



Serial No. 2839
(D.c.9)

ICNAF Res. Doc. 72/108

ANNUAL MEETING - JUNE 1972

Catch-per-haul of young cod in ICNAF Divisions 3K
and 2J by the research vessel A.T. Cameron, 1969-71

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Introduction

Increased fishing pressure in ICNAF Divisions 3K and 2J has reduced the numbers of cod in the older age groups. The recruitment of an adequate and regular supply of young cod into the fishery has therefore become more essential for catches to be maintained at high levels. On research vessel cruises to these divisions in the years 1969-71, cod as small as 15 cm were taken. Some idea of the relative strength of year-classes about to enter the fishery may therefore be obtained.

Material and Methods

Research vessel cruises to ICNAF Divisions 3K and 2J were undertaken in the April-June period as follows: 2 cruises in 1969, and 1 cruise each in 1970 and 1971. The standard number 41-5 Yankee otter trawl with 1 1/8" nylon liner in the codend was used. Sets were made on standard fishing lines and were of 30-minutes duration. Depths ranged from 125 to 175 fathoms. The numbers of hauls in Division 2J in 1969, 1970 and 1971 were 7, 10 and 19 respectively. The corresponding numbers of hauls in Division 3K were 6, 10 and 10. For most sets, the fork lengths of all cod caught were recorded. Samples of otoliths were taken in such a way that otoliths were available for all lengths. Age-length keys were constructed and the age composition of the catches determined.

Results

In both ICNAF divisions, most cod taken were small and young (Tables 1 and 2). In 1970, large catches of the 1967 year-class were taken in Division 2J and this year-class was dominant in 1971 although numerically much smaller. In Division 3K in 1969 and 1970, the year-classes 1963-66 appeared to be fairly strong, while in 1971, the 1967 year-class, although not strong, was dominant.

The present series of data is not sufficiently long to allow a confident estimate of the strength of the 1967 year-class. It is apparently of greater strength than either the 1966 or 1968 year-classes, and if the catch in Division 2J in 1970 is a good indication, it may be of great strength.

Table 1. Numbers of cod by length caught per 30-minute haul during research vessel cruises in the second quarter, 1969-71, at depths 125-175 fathoms. The codend was lined with 1 1/8" nylon liner.

Fork length (cm)	2J			3K		
	1969	1970	1971	1969	1970	1971
16	2	4		1		
19	7	102		2	1	1
22	7	419	6	2	3	3
25	23	566	27	5	6	3
28	67	243	46	11	11	4
31	140	96	67	14	11	10
34	197	47	58	25	20	8
37	127	21	34	19	23	5
40	69	11	15	14	28	4
43	49	6	11	14	31	3
46	44	2	6	14	28	3
49	38	1	7	14	23	2
52	34	1	6	11	22	1
55	24	1	5	7	19	2
58	17	-	4	6	13	1
61	20	1	3	4	10	1
64	12		2	3	6	-
67	6		2	2	3	1
70	4		1	2	1	
73	1		1	1	1	
76	1				-	
79					1	
-						
94				1		
No. per 30-minute haul	889	1521	301	172	261	52
kg per haul	526	223	132	139	240	31
No. cod caught	6228	15216	5746	1026	2582	528
kg cod caught	3684	2232	2504	836	2402	305
No. cod measured	5306	15216	5746	1026	2582	528

Table 2. Numbers of cod by age caught per 30-minute haul during research vessel cruises in the second quarter, 1969-71, at depths 125-175 fathoms. The codend was lined with 1 1/8" nylon liner.

Age	2J			3K		
	1969	1970	1971	1969	1970	1971
2	16	135		4	1	2
3	91	1097	44	18	22	11
4	438	242	177	56	55	18
5	143	41	37	44	83	12
6	86	4	21	32	56	6
7	51	1	12	10	32	2
8	28	1	6	4	8	1
9	10		3	2	2	
10	16		1	1	-	
11	3			-	1	
12	6			-	1	
13	-			-		
14	1			-		
15				1		
No. per 30-minute haul	889	1521	301	172	261	52
No. pairs of otoliths	920	1252	452	726	582	223