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NRA

SUMMARY OF FISHERIES STATISTICS 1990

NRA NORTH WEST 66

ENVIRONMENT AGENCY



128337

SUMMARY OF FISHERIES STATISTICS. 1990

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NATIONAL RIVERS AUTHORITY,
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statistics
AGVW 1990 .00

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1. CATCH STATISTICS

1.1 Rod and Line - Information from Anglers' returns

1.1.1 Salmon Rod Catches by River and Month 1990

RIVER	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	TOTAL	AVERAGE WEIGHT (lb)	DAYS EFFORT
Border Esk (England)	-	-	1	2	1	4	13	28	171	122	342	9.54	1373
Eden	12	19	72	59	55	69	74	162	586	414	1522	9.41	14794
Derwent	-	-	-	2	-	7	29	67	381	385	871	8.37	2809
Cocker	-	-	-	-	-	-	-	-	4	4	8	9.59	118
Ellen	-	-	-	-	-	-	-	-	3	25	28	6.16	120
Ehen	-	-	-	-	2	1	6	6	17	68	100	6.90	1637
Calder	-	-	-	-	-	-	-	-	-	5	5	7.55	143
Irt	-	-	-	-	-	-	1	2	16	19	38	6.66	850
Esk	-	-	-	-	-	-	2	3	4	12	21	5.93	271
Duddon	-	-	-	-	-	1	2	1	18	15	37	6.64	347
Leven & Brathay	-	-	-	-	-	1	10	6	22	34	73	7.66	342
Crake	-	-	-	-	-	-	3	-	14	21	38	6.58	466
Kent	-	2	3	3	11	17	46	36	67	104	289	6.97	3130
Lune	-	-	1	3	6	23	65	43	361	652	1154	8.95	9559
Others Northern Area (Annas, Keer, Bela)	-	-	-	-	-	1	-	-	5	5	11	5.69	343
Ribble	-	1	4	4	7	2	15	19	64	117	233	8.71	6422
Hodder	-	-	-	-	-	2	11	6	15	31	65	8.32	1953
Wyre	-	-	-	-	-	-	-	-	1	1	2	4.75	455
TOTALS	12	22	81	73	82	128	277	379	1741	2034	4837	7.47	45,732

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1.1.1 Salmon Rod Catches, Historical Data

RIVER	1986		1987		1988		1989		1990	
	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)
Border Esk (England)	267	9.42	139	8.21	304	8.32	252	8.33	342	9.54
Eden	756	10.13	839	9.49	1237	9.16	1046	8.49	1522	9.41
Derwent	532	8.89	803	8.88	1449	8.33	941	8.41	871	8.37
Cocker	25	7.88	21	7.67	12	8.20	27	6.94	8	9.59
Ellen	12	6.17	29	5.83	41	7.03	32	6.92	28	6.16
Ehen	77	7.41	117	6.95	265	7.22	187	6.41	100	6.90
Calder	4	9.38	4	5.12	23	6.54	48	6.78	5	7.55
Irt	77	7.47	48	7.38	106	7.32	116	6.94	38	6.66
Esk	43	10.71	25	11.77	51	7.64	11	4.91	21	5.93
Duddon	38	6.73	28	7.34	47	7.44	20	7.22	37	6.64
Leven	33	6.83	46	6.67	151	6.66	42	6.54	73	7.66
Crake	30	5.93	22	5.99	88	6.26	34	6.28	38	6.58
Kent	239	6.31	179	7.98	338	6.79	200	5.59	289	6.97
Others,										
Northern area	-	-	1	8	-	-	14	5.36	11	5.69
Lune	485	8.77	874	8.11	1434	8.26	683	8.15	1154	8.95
Ribble	368	9.67	492	8.21	625	9.02	199	8.03	233	8.71
Hodder	84	9.96	94	10.07	149	8.96	69	9.30	65	8.32
Wyre	2	12.00	19	6.55	107	7.74	6	5.33	2	4.75
Totals and average weights	3080	8.99	3782	8.55	6428	8.44	3927	6.99	4837	7.47

1.1.2 Migratory Trout Rod Catches by River and Month - 1990*

RIVER	MAY	JUNE	JULY	AUG	SEPT	OCT	TOTAL	AVERAGE WEIGHT(lb)
Border Esk (England)	2	32	70	3	26	-	133	1.91
Eden	26	92	69	69	104	10	370	2.13
Derwent	-	18	15	22	26	6	87	2.19
Cocker	-	2	-	-	-	-	2	1.75
Ellen	-	-	-	-	-	2	2	3.25
Ehen	1	10	17	9	12	9	58	2.12
Calder	-	-	-	-	-	-	-	-
Irt	-	-	1	2	20	14	37	1.81
Esk	-	-	21	12	6	-	39	2.44
Duddon	-	3	2	1	8	1	15	2.25
Leven & Brathay	7	7	12	6	33	8	73	2.09
Crake	-	2	8	7	8	3	28	1.67
Kent	4	16	43	60	100	13	236	1.74
Lune	15	119	193	117	177	75	696	2.29
Others, Northern Area	-	1	-	1	6	2	10	2.25
Ribble	5	8	34	29	43	17	136	1.94
Hodder	-	26	79	80	66	4	255	2.47
Wyre	2	3	3	1	4	-	13	1.32
TOTALS	62	339	567	419	639	164	2190	2.10

*NOTE: See table 1.1.1. for effort data.

1.1.2 Migratory Trout Rod Catches - Historical Data

RIVER	1986		1987		1988		1989		1990	
	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)
Border Esk (England)	639	1.74	682	1.59	903	1.70	230	1.82	133	1.91
Eden	478	1.93	770	1.88	1327	2.07	677	2.13	370	2.13
Derwent	210	2.82	218	2.43	136	2.44	155	2.20	87	2.19
Cocker	8	9.75	8	1.69	6	2.45	2	0.99	2	1.75
Ellen	4	0.94	22	2.32	10	2.80	11	2.16	2	3.25
Ehen	244	2.05	230	1.59	125	2.80	104	2.11	58	2.12
Calder	12	1.00	-	-	3	1.75	6	2.29	-	-
Irt	41	2.99	100	2.08	106	2.08	63	2.44	37	1.81
Esk	45	1.51	129	1.93	93	2.31	21	3.17	39	2.44
Duddon	15	1.57	17	1.37	25	2.23	17	1.47	15	2.25
Leven	137	1.72	124	1.63	148	1.87	36	1.67	73	2.09
Crake	35	1.23	50	1.42	86	1.81	73	1.89	28	1.67
Kent	186	1.65	413	2.09	361	2.16	244	1.92	236	1.74
Lune	1115	1.88	1,538	2.25	1855	2.14	1083	2.11	696	2.29
Others, Northern Area	31	2.02	157	1.38	71	1.56	33	2.43	10	2.25
Ribble	315	2.05	372	1.83	301	2.10	98	2.10	136	1.94
Hodder	259	1.94	327	2.03	547	2.36	282	2.28	255	2.47
Wyre	-	-	55	1.29	71	2.59	4	2.87	13	1.32
Totals and average weights	3774	1.94	5212	1.96	6174	2.04	3139	2.11	2190	2.10

7.

1.2 Commercial Catches by Nets and Fixed Engines

1.2.1 Commercial Salmon Catches by River/District and Month - 1990

RIVER/DISTRICT (TYPE OF NET)	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEPT	TOTAL	AVERAGE WEIGHT (lb)	EFFORT NO. OF TIDES
Eden & Border Esk	-	2	14	84	162	575	918	128	1880	9.03	5544
Coastal Drift	-	-	-	-	-	80	399	-	479	8.72)	
South & West Cumbria										)	242
Nets & Fixed Engines	-	-	-	-	-	1	5	-	6	4.33)	
Duddon (Draw Nets)	-	-	-	-	-	9	31	-	40	6.84	-
Leven (Lave Nets)	-	-	-	-	3	37	13	-	53	6.45	87
Kent (Lave Nets)*	-	-	1	11	23	87	75	-	197	9.51	155
Lune (Draw Nets)	-	-	-	4	9	14	70	-	97	8.67	99
Lune (Drift Nets)	-	-	-	2	67	449	887	-	1405	7.72	577
Lune (Heave Nets)	-	-	-	43	106	267	764	-	1180	8.59	1591
Ribble (Drift Nets)	-	-	-	9	33	114	83	-	239	11.18	425

*One return outstanding

Total catch, nets and fixed engines 5576 8.80 8780

1.2.1 Commercial Salmon Catches - Historical Data

RIVER	1986		1987		1988		1989		1990	
	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)
Eden & Border Esk	2971	9.54	1999	8.81	880	8.19	1950	7.52	1880	9.03
Coastal Drift	868	7.60	416	7.95	760	6.95	816	6.81	479	8.72
South & West Cumbria nets and fixed engines	11	7.55	-	-	-	-	9	5.28	6	4.33
Duddon	16	9.42	19	9.75	15	8.85	21	9.08	40	6.84
Leven	7	6.71	22	7.94	27	8.07	95	6.88	53	6.45
Kent	61	7.16	26	8.04	102	7.30	357	7.11	197	9.51
Lune Draw Nets	59	8.02	25	8.06	76	7.78	62	5.25	97	8.67
Lune Drift Nets	1497	7.59	1703	7.05	2402	7.17	2,284	7.43	1405	7.72
Lune Heave Nets	758	8.70	344	7.73	580	8.87	1,158	7.42	1180	8.59
Ribble	434	11.09	508	10.36	829	10.62	493	10.89	239	11.18
TOTALS	2559	8.55	6682	8.82	5062	8.22	7,245	7.37	5576	8.80

1.2.2 Commercial Catches of Migratory Trout by Nets and Fixed Engines 1990

RIVER/DISTRICT (TYPE OF NET)	APRIL	MAY	JUNE	JULY	AUG.	SEPT	TOTAL	AVERAGE WEIGHT (lb)
Eden & Border Esk	13	442	1451	246	41	-	2193	2.73
Coastal Drift	-	-	-	2	-	-	2	4.13
South & West Cumbria								
Nets & Fixed engines	-	-	2	5	6	-	13	7.04
Duddon (Draw Nets)	-	-	-	2	1	-	3	3.66
Leven (Lave Nets)	-	-	3	10	1	-	13	4.34
Kent (Lave Nets)*	-	-	11	6	3	-	10	5.40
Lune (Draw Nets)	-	1	13	9	-	-	23	3.83
Lune (Drift Nets)	-	8	124	67	11	-	210	5.52
Lune (Heave Nets)	-	103	508	140	27	-	778	3.70
Ribble (Drift Nets)	-	-	12	14	-	-	26	7.32
Total Catch, nets and fixed engines							3271	4.67

*1 return outstanding

1.2.2 Commercial Catches of Migratory Trout - Historical Data

RIVER	1986		1987		1988		1989		1990	
	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)	No.	Av.Wt. (lb)
Eden and Border Esk	4707	2.40	5109	2.42	4949	2.16	3847	3.08	2193	2.73
Coastal Drift	34	5.62	12	4.88	7	4.35	8	4.43	2	4.13
South & West Cumbria Nets and fixed engines	49	2.48	-	-	-	-	38	3.72	13	7.04
Duddon	31	3.17	73	2.42	155	2.62	187	3.40	3	3.66
Leven	6	3.50	6	4.00	28	5.18	50	4.01	13	4.34
Kent	13	4.73	5	5.40	27	4.42	80	4.32	10	5.40
Lune Draw Nets	21	2.60	32	2.67	118	3.02	120	3.09	23	3.83
Lune Drift Nets	192	5.17	172	4.74	164	4.77	187	4.78	210	5.52
Lune Heave Nets	557	3.18	605	3.14	1742	2.86	1172	3.23	778	3.70
Ribble	23	7.51	18	8.64	17	8.20	22	4.84	26	7.32
	5633	2.62	6032	2.59	7207	4.17	5711	3.89	3271	4.67

2. FISH CULTURE AND HATCHERY OPERATIONS

2.1 Brood fish collection

	<u>Salmon</u>		<u>Sea Trout</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
<u>Northern Area</u>				
Border Esk (Logan Water)	-	-	32	36
Eden System	72	76	-	-
R. Ellen	-	-	20	5
West Cumbria	41	81	-	-
South West Cumbria	11	28	21	31
Broadrairie Trap (R. Lune)	3	8	-	-
Forge Weir Trap (R. Lune)	165	159	-	3
R. Lune	-	-	17	40
South Cumbria Rivers	-	-	65	100
<u>Central Area</u>				
Ribble	21	38	-	-
Hodder	25	35	17	16

2.2 Hatchery Operations and Salmon and Sea Trout Stocking

2.2.1 Warwick Bridge and Cockermouth Hatcheries.*

2.2.1.1 Numbers of ova laid down

<u>Species</u>	<u>No. of Ova</u>	<u>Source</u>
Salmon	33,300	Caldew
Salmon	358,662	Eden
Salmon	87,700	Ehen
Salmon	299,200	R Derwent
Sea Trout	50,000	Border Esk
Sea Trout	41,600	Ehen
Sea Trout	50,000	Bought in ex Northumbria

* Ova initially laid down at these hatcheries and then transferred at eyed stage to Holmwrangle Hatchery (Lakeland Smolt Ltd) for hatching and growing on to fed fry stage.

2.2.1.2 Salmon and Sea Trout Planting
ex-Holmwrangle 1990

<u>River</u>	<u>Fed Fry</u>			<u>Eyed Ova</u>
	<u>Salmon</u>	<u>Sea Trout</u>	<u>Pre-Smolt Salmon</u>	
Greta	120,000	-	-	-
Cocker	40,000	-	-	-
Marron	48,000	-	-	-
Derwent	76,000	-	-	-
Ellen	-	6,000	-	-
Wampool	-	12,000	-	-
Eden	204,800	-	-	-
Eamont	22,000	-	-	-
Irthing	90,000	-	-	-
Caldew	-	-	20,000	20,000
Ehen	84,100	-	-	-

2.2.2 Middleton Hatchery2.2.2.1 Numbers of ova laid down, 1990

<u>Species</u>	<u>No. of ova</u>	<u>Source</u>
Salmon	1,074,930	Lune
Salmon	74,900	S.W. Cumbria
Sea Trout	226,330	South Cumbria Rivers
Sea Trout	113,990	Lune

2.2.2.2 Salmon and Sea Trout Planting
Ex-Middleton, 1990

<u>River</u>	<u>Unfed Fry</u>		<u>Fed Fry*</u>	
	<u>Salmon</u>	<u>Sea Trout</u>	<u>Salmon</u>	<u>Sea Trout</u>
Eea	-	5,000	-	-
Bela	-	6,800	-	-
Keer	-	8,000	-	-
Kent	-	11,650	-	-
Lune	-	-	581,441 +	-
Greta	-	-	33,731 +	-
Wenning	-	-	26,247 +	-
Hindburn	-	-	42,229 +	31,000

* Of which 472,967 were grown from eyed ova to fed fry at Lakeland Smolt Ltd.

+ Of which 10,700 were microtagged prior to stocking

2.2.3 Witcher Well Hatchery

2.2.3.1 Numbers of Ova laid down

<u>Species</u>	<u>No of Ova</u>	<u>Source</u>
Salmon	172,114	Ribble *
Salmon	148,679	Hodder *
Salmon	56,386	Ribble
Salmon	92,321	Hodder
Sea Trout	55,000	Hodder

* These ova laid down at Witcher Well then transferred as eyed ova to Lakeland Smolt Limited for growing on to fed fry stage.

2.2.3.2 Salmon and Sea Trout Planting ex Holmwrangle 1990

River	<u>Fed Fry</u>		<u>0 + Parr</u>
	<u>Salmon</u>	<u>Sea Trout</u>	<u>Salmon</u>
Ribble	91,300	-	22,000 + 2,000
Hodder	41,006	-	22,000 +
Wyre	-	-	6,000

2.2.3.3. Salmon and Sea Trout Planting ex Witcher Well - 1990

River	<u>Fed Fry</u>		<u>0 + Parr</u>
	<u>Salmon</u>	<u>Sea Trout</u>	<u>Salmon</u>
Ribble	11,000	-	16,604
Hodder	20,281	12,564	14,309 +
Wyre	11,541	6,872	

+ Tagged Fish

2.2.4 Salmon Planting carried out by NRA
from Non-NRA Hatchery Sources

<u>Date</u>	<u>Receiving River</u>	<u>No.</u>	<u>Size</u>	<u>Source</u>
15-19.6.90	Coniston Lake	4,600	45 gm	McConnell

1990

3. RESTOCKING WITH TROUT AND FRESHWATER FISH

3.1 Non-Migratory Trout

3.1.1 Stocking by Angling Associations and Fish Farms not excluded under Section 34 of the Salmon Act 1986.

<u>Area</u>	<u>No. of Section 30 Consents Issued</u>	<u>Total No. of Brown Trout</u>	<u>Total No. of Rainbow Trout</u>	<u>Total No. of Salmon</u>
Northern Area	145	30,675	807,271	50
Central Area	180	21,179	91,325	65
Southern Area	90	8,745	38,693	760

3.1.2 Non-migratory trout stocking carried out by NRA 1990

3.1.2.1 Northern Area

<u>Date</u>	<u>Stocking Location</u>	<u>Brown Trout</u>	
		<u>Number</u>	<u>Size</u>
20.3.90	R. Lune, Halton	200	11" - 13"
6.4.90	R. Keer	600	7"
6.4.90	R. Wenning	50	4" - 6"

3.1.2.2 Central Area

<u>Date</u>	<u>Stocking Location</u>	<u>Brown Trout</u>	
		<u>Number</u>	<u>Size</u>
21.1.90	Colne Water	2,5003	5" - 7"
27.3.90	" "	14,000	Fry
28.3.90	" "	250	11" - 13"
17.5.90	" "	750	7" - 9"
24.5.90	" "	750	7" - 9"
25.9.90	" "	800	9" - 11"

3.1.2.3 Southern Area

<u>Date</u>	<u>Stocking Location</u>	<u>Brown Trout</u>	
		<u>Number</u>	<u>Size</u>
	NIL		

3.2 Freshwater Fish
 3.2.1 Stocking by Angling Associations, etc. 1990.

Numbers stocked of each species

	Northern Area	Central Area	Southern Area
No. of Section 30 Consents Issued	22	46	83
Roach	2,522	10,796	38,966
Rudd	2,556	2,278	2,424
Bream	641	3,450	25,742
Chub	-	-	200
Carp	1,004	1,914	4,897
Crucian Carp	680	330	3,009
Grass Carp	-	-	350
Koi Carp	-	-	60
Gold Carp	-	-	63
Silver Carp	-	-	100
Mirror Carp	601	618	-
Eels	1,400	-	-
Tench	527	438	1,114
Barbel	-	100	-
Perch	1,114	700	152
Golden Orfe	-	610	610
Pike	1	31	-
Mixed Coarse	2,030	5,300	-
Goldfish	-	-	29
Gudgeon	-	-	1,011
Wels	-	-	20
Char	-	-	100

3.2.2 Total number of fish transfers carried out by NRA on behalf of Angling Clubs 1990

	Northern Area	Central Area	Southern Area
No. of Transfers	1	8	32
Roach	4	195	208,250
Rudd	4	-	2,530
Bream	2	4,125	4,600
Chub	6	-	240
Dace	-	-	50
Carp	-	195	4,080
Crucian Carp	4	6,300	700
Trout	-	-	120
Tench	4	-	1,740
Gudgeon	1	-	150
Perch	-	195	1,550
Pike	-	1	318
Mixed Coarse	16	14,300	109,800

3.2.3 Total number of fish rescues carried out by NRA on behalf of Angling Clubs 1990

	Northern Area	Central Area	Southern Area
Area Rescues	-	5	21
Roach	-	2,590	26,250
Rudd	-	-	15,350
Bream	-	-	1,500
Chub	-	-	260
Dace	-	-	50
Carp	-	-	664
Crucian Carp	-	-	350
Trout	-	-	1750
Tench	-	50	440
Gudgeon	-	-	150
Perch	-	50	2,660
Pike	-	10	222
Mixed Coarse	-	2,810	274,700

3.2.4 Fish Grants from NRA Stocks 1990

Area	Association	Receiving Water	Source	Species	No.	Size
Northern Area	-	-	-	-	-	-
Central Area	-	-	-	-	-	-
Southern Area	Stockport A C	River Goyt	Leyland Hatchery	Chub	200	3"-4"

3.2.5 Fisheries surveys carried out in connection with Assessment, Improvement and Development of Fisheries 1990

Area	Electro Fishing	Netting	Biological	Water Analysis	Advisory Visit
Northern Area	3 Surveys 24 Sites	-	-	10	20
Central Area	6 Surveys 35 Sites	5 Surveys 35 Sites	6	10	17
Southern Area	25 Surveys 169 Sites	25	-	48	51

4. FISH MOVEMENT RECORDED AT AUTHORITY FISH COUNTERS 19904.1 River Lune

Month	Broadrairie		Forge Weir, Halton	
	Fish under 4 lb.	Fish over 4 lb.	Fish Under 4 lb.	Fish Over 4 lb
January)		No	90	21
February)		Data	27	-
March	2	-	40	4
April	3	1	106	8
May	8	-	461	138
June	51	2	2,788	465
July	167	7	2,684	665
August	51	5	599	188
September	356	171	1,508	1,198
Oct	361	526	1,311	1,258
Nov)		No	632	1,331
Dec)		Data	36*	244
Total	999	712	10,282	5,520

*Because of flooding, counting after 20th December was incomplete.

4.2 River Kent

Month	Basinghyll	
	Fish under 4 lb	Fish over 4 lb
January	No information for	
February	Jan and Feb.*	
March	15	7
April	45	12
May	225	46
June	955	258
July	1,294	293
August	722	392
September	361	289
October	1,202	464
November	398	335
December	111	120
Total	5,328	2,216

*Data loss due to download fault

River Derwent

Month	Year1	
	Fish under 4 lb	Fish over 4 lb
January	30	94
February	20	16
March	6	18
April	15	54
May	56	396
June	291	1,721
July	247	2,175
August	188	4,791
September	167	2,997
October	157	1,134
November	73	441
December	45	284
Total	1,305	14,121

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4.4 River Esk (S W Cumbria)

Month	Cropple How	
	Fish under 4 lb	Fish over 4 lb
January	82	18
February	13	8
March	2	3
April	6	2
May	10	2
June	107	121
July	154	88
August	208	65
September	148	64
October	289	151
November	237	282
December	-	-
<hr/>		
Total	1,256	804

No data for December due to power supply problems.

4.5 R. Ribble Catchment

Month	Locks Weir R. Ribble		Waddow Hall R. Ribble Ø		Winckley Hall R. Hodder*		Garstang R. Wyre Ø	
	Under 4 lbs	Over 4 lbs	Under 4 lbs	Over 4 lbs	Under 4 lbs	Over 4 lbs	Under 4 lbs	Over 4 lbs
April	-	-	-	-	3	14	-	-
May	-	-	-	-	109	65	-	-
June	-	1	14	1	395	266	159	127
July	-	108	105	113	304	205	166	153
Aug	-	8	10	6	121	84	313	107
Sept	-	71	135	213	160	112	267	25
Oct	-	142	414	335	188	203	222	39
Nov	-	114	105	61	74	97	201	16
Dec	-	26	30	28	32	61	386	13
TOTAL	-	470	813	760	1386	1107	1714	480

NOTES:-*Winckley Hall - River Hodder

Because of bed rock conditions at counter, small fish counts are underestimating.

Ø New Logie Counters to be installed during 1991 at Garstang (R. Wyre) and Waddow (R. Ribble).

4.6 River Leven

New counter currently under construction - completion due June 1991.

4.7 River Duddon

Duddon Hall Counter suffered considerable structural damage during storms and will not be replaced.

5. COUNTS OF SALMON AND SEA TROUT SPAWNING REDDS5.1 Northern Area

<u>River/Area</u>	1986 Salmon S/Trout	1987 Salmon S/Trout
Eden d/s Eden Grove (high river levels)	No counts	No counts
Eden d/s Eden Brow)		high rivers
Eden u/s Temple Sowerby	204 - (on tribs only)	505 -
Eden d/s Temple Sowerby	No counts high river levels	No counts high river levels
Eamont		451
Lowther		261
Irthing	No counts) high river)	No counts) high river)
Gelt	levels)	levels)
Border Esk)		
)		
Black & White Esk)		
Liddell		

Whampool/Waver

Note:

In all these years high and turbid river conditions made are undoubtedly incomplete.

1988 Salmon S/Trout	1989		1990	
	Salmon	S/Trout	Salmon	S/Trout
No counts high rivers	-	-	-	-
	-	-	-	-
110 (Tribs 41) (only limited amount of counting possible)	270	-	140	100
	96	-	-	-
	312	-	-	-
	151	-	201	-
Counting not possible	16	-	24	-
	-	-	-	-
	-	-	215	520
	-	-	150	287
	35	-	37	23

redd counting difficult or impossible, and the figures given above

5.1 Northern Area (cont'd)

<u>River/Area</u>	1986		1987		1988		1989		1990		
	Salmon	S/Trout	Salmon	S/Trout	Salmon	S/Trout	Salmon	S/Trout	Salmon	S/Trout	
Ellen	84	-	70	64	210	171	202	15	111	199	
Derwent	69	46	96	56	144	26	424	115	900	83	
Marron	44	58	61	249	104	50	105	67	54	127	
Cocker	104	74	144	103	187	16	189	30	65	-	
Greta	64	88	129	70	109	16	75	-	35	12	
Ehen	25	-	288	1192	39*	98)				
							)	272	255	176	243
Keekle (Dub Beck)	No counts due to flooding		Nil	23	-*	-	)			-	17
Calder	No counts due to flooding		30	142	9*	27		58	30	67	28
Irt	96	13	340	300	395	287	)		184	38	
							)	312	75		
Bleng	14	-	65	255)			-	-
Esk	No counts due to flooding		57	124	64	257		131	355	76	93
Mite	17	-	118	195			) Heavy Flows	16	89	-	-
							) prevented				
Annas	14	-	36	28			) counting	22	42	-	-

* Counts incomplete due to sickness absences of staff.

Note

The majority of counts for Rivers Ellen, Derwent, Marron, Cocker and Greta were made only on tributaries and shallower waters in 1986 due to high river levels.

Central Area

<u>River</u>	1986		1987		1988		1989		1990	
	Salmon	S/Trout	Salmon	S/Trout	Salmon	S/Trout	Salmon	S/Trout	Salmon	S/Trout
Duddon	50	178	63	249	106	390	65	236	101	283
Crake	171	146	127	195	228	373	106	158	188	230
Leven & tribs	35	150	159	305	433	648	131	237	199	386
Eea	47	50	-	423	-	321	-	257	19	211
Winster	46	144	-	291	52	234	-	127	-	223
Gilpin	-	205	-	280	54	323	-	167	5	190
Kent & tribs.	197	479	752	1325	1472	1810	854	672	903	800
Bela	-	25	54	57	45	76	28	42	52	208#
Keer	7	259	13	496	24	677	18	467	10	357
Lune	52	263	521	63	584	17	359	49	310	9
Rawthey	9	53	41	49	48	67	31	22	61	37
Dee	27	62	105	45	100	95	42	24	191	86
Greta	20	24	48	59	74	79	41	77	55	24
Wenning	27	105	44	231	89	319	122	339	128	146
Other Lune tribs.	8	12	102	560	158	509	55	218	78	182
Ribble	88	104	381	298 *	489	359	198	125	252	212
Hodder	97	-	377	89 *	444	326	25	18	39	140
Wyre	-	-	82	53	399	132	94	2	71	116
Conder	-	-	-	-	-	-	1	77	-	87

* High water hampered counts on the mid and upper Ribble and the Hodder

Some of these will be brown trout - fish pass completed Spring 1990.

5H

6. FISH MORTALITIES 1990

6.1 Significant Fish Kills Reported

6.1.1. Fish Mortalities for 1990 Northern Area

<u>Date</u>	<u>Location</u>	<u>No.</u>
7.3.90	Mosspaul/Eveswater	17,000
15.5.90	Crummock Beck	1,500 700
30.5.90	Angill Beck	100
7.6.90	Woodbeck, Lamplugh	7,100
14.6.90	Newton Beck (R. Lune)	186 5 1
16.6.90	Blind Beck, Crosby Garret	200
17.6.90	River Keer	276 14
16.7.90	Cant Beck (R. Lune)	14 10
2.8.90	Wiza Beck	750
6.8.90	Goodenburgh Lake	100
8.8.90	R. Petteril	2,360
15.8.90	Black Beck/Kirk Beck	1,400
16.8.90	Bessy Beck (R. Lune)	500

<u>Species</u>	<u>Cause</u>
Salmon/Sea Trout	Suspended Solids
Sea Trout Brown Trout	Slurry
Brown Trout/Grayling	Unknown
Salmon/Sea Trout	Slurry
Brown Trout Salmon Parr Sea Trout	Silage Liquor
Salmon/Sea Trout	Unknown
Trout Salmon	Silage
Brown Trout Bullheads	Silage
Sea Trout	Sewage
Rainbow Trout	Low O ₂
Brown Trout	Farm Effluent
Salmon/Brown Trout	Chemical Pollution
Rainbow Trout (Broodstock)	Silage

75H
6.1.1. Fish Mortalities For 1990 Northern Area continued:-

<u>Date</u>	<u>Location</u>	<u>No.</u>
21.8.90	Lancaster Canal	920 70 26 1
25.8.90	Black Beck/Kirk Beck	423 1,890 2 60 25
6.9.90	River Kent	118 16
15.9.90	River Kent	43 12 20
30.9.90	River Calder	260 1 1,083 1 4

Species

Cause

Roach
Perch
Pike
Carp

Silage

Juv. Salmon
Trout
Stoneloach
Eels
Lampreys

Industrial
Effluent

Salmon/Sea Trout
Brown Trout

Poison

Salmon & Trout Fry
Salmon & Trout
Bullhead/Stoneloach

Industrial
Effluent

Juv. Salmon
Adult Salmon
Trout
Eel
Lampreys

Industrial
Effluent

Fish Mortalities For 1990 Central Area

<u>Date</u>	<u>Location</u>	<u>No.</u>
8.5.90	Butts Beck, Barnoldswick	309
13.5.90	Taylor Park Lake St. Helens	200
15.5.90	Victoria Park Lake St. Helens	38
15.5.90	Taylor Park Lake St. Helens	42
27.5.90	River Darwin	1,000 25 10 10 3
3.6.90	Huyton Lodges Adlington	150 40 10 4 2
18.6.90	River Loud	20 13 1

SpeciesCauseBullheads and
StoneloachTrade effluent
discharge

Roach

Low O₂

Roach

Low O₂

Roach

Spawning
MortalityFlounders
Eels
Dace
Chub
Barbel

Unknown Pollution

Roach
Bream
Carp
Perch
Tench

Unknown

Chub
Brown Trout
Eel

Unknown

Fish Mortalities For 1990 Central Area continued:-

<u>Date</u>	<u>Location</u>	<u>No.</u>
30.6.90	River Ribble	50 20 2
6.7.90	River Brun	50 200 200
14.7.90	Syd Brook, Eccleston	34
23.7.90	Savick Brook	'1,000's'
6.8.90	Sankey Canal Fiddlers Ferry	1,550
6.8.90	Bashall Beck	66 750
13.8.90	Savick Brook	24
24.8.90	Fleetwood Boating Pool	1,250
2.9.90	The Sluice, Southport	43
13.9.90	River Darwen	"Hundreds"
15.9.90	River Ribble Estuary	3,100

SpeciesCause

Flatfish
Roach
Chub

Unknown

Bullheads
Minnows
Stoneloach

Chemical Pollution

Coarse fish, mainly
Roach

Unknown

Small coarse fish

Sewage

Roach

Unknown

Brown Trout
Small coarse fish

Farm effluent

Flatfish

Unknown

Eels and Flounders

Weedkiller

Bream

Sudden water loss

Small coarse fish

Sewage

Flounders, Crabs
Shrimps and Whitebait

Sewage

Fish Mortalities For 1990 Southern Area

<u>Date</u>	<u>Location</u>	<u>No.</u>	<u>Species</u>	<u>Cause</u>
8.1.90	Lodge adjacent to Borden Chemicals, Hollins, Nr. Bury	80	Roach	Fertilizer
16.3.90	R. Croal/Tonge, Bolton.	"thousands of dead fish"		Detergent Foam
19.3.90	Grimsditch Mill Pool Whitley	28	Carp	Unknown
27.3.90	Limey Brook, Loveclough	500	Brown Trout	Chemical Spillage
5.4.90	Rochdale Canal, Chadderton.	22 2 1	Roach Tench Bream	Unknown
20.4.90	Swan Lodge Middleton	10	Mirror Carp	Low O ₂
23.4.90	Blakenhall Trout Pool Nr. Nantwich Crewe	40+	Rainbow Trout	Unknown

Fish Mortalities For 1990 Southern Area continued:--

<u>Date</u>	<u>Location</u>	<u>No.</u>
1.5.90	Bunk Lodge, Bolton	2 8
3.5.90	Trent and Mersey Canal Nr. Northwich	22 1
6.5.90	Trent and Mersey Canal Wheelock	1,000 40
8.5.90	Bridgewater Canal, Stretford Trafford Park	200
8.5.90	Bunk Lodge, Bolton	40
9.5.90	Trent and Mersey Canal	80
18.5.90	Bridgewater Canal Stretford	200 60

SpeciesCause

Bream
Carp

Shot with .22 rifles

Roach
Perch

Boat damage

Gudgeon
Roach

High temps

Mixed Coarse

Unknown

Carp

Unknown

Mixed Coarse

Unknown

Roach
Perch

Unknown

Fish Mortalities For 1990 Southern Area continued:-

<u>Date</u>	<u>Location</u>	<u>No.</u>
19.5.90	Foole Brook - Elton	11
	Railway Flash	4
	Nr. Sandbach	17,000
		1,100
		12
		3,000
		2
5.6.90	Swan Lodge Middleton	20
15.6.90	Holcombe Brook, Summerseat	21
22.6.90	River Irwell, Waterfoot	50
		10
13.6.90	Hesketh Reservoir, Astley Bridge	60
		25
		4
		6
		6

Species

Cause

Mirror Carp
Common Carp
Roach and rudd
Bream
Pike
Gudgeon
Tench

Abattoir Waste

Carp

Unknown

Brown Trout

Textile Waste

Trout
Bullheads

Unknown

Bream
Roach
Carp
Tench
Chub

Pollution of Unknown
Origin

Fish Mortalities For 1990 Southern Area continued:-

<u>Date</u>	<u>Location</u>	<u>No.</u>
9.7.90	Etherow Country Park Compstall	40 120 200 1
8.5.90	Bogart Hole Clough, Manchester	500
27.7.90	Marbury Mere Budworth	26
30.7.90	River Bollin	98
1.8.90	Cheesden Brook, Heywood	379 31 1
2.8.90	Marbury Mere Great Budworth	20
2.8.90	Crompton Paper Mill Lodges, Heywood	2,038 70 18 16 10 322

Species

Cause

Perch
Roach
Bream
Carp

Unknown

Perch and Roach

Unknown

Pike

Unknown

Brown Trout

Unknown

Brown Trout
Stone Loach
Pike

Slurry

Pike

Unknown

Roach
Bream
Pike
Tench
Chub
Perch

Slurry

Fish Mortalities For 1990 Southern Area continued:-

<u>Date</u>	<u>Location</u>	<u>No.</u>
7.8.90	River Spoden, Rochdale	420
9.8.90	Bradshaw Brook	'many' 14
1.9.90	Deans Pond, Swinton.	302 500 4,900 100 218 1
2.9.90	Baddely Mere, Wrenbury	264
9.9.90	Leeds/L'pool Canal, Penketh	50
14.9.90	Plattfields Park Manchester	30

Species

Cause

Roach

Chemical spillage

Small coarse fish
Brown Trout

Chemical spillage

Carp
Tench
Roach
Gudgeon
Crucian Carp
Pike

Vandalism

Roach

Low O₂

Tench
and Roach

Unknown

Mixed Coarse Fish

Possibly algae

Fish Mortalities For 1990 Southern Area continued:-

<u>Date</u>	<u>Location</u>	<u>No.</u>	<u>Species</u>	<u>Cause</u>
28.8.90	Meadow Farm Trout Fishery	2,000	Rainbow Trout	Unknown
1.10.90	Rochdale Canal Littleborough	25	Roach	Chemical Spillage
19.10.90	Swan Lodge, Radcliffe	50	Roach	Unknown
8.11.90	East Lancs Paper Mill Lodges, Radcliffe	260	Roach	Detergent foam
2.12.91	Swinnell Brook at Flax Moss and River Ogden	3,296	Brown Trout	Detergent spillage
		2	Rainbow Trout	
		1,718	Minnows	
		2,120	Sticklebacks	
		597	Bullheads	
		126	Stoneloach	
		4	Roach	
		1	Dace	
2	Pike			

In addition to the above figures there were 42 investigations of reported fish kills where the cause could not be identified and the number of dead fish was less than 20 per incident, as follows:-

Northern Area	8 incidents
Central Area	2 incidents
Southern Area	32 incidents

6.2 Total Numbers of Diseased Fish Removed during 1990

<u>Location</u>	<u>Species</u>
R. Eden	11 Salmon
R. Kent	(1 Grilse (1 Salmon
R. Leven	13 Salmon
Appley Bridge Wigan	(1 Mirror Carp (3 Common Carp
Caldwell Reservoir, Nelson	(1 Rainbow Trout (1 Brown Trout
Lower Ribble	1 Salmon
Paddock Dam, St. Helens	2 Common Carp.

7. DETAILS OF FISHERIES PROSECUTIONS

NATURE OF OFFENCE	SECTION OF OF 1975 ACT	TOTAL CHARGES	DISMISSED	WITHDRAWN NOT SERVED
Illegal Instruments:				
(gaff)	1	8	0	1
(light)		5	0	2
(snatch)		7	0	4
(snare)		5	0	3
(stones)		3	0	0
Unclean fish	2	2	0	1
Unauthorised Weir	7	1	0	0
Close season:				
(salmon)	19	2	0	2
(trout)		1	0	0
(freshwater fish)		10	0	1
Unlicensed instruments (net)	27	28	2	7
(hands)		10	0	4
(stick)		2	1	0
(rod and line)		263	0	20

1990

CONDITIONAL DISCHARGE	ABSOLUTE DISCHARGE	FINES £	COSTS £	COMMENTS
2	0	165	78	1 x 12 month probation order
0	0	150	50.50	
0	0	150	70	1 x 120 hr community service order
0	0	350	0	
1	0	50	20	
0	0	40	12.50	
0	0	100	20.00	
0	0	0	0	
0	0	50	15	
0	3	235	50	
0	0	750	485.50	7 x community service orders totalling 900 hours. 3 imprisonments each of 3 months suspended for 2 years.
1	1	170	0	
0	0	300	0	
3	5	4966	3032.75	

DETAILS OF FISHERIES PROSECUTIONS - cont'd

1990

NATURE OF OFFENCE	STATUTE	TOTAL CHARGES	DISMISSED	WITHDRAWN/ NOT SERVED	CONDITIONAL DISCHARGE	ABSOLUTE DISCHARGE	FINES £	COSTS £	COMMENTS
Angling in Private Waters	Theft Act 1968	11	0	2	0	1	330	50	
Handling Salmon in suspicious circumstances	Salmon Act 1986	9	0	4	1	0	650	100	
Threatening behaviour	Public Order Act 1986	1	1	0	0	0	0	0	
Obstructing a constable	Police Act 1964	2	0	0	1	0	0	0	1 x 12 month probation order
TOTALS UNDER MISCELLANEOUS LEGISLATION		23	1	6	2	1	980	150	
TOTAL: Salmon and Freshwater Fisheries Act 1975		480	5	73	8	11	10,626	5,382.50	
Byelaws		166	2	22	1	12	3,675	1,260.00	
Miscellaneous Legislation		23	1	6	2	1	980	150.00	
TOTALS		669	8	101	11	24	15,281	6,792.50	

NATURE OF OFFENCE	BYELAW	TOTAL CHARGES	DISMISSED	WITHDRAWN/ NOT SERVED	CONDITIONAL DISCHARGE	ABSOLUTE DISCHARGE	FINES £	COSTS £	COMMENTS
Annual close season for salmon and trout (other than rod and line)	1	4	0	2	0	0	40	13.00	
Weekly close time for salmon and trout (other than rod & line)	9	2	0	0	0	0	50	25.00	
Netting in a prohibited area	11	23	1	6	0	10	740	138.00	
Prohibited hookbait	18(i)	78	0	8	0	1	1665	733.50	
Bait not on or attached to hook	18(ii)	35	0	4	0	1	815	215.50	
44. Use of keep net during close season	20	7	0	0	0	0	105	40.00	
Fishing on weirs, fish passes etc.	22	6	0	2	0	0	100	37.50	
Failing to return foul hooked fish	25	3	1	0	1	0	15	10.00	
Fishing in prohibited waters in Kendal	26	6	0	0	0	0	125	37.50	
Prohibited lead weights	27	2	0	0	0	0	20	10.00	
TOTALS UNDER BYELAWS		166	2	22	1	12	3675	1260.00	

DETAILS OF FISHERIES PROSECUTIONS - cont'd

1990

NATURE OF OFFENCE	SECTION OF 1975 ACT	TOTAL CHARGES	DISMISSED	WITHDRAWN	CONDITIONAL DISCHARGE	ABSOLUTE DISCHARGE	FINES £	COSTS £
Obstruction of Bailiff	31	17	1	1	0	0	545	147.75
Failing to state correct name and or address/failing to produce fishing licence	35	116	1	27	1	2	2605	1,400.50
TOTALS UNDER SALMON AND FRESHWATER FISHERIES ACT 1975		480	5	73	8	11	10,626	5,382.50

8. NUMBERS OF ROD AND COMMERCIAL FISHING
LICENCES ISSUED 1990

8.1 Rod and Line

<u>Whole Area</u>	<u>No</u>	<u>Duty</u>	<u>Amount</u>
		£	£
Salmon season	2,107	34.00	70,890
Salmon part season (from 1st June)	2,890	26.00	74,880
Salmon season - reduced duty	755	17.00	12,699
Salmon part season - reduced duty.	710	13.00	9,126
Salmon - 7 day	1,931	8.50	16,363
Migratory trout season	1,330	14.00	17,024
Migratory trout - reduced duty	352	7.00	2,366
Migratory trout - 7 day	503	3.50	1,750
Non-migratory trout season	26,067	6.00	152,916
Non-migratory trout - reduced duty.	5,120	3.00	15,009
Non-migratory trout - 7 day	10,880	1.75	18,918
Freshwater fish and eels - season.	35,247	5.00	174,865
Freshwater fish and eels - reduced duty.	6,541	2.50	15,978
Freshwater fish and eels - 7 day	4,641	1.25	5,695
	<u>99,074</u>		<u>588,479</u>

8.2 Instruments Other Than Rod and Line

Northern Area

	<u>No.</u>	<u>Duty</u> £	<u>Amount</u> (incl. endorsees) £
Whole area - Haaf nets	165	43.00	7,095.00
River Ellen - Haaf nets	1	43.00	43.00
R. Eden District - Coops	2	202.00	404.00
South West Cumbria - Garth	1	225.00	225.80
Public waters within jurisdiction - Drift nets.	4	217.00	870.20
<u>Central Area</u>			
Ribble Estuary - Drift or Hang Nets	6	139.00	836.60
Lune Estuary - Drift or Hang Nets	10	230.00	2,304.60
- Draw or Seine Nets	1	199.00	200.00
- Heave or Haaf Nets	26	89.00	2,314.00
Duddon Estuary - Draw or Seine Nets	3	190.00	572.60
Kent Estuary - Lave nets	8	104.00	832.00
Leven Estuary - Lave nets	6	86.00	516.00
Totals	233	-	16,213.80

Eel Fishing Licences - Whole Area

	<u>Duty</u> £	<u>Licences</u>	<u>No. of Nets</u>	<u>Amount</u> £
Fyke Nets	1.00 per net	17	288	288.00
Traps/Putcheons/ Baskets	11.00 per 25 or part thereof	4	100	44.00
Dip Nets	1.00 per net	37	37	37.00
Fixed eel traps	51.00 per trap	-	-	-
		58	425	369.00

8.3 Numbers of Persons Engaged in Commercial Salmon and Trout FishingType of Net, Etc

	Haaf	Drift	Draw	Lave	Fixed Engine
<u>Northern Area</u>					
Licence Holders	192	14	4	14	2
Endorsees	-	34	18	-	4
<u>Central Area</u>					
Licence Holders	-	6	-	-	-
Endorsees	-	18	-	-	-

8.4 General Licences

Number issued = 9

Total value = £1,894.50

8.5 Temporary Licences (Rod and Line, Freshwater Fish)

Number issued = 100

Total value = £598.00

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