIES RESEARCH

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NUMBER 16

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## 1. Introduction

In 1984 the MAFF Fisheries Laboratory, Lowestoft became responsible for collating and publishing the annual salmon and migratory trout fisheries statistics for England and Wales. Data for 1983 to 1986 have already been published in the Fisheries Research Data Report series (see list at back of report).

Discussion with the Water Authorities (WAs) through the forum of the MAFF/WAA Fisheries Technical Liaison Committee (FTLC) has led to a number of improvements being incorporated into these reports since 1983, and further changes have been made this year. It is hoped that the FTLC, or a successor following formation of the National Rivers Authority (NRA), will continue to provide both the impetus and means for further development of the catch statistics.

It is important to remember that the catch data recorded in this document represent declared catches only and as such will not be an entirely accurate record of the total numbers of fish landed. Furthermore, the relationship between catch and stock size is difficult to establish regardless of the accuracy of the catch data. Great care must therefore be taken in using these figures to derive anything beyond a measure of catch.

## 2. Changes in presentation of the data for 1987

The fifteen tables included in previous reports have again been included in the 1987 data in a similar format, although with minor changes to their numbering. They now appear at Tables 1-12, 15-16 and 21. In addition, six new tables have been added to the fisheries statistics this year:

(i) Table 13 gives the results from a national scale reading programme coordinated by MAFF and provides estimates of the age composition of catches in each WA area. Scale samples from the different regions were collected by WA personnel from a range of fisheries and were forwarded to MAFF. Scale reading was carried out according to agreed ICES guidelines (Anon., 1984) and by a single MAFF scientist (Mr W. Riley) to ensure a consistent approach. Scales supplied by Severn-Trent WA were read independently by the WA before despatch; all other scales were returned to WAs for validation after reading, but had not been checked at the time of publication.

Two methods were employed for estimating the age composition of the catches. For most WA areas, available catch data were divided into size categories. The scale sampling provided an age/weight key, giving estimates

of the relative proportions of grilse (one sea-winter fish) and salmon (two or more sea-winter fish) within each weight group. It is assumed that the scale samples within each size category were representative of the catch in that category.

Where catch data were not stratified in weight categories, the age composition was estimated from the mean weights of grilse and salmon in the scale samples, according to the following formula:

$$\hat{N}_g = \frac{N_p (\bar{w}_s - \bar{w}_p)}{(\bar{w}_s - \bar{w}_g)}$$

where:  $\hat{N}_g$  = estimated number of grilse in catch,

$N_p$  = declared catch of salmon + grilse,

$\bar{w}_p$  = mean weight of declared catch,

$\bar{w}_g$  = mean weight of grilse in samples,

$\bar{w}_s$  = mean weight of salmon in samples,

and: estimated number of salmon in catch ( $\hat{N}_s$ ) =  $N_p - \hat{N}_g$ .

This approach was used in preference to that of multiplying the catch by the proportions of grilse and salmon in the samples, as it was believed that the scale samples tended to be biased towards larger fish. However, the method used assumes that the mean weights of grilse and salmon derived from the samples accurately reflect the mean weights of these categories in the catch. Although more accurate, it is recognised that the mean weight values may also be high, resulting in an over-estimation of the numbers of grilse. It is hoped that all grilse/salmon ratios will be estimated from age/weight keys in the future. The method of estimation is indicated for each WA area in Table 13.

(ii) Table 14 presents data for freshwater fisheries, other than salmon and migratory trout. These data are collated for submission to the European Inland Fisheries Advisory Commission for inclusion in their biennial reports of EIFAC member countries (EIFAC, 1988). In the main, catch returns are not required in England and Wales from fishermen taking eels and other freshwater fish; these data are, therefore, based largely on crude estimates and it is stressed that extreme care should be exercised in their use.

(iii) Tables 17 to 20 provide summaries of regional rod and commercial catches for the period 1982-87 and compare 1987 catches with both the preceding year and the 5-year average.

### 3. Future developments

At an FTLC meeting on catch statistics in 1987, the following recommendations were agreed with WAS as a framework for further improvement of the catch record:

- (i) to further standardize collection and reporting procedures;
- (ii) to improve rod catch return rates by redesigning catch return forms, pre-paying returns and issuing reminders (where appropriate);
- (iii) to validate both rod and commercial catches so that data could be corrected for under-reporting;
- (iv) to collect effort data for both rod and commercial fisheries;
- (v) to provide scale samples to MAFF to enable determination of the age composition of catches.

Item (v) has already been implemented and is included in this year's report, and further improvements have been initiated by a number of WAS.

### 4. Review of catches in 1987

Catch statistics will vary in accuracy from year to year, and catches themselves will fluctuate due to a wide variety of influencing factors. It is important, therefore, to note that although changes in any one year should not be accorded undue significance, they should be viewed against all available information on influencing factors. Those factors likely to have affected catches during 1987, together with the summary data presented in Tables 17-20, were used to provide the following, more critical, review of the 1987 catch in relation to those of recent years (1982-86).

#### 4.1 Overview

The commercial catch of salmon in England and Wales was 24% below the average for the previous 5 years, largely as a result of particularly poor catches in the north-east-coast fishery. Commercial sea trout catches were also somewhat below the 5-year average, with those for Yorkshire and the North West being the lowest for the 6-year period. However, these reductions obscured marked increases in commercial catches of both species in the Southern and South West WA areas.

In most areas of England and Wales, the salmon rod catches were similar to the 5-year average although somewhat lower than in 1986. Substantial increases in the Northumbrian and North West WA area catches however resulted in the overall figure being 24% greater than the 5-year average. The 57% increase in sea trout rod catches over the 5-year average reflected exceptional catches in all except the Southern and Wessex WA areas.

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The general pattern of below average commercial catches and above ave-

rage rod catches in many areas probably reflects the year's high rainfall and consequent elevated river flows.

Grilse were estimated to have made up between 52% (Severn-Trent) and 93% (North West) of the commercial catches and between 37% (Severn-Trent) and 90% (South West) of the rod catches. The scale reading analysis also revealed that the average weight of grilse caught was generally greater than commonly thought. Optimum grilse/salmon separation weights were found to be about 10 lb (4.5 kg) for most WA areas, and 8.5 lb (3.9 kg) in the South West and Welsh WA areas.

#### 4.2 Northumbrian Water

Commercial catches of salmon were considerably lower than those for any year between 1982 and 1986 and 36% below the 5-year average; sea trout catches were only marginally below the average. A contributory factor was felt to be a reduction in effort, although this did not explain the disparity in the fall in catches between the two species. Effort was reduced due to poor weather and legislative changes governing the fishery. The implementation of the Salmon Act, 1986 (Great Britain - Parliament, 1986) included provisions under Section 36 that the licensee be present during fishing, except when the WA gives prior written permission, in the event of sickness or injury. In addition, fishing times were reduced as specified in Table 7.

Rod catches of both salmon and sea trout were more than double those of the 5-year average, continuing the upward trends of recent years. In particular, the River Tyne with over 1 300 salmon and grilse reported, showed an exceptional increase. Apart from the high rainfall, contributory factors to the enhanced runs of fish in the area were considered to be the steady improvement of water quality in the estuaries of the Tyne, Wear and Tees resulting from continuing improvements in sewage treatment procedures, aided by the WA's juvenile stocking programme.

#### 4.3 Yorkshire Water

Commercial catches of salmon were well below the 5-year average (70% down) as in the Northumbrian area; the sea trout catch was also the lowest for at least six years although it was only 17% below the 5-year average. A reduction in effort (20%) was noted in the Yorkshire coastal fishery in 1987 with a total of 2 533 fishing days reported compared with 3 153 in 1986; poor weather and legislative changes were again held to be largely responsible for this reduction.

Despite favourable river flows, the salmon rod catch in 1987 was close to the 5-year average, but still at a level well below the long-term

average, for the past 37 years, of 266 fish. Sea trout catches, however, were increased by 38% on the 5-year average. In an effort to improve the runs of migratory salmonids into the Yorkshire Esk a new byelaw was introduced for the 1987 season prohibiting all fishing for salmon and sea trout in the tidal portion of the Esk. However, it is too soon to say whether this measure will have any effect on rod catches.

#### 4.4 Thames Water

The catch of salmon in the Thames was believed to have been depressed in 1987 by low levels of dissolved oxygen in the estuary. The oxygen depletion was worst during the period from June to August, which is the anticipated peak of the salmon run.

#### 4.5 Southern Water

Substantial increases in commercial catches were observed in the Southern WA area in 1987. The declared sea trout catch was increased by 27% on the 5-year average and the salmon catch by 127%. Although there had been no increase in the numbers of licensed nets, it was reported that fishing effort had increased and particularly the frequency of operation of the seine net on the River Itchen at Woodmill Pool.

In contrast to the commercial catch, rod catches of salmon were close to the 5-year average, while sea trout catches appeared to show a substantial reduction of 92%. In the latter case, however, it must be stressed that, as sea trout could be taken under either salmon or trout licences in the Southern area, catch return information could be unreliable and should be treated with caution. In addition, it is believed that the exceptionally high catch reported in 1986 included a large number of fish which were under-sized and which had been returned to the water. Little significance is, therefore, placed on these data.

#### 4.6 Wessex Water

Although commercial catches of salmon and sea trout were below the 5-year average in the Wessex area, by 13% and 28% respectively, they were well within the range for this period. Implementation of Section 36 of the Salmon Act, 1986 (Great Britain - Parliament, 1986) had caused a reduction in the number of seine net licences issued (from 8-7) on the joint estuary of the Avon and Stour. However, fishing effort was otherwise believed to be broadly consistent with previous years.

Along with those of the Southern WA, rod catches in the Wessex area in 1987 were atypical in having fallen below the 5-year average for both salmon (7%) and sea trout (21%). It is perhaps notable that rivers in both these

areas drain chalk uplands and have relatively stable flow regimes; catches are therefore less likely to be influenced by rainfall.

In the spring of 1987, a new fish pass was opened on the Bristol Avon at Keynsham to facilitate upstream passage of migratory salmonids; a small number of sea trout were caught during the season.

#### 4.7 South West Water

Commercial catches in the south west were above the 5-year average (increased by 69% for salmon and 36% for sea trout), with some fisheries reporting their highest catches since 1951. It was felt that this increase was partly attributable to informal agreements between the WA and the Devon and Cornwall Sea Fisheries Committee regarding enforcement of fixed net legislation, which may have reduced the interception of stocks by unlicensed nets. No major changes in effort were noted, although on the Torridge the number of licensed seine nets was 2 less than in 1986.

Rod catches in the south west were also above the 5-year average, particularly in respect of sea trout which showed a 65% increase. Above-average flows and resulting favourable fishing conditions were considered to be influential factors. Not all rivers demonstrated these increases, however, and declines were apparent on the River Plym in particular, a river normally with a good run of winter salmon. An intensive late season enforcement effort on this river in 1987 led to the seizure of 33 illegal set nets, which it is hoped will alleviate the decline.

#### 4.8 Severn-Trent Water

A broadly average season was reported for both rod and commercial salmon fisheries in the Severn-Trent area. Commercial catch was increased by 9% on the 5-year average and rod catch decreased by 3%, but the differences were not felt to be significant. No changes in effort were noted during the year.

#### 4.9 Welsh Water

In the Welsh area, commercial catches of salmon were close to the 5-year average, but sea trout catches were the lowest for at least 6 years and 35% less than the average. The number of commercial instruments licensed in Wales has fallen in recent years from 183 in 1985 to 149 in 1987, and the instruments owned by the Authority on the River Wye ceased to operate after the 1984 season. The reduction in licences is attributed to a combination of some new net limitation orders being introduced in 1986, increased licence duties, and the implementation of Section 36 of the Salmon Act, 1986 (Great Britain - Parliament, 1986). Reduction in net licence numbers has occurred throughout the region, but with a more noticeable decline on the

River Dee where the number of seine net licences has fallen from 30 in 1986 to 21 in 1987. This apparent reduction in fishing effort has yet to have any noticeable effect on the declared commercial salmon landings.

The salmon rod catch in Wales in 1987 was well within the range of catches reported for the period (1982-86). The figure was an 18% increase on the 5-year average, which reflected the exceptionally poor catch recorded for 1984 rather than any increase in 1987. Conversely, the sea trout rod catch was increased by over 14 000 (68%) on the 5-year average and was far in excess of any other catch reported since 1982. This increase in catch was probably enhanced by favourable angling conditions and could have been only very slightly influenced by the reduction in the commercial catch which was only about 2 600 fish below the 5-year average.

#### 4.10 North West Water

Catches in the north west in 1987 followed the broad trend, seen in many parts of the north and west of the country, of below-average commercial catches and above-average rod catches. Commercial salmon and sea trout catches were below the 5-year average by 15% and 21% respectively. Adverse fishing conditions due to high flows were probably a contributory factor, but a minor reduction was also noted in the number of Solway haaf net licences, from 237 in 1986 to 227 in 1987.

Rod catches of both salmon and sea trout were the best for at least 6 years being 41% and 26% above the 5-year average, respectively. As elsewhere, this was felt to be largely attributable to the favourable river flows. Salmon rod licence sales increased by 8% over 1986 but, as elsewhere, fishing effort undoubtedly also increased as a result of the suitable angling conditions.

#### 5. References

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- EUROPEAN INLAND FISHERIES ADVISORY COMMISSION, 1988. National reports of EIFAC member countries for the period January 1986-December 1987. EIFAC Occasional Paper No. 20. Food and Agriculture Organisation of the United Nations, Rome, 98 pp.
- GREAT BRITAIN - PARLIAMENT, 1986. Salmon Act, 1986. Her Majesty's Stationery Office, London, 46 pp.

Table 1 Water Authority annual statistics collection procedures for 1987 - commercial data.

Water Authority	Return form supplied	Return prepaid	Return required	Separate reporting of salmon and grilse	Separate reporting by weight groups (not S/G)	Catch data required from licensees				Catch reported separately for each method of capture	Effort data collected
						Daily record of individual fish	Daily aggregates	Weekly aggregates	Monthly aggregates		
Northumbrian	Yes	Yes	Monthly	Yes ( $\pm 7$ lb)	No	-	Yes	-	-	No	No
Yorkshire	Yes	No	15 Nov	Yes ( $\pm 7$ lb)	No	-	Yes	-	-	Yes	Yes*
Anglian	No (a)	NA	NA	NA	NA	-	-	-	-	NA	NA
Thames	No commercial fisheries for salmon or migratory trout										
Southern	No (b)	No	30 Nov	No	No	-	-	-	Yes	Yes	No
Wessex	Yes	No	15 Nov	Yes ( $\pm 8$ lb)	No	-	-	Yes	-	Yes	No
South West	Yes	Yes	Monthly	No	No	Yes	-	-	-	Yes	No
Severn-Trent	Yes	No	31 Oct	No	Yes (c)	-	Yes	-	-	Yes	No
Welsh	Yes	Yes	Monthly	No	Yes (d)	-	Yes	-	-	Yes	Yes
North West	Yes	Yes	Monthly	Yes ( $\pm 7$ lb)	No	Yes	-	-	-	Yes	No

KEY: (a) No requirement for submission of catch returns, although it is proposed to introduce these from 1989.  
 (b) Only 6 commercial licensees. Data collected by letter  
 (c) Numbers of fish recorded for 3 broad weight categories, < 7, 7-15, > 15 lbs  
 (d) Numbers of fish recorded in 1 lb weight groups up to 20 lb. Large fish entered individually

\* Represents a change from that reported in 1986.  
 NA Not applicable.

Table 2 Water Authority annual statistics collection procedures for 1987 - rod data.

Water Authority	One form for salmon and sea trout	Return form part of licence	Return pre-paid	Return required	No. reminders issued	Catch data required from licensees						
						Daily record of nos. caught	Individual weights of fish	Exact date of capture	River or place of capture	Method of capture (e.g. bait)	Effort data (e.g. days fished)	Separate reporting of salmon and grilse
Northumbrian	Yes	Yes	No	30 Nov	0	No (monthly totals)	Yes	No (monthly totals)	Yes	No	No	No
Yorkshire	Yes	Yes	No	15 Nov	2	No (monthly totals)	Yes	No (monthly totals)	Yes	No	No	Yes ( $\pm$ 7 lb)
Anglian	No rod fisheries for salmon or migratory trout											
Thames	Negligible catches - no return forms used			30 Nov	0	Yes	Yes	Yes	Yes	No	No	No
Southern	No (a)	No (b)	No	30 Nov	0	No (Monthly totals) (But full details for sea trout)			Yes	No	No	No
Wessex	No (a)	Yes	No	15 Nov	2	No (Monthly totals)			Yes	No	No	Yes ( $\pm$ 8 lb)
South West	Yes	Yes (c)	Yes	14 days after expiry of licence	0	Yes	Yes	Yes	Yes	No	No	No
Severn-Trent	Yes	No	Yes	31 Oct	1 or 2	Yes	Yes	Yes	Yes	No	No	No
Welsh	Yes	Yes	Yes	7 days after expiry of licence	1 or 2	Yes	Yes	Yes	Yes	Yes	Yes	No
North West	Yes	No	No	30 Nov	0 (d)	No (monthly totals)	Yes	No (monthly totals)	Yes	No	No	No
KEY: (a) Sea trout can be fished for under either salmon or trout licences (b) Return form is part of licence only for sea trout caught under trout licences. Salmon data collected by individual letters not return forms (c) Licence stuck onto return card (d) No record maintained of licensees and so issuing of reminders impossible												

Table 3 Number and value of commercial fishing licences issued - 1987 season.

Water Authority	Salmon and Migratory Trout				Eels			
	Method and/or instrument	Number (a)	Duty (£)	Number Endorsees	Value (£) (b)	Method	Number (c)	Value (£)
Northumbrian	Coastal (N) drift or T nets	75	500.00	194	37538.80	Fyke nets/ Baited traps	92	349.60
	Coastal (S) drift nets	46	500.00	102	23020.40			
	Total	121		296	60559.20			
Yorkshire	Coastal drift nets	27	445.00	58	12026.60	Fyke nets Criggs (in strings) (10 pots per string)	300	1080.00
	Coastal T or J nets	33	340.00	78	11235.60			
	Total	60		136	23262.20			
Anglian	Coastal nets (various)	144	12.00	238	1775.60	Nets/Traps (Reg)	35	420.00
						Nets/Traps (Div)	638	3320.00
						Total	673	3748.00
Thames	Nil				Fyke nets	375	0	
					Traps	80	0	
					Pair trawls	3	0	
					Total	458	0	
Southern	Seine nets	4	1.00	0	4.00	Various	57	0
	Seine nets (d)	2	0	0	0			
	Total	6		0	4.00			
Wessex	Seine nets	8	99.00	16	795.20	Fyke nets Fixed traps	32	270.00
	Dip nets	9	32.00	7	289.40			
	Putcher ranks 300 Putchers (units of 50)	2 (6)	32.00	0	192.00			
	Total	19		23	1276.60			
South West	Seine nets (single river)	86	86.80	423	7549.40	Fyke nets/Traps	47	0
	Seine nets (double river)	2	138.00	14	278.80			
	Fixed Engines (Weir/Trap)	2	138.00	5	277.00			
	Drift nets	7	86.00	20	611.60			
Total	97		462	8716.80				
Severn-Trent (e)	Lave nets (half season)	31	18.75	0	581.25	Elver dip nets Elver dip nets (Concessionary) Weir traps Gloucester eel nets Putcheons (Up to 20 putcheons per licence) Fyke nets (>4m) Fyke nets (2-4m)	718	4702.90
	Lave nets (full season)	35	37.45	0	1310.75			
	Seine nets	7	100.10	40	708.70			
	Fixed Engine ranks comprising:	16		0	2342.45			
	Putts (2)	(2)	3.40					
	40:1 Putchers (units of 50)	(81)	26.10					
	544m of leaders:							
	Leaders <90m	(3)	30.10					
	additional 20m lengths	(15)	8.75					
	Total	89		40	4943.15			
	Total	867			5391.45			
Welsh	Compass nets	8	33.00	7	264.00	Elver dip nets Fixed trap Baited traps Fyke nets	374	0
	Coracle nets	20	Var	46	2744.00			
	Wade nets	23	12 & 33	4	297.00			
	Seine nets	69	Var	229	10895.00			
	Drift nets	8	427.00	13	3416.00			
	Sling (drift) nets	6	302.00	4	1812.00			
	Trammel nets	4	267.00	2	1068.00			
	Lave nets	9	12.00	0	108.00			
	Putcher rank	1		0	1600.00			
	Putchers (units of 50)		33.00	0				
	Fish trap-basket	1	33.00	5	33.00			
	Total	149		310	22237.00			
	Total	696			496.00			
	North West	Haaf nets (Solway & Ellen)	228	34.50	0			
Seine net (Eden)		1	420.00	2	420.40			
Cribs (Eden)		2	164.00	0	328.00			
Fishing Baulk (Esk)		1	181.50	4	182.30			
Drift nets (Cumbria Coastal)		4	175.50	11	704.20			
Drift nets (Ribbles)		6	112.50	23	679.60			
Haaf nets (Lune)		26	71.50	0	1859.00			
Drift nets (Lune)		10	186.00	21	1864.20			
Seine net (Lune)		1	161.50	6	162.70			
Seine nets (Duddon)		3	154.50	14	466.30			
Lave nets (Kent)		8	84.50	0	676.00			
Lave nets (Leven)		6	69.50	0	417.00			
Coops (Derwent)		2(f)	-	0	-			
Total		298		81	15625.70			
Total		38			735.00			

Key: (a) Numbers represent the number of licensees, except for data in parentheses which represent numbers of licenced components on which duty is paid.  
(b) Value includes endorsee fees (@ £0.20 each).  
(c) Numbers represent the number of licenced instruments.  
(d) These nets operate under rights of ancient privilege and no charge is made.  
(e) Salmon licence details are for R. Severn only. Eel licences apply to both Severn and Trent catchments.  
(f) Privileged fixed engines, not fished at the present time.

Table 4 Type, individual duty charged and number of rod licences issued - 1987 season.

Water Authority/ Species	Season		Con. Season		Short No. Term Days		Con. Short Term Duty		Day Duty		Con. Day Duty		Other Duty	
		(£)		(£)		(a)		(£)		(£)		(£)		(£)
Northumbrian														
Salmon+M.Trout	1718	37.50	602	18.80	461	14	11.50	-	-	208	5.80	-	-	-
Trout	7732	9.50	3941	4.80	1065	14	3.60	-	-	5143	.50	-	-	-
FW Fish	3235	3.60	2568	1.80	-	-	-	-	-	-	-	-	-	-
Yorkshire														
Salmon+M.Trout	73	39.10	37	19.55	22	7	15.80	11	7.90	58	7.90	12	3.95	-
Trout+FW Fish	60829	4.90	25477	2.45	6305	7	2.00	1890	1.00	-	-	-	-	1 1040(b)
Trout+FW Fish	-	-	-	-	-	-	-	-	-	-	-	-	-	69 .75(c)
Anglian														
All species (Reg)	25943	7.50	40885	2.00	54806	7	1.50	-	-	-	-	-	-	336 .70(c)
All species (Div)	93676	4.00	-	-	-	-	-	-	-	-	-	-	-	3 Var(b)
Thames														
All Species	112083	6.00	42342	1.50	33812	15	1.50	-	-	-	-	-	-	97 Var(d)
All Species	-	-	-	-	-	-	-	-	-	-	-	-	-	26 Var(b)
Southern														
Salmon	18	30.00	-	-	6	14	10.00	-	-	-	-	-	-	11 Var(b)
M.Trout+Trout+FW	45270	5.00	22439	2.50	(e)	28	2.50	-	-	-	-	-	-	58 Var(b)
FW Fish	-	-	5000	.00(f)	-	-	-	-	-	-	-	-	-	-
Wessex														
Salmon+M.Trout	272	25.00	129	12.50	137	7	4.00	15	2.00	-	-	-	-	9 Var(b)
Salmon+M.Trout(g)	57	25.70	10	13.20	-	-	-	-	-	-	-	-	-	-
M.Trout+Trout	4951	8.20	1452	4.10	4259	7	2.00	341	1.00	-	-	-	-	13 Var(b)
M.Trout+Trout(g)	1388	8.90	260	4.80	-	-	-	-	-	-	-	-	-	-
FW Fish	7561	6.35	4874	3.15	10295	7	1.55	2528	.75	1545	.90(c)	-	-	8 Var(b)
FW Fish(g)	8937	7.05	2034	3.85	-	-	-	-	-	-	-	-	-	-
South West														
Salmon+M.Trout	1714	27.80	902	13.90	749	7	13.90	294	6.95	2476	3.50	398	1.75	1 Var(b)
Trout	2117	6.90	1762	3.45	2185	7	3.50	-	-	2698	1.50	872	.75	1 Var(b)
FW Fish	3835	2.10	1923	1.05	4939	7	.80	-	-	-	-	-	-	3 Var(b)
Severn-Trent														
Salmon (h)	957	32.65	648	6.55	61	28	13.05	-	-	(e)	6.55	-	-	-
Trout+FW Fish	169930	4.20	60540	.85	24908	28	1.70	-	-	(e)	.85	-	-	6593 .85(c)
Trout+FW Fish	-	-	-	-	-	-	-	-	-	-	-	-	-	828 .95(d)
Welsh														
Salmon+M.Trout	8471	26.80	3143	17.95	2084	14	12.50	-	-	3934	4.00	-	-	5560 .70(i)
Salmon+M.Trout	-	-	-	-	-	-	-	-	-	-	-	-	-	8 Var(b)
Trout	15598	7.65	8573	5.20	19096	14	1.85	-	-	5737	1.50	-	-	34 Var(c)
FW Fish	6955	4.60	3144	3.00	-	-	-	-	-	-	-	-	-	-
North West														
Salmon	1722	28.00	622	14.00	1465	7	6.50	-	-	-	-	-	-	2326 21.00(j)
Salmon	-	-	-	-	-	-	-	-	-	-	-	-	-	609 10.50(k)
Salmon	-	-	-	-	-	-	-	-	-	-	-	-	-	3 Var(b)
M.Trout	1547	12.00	398	6.00	753	7	3.00	-	-	-	-	-	-	5 Var(b)
Trout	26886	5.00	5307	2.50	9723	7	1.75	-	-	-	-	-	-	1 70.00(b)
Trout	-	-	-	-	-	-	-	-	-	-	-	-	-	6 .50(c)
FW Fish	31456	4.00	6913	2.00	4505	7	1.00	-	-	-	-	-	-	118 .25(c)

Key: (a) Also applies to concessionary short term licences.  
 (b) General licence. Various duties apply.  
 (c) Block licences for 1 day and covering many anglers. Duty is per angler. A minimum total fee may apply.  
 (d) Temporary one site licence. Duty is per angler.  
 (e) Numbers included with concessionary season licences (same licence).  
 (f) Licences for OAP and registered disabled persons issued free. (estimated number).  
 (g) Licences include a second rod for an additional fee of 0.70.  
 (h) Salmon licences for R. Severn only. Trout & FW Fish licences permit salmon fishing in R. Trent.  
 (i) Special junior licence, (under 10 years old)  
 (j) Part season licences, valid from 1st June.  
 (k) Concessionary part season licences, valid from 1st June.

Table 5 Number and value of rod licences issued - 1987 season.

Water Authority	Salmon		Migratory Trout		Trout		Freshwater Fish	
	Number	Value (£)	Number	Value (£)	Number	Value (£)	Number	Value (£)
Northumbrian	2989	-----	82251	-----	17881	98776	5803	16268
Yorkshire	213	-----	4518	-----	94571	-----	377187	-----
Anglian	215649	-----	-----	-----	-----	-----	741322	-----
Thames	188237	-----	-----	-----	-----	-----	784929	-----
Southern	35	6600	67767	-----	-----	-----	288821	-----
Wessex	629	15593	(a)	(a)	12664	80959	37782	155859
South West	6534	-----	82004	-----	9635	33035	10700	14024
Severn-Trent	1666	-----	36286	-----	262799	-----	813899	-----
Welsh	23200	-----	330886	-----	49038	210419	10099	41425
North West	6747	122354	2703	24622	41923	164842	42992	144886

Key: (a) No separate licences are issued. Migratory trout are fished for under either a salmon or trout licence.

Note: Dashed lines indicate that the licence number and value apply to the range of species covered.

Table 6 Number of licences issued and percentage return rate for rod fisheries - 1987 season.

Water Authority/ Species	% Con.		% Short		% Con. Short		% Day		% Con.		% Other		
	Season	Return	Season	Return	Term	Return	Term	Return	Day	Return	Day	Return	Return
Northumbrian Salmon+M.Trout	1718	40	602	36	461	23	-	-	208	14	-	-	-
Yorkshire Salmon+M.Trout	73	99	37	94	22	95	11	100	58	83	12	100	-
Southern (a) Salmon	18	100	-	-	6	100	-	-	-	-	-	-	11 100(b)
Wessex (a) Salmon	-	-	-	-	-	-	-	-	-	-	-	-	9 100(b) 620 75(c)
South West Salmon+M.Trout	1714	47	902	55	749	45	294	46	2476	39	398	35	-
Severn-Trent Salmon	-	-	-	-	-	-	-	-	-	-	-	-	1666 77(c)
Welsh Salmon+M.Trout	8471	55	3143	66	2084	51	-	-	3934	40	-	-	8 NA(b)
Salmon+M.Trout	-	-	-	-	-	-	-	-	-	-	-	-	5560 NA(d)
North West Salmon+M.Trout	-	-	-	-	-	-	-	-	-	-	-	-	9450 17(c)

Key: (a) In the Southern and Wessex areas migratory trout are fished for under both salmon and trout licences, so return rates for migratory trout cannot be calculated, but will be lower than those for salmon.  
(b) General licences.  
(c) Applies to all licence categories, no further breakdown available.  
(d) Special junior licence, (return not required).  
NA Not applicable.

Note: Percentage return rate is calculated from number licence returns received/number licences sold \*100

Table 7 Annual commercial close seasons and weekly close times for salmon and migratory trout - 1987 season.

Water Authority	Area/Method	Salmon				Migratory trout (Where different)	
		Close Season		Weekly Close Time		Close Season	
		From	To	From	To	From	To
Northumbrian		1.9	25.3 (a)	1800 Fri	0600 Mon		
Yorkshire	Coastal drift nets	1.9	31.1* (a)	1800 Fri	0600 Mon	1.9	28/29.2
	Coastal T or J nets			(a) 2000 Fri	0600 Mon		
Anglian		1.10	31.3	0600 Sun	2400 Mon		
Thames		No commercial netting					
Southern		1.8	14.2	0600 Sat	0600 Mon		
Wessex	Somerset	31.8	15.2	0600 Sat	0600 Mon		
	Avon+Stour	1.8	31.1*	0600 Sat	0600 Mon(b)	1.8	14.4
	Frome (part only)	1.10	31.5	0600 Sat	0600 Mon(b)		
	Other	1.8	31.3*	0600 Sat	0600 Mon(b)	1.8	14.4
South West	Avon	16.9	14.4	0600 Sat	0600 Mon		
	Axe	20.8	31.3	1800 Fri	0600 Mon		
	Camel	1.9	1.3	0600 Sat	0600 Mon		
	Dart	17.8	14.3	0600 Sat	0600 Mon		
	Exe Upper reach	17.8	15.4	0600 Sat	0600 Mon		
	Lower reach	17.8	13.2	0600 Sat	0600 Mon		
	Fowey	1.9	1.3	0600 Sat	0600 Mon		
	Tamar District	1.9	1.3	0600 Fri	0600 Mon(c)		
	Taw+Torridge R.Lyn	1.9	31.3	0600 Sat	0600 Mon		
	District	1.9	31.3	0600 Fri	0600 Mon		
	Teign	1.9	14.3	0600 Sat	0600 Mon		
Severn-Trent	Nets	1.9*	1.2*	1200 Sat	0600 Mon	9.8	5.2
	Putts+Putchers (d)	16.8	15.4	-	-		
Welsh	Clwyd	1.9	14.3	2400 Thu	2400 Sun		
	Dee	1.9	28/29.2	2400 Thu	2400 Sun		
	Towy+Taf	1.9	28/29.2	0600 Sat	1200 Mon		
	Usk	1.9	1.3	0600 Sat	0600 Mon		
	Wye Nets	1.9	31.1	0600 Sat	0600 Mon		
	Fixed Engines (d)	1.9	31.1	-	-		
	Other Nets	1.9	31.3	0600 Sat	0600 Mon(e)		
	Fixed Engines (d)	16.8	15.4	-	-		
North West	Solway Firth	11.9	28/29.2	0600 Sat	2400 Sun		
	Eden	1.9	28/29.2	0600 Sat	0600 Mon		
	Ellen	1.9	31.3	0600 Thu	0600 Mon		
	Other	1.9	31.3	0600 Sat	0600 Mon		

Key:

- (a) From 1987 season nightly close time also applies between 2000-0400.
- (b) Additional Weekly Close Time between 2100-0500 Wed, Thurs, and Fri applies.
- (c) Weekly Close Times vary: 1.3-31.5 0600 Fri to 0600 Mon, 1.6-31.8 0600 Sat to 0600 Mon.
- (d) No Weekly Close Time for Fixed Engines.
- (e) With the exception of Weekly Close Times for Teifi, Nevern, E. and W. Cleddau which are as for Towy+Taf.

\* Migratory trout Close Seasons are as for those of salmon except where indicated by an asterisk. Variations are given in the right-hand column. Weekly Close Times are the same for both species.

\$ Indicates a change from 1986 season.

Notes: All Close Seasons and Weekly Close Times are subject to local variations; the exact dates are determined by Water Authority byelaws so that an individual river's spawning time can be taken into consideration. Some waters may not be open for the full duration of the season.

Table 8 Annual rod close seasons for salmon and migratory trout - 1987 season.

Water Authority	Area	Sub-area	Salmon		Migratory trout		
			Close Season		Close Season		
			From	To	From	To	
Northumbrian			1.11	31.1	1.11	2.4	
Yorkshire			1.11	5.4	1.11	5.4	
Anglian			29.9	28/29.2	29.9	28/29.2	
Thames			1.10	31.3	1.10	31.3	
Southern			3.10	16.1	1.11	31.4	
Wessex	Frome (part only)+Piddle	Other	1.10	28/29.2	1.11	14.4	
			1.10	31.1	1.11	14.4	
South West	Avon	R. Avon	1.12	14.4(a)	1.10	14.4(a)	
		District	1.11	14.3	1.10	14.3	
	Axe		1.11	14.3	1.11	14.4	
	Camel		16.12	31.3	1.10	31.3	
	Dart		1.10	31.1(a)	1.10	14.3	
	Exe		1.10	13.2	1.10	14.3	
	Fowey		16.12	31.3	1.10	31.3	
	Tamar+Plym	R. Plym	16.12	31.3	1.10	2.3	
		R. Yealm	16.12	31.3(a)	1.10	2.3	
			District	15.10	28/29.2	1.10	2.3
			Taw+Torridge	1.11	31.1	1.10	14.3
			R. Lyn	1.10	28/29.2(a)	1.10	14.3
		District	1.10	31.1(a)(b)	13.10	14.3	
Teign			1.10				
Severn-Trent			1.10	1.2	1.10	15.3	
Welsh	Dee+Usk		18.10	25.1	18.10	19.3	
		Wye	26.10	25.1	18.10	19.3	
		Upper reach	18.10	25.1	18.10	19.3	
		Lower reach	18.10	19.3	18.10	19.3	
Other							
North West	Eden		15.10	14.1	16.10	30.4	
		Other (c)	1.11	31.1	16.10	30.4	

Key: (a) Experimental change in season.  
 (b) Between 1.9 and 30.9 inclusive each angler is allowed a limit of two salmon.  
 (c) Migratory trout Close Season differs for rivers Annas, Bleng, Esk, Mite, Irt, Calder and Ehen for which 1.11 to 30.4 applies.

Notes: All Close Seasons and Weekly Close Times are subject to local variations; the exact dates are determined by Water Authority byelaws so that an individual river's spawning time can be taken into consideration.  
 Some waters may not be open for the full duration of the season.

Table 9 Monthly reported salmon and grilse catches by commercial instruments - 1987 season.

Water Authority	River/Fishery	Fishing Method	No. Lic.	Month										Un-known	Total Number	Total Weight (Kg)				
				Feb	Mar	Apr	May	Jun	Jul	Aug	Sep									
Northumbrian	Coastal (N) Coastal (S)	Drift & T nets	75										0	23658	85131					
		Drift nets	46										0			9406	32897			
	Whole area	Total	121	-	4	405	2123	4552	14678	11222	-	0	33664	118028						
Yorkshire	Coastal	Drift nets	27	0	0	0	14	260	1243	1043	-	0	2562	8533						
		T or J nets	33	0	0	2	11	139	303	62	-	0			517	1768				
	Whole area	Total	60	0	0	2	25	399	1546	1107	-	0	3079	10297						
Southern	Itchen Hants area	Seine net	1	0	0	6	37	126	294	-	-	0	463	1579						
		Seine nets	5	0	0	0	0	0	0	-	-	42			42	210				
	Whole area	Total	6	0	0	6	37	126	294	-	-	42	505	1709						
Hessex	Avon + Stour Poole Harbour Parrett	Seine nets	7	0	0	0	70	124	366	-	-	0	568	2001						
		Seine net	1	-	-	1	5	21	47	0	0	0			74	255				
		Dip nets	9	0	0	0	0	4	6	4	-	24					38	157(a)		
		Putchers	2	0	0	0	12	10	0	0	-	0							22	155
		River total	11	0	0	0	12	14	6	4	-	0								
	Whole area	Total	19	0	0	9	87	159	419	4	0	24	702	2568						
South West	Exe	Seine nets	19	2	7	19	133	1582	1990	267	-	0	4000	10178						
		Seine nets	10	-	0	23	95	692	1140	582	-	0			2532	7492				
	Dart	Seine nets	18	-	5	33	138	560	1201	419	-	0	2356	7240						
		Fixed Engine	1	-	-	-	-	-	-	-	-	-			-	(b)				
	Tavy	Seine nets	3	-	0	0	8	80	234	199	-	0	521	1533						
		Tamar	Seine nets	13	-	1	11	58	299	687	458	-			1514	4500				
	Tavy/Tamar	Seine nets	2	-	-	-	-	-	-	-	-	-	-	(c)						
		Seine nets	5	-	0	4	21	185	253	173	-	0			636	2092				
	Fowey	Seine nets	4	-	0	0	5	34	47	86	-	0	172	464						
		Drift nets	7	-	4	18	14	17	19	38	-	0	110	400						
	Taw/Torrifidge	Seine nets	14	-	-	70	165	547	591	460	-	0	1833	6212						
		Fixed Engine	1	-	-	0	2	62	49	41	-	0	154	396						
	Whole area	Total	97	2	17	178	639	4058	6211	2723	-	0	13828	40507						
	Severn-Trent	Severn	Seine nets	7	0	0	9	37	27	87	21	-	0	181	600					
			Lave nets	66(d)	9	10	37	114	136	258	158	-	0			722	3500			
Fixed Engines		16(e)	-	-	78	409	608	712	253	-	0	2060	9500							
Whole area	Total	89	9	10	124	560	771	1057	432	-	0	2963	13600							
Welsh	Wye	Lave nets	9	0	0	5	0	2	3	1	-	0	11	49(f)						
		Drift nets	0	0	9	91	182	464	591	242	-	0			1579	5841				
	Usk	Putchers	1	0	0	37	82	179	161	76	-	0	526	2196						
		River total	9	0	9	128	264	634	752	318	-	0			2105	8037				
	Tywi	Seine nets	8	0	0	1	5	17	45	22	-	0	90	359						
		Coracle nets	9	0	0	1	8	10	13	27	-	0			59	248				
	Taf	River total	17	0	0	2	13	27	59	49	-	0	149	598						
		Wade net	1	0	0	0	0	0	0	0	-	0	0	0						
	S.W.Coastal	Coracle net	1	0	0	1	0	1	1	0	-	0	3	28						
		River total	2	0	0	1	0	1	1	0	-	0	3	28						
	N.W.Coastal	Wade nets	22	0	0	0	9	7	6	2	-	0	24	53						
		Seine nets	7	0	0	0	14	6	10	3	-	0	33	143						
	N.W.Cleddau	Fishery total	29	0	0	0	23	13	16	5	-	0	57	196						
		Compass nets	8	0	0	0	0	8	29	36	-	0	73	240						
	Newcom	Seine net	1	0	0	0	0	21	17	4	-	0	42	141						
		Seine nets	5	0	0	2	29	64	92	120	-	0	315	1095						
	Taffi	Coracle nets	10	0	0	0	6	19	16	21	-	0	62	219						
		River total	15	0	0	2	35	83	108	149	-	0	377	1313						
	Dyfi	Seine nets	6	0	0	0	0	10	7	6	-	0	23	84						
		Seine nets	2	0	0	0	1	7	4	4	-	0	16	44						
	Hawddach	Seine nets	2	0	0	0	0	0	2	0	-	0	2	4						
		Seine nets	2	0	0	0	4	5	0	0	-	0	10	24						
	Dwyfwr	Seine nets	2	0	0	0	2	14	7	4	-	0	27	115						
		Seine net	1	0	0	0	4	1	0	5	-	0	10	14						
	S. Caern(Daron)	Seine net	1	0	0	0	0	0	0	7	-	0	7	27						
		Seine nets	3	0	0	0	0	4	75	166	-	0	245	816						
	N. Caern	Seine nets	2	0	0	0	0	0	0	0	-	0	0	0						
		Seine nets	2	0	0	0	1	13	36	89	-	0	139	485						
	Clynon	Fish trap	1	0	0	0	0	0	0	7	-	0	11	40						
		Seine nets	4	0	0	0	1	16	41	37	-	0	95	292						
	Clywd	River total	5	0	0	0	1	20	41	44	-	0	106	332						
		Drift/Sling nets	6	0	0	0	4	117	67	71	-	0	259	631						
	Dea	Trammel nets	4	0	0	0	1	77	100	155	-	0	333	1518						
		Seine nets	21	0	5	6	30	138	178	189	-	0	541	1803						
	Whole area	Total	25	0	5	6	31	211	278	343	-	0	874	3321						
	North West	Ribble	Drift nets	6	-	-	1	9	20	182	296	-	0	508	2388					
			Haaf nets	26	-	-	2	14	41	97	180	-	0			334	926			
		Lune	Drift nets	10	-	-	0	7	48	577	1071	-	0	1703	5447					
			Seine net	1	-	-	0	1	4	17	3	-	0			25	90			
		Mest	River total	37	-	-	2	22	93	691	1254	-	0	2062	6463					
Lave nets			2	-	-	0	0	0	12	14	-	0	26			95				
Larven		Lave nets	6	-	-	0	0	2	14	5	-	0		22	79					
		Duddon	Seine nets	3	-	-	0	0	5	8	5	-	0			19	84			
S&W Cumbria		Fishing Baulk	1	-	-	0	0	0	0	0	-	0	0	0						
		Derwent Coops	2(g)	-	-	-	-	-	-	-	-	-			0	0	0			
Coastal		Elton Haaf net	1	-	-	0	0	0	0	0	-	0	0	0						
		Area Total	4	-	-	0	0	0	0	0	-	0			0	0				
Edon + Esk		Drift nets	6	-	-	0	0	4	100	312	-	0	416	1500						
		Haaf nets	1	-	-	-	-	-	-	-	-	-			0	-	-			
Whole area		Seine net	1	-	-	-	-	-	-	-	-	0	-	-						
		Crib	2	-	-	-	-	-	-	-	-	-			0	-	-			
Whole area		WYVW Total	230	-	0	12	84	268	524	938	173	0	1999	7989						
Whole area		Total	298	-	0	15	115	392	1531	2826	173	0	5052	18598						
England and Wales												63728	221091							

Key: (a) Mean weight assumed for fish of unknown capture date.  
 (b) Licences purchased by SMM and is not used.  
 (c) Catches included under Tavy and Tamar as appropriate.  
 (d) Figures for half- and full-season lave nets combined.  
 (e) Fixed engines include Pults, Putchers and Leads.  
 (f) No commercial fishing other than lave nets carried out on the Wye from 1985 season.  
 (g) Privileged fixed engines, not fished at the present time.

Notes: A dash is used to denote months that fall entirely within the annual close season.  
 Percentage return rates for all commercial fisheries can be regarded as 10% unless otherwise specified by a footnote.

Table 10 Monthly reported migratory trout catches by commercial instruments - 1987 season.

Water Authority	River/Fishery	Fishing Method	No. Lic	Month								Un-known	Total Number	Total Weight (kg)	
				Feb	Mar	Apr	May	Jun	Jul	Aug	Sep				
Northumbrian	Coastal (N)	Drift & T nets	75									0	19476	32316	
	Coastal (S)	Drift nets	46									0	10869	22586	
	Whole area	Total	121	-	3	307	2012	10709	12706	4608	-	0	30345	54902	
Yorkshire	Coastal	Drift nets	27	-	0	0	106	1265	2113	1200	-	0	4692	9242	
		T or J nets	33	-	0	51	354	7121	5178	1598	-	0	14302	24966	
	Whole area	Total	60	-	0	51	460	8386	7291	2806	-	0	18994	34208	
Anglian	Coastal	Various nets	144											(a)	
Southern	Itchen	Seine net	1	0	0	1	5	51	108	0	-	0	165	364	
	Hants area	Seine nets	5	0	0	0	0	0	0	0	-	162	162	386	
	Whole area	Total	6	0	0	1	5	51	108	0	-	162	327	750	
Wessex	Avon + Stour	Seine nets	7	-	-	0	15	121	242	-	-	0	378	824	
	Poole Harbour	Seine net	1	-	-	2	3	13	14	0	0	0	32	102	
	Whole area	Total	8	-	-	2	18	134	256	0	0	0	410	926	
South West	Exe	Seine nets	19	0	0	0	1	3	2	5	-	0	11	11	
	Teign	Seine nets	10	-	0	96	376	716	106	6	-	0	1300	1592	
	Dart	Seine nets	18	-	2	65	165	280	393	21	-	0	926	816	
	Avon	Fixed Engine	1											(b)	
	Tavy	Seine nets	3	-	0	0	6	29	1	1	-	0	37	54	
	Tamar	Seine nets	13	-	2	10	31	22	4	11	-	0	80	136	
	Tavy/Tamar	Seine nets	2											(c)	
	Lynher	Seine nets	5	-	0	2	14	7	0	2	-	0	25	42	
	Powey	Seine nets	4	-	0	10	55	217	16	2	-	0	300	325	
	Caswell	Drift nets	7	-	1	2	13	21	7	1	-	0	45	66	
	Taw/Torrige	Seine nets	14	-	-	91	751	1718	2515	665	-	0	5740	5216	
	Lyn	Fixed Engine	1	-	-	0	22	59	24	1	-	0	106	177	
	Whole area	Total	97	0	5	276	1434	3072	3068	715	-	0	8570	8435	
	Welsh	Uek	Drift nets	8	0	1	0	9	30	24	5	-	0	69	166
		Putcher	1	0	0	3	3	0	0	1	-	0	7	14	
		River total	9	0	1	3	12	30	24	6	-	0	76	180	
Tywi		Seine nets	8	0	0	6	104	406	112	12	-	0	640	868	
		Coracle nets	9	0	0	35	253	210	49	28	-	0	575	919	
		River total	17	0	0	41	357	616	161	40	-	0	1215	1787	
Taf		Wade net	1	0	0	0	0	0	2	0	-	0	2	2	
		Coracle net	1	0	0	6	36	7	0	15	-	0	64	89	
S.W.Coastal		River total	2	0	0	6	36	7	2	15	-	0	66	91	
		Wade nets	22	0	0	10	42	59	44	16	-	0	171	214	
		Seine nets	7	0	0	0	49	30	36	16	-	0	131	158	
W.Cleddau		Fishery total	29	0	0	10	91	89	80	32	-	0	302	371	
		Compass nets	8	0	0	0	6	19	3	0	-	0	28	29	
Nevern		Seine net	1	0	0	0	5	13	0	0	-	0	18	25	
Teifi		Seine nets	5	0	0	0	79	149	86	29	-	0	343	492	
		Coracle nets	10	0	0	2	92	102	37	31	-	0	264	352	
		River total	15	0	0	2	171	251	123	60	-	0	607	844	
Dyfi		Seine nets	6	0	0	0	155	750	138	4	-	0	1047	1457	
		Seine nets	2	0	0	0	1	86	67	41	-	0	195	362	
Mawddach		Seine nets	2	0	0	0	0	0	0	0	-	0	0	0	
Glaslyn		Seine nets	2	0	0	0	77	60	2	0	-	0	139	226	
Dwyfawr		Seine nets	2	0	0	0	28	175	13	0	-	0	216	436	
S.Caern(Daron)		Seine net	1	0	0	0	1	2	0	1	-	0	4	3	
		Seine net	1	0	0	0	0	0	0	8	-	0	8	15	
N.Caern		Seine nets	3	0	0	0	1	10	22	25	-	0	50	83	
Solont		Seine nets	2	0	0	0	0	7	15	2	-	0	24	44	
N.Anglesey		Seine nets	2	0	0	0	9	69	24	8	-	0	110	204	
Ogwen		Fish Trap	1	0	0	0	0	0	0	0	-	0	0	0	
Conwy		Seine nets	4	0	0	0	1	46	56	10	-	0	113	140	
		River Total	5	0	0	0	1	46	56	10	-	0	113	140	
Clwyd		Drift/Sling nets	6	0	0	0	4	259	192	42	-	0	497	776	
		Trammel nets	4	0	0	0	0	44	18	16	-	0	78	125	
Dea		Seine nets	21	0	0	0	6	43	25	3	-	0	77	107	
		River total	25	0	0	0	6	87	43	19	-	0	155	232	
Whole area		Total	140	0	1	62	961	2576	965	313	-	0	4878	7305	
North West		Ribble	Drift nets	6	-	-	0	1	11	5	1	-	0	18	71
			Haaf nets	26	-	-	5	185	354	55	6	-	0	605	863
			Drift nets	10	-	-	0	41	108	21	2	-	0	172	369
			Seine net	1	-	-	0	13	9	9	1	-	0	32	39
			River total	37	-	-	5	239	471	85	9	-	0	809	1271
		Kent	Lave nets	8	-	-	0	0	0	2	3	-	0	5	12
			Lave nets	6	-	-	0	0	3	3	0	-	0	6	11
		Leven	Seine nets	3	-	-	0	0	35	29	9	-	0	73	80
		S&W Cumbria	Fishing Baulk	1	-	-	0	0	0	0	0	-	0	0	0
			Derwent Coops	2(d)											
		Coastal	Ellen haaf net	1	-	-	0	0	0	0	0	-	0	0	0
			Area Total	4	-	-	0	0	0	0	0	-	0	0	0
	Eden + Esk	Drift nets	4	-	-	0	0	0	12	0	-	0	12	27	
		Haaf nets	227												
		Seine net	1												
Cribs		2													
Whole area	River Total	230	-	0	55	1361	2720	912	59	2	0	5109	5617		
Whole area	Total	298	-	0	60	1601	3240	1048	81	2	0	6032	7089		
England and Wales											69556	113615			

Key: (a) No returns required by AWA.No data available.  
 (b) Licences purchased by SWHA and is not used.  
 (c) Catches included under Tavy and Tamar as appropriate.  
 (d) Privileged fixed engines, not fished at the present time.

Notes: A dash is used to denote months that fall entirely within the annual close season.

Percentage return rates for all commercial fisheries can be regarded as 100% unless otherwise specified by a footnote.

Migratory trout are not caught on the Wye, Severn or Parrett and these licences are not included.

Table 11 Monthly reported rod catches of salmon and grilse by principal rivers - 1987 season.

Water Authority	River	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Un-Known	Total Number	Total Weight (kg)
Northumbrian	Aln	-	1	5	6	3	0	1	1	2	2	-	-	0	21	81
	Coquet	-	22	66	82	59	69	33	60	76	158	-	-	27	652	2220
	Tyne	-	13	40	54	64	100	94	138	298	473	-	-	39	1313	7238
	Near	-	0	2	1	6	24	26	34	70	94	-	-	8	265	1006
	Tees	-	6	1	6	0	7	1	0	0	1	-	-	1	18	132
	<b>Total</b>	-	42	114	149	132	195	155	233	446	728	-	-	75	2269	10677
Yorkshire	Esk	-	-	-	7	0	12	1	0	17	33	-	-	0	70	299
Thames	Thames	-	-	-	0	0	0	2	1	2	-	-	-	0	5	16
Southern	Tost	0	1	2	8	29	72	208	90	65	16	-	-	27	518	1651
	Itchen	0	3	2	5	6	72	136	59	39	0	-	-	0	322	1114
	<b>Total</b>	0	4	4	13	35	144	344	149	104	16	-	-	27	840	2765
Sussex	Avon	-	6	18	36	141	135	161	71	32	-	-	-	0	600	2896
	Piddle	-	-	2	0	11	10	6	7	5	-	-	-	0	41	177
	Frome	-	-	11	20	45	56	103	29	18	-	-	-	0	282	1280
	Others	-	0	1	0	0	0	0	0	0	-	-	-	0	1	3
	<b>Total</b>	-	6	32	56	197	201	270	107	55	-	-	-	0	924	4356
South West	Exe	-	1	13	18	7	161	223	73	328	-	-	-	0	824	2027
	Teign	-	10	14	17	15	24	15	19	27	-	-	-	2	143	525
	Dart	-	2	10	7	11	45	49	13	51	-	-	-	0	188	607
	Avon	-	-	-	0	0	0	2	1	3	34	12	-	1	53	169
	Plym	-	-	-	0	0	0	0	0	0	7	4	3	0	14	57
	Tavy	-	-	0	0	0	6	32	3	9	49	-	-	0	99	301
	Tanar	-	-	5	20	20	126	135	56	53	63	-	-	0	478	1357
	Lynher	-	-	2	1	14	23	10	21	41	-	-	-	0	113	348
	Lode	-	-	-	0	0	0	0	0	1	0	1	0	0	2	6
	Fowey	-	-	-	3	2	15	29	21	31	89	83	27	0	300	1030
	Camel	-	-	-	0	1	0	10	8	4	33	79	63	0	198	849
	Taw	-	-	31	35	11	29	37	4	8	-	-	-	0	155	594
	Torridge	-	-	0	9	6	12	1	1	1	-	-	-	0	30	116
	Lyn	-	0	0	0	0	35	23	1	7	28	-	-	0	94	255
<b>Total</b>	-	13	75	110	74	467	579	210	544	344	179	93	3	2691	8241	
Severn-Trent	Severn	-	31	61	131	177	261	104	68	96	-	-	-	0	929	4800
Welsh	Wye	1	17	78	281	557	989	603	299	263	126	-	-	9	3223	15072(a)
	Usk	0	3	13	43	33	67	41	17	50	60	-	-	1	328	1251
	Taff	-	-	1	3	7	8	3	1	6	9	-	-	0	38	113
	Neath	-	-	0	0	0	2	1	3	2	10	-	-	14	33	52
	Tawe	-	-	0	0	2	5	7	3	19	19	-	-	0	55	183
	Tywi	-	-	6	11	16	87	77	73	313	145	-	-	29	757	2846
	Taf	-	-	3	4	3	6	4	11	23	23	-	-	0	77	284
	E.W.Cleddau	-	-	1	6	3	19	7	7	16	7	-	-	0	66	231
	Neversn	-	-	0	0	0	1	0	3	11	4	-	-	0	19	64
	Telfi	-	-	6	17	36	129	59	131	354	173	-	-	29	934	3699
	Rheidol	-	-	0	0	1	9	15	18	26	32	-	-	5	106	313
	Dyfi	-	-	0	0	0	37	60	46	189	62	-	-	22	416	1360
	Dysynni	-	-	0	0	0	0	2	6	2	3	-	-	0	13	33
	Mawddach	-	-	0	0	4	25	35	52	74	65	-	-	31	286	1011
	Dwyrdd	-	-	0	0	0	2	1	2	8	6	-	-	12	31	96
	Glaslyn	-	-	0	2	6	17	18	6	8	12	-	-	4	73	267
	Dwyfawr	-	-	0	0	0	3	6	17	17	19	-	-	6	68	228
	Selont	-	-	0	0	0	2	0	12	22	35	-	-	11	82	306
	Ogwen	-	-	0	0	0	2	7	43	41	44	-	-	9	146	517
	Conwy	-	-	0	5	5	21	41	64	158	96	-	-	23	413	1517
	Clwyd	-	-	2	2	11	28	23	37	60	39	-	-	5	207	612
	Dee	0	14	34	73	38	53	51	71	153	73	-	-	73	633	3005
	Others	-	-	1	0	1	27	26	26	54	50	-	-	14	198	634
<b>Total</b>	1	34	145	447	723	1540	1087	948	1869	1112	-	-	297	8202	33694	
North West	Ribble	-	0	0	4	4	12	21	70	216	259	-	-	0	586	2261
	Wyre	-	0	0	0	0	0	0	4	5	10	-	-	0	19	56
	Lune	-	1	2	3	2	8	45	145	322	346	-	-	0	874	3440
	Kent	-	0	0	0	6	5	19	41	59	49	-	-	0	179	567
	Leven	-	0	0	0	0	4	5	12	23	23	-	-	0	67	197
	Duddon	-	0	0	0	0	1	1	2	8	16	-	-	0	28	93
	Esk	-	0	0	0	0	0	0	5	7	13	-	-	0	25	147
	Irt	-	0	0	0	0	1	8	15	6	18	-	-	0	48	161
	Ehen	-	0	0	0	0	4	18	27	36	32	-	-	0	117	369
	Derwent	-	0	0	1	1	9	79	146	329	259	-	-	0	824	3307
	Ellen	-	0	3	1	0	3	6	0	3	13	-	-	0	29	77
	Eden	18	23	18	29	16	33	32	130	306	234	-	-	0	839	3611
	Esk(Border)	-	0	4	0	0	1	3	28	73	30	-	-	0	139	517
	Others	-	0	0	0	0	0	2	0	2	3	-	-	0	7	17
<b>Total</b>	18	24	27	38	29	81	289	625	1395	1305	-	-	0	3781	14820	
England and Wales															19711	79668
Key: (a) Data from fishery owner's returns, not individual catch returns.																

Notes:

A dash is used to denote months that fall entirely within the annual close season.  
 'Principal rivers' include all rivers supporting commercial fisheries or with mean annual rod catches in excess of 30 salmon or 100 sea trout, plus some smaller rivers selected by RWAs. Catches from tributaries and from minor rivers with a shared estuary are included under the appropriate main river. The catch from remaining rivers in each region is aggregated and recorded under 'others'.

Table 12 Monthly reported rod catches of migratory trout by principal rivers - 1987 season.

Water Authority	River	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Un- Known	Total Number	Total Weight (kg)	
Northumbrian	Aln	-	-	-	0	1	7	16	18	32	42	-	-	0	116	270	
	Coquet	-	-	-	2	8	60	71	67	70	186	-	-	3	467	790	
	Tyne	-	-	-	5	4	22	68	183	297	458	-	-	29	1066	1927	
	Wear	-	-	-	0	5	65	115	155	124	117	-	-	7	588	921	
	<b>Total</b>	-	-	-	7	18	154	270	423	523	803	-	-	39	2237	3908	
Yorkshire	Esk	-	-	-	39	1	52	23	0	62	122	-	-	0	299	498	
Thames	Thames	-	-	-	0	1	1	0	0	2	-	-	-	0	4	5	
Southern	<b>Total</b>	-	-	-	-	1	12	16	10	5	12	-	-	0	56	152(a)	
Hessex	Avon	-	-	-	4	22	78	230	383	318	185	-	-	0	1220	1066	
	Stour	-	-	-	0	0	0	1	0	2	1	-	-	0	4	6	
	Piddle	-	-	-	10	0	2	12	26	9	3	-	-	0	62	65	
	Frome	-	-	-	7	2	8	3	26	21	12	-	-	0	79	91	
	Others	-	-	-	40	1	1	18	1	2	0	-	-	19	82	36(b)	
	<b>Total</b>	-	-	-	61	25	89	264	436	352	201	-	-	19	1447	1264	
South West	Axe	-	-	-	0	2	6	14	41	56	10	-	-	0	129	74	
	Otter	-	-	-	2	0	2	26	14	22	0	-	-	0	66	29	
	Ere	-	-	-	2	1	0	1	3	2	6	-	-	0	15	13	
	Teign	-	-	-	7	19	60	199	571	576	375	34	-	-	0	1841	960
	Dart	-	-	-	0	2	50	77	155	205	142	-	-	-	0	631	446
	Avon	-	-	-	0	4	12	70	94	97	-	-	-	-	0	277	171
	Erse	-	-	-	0	0	0	11	3	0	10	-	-	-	0	24	19
	Yealm	-	-	-	0	0	0	5	23	0	5	-	-	-	0	33	25
	Plym	-	-	-	1	4	17	62	110	121	47	-	-	-	1	363	239
	Tavy	-	-	-	1	0	10	11	208	259	217	-	-	-	0	706	380
	Tamar	-	-	-	0	0	5	54	466	239	75	-	-	-	4	843	366
	Lynher	-	-	-	0	5	37	110	111	89	22	-	-	-	0	374	283
	Looe	-	-	-	0	0	17	56	84	29	-	-	-	-	0	186	106
	Powey	-	-	-	35	70	231	796	441	187	-	-	-	-	2	1762	991
	Camel	-	-	-	0	10	157	664	492	127	-	-	-	-	1	1451	779
	Taw	-	-	-	22	30	50	214	526	353	242	-	-	-	0	1437	942
	Torrifidge	-	-	-	3	1	1	85	280	194	66	-	-	-	3	633	417
Lyn	-	-	-	0	0	0	11	16	10	29	-	-	-	0	66	63	
Others	-	-	-	0	0	1	2	22	21	15	-	-	-	0	61	31	
	<b>Total</b>	-	-	-	36	99	317	1267	4120	3235	1769	44	-	11	10898	6334	
Welsh	Nye	-	-	-	5	1	0	10	8	3	1	-	-	18	54	62	
	Usk	-	-	-	0	0	4	5	5	4	6	-	-	2	31	35	
	Ogmore	-	-	-	0	0	7	58	231	330	206	101	-	-	51	984	919
	Tawe	-	-	-	1	3	5	88	208	262	170	45	-	-	229	1011	875
	G. Fawr-G. Fach	-	-	-	1	0	2	98	107	82	71	-	-	-	75	518	338
	Tywi	-	-	-	10	47	176	1098	3203	2210	1574	635	-	-	627	9580	8621
	Taf	-	-	-	0	11	5	47	75	99	100	62	-	-	28	427	332
	E-W. Cleddau	-	-	-	0	8	27	308	805	647	309	87	-	-	109	2300	1231
	Naveen	-	-	-	0	1	1	26	92	116	80	38	-	-	59	413	222
	Teifi	-	-	-	6	24	105	736	1445	1036	770	222	-	-	655	4999	3084
	Aeron	-	-	-	1	0	6	131	388	249	80	24	-	-	106	985	492
	Ystwyth	-	-	-	0	0	7	86	115	126	129	58	-	-	105	626	393
	Rheidol	-	-	-	0	1	28	53	198	229	126	37	-	-	142	814	528
	Dyfi	-	-	-	1	1	28	404	739	563	469	127	-	-	61	2393	2748
	Dysernif	-	-	-	0	14	23	56	120	144	82	16	-	-	5	460	342
	Mawddach	-	-	-	0	0	14	144	243	346	315	75	-	-	169	1306	1067
	Glaelyn	-	-	-	0	75	50	120	115	122	76	41	-	-	129	728	529
	Dwyfawr	-	-	-	0	0	2	74	321	508	393	114	-	-	180	1592	982
	Llyfnî	-	-	-	0	0	0	11	22	187	79	28	-	-	272	511	208
	Selont	-	-	-	0	0	0	2	45	130	97	19	-	-	183	476	334
	Ogwen	-	-	-	0	0	1	3	44	126	31	21	-	-	33	259	181
	Conwy	-	-	-	1	1	20	70	123	159	118	36	-	-	266	794	823
Clwyd	-	-	-	7	5	27	190	398	489	296	94	-	-	132	1548	1272	
Dee	-	-	-	1	4	4	8	22	20	42	19	-	-	4	124	107	
Others	-	-	-	3	33	44	312	824	780	525	238	-	-	235	2794	2483	
	<b>Total</b>	-	-	-	37	229	586	4138	9606	8893	6156	2207	-	3875	35727	28208	
North West	Ribble	-	-	-	-	20	81	207	244	103	64	-	-	0	699	613	
	Wyre	-	-	-	-	1	1	3	38	9	3	-	-	0	55	32	
	Lune	-	-	-	-	28	205	424	545	309	27	-	-	0	1538	1698	
	Kent	-	-	-	-	33	45	98	141	76	20	-	-	0	413	398	
	Laver	-	-	-	-	0	8	40	60	43	6	-	-	0	157	115	
	Duddon	-	-	-	-	0	0	8	6	1	2	-	-	0	17	11	
	Esk	-	-	-	-	7	25	78	14	5	0	-	-	0	129	113	
	Irt	-	-	-	-	0	4	38	29	21	8	-	-	0	100	94	
	Ehen	-	-	-	-	17	12	54	77	54	16	-	-	0	230	166	
	Derwent	-	-	-	-	9	74	78	52	10	3	-	-	0	226	246	
	Ellen	-	-	-	-	2	2	1	9	5	3	-	-	0	22	23	
	Edon	-	-	-	-	27	232	249	161	45	6	-	-	0	770	658	
	Esk(Border)	-	-	-	-	19	189	310	127	25	12	-	-	0	682	491	
	Others	-	-	-	-	0	5	14	64	43	11	-	-	0	157	97	
	<b>Total</b>	-	-	-	-	213	883	1622	1567	749	161	-	-	0	5195	4748	
England and Wales															55863	45117	

Key: (a) Migratory trout catch return rates are low. Only a small proportion of total catch is declared.  
(b) Includes 16 fish caught on the Bristol Avon, for which mean weight assumed. Capture date is unknown.

A dash is used to denote months that fall entirely within the annual close season.

Notes: 'Principal rivers' include all rivers supporting commercial fisheries or with mean annual rod catches in excess of 10 salmon or 100 sea trout, plus some smaller rivers selected by RWA's. Catches from tributaries and from minor rivers with a shared estuary are included under the appropriate main river. The catch from remaining rivers in each region is aggregated and recorded under 'others'.

Table 13 Estimated proportions of salmon and grilse in commercial and rod catches by region - 1987 season.

Water Authority	Commercial Catch				Total	Rod Catch				Total
	No. Grilse	% by No. (% by wt)	No. Salmon	% by No. (% by wt)		No. Grilse	% by No. (% by wt)	No. Salmon	% by No. (% by wt)	
Northumbrian(a)	26969	82 (66)	6095	18 (34)	33064	1480	65 (45)	789	35 (55)	2269
Yorkshire (b)	2824	92 (83)	255	8 (17)	3079	47	67 (47)	23	33 (53)	70
Southern (a)	320	63 (43)	185	37 (57)	505	542	64 (45)	298	36 (55)	840
Wessex (a)	449	64 (44)	253	36 (56)	702	472	51 (32)	452	49 (68)	924
South West (b)	13191	95 (92)	637	5 (8)	13828	2406	89 (83)	285	11 (17)	2691
Severn-Trent(a)	1530	52 (34)	1433	48 (66)	2963	347	37 (22)	582	63 (78)	929
Welsh (a)	3050	67 (55)	1485	33 (45)	4535	5036	61 (49)	3166	39 (51)	8202
North West (b,a)	4688	93 (87)	364	7 (13)	5052	3020	80 (67)	761	20 (33)	3781
Total	53021	83 (70)	10707	17 (30)	63728	13350	68 (53)	6356	32 (47)	19706

Key: Full details of the methods of calculating age composition are given in the text:  
(a) Catch data stratified. Age composition estimated from age/weight key.  
(b) Catch data not stratified. Age composition derived from the mean weights of salmon and grilse in scale samples.

Table 14 Catches of eels and freshwater fish taken in inland waters for human consumption - 1987 season. (As compiled for EIFAC [EIFAC, 1988]).

Water Authority	Nominal commercial catch (tonnes) (a)					Nominal rod catch (tonnes) (b)						
	Eel	Elvers	Char	Shad	Pike	Brown Trout	Rainbow Trout	Eel	Shad	Pike	Grayling	Zander
Northumbrian	-	-	-	-	-	4.2	10.3	-	-	-	-	-
Yorkshire	-	-	-	-	-	-	-	-	-	-	-	-
Anglian	2.14	-	-	-	-	-----204-----	0.13	-	-	1.9	-	0.04
Thames	10.12	-	-	-	-	1.36	23.59	-	-	-	-	-
Southern	30.0	0.1	-	-	4.0	3.0	100	-	-	-	2.0	-
Wessex	-	-	-	-	-	1.16	10.49	-	-	-	-	-
South West	1.78	-	-	-	-	-	-	-	-	-	-	-
Severn-Trent	8.0	20.0	-	1.0	-	40	200	2.0	0.1	0.1	-	0.1
Welsh	5.63	1.18	-	-	-	-	-	-	-	-	-	-
North West	2.74	0.02	2.0	-	-	-	-	-	-	-	-	-
Total	60.41	21.3	2.0	1.0	4.0	-----598.1-----	2.13	0.11	2.0	2.0	2.0	0.14

Key: (a) The eel catch data are based on incomplete returns received by 5 Water Authorities (Anglian, Thames, South West, Welsh, and North West) and estimates for the other areas. Commercial catches of all other species have been estimated.  
(b) Nominal rod catches have been derived from estimates or catch returns, which in some cases may be incomplete. The regional data for brown and rainbow trout include statistics from put-and-take fisheries which will be more accurate.

Notes: The absence of data in any category is not indicative of a zero catch. The above data are collated annually for submission to the European Inland Fisheries Advisory Commission and represent the best available data for England and Wales. However it is stressed that there are few statutory requirements for the collection of catch data for these species and extreme caution should be exercised in their use. (EIFAC, 1988)

Table 15 Nominal catches of salmon in high-seas interception fisheries (tonnes round fresh weight), 1977-87.

Year	Northern Norwegian Sea long-line fishery (north of Lat 67 deg N)	Faroese Area long-line fishery	West Greenland drift net fishery	
	Catch(a)	Catch(b)	Catch	Quota
1977	192	40	1420(d)	1190
1978	124	51	984(d)	1190
1979	116	181	1395	1190
1980	155	703	1194	1190
1981	213	1125	1264	1265
1982	622	680	1077	1253
1983	404	740	310	1190
1984	29	700	297	870
1985	0	566	864(d)	852
1986	0	530	960(d)	909
1987(c)	0	510	956	935

Key: (a) Catches in the N.Norwegian Sea fishery were made predominantly by Danish vessels, however Faroese vessels contributed substantially (259 tonnes) to the catch in 1982.  
 (b) Catches in the Faroes fishery are made predominantly by Faroese vessels, however a relatively small contribution was also made by Danish vessels in the period 1978-84. A small part of the catch in 1981 was made in the N.Norwegian Sea.  
 (c) Provisional figures.  
 (d) For these years an additional 6-19 tonnes were also caught on the E.Greenland coast.

Note: All data converted from gutted weights using appropriate factors.

Acknowledgement: The data presented in this table were extracted from reports of the ICES North Atlantic Salmon Working Group, (ANON., 1988) and are cited by kind permission of ICES.

ERRATUM: DATA FOR THE FAROES FISHERY HAVE RECENTLY BEEN AMENDED. DATA INCLUDED IN THE 1985 & 1986 CATCH STATISTICS REPORTS WERE INCORRECT.

Table 16 Nominal catches of salmon and grilse in home-water fisheries (tonnes round fresh weight), 1977-87.

Year	France	Scotland	Ireland (a)	Northern Ireland (a,b)	Norway	Sweden (West coast)	Finland	USSR	Iceland	Canada (c)	USA	England and Wales (d)	Total
1977	19	1131	1372	110	1488	10	59	NA	230	2545	2.4	345	7311*
1978	20	1323	1230	148	1050	10	37	NA	291	1545	4.1	349	6007*
1979	10	1075	1097	99	1831	12	26	430	225	1287	2.5	261	6356*
1980	30	1134	947	122	1830	17	34	631	249	2680	5.5	360	8040
1981	20	1233	685	101	1656	26	44	450	163	2437	6.0	493	7314
1982	20	1092	993	132	1348	25	54	311	147	1798	6.4	286	6212
1983	16	1221	1656	187	1550	28	57	436	198	1424	1.3	429*	7203*
1984	25	1013	829	78	1623	40	44	593	159	1112	2.0	345	5863
1985	22	913	1595	98	1561	45	49	652	217	1133	2.1	361	6648
1986	28	1271	1730	109	1598	54	38	608	330	1559	1.9	430	7757*
1987(e)	27	910	1239	48	1389	47	49	559	220	1731	1.1	291	6511

Key: (a) Catch on River Foyle allocated 50% Ireland and 50% N.Ireland.  
 (b) Not including angling catch (mainly grilse).  
 (c) Includes estimates of local sales and by-catch.  
 (d) Figures for England and Wales for 1977-82 must be considered as provisional pending the publication by MAFF of validated historic catch data.  
 (e) Provisional figures.

Note: Entries marked with an asterisk (\*) are corrections to the ICES report.

Acknowledgement: The data presented in this table were extracted from the 1988 report of the ICES North Atlantic Salmon Working Group, (ANON., 1988) and are cited by kind permission of ICES.

Table 17 Summary of salmon and grilse commercial catches, 1982-87.

Water Authority	Numbers of fish						% Change		
	1982 (a)	1983	1984	1985	1986	5-Year Mean (1982-86)	1987	'87 on '86	'87 on 5- yr mean
Northumbrian	42767	62944	50685	46652	53898	51389	33064	-39	-36
Yorkshire	7400	14333	8610	10704	9527	10115	3079	-68	-70
Southern	94	151	157	251	461	223	505	+10	+127
Wessex	630	704	1034	629	1046	809	702	-33	-13
South West	5711	8014	7455	9247	10502	8186	13828	+32	+69
Severn-Trent	1738	2699	3376	2423	3300	2707	2963	-10	+9
Welsh	4472	4834	3947	3465	5031	4350	4535	-10	+4
North West	3944	8489	7957	2559	6682	5926	5052	-24	-15
<b>Total</b>	<b>66756</b>	<b>102168</b>	<b>83221</b>	<b>75930</b>	<b>90447</b>	<b>83704</b>	<b>63728</b>	<b>-30</b>	<b>-24</b>

Key: (a) Provisional figures pending the publication by MAFF of validated historical catch data.

Table 18 Summary of migratory trout commercial catches, 1982-87.

Water Authority	Numbers of fish						% Change		
	1982 (a)	1983	1984	1985	1986	5-Year Mean (1982-86)	1987	'87 on '86	'87 on 5- yr mean
Northumbrian	32275	34012	43541	29619	24610	32811	30345	+23	-8
Yorkshire	23704	26057	20535	21160	23107	22913	18994	-18	-17
Southern	317	159	156	496	163	258	327	+101	+27
Wessex	914	651	527	384	359	567	410	+14	-28
South West	6479	7356	9261	4907	3482	6297	8570	+146	+36
Welsh	7804	8566	10937	5097	5098	7500	4878	-4	-35
North West	7844	7710	10742	6467	5633	7679	6032	+7	-21
<b>Total</b>	<b>79337</b>	<b>84511</b>	<b>95699</b>	<b>68130</b>	<b>62452</b>	<b>78026</b>	<b>69556</b>	<b>+11</b>	<b>-11</b>

Key: (a) Provisional figures pending the publication by MAFF of validated historical catch data.

Table 19 Summary of salmon and grilse rod catches, 1982-87.

Water Authority	Numbers of fish							% Change	
	1982 (a)	1983	1984	1985	1986	5-Year Mean (1982-86)	1987	'87 on '86	'87 on 5- yr mean
Northumbrian	611	872	572	1100	1116	854	2269	+103	+166
Yorkshire	113	48	39	104	65	74	70	+8	-5
Thames	-	10	6	11	9	-	5	-44	-
Southern	705	730	960	905	1191	898	840	-29	-6
Wessex	649	923	1045	916	1452	997	924	-36	-7
South West	1660	1816	1652	3173	3763	2413	2691	-28	+12
Severn-Trent	775	969	545	1256	1254	960	929	-26	-3
Welsh	6287	7381	3802	8876	8498	6969	8202	-3	+18
North West	2695	2062	2400	3260	2999	2683	3781	+26	+41
<b>Total</b>	<b>13495</b>	<b>14811</b>	<b>11021</b>	<b>19601</b>	<b>20347</b>	<b>15855</b>	<b>19711</b>	<b>-3</b>	<b>+24</b>

Key: (a) Provisional figures pending the publication by MAFF of validated historical catch data.

Table 20 Summary of migratory trout rod catches, 1982-87.

Water Authority	Numbers of fish							% Change	
	1982 (a)	1983	1984	1985	1986	5-Year Mean (1982-86)	1987	'87 on '86	'87 on 5- yr mean
Northumbrian	954	692	1010	675	1256	917	2237	+78	+144
Yorkshire	340	146	256	209	130	216	299	+130	+38
Thames	-	-	-	4	2	-	4	+100	-
Southern (b)	401	247	156	124	2517	689	56	-98	-92
Wessex	1845	2151	1265	1668	2274	1841	1447	-36	-21
South West	9012	8548	5041	4838	5656	6619	10898	+93	+65
Welsh	21632	23561	18386	20868	21308	21151	35727	+68	+69
North West	4557	3812	4446	3993	3739	4109	5195	+39	+26
<b>Total</b>	<b>38741</b>	<b>39157</b>	<b>30560</b>	<b>32379</b>	<b>36882</b>	<b>35543</b>	<b>55863</b>	<b>+51</b>	<b>+57</b>

Key: (a) Provisional figures pending the publication by MAFF of validated historical catch data.  
 (b) Migratory trout returns are unreliable in the Southern Water Authority area. In addition figures for 1986 are believed to include a large number of under-sized fish which were returned to the water.

Table 21 Salmon stocking - numbers of eggs, fry, parr and smolts released - 1987 season.

Water Authority	River	Tributary	Ova	Unfed Fry	Fed Fry	0+ Parr	1+ Parr	Smolts	
Northumbrian	Coquet		-	-	-	25000	-	-	
	Tyne	Main R.	-	-	-	-	20186	-	
		S. Tyne	-	-	-	-	30056	-	
		Rede	-	-	-	20000	40084	-	
N. Tyne		-	-	-	60000	48659	-		
	Total	-	-	-	105000	138987	-		
	Value (£)	-	-	-	15750	41700	-		
Yorkshire	Esk		-	50000	-	-	-	-	
	Value (£)	-	-	1850(a)	-	-	-	-	
Thames	Thames	Main R.	-	-	-	-	27107	-	
		Wey (sth)	-	-	-	-	22560	-	
		Pang	-	-	-	-	7044	956	
		Sunbury	-	-	-	-	4500	-	
		Loddon	-	-	-	-	10960	-	
		Whitewater	-	-	-	-	9730	-	
		Lyde	-	-	-	-	770	-	
		Mindrush	-	-	-	-	4000	-	
		Oikler	-	-	-	-	1000	-	
		Eye	-	-	-	-	1000	-	
		Chess	-	-	-	-	4166	-	
		Lambourne	-	-	-	-	24265	-	
		Inborne	-	-	-	-	9076	-	
		Bripton	-	-	-	-	1200	-	
Priors moor	-	-	-	-	432	-			
	Total	-	-	-	-	100701	28063		
	Value (£)	-	-	-	-	20000	33500		
Southern	Test		-	-	-	8000(b)	-	11000	
South West	Exe	Haddeo	-	-	-	-	-	1500	
		Lyd	-	-	-	-	2534	2170	
		Kensay	-	-	5000	-	-	-	
		Ottery	-	-	5000	-	-	-	
		Fouey	Main R.	-	-	-	-	-	2219
			Cardinham	-	-	-	4254	5804	1587
	Total	-	-	10000	4254	8418	7476		
	Value (£)	-	-	2500	2127	4209	11214		
Severn-Trent	Severn	Main R.	-	-	7000	-	-	-	
		Camlad	-	-	7000	-	-	-	
		Total	-	-	14000	-	-	-	
	Value (£)	-	-	2500	-	-	-		
Welsh	Hye	Main R.	-	11000	-	-	-	-	
		Bidno	-	12000	-	-	-	-	
		Scithwen	-	10500	-	-	-	-	
		Bech Howey	-	16500	-	-	-	-	
	Usk	Llynfi	-	4000	-	-	-	-	
		Main R.	-	-	-	-	-	14693	
		Llidau	-	9000	-	-	-	-	
		Hydfa	-	9000	-	-	-	-	
		Tacrell	-	9000	-	-	-	-	
		Nant Cwm Llvch	-	8000	-	-	-	-	
		Shymey	-	-	-	-	-	2063	
	Taff	-	-	-	-	-	9204		
	Tawe		-	-	-	-	15000	-	
		Mawddach	-	-	5000	-	-	-	
	Conwy	Wnion	-	-	16500	-	-	-	
		Lledr	-	-	19500	-	-	-	
	Dee	Tryweryn	-	90000	-	-	-	-	
		Alwen	-	75000	60000	-	3500	-	
		Celrw	-	175000	-	-	14000	450	
Various		-	110000	-	-	-	-		
	Total	-	539000	101000	-	35500	26490		
	Value (£)	-	32340	12120	-	42070	31788		
North West	Ribbles (system)		1350	76455	-	-	19500	1050	
			650	25000	-	-	-	-	
	Lune (system)		276280	465966	3000	1000	1000	-	
			-	-	-	-	2000	-	
	Kent	-	13400	-	-	-	-		
	Gilpin	-	5500	-	-	-	-		
	Winster	-	5500	-	-	-	-		
	Buddon	-	33000	-	-	-	-		
	Annas	-	-	5000	-	-	-		
	Esk	-	-	15000	-	-	-		
	Mite	-	-	3000	-	-	-		
	Irt	-	-	15000	-	-	-		
	Calder	-	-	20000	-	-	-		
	Ehen	-	-	20000	-	-	-		
Derwent (system)	-	-	237000	25000	-	-			
Eden (system)	-	-	359000	14000	10850	35504			
	Total	278280	624821	679000	40000	33350	36554		
	Value (£)	9665	28950	39300	4000	17505	46535		
England and Wales									
	Total	278280	1213821	804000	157254	316958	109583		

Key: (a) 50000 ova purchased jointly by Whitby Coblemen's Association, Egton Estates and YWA. Fed to unfed fry before release.  
(b) Private stocking, numbers estimated.

Notes: Values specified are estimated figures.

1+ Parr are those stocked out on or after 1st January in the year after they hatched.

**RECENT DATA REPORTS**

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|--------|--|
| No. 1  | NEADS 6 first deployment, October 77-June 78   |
| No. 2  | Charlie-Gibbs Fracture Zone array, October 1977-July 1978  |
| No. 3  | Current meter observations from the Porcupine Abyssal Plain, June 1979-June 1980   |
| No. 4  | Current meter observations near the Sellafield pipeline, May 1981-December 1983  |
| No. 5  | Salmon and migratory trout fisheries statistics for England and Wales, 1983  |
| No. 6  | Marine environment data inventory for the Bay of Biscay, Celtic Sea and west of Ireland, March-July 1977                     |
| No. 7  | Salmon and migratory trout fisheries statistics for England and Wales, 1984  |
| No. 8  | Current meter observations near the Porcupine Bank, 1981-1983  |
| No. 9  | Salmon and migratory trout fisheries statistics for England and Wales, 1985  |
| No. 10 | Length-weight relationships for commercial fish species and conversion factors for various presentations                     |
| No. 11 | Post-Chernobyl monitoring of live lambs for <sup>134/137</sup> Cs contamination in Cumbria and North Wales, June-July 1986   |
| No. 12 | Salmon and migratory trout fisheries statistics for England and Wales, 1986  |
| No. 13 | Investigation of radiation exposure pathways from liquid effluents at Hinkley Point power station: local habits survey, 1986 |
| No. 14 | Current meter observations near the Sellafield pipeline, 1984-1986   |
| No. 15 | An assessment of radiation exposure due to liquid effluents from Hinkley Point power stations                                |

Year	Stocking	Salmon	Trout	Other	Total
1981	1000	500	200	100	1800
1982	1200	600	250	120	2170
1983	1500	750	300	150	2700
1984	1800	900	350	180	3230
1985	2000	1000	400	200	3600
1986	2200	1100	450	220	3970