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Report on ICNAF Statistical Program, Publications
and ADP Processing

by

Assistant Executive Secretary

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The following amendments refer to publications issued in the last half of 1977 and early 1978:

Page 3. *Statistical Bulletin* Vol. 26 for 1976, issued January 1978.

Page 4. *List of Vessels* for 1976 (ICNAF Sum. Doc. 78/VI/5).

Sampling Yearbook Vol. 20 for 1975, issued December 1977.
Sampling Data for 1976 (ICNAF Sum. Doc. 78/VI/4).

Page 5. *Research Bulletin* No. 13 (7 papers), in press.

Selected Papers No. 3 (14 papers), issued January 1978.

Selected Papers No. 4 (11 papers), in press.

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REPORT ON ICNAF STATISTICAL PROGRAM, PUBLICATIONS AND DATA-PROCESSING

by

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[NOTE: Appendices XI, XII and XIII have not been reproduced for this summary document.]

A. Introduction

The development of a system for documenting fishery statistics for the Northwest Atlantic began soon after the formation of the Commission in 1950 and the first Statistical Bulletin was issued in 1952 containing time series of landings of groundfish species as reported by 10 Member Countries for the area as a whole. The collection of both catch and effort statistics began very early in the history of the Commission as indicated in Vol. 2 where the data are also recorded by subareas. In Vol. 3 (for 1953) catch and effort data are recorded by ICNAF divisions, and, with the addition of Statistical Area 6 in the mid-1960's and Statistical Area 0 in 1973, the requirements for reporting by geographical areas have remained virtually unchanged. However, significant improvements have occurred over the years with the development of a more refined breakdown of catches by species, gear, vessel size and month. The evolution of the statistical reporting system now used for the Northwest Atlantic was greatly enhanced by the work of the CWP and the establishment of the STATLANT system. However, the rapid development of conservation measures since 1972 for more than 60 stocks ranging over all 7 statistical subareas in the Northwest Atlantic and the need for assessments to be carried out prior to the Annual Meeting have led to the recent requirement for preliminary statistics to be reported in some detail very early in the year, but this in no way eliminates the requirement for Member Countries to report through the STATLANT system.

B. Catch and Effort Statistics

1. Advance Statistics for Assessments

The need for Commissioners to have prior information on the status of the stocks under catch quota regulation for consideration at the Annual Meeting in June resulted in a decision to have the Assessments Subcommittee meet in April so that its report can be circulated in advance of the Annual Meeting. This policy, initiated in 1974, requires that Member Countries report preliminary catch statistics (together with biological sampling data) by month, gear and ICNAF division for selected species. These statistics are required well in advance of the April Meeting so that designated scientists can carry out some preliminary assessment work prior to the meeting. The deadline for the submission of these data varies from year to year, depending on the time of the meeting, but the data are expected to be available at least one month before the start of the meeting. These statistics are classed as preliminary in nature and in many cases include estimated catches for the last 2 or 3 months of the preceding calendar year. Since national statistical offices are rather slow in responding to such early requests, the onus has been put on national scientists to see that the required data are made available. The data are computer-compiled for use by the Assessments Subcommittee in the format similar to Table 4 of the ICNAF Statistical Bulletin. The form used by countries to report these advance statistics is at Appendix I. No further use is made of these preliminary data after the STATLANT 21A and 21B data become available later in the year.

2. Annual Catch Statistics (STATLANT 21A)

Member Countries are required to submit their annual nominal catch data by species and division on Form STATLANT 21A by 15 April of each year. This submission requires the reporting of the catches of all species individually in contrast to the above-mentioned requirement for the catches of selected species only. These 21A statistics are needed at the time of the Annual Meeting in late May or early June to provide the information necessary to review the trends in the catches of regulated species, as well as the development of fisheries on non-regulated species, so that over-exploitation might be avoided by the setting of pre-cautionary catch quotas, if necessary.

Although very few countries meet the 15 April deadline, statistics for all countries are usually available in time for computer-compilation prior to the Annual Meeting. These data are presented in a Summary Document in the format of Tables 1, 2 and 3 of the Statistical Bulletin. (see Appendices III and IV) Since some countries designate their STATLANT 21A submissions as provisional, pending the later submission of more detailed catch and effort data on Form STATLANT 21B, the 21A data presented in the Summary Document represent the advance release of Northwest Atlantic catch statistics, but are not normally used in compiling the Statistical Bulletin tables. The advance report on nominal catches in 1976 is presented in ICNAF Summary Document 77/VI/29 (revised).

3. ICNAF Statistical Bulletin (STATLANT 21B)

Statistical Bulletin tables are compiled from STATLANT 21B submission of fishing effort and nominal catch statistics, the deadline for which is 30 June of each year. The revised format of the STATLANT 21B Form, which became effective for the reporting of 1975 catch and effort data, has significantly improved the work of the Secretariat in preparing the data for computer processing.

Except for the addition of data for Statistical Subarea 0 in Vol. 23, the format of the Bulletin has remained virtually unchanged, following a major restructuring of the tables in Vol. 22 (for 1972). These changes generally followed the proposals of the CWP *ad hoc* Working Group which met at Rome in January 1973 (ICNAF Summ.Doc. 73/11). The reorganization of the Bulletin resulted in the presentation of the tabular material in 4 sections as follows:

- a) Part I contains 15-year tabular summaries of the catches of the principal species (000 tons) and of seals (000 animals) by country and by subarea (see Appendix II).
- b) Part II contains statistics of catch and effort for the current year in 6 tables, the first 4 of which present catch statistics in various degrees of detail and the remaining 2 tables present catch and effort data (see Appendices III to VII).
- c) Part III contains 2 tables of catch and hunting effort for harp and hooded seals.
- d) Part IV, if required, contains corrections and additional statistics pertaining to previous issues of the Bulletin, resulting from a continuing effort to update the statistics of previous years.

Each issue of the Bulletin also contains (i) a list of the Northwest Atlantic species arranged according to the ICNAF groups, with both the ICNAF and FAO species codes, (ii) a description of fishing effort measures applicable to ICNAF gear categories, and (iii) the gears applicable to the ICNAF Area and their new abbreviations all having been adopted on the basis of proposals made by the CWP at its September 1974 Session.

Virtually all the Bulletin tables are now computer compiled and reproduced from computer printout. However, the Secretariat has not yet been able to issue the Bulletin earlier than 6-7 months after the 30 June deadline for the submission of data, mainly because of significant delays in the receipt of STATLANT 21B reports from one or two countries. Since the last session of the CWP (September 1974), the following Statistical Bulletins have been issued:

Vol. 23 for 1973, issued in January 1975
Vol. 24 for 1974, issued in January 1976
Vol. 25 for 1975, issued in January 1977

4. Reporting of More Detailed Catch and Effort Data

At its 1974 Annual Meeting, the Commission's Standing Committee on Research and Statistics (STACRES) recommended the adoption of a statistical reporting system based on 30' x 30' unit areas and twice-monthly time periods. At its September 1974 Session, the CWP proposed suitable revisions to the STATLANT 21B to accommodate the ICNAF request for modification. The revised 21B Form was adopted by STACRES at its 1975 Annual Meeting with the recommendation that it be introduced for the reporting of detailed catch and effort data for 1976. Consequently, supplies of the form, with detailed instructions for their completion, were distributed by the Secretary of the CWP early in 1977.

As a result of the recent extension of fisheries jurisdiction to 200 miles by all of the coastal states in the Northwest Atlantic, and because of the current differing requirements of the coastal states for the reporting of fisheries statistics by foreign vessels permitted to fish within the 200-mile zones, STACRES, at its 1977 Annual Meeting, decided to suspend the requirement for reporting data by 30' x 30' unit areas and twice-monthly time periods, pending future coordination of the coastal states' requirements. Member Countries were subsequently advised of the change in the requirements for 1976 data (ICNAF Circular Letter 77/39, issued 24 June 1977), and the Secretariat, in consultation with the Secretary of the CWP, was requested to modify the instructions for completing STATLANT 21B when data for 1977 are solicited, so that countries are advised to continue reporting STATLANT 21B data by month and division as in the past.

C. Other ICNAF Research and Statistical Activities

1. List of Fishing Vessels

The List of Fishing Vessels has been published triennially since 1956, the most recent issue being that for 1974. The basic information on fishing vessels include: vessel name, date built, register number, gross registered tonnage, total length, home port, radio call letters, engine horsepower, crew, presence of vertical and/or horizontal echo sounders, fishing gear, and subareas fished (Appendix VIII). The 1971 and 1974 Lists, for vessels 50 GRT and over, were reproduced from computer printouts. The application of data-processing techniques has simplified the preparation of the lists both at the Secretariat and in national Statistical

Offices, in that countries are now required to update their lists annually by simply noting any changes on computer-compiled copies supplied by the Secretariat. While the List of Vessels will continue to be published triennially (the next being for the year 1977), the lists for the intervening years are issued as meeting documents. Since the 1974 Session of the CWP, the following lists have been issued:

List of Vessels for 1974 (triennial publication issued in February 1976)
List of Vessels for 1975 (ICNAF Summ.Doc. 77/VI/4).

2. Sampling Yearbook

The ICNAF Sampling Yearbook, containing biological data on length and age composition of many species caught both commercially and by research vessels in the ICNAF Area, has been issued annually since 1956, and the data form the background information necessary for input into analytical models for stock assessments and prediction of total allowable catches for species under catch quota regulation. After the issue of Vol. 17 for 1972, the publication of detailed sampling data was discontinued, and the Yearbook now contains a listing by species of data submitted by Member Countries in accordance with the ICNAF sampling program. The sampling data for 1973 and subsequent years have been computerized and are made available to ICNAF scientists upon request only (see Appendix IX).

3. Statistics on Discards

For several years, Member Countries have been requested to provide statistics on the quantities of fish thrown overboard at sea (discards). The available data are summarized annually in a meeting document. Up to the present time the reported data have been rather fragmentary, due largely to the problems that national statistical offices have in collecting reliable data from their fishing fleets.

The urgent need for as precise information as possible on quantities of discarded fish has been persistently reiterated at recent ICNAF Meetings and the procedures for obtaining such information reviewed. It was recently noted that the quantities discarded may not now be significant, since the fishing fleets of most countries have been modernized with the replacement of traditional side trawlers by factory stern trawlers equipped with meal plants. In an effort to elucidate the magnitude of the discard problem, STACRES at the 1977 Annual Meeting recommended that the Secretariat circulate guidelines for improved discard statistics, requesting each country to appoint a scientist to investigate and report on the aspect of discarding in its fisheries in the Northwest Atlantic and to assist in the provision of adequate statistics on discards. It was noted that problems associated with the collection and reporting of statistics on discards will be discussed at the August 1977 Meeting of the CWP, and it was agreed that the guidelines should be prepared and circulated after discussion in the CWP. A sample copy of the ICNAF form for reporting discards is at Appendix X.

4. Updating of Fisheries Statistics for Previous Years.

The Secretariat is involved in a continuing program of updating the historical records of catch and effort data for the Northwest Atlantic fisheries, by maintaining contacts with all countries known to have fished in the area with requests for revisions to previous data submissions and for more refined breakdowns of catches than were previously available. Significant results were achieved in obtaining from Member Countries a breakdown of their flatfish catches by individual species for 1963-71 period, when large quantities were previously reported as "Flounders(NS)". A complete revision of these data was published in Part IV of Statistical Bulletin, Vol. 23. More recently, an attempt is being made to obtain a breakdown of the squid catches by *Loligo* and *Illex* separately, and the results of this project is expected to be available soon.

In view of the large number of revisions currently available for previously reported catch and effort statistics, the Secretariat is now preparing to incorporate these revisions into new sets of computer-compiled tables at least back to 1970 and for earlier years as time permits. It is planned that these revised tables will be published in one or more volumes as supplements to the Statistical Bulletin series.

5. Special Projects for Mid-term and Annual Meetings

In addition to the usual compilation of statistical data for inclusion in the various ICNAF publications mentioned in Sections B, C and D above, the Secretariat prepares a number of oriented meeting documents and working papers for the use of the Commission and its scientific advisers at Mid-term and Annual Meetings. Such documentation include (i) the compilation of reported data on trawl materials and mesh size sampling; (ii) compilation of tables containing 10-year historical records of nominal catches by stock area and country for each of about 70 stocks under catch quota regulation in recent years, together with the total

allowable catches and national quotas; (iii) analyses of the large volume of sampling data in relation to catches for many of the regulated stocks to assess the efficiency of sampling by Member Countries with regard to the specified minimum sampling requirements; (iv) the preparation of special computer programs prior to and during the course of meetings of the Assessments Subcommittee relevant to analytical models for stock assessment and catch prediction (cohort analysis, virtual population analysis, general production model analysis, etc.); (v) the extraction of resolutions adopted at the preceding ICES Meeting on matters relevant to the research and statistical activities of ICNAF, including the report of the ICES Statistical Committee.

6. Editing and Publication of Scientific Meeting Reports and Papers

Immediately following each Annual Meeting, the Secretariat is responsible for the editing and publication of the reports of all scientific meetings held during the preceding year (July to June) in the long-standing series known as the ICNAF Redbook. This series contains the reports of all meetings of the Commission's Standing Committee on Research and Statistics and its Subcommittees and Working Groups, lists of the summary and research documents presented to various meetings and lists of scientists who attend these meetings. Of particular interest to the CWP are the reports of the ICNAF Subcommittee on Statistics and Sampling (Appendices XI to XIII). Since the 1974 Session of the CWP, the following annual volumes of Redbook have been published:

Redbook 1975 (for 1974/75), issued in August 1975
Redbook 1976 (for 1975/76), issued in August 1976
Redbook 1977 (for 1976/77), issued in August 1977

In addition, the Secretariat is responsible for editing contributions submitted for publication in the ICNAF Research Bulletin, a primary publication medium for research papers pertaining to the Northwest Atlantic. The Secretariat also edits and publishes annually a recently established series entitled "Selected Papers", consisting largely of papers selected from research documents presented to ICNAF Meetings. Since the 1974 Session of the CWP the following volumes of Research Bulletin and Selected Papers have been issued:

Research Bulletin No. 11 (13 papers), issued in November 1975
Research Bulletin No. 12 (10 papers), issued in October 1976

Selected Papers No. 1 (15 papers), issued in February 1976
Selected Papers No. 2 (12 papers), issued in February 1977

D. Summary of Automatic Data Processing of Fisheries Statistics

1. Computer Facilities

When the ICNAF Secretariat office was located in the Bedford Institute of Oceanography, the services of a CDC 3150 computer were provided to ICNAF at no cost through the courtesy of the Canadian Government. However, that computer had no facility to accommodate a remote job entry terminal, so that, when the Secretariat moved to its new location in the autumn of 1974, arrangements were made for the provision of inhouse computer facilities. In December, 1975, the acquisition of a remote job entry terminal provided the Secretariat with direct access to an IBM 370/155 computer, operated by Maritime Computer Services Limited, and to a CDC 6400 computer at Dalhousie University, both in Halifax, Nova Scotia. The IBM 370 is used for practically all of the Secretariat work, but the CDC 6400 is used infrequently for special projects involving statistical analyses for which programs are not readily available in the IBM 370. The remote job entry terminal is a COMTERM 1000 Series, consisting of a 300 cards per minute reader, 300 lines per minute printer and a display console. Card-punching and verifying is done on an IBM 129 Data Recorder which also has an optional interpreting feature. The Secretariat also has an independent connection with the computer through a teletype terminal (DECWRITER II) providing the option of time sharing (TSO). The changeover from the use of the CDC 3150 computer to the IBM 370 system necessitated the revision of all computer programs previously developed for compiling statistical tabulations, but no changes were required in the input formats previously developed to facilitate the processing of data from STATLANT 21A and 21B Forms.

2. Treatment of STATLANT 21A Statistics

These annual nominal catch statistics by species and division are transcribed from the STATLANT 21A forms to standard 80-column coding sheets and thence to computer cards. Since these data are classed as provisional and used only for Annual Meeting purposes, the coding, card format and computer programs are designed for direct card input and paper output without the need for

magnetic tape or disk storage. A card is punched for each species under each division in the following card format:

<u>Col.</u>	<u>Item</u>
1-2	Last 2 digits of calendar year
3-10	Country name (for identification only)
11-12	Country code
14-15	ICNAF division code
16-18	Species code
19-25	Catch (metric tons)

Approximately 2,500 cards are involved and these are sorted by species on input. The compilations of the various tables are carried out in 2 successive computer runs. One to produce a summary table by species and subarea and the other to produce tables of individual species catches (also species group tables) by country and division. The oversized computer output sheets are reduced by about 60% prior to printing on 8 1/2" x 11" pages for collation as a meeting document.

3. Treatment of STATLANT 21B Statistics

The detailed catch and effort statistics, reported on STATLANT 21B forms, are transcribed to 80 column coding sheets and subsequently key-punched and verified. A card contains the monthly catches of a species listed on a line of a STATLANT 21B form. The 3 effort categories are coded as if they were species.

The card format is set out as follows:

<u>Col.</u>	<u>Item</u>
1-2	Last 2 digits of the calendar year
3-4	Country code
5-6	Gear code
7	Tonnage class code
8-9	Main species code
10-11	ICNAF division code
12-14	Species code (and effort code)
15-20	Catch, month (not specified)
21-25	" January
26-30	" February
31-35	" March
36-40	" April
41-45	" May
46-50	" June
51-55	" July
56-60	" August
61-65	" September
66-70	" October
71-75	" November
76-80	" December

Several cards would be punched for each STATLANT 21B sheet, depending on the number of linear records of effort categories and species. Thus for each sheet of data, Col. 1-11 contain coded information common to all catch and effort data listed on the sheet, and thus forms the "key" for organizing the data so that catch and effort data can be extracted on a monthly basis.

Approximately 12,000 card records are involved and the particular formats of the various Statistical Bulletin tables require that the data be inputted to a disk file, sorted in several ways and compiled through the application of separate programs for each table. Magnetic tape files are maintained of the basic input data file and two other files derived from compilations done during the processing. A flow-chart of the various automatic data processing procedures is given in Fig. 1.

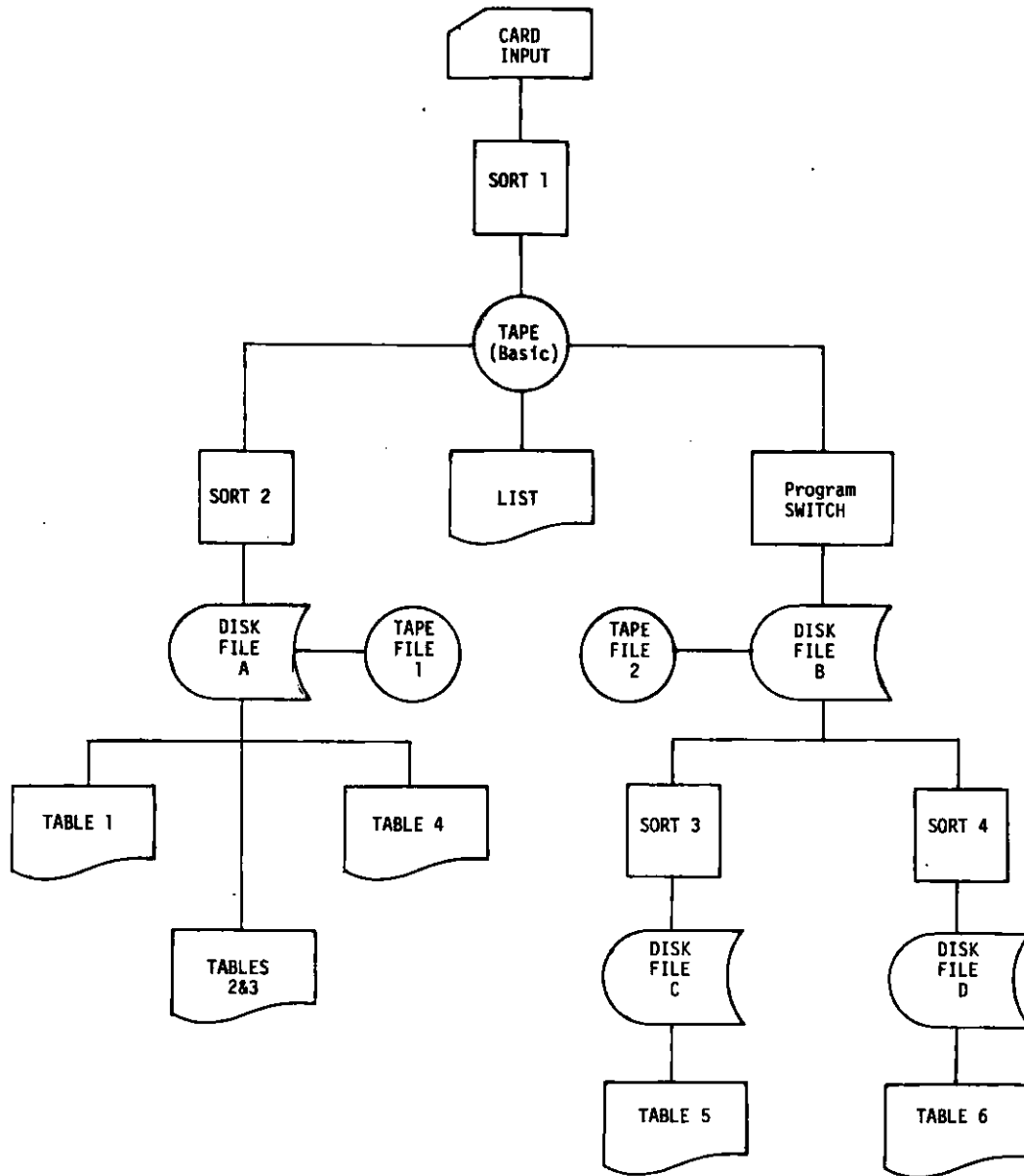


Fig. 1. Flow-chart of programming for Statistical Bulletin Tables 1 to 6.

APPENDIX II

Table B. Nominal catches of Cod in the Northwest Atlantic, 1961-75.

	Thousand Metric Tons Round Fresh														
	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
Bulgaria	-	-	-	-	-	-	-	-	+	-	+	+	+	-	+
Canada (MQ)	103	115	112	112	124	120	110	122	115	110	105	102	80	74	76
Canada (N)	183	206	222	204	190	188	176	201	179	153	140	117	97	84	78
Cuba	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Denmark (F)	62	97	92	87	80	79	79	63	39	25	34	29	21	16	15
Denmark (G)	34	35	23	22	24	29	28	21	24	20	19	23	19	20	19
France (M)	167	158	115	151	130	141	150	169	105	66	50	45	33	29	29
France (SP)	6	3	3	4	5	5	3	2	3	2	2	2	2	2	3
F.R. Germany	99	126	140	101	152	155	172	187	151	103	73	47	42	38	41
German D.R.	...	...	...	44	51	62	69	81	55	11	18	27	24	25	23
Iceland	11	1	5	3	6	4	+	+	+	-	+	+	-	-	-
Italy	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Japan	-	-	-	-	-	-	+	1	+	+	+	+	+	+	-
Norway	46	34	37	41	39	42	59	75	51	44	33	39	25	8	5
Poland	1	4	8	11	22	36	58	91	77	50	29	42	29	34	16
Portugal	197	218	231	210	197	202	237	219	182	163	153	132	124	133	84
Romania	-	-	-	-	-	-	-	-	3	4	3	3	3	+	+
Spain	197	197	209	219	225	232	280	329	287	268	254	218	160	158	98
USSR	158	101	82	129	149	110	165	246	191	114	112	178	121	138	125
UK	18	25	40	46	52	55	77	46	6	6	7	13	6	6	1
USA	19	20	19	17	16	17	20	22	26	24	24	21	22	26	25
Others	-	-	-	-	-	1	2	2	+	-	+	1	-	-	+
Subarea 1	345	451	406	350	360	366	430	394	215	113	121	111	63	48	48
Subarea 2	266	255	216	213	333	338	298	451	454	221	163	163	58	125	89
Subarea 3	461	389	466	581	502	501	721	736	572	533	514	524	464	410	314
Subarea 4	214	219	219	229	225	216	194	247	206	262	222	209	188	172	154
Subarea 5	18	27	30	28	42	57	42	49	46	33	36	32	35	35	33
Stat. Area 6	...	...	1	+	+	+	+	+	1	1	+	+	+	1	1
Total	1304	1341	1338	1401	1462	1478	1685	1877	1494	1163	1056	1039	808	791	639

Table C. Nominal catches of Haddock in the Northwest Atlantic, 1961-75.

	Thousand Metric Tons Round Fresh														
	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
Canada (MQ)	42	41	42	52	47	59	54	48	42	25	28	16	17	14	19
Canada (N)	23	21	7	6	3	2	2	2	2	2	2	1	1	1	+
Spain	8	7	11	7	7	6	7	10	5	7	8	6	2	2	+
USSR	40	5	7	13	129	74	8	3	+	1	1	1	1	1	1
USA	61	61	56	60	61	60	45	32	21	12	10	5	4	4	7
Others	6	3	3	4	2	2	1	2	2	1	+	+	1	1	1
Subarea 1	1	+	+	+	+	+	+	+	+	+	+	+	+	+	-
Subarea 2	+	+	+	+	+	+	+	+	+	+	+	+	+	+	-
Subarea 3	80	35	15	12	9	10	11	7	5	7	5	4	2	2	2
Subarea 4	47	44	51	60	85	66	49	46	42	28	32	18	18	16	20
Subarea 5	52	59	60	70	155	127	57	44	25	13	12	7	6	5	7
Stat. Area 6	...	...	+	+	+	+	+	+	+	+	+	+	+	+	+
Total	180	138	126	142	249	203	117	97	72	48	49	29	26	23	29

(Extract from ICNAF Stat. Bull. Vol. 25, page 15)

APPENDIX III

TABLE 1. NOMINAL CATCHES BY SPECIES AND SUBAREA - 1975

Species	Subareas							1975 Total	1974 Total
	0	1	2	3	4	5	6		
Atlantic cod	310	47909	88947	313675	154073	33369	654	638937	790870
Haddock	-	-	-	1516	20258	6682	2	28458	23201
N. Atlantic redfish	26	8629	14546	88319	93384	10571	225	215700	232554
Silver hake	-	-	-	3495	116286	86895	27133	233809	226008
Red hake	-	-	-	762	2919	17787	10890	32358	36306
Pollock	-	1	200	188	25180	13866	5	39440	38779
PRINCIPAL GROUND FISH	336	56539	103693	407955	412100	169170	38909	1188702	1347718
American plaice	-	2311	1174	53792	21924	2596	38	81835	92721
Witch flounder	-	3	1691	18686	11644	2231	105	34360	39746
Yellowtail flounder	-	-	-	23227	1571	18988	638	44424	51086
Greenland halibut	1568	23380	12033	16911	1573	-	-	55465	43059
Atlantic halibut	-	399	61	649	921	106	1	2137	2165
Winter flounder	-	-	-	67	3424	7760	952	12203	12512
Summer flounder	-	-	-	-	-	-	2071	7649	7051
Windowpane flounder	-	-	-	-	3	1981	2	1986	-
Flounders (NS)	-	15	120	52	5069	479	2750	8485	4208
FLOUNDERS	1568	26108	15079	113384	46129	36212	10064	248544	252548
American angler	-	-	-	11	18267	3304	78	21660	12945
Atlantic searobins	-	-	-	-	3384	629	506	4519	11512
Atlantic tomcod	-	-	-	-	204	-	-	204	270
Cunner	-	-	-	-	-	-	1	1	-
Cusk (=Tusk)	-	134	34	321	5191	1827	-	7507	7192
Greenland cod	-	4659	-	-	-	-	-	4659	3948
Ling	-	-	-	2	-	-	-	2	5
Lumpfish	-	95	-	-	2	-	-	97	14
Northern kingfish	-	-	-	-	-	-	43	43	39
Northern puffer	-	-	-	-	-	-	-	-	2
Ocean pout	-	28	-	-	-	212	65	305	3732
Roundnose grenadier	204	4749	11779	15646	-	57	-	32435	40734
Sandeels (=Sand lances)	-	-	-	-	-	-	12	12	-
Sculpins	-	-	-	-	244	142	30	416	2805
Scup	-	-	-	-	-	2735	5548	8283	8068
Tautog	-	-	-	-	-	43	66	109	36
Tilefish	-	-	-	-	-	-	311	755	606
White hake	-	-	13	7144	8812	2829	30	18828	17963
Wolfishes	-	6378	1789	5338	1409	392	-	15306	14140
Groundfish (NS)	8	2141	1525	1295	2619	3091	4135	14814	17808
OTHER GROUND FISH	212	18184	15140	29757	40132	15572	10958	129955	141819
Atlantic herring	-	10	668	23507	241220	177733	5204	448342	433276
Atlantic mackerel	-	-	-	4169	32089	167083	83896	287237	339580
PRINCIPAL PELAGICS	-	10	668	27676	273309	344816	89100	735579	772856
Atlantic butterfish	-	-	-	-	119	4254	6793	11166	12865
Atlantic menhaden	-	-	-	-	-	26550	173178	199728	249114
Atlantic saury	-	-	-	-	-	490	-	490	1551
Bluefish	-	-	-	-	-	601	3078	3679	3288
Frigate mackerels	-	-	-	-	-	9	-	9	22
King mackerel	-	-	-	-	-	-	36	36	5
Spotted Spanish mackerel	-	-	-	-	-	-	38	38	10
Swordfish	-	-	-	43	738	1190	89	2060	1371
Atlantic bonito	-	-	-	-	-	57	17	74	41
Atlantic little tunny	-	-	-	-	-	-	2	2	8
Bluefin tuna	-	-	-	-	421	995	1626	3042	1871
Skipjack tuna	-	-	-	-	-	-	15	15	-
Yellowfin tuna	-	-	-	-	-	-	51	51	-
Tunas (NS)	-	-	-	-	-	-	1	1	16
Pelagics (NS)	-	2	-	-	69	966	-	1037	2701
OTHER PELAGICS	-	2	-	43	1347	35112	184924	221428	272863
Alewife	-	-	-	-	5683	5007	9553	20243	34056
American conger	-	-	-	-	-	14	8	22	-
American eel	-	-	-	-	641	71	838	1550	1770
American shad	-	-	-	1	79	32	660	772	1194
Atlantic argentine	-	-	-	16	14691	1398	68	16173	37736
Atlantic croaker	-	-	-	-	-	-	3977	3977	1481
Atlantic salmon	-	2030	582	1284	324	-	-	4220	4169
Atlantic silverside	-	-	-	-	69	-	36	105	34

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APPENDIX IV

TABLE 3. NOMINAL CATCHES OF INDIVIDUAL SPECIES BY DIVISION AND COUNTRY - 1975

STAT AREA	METRIC TONS ROUND FRESH															
	SUBAREA 1								SUBAREA 2							
	0	1A	1B	1C	1D	1E	1F	1NK	TOTAL	2G	2H	2J	2NK	TOTAL	3K	3L
COD TOTAL	310	216	1134	20350	13011	7916	4265	209	47909	1134	5025	81988	-	88947	128345	77135
BUL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CAN-MQ	-	-	-	-	-	-	-	-	-	-	-	410	-	410	176	1
CAN-N	-	-	-	-	-	-	-	-	-	-	7	3000	-	3007	15531	23364
CUBA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DEN-F	310	-	2	24	3240	2089	-	-	5355	-	-	600	-	600	1626	292
DEN-G	-	216	1103	11589	2699	2276	1222	209	19314	-	-	-	-	-	-	-
FRA-M	-	-	-	-	-	-	-	-	-	-	-	1088	-	1088	1192	331
FRA-SP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31
FRG	-	-	-	5143	1125	2020	2554	-	10842	869	2466	16891	-	20226	10174	-
GDR	-	-	-	-	-	-	-	-	-	-	250	11649	-	11899	10616	-
NOR	-	-	3	772	692	1171	430	-	3068	-	-	211	-	211	240	247
POL	-	-	-	-	-	-	-	-	-	-	-	8502	-	8502	6665	36
POR	-	-	26	1882	2957	75	-	-	4940	174	-	9604	-	9778	18221	19477
NOM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPA	-	-	-	680	3023	285	21	-	4017	91	390	585	-	1066	9926	28060
USSR	-	-	-	193	21	-	-	-	214	-	2712	29306	-	32018	54108	4897
UK	-	-	-	87	54	-	38	-	159	-	-	58	-	58	10	409
USA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
INE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

STAT AREA	METRIC TONS ROUND FRESH															
	SUBAREA 3							SUBAREA 4								
	3M	3N	3O	3PN	3PS	3NK	TOTAL	4R	4S	4T	4VN	4VS	4W	4X	4NK	TOTAL
COD TOTAL	22375	17099	27075	6233	35373	-	313675	41569	12431	28853	17616	11692	20821	21091	-	154073
BUL	-	-	-	-	-	-	-	-	-	-	-	-	4	4	-	8
CAN-MQ	-	6	9	18	122	-	332	2727	7808	23836	10062	1600	8051	19493	-	73577
CAN-N	108	692	482	2758	15073	-	58008	14697	381	734	179	287	1	-	-	16479
CUBA	-	-	-	-	-	-	-	-	-	-	-	-	481	-	-	481
DEN-F	3288	-	-	12	12	-	5220	235	1425	-	1240	622	-	-	-	3522
DEN-G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FRA-M	-	-	-	2612	3549	-	7684	13206	401	1138	3188	1724	90	-	-	19747
FRA-SP	-	1	-	295	775	-	1102	625	16	1032	180	53	-	-	-	1906
FRG	28	-	-	-	-	-	10202	-	-	-	-	-	5	3	-	8
GDR	-	-	-	-	-	-	10616	-	-	-	-	-	-	-	-	-
NOR	111	-	-	-	468	-	1066	-	-	-	186	381	-	1	-	568
POL	677	23	-	-	-	-	7401	-	-	-	-	-	-	-	-	-
POR	10430	2660	2900	538	1350	-	55576	9879	2400	805	360	301	245	-	-	13990
NOM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SPA	2022	7266	9350	-	12234	-	68758	-	-	1308	2221	6412	9199	900	-	20040
USSR	5446	6451	14334	-	1788	-	87024	-	-	-	-	309	2733	207	-	3249
UK	265	-	-	-	2	-	686	-	-	-	-	-	-	-	-	-
USA	-	-	-	-	-	-	-	-	-	-	-	3	12	483	-	498
INE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

STAT AREA	METRIC TONS ROUND FRESH															
	SUBAREA 5					STAT AREA 6						TOTALS				
	5Y	5ZE	5ZM	5NK	TOTAL	6A	6B	6C	6D	6E	6F	6NK	TOTAL	SA 1-5	SA 0-6	
COD TOTAL	9015	23208	797	349	33369	578	72	-	-	-	-	4	654	637973	638937	
BUL	-	-	-	-	-	-	-	-	-	-	-	-	-	8	8	
CAN-MQ	86	1047	-	-	1933	-	-	-	-	-	-	-	-	76252	76252	
CAN-N	-	-	-	-	-	-	-	-	-	-	-	-	-	77494	77494	
CUBA	-	146	12	-	158	-	-	-	-	-	-	-	-	639	639	
DEN-F	-	-	-	-	-	-	-	-	-	-	-	-	-	14785	15095	
DEN-G	-	-	-	-	-	-	-	-	-	-	-	-	-	19314	19314	
FRA-M	-	-	-	-	-	-	-	-	-	-	-	-	-	28519	28519	
FRA-SP	-	-	-	-	-	-	-	-	-	-	-	-	-	3008	3008	
FRG	-	24	-	-	24	-	-	-	-	-	-	-	-	41302	41302	
GDR	-	21	-	-	21	-	4	-	-	-	-	-	4	22536	22540	
NOR	-	1	-	-	1	-	-	-	-	-	-	-	-	4914	4914	
POL	-	139	136	-	275	183	23	-	-	-	-	-	206	16178	16384	
POR	-	-	-	-	-	-	-	-	-	-	-	-	-	84284	84284	
RUM	-	4	-	-	4	-	-	-	-	-	-	-	-	4	4	
SPA	26	4040	4	-	4070	-	-	-	-	-	-	-	-	97951	97951	
USSR	-	2391	-	-	2391	12	-	-	-	-	-	-	12	124896	124908	
UK	-	-	-	-	-	-	-	-	-	-	-	-	-	899	899	
USA	8903	14595	645	349	24492	383	45	-	-	-	-	-	428	24990	25416	
INE	-	-	-	-	-	-	-	-	-	-	-	4	4	-	4	

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APPENDIX V

TABLE 4. NOMINAL CATCHES OF SELECTED SPECIES BY DIVISION, COUNTRY AND MONTH - 1975

		Cod												METRIC TONS ROUND FRESH		
DIV	COUNTRY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	NK	TOTAL	
COD																
0	DEN-F	-	-	-	-	-	-	-	-	-	-	-	-	-	310	310
	TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	-	310	310
SA 0 TOTAL		-	-	-	-	-	-	-	-	-	-	-	-	-	310	310
1A	DEN-G	3	6	6	6	1	2	27	92	32	31	10	-	-	-	216
	TOTAL	3	6	6	6	1	2	27	92	32	31	10	-	-	-	216
1B	DEN-F	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2
	DEN-G	-	-	-	43	41	580	332	38	26	35	7	1	-	1103	1103
	NOR	-	-	-	-	-	-	-	-	-	3	-	-	-	3	3
	PUR	-	-	-	-	-	14	6	4	1	1	-	-	-	-	26
	TOTAL	-	-	-	43	41	594	338	42	27	39	7	1	2	1134	1134
1C	DEN-F	-	-	-	-	-	-	-	-	-	-	-	-	-	24	24
	DEN-G	1020	1239	1027	779	681	842	554	120	65	22	6	64	5170	11589	11589
	FRG	-	-	4207	654	97	-	-	-	-	-	-	145	-	5143	5143
	NOR	-	2	-	-	-	-	-	-	-	93	484	193	-	772	772
	POR	-	-	-	-	-	1066	421	309	41	45	-	-	-	1682	1682
	SPA	-	-	-	-	-	44	2	307	131	8	192	4	-	688	688
	USSR	13	28	13	7	-	-	16	48	68	-	-	-	-	193	193
	UK	-	-	-	13	54	-	-	-	-	-	-	-	-	67	67
	TOTAL	1033	1269	5287	1453	832	1952	993	784	305	168	682	406	5194	20358	20358
1D	DEN-F	-	-	-	-	-	-	-	-	-	-	-	-	-	3240	3240
	DEN-G	137	94	60	244	479	169	217	38	80	77	74	42	988	2699	2699
	FRG	-	-	104	282	148	-	-	-	-	-	4	587	-	1125	1125
	NOR	1	67	89	-	5	52	-	-	50	166	230	32	-	692	692
	PUR	-	-	-	-	-	1674	660	487	64	72	-	-	-	2957	2957
	SPA	-	-	-	-	-	229	431	541	608	735	439	40	-	3023	3023
	USSR	-	-	-	-	-	-	-	18	3	-	-	-	-	21	21
	UK	-	-	-	-	2	-	-	-	52	-	-	-	-	54	54
	TOTAL	138	161	253	526	634	2124	1308	1084	857	1050	747	701	4228	13811	13811
1E	DEN-F	-	-	-	-	-	-	-	-	-	-	-	-	-	2089	2089
	DEN-G	49	2	55	180	127	260	364	506	22	19	96	62	534	2276	2276
	FRG	83	-	241	618	565	320	-	-	-	-	55	138	-	2020	2020
	NOR	-	190	250	117	201	124	-	-	-	229	46	14	-	1171	1171
	PUR	-	-	-	-	-	42	17	12	2	2	-	-	-	75	75
	SPA	-	-	-	-	1	2	103	136	34	3	-	6	-	285	285
	TOTAL	132	192	546	915	894	748	484	654	58	253	197	220	2623	7916	7916
1F	DEN-G	28	6	13	16	61	21	201	366	190	199	100	21	-	1222	1222
	FRG	59	195	379	602	694	225	-	-	-	15	79	306	-	2554	2554
	NOR	122	53	17	1	21	115	-	-	-	16	-	85	-	430	430
	SPA	-	-	21	-	-	-	-	-	-	-	-	-	-	21	21
	UK	-	-	-	-	-	-	-	-	38	-	-	-	-	38	38
	TOTAL	209	254	430	619	776	361	201	366	228	230	179	412	-	4265	4265
1NK	DEN-G	-	-	-	-	-	-	-	-	-	-	-	-	-	209	209
	TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	-	209	209
SA 1 TOTAL		1515	1882	6522	3562	3178	5781	3351	3022	1507	1771	1822	1740	12256	47909	47909
2G	FRG	-	-	869	-	-	-	-	-	-	-	-	-	-	869	869
	POR	-	-	174	-	-	-	-	-	-	-	-	-	-	174	174
	SPA	-	-	-	-	-	-	-	36	55	-	-	-	-	91	91
	TOTAL	-	-	1043	-	-	-	-	36	55	-	-	-	-	1134	1134
2H	CAN-N	-	-	-	-	-	-	1	1	5	-	-	-	-	7	7
	FRG	72	719	1592	-	-	-	-	-	-	-	-	83	-	2466	2466
	GDM	-	-	-	-	-	-	-	-	250	-	-	-	-	250	250
	SPA	-	-	-	-	-	-	180	210	-	-	-	-	-	390	390
	USSR	36	582	536	107	-	-	-	300	51	43	62	995	-	2712	2712
	TOTAL	108	1301	2128	107	-	-	181	511	306	43	62	1078	-	5825	5825
2J	CAN-MO	-	49	381	-	-	-	-	-	-	-	-	-	-	410	410
	CAN-N	-	-	-	-	-	-	495	1374	629	488	14	-	-	3000	3000
	DEN-F	-	-	-	-	-	-	-	-	-	-	-	-	688	688	
	FRA-N	349	88	651	-	-	-	-	-	-	-	-	-	-	1088	1088
	FRG	7586	8355	950	-	-	-	-	-	-	-	-	-	-	11649	11649
	GDM	6263	4625	761	-	-	-	-	-	-	-	-	-	-	11649	11649
	NOR	-	-	4	57	135	15	-	-	-	-	-	-	-	211	211

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APPENDIX VI

TABLE 5. FISHING EFFORT AND NOMINAL CATCHES BY DIVISION, MONTH, GEAR, MAIN SPECIES, TONNAGE CLASS AND COUNTRY - 1975

																				METRIC TONS ROUND FRESH				
MON	GEAR	MAIN SPEC	TON	COUNTRY	FISHING EFFORT			COD	HAD	RED	B H	R H	POL	A P	M T	YEL	UFL	U G	HEW	MAC	D P	U F	INV	TOTAL
					(C)	(B)	(A)																	
DIVISION 0																								
JAN	OTB2	GRO	7	USSR	16	16	209	-	-	-	-	-	-	-	-	330	-	-	-	-	-	-	330	
	OTB2	GRO	6	USSR	1	1	7	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	16	
TOTAL																								
																346							346	
FEB	OTB2	GRO	7	USSR	1	1	6	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	7	
TOTAL																								
																7							7	
APR	OTB2	GRO	7	USSR	1	1	2	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	2	
TOTAL																								
																2							2	
JUN	OTB	GRO	5	DEN-G	44	33	584	-	-	1	-	-	-	-	-	276	-	-	-	-	-	-	277	
	OTB2	GRO	7	USSR	9	9	97	-	-	8	-	-	-	-	-	66	5	-	-	-	-	-	79	
TOTAL																								
										9						342	5						356	
JUL	OTB	GRO	5	DEN-G	7	6	47	-	-	1	-	-	-	-	-	2	-	-	-	-	-	-	3	
	OTB2	GRO	7	USSR	3	3	30	-	-	16	-	-	-	-	-	21	13	-	-	-	-	-	50	
TOTAL																								
										17						23	13						53	
AUG	OTB2	GRO	7	USSR	12	11	53	-	-	-	-	-	-	-	-	5	29	-	-	-	-	-	34	
TOTAL																								
																5	29						34	
SEP	OTB2	GRO	7	USSR	2	2	18	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	18	
TOTAL																								
																18							18	
OCT	OTB2	GRO	7	USSR	2	2	13	-	-	-	-	-	-	-	-	3	5	-	-	-	-	-	8	
TOTAL																								
																3	5						8	
NOV	OTB	GRO	5	DEN-G	5	4	57	-	-	-	-	-	-	-	-	10	8	-	-	-	-	-	18	
	OTB2	GRO	7	USSR	2	2	21	-	-	-	-	-	-	-	-	14	51	-	-	-	-	-	65	
TOTAL																								
																24	59						83	
DEC	OTB2	GRO	7	USSR	7	5	60	-	-	-	-	-	-	-	-	-	74	-	-	-	-	-	74	
TOTAL																								
																74							74	
NK	NK	MIX	0	DEN-F	-	-	-	310	-	-	-	-	-	-	-	-	825	-	-	-	-	-	-	1135
TOTAL																								
								310								825							1135	
DIVISION 1A																								
JAN	NK	MIX	2	DEN-G	-	-	-	3	-	-	-	-	-	-	-	89	6	-	-	-	-	-	125	223
TOTAL																								
								3								89	6						125	223
FEB	NK	MIX	2	DEN-G	-	-	-	6	-	-	-	-	-	-	-	165	25	-	-	-	-	-	177	373
TOTAL																								
								6								165	25						177	373
MAR	NK	MIX	2	DEN-G	-	-	-	6	-	-	-	-	-	-	-	187	36	-	-	-	-	-	31	260
TOTAL																								
								6								187	36						31	260
APR	NK	MIX	2	DEN-G	-	-	-	6	-	-	-	-	-	-	-	100	22	-	-	-	-	-	498	626
TOTAL																								
								6								100	22						498	626
MAY	NK	MIX	2	DEN-G	-	-	-	1	-	-	-	-	-	-	-	61	4	-	-	-	-	-	604	670
TOTAL																								
								1								61	4						604	670
JUN	OTB	SHR	5	BPA	20	19	202	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	35	40
	NK	MIX	2	DEN-G	-	-	-	2	-	-	-	-	-	-	-	206	34	-	-	-	-	23	1121	1386
TOTAL																								
								2								206	39					23	1156	1426
JUL	OTB	SHR	5	BPA	52	50	350	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	66	74
	NK	MIX	2	DEN-G	-	-	-	27	-	-	-	-	-	-	-	339	210	-	-	-	-	9	1102	1687
TOTAL																								
								27								339	216					9	1168	1761
AUG	OTB	SHR	5	BPA	55	48	520	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	56	63
	GND	BAL	3	DEN-M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	-	13
	NK	MIX	2	DEN-G	-	-	-	92	-	-	-	-	-	-	-	245	302	-	-	-	-	5	715	1359
TOTAL																								
								92								245	309					18	771	1435
SEP	OTB	SHR	5	BPA	196	185	1665	-	-	-	-	-	-	-	-	-	70	-	-	-	-	-	592	662
	OTB1	SHR	4	NOR	-	-	16	182	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	50
	GND	BAL	3	DEN-M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
	NK	MIX	2	DEN-G	-	-	-	32	-	-	-	-	-	-	-	198	119	-	-	-	-	17	826	1192
TOTAL																								
								32								198	189					18	1476	1913
OCT	OTB	SHR	5	BPA	289	282	1737	-	-	-	-	-	-	-	-	-	58	-	-	-	-	-	608	666
	OTB1	SHR	4	NOR	-	4	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	17	

(Extract from ICNAF Stat. Bull. Vol. 25, page 101)

APPENDIX VII

TABLE 6. SUMMARY OF NOMINAL CATCHES AND FISHING EFFORT FOR EACH COUNTRY BY GEAR, TONNAGE CLASS AND SUBAREA, 1975.

		Bulgaria						METRIC TONS ROUND FRESH		
		SUBAREAS								
GEAR	TON	0	1	2	3	4	5	6	TOTAL	
0142	7	COD	-	-	-	-	8	-	-	8
		HAD	-	-	-	-	2	-	-	2
		S H	-	-	-	-	1722	1343	574	3639
		R H	-	-	-	-	9	31	2	42
		YEL	-	-	-	-	21	1	3	25
		O G	-	-	-	-	-	319	22	341
		HER	-	-	-	-	1	109	312	422
		MAC	-	-	-	-	19	12060	6697	18776
		O P	-	-	-	-	-	215	171	386
		O F	-	-	1394	-	169	1610	1017	4190
		INV	-	-	-	-	25	166	39	230
		TOTAL	-	-	1394	-	1976	15854	8837	28061
		(A)	-	-	261	-	812	3552	2031	6656
(B)	-	-	24	-	63	486	292	865		
TOTAL CATCH	-	-	1394	-	1976	15854	8837	28061		

		Canada-MQ						METRIC TONS ROUND FRESH		
		SUBAREAS								
GEAR	TON	0	1	2	3	4	5	6	TOTAL	
0TH	3	COD	-	-	-	-	676	-	-	676
		RED	-	-	-	-	1923	-	-	1923
		A P	-	-	-	-	58	-	-	58
		WIT	-	-	-	-	62	-	-	62
		OFL	-	-	-	-	767	-	-	767
		O G	-	-	-	-	48	-	-	48
		INV	-	-	-	-	2174	-	-	2174
		TOTAL	-	-	-	-	5708	-	-	5708
		(A)	-	-	-	-	42863	-	-	42863
		(B)	-	-	-	-	2593	-	-	2593
0TB	2	COD	-	-	-	-	458	-	-	458
		RED	-	-	-	-	437	-	-	437
		A P	-	-	-	-	29	-	-	29
		WIT	-	-	-	-	20	-	-	20
		OFL	-	-	-	-	366	-	-	366
		O G	-	-	-	-	4	-	-	4
		INV	-	-	-	-	1154	-	-	1154
		TOTAL	-	-	-	-	2468	-	-	2468
		(A)	-	-	-	-	25955	-	-	25955
		(B)	-	-	-	-	1764	-	-	1764
0TB1	5	COD	-	-	-	-	114	-	-	114
		RED	-	-	-	-	5	-	-	5
		A P	-	-	-	-	32	-	-	32
		WIT	-	-	-	-	17	-	-	17
		TOTAL	-	-	-	-	168	-	-	168
(A)	-	-	-	-	179	-	-	179		
(B)	-	-	-	-	12	-	-	12		
0TB1	4	COD	-	-	-	62	6698	136	-	6896
		HAD	-	-	-	13	2433	231	-	2677
		RED	-	-	-	2068	9561	7	-	11636
		S H	-	-	-	-	90	-	-	90

(Extract from Stat. Bull. Vol. 25, page 195)

APPENDIX VIII

TABLE 1. LIST OF VESSELS 50 GRT AND OVER FOR 1975 - Bulgaria

ROW NO.	VESSEL NAME	DATE BUILT	GROSS TON.	TOTAL LENGTH (M)	ENGINE		REGISTER NUMBER	CALL CODE	SONAR			GEAR		SUBAREAS FISHERY	COMMENT REF.	ROW NO.
					HP	TYPE			H	V	CREW	TYPE	SIZE			
1	AFALA	1974	2407	89	3600	DIESEL	194	LZ81	88	X	X	79	OT82	83	56	1
2	AKTINIA	1974	2467	89	3600	DIESEL	197	LZ8M	88	X	X	79	OT82	83	56	2
3	ALFEUS	1974	2467	89	3600	DIESEL	196	LZ8L	88	X	X	79	OT82	83	56	3
4	ANGONAVT	1974	2467	89	3600	DIESEL	198	LZ8M	88	X	X	79	OT82	83	56	4
5	AJNELIA	1974	2467	89	3600	DIESEL	195	LZ8K	88	X	X	79	OT82	83	56	5
6	FIZALIA	1975	2467	89	3600	DIESEL	204	LZ88	88	X	X	79	OT82	83	56	6
7	FLAMINGO	1969	2653	82	2320	DIESEL	169	LZ8N	88	X	X	79	OT82	83	456	7
8	FREGATA	1967	3012	85	2000	DIESEL	102	LZ81	85	X	X	81	OT82	86	3456	8
9	KAPNELA	1975	2467	89	3600	DIESEL	202	LZ88	88	X	X	79	OT82	83	56	9
10	KONDOR	1969	2653	82	2320	DIESEL	174	LZ8V	88	X	X	79	OT82	83	56	10
11	LIMOZA	1970	2653	82	2320	DIESEL	178	LZ8X	88	X	X	79	OT82	83	56	11
12	LORNA	1970	2653	82	2320	DIESEL	180	LZ8C	88	X	X	79	OT82	83	56	12
13	MELANIYA	1969	2653	82	2320	DIESEL	181	LZ8U	88	X	X	79	OT82	88	56	13
14	PINGVIN	1968	2653	82	2320	DIESEL	127	LZ8L	88	X	X	79	OT82	83	56	14
15	MALIDA	1970	2653	82	2320	DIESEL	177	LZ8D	88	X	X	79	OT82	83	56	15
16	MUTALIA	1975	2467	89	3600	DIESEL	203	LZ8R	88	X	X	79	OT82	83	56	16
17	ZIKONIA	1970	2653	82	2320	DIESEL	179	LZ88	88	X	X	79	OT82	83	3456	17

TABLE 2. LIST OF VESSELS 50 GRT AND OVER FOR 1975 - Canada-MQ

ROW NO.	VESSEL NAME	DATE BUILT	GROSS TON.	TOTAL LENGTH (FT)	ENGINE		REGISTER NUMBER	CALL CODE	SONAR			GEAR		SUBAREAS FISHERY	COMMENT REF.	ROW NO.
					HP	TYPE			H	V	CREW	TYPE	SIZE			
1	A W HENDRICKSEN	1975	750	150	2400	DIESEL	348333	CA	X	X	19	OTM2	2345		1	
2	ACADIAN PAL	1956	64	61	240	DIESEL	189381	VC3018	SB	X	8	FPO	45		2	
3	ADVENTURE	1957	56	68	230	DIESEL	149049	VC3128	BM	X	6	83C	4	C 1	3	
4	ADVENTURER II	1970	259	115	1125	DIESEL	330443	VC7155	YA	X	15	ORB	45		4	
5	ALAIN RICHARD	1963	67	69	325	DIESEL	320446	VC4542	SG	X	4	OTB1	80		5	
6	ALBERTA R	1963	191	101	640	DIESEL	318925	VC4642	RI	X	17	ORB	345		6	
7	ALICE AND RITA	1957	55	60	150	DIESEL	318837	VC3173	GL	X	5	SON	34	C 2	7	
8	AMBASSADOR	1970	256	115	1125	DIESEL	330639	VC7156	YA	X	15	ORB	45		8	
9	AMY USEN	1966	171	93	745	DIESEL	323544	VC5673	80	X	10	OTB1	4	C 3	9	
10	ANGELA MICHELLE	1972	194	102	850	DIESEL	346645	LU	X	15	ORB	45			10	
11	ANITA BERNARD	1969	130	85	565	DIESEL	329994	VC6744	LA	X	5	OTB1	4		11	
12	ANN C SPENCER	1963	310	129	750	DIESEL	318377	VC4671	PE	X	16	OTB1	34		12	
13	ANNE JOLENE	1966	72	65	325	DIESEL	323627	VC5493	SM	X	8	LLS	4		13	
14	ANNETTE MARIE	1963	163	98	640	DIESEL	320760	VC4810	LU	X	18	ORB	5		14	
15	APOLLO III	1970	369	115	1125	DIESEL	344954	VC7221	CG	X	9	PS	34		15	
16	ARTHUR ROSS	1957	54	60	227	DIESEL	310102	VC3226	PD	X	4	LLS	4		16	
17	ATKINSON	1965	371	140	1250	DIESEL	326024	VC5367	RI	X	14	OTB2	345	C 3	17	
18	ATLANTIC GAIRDNER	1967	1444	200	2400	DIESEL	326305	ST	X	X	18	PS	56		18	
19	ATLANTIC HANKE	1967	1445	200	2400	DIESEL	326321	ST	X	X	18	PS	56		19	
20	ATLANTIC J A G	1966	1441	200	2400	DIESEL	326443	ST	X	X	18	PS	56		20	
21	ATLANTIC OCEAN MAID	1966	1440	200	2400	DIESEL	326428	ST	X	X	18	PS	56		21	
22	ATLANTIC PATON	1966	1441	200	2400	DIESEL	326529	ST	X	X	18	PS	56		22	
23	BARBARA DAWN	1963	66	65	342	DIESEL	318923	VC4519	YA	X	4	OTB1	45		23	
24	BARBARA LUISE	1967	189	107	750	DIESEL	326140	LU	X	17	ORB	5		24		
25	BARBARA MARIE	1960	69	65	150	DIESEL	313396	VC3803	80	X	4	OTB1	4		25	
26	BAY CITY	1968	53	60	220	DIESEL	314287	VC6978	IN	X	5	PS	4		26	
27	BEDEQUE	1968	511	130	1040	DIESEL	328833	VBKT	RI	X	15	OTB2	116	C 3	27	
28	BENRIK	1968	70	65	265	DIESEL	329023	VC6021	SA	X	4	PS	4		28	
29	BEUTHOK	1963	85	65	205	DIESEL	195024	YA	X	6	LLS	4		29		
30	BEVERLY FAYE	1964	143	92	342	DIESEL	322324	VC4945	NM	X	8	LLS	34		30	
31	BIBIANNE MARIE	1965	123	86	510	DIESEL	323749	SH	X	5	OTB1	4		31		
32	BICKERTON PRIDE	1965	283	120	720	DIESEL	323529	VC5106	81	X	14	OTB1	34		32	
33	BIENVENUE	1961	122	82	310	DIESEL	313943	VC4219	AA	X	5	OTB1	100		33	
34	BLAINE AND GLENN	1958	66	62	165	DIESEL	310566	VC3287	TE	X	5	LLS	4		34	
35	BLUE DAWN	1962	154	96	725	DIESEL	318908	VC4382	LU	X	18	ORB	5		35	
36	BONNIE LOU II	1964	82	65	227	DIESEL	326640	VC4896	BI	X	4	SON	4	C 6	36	
37	BRADLETT	1967	123	87	510	DIESEL	328165	VC4384	RR	X	5	OTB1	100		37	
38	BRADLEY SUZANNE II	1965	52	65	225	DIESEL	318578	VC5115	NM	X	6	PS	45		38	
39	BRIA-BELLE	1962	53	50	220	DIESEL	319832	VC4669	CL	X	5	LLS	4		39	
40	C A DENTON	1973	86	65	425	DIESEL	347273	LT	X	4	OTB2	45		40		
41	CANADA 100	1967	219	100	800	DIESEL	328939	VC6086	NO	X	7	PS	34		41	
42	CANADA CLUB	1969	477	135	750	DIESEL	330134	VC6721	NO	X	9	PS	34		42	
43	CANADA PARK	1969	477	135	750	DIESEL	330133	VC6720	NO	X	9	PS	34		43	
44	CANSO CUMDOR	1967	684	152	2000	DIESEL	328649	VC6198	CA	X	15	OTB2	345	C 3	44	
45	CANSO OART	1967	684	152	2000	DIESEL	328644	VC6197	CA	X	50	OTB2	345	C 3	45	
46	CANSO LIGHT	1964	661	154	2160	DIESEL	322996	VC5039	CA	X	15	OTB2	345	C 3	46	
47	CANSO MARINER	1967	685	152	2000	DIESEL	330112	VC6198	CA	X	15	OTB2	345	C 3	47	
48	CAP AUX MEULES	1971	441	126	1125	DIESEL	331743	VC7381	CM	X	12	OTM2	108		48	
49	CAP GASPE	1963	67	65	325	DIESEL	328443	VC4568	RR	X	4	OTB1	80		49	
50	CAP NOIR	1965	50	60	220	DIESEL		RR	X	4	OTB1	80		50		
51	CAP NDOR	1964	65	65	335	DIESEL	322779	VC5081	RR	X	4	OTB1	80		51	
52	CAP RENARD	1967	67	65	325	DIESEL	328145	VC5898	RR	X	4	OTB1	80		52	
53	CAPE ALEUT	1966	618	155	1045	DIESEL	326068	VYNS	HA	X	16	OTB2	345	C 3	53	
54	CAPE ANNE	1964	359	141	765	DIESEL	328550	VC4683	LD	X	14	OTB1	34		54	

(Extract from ICAF Sum. Doc. 77/VI/4, page 7)

ICNAF SAMPLING DATA 1975

SPECIES - COD	SEX - COMBINED	DIVISION - 2J	QUARTER - 1	GEAR TYPE	GEAR SIZE - 130	TYPE OF FISHING - RESEARCH	TYPE OF SAMPLE - CATCHES	OTTER TRAWL-BOTTOM												TOTAL LENGTH		
								1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	AGED
LENGTH (CM)	JAN	FEB	MAR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	TOTAL
30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
33	.	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
36	1	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
39	4	43	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3
42	15	71	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	29
45	37	100	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	71
48	127	162	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	103
51	179	162	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	116
54	207	122	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	98
57	158	96	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	59
60	106	79	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	39
63	76	48	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	24
66	40	30	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	16
69	22	26	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	7
72	14	14	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	8
75	6	11	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	6
78	4	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
81	2	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
84	2	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
87	.	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
90	.	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
93	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
96	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1
TOTALS	1000	1000	1000	.	.	.	11	17	103	150	203	53	27	10	8	6	4	2	1	1	2	598
NO. SAMP.	10	20	3																			
NO. FISH	4274	16167	1514																			
MEAN L(MM)	563	537	582																			
MEAN W(G)	1565	1536	1829																			
DEPTH (M)	280-450	330-530	400-415																			
AGE FREQUENCY (PER MILLE)	JAN	FEB	MAR																			
	.	.	.	11	25	175	262	350	94	44	13	11	5	3	2	2	.	.	.	.	1	998
	.	.	.	72	86	233	224	231	67	38	13	12	8	7	3	4	.	.	.	.	2	1000
	.	.	.	8	20	124	223	380	117	59	22	17	11	8	4	3	1	3	1	0	0	1000
MEAN LENGTH AT AGE (MM)	JAN	FEB	MAR																			
	.	.	.	424	460	500	532	581	637	659	678	696	755	819	730	820	.	.	.	.	700	
	.	.	.	407	437	488	523	580	642	671	699	709	763	829	790	820	.	.	.	.	700	
	.	.	.	416	451	502	538	585	641	665	694	706	764	817	772	820	940	796	.	.	.	

(Extract from ICNAF Redbook 1977, Appendix II, page 70)

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

ANNUAL RETURN OF INFORMATION ON DISCARDS

(for reporting weights of whole fish thrown overboard at sea)

Year:	Country:	Gear:	Tonnage Class:
Check (✓) method used to get information: <input type="checkbox"/> Logbook <input type="checkbox"/> Port Interview <input type="checkbox"/> Boat Observer <input type="checkbox"/> Other (specify) _____			

TOTAL WEIGHT FOR YEAR BY SPECIES AND/OR SPECIES GROUPS (metric tons round fresh)

Species	Div.:		Div.:		Div.:		Div.:		Div.:	
	Nominal catch	Dis-cards	Nominal catch	Dis-cards	Nominal catch	Dis-cards	Nominal catch	Dis-cards	Nominal catch	Dis-cards
Cod										
Haddock										
Redfish										
S. hake										
R. hake										
Pollock										
A. plaice										
Witch										
Yellowtail										
G. halibut										
Other Flo.										
RN grenadier										
Other gro'fish										
Herring										
Mackerel										
Other Pelagics										
Argentine										
Capelin										
Other Fish										
Squids										
Shrimp										
Sampling Rate* (%)										

*(see underlined overleaf)

Reported by:

- APPENDIX XI Report of Statistics and Sampling Subcommittee, 1975.
(See *ICNAF Redbook* 1975, p. 75-81.)
- APPENDIX XII. Report of Statistics and Sampling Subcommittee, 1976.
(See *ICNAF Redbook* 1976, p. 129-132.)
- APPENDIX XIII. Report of Statistics and Sampling Subcommittee, 1977.
(See *ICNAF Redbook* 1977, p. 65-69.)

