

ANNUAL MEETING - JUNE 1965Some Preliminary Results of Danish Cod Tagging Experiments in
Greenland Waters in the Years 1946-63.

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Danish pre-war cod tagging experiments in Greenland waters have been reported in details by Hansen, Jensen and Tåning (1935) and by Hansen (1949). The post-war tagging experiments have been reported in tabular form by Hansen in most of the annual reports to ICES and ICNAF series. A detailed analysis of the post-war tagging experiments has, however, not yet been presented. One of the reasons for this is the very great material. In the years 1946-63 altogether 58976 cod were tagged. Per May 1, 1965 as many as 8933 recaptures have been reported.

This big material is filed on punch-cards (punched at the edge for manual sorting). The material, however, is so great, that the most easy way of handling it, is to transfer the recaptures to IBM cards. This is likely to be done within a year. A detailed analysis at the present stage is therefore partly waste of time, and the material is set up here only to meet the recommendation of Panel 1 (Ann. Proceedings Vol.14, p. 22), that results of cod tagging in the Greenland area... be submitted... for assessment of the magnitude of interchange of cod stocks between Subarea 1 and East Greenland and Iceland.

It is, however, most essential to be aware, that the tagging material cannot be used for such assessments as it stands. Two major points must be taken into account here, namely

1. The non-returning of recaptures.
2. The changing fishing intensity in various areas.

Re. 1. A more detailed study of the Danish tagging experiments shows, that there is a big difference in recovering and reporting rate between gears and between nations. It is absolutely necessary to know the magnitude of this error when tagging experiments are used to study migration and mortality. The problem is dealt with in Document No. 36 (this meeting).

Re. 2. Tagging experiments as they stand uncorrected may very well give some ideas of the migration patterns of fish. But when tagging experiments are used - as is the case here - to assess smaller changes in the migration (interchange) between areas, then it is necessary to know the proper changes in fishing intensity (the chance of a tagged fish to be caught is equal to F and $F = cf$). A higher (or lower) percentage of recaptures at Iceland in some years therefore not necessarily indicates a greater (or smaller) migration of cod from Greenland to Iceland. It may as well be a result of higher fishing intensity at Iceland perhaps combined with a better recovering and reporting rate from the fishermen.

Tagging experiments themselves may indicate changes in fishing intensity, but in order to see whether a change in recapture percent in an area ^{outside tagging area} is due to change in migration or to change in fishing intensity (or both) it is necessary to estimate either the migration or the fishing intensity by other means. For the West Greenland area the fishing intensity has been estimated separately (Doc.No. this meeting). It is hoped that German and Icelandic experiments will give an idea of changing in fishing intensity at East Greenland and Iceland. Before such changes are known it is impossible to use the West Greenland tagging experiments for estimating smaller changes in the interchange of cod between West Greenland, East Greenland and Iceland.

It should be mentioned here that other factors than tagging experiments may be used to estimate interchange between stocks. Among such factors ~~changes in~~ age frequencies ^{analysis} may be the most relevant in the Greenland-Iceland case.

As the results of different nations' tagging experiments are likely to be dealt with by a smaller working group at the 1965 ICNAF meeting the Danish experiments are given here in tabular form with minor remarks only and without ^{final} conclusions about the interchange between West Greenland, East Greenland and Iceland.

Table 1 gives a review of the material specified on areas and size of tagged cod. Cod smaller than 50 cm have generally been tagged with Lea tags or smaller plastic tags (nocathene) fixed in front of the dorsal fin, while cod ^{bigger than} above 50 cm have been tagged mainly by Petersen discs fixed in the gill cover or in more recent years in front of the dorsal fin. There is a rather big difference in the recovery between these tags (various contributions in ICNAF Spec.Publ. 4 : McCracken (16), Nielsen (2), Templeman (45), ~~and Pitt (47)~~ Templeman and Pitt (47), Williams(25), Wise (17)) and the experiments are therefore as far as possible grouped in experiments on small cod ^{smaller than} (below 50 cm) and experiments on big cod ^{bigger than} (above 50 cm).

As the interchange of cod stocks between Greenland and Iceland is an interchange of big cod, the greatest interest here is connected to the tagging experiments on cod ^{bigger than} above 50 cm. Furthermore the interchange is believed to take place mainly between offshore stocks. In the first tables (Tables 2 - 6) therefore, only experiments on big cod tagged offshore are dealt with. The figures given in the first columns of these tables are the recaptures actually reported, while corrected figures have been corrected for the non-returning rate at Greenland (but not at Iceland) according to the following conversion factors (see Doc. No. this meeting):

Greenland.	All gears	1
Portugal.	Dory vessels	1 (in 1962 : 3)
"	Trawlers	2 (in 1962 : 3)
Germany.	Trawlers	3
Other nations.	All gears	

The material from experiments before 1953 is too scarce for this correction but the conversion factors in these experiments are most likely to be greater than the factors given above.

The recaptures from Iceland waters are as mentioned not corrected here. Their conversion factors may be 3 (Germany) and 5 (other nations) but the local Icelandic fishing fleet may very well have a better recovering rate (line and net fishing) and reporting rate (frequent landings) than the Icelandic trawlers operating in Greenland waters. It is hoped that tagging experiments at Iceland will give an idea of the non-returning rate in Iceland waters.

Divisions 1A and 1B are combined. By far most of the cod tagged here have been tagged in 1B. Among those tagged in 1A by far the greatest part is tagged at localities close to the border between 1A and 1B.

As can be seen from Tables 1, 5 and 6 the offshore tagging in Divisions 1E and 1F and off East Greenland is rather poor. As to Division 1F the tagging experiments in coastal waters could perhaps be regarded as representing offshore tagging because the Nanortalik Bank goes very close to the shore where the greatest part of tags in 1F have been released.

While the offshore area is well defined (here as waters outside the 3 n.miles limit) it is in some cases difficult to say whether an inshore locality is in coastal waters or in a fjord. Coastal water experiments in this paper are all experiments on localities from where the passage out to offshore area is short and free of narrow or shallow passages. Tagging experiments on such localities are also of interest here, but tagging experiments in fjords are not dealt with, because the fjord experiments are generally quite different from offshore and coastal experiments, partly due to local stock phenomena and partly due to Greenlanders' pound net fishery of which often takes place a substantial part (up to 1/3) of the tagged fish.

The coastal water tagging experiments are given in Tables 7-12. Here again Divisions 1A and 1B are combined and only cod bigger than 50 cm when tagged are regarded.

The material given in Tables 2-12 covers 39,856 (or 2/3) of the post war releases.

Table 13 summarizes the reports from Iceland waters given as per cent of releases. This table apparently shows no major changes in the rate of migration to Iceland from West Greenland between years in the period 1946-63 (provided that fishing intensity and returning rate in Iceland waters do not change considerably between years). The table also compares the figures from the period 1946-63 with the figures from 1924-39 extracted from Table 27 in Hansen (l.c.). The zones used by Hansen fairly well corresponds with the ICNAF divisions and the cod tagged in the pre-war period are nearly all bigger than 50 cm.

Hansen's figures are all bigger than the corresponding figures from 1946-63, except for the East Greenland experiments. The differences between

the West Greenland figures are, however, not great. Hansen's figures for East Greenland tagging ^{is} ~~is~~ roughly about 1/3 of the post-war figures. One could perhaps say, that the interchange between the East Greenland cod stock (at Angmagssalik) and the Iceland stock is likely not to have changed very much and at any rate not so much as the interchange between West Greenland and Iceland stocks. If this theory holds then - perhaps - the figures from East Greenland ^{depression} suggest that the fishing intensity at Iceland in post-war period is about 3 times the pre-war intensity (provided returning rate is unchanged). Before this problem about changes in fishing intensity (and returning rate) at Iceland is solved it is impossible to compare the pre-war figures with the post-war figures.

In order to see the difference in time between tagging release at West Greenland and recapture at Iceland Table 14 gives the figures for tagging experiments in coastal waters of Division 1F (figures from other divisions are too small to be of greater interest here). The size or age of cod ought to be regarded here, but this is not done at the present stage of the analyses. The major part of recaptures at Iceland is generally caught 3 years after release in Division 1F.

Table 15 finally shows the reports from East Greenland. There is absolutely no doubt about an increase in fishing intensity in recent years (Meyer, 1964). The corrected figures in brackets are of course more or less reliable. Any comparisons between years are impossible at the present stage.

/References

References:

- Hansen, P.M., (1949): Studies on the Biology of the Cod in Greenland Waters. Rapp.et Proc. - Verb.Cons.Int.Explor.Mer. 123 : 1-84. Copenhagen.
- Hansen, P.M., Ad.S.Jensen and Å.Vedel Tåning, (1935): Cod Marking Experiments in the Waters of Greenland 1924-1933. Medd.Komm.Danm.Fisk.Havunders. Ser.Fisk., 10, 1 : 1-119. København.
- Horsted, Sv.Aa., (1965): Defects in the Recovering and Reporting of Cod Tagged Defects in the Recovering and Reporting of Cod Tagged by Denmark in Subarea 1. Researched Doc. , ICNAF Ann.M. 1965.
- Horsted, Sv.Aa., (1965): Fishing Activity, Effort and Intensity in Subarea 1. Research Doc. , ICNAF Ann.M. 1965.
- Meyer, A., (1964): German Research Report, 1963, Subarea 1 and Southeast Greenland. ICNAF Redbook, 1964, 2 : 42-49. Dartmouth.
- McCracken, F.D., (1963): Comparison of Tags and Techniques from Recoveries of Subarea 4 Cod Tags. N.Atl.Fish Mark. Symp. 1961. ICNAF Spec. Publ. 4, 16 : 89-100. Dartmouth.
- Nielsen, J., (1963): Comparison between Different Types of Tags used on Cod, Char and Salmon in Subarea 1. Ibid., 2 : 17-21.
- Templeman, W., (1963): Comparison of Returns from Different Tags and Methods of Attachment Used in Cod Tagging in the Newfoundland Area, 1954 and 1955. Ibid., 45 : 272-287.
- Templeman, W. and T.K. Pitt (1963): Comparison of Returns from Different Tags and Tagging Methods for Cod Tagged in the Inshore Area, St.John's and Fogo, Newfoundland, 1950. Ibid., 47 : 294-299.
- Williams, T., (1963): Test of Efficiency of Various Kinds of Tags and Methods of Attachment on Plaice, Cod, Sole and Whiting. Ibid., 25 : 156-163.
- Wise, J.P., (1963): Factors Affecting Number and Quality of Returns from Tagging Cod with Different Tags and Using Different Methods of Capture in ICNAF Divisions 4 X and 5 Y in 1957. Ibid., 17 : 101-105.

Table 1. Review of Danish cod tagging experiments in Greenland waters in the years 1946-63 and total returns from these experiments received per May 1, 1965.

Division	Tagged		Returned		% returns				
	< 50 cm	≥ 50 cm	total	< 50 cm	≥ 50 cm	total	< 50 cm	≥ 50 cm	total
I A	2089	839	2928	104	63	167	5.0	7.5	5.7
I B	2695	7050	9745	285	1354	1639	10.6	19.2	16.8
I C	1070	6604	7674	207	1306	1513	19.3	19.8	19.7
I D	4794	14618	19412	460	3161	3621	9.6	21.6	18.7
I E	994	1065	2059	48	146	194	4.8	13.7	9.4
I F	2099	11885	13984	160	1338	1498	7.6	11.3	10.7
East Grl.	48	3126	3174	3	298	301	6.3	9.5	9.5
Total	13789	45187	58976	1267	7666	8933	9.2	17.0	15.1

Ta 2. Tagging in Divisions 1 A and 1. Offshore area. Cod bigger than 50 cm in tagged.
 (W.Gr. = West Greenland. E.Gr. = East Greenland. Icl. = Iceland. O.a. NK = other areas or area not known).

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging						Total	% of reports	% of tags	corrected		
			0	1	2	3	4	5 or more				Total	% reports	% tags
1947	15	W.Gr.												
		E.Gr.												
		Icl.												
		O.a. NK												
		Total	0	0	0	0	0	0	0	-	0.0	-	-	-
1950	589	W.Gr.	13	21	8	8	3	4	4	61	98.4	10.4		
		E.Gr.								0	0.0	0.0		
		Icl.			1					1	1.6	0.2		
		C.a. NK								0	0.0	0.0		
		Total	13	21	9	8	3	4	4	62	100.0	10.6		
1952	600	W.Gr.	29	7	12	6	4	3		61	93.8	10.1		
		E.Gr.								0	0.0	0.0		
		Icl.			2	1		1		4	6.2	0.7		
		O.a. NK								0	0.0	0.0		
		Total	29	7	14	7	4	4	0	65	100.0	10.8		
1953	856	W.Gr.	24	89	19	19	8	3		162	99.4	18.9	274	99.6
		E.Gr.								0	0.0	0.0	0	0.0
		Icl.		1						1	0.6	0.1	(1)	0.4
		O.a. NK								0	0.0	0.0	(0)	0.0
		Total	24	90	19	19	8	3	0	163	100.0	19.0	275	100.0
1954	452	W.Gr.	41	45	30	14	6	2		140	99.3	31.0	222	99.6
		E.Gr.								0	0.0	0.0	0	0.0
		Icl.								0	0.0	0.0	(0)	0.0
		O.a. NK			1					1	0.7	0.2	(1)	0.4
		Total	41	45	31	14	6	2	2	141	100.0	31.2	223	100.0
1955	405	W.Gr.	17	59	34	3	1	4		118	100.0	29.1	188	100.0
		E.Gr.								0	0.0	0.0	0	0.0
		Icl.								0	0.0	0.0	(0)	0.0
		O.a. NK								0	0.0	0.0	(0)	0.0
		Total	17	59	34	3	1	4	0	118	100.0	29.1	188	100.0

/cont.

Table 2 continued.

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging							Total	% of reports	% of tags	corrected		
			0	1	2	3	4	5 or more	NK				Total reports	%	%
1956	587	W.Gr.	13	58	14	8	5	2		100	98.0	17.0	171	98.8	29.2
		E.Gr.								0	0.0	0.0	0	0.0	0.0
		Icl.		2						0	0.0	0.0	(0)	0.0	0.0
		O.a. NK		60	14	8	5	2	0	2	2.0	0.3	(2)	1.2	0.3
		Total	13	60	14	8	5	2	0	102	100.0	17.3	173	100.0	29.5
1957	450	W.Gr.	27	49	17	10	3	5		111	95.7	24.7	216	97.7	48.0
		E.Gr.								0	0.0	0.0	0	0.0	0.0
		Icl.		1	2					0	0.0	0.0	(0)	0.0	0.0
		O.a. NK	2	50	19	10	3	5	0	5	4.3	1.1	(5)	2.3	1.1
		Total	29	50	19	10	3	5	0	116	100.0	25.8	221	100.0	49.1
1958	621	W.Gr.	30	63	30	13	7	4		147	97.4	23.7	343	98.8	55.2
		E.Gr.								0	0.0	0.0	0	0.0	0.0
		Icl.		1			1			2	1.3	0.3	(2)	0.6	0.3
		O.a. NK		1					1	2	1.3	0.3	(2)	0.6	0.3
		Total	30	64	31	13	8	4	1	151	100.0	24.3	347	100.0	55.8
1959	331	W.Gr.	10	21	7	2	4	1		45	100.0	13.6	114	100.0	34.4
		E.Gr.								0	0.0	0.0	0	0.0	0.0
		Icl.								0	0.0	0.0	(0)	0.0	0.0
		O.a. NK		21	7	2	4	1	0	0	0.0	0.0	(0)	0.0	0.0
		Total	10	21	7	2	4	1	0	45	100.0	13.6	114	100.0	34.4
1960	610	W.Gr.	21	41	22	15	10		2	111	98.2	18.2	328	99.4	53.8
		E.Gr.								0	0.0	0.0	0	0.0	0.0
		Icl.			2					2	1.8	0.3	(2)	0.6	0.3
		O.a. NK		41	24	15	10	-	2	0	0.0	0.0	(0)	0.0	0.0
		Total	21	41	24	15	10	-	2	113	100.0	18.5	330	100.0	54.1
1961	450	W.Gr.	12	15	12	3				42	91.3	9.3	124	93.9	27.5
		E.Gr.		1		1				2	4.3	0.4	6	4.5	1.3
		Icl.								0	0.0	0.0	(0)	0.0	0.0
		O.a. NK		2		4			0	2	4.3	0.4	(2)	1.5	0.4
		Total	12	18	12	4	-	-	0	46	99.9	10.1	132	99.9	29.2

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging							Total	% of reports	% of tags	corrected		
			0	1	2	3	4	5 or more	NK				Total reports	%	% tags
1962	600	W.Gr.	24	61	18					103	94.5	17.2	309	96.3	51.5
		E.Gr.		1	2					3	2.8	0.5	9	2.8	1.5
		Icl.								0	0.0	0.0	(0)	0.0	0.0
		O.a. NK	1	1	1					3	2.8	0.5	(3)	0.9	0.5
		Total	25	63	21	-	-	0		109	100.1	18.2	321	100.0	53.5
1963	178	W.Gr.	5	24					29	100.0	16.3	93	100.0	52.2	
		E.Gr.							0	0.0	0.0	0	0.0	0.0	
		Icl.							0	0.0	0.0	(0)	0.0	0.0	
		O.a. NK							0	0.0	0.0	(0)	0.0	0.0	
		Total	5	24				0		29	100.0	16.3	93	100.0	52.2
		W.Gr.													
		E.Gr.													
		Icl.													
		O.a. NK													
		Total													
		W.Gr.													
		E.Gr.													
		Icl.													
		O.a. NK													
		Total													

Table 3. Tagging in Division 1 C. Offshore area. Cod bigger than 50 cm when tagged.

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging								Total	% of reports	% of tags	corrected % Total reports tags
			0	1	2	3	4	5 or more	NK					
1946	207	W.Gr.	2	8	1	1	2	3	2	19	100.0	9.2		
		E.Gr.								0	0.0	0.0		
		Icl.								0	0.0	0.0		
		O.a. NK								0	0.0	0.0		
		Total	2	8	1	1	2	3	2	19	100.0	9.2		
1950	24	W.Gr.												
		E.Gr.												
		Icl.												
		O.a. NK												
		Total	0	0	0	0	0	0	0	0				
1952	333	W.Gr.	8	10	12	9	5	4		48	94.1	14.4		
		E.Gr.								0	0.0	0.0		
		Icl.		1	1	1				3	5.9	0.9		
		O.a. NK								0	0.0	0.0		
		Total	8	11	13	10	5	4	0	51	100.0	15.3		
1953	205	W.Gr.	2	11	15	5	1	2		36	94.7	17.6		
		E.Gr.								0	0.0	0.0		
		Icl.			1		1			2	5.3	1.0		
		O.a. NK								0	0.0	0.0		
		Total	2	11	16	5	2	2	0	38	100.0	18.5		
1954	419	W.Gr.	12	55	19	9	6	1		102	97.1	24.3	38.9	
		E.Gr.				1				1	1.0	0.2	0.7	
		Icl.				1		1		2	1.9	0.5	0.5	
		O.a. NK								0	0.0	0.0	0.0	
		Total	12	55	19	11	6	2	0	105	100.0	25.1	40.1	
1955	193	W.Gr.	5	23	11	8		1		48	98.0	24.9	50.8	
		E.Gr.								0	0.0	0.0	0.0	
		Icl.					1			1	2.0	0.5	0.5	
		O.a. NK								0	0.0	0.0	0.0	
		Total	5	23	11	8	1	1	0	49	100.0	25.4	51.3	

Table 3 continued

II

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging							Total	% of reports	% of tags	corrected		
			0	1	2	3	4	5 or more	NK				Total	%	%
1956	720	W.Gr.	10	95	47	9	5	1		167	96.5	23.2	250	97.7	34.7
		E.Gr.								0	0.0	0.0	0	0.0	0.0
		Icl.								0	0.0	0.0	(0)	0.0	0.0
		O.a. NK		5	1					6	3.5	0.8	(6)	2.3	0.8
		Total	10	100	48	9	5	1	0	173	100.0	24.0	256	100.0	35.5
1957	371	W.Gr.	52	54	7	10	4	2		129	97.7	34.8	211	97.7	56.9
		E.Gr.								1	0.8	0.3	3	1.4	0.8
		Icl.				1				2	1.5	0.5	(2)	0.9	0.5
		O.a. NK			2					0	0.0	0.0	(0)	0.0	0.0
		Total	52	54	9	11	4	2	0	132	100.0	35.6	216	100.0	58.2
1958	156	W.Gr.	10	10	9	2	4	2		37	92.5	23.7	82	96.5	52.6
		E.Gr.								0	0.0	0.0	0	0.0	0.0
		Icl.			3					3	7.5	1.9	(3)	3.5	1.9
		O.a. NK								0	0.0	0.0	(0)	0.0	0.0
		Total	10	10	12	2	4	2	0	40	100.0	25.6	85	100.0	54.5
1959	282	W.Gr.	2	13	12	2	2	2		33	89.2	11.7	78	95.1	27.7
		E.Gr.								0	0.0	0.0	0	0.0	0.0
		Icl.				3				3	8.1	1.1	(3)	3.7	1.1
		O.a. NK	1							1	2.7	0.4	(1)	1.2	0.4
		Total	3	13	12	5	2	2	0	37	100.0	13.1	82	100.0	29.2
1960	1164	W.Gr.	44	77	7	24	3			155	95.1	13.3	456	97.9	39.2
		E.Gr.			1					1	0.6	0.1	3	0.6	0.3
		Icl.		2	2	1				5	3.1	0.4	(5)	1.1	0.4
		O.a. NK			1		1			2	1.2	0.2	(2)	0.4	0.2
		Total	44	79	11	25	4	-	0	163	100.0	14.0	466	100.0	40.1
1961	351	W.Gr.	9	26	7	10				52	92.9	14.8	160	96.4	45.6
		E.Gr.		1						1	1.8	0.3	3	1.8	0.9
		Icl.		1		1				2	3.6	0.5	(2)	1.2	0.5
		O.a. NK			1					1	1.8	0.3	(1)	0.6	0.3
		Total	9	28	8	11	-	-	0	56	100.1	15.9	166	100.0	47.3

/cont.

III

Table 3. continued

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging						Total	% of reports	% of tags	Total reports	% of reports
			0	1	2	3	4	5 or more					
1963	665	W.Gr.	30	84				114	91.9	17.1	295	92.5	44.4
		E.Gr.		6				6	4.8	0.9	20	6.3	3.0
		Isl.		3				3	2.4	0.5	(3)	0.9	0.5
		O.s. NK					1	1	0.8	0.2	(1)	0.3	0.2
		Total	30	93	-	-	-	124	99.9	18.7	319	100.0	48.1
		W.Gr.											
		E.Gr.											
		Isl.											
		O.s. NK											
		Total											
		W.Gr.											
		E.Gr.											
		Isl.											
		O.s. NK											
		Total											
		W.Gr.											
		E.Gr.											
		Isl.											
		O.s. NK											
		Total											

Table 4. Tagging in Division 1 D. Offshore area. Cod bigger than 50 cm when tagged. I

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging						Total	% of reports	% of tags	corrected %	% tags
			0	1	2	3	4	5 or more					
1946	140	W.Gr.		3	2	2	1	3	13	100.0	9.3		
		E.Gr.						1	0	0.0	0.0		
		Icl.							0	0.0	0.0		
		O.a. NK						1	0	0.0	0.0		
		Total	0	3	2	2	2	1	3	13	100.0	9.3	-
1950	127	W.Gr.	7	3	2		1	1	14	82.4	11.0		
		E.Gr.							0	0.0	0.0		
		Icl.		1		1			3	17.6	2.4		
		O.a. NK						1	0	0.0	0.0		
		Total	7	4	2	1	1	1	17	100.0	13.4	-	-
1952	355	W.Gr.	18	12	6	4	4	3	47	87.0	13.2		
		E.Gr.							0	0.0	0.0		
		Icl.		2	3	1			6	11.1	1.7		
		O.a. NK						1	1	1.9	0.3		
		Total	18	14	9	5	4	3	54	100.0	15.2	-	-
1953	439	W.Gr.	13	28	11	12	3	3	70	90.9	15.9	146	95.4
		E.Gr.							0	0.0	0.0	0	0.0
		Icl.		2	3				5	6.5	1.1	(5)	3.3
		O.a. NK				1		1	2	2.6	0.5	(2)	1.3
		Total	13	30	14	13	3	3	77	100.0	17.5	153	100.0
1954	786	W.Gr.	23	50	52	26	11	5	167	97.7	21.2	321	98.8
		E.Gr.							0	0.0	0.0	0	0.0
		Icl.		2	1				3	1.8	0.4	(3)	0.9
		O.a. NK			1			1	1	0.6	0.1	(1)	0.3
		Total	23	52	54	26	11	5	171	100.1	21.8	325	100.0
1955	280	W.Gr.	7	54	9	5		1	76	98.7	27.1	114	99.1
		E.Gr.							0	0.0	0.0	0	0.0
		Icl.							0	0.0	0.0	(0)	0.0
		O.a. NK			1			1	1	1.3	0.4	(1)	0.9
		Total	7	54	10	5	0	1	77	100.0	27.5	115	100.0

/cont.

Table 4. continued

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging						Total	% of reports	% of tags	corrected		
			0	1	2	3	4	5 or more				Total	%	%
1956	702	W.Gr.	69	96	27	6	3	6	207	96.7	29.5	97.9	45.7	
		E.Gr.						0						0.0
		Incl.		2	3			5						2.3
		O.a. NK		2				2						0.9
		Total	69	100	30	6	3	6						99.9
1957	705	W.Gr.	24	74	22	12	9	3	145	87.9	20.6	90.8	47.4	
		E.Gr.		1	3			4						2.4
		Incl.		5	5	5		15						9.1
		O.a. NK						1						0.6
		Total	24	80	30	17	9	2						100.0
1958	418	W.Gr.	41	23	17	15	1	4	101	91.0	24.2	91.9	49.0	
		E.Gr.			1			2						1.8
		Incl.		6	2			8						7.2
		O.a. NK						0						0.0
		Total	41	29	20	15	1	4						100.0
1959	695	W.Gr.	16	49	26	6	2	1	100	91.7	14.4	89.9	31.9	
		E.Gr.		2	4			6						5.5
		Incl.		1		2		3						2.8
		O.a. NK						0						0.0
		Total	16	52	30	8	2	1						100.0
1960	1144	W.Gr.	44	82	12	10	4		152	95.0	13.3	96.5	38.7	
		E.Gr.			1	1	1	3						1.9
		Incl.		1	1	3		5						3.1
		O.a. NK						0						0.0
		Total	44	83	14	14	5	0						100.0
1961	855	W.Gr.	31	34	23	15			103	83.1	12.0	92.0	39.2	
		E.Gr.		2		1		3						2.4
		Incl.	1	3	6	2		12						9.7
		O.a. NK		3	2	1		6						4.8
		Total	32	42	31	19		0						100.0

(cont.)

Table 4 continued

III

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging						Total	% of reports	% of tags	corrected	
			0	1	2	3	4	5 or more				Total	%
1962	301	W.Gr.	10	20	14				44	84.6	137	91.9	45.5
		E.Gr.	1		1				2	3.8	6	4.0	2.0
		Icl.		2	1				3	5.8	(3)	2.0	1.0
		O.a. NK	1		2				3	5.8	(3)	2.0	1.0
		Total	12	22	18	-	-	0	52	100.0	149	99.9	49.5
1963	835	W.Gr.	29	92					121	88.3	368	92.9	44.1
		E.Gr.		6					6	4.4	18	4.5	2.2
		Icl.	1	4					5	3.6	(5)	1.3	0.6
		O.a. NK	3	2					5	3.6	(5)	1.3	0.6
		Total	33	104	-	-	-	0	137	99.9	396	100.0	47.5
		W.Gr.											
		E.Gr.											
		Icl.											
		O.a. NK											
		Total											
		W.Gr.											
		E.Gr.											
		Icl.											
		O.a. NK											
		Total											
		W.Gr.											
		E.Gr.											
		Icl.											
		O.a. NK											
		Total											

Table 5. Tagging in Division 1 E and 1 F. Offshore area. Cod bigger than 50 cm when tagged.

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging						Total	% of reports	# of tags	corrected %		
			0	1	2	3	4	5 or more						
1E 1954	70	W.Gr.	3	5	2	1	1		12	92.3	17.1	25	96.1	35.7
		E.Gr.							0	0.0	0.0	0	0.0	0.0
		Incl.					1		1	7.7	1.4	(1)	3.8	1.4
		O.a. NK							0	0.0	0.0	(0)	0.0	0.0
		Total	3	5	2	1	2	0	0	13	100.0	18.5	26	99.9
1E 1960	19	W.Gr.	1	1					2	100.0	10.5	7	100.0	36.8
		E.Gr.							0	0.0	0.0	0	0.0	0.0
		Incl.							0	0.0	0.0	(0)	0.0	0.0
		O.a. NK							0	0.0	0.0	(0)	0.0	0.0
		Total	1	1	0	0	0	0	0	2	100.0	10.5	7	100.0
1F 1961	17	W.Gr.												
		E.Gr.												
		Incl.												
		O.a. NK												
		Total							0					

Table 6. Tagging at East Greenland. Offshore area. Cod bigger than 50 cm when tagged

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging						Total	% of reports	% of tags	corrected		
			0	1	2	3	4	5 or more				Total	%	%
1960	295	W.Gr.		1					1	4.0	0.3	3	11.1	1.0
		E.Gr.							0	0.0	0.0	0	0.0	0.0
		Icl.		11	7	5	1		24	96.0	8.1	(24)	88.9	8.1
		O.a. NK							0	0.0	0.0	0	0.0	0.0
		Total		0	12	7	5	1	25	100.0	8.4	27	100.0	9.1
1961	22	W.Gr.							0	0.0	0.0	0	0.0	0.0
		E.Gr.			2				2	50.0	9.1	6	75.0	27.3
		Icl.				2			2	50.0	9.1	(2)	25.0	9.1
		O.a. NK							0	0.0	0.0	0	0.0	0.0
		Total		0	0	2	2	-	4	100.0	18.2	8	100.0	36.4
		W.Gr.												
		E.Gr.												
		Icl.												
		O.a. NK												
		Total												
		W.Gr.												
		E.Gr.												
		Icl.												
		O.a. NK												
		Total												
		W.Gr.												
		E.Gr.												
		Icl.												
		O.a. NK												
		Total												

Table 7. Tagging in Divisions 1 A and 1 B. Coastal area. Cod bigger than 50 cm when tagged. (In the years 1950, 51, 57 and 63 1, 7, 7 and 1 specimens were tagged. 2 of these (from 1957) were returned from West Greenland).

Year	Number tagged	Recaptured by	Recaptured in calendar year after tagging						Total	% of reports	% of tags	Corrected	
			0	1	2	3	4	5 or more				Total	%
1947	146	W.Gr.			2				2	100.0	1.4		
		E.Gr.							0	0.0	0.0		
		Iceland							0	0.0	0.0		
		O.A. NK							0	0.0	0.0		
		Total	0	0	2	0	0	0	2	100.0	1.4	-	-
1948	58	W.Gr.			2			1	3	100.0	5.2		
		E.Gr.							0	0.0	0.0		
		Iceland							0	0.0	0.0		
		O.A. NK							0	0.0	0.0		
		Total	0	0	2	0	0	1	3	100.0	5.2	-	-
1949	22	W.Gr.		1					1	100.0	4.5		
		E.Gr.							0	0.0	0.0		
		Iceland							0	0.0	0.0		
		O.A. NK							0	0.0	0.0		
		Total	0	1	0	0	0	0	1	100.0	4.5	-	-
1952	239	W.Gr.	14	13	11	4	4	4	50	100.0	20.9		
		E.Gr.							0	0.0	0.0		
		Iceland							0	0.0	0.0		
		O.A. NK							0	0.0	0.0		
		Total	14	13	11	4	4	4	50	100.0	20.9	-	-
1953	78	W.Gr.		7	2				9	100.0	11.5	16	100.0
		E.Gr.							0	0.0	0.0	0	0.0
		Iceland							0	0.0	0.0	(0)	0.0
		O.A. NK							0	0.0	0.0	(0)	0.0
		Total	0	7	2	0	0	0	9	100.0	11.5	16	100.0
1955	57	W.Gr.		12	3	4	2	2	23	88.4	40.3	40	85.1
		E.Gr.					1		1	3.8	1.8	5	10.6
		Iceland				1			1	3.8	1.8	(1)	2.1
		O.A. NK		1					1	3.8	1.8	(1)	2.1
		Total	0	13	3	5	3	2	26	99.8	45.7	47	99.9
												70.2	82.6

/cont.

II

Table 7 continued

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging						Total	% of reports	% of tags	corrected tags	Total reports tags
			0	1	2	3	4	5 or more					
1956	64	W.Gr.		7	5				12	100.0	18.8	18	28.1
		E.Gr.						0	0.0	0.0	0	0.0	
		Icl.						0	0.0	0.0	0	0.0	
		O.a. NK						0	0.0	0.0	0	0.0	
		Total		0	7	5	0	0	12	100.0	18.8	18	28.1
		W.Gr.											
		E.Gr.											
		Icl.											
		O.a. NK											
		Total											
		W.Gr.											
		E.Gr.											
		Icl.											
		O.a. NK											
		Total											
		W.Gr.											
		E.Gr.											
		Icl.											
		O.a. NK											
		Total											
		W.Gr.											
		E.Gr.											
		Icl.											
		O.a. NK											
		Total											

Table 8. Tagging in Division 1 C. Coastal area. Cod bigger than 50 cm when tagged,

Year	Number tagged at	Recaptured in calendar year after tagging						Total	% of reports	% of tags	corrected	
		0	1	2	3	4	5 or more				Total	%
1950	W.Gr.	8	16	3	2	2	2	33	97.1	15.7		
	E.Gr.							0	0.0	0.0		
	Icl.					1		1	2.9	0.5		
	O.a. NK						0	0	0.0	0.0		
	Total	8	16	3	2	3	2	34	100.0	16.2	-	-
1951	W.Gr.							0	0.0	0.0		
	E.Gr.							0	0.0	0.0		
	Icl.			1				1	100.0	10.0		
	O.a. NK						0	0	0.0	0.0		
	Total	0	0	1	0	0	0	1	100.0	10.0	-	-
1952	W.Gr.	4	3	4	1		2	14	100.0	11.2		
	E.Gr.							0	0.0	0.0		
	Icl.							0	0.0	0.0		
	O.a. NK						0	0	0.0	0.0		
	Total	4	3	4	1	0	2	14	100.0	11.2	-	-
1957	W.Gr.	6	40	21	15	5	8	95	88.8	18.2	184	35.2
	E.Gr.			1	1			2	1.9	0.4	6	1.1
	Icl.		2	3	2			7	6.5	1.3	(7)	1.3
	O.a. NK					1	2	3	2.8	0.6	(3)	0.6
	Total	6	42	25	18	6	8	107	100.0	20.5	200	38.2
1959	W.Gr.		4					4	100.0	33.3	4	33.3
	E.Gr.							0	0.0	0.0	0	0.0
	Icl.							0	0.0	0.0	0	0.0
	O.a. NK						0	0	0.0	0.0	0	0.0
	Total	0	4	0	0	0	0	4	100.0	33.3	4	33.3
1961	W.Gr.	3	37	12	7			59	95.2	18.5	108	33.9
	E.Gr.		1	1				2	3.2	0.6	6	1.9
	Icl.							0	0.0	0.0	(0)	0.0
	O.a. NK			1				1	1.6	0.3	(1)	0.3
	Total	3	38	14	7	-	-	62	100.0	19.4	115	36.1

Table 9. Tagging in Division 1 D. Coast-- area. Cod bigger than 50 cm when tagged. I

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging							Total	% of reports	% of tags	corrected %	% tags
			0	1	2	3	4	5 or more	NK					
1946	58	W.Gr.			3	2	1		1	7	100.0	12.1		
		E.Gr.								0	0.0	0.0		
		Incl.								0	0.0	0.0		
		O.a. NK								0	0.0	0.0		
		Total	0	3	2	1	0	1	0	7	100.0	12.1	-	-
1948	372	W.Gr.		16	17	8	9	14		64	98.5	17.2		
		E.Gr.								0	0.0	0.0		
		Incl.				1				1	1.5	0.3		
		O.a. NK								0	0.0	0.0		
		Total	0	16	17	9	9	14	0	65	100.0	17.5	-	-
1951	52	W.Gr.		1		1				2	66.7	3.8		
		E.Gr.								0	0.0	0.0		
		Incl.						1		0	0.0	0.0		
		O.a. NK							1	1	33.3	1.9		
		Total	0	1	0	1	0	1	0	3	100.0	5.8	-	-
1954	194	W.Gr.	8	20	14	1	3			46	97.9	23.7	53	27.3
		E.Gr.								0	0.0	0.0	(0)	0.0
		Incl.						1		0	0.0	0.0	(0)	0.0
		O.a. NK							1	1	2.1	0.5	(1)	0.5
		Total	8	20	14	1	3	1	0	47	100.0	24.2	54	27.8
1955	263	W.Gr.	6	29	13	12	1	5		66	90.4	25.1	103	39.2
		E.Gr.		1						1	1.4	0.4	3	1.1
		Incl.			1		1	1		3	4.1	1.1	(3)	1.1
		O.a. NK			3			6		3	4.1	1.1	(3)	1.1
		Total	6	30	17	12	2	6	0	73	100.0	27.7	112	42.5
1956	174	W.Gr.	1	11	8	4	1	2		27	96.4	15.5	29	16.7
		E.Gr.								0	0.0	0.0	(0)	0.0
		Incl.							1	0	0.0	0.0	(0)	0.0
		O.a. NK							1	1	3.6	0.6	(1)	0.6
		Total	1	11	8	4	1	2	1	28	100.0	16.1	30	17.3

/cont.

Table 9 continued.

II

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging						Total	% of reports	% of tags	corrected		
			0	1	2	3	4	5 or more				Total	%	%
1957	334	W.Gr.	3	30	14	4	4	1	56	93.3	16.8	87	89.7	26.0
		E.Gr.		1				1	2	3.3	0.6	8	8.2	2.4
		Icl.					2		2	3.3	0.6	(2)	2.1	0.6
		O.a. NK						1	0	0.0	0.0	(0)	0.0	0.0
		Total	3	30	15	4	6	1	60	99.9	18.0	97	100.0	29.0
1958	365	W.Gr.	6	32	13	10		3	64	90.1	17.5	117	90.0	32.1
		E.Gr.		1				1	2	2.8	0.5	8	6.2	2.2
		Icl.		1	2	2			5	7.0	1.4	(5)	3.8	1.4
		O.a. NK							0	0.0	0.0	(0)	0.0	0.0
		Total	6	34	15	12	0	4	71	99.9	19.5	130	100.0	35.7
1959	162	W.Gr.	1	18	12	2			33	94.3	20.4	96	94.1	59.3
		E.Gr.		1					1	2.9	0.6	5	4.9	3.1
		Icl.			1				1	2.9	0.6	(1)	1.0	0.6
		O.a. NK							0	0.0	0.0	(0)	0.0	0.0
		Total	1	19	13	2	0	0	35	100.1	21.6	102	100.0	63.0
1960	576	W.Gr.	14	48	25	20	2		110	94.0	19.1	258	95.2	44.8
		E.Gr.		1			1		2	1.7	0.3	8	3.0	1.4
		Icl.		1	1	1	1		5	4.3	0.9	(5)	1.8	0.9
		O.a. NK						2	0	0.0	0.0	(0)	0.0	0.0
		Total	14	50	26	21	4	-	117	100.0	20.3	271	100.0	47.1
1961	513	W.Gr.	8	20	15	8			51	100.0	9.9	120	100.0	23.4
		E.Gr.							0	0.0	0.0	(0)	0.0	0.0
		Icl.							0	0.0	0.0	(0)	0.0	0.0
		O.a. NK						0	0	0.0	0.0	(0)	0.0	0.0
		Total	8	20	15	8	-	0	51	100.0	9.9	120	100.0	23.4
1962	650	W.Gr.	13	93	42				148	91.9	22.8	334	92.5	51.4
		E.Gr.		2	4				6	3.7	0.9	20	5.5	3.1
		Icl.		1	2				3	1.9	0.5	(3)	0.8	0.5
		O.a. NK		4					4	2.5	0.6	(4)	1.1	0.6
		Total	13	100	48	-	-	0	161	100.0	24.8	361	99.9	55.6

/cont.

Table 9 continued

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging						Total	% of reports	% of tags	corrected		
			0	1	2	3	4	5 or more				Total	%	%
1963		W.Gr.	4	6					10	83.3	12.0	21	84.0	25.3
		E.Gr.		1					1	8.3	1.2	3	12.0	3.6
		Icl.		1					1	8.3	1.2	(1)	4.0	1.2
		O.a. NK							0	0.0	0.0	(0)	0.0	0.0
		Total	4	8	-	-	-	0	12	99.9	14.4	25	100.0	30.1
		W.Gr.												
		E.Gr.												
		Icl.												
		O.a. NK												
		Total												
		W.Gr.												
		E.Gr.												
		Icl.												
		O.a. NK												
		Total												
		W.Gr.												
		E.Gr.												
		Icl.												
		O.a. NK												
		Total												
		W.Gr.												
		E.Gr.												
		Icl.												
		O.a. NK												
		Total												

Table 10. Tagging in Division 1 E. Coastal area. Cod bigger than 50 cm when tagged.

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging						Total	% of reports	% of tags	corrected %	Total reports	% tags
			0	1	2	3	4	5 or more						
1951	128	W.Gr.	4		2	1			7	63.6	5.5			
		E.Gr.							0	0.0	0.0			
		Icl.		2	1				3	27.3	2.3			
		O.a. NK						1	1	9.1	0.8			
		Total	4	2	3	1	0	1	11	100.0	8.6	-		
1953	29	W.Gr.		3					3	100.0	10.3			
		E.Gr.							0	0.0	0.0			
		Icl.							0	0.0	0.0			
		O.a. NK							0	0.0	0.0			
		Total	0	3	0	0	0	0	3	100.0	10.3	-		
1962	364	W.Gr.	4	15	11				30	56.6	8.2	104	72.7	28.6
		E.Gr.		2	4				6	11.3	1.6	22	15.4	6.0
		Icl.		5	10	1			16	30.2	4.4	(16)	11.2	4.4
		O.a. NK		1					1	1.9	0.3	(1)	0.7	0.3
		Total	4	23	25	1	-	0	53	100.0	14.5	143	100.0	39.3
1963	358	W.Gr.	2	27					29	72.5	8.1	99	75.0	27.7
		E.Gr.		8					8	20.0	2.2	30	22.7	8.4
		Icl.		3					3	7.5	0.8	(3)	2.2	0.8
		O.a. NK							0	0.0	0.0	(0)	0.0	0.0
		Total	2	38	-	-	-	0	40	100.0	11.1	132	99.9	36.9
		W.Gr.												
		E.Gr.												
		Icl.												
		O.a. NK												
		Total												
		W.Gr.												
		E.Gr.												
		Icl.												
		O.a. NK												
		Total												

Table 11. Tagging in Division I F. (Total area. Cod bigger than 50 cm wher gged I

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging							Total	% of reports	% of tags	corrected % Total reports tags
			0	1	2	3	4	5 or more	NK				
1946	229	W.Gr.		2	3	4	2	1		12	75.0	5.2	
		E.Gr.								0	0.0	0.0	
		Icl.		1		1	2			4	25.0	1.7	
		O.a. NK		3	3	5	4	1	0	16	0.0	0.0	
		Total	0								100.0	7.0	-
1947	440	W.Gr.	10	16	8	11	1			46	93.9	10.5	
		E.Gr.			1	2				0	0.0	0.0	
		Icl.								3	6.1	0.7	
		O.a. NK		16	9	13	1	0	0	49	0.0	0.0	
		Total	10								100.0	11.1	-
1948	944	W.Gr.	26	38	19	12	5	2		102	96.2	10.8	
		E.Gr.		2	1	1				0	0.0	0.0	
		Icl.								4	3.8	0.4	
		O.a. NK		40	20	13	5	2	0	106	0.0	0.0	
		Total	26								100.0	11.2	-
1949	532	W.Gr.	26	23	11	9	5	3		77	86.5	14.5	
		E.Gr.		2	2	1	6			0	0.0	0.0	
		Icl.					1	1		11	12.4	2.1	
		O.a. NK		25	13	10	12	3	0	89	1.1	0.2	
		Total	26								100.0	16.7	-
1951	1046	W.Gr.	9	29	8	5	4	6		61	68.5	5.8	
		E.Gr.		4	3	6	5	6		0	0.0	0.0	
		Icl.			2	1			1	24	27.0	2.3	
		O.a. NK		33	13	12	9	12	1	89	4.5	0.4	
		Total	9								100.0	8.5	-
1952	1227	W.Gr.	14	30	15	14	6	1		81	75.0	6.6	
		E.Gr.		6	7	6	4	2		0	0.0	0.0	
		Icl.			1	1				25	23.1	2.0	
		O.a. NK		36	23	21	10	3	1	108	1.9	0.2	
		Total	14								100.0	8.8	-

/cont.

Table 11 continued

II

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging							Total	% of reports	% of tags	corrected		
			0	1	2	3	4	5 or more	NK				Total reports	% tags	
1953	281	W.Gr.		8	2	1	1	1	1	13	68.4	4.6	21	67.7	7.5
		E.Gr.								2	10.5	0.7	6	19.4	2.1
		Icl.		1	2					3	15.8	1.1	(3)	9.7	1.1
		O.a. NK		1						1	5.2	0.4	(1)	3.2	0.4
		Total	0	10	4	3	1	1	0	19	99.9	6.8	31	100.0	11.1
1954	929	W.Gr.	6	20	10	12	6	12		66	66.0	7.1	113	73.9	12.2
		E.Gr.			2		1			3	3.0	0.3	9	5.9	1.0
		Icl.		7	11	4	3	2		27	27.0	2.9	(27)	17.6	2.9
		O.a. NK		1	1		1		1	4	4.0	0.4	(4)	2.6	0.4
		Total	6	28	24	16	11	14	1	100	100.0	10.8	153	100.0	16.5
1956	631	W.Gr.	3	15	14	9	5	3		49	84.5	7.7	104	92.0	16.5
		E.Gr.								0	0.0	0.0	0	0.0	0.0
		Icl.				1	3	4		8	13.8	1.3	(8)	7.1	1.3
		O.a. NK							1	1	1.7	0.2	(1)	0.9	0.2
		Total	3	15	14	10	8	7	1	58	100.0	9.1	113	100.0	18.0
1957	292	W.Gr.	2	16	2	3				23	65.7	7.9	57	78.1	19.5
		E.Gr.				1				1	2.9	0.3	5	6.8	1.7
		Icl.		1	1	3	1	3		9	25.7	3.1	(9)	12.3	3.1
		O.a. NK			1				1	2	5.7	0.7	(2)	2.7	0.7
		Total	2	17	4	7	1	3	1	35	100.0	12.0	73	99.9	25.0
1958	737	W.Gr.	8	24	18	20	4	4		78	67.2	10.6	206	75.7	28.0
		E.Gr.		1	4	5	1	2		13	11.2	1.8	41	15.1	5.6
		Icl.			7	7	5	6		25	21.6	3.4	(25)	9.2	3.4
		O.a. NK							0	0	0.0	0.0	(0)	0.0	0.0
		Total	8	25	29	32	10	12	0	116	100.0	15.7	272	100.0	37.0
1959	553	W.Gr.	8	20	12	7	2			47	69.1	8.5	121	74.7	21.9
		E.Gr.		4	1	1				8	11.8	1.4	28	17.3	5.1
		Icl.		2	1	4	4	1		12	17.6	2.2	(12)	7.4	2.2
		O.a. NK		1					1	1	1.5	0.2	(1)	0.6	0.2
		Total	8	27	14	12	6	1		68	100.0	12.3	162	100.0	29.4

/cont.

Table 11 continued

III

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging							Total	% of reports	% of tags	corrected		
			0	1	2	3	4	5 or more	NK				Total	%	%
1960	x) 432	W.Gr.		17	11	5	2		1	36	64.3	8.3	88	77.2	20.4
		E.Gr.			2	1				3	5.4	0.7	9	7.9	2.1
		Icl.		3	6	7	1			17	30.4	3.9	(17)	14.9	3.9
		O.a. NK								0	0.0	0.0	(0)	0.0	0.0
		Total	0	20	19	13	3	-	1	56	100.0	13.0	114	100.0	26.4
1961	1039	W.Gr.	5	24	17	8				54	63.5	5.2	170	79.8	16.4
		E.Gr.		1	2	3				6	7.1	0.6	18	8.5	1.7
		Icl.		6	9	10				25	29.4	2.4	(25)	11.7	2.4
		O.a. NK								0	0.0	0.0	(0)	0.0	0.0
		Total	5	31	28	21	-	-	0	85	100.0	8.2	213	100.0	20.5
1962	1089	W.Gr.	14	70	43					127	76.5	11.7	333	84.5	30.6
		E.Gr.	1	2	8					11	6.6	1.0	33	8.4	3.0
		Icl.		7	17					24	14.5	2.2	(24)	6.1	2.2
		O.a. NK		3	1					4	2.4	0.4	(4)	1.0	0.4
		Total	15	82	69	-	-	-	0	166	100.0	15.3	394	100.0	36.2
1963	517	W.Gr.	5	37						42	72.4	8.1	104	70.3	20.1
		E.Gr.		12						12	20.7	2.3	40	27.0	7.7
		Icl.		3						3	5.2	0.6	(3)	2.0	0.6
		O.a. NK		1						1	1.7	0.2	(1)	0.7	0.2
		Total	5	53	-	-	-	-	0	58	100.0	11.2	148	100.0	28.6
		W.Gr.													
		E.Gr.													
		Icl.													
		O.a. NK													
		Total													
		W.Gr.													
		E.Gr.													
		Icl.													
		O.a. NK													
		Total													

x) Cod not measured but presumed to be bigger than 50 cm.

Table 12. Tagging at East Greenland. Coastal area. Cod bigger than 50 cm when tagged.

Year	Number tagged	Recaptured at	Recaptured in calendar year after tagging						Total	% of reports	% of tags	corrected		
			0	1	2	3	4	5 or more				Total reports	%	%
1957	489	W.Gr.					1		1	2.1	0.2	5	6.8	1.0
		E.Gr.		3	3	4	1	1	13	27.7	2.7	35	47.9	7.2
		Icl.	2	2	11	7	9	4	33	70.2	6.7	(33)	45.2	6.7
		O.a. NK							0	0.0	0.0	(0)	0.0	0.0
		Total	0	5	14	11	11	5	47	100.0	9.6	73	99.9	14.9
1958	637	W.Gr.		2			1		5	6.8	0.8	17	12.9	2.7
		E.Gr.	3	5	7	3	1		19	25.7	3.0	65	49.2	10.2
		Icl.		13	18	9	5	4	49	66.2	7.7	(49)	37.1	7.7
		O.a. NK		1					1	1.4	0.2	(1)	0.8	0.2
		Total	3	21	25	14	7	4	74	100.1	11.7	132	100.0	20.8
1959	660	W.Gr.	1						1	2.0	0.2	5	6.3	0.8
		E.Gr.	2	15	3	3			23	46.0	3.5	49	61.3	7.4
		Icl.		14	4	4	1		23	46.0	3.5	(23)	28.8	3.5
		O.a. NK		2			1		3	6.0	0.5	(3)	3.8	0.5
		Total	3	31	7	7	2	0	50	100.0	7.7	80	100.2	12.2
1961	304	W.Gr.							0	0.0	0.0	(0)	0.0	0.0
		E.Gr.		3	2	2			7	23.3	2.3	21	47.7	6.9
		Icl.		9	10	4			23	76.7	7.6	(23)	52.3	7.6
		O.a. NK							0	0.0	0.0	(0)	0.0	0.0
		Total	0	12	12	6	-	-	30	100.0	9.9	44	100.0	14.5
		W.Gr.												
		E.Gr.												
		Icl.												
		O.a. NK												
		Total												
		W.Gr.												
		E.Gr.												
		Icl.												
		O.a. NK												
		Total												

Table 13. Reports from Iceland waters of cod tagged in Greenland waters in % of releases. Cod bigger than 50 cm when tagged. Figures from 1924-39 taken from Hansen (1949). Figures marked with an asterisk are based on less than 100 releases.

Tagged in Div. Year	1A + 1B		1C		1D		1E		1F		East Greenland	
	offshore	coast	offshore	coast	offshore	coast	offshore	coast	offshore	coast	offshore	coast
1946	-	-	0.0	0.0*	0.0	0.0*	-	-	-	1.7	-	-
1947	0.0*	0.0*	-	-	-	-	-	-	-	0.7	-	-
1948	-	0.0*	-	0.3	-	0.3	-	-	-	0.4	-	-
1949	-	0.0*	-	-	-	-	-	-	-	2.1	-	-
1950	0.2	0.0*	0.0*	0.5	2.4	0.0*	-	2.3	-	-	-	-
1951	-	0.0*	-	10.0*	-	-	-	-	-	2.3	-	-
1952	0.7	0.0	0.9	0.0	1.7	-	-	-	-	2.0	-	-
1953	0.1	0.0*	1.0	-	1.1	-	1.4*	0.0*	-	1.1	-	-
1954	0.0	-	0.5	-	0.4	0.0	-	-	-	2.9	-	-
1955	0.0	1.8*	0.5	-	0.0	1.1	-	-	-	-	-	-
1956	0.0	0.0*	0.0	-	0.7	0.0	-	-	-	1.3	-	-
1957	0.0	0.0*	0.5	1.3	2.1	0.6	-	-	-	3.1	-	6.7
1958	0.3	-	1.9	-	1.9	1.4	-	-	-	3.4	-	7.7
1959	0.0	-	1.1	0.0*	0.4	0.6	-	-	-	2.2	-	3.5
1960	0.3	-	0.4	-	0.4	0.9	0.0*	-	-	3.9	8.1*	-
1961	0.0	-	0.5	0.0	1.4	0.0	-	-	0.0	2.4	9.1*	7.6
1962	0.0	-	-	-	1.0	0.5	-	4.4	-	2.2	-	-
1963	0.0	0.0*	0.5	-	0.6	1.2*	-	0.8	-	0.6	-	-
1946-63 weighted/mean	0.1	0.2	0.5	0.7	0.9	0.6	1.1*	2.5	0.0*	2.1	8.2	6.1
total releases	6744	680	5090	1198	7782	3796	89	879	17	10918	317	2090
1924-39 weighted/mean	1.1	0.5	2.7	1.5	1.2	2.5	5.6*	3.9	0.0*	8.0	2.3	-
total releases	1400	936	1429	885	660	846	90	355	3	2873	772	(1926 - 1933)

Table 14. Reports from Iceland waters of cod tagged in Division 1 F (coastal area) in ‰ of releases.
Cod bigger than 50 cm when tagged.

Year of recapture	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	Total
Year of tagging																			
1946	4.4	0.0	4.4	8.7															17.5
1947	0.0	0.0	2.3	4.5															6.8
1948	-	0.0	2.1	1.1	1.1														4.3
1949	-	-	0.0	3.8	3.8	1.9	11.3												20.8
1951	-	-	-	-	0.0	3.8	2.9	5.7	4.8	3.8	1.9								22.9
1952	-	-	-	-	-	0.0	4.9	5.7	4.9	3.3	1.6								20.4
1953	-	-	-	-	-	-	0.0	3.6	7.1										10.7
1954	-	-	-	-	-	-	-	0.0	7.5	11.8	4.3	3.2	1.1	1.1					29.0
1956	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	1.6	4.8	3.2	3.2			12.8
1957	-	-	-	-	-	-	-	-	-	0.0	0.0	3.4	3.4	10.3	3.4	3.4	3.4	3.4	30.7
1958	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	9.5	9.5	6.8	6.8	1.4	34.0
1959	-	-	-	-	-	-	-	-	-	-	-	-	0.0	3.6	1.8	7.2	7.2	1.8	21.6
1960	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	6.9	13.9	16.2	2.3	39.3
1961	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	5.8	8.7	9.6	24.1
1962	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	6.4	15.6	22.0
1963	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	5.8	5.8

Table 15. Reports from East Greenland waters of cod tagged in Greenland waters in % of releases. Cod bigger than 50 cm when tagged. Figures in brackets are figures corrected for non-returning rate. Figures marked with an asterisk are based on less than 100 releases.

Year	Tagged in Division		LA + LB offshore coast	LC offshore coast	LD offshore coast	LE offshore coast	LF offshore coast	East Greenland offshore coast			
	LA + LB	LC									
1946	-	0.0	0.0	0.0	0.0	-	0.0	-			
1947	0.0*	-	-	-	-	-	0.0	-			
1948	-	-	-	-	-	-	0.0	-			
1949	-	-	-	-	-	-	0.0	-			
1950	0.0	0.0*	0.0	0.0	0.0	-	-	-			
1951	-	0.0*	-	0.0*	-	0.0	0.0	-			
1952	0.0	0.0	0.0	0.0	0.0	-	0.0	-			
1953	0.0 (0.0)	0.0*	0.0	-	0.0	0.0*	0.7 (2.1)	-			
1954	0.0 (0.0)	-	0.2 (0.7)	-	0.0 (0.0)	0.0*	0.3 (1.0)	-			
1955	0.0 (0.0)	1.8*	0.0 (0.0)	-	0.0 (0.0)	-	-	-			
1956	0.0 (0.0)	0.0*	0.0 (0.0)	-	0.0 (0.0)	-	0.0 (0.0)	-			
1957	0.0 (0.0)	0.0*	0.3 (0.8)	0.4 (1.1)	0.6 (2.6)	-	0.3 (1.7)	2.7 (7.2)			
1958	0.0 (0.0)	-	0.0 (0.0)	-	0.5 (2.4)	-	1.8 (5.6)	3.0 (10.2)			
1959	0.0 (0.0)	-	0.0 (0.0)	0.0*	0.9 (3.2)	-	1.4 (5.1)	3.5 (7.4)			
1960	0.0 (0.0)	-	0.1 (0.3)	-	0.3 (1.0)	0.0*	0.7 (2.1)	0.0 (0.0)			
1961	0.4 (1.3)	-	0.3 (0.9)	0.6 (1.9)	0.4 (1.3)	-	0.6 (1.7)	9.1* (27.3)			
1962	0.5 (1.5)	-	-	-	0.7 (2.0)	1.6 (6.0)	1.0 (3.0)	-			
1963	0.0 (0.0)	0.0*	0.9 (3.0)	-	0.7 (2.2)	2.2 (8.4)	2.3 (7.7)	-			
weighted mean 1946-63 total releases	0.1 (0.2) 6744	0.1 (0.5) 936	0.2 (0.6) 5090	0.3 (1.0) 1198	0.4 (1.2) 7782	0.0* (0.0) 89	1.6 (5.9) 879	0.0* (0.0) 17	0.5 (1.7) 10918	6.3 (18.9) 317	3.0 (8.1) 2090