

International Trawl Mesh Selection Experiment, Iceland, 1962

by A. R. Margetts

During 1962 seven countries undertook mesh selection work in Icelandic waters. Data from that work have been sent to me from Iceland, Canada, U.S.S.R., W. Germany, Scotland and England, i.e. all countries except Norway who was very recently still engaged in the work at sea, and it is upon that data that this brief summary report is based.

Programmes of work were coordinated beforehand and it was possible to arrange for Canada, Iceland and England to cooperate closely at sea with simultaneous fishing together. Covered manila codends were used by all ships, while some ships made alternate hauls with double manila codend, and others covered hauls with polyamide codends, some of them with and without chafers.

Tables 1 and 2 summarise results, including most, but not all, of the collected data. Notable omissions are the Norwegian data and some Icelandic covered and alternate haul data from W. and S.W. Iceland. They show how considerable was the effort put into the experiments and also a considerable diversity of results.

The results are a first, unchecked, working up of the data. Hauls have been grouped; no attempt has been made to investigate disparities between hauls in any group. The variety of selection factors obtained both between ships and within ships on different grounds or occasions is at first inspection disconcerting, as is also the apparent absence of clear selection in one or two notable instances where conditions would seem to favour the production of a clear result, e.g. A. T. CAMERON alternate hauls at Skjalfandi. This combined operation illustrates again the practical drawbacks experienced with the theoretically preferable alternate haul method of selectivity measurement and the great variation in covered haul results under uneven fishing conditions. A common feature of all the experiments, especially on haddock, was the relatively large numbers of small fish well below the selection range being retained in a selecting codend. In some instances where the 50% point was clearly established the length range over which the mesh selected was unusually great, e.g. A. T. CAMERON, covered hauls, show a smooth selection curve from 20% retained at 29 cm to 98% retained at 50 cm.

An overall average of data suggests a selection factor for manila of 3.6 on cod, 3.4 on haddock and 2.9 on redfish, with alternate haul results perhaps a little higher than covered hauls, and no outstanding differences between manila and polyamide.

The data and effort put into collecting it clearly warrant a more thorough working up, particularly to establish reliable selection factors and the causes of variation in selectivity, e.g. the effect of heavy and light catches.

Table 1

Country	Ship	Date	Area	Number of hauls
Iceland	MARIE JULIA	March 28-April 1	S.W. Iceland	13
Norway	G. O. SARS	May 10-13	"	
Scotland	EXPLORER	June 16-25	N. Iceland	26
W. Germany	ANTON DOHRN	July 9-17	N. & N.W. Iceland	64
England	ERNEST HOLT	July 20-28	N. Iceland	51
Canada	A. T. CAMERON	"	"	51
Iceland	MARIE JULIA	"	"	43
U.S.S.R.	GONCHAROV	July 27-Aug. 8	N. & N.W. Iceland	26
Iceland	MARIE JULIA	Aug. 6-18	S. & W. Iceland	32
Norway		Sept. 10-18?		

Table 2

Ship	Date	Ground	Codend	Hauls	Selection Factor		
					Cod	Haddock	Reds
EXPLORER	16-20/6	Hunafloi	D.Manila 108 mm Covered	7	3.5	3.3	-
"	22-25/6	"	" 122 mm "	8	3.3	3.4	2.3
"	21-22/6	"	" 128 mm "	3	3.1?	-	2.8
"	18-21/6	"	D.Nylon 87 mm "	5	3.7?	3.7?	-
ANTON DOHRN	9-14/7	N. Iceland	D.Manila 138 mm "	15	2.9?	3.0?	-
"	14-17/7	N.W. Iceland	" 139 mm "	12	-	-	2.9
"	17-20/7	"	D.Perlon(6)132 mm "	17	-	-	2.9
"	21-23/7	"	" (28)142 mm "	10	-	-	2.8
"	24-26/7	"	D.Manila 149 mm "	10	-	-	3.15
ERNEST HOLT	20-21/7	Hunafloi	D.Manila 100 mm Uncovered	5	-	4.7?	-
"	"	"	" 75 mm "	6	-	-	-
"	22/7	Grimsey	" 100 mm "	4	-	-	-
"	"	"	" 75 mm "	2	-	-	-
"	23/7	Skjalfandi	" 100 mm "	2	4.3	-	-
"	"	"	" 75 mm "	4	-	-	-
"	26-27/7	"	" 129 mm "	6	3.7	-	-
"	"	"	" 75 mm "	5	-	-	-
"	24/7	"	" 100 mm Covered	3	3.0?	-	-
"	24-25/7	"	" 129 mm "	6	3.0	3.6	-
"	28/7	Thistil	" 129 mm Uncovered	4	3.6?	-	-
"	"	"	" 75 mm "	4	-	-	-
A.T.CAMERON	20-21/7	Hunafloi	" 120 mm Uncovered	6	3.7?	2.8?	-
"	"	"	" 50 mm "	5	-	-	-
"	22/7	Grimsey	" 120 mm "	2	-	-	-
"	"	"	" 50 mm "	5	-	-	-
"	23-27/7	Skjalfandi	" 120 mm "	8	-	-	-
"	"	"	" 50 mm "	7	-	-	-
"	24-25/7	"	" 120 mm Covered	10	2.9	3.0?	-
"	28/7	Thistil	" 120 mm Uncovered	4	3.2?	-	-
"	"	"	" 50 mm "	4	-	-	-
MARIE JULIA	24/7	Skjalfandi	" 117 mm Covered	6	3.4	3.3	-
"	25/7	"	" 136 mm "	8	3.5	3.6	-
"	23-27/7	"	" 97 mm Uncovered	10	4.1	3.8?	-
"	"	"	" 61 mm "	7	-	-	-
GONCHAROV	27-29/7	N. Iceland	D.Kapron 125 mm Covered	6	3.4	3.3	-
<i>Slipfanger</i>	28-29/7	"	" * 126 mm "	4	3.3	3.4	-
"	29-30/7	"	" * 108 mm "	3	4.1	-	-
"	28/7	"	D.Manila 141 mm "	5	3.5	3.5	-
"	5-8/8	N.&NW Iceland	" 92 mm "	5	-	-	-
"	5/8	W. Iceland	" 118 mm "	3	-	-	3.1
MARIE JULIA	6-17/8	S. Iceland	" 138 mm "	14	-	3.5	-
MARIE JULIA	28/3- 1/4	S.W. Iceland	" 126 mm "	13	-	3.4	-

* With chafers

typer de chafers mit ↓ des Plester.