



ANNUAL MEETING - JUNE 1965

Catches of Atlantic Salmon, from the State of Maine, U.S.A.,
 in Greenland Waters

1. In response to the ICNAF circular letter of 11 May 1965, regarding Atlantic Salmon catches at Greenland, Dr. W.H. Everhart, Chief of Fishery Research and Management of the State of Maine, Atlantic Sea Run Salmon Commission, and Mr. Alfred Meister, Salmon Commission Biologist, have supplied the following information.

2. Dr. Everhart writes:

"Considering the possible impact of so large a catch on the future stocks of Atlantic salmon in North America we are gratified to learn that ICNAF has taken an interest in the Greenland fishery. Mr. Alfred Meister, Salmon Commission Biologist, has compiled the following information in response to your inquiry concerning the Greenland fishery.

"We are assuming that Dr. Hansen has in his possession the information forwarded to your organization concerning the tag returns from fish tagged in Maine rivers (Appendix 'A'). In total numbers of fish tagged our efforts have been meager (Appendix 'B') but very rewarding in the light of tag returns. To date our tagging efforts have been directed towards tagging the incoming spawning runs. Consequently, all marine tag returns have been from fish that are post-kelts. Tag return data reveal that our fish reach Newfoundland waters by July and reach the coast of Greenland by late summer. An intensive tagging program in Greenland waters would do much to answer the question of whether the fish that migrate to Greenland are the same fish that return to our waters the next year.

"In addition to the tagging of the adults we also fin-clip and release smolts. We have taken the liberty of including a listing of the marks applied in 1963 and 1964 for your information and guidance (Appendix 'C'). Our salmon runs are noted for their lack of grilse and it is therefore possible that some of the fin-clipped fish may be recovered in the Greenland fishery.

"Your proposed program as outlined in Appendix I to the ICNAF circular letter of 11 May 1965, is commendable and we will cooperate in any way that we can. Please advise if you wish additional information on any aspect of our program.

"With respect to the outlined program in Appendix I we would like to comment briefly that from our experience with scale interpretation of Atlantic salmon the use of growth increments and more especially circuli as reported for the Pacific salmon races are of little assistance in determining the river of origin of Atlantic salmon. Possibly some generalized statement could be made on a larger geographical area. We are not in a position to discuss the possible use of other morphological characters or meristic counts at this time. However, published reports on whitefish (Coregonus sp.) and other species by our co-workers in Maine combined with preliminary investigations by our organization indicate that serological studies may be a practical method of separating stocks of Atlantic salmon.

"One-year smolts with the exception of experimental hatchery stocks are practically non-existent in United States and Canadian waters. In Maine our native smolt runs are dominantly two-year fish with the remainder three-year fish. Higher age classes are seldom encountered. During the past five years the average smolt run from our rivers has consisted of 82 percent two-year-old smolts and 18 percent three-year-old fish.

"Data on the spawning run composition for Maine rivers reveal that grilse account for less than 2 percent of the runs. Maiden fish are dominant and account for 78 to 96 percent of the individual runs. Repeat spawners range from 5 to 22 percent of the fish in the individual runs with an average of 12 percent of the fish in this category. Two-year sea fish are the dominant group among the maiden fish with three-year sea fish accounting for less than 3 percent of these fish.

"The following data on lengths and weights of Maine salmon by age classes is included for your information. All lengths are to the nearest tenth of an inch and are total lengths only. Weights are to the nearest ounce.

Grilse	23.5"	TL	range 21.7-25.6"	Avg. Wt. 3 lbs.15 oz.
Maiden fish				
2-yr. Sea	30.0"	TL	range 27.0-32.9"	Avg. Wt. 8 lbs.14 oz
3-yr. Sea	35.1"	TL	range 34.2-36.0"	Avg. Wt.15 lbs.12 o:
Repeat Spawners				
2nd Trip	35.1"	TL	range 34.0-38.0"	Avg. Wt.15 lbs. 8 oz.
3rd Trip	38.5"	TL	range 37.1-40.1"	Avg. Wt.20 lbs. 4 oz.

"Little or no information is available to determine if the recent decline in our sport catches (below the average for the past two years) can be blamed on any commercial fishery. Certainly the long term trends of fluctuation in abundance of the Atlantic salmon cannot be ruled out. Commercial fishing as such for Atlantic salmon is virtually non-existent along the Maine coast and probably less than a long ton of salmon are captured annually by our fishermen.

"If we can be of assistance to the Commission or the Assessment Subcommittee please feel free to contact us at any time."

Appendix 'A'

Maine tagged salmon reported
in ICNAF Divisions 1964

by A. Meister

subareas: During 1964 tags were returned from the following ICNAF

<u>Subarea</u>	<u>No. Tags Returned</u>	<u>Reported by</u>
1B	1	Denmark
3L	1	Newfoundland, Canada
3PS	2	Newfoundland, Canada

In addition to the above several Canadian and Irish tagged salmon were reported from Subarea 1B. It is beginning to look as though we have a common feeding ground in the Greenland area of the North Atlantic.

At the time of our last communique we were unable to state that a reward would be paid for returned tags. Legislative action was granted to pay rewards and we are now in a position to pay a token reward of \$1.00 U.S. funds for each return. Rewards have been paid to the individuals or agencies reporting tags in 1964.

Record of Atlantic Salmon tagged by the Atlantic
Sea Run Salmon Commission, 1962 - 64

by W. H. Everhart and A. Meister

Year	ICNAF Div.	Locality or Position	Date	Type of Tag	Range of Ser. Nos.	No. Released
1962	5Y	Narraguagus R. Maine, U.S.A.	June-Oct.	Green plastic attached to Adipose Fin. ¹	26 - 235 250 - 258	192
1963	5Y	Narraguagus R. Maine, U.S.A.	June-Oct.	5mmX14mm green plastic tag attached to adipose fin with plastic tubing.	236 - 249 260 - 415	170
1964	5Y	Narraguagus R. Maine U.S.A.	June-Oct.	Plastic loop with green streamer 5mmX14mm attached to adipose fin.	526 - 772	233

¹Tag attached to Adipose fin with clear plastic tubing. Tag of green plastic with black inscription bearing legend:
 RETURN TO: ATL. SALMON COMM.
 ORONO, MAINE
 Reverse side bears a number and inscription SEND: NAME AND PLACE.
 Tag measures 5mmX14mm

Fin-Clip marks applied to Atlantic Salmon
by the Atlantic Sea Run Salmon Commission, 1964-65

by A. Meister

<u>Mark</u>	<u>Number*</u>	<u>Year Planted</u>	<u>Expected Year of Return</u>
Anal and Left Pelvic	7,000	1964	1966
Dorsal and Left Pelvic	1,500	"	"
Dorsal and Right Pelvic	18,000	"	"
Anal and Left Pelvic	5,500	"	"
Anal and Right Pelvic	6,000	"	"
Dorsal and Right Pelvic	15,000	1965	1967
Anal and Right Pelvic	50,000	"	"
Dorsal and Anal	35,000	"	"
Anal and Right Pelvic	40,000	"	"
Anal and Left Pelvic	25,000	"	"
Right Pelvic	2,000	"	"
Left Pelvic	2,000	"	"

The above listed fish are hatchery stock and were reared in a tempered water supply and released as one-year-old smolts.

In addition to the above approximately 1,000 native smolts are marked annually with a Left and Right Pelvic fin-clip.

* Figures are to the nearest hundred