INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2986
(B.g.14)

ICNAF Res.Doc. 73/47
(also ICES/ICNAF Salmon Doc. 73/12)

ANNUAL MEETING - JUNE 1973

Canadian participation in the International Salmon Tagging Experiment at West Greenland

by

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Introduction

During August-September 1972 the Canadian Fisheries Research vessel A. T. Cameron participated in an International Salmon Tagging Experiment at West Greenland. Other research vessels participating were the Adolf Jensen (Denmark), Scotia (Scotland) and the Cryos (France). Additionally, 10 observers were placed on 8 commercial drift net vessels with the aim to tag as many salmon as possible from the catches and to look for tags. It was hoped that during the August-October period a grand total of 3000 salmon in suitable condition would be tagged. The data collected from research and commercial vessel catches and the tag recapture data would provide estimates of:

(1) Return rate of salmon from Greenland to home-waters.

(2) Exploitation rate and fishing mortality rate at Greenland.

(3) Distribution and (relative) density of salmon inside and outside the fishing area at Greenland.

(4) Migration rate of salmon into and out of the Greenland area.

Gear and Fishing

Twenty-seven drift net sets were made in the West Greenland-Labrador Sea area during August 9-September 22. Gillnets used were of 130 mm (5 inch) and 150 mm (6 inch) monofilament. The 130 mm nets were 35 meshes (13.0 feet) deep while the 150 mm nets were 25 meshes (10.7 feet) deep. Each net was 25 fathoms in length. These were arranged in basic units of 20 nets as follows: 10 monofilament, 130 mm; 10 monofilament, 150 mm. A total of 6 units (120 nets or 3 nautical miles) was usually fished, but shorter amounts

were set when weather conditions were unfavourable. The nets were usually set at dawn and patrolled using 2 rubber boats when weather conditions permitted, until noon when they were hauled onboard the A. T. Cameron.

Catches and Sampling

The total catch from 27 sets was 464 salmon of which 219 were tagged and released. Catches ranged from 0 to 70 salmon (Fig. 1). Catches have been converted to numbers per mile of gear per hour fished (Tables 1 and 2). Largest catches of salmon were obtained in the Labrador Sea and near the southern Greenland coast (Table 2). In general, fish were relatively abundant in southern Greenland and Labrador Sea, but extremely scarce in northern Greenland as evidenced by the catches per mile-hour.

Catches were usually largest during the early morning hours during and after daybreak (Table 3). Catches decreased sharply when the wind force decreased below 2 and the sea surface became calm.

Two hundred and forty-six dead fish were sampled for morphometric and meristic data; viscera were collected for parasite investigations and stomach contents analysis; scales, blood and tissue samples were also collected.

Only small numbers of sea birds were taken in the nets. The total catch of thick-billed murres was 123. Other sea birds taken in the nets were: 5 common murres, 5 black guillemots, 10 dovekies, 1 kittiwake and 1 king eider duck. Three common porpoises, 1 young harp seal and 10 common lumpfish were also taken in the nets. Two of the common porpoises were taken as specimens, the other was released alive.

Large quantities of seaweed (Laminaria) were also taken in the nets and sometimes posed as a nuisance in the areas near the coast, especially after storms which tore the seaweed from its holdfasts and washed it out to sea.

Comparative Fishing

On August 21 the A. T. Cameron and Scotia conducted a comparative fishing experiment near Station 12 (65°10'N, 54°00'W) with the intention of comparing the catch per unit effort of the two vessels. A similar experiment was conducted with the A. T. Cameron and Adolf Jensen on September 5 near Station 5 (68°00'N, 54°15'W).

The catches per mile-hour of the A. T. Cameron and Scotia were almost

identical for the 5 and 6 inch mesh nets and for the overall catch (Table 4). The catch per mile-hour of the A. T. Cameron was higher than that of the Adolf Jensen for the 5 inch mesh, but lower than the Adolf Jensen for the 6 inch mesh nets. However, the overall catch was very similar (0.90 for A. T. Cameron as compared to 0.85 for Adolf Jensen). These results indicate that the catch per unit effort does not vary between the research vessels thus permitting the results to be combined without introducing any correction factors.

Tagging

The nets were patrolled by 2 rubber boats when weather conditions were favourable. Salmon in suitable condition caught while the nets were being patrolled by the small boats were tagged and released from the patrol boat after having been measured and a small scale sample taken. Condition of the fish during tagging and percentage scale loss were recorded. Salmon caught while taking the nets back onboard the A. T. Cameron were also measured, tagged and released, if they were in suitable condition.

Numbers tagged in relation to fishing area and mesh size are summarized in Table 2. Overall 47.2% of the fish caught were tagged. It was possible to patrol the nets on 24 of the 27 fishing days (sets 185, 186, 188-193, 196-211). During these days when the nets were patrolled, 49.6% of the fish caught in 5 inch mesh nets were tagged and 62.3% of those caught in the 6 inch mesh nets were tagged. In all, during days when the nets were patrolled, 54.7% of the fish caught were tagged.

A list of the tag numbers applied at each position is given in Table 5.

A salmon bearing the Tag Number 95548 from Pitlochry, Scotland, was captured and released bearing the same tag number at 63°24'N, 51°41'W on August 13.

Five tagged fish - X10,030 (recaptured and released twice), X10,033, X10,137, X10,139 and X10,154 - were recaptured alive on the same day of tagging and were released. Two tagged fish - X10,136 and X10,163 - were released and recaptured dead in the same day they were tagged.

Tag X10,171 was applied to a fish which appeared lively when tagged, but failed to recover after tagging.

Tag X10,192 was applied to a fish which was to be placed in a tank

on the deck of the A. T. Cameron during a tagging mortality experiment, but was crushed between the small boat and the side of the ship while it was being transferred to the A. T. Cameron.

Two fish - X10,204 and X10,206 - were part of a group of 31 fish held in recovery tanks on deck to determine the immediate tagging mortality, if any. These two fish died after being held for 10 1/2 and 7 3/4 hour intervals respectively.

Selectivity of Gear

Nets of 130 mm (5 inch) mesh produced the best catches overall (Table 2). The relative efficiencies of the 5 and 6 inch mesh in the areas fished by the A. T. Cameron vary from north to south (Table 6). The higher relative efficiency of the 5 inch mesh nets as opposed to the 6 inch mesh nets in the Labrador Sea and in Areas III and IV in southern Greenland may be attributed to the larger proportions of smaller salmon in these areas than in Areas I and II in northern Greenland (Fig. 2) where the 6 inch mesh nets were equally efficient. In Area I the 6 inch mesh nets were more efficient than the 5 inch possibly because of a relatively greater proportion of larger salmon than smaller salmon as compared to the southern areas, but the numbers are too small to be truly reliable.

Hydrography

At each drift net station a surface temperature, shallow bathythermograph and temperature at 50 metres were taken. Results are tabulated in Table 7. Surface temperatures during August-September 1972 were similar to those obtained during the A. T. Cameron cruises to the West Greenland area during September 1970 and September 1971.

Tagging Mortality Experiment

In an attempt to obtain an estimate of the immediate tagging mortality 31 tagged salmon were kept in 2 large fibreglass tanks on the deck of the A. T. Cameron for periods of 6 to 55 hours. Water was circulated continuously while the fish were in the tanks. Only 2 (6.5%) of the fish held in the tanks died. Generally the condition of the fish improved in the tanks. Most of the fish classed as fair when tagged and put in the tank were classed as good when released.

Other Vessels

On 12 August 4 salmon driftnetters were observed fishing in the area of 62°45'N, 50°48'W. One drifter Sandvit was taking salmon as we passed by. On the same day 2 driftnetters were observed fishing off Fiskenaesset. During this time the commercial driftnetters were experiencing good catches of salmon off the southern Greenland coast.

On 18 August we observed 1 drifter 14 miles off Sukkertoppen. On 19 August we observed 2 drifters at position 65°48'N, 53°40'W. At this time the best commercial catches were being obtained about 12 miles offshore in an area from Kangamiut to Syd Bay.

On 26 August we observed 5 salmon drifters about 2 miles west of Kangamiut.

On 28 August we observed 7 drifters in vicinity of 67°35'N, 55°00'W setting their nets.

These drifters obtained very poor catches on Store Hellefiske Banke. On 30 August they left and headed north towards Disko. Later on we learned that they fished in Disko Bay, Disko Fjord and in the Umanak area where they obtained very poor catches of salmon.

Acknowledgements

The authors wish to acknowledge the assistance and cooperation of Messrs. A. L. Meister, Atlantic Sea Run Salmon Commission, Maine; D. Crestin, Bureau of Sports Fisheries and Wildlife, Boston; J. Watson, National Marine Fisheries Service, Boothbay, Maine; and R. Walcott, Bureau of Sports Fisheries and Wildlife, Ann Arbor, Michigan during their participation as U.S. observers onboard the A. T. Cameron.

Table 1. Salmon catches, effort and C/E, A.T. Cameron 202, 1972.

Set No.	Date	Lat. N Long. W	Surf Temp	Time (NST) Began	Duration (hr. - 10ths.)	Gear Mesh	Gear Amount	Effort (mile-hrs.)	No. Caught	No. mile-hr.	No. Tagged	Tag or Handling Mortality	Other Species	Remarks
185	Aug. 9	56-49 50-25	7.8	0245	9.7	5 MF 6 MF	1500 1500 3000	14,550 14,550 29,100	49 16 65	2.23	13 4 17	36 12 48	1 common lumpfish	
186	Aug. 11	61-04 51-18	4.9	0245	9.0	5 MF 6 MF	1500 1500 3000	13,500 13,500 27,000	6 7 13	0.48	1 2 3	5 5 10	1 common lumpfish	
187	Aug. 12	62-11 50-17	4.8	0247	4.5	5 MF 6 MF	1100 1000 2100	4,950 4,500 9,450	57 13 70	7.41	1 4 5	56 9 65	2 porpoises	wind increased - had to take back. Nets not run.
188	Aug. 13	63-24 51-41	4.8	0257	8.9	5 MF 6 MF	1500 1500 3000	13,350 13,350 26,700	31 31 62	2.32	20 26 46	10 5 15		Salmon bearing Tag 95548 Pitlochry, Scotland was caught and released.
189	Aug. 17	65-10 54-58	3.9	0320	8.8	5 MF 6 MF	1500 1500 3000	13,200 13,200 26,400	11 4 15	0.57	7 2 9	4 2 6	1 common lumpfish	
190	Aug. 18	65-11 53-55	4.1	0322	9.3	5 MF 6 MF	1500 1500 3000	13,950 13,950 27,900	26 15 41	1.47	16 11 27	10 4 14		
191	Aug. 19	65-12 53-05	4.2	0216	9.7	5 MF 6 MF	1500 1500 3000	14,550 14,550 29,100	25 8 33	1.13	22 7 29	3 1 4		

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Table 1 (Cont'd.)

Set No.	Date	Lat. N Long. W	Surf Temp	Time (NST) Began	Duration (hr. - 10ths.)	Gear Mesh	Gear Amount	Effort (mile-hrs.)	No. Caught	No./ mile-hr.	No. Tagged	Tag or Handling Mortality	Other Species	Remarks
192	Aug. 20	65-47 53-50	4.3	0215	8.8	5 MF 6 MF	1500 1500 3000	13,200 13,200 26,400	9 3 12	0.45	6 2 8	* 4 1 5	3 common lumpfish	*Salmon bearing Tag X10,136 was recaptured. Nets full of seaweed.
193	Aug. 21	65-05 53-58	4.2	0330	6.2	5 MF 6 MF	1500 1500 3000	9,300 9,300 18,600	15 6 21	1.13	5 4 9	*11 2 13		*Salmon bearing Tag X10,163 recaptured.
194	Aug. 26	65-10 54-00	3.1	0550	4.7	5 MF 6 MF	750 750 1500	3,525 3,525 7,050	2 5 7	0.99	1 3 4	1 2 3		Wind increased. Nets not run.
195	Aug. 27	66-10 55-33	2.9	0326	5.9	5 MF 6 MF	750 750 1500	4,425 4,425 8,850	1 2 3	0.34	0 0 0	1 2 3	2 thick-billed murre	Nets not run.
196	Aug. 28	67-10 55-41	3.1	0350	8.3	5 MF 6 MF	750 750 1500	6,225 6,225 12,450	3 0 3	0.24	3 0 3	0 0 0		
197	Aug. 29	67-30 55-08	3.1	0322	9.1	5 MF 6 MF	1500 1500 3000	13,650 13,650 27,300	6 7 13	0.48	3 5 8	3 2 5	1 porpoise	
198	Aug. 30	67-50 54-26	3.3	0232	9.9	5 MF 6 MF	1500 1500 3000	14,850 14,850 29,700	2 2 4	0.13	1 1 2	1 1 2		Net run 0600-0800 only.
199	Aug. 31	67-26 54-06	2.8	0230	8.2	5 MF 6 MF	1500 1500 3000	12,300 12,300 24,600	0 0 0	0	0 0 0	0 0 0	1 harp seal 2 black guillemot	

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Table 1 (Cont'd.)

Set No.	Date	Lat. N Long. W	Surf Temp	Time (NST) Began	Duration (hr. - 10ths.)	Gear Mesh	Gear Amount	Effort (mile-hrs.)	No. Caught	No./ mile-hr.	No. Tagged	Tag or Handling Mortality	Other Species	Remarks
200	Sept. 1	68-49 53-18	3.7	0230	8.3	5 MF 6 MF	1500 1500 3000	12,450 12,450 24,900	0 0 0	0	0 0 0	0 0 0		
201	Sept. 2	69-09 52-34	4.0	0230	8.3	5 MF 6 MF	1500 1500 3000	12,450 12,450 24,900	2 3 5	0.20	1 2 3	1 1 2	1 common lumpfish 1 black guillemot 1 kittiwake 1 thick-billed murre	
202	Sept. 5	67-11 54-31	3.3	0230	10.0	5 MF 6 MF	1500 1500 3000	15,000 15,000 30,000	17 10 27	0.90	9 7 16	8 3 11	30 thick-billed murre 1 common murre	Approx. half the nets were full of seaweed. Joint fishing with Adolf Jensen.
203	Sept. 10	69-30 54-54	3.4	0325	7.3	5 MF 6 MF	1500 1500 3000	10,950 10,950 21,900	2 0 2	0.09	0 0 0	2 0 2	2 thick-billed murre 1 dovekie	
204	Sept 11	70-02 57-20	2.3	0230	8.0	5 MF 6 MF	1500 1500 3000	12,000 12,000 24,000	0 0 0	0	0 0 0	0 0 0	1 thick-billed murre 6 dovekie	
205	Sept. 12	69-02 56-00	3.0	0350	7.2	5 MF 6 MF	1500 1500 3000	10,800 10,800 21,600	1 5 6	0.28	0 2 2	1 3 4	1 thick-billed murre	
206	Sept. 13	67-59 54-13	3.1	0320	7.7	5 MF 6 MF	1500 1500 3000	11,550 11,550 23,100	4 6 10	0.43	2 4 6	2 2 4		

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Table 1 (Cont'd.)

Set No.	Date	Lat. N Long. W	Surf Temp	Time (NST) Began	Duration (hr. - 10ths.)	Gear Mesh	Gear Amount	Effort (mile-hrs.)	No. Caught	No./ mile-hr.	No. Tagged	Tag or Handling Mortality	Other Species	Remarks
207	Sept. 14	67-10 54-28	3.4	0420	5.7	5 MF 6 MF	750 750 1500	4,275 4,275 8,550	3 7 10	1.17	2 2 4	1 5 6	1 black guillemot	
208	Sept. 16	67-11 55-49	2.7	0230	8.6	5 MF 6 MF	1500 1500 3000	12,900 12,900 25,800	7 6 13	0.50	1 4 5	6 2 8	5 thick-billed murre 3 dovekie	
209	Sept. 19	67-37 54-10	3.3	0234	8.4	5 MF 6 MF	1500 1500 3000	12,600 12,600 25,200	4 12 16	0.63	1 8 9	3 4 7	2 common lumpfish 49 thick-billed murre	
210	Sept. 20	67-36 54-08	3.3	0230	8.2	5 MF 6 MF	1500 1500 3000	12,300 12,300 24,600	5 4 9	0.37	1 2 3	4 2 6	19 thick-billed murre 1 black guillemot 1 king eider 1 common lumpfish	
211	Sept. 22	67-18 54-25	3.4	0230	8.1	5 MF 6 MF	1500 1500 3000	12,150 12,150 24,300	2 2 4	0.16	0 1 1	2 1 3	13 thick-billed murre 1 common murre	

Table 2. Salmon catch/effort by mesh size and area, A.T. Cameron 202

Area	Mesh	Effort Mile - hr.	Number Caught	No./ Mile - hr.	Number Tagged	Tagged/ Mile - hr.	% Tagged
Area I. 68°N to 70°N (Sets 200,201; 203-206)*	5 MF	70,200	9	0.13	3	0.04	33.3
	6 MF	70,200	14	0.20	8	0.11	57.1
Area II. 66°N to 68°N (Sets 195-199; 202; 207-211)	5 MF	120,675	50	0.41	21	0.17	42.0
	6 MF	120,675	52	0.43	30	0.25	57.7
Area III. 64°N to 66°N (Sets 189-194)	5 MF	67,725	88	1.30	57	0.84	64.8
	6 MF	67,725	41	0.61	29	0.43	70.7
Area IV. 61°N to 64°N (Sets 186-188)	5 MF	31,800	94	2.96	22	0.69	23.4
	6 MF	31,350	51	1.63	32	1.02	62.7
Labrador Sea (Set 185)	5 MF	14,550	49	3.37	13	0.89	26.5
	6 MF	14,550	16	1.10	4	0.27	25.0
All Areas (Sets 185-211)	5 MF	304,950	290	0.95	116	0.38	40.0
	6 MF	304,500	174	0.57	103	0.34	59.2
Area I	All	140,400	23	0.16	11	0.08	47.8
Area II	All	241,350	102	0.42	51	0.21	50.0
Area III	All	135,450	129	0.95	86	0.63	66.7
Area IV	All	63,150	145	2.30	54	0.86	37.2
Labrador Sea	All	29,100	65	2.23	17	0.58	26.2
All Areas	All	209,450	464	0.76	219	0.36	47.2
Nets Patrolled (Sets 185, 186; 188-193; 196-211)	5 MF	292,050	230	0.79	114	0.39	49.6
	6 MF	292,050	154	0.53	96	0.33	62.3
	All	584,100	384	0.66	210	0.36	54.7

* Set 206 was supposed to be on Station 5 in Area I. Actually, the midpoint of the set was at 67°59'N, 54°13'W in Area II, but it has been included here as being in Area I.

Table 3. Salmon catches in 2-hour intervals during sets when tagging boats were operating.

Date	Set	4-6	6-8	8-10	10-12	12-2	Total
Aug. 11	186	-	13	0	0	0	13
" 13	188	-	23	13	20	6	62
" 17	189	-	9	2	1	3	15
" 18	190	-	17	5	12	7	41
" 19	191	11	7	7	5	3	33
" 20	192	7	1	4	0	0	12
" 21	193	-	13	(8 - 12 caught 8)			21
" 28	196	-	2	1	0	0	3
" 29	197	-	7	3	2	1	13
" 30	198	-	2	(8 - 2 caught 2)			4
" 31	199	-	0	0	0	-	0
Sept. 1	200	-	0	0	0	-	0
" 2	201	-	5	0	0	-	5
" 5	202	-	22	2	2	1	27
" 10	203	-	2	0	0	0	2

Table 4. Results of comparative fishing experiments with Scotia and Adolf Jensen.

Ship	Date	Position Lat. N Long. W	Catch/Mile-Hr 5" mesh	Catch/Mile-Hr 6" mesh	Catch/Mile/Hr Total
A.T. Cameron	Aug. 21	65-04-30 53-57-30	1.61	0.65	1.13
Scotia	" "	65-09-30 53-55-30	1.67	0.70	1.18
A.T. Cameron	Sept. 5	67-10-30 54-31-00	1.13	0.67	0.90
Adolf Jensen	" "	67-09-48 54-23-42	0.77	0.92	0.85

Table 5. Salmon tags applied by A.T. Cameron 202, 1972.

Date	Lat. N	Long. W	Tag Nos.	Total Tagged
Aug. 9	56-49	50-25	X10,000-X10,012; X10,026-X10,029	17
" 11	61-04	51-18	X10,013;X10,030;X10,033	3
" 12	62-11	50-17	X10,014-X10,018	5
" 13	63-24	51-41	X10,019-X10,025; X10,031; X10,032; X10,034-X10,070	46
" 17	65-10	54-58	X10,071-X10,075; X10,091; X10,092; X10,093; X10,076	9
" 18	65-11	53-55	X10,077-X10,090; X10,094-X10,106	27
" 19	65-12	53-05	X10,107-X10,135	29
" 20	65-47	53-50	X10,136-X10,139; X10,158-X10,161	8
" 21	65-05	53-58	X10,140-X10,146; X10,162; X10,163	9
" 26	66-03	53-50	X10,147-X10,150	4
" 28	67-10	55-41	X10,151-X10,153	3
" 29	67-30	55-08	X10,154-X10,157; X10,164; X10,165; X10,181; X10,182	8
" 30	67-50	54-26	X10,166	1
" 31	67-47	54-04	X10,167	1

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Table 5. continued

Date	Lat. N	Long. W	Tag Nos.	Total Tagged
Sept. 2	69-09	52-34	X10,168-X10,170	3
" 5	67-11	54-31	X10,172-X10,180; X10,183-X10,189	16
" 13	67-57	54-12	X10,190; X10,191	2
" 14	67-11	54-26	X10,193-X10,197; X10,201	6
" 14	67-10	54-28	X10,198; X10,209-X10,211	4
" 18	(Faeringe Nordhavn) 67-40-30	53-34-30	X10,199; X10,200; X10,202; X10,203; X10,212	5
" 20	67-35	54-11	X10,205; X10,207; X10,208; X10,213-X10,218	9
" 20	67-36	54-08	X10,219	1
" " 21	(Syd Bay) 67-13-10	53-53-30	X10,220; X10,221	2
" 22	67-18	54-25	X10,222	1
			Total Tagged	219

Salmon tags X10,171; X10,192; X10,204 and X10,206 were not released.

Table 6. Salmon catch/effort by mesh size and relative efficiencies of 5 and 6 inch mesh nets for different areas.

Area	5" Mesh Catch/Mile-Hr.	6" Mesh Catch/Mile-Hr.	Relative Efficiency (5 inch 6 inch)
I	0.13	0.20	0.65
II	0.41	0.43	0.95
III	1.30	0.61	2.13
IV	2.96	1.63	1.82
Labrador Sea	3.37	1.10	3.06
All Areas	0.95	0.57	1.67

Table 7. Temperatures (Surface to 50 Metres), A.T. Cameron 202, 1972

Temperatures read from Trace on B.T. slides, using surface temperatures for alignment. Temperatures in brackets are corrected temperatures from thermometer readings.

Set	Date	Position		Time	Surf.					
		Lat. N.	Long. W.	(NST)	°C	10 m	20 m	30 m	40 m	50 m
185	Aug. 9	56-48-30	50-26	1115	7.8	7.8	7.5	6.5	5.7	4.1 (4.11)
186	" 11	61-00	51-20	0807	4.9	4.9	4.7	3.7	4.3	- (4.05)
187	" 12	62-10-50	50-18-45	0835	4.8	3.3	1.0	0.5	0.2	- (0.10)
188	" 13	63-26-30	51-39	1025	4.8	4.0	2.0	1.3	1.3	1.3 (1.03)
189	" 17	65-10	54-55	1115	3.9	3.7	3.3	2.2	1.7	1.4 (1.18)
190	" 18	65-09	53-50	0940	4.2	4.2	3.4	2.5	1.7	1.2 (1.16)
191	" 19	65-16	53-05	0945	4.2	4.0	3.9	3.2	2.8	2.4 (2.22)
192	" 20	65-44-30	53-49-30	0940	4.3	4.3	4.3	3.7	2.2	1.7 (1.53)
193	" 21	64-59	53-52	0835	4.2	4.2	3.0	2.2	1.5	1.3 (1.13)
194	" 26	65-10	53-56-30	0955	3.1	3.1	3.1	3.1	3.0	1.9 (1.89)
195	" 27	65-10	55-35	0840	2.9	2.9	2.9	2.9	2.9	2.6 (2.40)
196	" 28	67-10	55-35	1045	3.1	3.0	3.0	2.9	2.6	2.4 (2.19)
197	" 29	67-31	55-08	1045	3.1	3.1	3.1	3.1	3.1 (2.92)	-

Table 7 (Cont'd)

Set	Date	Position Lat. N.	Position Long. W.	Time (NST)	Surf °C	10 m	20 m	30 m	40 m	50 m
198	" 30	67-48-30	54-30	1130	3.3	3.3	3.3	3.3 (3.14)	-	-
199	" 31	67-23-30	54-12	0943	2.8	2.7	2.7 (2.66)	-	-	-
200	Sept. 1	68-50-15	53-17-30	0940	3.7	3.3	3.0	2.8	2.7	2.6 (2.44)
201	" 2	69-07-20	52-34	0940	4.0	4.6	3.5	2.0	1.4	1.1 (0.85)
202	" 5	67-11-30	54-28	0947	3.3	2.8	2.8	2.8	2.8	2.8 (2.82)
203	" 10	69-31-30	54-54	0945	3.3	3.3	3.3	3.3	3.0	0.9 (0.64)
204	" 11	70-01-30	57-30	0925	2.5	2.4	2.5	1.2	-0.5	-0.8 (-0.98)
205	" 12	69-00	56-02	1000	3.0	3.0	2.9	2.7	0.2	-0.6 (-0.75)
206	" 13	67-57	54-09-45	1010	3.1	3.0	3.0	3.0	3.0	3.1 (2.76)
207	" 14	67-11-30	54-26	0935	3.4	3.4	3.5	3.5	3.5	3.5 (3.09)
208	" 16	67-12	55-52	0955	2.7	2.7	2.7	2.7	2.7	2.7 (2.34)
209	" 19	67-36-30	54-14	0955	3.3	3.3	3.3 (3.06)	-	-	-
210	" 20	67-36	54-10	0930	3.3	3.3	3.3 (3.05)	-	-	-
211	" 22	67-16	54-31	0925	3.4	3.4	3.4	3.4	3.4	3.4 (3.10)

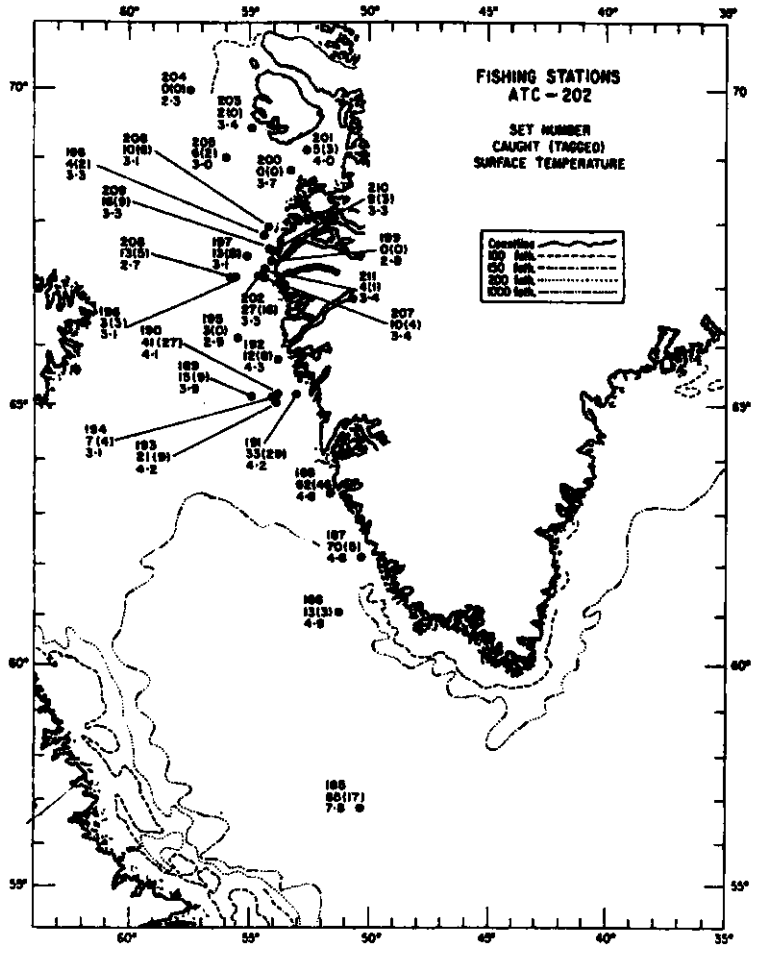

Fig. 1. Area map showing positions of sets, numbers of salmon caught and tagged, and surface temperatures.

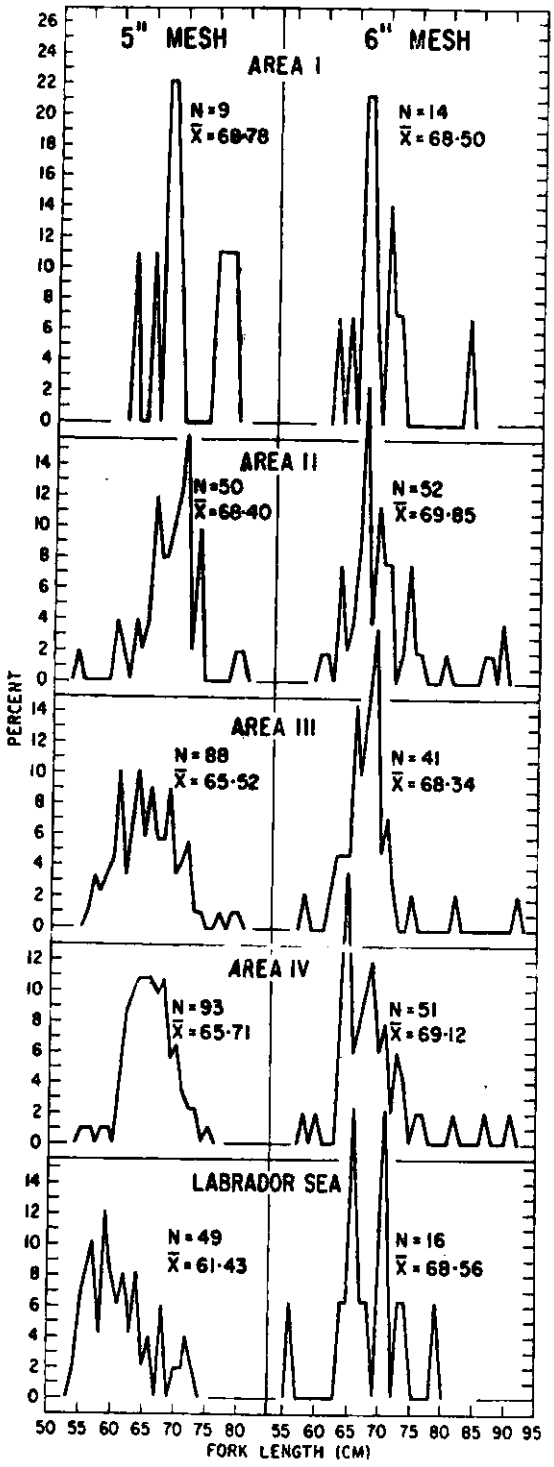

Fig. 2. Fork length distributions of Atlantic salmon caught by the A.T. Cameron in 5- and 6-inch mesh nets at West Greenland and Labrador Sea during August-September 1972. N =number of fish, $\bar{X}$ = average fork length (cm).