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Scottish Juvenile Salmon Tagging Data  
1965 - 1969

by

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This short report brings up to date the available information (as at 31st January 1970) on the recaptures of Scottish salmon tagged as smolts from 1965 to 1968 and reports the numbers of young salmon tagged during 1969.

Table 1, which supersedes the main table given in ICES/ICNAF Salmon Document 69/5, gives recapture details for each tagging experiment separately and these are summarised for each year, in terms of hatchery-reared and natural smolts in Table 2.

Apart from minor amendments and the addition of recent recaptures in Table 1, one major amendment has been made to the records previously submitted. In the tagging experiments on the North Esk, the fish which are tagged are also marked by the removal of the adipose fin so that fish which have lost their tag and, in the case of the silver tags used in Scotland until recently, fish in which the tag had become completely buried in the flesh, could still be identified. These were included in earlier tables as recaptures of tagged fish. In order to bring the records on the North Esk into line with those for other Scottish tagging experiments, in which the fish are not marked by fin-clipping, the records for the North Esk in Table 1 now only include fish which were identified as being recaptures because they carried a visible tag.

The extent to which the inclusion of these 'adipose-marked' fish influenced the overall recapture rate in home waters is shown in Table 3. These figures are also of interest because they indicate the extent to which tag loss has occurred in this experiment and, presumably, in other experiments using similar tags. It should be emphasised, that, in the case of fish tagged with the small silver plate tag, the 'loss' may be more apparent than real since many of these tags are known to be present although no longer visible because they have become embedded. The Canadian-type tag produced in the United Kingdom for the 1968 smolt tagging proved to have been made of too soft a material and, in some recaptures on the North Esk in 1969, the actual tag was missing and only the monofilament attachment remained. It is hoped that this fault has been rectified in the tags used in 1969.

Table 4 gives details of the juvenile salmon tagged in Scotland during 1969, from which no recaptures as adults have yet been recorded. All were tagged with Canadian-type tags. Because increasing numbers of young salmon are now being tagged outside the smolt season as a normal part of other experiments, the data given in this table have been divided into (a) young salmon tagged as smolts or silvering parr during the normal season (i.e. corresponding to the data in Table 1 for previous years) and, (b) fish tagged as parr outwith the smolt season. Both groups may produce recaptures as adults in the future.

TABLE 1

Year Tagged	Site	Origin	Type of Tag	Number Released	Number Recaptured <sup>a</sup>											
					1966		1967		1968		1969		Total			
					A	B	A	B	A	B	A	B	A	B		
1965	Bran	Natural	Plastic plate	765	1	7	0	5	0	0	0	0	0	0	1	12
	North Esk	Hatchery	Silver plate	3,000	0	19	0	0	0	0	0	0	0	0	0	19
	North Esk	Natural	Silver plate	8,474	8	67	0	42	0	0	0	0	0	8	111	
1966	Bran	Natural	Plastic plate	3,347	-	-	14	110	0	8	0	0	0	14	118	
	Catterline Burn	Hatchery	Silver plate	4,000	-	-	0	1	0	1	0	0	0	0	2	
	North Esk	Hatchery	Silver plate	4,000	-	-	1	12	0	3	0	0	0	1	15	
	North Esk	Natural	Silver plate	5,783	-	-	4	79	1	21	0	2	5	5	102	
	Meig	Natural	Silver plate	5,408	-	-	7	91	0	6	0	0	7	7	97	
	Tay	Natural	Silver plate	134	-	-	0	1	0	1	0	0	0	0	2	
Tweed	Natural	Silver plate	734	-	-	2	0	0	0	0	0	2	0	0		
1967	Bran	Natural	Silver plate	2,700	-	-	-	-	0	27	0	0	0	0	28	
	Meig	Natural	Silver plate	4,179	-	-	-	-	0	40	0	0	0	0	43	
	Girnock Burn	Natural	Silver plate	2,058	-	-	-	-	9	7	0	0	0	9	24	
	North Esk	Natural	Canadian	4,357	-	-	-	-	5	57	1	1	6	6	91	
	Loch Kinardochoy	Natural	Silver plate	4,468	-	-	-	-	1	35	0	0	0	1	46	
		Natural	Silver plate	189	-	-	-	-	0	1	0	0	0	0	1	
	Tummel	Natural	Silver plate	3,042	-	-	-	-	3	1	1	1	4	1	1	
	Ness	Hatchery	Silver plate	4,451	-	-	-	-	0	1	0	0	0	0	1	
	1968	Meig	Natural	Canadian type	4,253	-	-	-	-	-	-	-	-	-	0	20
		Girnock Burn	Natural	Silver plate	280	-	-	-	-	-	-	-	-	-	0	0
North Esk		Natural	Canadian type	1,160	-	-	-	-	-	-	-	-	-	1	2	
		Hatchery	Silver plate	4,995	-	-	-	-	-	-	-	-	-	0	3	
North Esk		Natural	Canadian type	5,322	-	-	-	-	-	-	-	-	3	91		
Loch Kinardochoy		Natural	Silver plate	4	-	-	-	-	-	-	-	-	-	0	0	
		Natural	Silver plate	497	-	-	-	-	-	-	-	-	-	0	0	
Tummel		Natural	Canadian type	1,453	-	-	-	-	-	-	-	-	-	4	1	
Almond		Natural	Silver plate	1,098	-	-	-	-	-	-	-	-	-	0	9	
		Natural	Canadian type	1,628	-	-	-	-	-	-	-	-	-	0	4	

a A - Greenland, B - Home Waters.  
 b The Girnock Burn is an upper tributary of the River Dee (Aberdeenshire).  
 c Loch Kinardochoy is a Perthshire hill loch, draining into the River Tummel (Tay system).  
 d One recapture North of Faroe, not included.  
 e Polyethylene thread attachment, all others silver wire.

Table 2

<u>Year Tagged</u>	<u>Origin</u>	<u>No. Released</u>	<u>Greenland</u>	<u>Recaptures</u>		<u>Total</u>
				<u>Grilse</u>	<u>Home Waters Older Fish</u>	
1965	Natural Hatchery	9,239	9 (0.01) <sup>a</sup>	74	49	123(1.33) <sup>B</sup>
		3,000	0 (0.00)	19	0	19(0.63)
	Overall	12,239	9 (0.01)	93	49	142(1.16)
1966	Natural Hatchery	15,406	28 (0.18)	281	42	323(2.10)
		8,000	1 (0.01)	13	4	17(0.21)
	Overall	23,406	29 (0.12)	294	46	340(1.45)
1967	Natural Hatchery	20,993	20 (0.09)	168	66	234(1.11)
		4,451	0 (0.00)	1	0	1(0.02)
	Overall	25,444	20 (0.08)	169	66	235(0.92)
1968	Natural Hatchery	15,695	8 (0.05)	127	-	127(0.81)
		4,995	0 (0.00)	3	-	3(0.06)
	Overall	20,690	8 (0.04)	130	-	130(0.63)

a Percentage of number released.

Table 3

<u>Year Tagged</u>	<u>Site</u>	<u>Origin</u>	<u>Tag Type</u>	<u>No. Tagged</u>	<u>Home Water Recaptures</u>		
					<u>With Tag</u>	<u>Without Tag</u>	<u>Total</u>
1965	North Esk North Esk	Hatchery Natural	Silver plate	3,000	19(57.6) <sup>a</sup>	14 <sup>b</sup>	33
			Silver plate	8,474	111(48.3)	119 <sup>b</sup>	230
1966	Catterline Burn North Esk North Esk	Hatchery Hatchery Natural	Silver plate	4,000	2(25.0)	6 <sup>b</sup>	8
			Silver plate	4,000	15(22.7)	51 <sup>b</sup>	66
			Silver plate	8,474	102(33.0)	207 <sup>b</sup>	309
1967	North Esk North Esk	Natural Natural	Plastic plate <sup>d</sup>	4,357	91(95.8)	4 <sup>b</sup>	95
			Silver plate	4,468	46(33.6)	91 <sup>b</sup>	137
1968	North Esk North Esk	Hatchery Natural	Silver plate <sup>e</sup>	4,995	3(60.0)	2 <sup>b</sup>	5
			Plastic plate <sup>e</sup>	5,322	91(69.5)	40 <sup>c</sup>	131

a Percentage of total recaptured.

b Includes embedded tags.

c Includes 13 fish where the plate had been lost but the attaching monofilament was still present.

d Tags obtained from Canada.

e U.K. produced Canadian-type tags.

Table 4

<u>Site</u>	<u>River System</u>	<u>Numbers Tagged</u>	
		<u>During Smolt Period</u>	<u>Outwith Smolt Period</u>
		<u>Natural</u>	<u>Natural</u>
Keig	Conon	5,501	
Bran	Conon	1,961	
Girnock	Aberdeenshire Dee	2,734	2,258
Kinnaber and Cruick Burn	North Esk	1,312	4,172
Kinnaber Fish Farm	North Esk		1,200
Invergarry Hatchery	North Esk		1,000
Invergarry Hatchery	Catterline Burn		496
Invergarry Hatchery	Spey		998
Almondbank	Tay	1,749	
Clunie	Tay	2,338	
Loch Kinardoehy	Tay	368	119
		15,963	3,694
			6,549