International Commission for



the Northwest Atlantic Fisheries

Serial No. 5292

ICNAF Sum. Doc. 78/VI/33

Provisional Index and List of Titles for ICNAF Publications and Meeting Documents, 1975

Compiled by

V. M. Hodder Assistant Executive Secretary

1. Introduction

Special Publication No. 11, issued in June 1975, contained an index and list of titles for ICNAF publications (Annual Proceedings, Research Bulletin, Redbook and Special Publications) for the period 1950-74. The compilation of a similar index for meeting documents issued during 1950-74 is well advanced and its completion is anticipated late in 1978 or early 1979. In the meantime, the Secretariat plans to issue annually in a summary document a provisional index and list of titles of all ICNAF publications and meeting documents, with the proposal that these be collected and published at 5-year intervals.

2. ICNAF Publications in 1976

The index and list of titles of ICNAF publications and meeting documents in 1976 is presented in Sum. Doc. 78/VI/18 (Hodder, MS 1978).

3. ICNAF Publications in 1975

The following is a list of publications in 1975, the abbreviation preceding the name of each publication series representing the code used in the indexing:

- a) MP(75) Meeting proceedings for 1974/75 (Issued November 1975)
- b) R (75) Redbook 1975 (Issued August 1975)
- c) RB 11 Research Bulletin No. 11 (Issued November 1975)
- Special Publication No. 10 (Issued November 1975) Special Publication No. 11 (Issued June 1975) SP 10 d)
- e) SP 11
- Statistical Bulletin Vol. 23 for 1973 (Issued January 1975) f) SB 23
- SY 18 Sampling Yearbook Vol. 18 for 1973 (Issued February 1975) g)
- Commissioners' Documents (75/1 to 75/50) h) CD 75 RD 75
- **i**) Research Documents (75/1 to 75/151) SD 75
- Summary Documents (75/1 to 75/47) 1)

In the preparation of the material for this index, emphasis was placed on the indexing of scientific papers, particularly those published in the Research Bulletin and Special Publications, and those issued as Research Documents and Summary Documents, where appropriate. In the case of Commissioners' Documents, except for a few originating from the ICNAF Secretariat, most lack specific authorship in that they were presented by delegations of the various countries. Such documents are referenced only in the "Author Index" under the heading "ANON.", followed by the name of the country whose delegation was responsible for presenting the document. The remaining publications (Meeting Proceedings, Redbook, Statistical Bulletin and Sampling Yearbook) are indexed by subject under one or two appropriate headings only, as a detailed indexing by subject (e.g. names of species, area, etc.) would have involved a great deal of repetition.

In the case of meeting documents listed by author and title in the "List of Titles" section, those indicated by asterisks (*) preceding the authorship are not indexed by subject and author in this "Index" but rather in the index appropriate to the actual publication noted in parentheses following the title of the paper.

Format Used in Subject and Author Index 4.

The compilation of this index of 1975 publications generally follows the procedure used in compiling the index for 1950-74 publications (Hodder, 1975). Each of the publications is identified by a 2-

^{*}Executive Secretary, ICNAF, P. O. Box 638, Dartmouth, Nova Scotia, Canada B2Y 3Y9

character alpha code followed by arabic numerals to designate the actual volume number, issue number or year of issue (see 3 above). The numerals following a colon (:) represent the first page number for the referenced paper, whereas the numerals following an oblique (/) for all meeting documents represent the designated document number. This is followed in parentheses by a shortened version of the title or an expression which indicates to the reader the object of the paper referenced. For brevity, many ungrammatical expressions are used, some of which require the subject headings to be read into them in order for the expression to make sense. Examples of references with their descriptive expressions are as follows:

- 2 -

1

MP(75): 5 (proceedings of 5th Special Meeting, Nov 1974) R (75): 23 (report of assessments subcommittee, Jun 1975) RB 11 : 37 (maturity and reproduction of hooded seals) SP 10 : 79 (international ice patrol operations, 1972) SY 18 : 1 (list of sampling data for 1973) SB 23 : 1 (fishery statistics for 1973) CD 75 / 6 (1975 fishery regulations as on 10 Feb 1975) RD 75 / 5 (predation of cod on capelin in SA 2 and 3) SD 75 / 12 (Japanese research report for 1974)

5. Abbreviations Used in Indexing

The abbreviations commonly used for some countries (and provinces), international agencies, and standing committees are as follows:

CWP	 Coordinating Working Party on Atlantic Fishery Statistics
FAO	- Food and Agriculture Organization of the United Nations
FRG	- Federal Republic of Germany
GDR	- German Democratic Republic
ICCAT	- International Commission for the Conservation of Atlantic Tunas
ICES	- International Council for the Exploration of the Sea
ICNAF	- International Commission for the Northwest Atlantic Fisheries
ICSEAF	- International Commission for the Southeast Atlantic Fisheries
NB	- New Brunswick (a province of Canada)
NEAFC	- Northeast Atlantic Fisheries Commission
Nfld	- Newfoundland (a province of Canada)
NS	- Nova Scotia (a province of Canada)
OECD	- Organization for Economic Cooperation and Development
STACRES	- Standing Committee on Research and Statistics (ICNAF)
STACTIC	- Standing Committee on International Control
STACFAD	- Standing Committee on Finance and Administration
STACREM	- Standing Committee on Regulatory Measures
UK	- United Kingdom
USA	- United States of America
USSR	- Union of Soviet Socialist Republics

In many of the references the term "re" is used to imply "in relation to", "in connection with", etc.

6. <u>References</u>

HODDER, V. M. 1975. Index and list of titles of ICNAF publications, 1950-1974. ICNAF Spec. Publ. No. 11, 125 pp.

HODDER, V. M. MS 1978. Provisional index and list of titles of ICNAF publications and meeting documents, 1976. ICNAF Sum. Doc. 78/VI/18, 48 pp.

CONTENTS

	<u>rage</u>
Subject Index	3
Author Index	19
List of Titles	27

Page

A

Abundance; Abundance index

RB 11 : 61	(plankton in recorder surveys, 1961-71)
111	(witch flounder eggs and larvae in SA 2 to 5)
	(abundance of icebergs off N1fd, 1972)
	(plankton in recorder surveys, 1972)
RD 75 / 3	(capelin in SA 2 and 3, 1969-74)
7	(state of the Nfld capelin stocks)
	(effect of capelin fishery on Barents Sea cod)
37	(spawning herring on Georges Bank)
	(size and density of mackerel schools)
44	(Loligo and Illex stocks in SA 5 and 6)
	(current status of haddock in Div. 5Z)
49	(larval herring in USA fall surveys, 1974)
50	(vertical distribution of larval herring in SA 5)
53	(capelin and sandeels in SA 1)
57	(seasonal distribution of haddock in Div. 4X)
	(assessment of redfish in SA 5)
62	(assessment of silver hake in Div. 5Y)
64	(Loligo and Illex in SA 5 survey, 1974)
65	(changes in finfish in SA 5 and 6)
66	(larval herring in USSR survey, 1974)
67	(larval herring in FRG survey, 1974)
71	(larval herring in French survey, 1974)
72	(variation in groundfish in Div. 3P)
74	(butterfish in SA 5 and 6)
82	(red hake in Div. 5Z)
	(A. plaice eggs in Div. 3LN, 1970-71)
85	(groundfish in trawl survey off Nlfd, 1974)
	(plankton in recorder surveys, 1974)
	(herring eggs and larvae in Div. 5Y, 1974)
	(silver hake stocks in SA 5 and 6)
	(hydroacoustic apparatus for fish counting)
101	(cod eggs in SA 2 and 3, 1974)
	(variation in larval herring in SA 5)
	(larval herring in Polish survey, 1974)
	(survey results for herring in SA 5)
	(larval herring in fall surveys, 1974)
115	(temperature re cod yields in Div. 3M)
139	(changes in finfish in SA 5 and 6, 1963-74)

Age; Age composition; Age-groups

RB	11	43 93 107 125	(harp seals in NW Atlantic) (S Gulf of St. Lawrence herring stock) (harp seals in SA 1, 1953-72) (assessment of cod in Div. 3NO) (yellowtail in Div. 3LNO) (hooded seals off Nfld)
			(herring in SW Nfld area, 1965-71)
RD	75		(research on harp seals, 1974)
_			
		6	(capelin in SA 2 and 3, 1969-74) (capelin stocks in Nfld area)
		7	(state of Nfld capelin stocks)
		13	(USA and USSR ageing of silver hake)
			(mackerel in SA 3 to 6)
		19	(re growth of Loligo from length groups)
		22	(A. plaice in Div. 3P)
			(witch flounder in Div. 3NO)
		24	(G. halibut in SA 2 and Div. 3KL)
		31	(cod stock off W Greenland)
			(herring catches in Div. 4Vn)
			(herring catches in Div. 4VW)
			(assessment of mackerel in ICNAF area)
		48	(status of haddock stock in Div. 5Z)

53 (capelin and sandeel in SA 1)

- 54 (source of bias in length-at-age data) 56 (growth and mortality of herring in Div. 4VWX) 62 (assessment of silver hake in Div. 5Y) 74 (butterfish catches in SA 5 and 6) 82 (red hake catches in Div. 5Z 82 (red make cattines in Div. 52) 84 (capelin in SA 2 and 3, 1974) 86 (sandeels on Grand Bank, 1974) 87 (growth of cod in SA 1, 1958-74) 92 (mackerel catches in SA 4, 1974) 94 (silver hake catches in SA 5 and 6) 99 (enhancing age-length keys) 102 (studies on alewife in SA 5) 103 (assessment of mackerel in SA 3 to 6) 105 (USA yellowtail and haddock sampling) 114 (1970 year-class of herring in Div. 5Z) 121 (assessment of harp seals at Front) 122 (data on hooded seals at Front) 123 (studies on hooded seals at Greenland)
- 137 (status of redfish stock in Div. 3P)
 142 (studies on harp seals, 1975)
 143 (mortality and production of harp seals)
- 145 (assessment of harp seal stocks)

Age determination; Age validation

- RD 75 / 13 (USA and USSR ageing of silver hake) 73 (Canada-Spain cod otolith exchange)
- Alewife (Alosa pseudoharengus)

RD 75 /102 (growth and mortality in SA 5)

Alosa pseudoharengus (see Alewife)

- American plaice (see Plaice, American)
- Ammodytes spp. (see Sand lance)
- Anarhichus spp. (see Wolffishes)
- Angler, American (Lophius americanus)
- RD 75 / 72 (survey abundance in Div. 3P)

Anomalies (hydrographic)

- SP 10 : 7 (1972 an unusual year) 17 (hydrographic conditions off Nfld, 1951-73) 33 (temperatures in Nfld-Labrador area, 1971-73) 69 (circulation in Nfld area, 1972-73)
- 79 (international ice patrol operations, 1972) RD 75 / 76 (water temperatures in SA 2 and 3, 1974) 111 (hydrographic data from herring surveys)

Assessments

- RB 11 : 5 (status of redfish stocks in SA 3) 43 (southern Gulf of St. Lawrence herring stock) 107 (cod stock in Div. 3NO) 125 (yellowtail fishery in Div. 3LNO) RD 75 / 14 (mackerel stocks in SA 3 to 6) 22 (A. plaice stock in Div. 3P) 23 (witch flounder in Div. 3NO) 24 (G. halibut in SA 2 and Div. 3KL) 31 (cod stocks in SA 1) 40 (mackerel stocks in ICNAF area)

 - - 40 (mackerel stocks in ICNAF area) 44 (Loligo and Illex in SA 5 and 6)
 - 48 (current status of haddock in Div. 5Z)
 - 59 (redfish fishery in SA 5) 61 (status of squids in SA 5 and 6)

- 62 (silver hake stock in Div. 5Y)
- 74 (status of butterfish in SA 5 and 6) 94 (silver hake stocks in SA 5 and 6)
- 94 (Silver make stocks in SA 5 and 6) 100 (conceptual model of herring stocks in SA 5) 103 (reassessment of mackerel in SA 3 to 6) 121 (harp seal stock off Nfld) 122 (hooded seal stock at Front) 137 (status of redfish stock in Div. 3P) 138 (fishing patterns re fishery management) 145 (status of herry carl fishery)

- 145 (analysis of harp seal fishery) SD 75 / 4 (stock records for species assessed in 1974) 19 (report of herring working group, Apr 1975)

Assessments Subcommittee

R (75): 23 (report to STACRES, Jun 1975)

Atlantic, North

- RB 11 : 17 (sources of error in catch and effort regulation)
- SD 75 / 20 (ADP developments re STATLANT forms) 21 (report of 8th session of CWP, Sep 1974)
- Atlantic, Northeast
- RD 75 / 4 (present capelin situation in Barents Sea) 8 (effect of capelin fishery on Barents Sea cod) 11 (fish market sampling in Scotland) 20 (methods of sampling pelagic species) SD 75 / 2 (press notice, NEAFC meeting, Jun 1974) 3 (press notice, NEAFC meeting, Nov 1974) 8 (press notice, NEAFC meeting, Jan 1975) 34 (1974 ICES resolutions relevant to ICNAF)

 - 46 (press notice, NEAFC meeting, May 1975)

Atlantic, Northwest (see also names of specific areas)

```
RB 11 : 61 (plankton recorder surveys, 1961-71)
SP 10 : 7 (1972 - an unusual year)
                 95 (plankton recorder surveys, 1972)
RD 75 / 32 (simulation studies of mackerel fishery)
                 90 (plankton recorder surveys, 1974)
               96 (proposal for standard oceanographic sections)
103 (reassessment of mackerel stocks)
               124 (objectives for managing single stocks)
               128 (objectives for resource management)
129 (comment on proposal for effort control)
SD 75 / 4 (stock records for some assessed stocks, 1974)
10 (finfish and squid catches, SA 5 and 6, 1964-73)
11 (efficiency of sampling TAC stocks, 1973)
12 (lanameter presents report 1974)

12 (Japanese research report, 1974)
13 (Spanish research report, 1974)
14 (CWP recommendations relevant to ICNAF)
15 (Canadian research report, 1974)
16 (United States research report, 1974)

                 19 (report of herring working group, Apr 1975)
                 22 (procedures for weather and ice reporting)
                22 (procedures for weather and ice reporting)
23 (trawl materials and mesh size sampling, 1974)
24 (United Kingdom research report, 1974)
25 (French research report, 1974)
26 (provisional 1974 catches for TAC species)
27 (Norwegian research report, 1974)
28 (Polish research report, 1974)
29 (DD process process report, 1974)

                 29 (GDR research report, 1974)
30 (USSR research report, 1974)
                  31 (Danish research report, 1974)
                 35 (ICNAF statistical report, 1974/75)
36 (FRG research report, 1974)
37 (discrepancies in FAO and ICNAF statistics)
                 43 (Romanian research report, 1974)
```

45 (statistics on discards, 1973)

Atlantic, Southeast

- RD 75 /133 (biological interaction between pilchard and anchovy stocks)
- Atlantic butterfish (see Butterfish)
- Atlantic cod (see Cod, Atlantic)
- Atlantic herring (see Herring)
- Atlantic mackerel (see Mackerel)
- Atlantic redfish (see Redfish)
- Atlantic salmon (see Salmon)
- Availability (see Abundance; Catches)

В

- Baffin Island area (Statistical Area 0)
- RD 75 / 75 (stratification scheme for surveys in SA 0) 77 (water temperatures in SA 0 and 1, 1974) 78 (salinity in SA 0 to 3, 1973-74) 89 (circulation in SA 0 to 3, 1973-74)

Barents Sea

- 4 (present capelin situation in NE Atlantic) 8 (effect of capelin fishery on cod stocks) RD 75 /
- Bay of Fundy (Subarea 4)
- RD 75 / 9 (coastal circulation in Gulf of Maine)
 - 17 (Beaver Harbour herring sampling experiment)
 38 (movements of tagged herring)
 92 (age composition of mackerel catches)
 100 (conceptual model of herring stocks in SA 5)

Behaviour

- RD 75 /100 (conceptual model of herring stocks in SA 5) 108 (variation in larval herring catches in SA 5)
- **Biological Surveys Subcommittee**
- R (75): 65 (report to STACRES, Jun 1975)

Biomass (see Stock size and also Abundance)

- Butterfish, Atlantic (Peprilus triacanthus)
- RD 75 / 74 (status of stock in SA 5 and 6)

By-catch

- RD 75 / 21 (in Spanish cod fishery in SA 1) 68 (effect on fisheries in SA 5 and 6) 70 (by-catch trends in SA 5 and 6 fisheries) 119 (note on the mixed species problem)

С

Cabot Strait

RD 75 / 9 (physical oceanography in SA 4 and 5)

Calanus spp. (copepod) RB 11 : 61 (plankton recorder surveys, 1961-71) SP 10 : 95 (plankton recorder surveys, 1972) RD 75 / 90 (plankton recorder surveys, 1974) Canada SD 75 / 15 (research report for 1974) Capelin (Mallotus villosus) RB 11 : 61 (larvae in plankton surveys, 1961-71) SP 10 : 95 (larvae in plankton surveys, 1972) RD 75 / 3 (Norwegian studies in SA 2 and 3, 1969-74) 4 (present state of Barents Sea stock) 5 (food of cod in SA 2 and 3) 6 (biomass estimates for SA 2 and 3) 7 (state of the stocks in SA 2 and 3) 8 (effect of fishery on Arcto-Norwegian cod) 20 (methods of sampling in Norway) 53 (studies on capelin and sandeel in SA 1) 84 (USSR investigations in SA 2 and 3, 1974) Catches; Catch/effort RB 11 : 5 (redfish stocks in SA 3) 17 (sources of error in catch and effort regulation) 31 (re mortality for cod in Div. 2J+3KL) 43 (assessment of S Gulf of St. Lawrence herring) 93 (harp seals in SA 1, 1953-72) 107 (assessment of cod in Div. 3NO) RD 75 / 3 (capelin fishery in SA 3, 1969-74) 11 (estimated from fish market sampling) 14 (mackerel fishery in SA 3 to 6) 21 (cod by Spanish pair trawlers in SA 1) 22 (A. plaice fishery in Div. 3P) 23 (witch flounder in Div. 3NO) 24 (G. halibut in Div. 2J+3KL) 28 (effect of discards on TACs for flatfish in Div. 3LNO) (assessment of cod in SA 1) 31 (sampling herring catches in Div. 4Vn) 36 39 (Canadian herring fishery in Div. 4VW) 40 (assessment of mackerel in ICNAF area) 44 (assessment of squids in SA 5 and 6) 48 (status of haddock in Div. 5Z) 51 (re effort in fishery assessment models) 57 (haddock fishery in Div. 4X) 59 (assessment of redfish in SA 5) 62 (assessment of silver hake in Div. 5Y) 68 (effect of by-catch on SA 5 and 6 fisheries) 70 (by-catch trends in SA 5 and 6 fisheries) 74 (status of butterfish in SA 5 and 6) 82 (TAC for red hake in Div. 5Z) 92 (Canadian mackerel catches in SA 4, 1974) 94 (assessment of silver hake in SA 5 and 6) 103 (reassessment of mackerel in SA 3 to 6) 117 (prospects for recovery of finfish in SA 5 and 6) 121 (assessment of harp seal stocks at Front) 122 (data on hooded seals at Front) 123 (status of hooded seals at Greenland) 128 (objectives of resource management) 132 (effort regulation and vessel efficiency) 137 (re effort for redfish in Div. 3P) 138 (fishing patterns re fishery management) 142 (data on harp seals in ICNAF area) 143 (mortality and production of harp seals) 145 (management policy re harp seal catches)

148 (mortality estimates for harp seals)

SD 75 / 10 (finfish and squid catches in SA 5+6, 1964-73) 26 (provisional 1974 catches for TAC species) 37 (ICNAF versus FAO catch statistics)

Cephalopods (see Squids)

- Circulation, water (see Currents)
- Clupea harengus (see Herring)
- Cod, Atlantic (Gadus morhua)
- RB 11 : 17 (sources of error in catch and effort regulation) 31 (natural mortality in Div. 2J+3KL stock) 107 (assessment of stock in Div. 3NO) SP 10 : 17 (effect of hydrographic conditions off Nfld) RD 75 / 5 (predation on capelin in SA 2 and 3) 8 (effect of capelin fishery on Barents Sea cod) 10 (temperature re cod recruitment in Div. 4RST) 21 (Spanish pair-trawling in SA 1) 31 (assessment and yield estimate for SA 1) 62 (traging moults in Div. 20 and 4D) (tagging results in Div. 3P and 4R) (variation in groundfish biomass in Div. 3P) 63 72 (results of Canada-Spain otolith exchange) 73 (abundance in USSR survey off Nfld, 1974) (feeding on sandeels on Grand Bank, 1974) (growth of cod in SA 1, 1958-74) (tagging results in Div. 4Vn, 1969) 85 86 87 91 98 (factors affecting growth in Div. 4T) 101 (distribution of eggs in SA 2 and 3, 1974) 115 (temperature re catches in Div. 3M)

 - 130 (some important feeding relationships)

Cod, Greenland (Gadus ogac)

RD 75 / 21 (by-catch in Spanish cod fishery in SA 1)

Cohort analysis (see Virtual population analysis)

Competition

RD 75 / 33 (temp. re herring and mackerel recruitment) 130 (some important feeding relationships) 133 (biological interaction between species)

Continuous plankton records

- RB 11 : 61 (plankton recorder surveys, 1961-71) SP 10 : 95 (plankton recorder surveys, 1972) RD 75 / 90 (plankton recorder surveys, 1974)

Conservation (see Management)

Coordinated surveys (see Biological surveys)

Copepods (see also under individual genus names)

RB 11 : 61 (in plankton recorder surveys, 1961-71) SP 10 : 95 (in plankton recorder surveys, 1972) RD 75 / 90 (in plankton recorder surveys, 1974)

Crustaceans (see under specific headings)

Currents

- SP 10 : 7 (1972 an unusual year) 17 (hydrographic conditions off Nfld, 1951-73)
 - 41 (circulation east of the Grand Bank, 1972)
 57 (circulation in Nfld ridge area, 1972)
 69 (circulation in Nfld area, 1972-73)
 79 (international ice patrol operations, 1972)

121 (circulation east of the Grand Bank, 1973) RD 75 / 9 (coastal circulation in SA 4 and 5) 29 (hydrography in Div. 2J, fall 1974) 76 (hydrography in SA 2 and 3, 1974) 77 (hydrography in SA 0 to 3, 1974) 79 (circulation in ICNAF area, 1973-74) 11 (m lower distribution in SA 5)

- 111 (re larval herring distribution in SA 5)

CWP (Coordinating Working Party on Atlantic Fishery Statistics)

SD 75 / 14 (CWP recommendations relevant to ICNAF) 21 (report of 8th session, Sep 1974)

D

Denmark

SD 75 / 31 (research report for 1974)

Discards; Discarding fish at sea

RD 75 / 21 (in Spanish cod fishery in SA 1) 28 (effect on assessment of flatfish in Div. 3LNO) 62 (in silver hake fishery in Div. 5Y) SD 75 / 45 (statistics on discards, 1973)

Distribution (see also Abundance)

RB 11 : 61 (plankton in recorder surveys, 1961-71) 111 (eggs and larvae of witch in SA 2 to 5) SP 10 : 95 (plankton in recorder surveys, 1972) RD 75 / 49 (larval herring in USA surveys, 1974) 50 (vertical distribution of larval herring) 53 (capelin and sandeels in SA 1) 57 (seasonal for haddock in Div. 4X) 64 (lefting and Iffer in SA 5 fall 1974) 57 (seasonal for haddock in DIV. 4X)
64 (*Loligo* and *Illex* in SA 5, fall 1974)
66 (larval herring in USSR survey, 1974)
67 (larval herring in FRG survey, 1974)
71 (larval herring in French survey, 1974)
74 (butterfish in SA 5 and 6)
62 (de large survey survey) 83 (A. plaice eggs in Div. 3LN, 1970-71) 84 (capelin in USSR surveys, 1974) 86 (sandeels in Grand Bank area) 86 (sandeels in Grand Bank area) 90 (plankton in recorder surveys, 1974) 100 (conceptual model of herring stocks in SA 5) 101 (cod eggs in SA 2 and 3, 1974) 108 (larval herring in SA 5 surveys) 109 (larval herring in Polish survey, 1974) 110 (survey results for herring in SA 5) 112 (larval herring in fall surveys, 1974) 120 (harp seals at Front, spring 1975)

Diurnal effects

- RD 75 / 49 (larval herring in USA surveys, 1974) 50 (larval herring on Georges Bank) 100 (conceptual model of herring stocks in SA 5) 108 (larval herring catches in SA 5)

Dogfish, spiny (Squalus acanthias)

RD 75 / 72 (abundance in trawl survey in Div. 3P)

Ε

East Greenland (see Greenland area)

Echo-sounding (see Hydroacoustics)

Effort (see Fishing effort)

Eggs

- RB 11 :111 (spawning of witch in SA 2 to 5) RD 75 / 83 (abundance of A. plaice in Div. 3LN) 93 (herring egg beds in Div. 5Y) 101 (cod eggs in SA 2 and 3, 1974)
- Environment (because of the general nature of this heading, references to many papers that could be listed here are indexed under more specific headings: Hydrography; Salinity; Temperature; Food; Plankton; etc.)
- SP 10 : 1 (symposium on environmental conditions in the Grand Bank area in 1972)

Environmental Subcommittee

R (75): 89 (report to STACRES, Jun 1975)

Euchaeta spp.

SP 10 : 95 (in plankton recorder surveys, 1972) RD 75 / 90 (in plankton recorder surveys, 1974)

Euphausiids

RB 11 : 61 (in plankton recorder surveys, 1961-71) SP 10 : 95 (in plankton recorder surveys, 1972) RD 75 / 90 (in plankton recorder surveys, 1974)

Exploitation rate (see Mortality)

F

Fat content

RB 11 :145 (studies on herring in SW Nfld area, 1965-71) RD 75 / 3 (Norwegian research on capelin, 1969-74) 84 (USSR studies on capelin in SA 2 and 3, 1974)

Federal Republic of Germany

SD 75 / 36 (research report for 1974)

Feeding; Food

- RB 11 :145 (studies on herring in SW Nfld, 1965-71) RD 75 / 5 (predation of cod on capelin in SA 2 and 3) 8 (predation of cod on capelin in Barents Sea) 50 (larval herring on zooplankton in SA 5) 86 (cod on sandeels in SA 3) 20 (in the second s
 - - 130 (important feeding relationships in SA 5)

Finfish (see also Groundfish and names of species)

- RD 75 / 65 (changes in biomass in SA 5 and 6) 68 (effect of by-catch on SA 5 and 6) 70 (trends in by-catches in SA 5 and 6) 117 (prospects for recovery of biomass in SA 5+6) 139 (changes in biomass in SA 5+6, 1963-74) SD 75 / 10 (finfish and squid catches in SA 5+6, 1964-73)

Fins; Fin rays

RD 75 / 30 (meristic studies on herring in SA 3 and 4) 52 (meristic studies on A. plaice in Div. 3LNO)

Fisheries (see Catches)

Fishery regulations

CD 75 / 6 (1975 ICNAF fishery regulations, as on 10 Feb 1975)

Fishing effort; Fishing intensity

RB 11 : 5 (status of redfish stocks in SA 3) 17 (sources of error in effort regulations) 31 (natural mortality of cod in Div. 2J+3KL) 43 (assessment of S Gulf of St. Lawrence herring) 125 (status of value with status) 125 (status of yellowtail fishery in Div. 3LNO) R (75): 83 (working group report to STACRES, Jun 1975) RD 75 / 31 (assessment of cod in SA 1) 39 (Canadian herring fishery in Div. 4VW) 48 (status of haddock stock in Div. 5Z) 51 (estimating parameters in fisheries models) 59 (assessment of redfish in SA 5) 62 (assessment of silver hake in Div. 5Y) 74 (butterfish fishery in SA 5 and 6) 94 (assessment of silver hake in SA 5 and 6) 128 (objectives of resource management) 128 (ODJECTIVES OT RESOURCE management)
129 (comment on fishing effort limitation)
132 (effort regulation and vessel efficiency)
137 (status of redfish fishery in Div. 3P)
138 (fishing patterns re fishery management)
145 (assessment of harp seal stocks) 148 (mortality estimates for harp seals)

Fishing power

RB 11 : 17 (sources of error in effort regulation) RD 75 /132 (effort regulation and vessel efficiency)

Flatfishes (see Flounders and also names of various species)

Flemish Cap (Subarea 3)

- SP 10 : 17 (hydrographic conditions off Nfld, 1951-73)
- 79 (international ice patrol operations, 1972) 121 (circulation east of Grand Bank, 1973) RD 75 / 76 (temperature conditions in 1974)
- - 78 (salinity conditions, 1973-74)
 - 79 (circulation in SA 0 to 3, 1973-74)
 - 85 (groundfish survey results, 1974)
 - 115 (temperature re fluctuations in cod)

Flounder, witch (Glyptocephalus cynoglossus)

- RB 11 :111 (spawning and development in SA 2 to 5) RD 75 / 23 (assessment of stock in Div. 3NO)

 - 72 (survey abundance in Div. 3P)
 - 85 (in groundfish survey off Nfld, 1974)

Flounder, yellowtail (Limanda ferruginea)

- RB 11 :125 (status of fishery in Div. 3LNO)
- RD 75 / 28 (effect of unreported discards on assessment) 72 (survey abundance in Div. 3P) 85 (in groundfish survey off Nfid, 1974) 105 (adequacy of USA sampling program) 130 (important feeding relationships in SA 5)

Flounders (general)

SP 10 : 17 (re hydrographic conditions off Nfld, 1951-73) RD 75 /130 (important feeding relationships in SA 5)

Fluctuations (see also Abundance; Diurnal effects)

RB 11 : 61 (plankton in recorder surveys, 1961-71) SP 10 : 79 (icebergs off Nfld, 1900-72) RD 75 / 72 (groundfish biomass in Div. 3P) 115 (cod re temperature on Flemish Cap) 202 (finite field of the second sec

- - - 139 (finfish blomass in SA 5 and 6, 1963-74)

Food (see Feeding)

France

SD 75 / 25 (research report for 1974)

- Front area (pertains to seal hunting off Labrador and Northeast Newfoundland)
- RB 11: 37 (mortality and reproduction in harp seals) 135 (Norwegian studies on hooded seals) RD 75 / 1 (Canadian research on harp seals, 1974) 120 (Norwegian studies on seals, 1975) 121 (assessment of harp seal stocks) 122 (additional data on hooded seals) 141 (harp seal survival in NW Atlantic) 142 (Canadian studies on harp seals, 1975) 143 (mortality and production of harp seals)
 - - 143 (mortality and production of harp seals)
 144 (aerial census of harp seals)
 145 (impact of management on harp seal stocks)

 - 146 (harp seal management re scientific data) 147 (comment on yield of harp and hooded seals)

 - 148 (natural mortality estimate for harp seals)
 149 (comment on mortality estimate for harp seals)
 150 (harp seal production, Mar 1975)

 - 15] (review of modified harp seal model)

G

Gadus morhua (see Cod, Atlantic)

Gadus ogac (see Cod, Greenland)

Gaspereau (see Alewife)

Georges Bank (Subarea 5)

- RB 11 :111 (spawning and development of witch) SP 10 :107 (temperature conditions, 1960-68) 115 (hydrographic conditions, 1972)
- RD 75 / 13 (USSR and USA ageing of silver hake) 14 (assessment of mackerel stock)
 - 19 (age and growth of Loligo) 37 (study on herring spawning stock)

 - 37 (study on herring spawning stock)
 40 (assessment of mackerel stock)
 41 (size and density of mackerel schools)
 44 (assessment of squids in SA 5 and 6)
 47 (USA-GDR cooperative herring survey, 1975)
 48 (current status of haddock stock)
 49 (larval herring in USA fall surveys)
 50 (vertical distribution of larval herring)
 58 (size and growth of *Illex* in SA 4 and 5)
 59 (assessment of redfish in SA 5)

 - 59 (assessment of redfish in SA 5)

61 (status of squid stocks in SA 5 and 6) 64 (results of squid surveys, fall 1974) 65 (changes in finfish biomass in SA 5 and 6) 66 (USSR larval herring survey, 1974) 67 (FRG larval herring survey, 1974) 68 (effects of by-catch on SA 5+6 fisheries) 70 (by-catch trends in SA 5+6 fisheries) 71 (French larval herring survey, 1974) 74 (status of butterfish fishery) 80 (hydrochemical studies, 1971-73) 81 (oxygen consumption studies in SA 5) 82 (TAC for red hake stock, 1976) 94 (assessment of silver hake stocks) 100 (conceptual model of herring stocks) 102 (growth and mortality of alewife) 105 (adequacy of sampling haddock and yellowtail) 105 (adequacy of sampling haddock and yellowta 108 (variation in larval herring catches) 109 (Polish larval herring survey, 1974) 110 (survey results for herring in SA 5) 111 (hydrographic data from herring surveys) 112 (summary of larval herring survey data) 113 (winter mortality of herring larvae) 114 (weight-at-age data for herring) 117 (prospects for recovery of fish stocks) 118 (USA juvenile herring survey, May 1975) 130 (some important feeding relationships) 132 (effort regulation and vessel efficiency) 139 (changes in finfish biomass, 1963-74)

German Democratic Republic

SD 75 / 29 (research report for 1974)

Germany, Federal Republic of (see Federal Republic of Germany)

Gills; Gillrakers

RD 75 / 30 (meristic studies on herring in SA 3 and 4)

Glyptocephalus cynoglossus (see Flounder, witch)

Goosefish (see Angler)

Grand Bank (Subarea 3)

```
RB 11 : 5 (status of redfish stocks in SA 3)
31 (natural mortality in Div. 2J+3KL cod)
107 (assessment of cod in Div. 3NO)
                     111 (spawning and development of witch)
125 (status of yellowtail fishery)
SP 10 : 17 (hydrographic conditions, 1951-73)

33 (temperature conditions, 1971-73)

41 (circulation east of Grand Bank, 1972)

57 (circulation in Nfld ridge area, 1972)

69 (circulation in Nfld area, 1972-73)

75 (salinity in Nfld area, 1972-73)

79 (international ice patrol operations, 1972)

121 (circulation east of Grand Bank, 1973)

RD 75 (3 (Morregian research on capelin, 1969-74)
                                (Norwegian research on capelin, 1969-74)
(predation of cod on capelin in SA 2 and 3)
(biomass estimate for capelin)
 RD 75 / 3
                           5
                           6

23 (assessment of witch in Div. 3NO)
24 (assessment of G. halibut in Div. 2J+3KL)
28 (effect of unreported discards on flatfish TACs)

                        52 (A. plaice stocks in Div. 3LNO)
73 (results of Canada-Spain cod otolith exchange)
                       76 (temperature conditions, 1974)
78 (salinity in SA 0 to 3, 1973-74)
79 (circulation in SA 0 to 3, 1973-74)
                        83 (abundance of A. plaice eggs, 1970-71)
```

- 84 (USSR studies on capelin, 1974)
- 85 (groundfish trawl survey results, 1974)
- 86 (USSR studies on sandeels, 1974)
- 101 (distribution of cod eggs, 1974)

Greenland area (Subarea 1 and East Greenland)

- RB 11 : 93 (studies on harp seals, 1953-72) RD 75 / 21 (observations on Spanish pair-trawling)
- 31 (assessment of cod stocks in SA 1) 53 (studies on capelin and sandeels) 77 (temperature conditions in SA 0 and 1, 1974)

 - 78 (salinity in SA 0 to 3, 1973-74) 79 (circulation in SA 0 to 3, 1973-74) 87 (age-length data for cod, 1958-74) 123 (studies on hooded seals in SA 1)

Greenland cod (see Cod, Greenland)

Greenland halibut (see Halibut, Greenland)

Greysole (see Flounder, witch)

Groundfish (see also Finfish and names of individual species)

RD 75 / 34 (sampling design for groundfish surveys) 72 (groundfish biomass variation in Div. 3P) 85 (trawl survey results off Nfld, 1974)

Growth; Growth rate

- RB 11 :125 (yellowtail in Div. 3LNO) 145 (herring in SW Nfld area)
- RD 75 / 19 (age and growth of Loligo in SA 5) 22 (A. plaice in Subdiv. 3Ps)

 - 24 (G. halibut in SA 2 and Div. 3KL) 52 (A. plaice stocks in Div. 3LNO) 56 (and mortality of herring in Div. 4VWX)

 - 56 (and mortality of herring in Uiv. 4VWX)
 58 (studies on *ILlex* in SA 4 and 5)
 61 (*Loligo* and *ILlex* in SA 5 and 6)
 74 (butterfish in SA 5 and 6)
 87 (cod in SA 1, 1958-74)
 92 (mackerel in SA 4, 1974)
 98 (factors affecting cod growth in Div. 4T)
 102 (and mortality of alewife in SA 5)
 114 (1970 year-class of herring in Div. 5Z)

Gulf of Maine (Subarea 5)

- SP 10 :107 (temperature conditions, 1960-68)
- RD 75 /
- - 49 (USA larval herring surveys, 1974)
 59 (assessment of redfish stock)
 62 (assessment of silver hake in Div. 5Y)

 - 65 (changes in finfish biomass in SA 5+6) 71 (French larval herring survey, 1974) 93 (studies on herring egg beds, 1974)

 - 93 (studies on herring egg beds, 1974) 100 (conceptual model of herring stocks) 108 (variation in larval herring catches) 109 (Polish larval herring survey, 1974) 110 (survey results for SA 5 herring) 111 (hydrography from larval herring surveys) 112 (summary of 1974 larval herring surveys) 113 (winter mortality of herring larvae) 117 (prospect for recovery of finfish biomass) 130 (some important feeding relationships) 139 (changes in finfish biomass, 1963-74)

Gulf of St. Lawrence (Subarea 4)

73	(assessment of southern herring stocks) (morphometric studies on herring) (studies on SW Nfld herring stocks)
	(Canadian research on harp seals, 1974)
	(temperature re recruitment of cod)
	(assessment of mackerel in SA 3 to 6)
30	(meristics of herring in Div. 4T)
33	(temp. re mackerel and herring recruitment)
63	(cod tagging results for Div. 3P and 4R)
	(migration of cod tagged in Div. 4Vn)
	(factors affecting growth of cod in Div. 4T)
142	(Canadian studies on seals, 1975)
143	(mortality and production of harp seals)
144	(aerial census of harp seals)
145	(management policy re harp seals)
149	(comment of harp seal mortality estimate)
150	(harp seal production, Mar 1975)

151 (review of modified harp seal model)

Н

Haddock (Melanogrammus aeglefinus)

- RD 75 / 48 (current status of stock in Div. 5Z) 57 (seasonal distribution in Div. 4X)
 - - 72 (abundance in Div. 3P surveys) 85 (in trawl surveys off Nfld, 1974) 105 (adequacy of sampling by USA in SA 5)
 - 130 (some important feeding relationships)
- Hake, red (Urophycis chuss)

RD 75 / 82 (1976 TAC for stock in Div. 5Z)

Hake, silver (Merluccius bilinearis)

- RD 75 / 13 (comparison of USA and USSR ageing) 62 (assessment of fishery in Div. 5Y) 94 (assessment of stocks in SA 5 and 6)

 - 130 (some important feeding relationships)

Hake, white (Urophycis tenuis)

RD 75 / 72 (abundance from surveys in Div. 3P)

Hallbut, Greenland (Reinhardtius hippoglossoides)

- RD 75 / 24 (assessment of stock in Div. 2J+3KL) 85 (in groundfish surveys off Nfld, 1974)
- Harp seal (see Seal, harp)

Herring, Atlantic (Clupea harengus)

- RB 11 : 43 (assessment of S Gulf of St. Lawrence stock) 73 (morphometric studies in SA 3 and 4) 145 (biology of SW Nfld herring, 1965-71)
- RD 75 / 17 (sampling experiment in Bay of Fundy) 20 (Norwegian methods of sampling pelagics) 30 (meristic studies in Div. 3P, 4T and 4V) 33 (temperature re recruitment in Div. 4RST)

- 36 (study on sampling Div. 4Vn catches) 37 (study on Georges Bank herring spawning) 38 (movements from tagging in Bay of Fundy) 39 (Canadian fishery in Div. 4VW, 1974/75) 47 (joint USA -GDR cooperative survey, 1975) 49 (USA larval surveys in SA 5, 1974) 50 (vertical distribution of larvae in Div. 52) 56 (growth and mortality in Div. 44WX) 56 (growth and mortality in Div. 44WX) 66 (USSR larval survey in SA 5, 1974) 67 (FRG larval survey in SA 5, 1974) 71 (French larval surveys in SA 4 and 5, 1974) 93 (studies on egg beds in Div. 5Y, 1974) 100 (screentual model for SA 5 stocks) 100 (conceptual model for SA 5 stocks) 100 (conceptual model for SA 5 stocks) 108 (variation in larval catches in SA 5) 109 (Polish larval survey in SA 5, 1974) 110 (survey results for SA 5, 1974) 111 (hydrographic data from larval surveys) 112 (summary of larval survey results, 1974) 113 (winter mortality in larvae in SA 5) 114 (weight-at-age of 1970 year-class in SA 5) 118 (IISA iuvenile herring surveys, 1975) 118 (USA juvenile herring surveys, 1975)
- (important feeding relationships in SA 5) 130
- SD 75 / 19 (report of herring working group, Apr 1975)

Hippoglossoides platessoides (see Plaice, American)

Hooded seal (see Seal, hooded)

Hydroacoustics

- RD 75 / 3 (research on capelin in SA 2 and 3)
 - 7 (re status of Nfld capelin stocks) 16 (estimation of fish density)

 - 34 (sampling design for groundfish surveys) 41 (size and density of mackerel schools) 53 (studies on capelin in SA])

 - 95 (application to fish counting)

Hydrography (see also under specific headings: Salinity, Temperature, etc.)

- SP 10 : 7 (1972 an unusual year) 17 (conditions off Nfld, 1951-73) 33 (temperatures in SA 2 and 3, 1971-73)
 - - 41 (current system east of Grand Bank, 1972) 57 (circulation in Nfld ridge area, 1972)

 - 69 (circulation in Nfld-Labrador area, 1972-73) 75 (salinity in Nfld-Labrador area, 1972-73) 79 (international ice patrol operations, 1972) 107 (temperatures in SA 4 and 5, 1960-68) 115 (temperatures in SA 4 and 5, 1972) 121 (circulation east of Grand Bank, 1973) (9 (obvioal concerney) (50 4 and 5)
- RD 75 /
- 9 (physical oceanography in SA 4 and 5) 10 (temperature re cod recruitment in Div. 4RST) (observations in Div. 2J, fall 1974) 29
 - (temp. re herring and mackerel recruitment) (data from USA larval herring survey, 1974) 33
 - 49
 - 66 (data from USSR larval herring survey, 1974) 67 (data from FRG larval herring survey, 1974)

 - 71 (data from French larval herring survey, 1974)
 - temperature conditions in SA 2 and 3, 1974) (temperature conditions in SA 0 and 1, 1974) 76 77
 - 78 (salinity in SA 0 to 3, 1973-74) 79 (circulation in SA 0 to 3, 1973-74) 80 (hydrochemical studies in SA 5, 1971-73) 81 (studies on oxygen consumption in SA 5) 96 (USSR proposal for standard sections)

 - 109 (data from Polish larval herring survey, 1974)
 - 111 (data from larval herring surveys, 1971-73)

Ice; Ice conditions

SP 10 : 7 (1972 - an unusual year) 79 (international ice patrol operations, 1972)

<u>ICES</u> (International Council for the Exploration of the Sea)

SD 75 / 34 (ICES resolutions relevant to ICNAF, 1974)

Illex illecebrosus (see Squid, short-finned)

J

Japan

SD 75 / 12 (research report for 1974)

L

	r <u>ea</u> (Subarea 2) (see under Front area, for es to seals)
RB 11 : 31	(natural mortality in Div. 2J+3KL cod) (spawning and development of witch)
	(hydrographic conditions, 1951-73)
	(temperature conditions in 1971-73)
69	(circulation in Nfld-Labrador area, 1972-73)
75	(salinity conditions, 1972-73)
	(Norwegian research on capelin, 1969-74)
	(predation of cod on capelin)
6	(biomass estimates of capelin in SA 2 and 3)
7	(status of Nfld capelin stocks)
24	(assessment of G. halibut in Div. 2J+3KL)
29	(hydrography conditions, fall 1974)
76	(temperature conditions, 1974)
78	(salinity conditions, 1973-74)
79	(water circulation, 1973-74)
84	
101	(distribtuion of cod eggs in SA 2 and 3)
129	(comment on proposal for effort limitation)
1	Cond Journey)

Lance (see Sand lance)

Landings (see Catches)

```
Larvae (fish)
```

RB 11 : 61 (in plankton recorder surveys, 1961-71) 111 (spawning and development of witch flounder) SP 10 : 95 (in plankton recorder surveys, 1972) RD 75 / 10 (temperature re cod recruitment in Div. 4RST) 33 (temp. re herring and mackerel recruitment) 49 (USA survey for herring in SA 5, 1974) 49 (USA survey for herring in SA 5, 19/4)
50 (distribution of herring on Georges Bank)
66 (herring in USSR survey in SA 5, 1974)
67 (herring in FRG survey in SA 5, 1974)
71 (herring in French survey in SA 5, 1974)
90 (in plankton recorder surveys, 1974)
93 (distribution over herring egg beds in Div. 5Y)
100 (conceptual model for SA 5 herring stocks)
108 (wriation in larval herring catches in SA 5) 108 (variation in larval herring catches in SA 5) 109 (herring in Polish survey in SA 5, 1974) 112 (summary of survey data for herring, 1974)

- 113 (winter mortality of herring in SA 5) 118 (USA juvenile herring survey, May 1975)

Laurentian Channel

```
RD 75 / 76 (temperature conditions in 1974)
78 (salinity conditions in 1973-74)
79 (water circulation, 1973-74)
```

Length; Length composition

RB 11 : 5 (redfish stocks in SA 3) 43 (herring of south Gulf of St. Lawrence stock) 107 (cod stock in Div. 3NO) 125 (re growth of yellowtail in Div. 3LNO) 145 (herring in SW Nfld area, 1965-71) RD 75 / 3 (capelin in SA 2 and 3, 1969-74) (fish market sampling in Scotland) 11 12 (bias in estimating mean length-at-age) 13 (USAs and USA silver hake samples)
17 (herring sampling in Bay of Fundy)
19 (re growth of *LoLigo* in SA 5)
20 (Norwegian methods of sampling pelagics)
21 (Spanish pair-trawl catches in SA 1)
23 (witch flowdow in Div 200) 23 (witch flounder in Div. 3NO) (G. halibut in Div. 2J+3KL) (Illex catches in Nfld area) 24 27 (sampling of herring in Div. 4Vn) (size of herring tagged in Bay of Fundy) (herring catches in Div. 4VW, 1974) 36 38 39 (mackerel catches in SA 3 to 6) (larval herring in USA fall surveys) 40 49 (capelin and sandeels in SA 1) 53 54 (bias in estimating mean length-at-age) 58 (size and growth of Illex in SA 4 and 5) (assessment of redfish in SA 5) 59 (silver hake catches in Div. 5Y) (squid in Div. 5Z survey, fall 1974) (larval herring in USSR survey, 1974) (larval herring in FRG survey, 1974) (larval herring in French survey, 1974) 62 64 66 67 71 (butterfish catches in SA 5 and 6) (capelin in USSR surveys in SA 2 and 3) 74 84 (sandeels on Grand Bank, 1974) (re growth of cod in SA 1, 1958-74) (Canadian mackerel catches in SA 4, 1974) 86 87 92 99 (enhancing age-length keys) 102 (re growth of alewife in SA 5) 103 (mackerel catches in SA 3 to 6) 108 (larval herring catches in SA 5) 109 (larval herring in Polish surveys, 1974) 110 (survey results for herring in SA 5) 112 (summary of larval herring data, 1974)
113 (winter mortality of larval herring in SA 5) 118 (juvenile herring in USA survey, Mar 1975) 137 (assessment of redfish in Div. 3P)

Light, reactions to

RD 75 / 50 (variation in larval herring catches in SA 5) 108 (variation in larval herring catches in SA 5)

Limanda ferruginea (see Flounder, yellowtail)

Logbooks (fishing)

MP(75):118 (report of ICNAF/NEAFC Working Group, Mar 1975)

Loligo pealei (see Squid, long-finned)

Lophius americanus (see Angler, American)

М

Mackerel, Atlantic (Scomber scombrus)

- RD 75 / 14 (assessment of stocks in SA 3 to 6)

 - 14 (dssessment of stocks in an a to op
 20 (Norwegian methods of sampling)
 32 (simulating mackerel fishery in SA 3 to 6)
 33 (temperature re recruitment in Div. 4RST)
 40 (status of mackerel stocks in ICNAF area)
 41 (size and density of schools in SA 5)
 42 (are composition of catches in SA 4, 1974)

 - 92 (age composition of catches in SA 4, 1974) 103 (reassessment of stock in SA 3 to 6) 130 (important feeding relationships in SA 5)

Maine (see Gulf of Maine)

Mallotus villosus (see Capelin)

- Management (only the references to this item in scientific papers are listed below; the numerous resolutions and proposals relevant to the Commission's conservation program are given in Meeting Proceedings and Annual Reports)
- RB 11 : 17 (sources of error in catch and effort regulation) RD 75 /124 (objective for managing single stocks)
 - - 128 (objectives of resource management)
 - 128 (objectives of resource management)
 129 (comment on proposal to limit fishing effort)
 132 (effort regulation and vessel efficiency)
 133 (biological interaction and fishery management)
 138 (fishing patterns re fisheries management)
 145 (harp seal stocks re management policy)
 146 (harp seal management policy)
- 146 (harp seal management re scientific data) CD 75 / 6 (1975 ICNAF fishery regulations, as on 10 Feb 1975)

Mathematical analyses (see also Virtual population analyses and Production model analyses)

RB 11 : 17 (sources of error in catch and effort regulation) RD 75 / 10 (temperature re cod recruitment in Div. 4RST)
12 (bias in estimating mean length-at-age)
32 (simulation of mackerel fishery in SA 3 to 6)
33 (temp. re herring and mackerel in Div. 4RST)

- - 34 (sampling design for groundfish surveys) 36 (study on sampling herring in Div. 4V) 42 (iterative solution to the catch equation)
 - 51 (estimating parameters in fisheries models)

 - 54 (note on bias in estimating length-at-age) 68 (effect of by-catch on SA 5 and 6 fisheries) 98 (analysis of cod growth in Div. 4T)

 - 99 (enhancing age-length keys)
 - 119 (note on the mixed species problem)
 - 133 (biological interaction and fishery management) 151 (review of modified harp seal model)

Maturation; Maturity (see also Spawning)

- RB 11 :145 (studies on SW Nfld herring, 1965-71) RD 75 / 21 (observations on cod in SA 1)
 - - 30
 - 37 53
 - (spring and autumn spawning herring) (observations on Georges Bank herring) (studies on capelin and sandeel in SA 1) 64 (studies on squid in SA 5, 1974)

Maximum sustainable yield (see Yield)

Meeting proceedings (see under STACRES for reports of Standing Committee on Research and Statistics)

- MP(75): 5 (Fifth Special Meeting, Nov 1974) 49 (Sixth Special Meeting, Jan 1975) 81 (ICNAF/NEAFC Meeting on International Enforcement, Mar 1975)
 - 127 (25th Annual Meeting, Jun 1975)

Melanogrammus aeglefinus (see Haddock)

Meristics (see also Fin rays, Gillrakers, Vertebrae, etc.)

RD 75 / 30 (studies on herring in Div. 3P, 4T and 4V) 52 (studies on A. plaice in Div. 3LNO)

Merluccius bilinearis (see Hake, silver)

Mesh gauge

RD 75 / 88 (measuring the meshes of nets) 89 (comparison of 3 mesh gauges)

Mesh regulation (see Management)

Mesh size sampling

SD 75 / 23 (and trawl materials, 1974)

Meteorology

- SP 10 : 7 (1972- an unusual year) 79 (international ice patrol operations, 1972) RD 75 / 9 (oceanographic studies in SA 4 and 5) SD 75 / 22 (weather and ice reporting by fishing vessels)

Methodology; Methods

- RD 75 / 11 (fish market sampling in Scotland) 12 (bias in estimating mean length-at-age)

 - 12 (bias in estimating mean fength-at-age)
 16 (acoustics for estimating fish density)
 17 (Canadian herring sampling experiment)
 20 (Norwegian methods of sampling pelagics)
 34 (sampling design for groundfish surveys)
 36 (study on sampling herring in Div. 4V)
 42 (simple iterative solution to catch equation)
 51 (estimating narameters of fisherias models)
 - (estimating parameters of fisheries models) (note on bias in estimating length-at-age) 51
 - 54
 - (measuring the meshes of trawl nets) (hydroacoustics for fish counting) (enhancing age-length keys) 88
 - 95
 - 99
 - 119 (note on the mixed species problem)

Metridia spp. (copepod)

SP 10 : 95 (in plankton recorder surveys, 1972)

Migrations; Movements

RD 75 / 14 (mackerel stocks in SA 3 to 6) 38 (herring tagged in Bay of Fundy)

- - 63 (cod tagging results for Div. 3P and 4R)
 - 91 (results from cod tagging in Div. 4V) 100 (conceptual model of herring in SA 5)

 - 142 (Canadian studies on harp seals, 1975)

Monkfish (see Angler)

Morphometrics (body proportions)

RB 11 : 73 (herring stocks in SA 3 and 4)

Mortality

RB	11	: 31	
		43	(herring stock in S Gulf of St. Lawrence)
		93	(studies on harp seals in SA 1, 1953-72)
			(assessment of cod in Div. 3NO)
		121	(yellowtail fishery in Div. 3LNO)
			(studies on hooded seals off Nfld)
SD	10		(cod and flounder in SA 3 re temperature)
			(assessment of mackerel in SA 3 to 6)
Nυ	10	22	(assessment of A. plaice in Div. 3P)
		23	(assessment of witch in Div. 3NO)
		24	(assessment of G. halibut in Div. 2J+3KL)
		21	(status of cod stocks in SA 1)
		10	(status of mackerel stocks in ICNAF area)
			(current status of haddock in Div. 5Z)
		56	(and growth of herring in Div. 4VWX)
		58	
		61	
		60	(assessment of silver hake in Div. 5Y)
		02	(assessment of silver hake in SA 5 and 6)
		100	(conceptual model of herring stocks in SA 5)
		100	(conceptual model of nerring stocks in SK 5)
		102	(and growth of alewife in SA 5)
		103	(reassessment of mackerel in SA 3 to 6)
		113	(winter mortality of herring larvae in SA 5)
		119	(note on the mixed species problem)
		121	(assessment of harp seals at the Front)
			(data on hooded seals at Front)
		124	
			(fishing patterns re fishery management)
		141	(harp seal survival in NW Atlantic)
		142	(Canadian studies on harp seals, 1975)
		143	(and production of harp seals)
		145	(assessment of harp seal stocks)
		148	(natural mortality estimate for harp seals)
		149	(comment on harp seal mortality estimate)

151 (review of modified harp seal model)

N

NEAFC (Northeast Atlantic Fisheries Commission)

- MP(75):108 (report of Enforcement Committee, Mar 1975) SD 75 / 2 (press notice, annual meeting, Jul 1974)
 - 3 (press notice, special meeting, Nov 1974) 8 (press notice, special meeting, Jan 1975) 46 (press notice, annual meeting, May 1975)
- New England area (Subarea 5 and Statistical Area 6) (see also Georges Bank and Gulf of Maine)

RD 75 /	14	(assessment of mackerel fishery)
	19	(size and growth of Loligo)
	40	(assessment of mackerel stocks)
	44	(assessment of Loligo and Illex)
	47	(joint USA-GDR herring survey, 1975)
	61	(status of Loligo and Illex stocks)
	64	(squid survey in SA 5 and 6, 1974)
	65	(changes in finfish biomass)
	66	(USSR larval herring survey, 1974)

- 67 (FRG larval herring survey, 1974) 68 (effect of by-catch on SA 5 and 6 stocks)
- 70 (by-catch trends in SA 5 and 6 fisheries)
- (French larval herring survey, 1974) 71
- 74 (status of butterfish stock) 80 (hydrochemical studies, 1971-73)
- 81 (studies on oxygen consumption)

- 94 (assessment of silver hake stocks) 100 (conceptual model of herring stocks) 108 (variation in larval herring catches)
- 109 (Polish larval herring survey, 1974) 110 (USA survey results for herring)
- 111 (hydrographic data from larval herring surveys) 112 (summary of 1975 larval herring surveys) 113 (winter mortality of herring larvae)

- 113 (whiter mortality of herring failed)
 117 (prospects for recovery of finfish biomass)
 130 (some important feeding relationships)
 132 (effort regulation and vessel efficiency)

- 139 (changes in finfish biomass, 1963-74)
- Newfoundland area (Subarea 3 and Div. 4R) (see also Flemish Cap, Grand Bank, Northeast Nfld Shelf, St. Pierre Bank, and Gulf of St. Lawrence)
- RB 11 : 43 (assessment of SW Nfld-Gulf of St. Lawrence herring stock)
- 73 (morphometrics in herring of SA 3 and 4) 145 (studies on herring of SW Nfld area) RD 75 / 14 (assessment of mackerel in SA 3 to 6) 27 (size distribution of *Illex* in inshore Nfld) 63 (cod tagging results for Div. 3P and 4R) 91 (recaptures of cod tagged in Div. 4V)
- Nitrates; Nitrites

RD 75 / 80 (hydrochemical studies in SA 5, 1971-73)

North Atlantic (see Atlantic, North)

Northeast Atlantic (see Atlantic, Northeast)

Northeast Nfld Shelf (Subarea 3)

- RB 11 : 31 (natural mortality in Div. 2J+3KL cod)
- SP 10 : 17 (Indeural moleculey) in Div. 20 Ske (111 (spawning and development of witch) SP 10 : 17 (hydrographic conditions, 1951-73) 33 (temperature conditions, 1971-73) 69 (circulation in Nfld area, 1972-73)
 - 75 (salinity conditions, 1972-73) 79 (international ice patrol operations, 1972)
- /9 (international ice patrol operations, 1972)
 RD 75 / 3 (research on capelin in SA 2 and 3, 1969-74)
 5 (predation of cod on capelin in SA 2 and 3)
 6 (biomass estimate for capelin stock)
 7 (state of Nfld capelin stocks)
 24 (assessment of G. halibut in Div. 2J+3KL)
 76 (temperature conditions in 1974)
 78 (salinity in SA 0 to 3, 1973-74)
 79 (circulation in SA 0 to 3, 1973-74)
 84 (USSR studies on capelin in SA 2 and 3)

 - 84 (USSR studies on capelin in SA 2 and 3) 85 (groundfish trawl survey off Nfld, 1974) 101 (cod eggs in SA 2 and 3, 1974)

Northwest Atlantic (see Atlantic, Northwest)

Norway

SD 75 / 27 (research report for 1974)

- Nova Scotia area (see also Bay of Fundy, Gulf of St. Lawrence, Scotian Shelf)
- RB 11 : 73 (morphometrics in herring of SA 3 and 4)
- RD 75 / 38 (movements of herring tagged in Bay of Fundy) 92 (age composition of mackerel catches)

Nova Scotian banks (see Scotian Shelf)

Oceanography (see under such headings as Hydrography, Plankton, Oxygen, Salinity, Temperature, etc.)

Otoliths

RD 75 / 13 (USA and USSR silver hake ageing) 73 (Canada and Spain cod otolith exchange)

Otter trawl (see Trawls)

Ova; Ovaries (see Eggs; Fecundity)

Oxygen, dissolved

- SP 10 : 41 (observations east of Grand Bank, 1972) RD 75 / 80 (hydrochemical studies in SA 5, 1971-73) 81 (studies on oxygen consumption in SA 5)

Ρ

Pagophilus groenlandicus (see Seal, harp)

Panel meetings

MP(75): 5 (report of joint Panels 4 and 5, Nov 1974) 51 (report of joint Panels 2 to 4, Jan 1975) 69 (report of Panel A on seals, Jan 1975) 183 (report of Panel 1, Jun 1975) 187 (report of Panel 2, Jun 1975) 191 (report of Panel 3, Jun 1975) 192 (month of Panel 4, Jun 1975) 199 (report of Panel 4, Jun 1975) 217 (report of Panel 5, Jun 1975) 239 (report of Panel A on seals, Jun 1975) 239 (report of failer A on seers, our 1973) 247 (report of joint Panels 2 to 5, Jun 1975) 249 (report of joint Panels 2 and 3, Jun 1975) 253 (report of joint Panels 3 and 4, Jun 1975) 253 (report of joint Panels 3 and 4, oun 1975) 255 (report of joint Panels 3 to 5, Jun 1975) 259 (report of joint Panels 2 to 4, Jun 1975) 263 (report of joint Panels 1 to 5, Jun 1975)

Peprilus triacanthus (see Butterfish)

Phosphates

RD 75 / 80 (hydrochemical studies in SA 5, 1971-73)

Photography

RD 75 / 1 (Canadian research on harp seals, 1974) 7 (estimating capelin abundance in SA 2 and 3) 142 (aerial census of barn costs 1074) (aerial census of harp seals, 1975) 144 (seal counting by ultra-violet photography)

Phytoplankton

- RB 11 : 61 (in plankton recorder surveys, 1961-71) SP 10 : 95 (in plankton recorder surveys, 1972) RD 75 / 90 (in plankton recorder surveys, 1974)

Plaice, American (Hippoglossus platessoides)

- RD 75 / 21 (by-catch in SA 1 cod fishery)

 - 22 (assessment of stock in Div. 3P)
 28 (effect of unreported discards on assessment)
 52 (stock delineation in Div. 3LNO)

- 72 (abundance in Div. 3P survey) 83 (abundance of eggs in Div. 3LN, 1970-71)
- 85 (in groundfish survey off Nfld, 1974)

Plankton (see also Phytoplankton and Zooplankton)

- RB 11 : 61 (in continuous recorder surveys, 1961-71) SP 10 : 95 (in continuous recorder surveys, 1972) RD 75 / 66 (in USSR larval herring survey, 1974) 71 (in French larval herring survey, 1974) 90 (in continuous recorder surveys, 1974) 101 (cod eggs in plankton hauls in SA 2 and 3)

Plenary meetings

MP(75):131 (report of first Plenary, Jun 1975) 265 (report of final Plenary, Jun 1975)

Poland.

SD 75 / 28 (research report for 1974)

Pollachius virens (see Pollock)

Pollock (Pollachius virens)

RD 75 /130 (some important feeding relationships in SA 5)

Population (see Stock)

Predation; Predators

RD 75 / 5 (feeding of cod on capelin in SA 2 and 3) 8 (effect of capelin fishery on Barents Sea cod) 130 (some important feeding relationships in SA 5)

Production model analysis

- RB 11 : 5 (status of redfish stocks in SA 3) RD 75 / 59 (assessment of redfish in SA 5) 133 (biological interaction and fishery management) 137 (assessment of redfish in Div. 3P)

R

<u>Raja spp.</u> (see Skates)

Recaptures (see Tagging)

Recruitment

- RB 11 : 43 (herring stock in Gulf of St. Lawerence)
- RD 75 / 10 (of cod re temperature in Div. 4RST) 31 (assessment of cod in SA 1) 32 (mackerel stocks in SA 3 to 6)

 - 33 (herring and mackerel in Div. 4RST) 48 (status of haddock stock in Div. 5Z) 61 (Loligo and Illex in SA 5 and 6)

 - 61 (LOLLgo and LELEX in SA 5 and 6)
 62 (silver hake stock in Div. 5Y)
 74 (butterfish stock in SA 5 and 6)
 94 (silver hake stocks in SA 5 and 6)
 100 (conceptual model of herring in SA 5)
 103 (mackerel stocks in SA 3 to 6)
 110 (survey results for herring in SA 5)
 137 (status of redfish stock in Div. 3P)
 138 (fishing patterns re fishery management)
 143 (mortality and production in harm coals)
 - 143 (mortality and production in harp seals)
 145 (assessment of harp seal stocks)

Red hake (see Hake, red)

Redfish, Atlantic (Sebastes mentella; S. marinus)

- RB 11 : 5 (status of stocks in SA 3) 61 (larvae in plankton recorder surveys, 1961-71) SP 10 : 95 (larvae in plankton recorder surveys, 1972) (by-catch in Spanish cod fishery in SA 1) RD 75 / 21 (assessment of fishery in SA 5) (abundance from surveys in Div. 3P 59
 - 72
 - 85 (abundance in surveys off Nfld, 1974)

Reports of Meetings (see under Annual report, Meeting proceedings, and names of committees and subcommittees)

Reproduction (see also Maturation; Spawning)

RB 11 : 37 (and maturity in hooded seals)

Research and Statistics (see STACRES for meeting reports)

Research reports (national)

- SD 75 / 12 (Japanese research report, 1974) 13 (Spanish research report, 1974) 15 (Canadian research report, 1974)

 - 16 (United States research report, 1974) 24 (United Kingdom research report, 1974)

 - 25 (French research report, 1974)

 - 27 (Norwegian research report, 1974)
 28 (Polish research report, 1974)
 29 (German Dem. Rep. research report, 1974)
 - (USSR research report, 1974) 30
 - 31 (Danish research report, 1974)
 - (Fed. Rep. Germany research report, 1974) 36
 - 43 (Romanian research report, 1974)

Romania

SD 75 / 43 (research report for 1974)

S

Saithe (see Pollock)

Salinity

SP 10 : 41 (observations east of Grand Bank, 1972) 41 (observations east of Grand Bank, 1972)
75 (conditions in Nfld area, 1972-73)
9 (physical oceanography in SA 4 and 5)
29 (conditions in Div. 2J, fall 1974)
66 (data from USSR larval herring survey, 1974)
67 (data from FRG larval herring survey, 1974) RD 75 / 71 (data from French larval herring survey, 1974) 78 (conditions in SA 0 to 3, 1973-74) 109 (data from Polish larval herring survey, 1974) 111 (data from larval herring surveys, 1971-73) 113 (re winter mortality of herring larvae)

Sampling (see Statistics and Sampling, for subcommittee meeting reports)

- RD 75 / 11 (fish market sampling in Scotland) 12 (bias in estimating mean length-at-age)

 - 17 (herring sampling experiment in Bay of Fundy)

- 20 (Norwegian sampling of pelagic species)
- 34 (design for groundfish surveys)
- 36 (study on sampling herring in Div. 4V) 105 (USA sampling of haddock and yellowtail)
- SD 75 / 11 (adequacy of sampling major stocks, 1973) SY 18 : 1 (list of sampling data for 1973)

Sand lance (Ammodytes spp.)

- RB 11 : 61 (larvae in plankton recorder surveys, 1961-71)
- RD 75 / 21 (by-catch in Spanish cod fishery in SA 1) 53 (biological studies on SA 1 stock) 86 (biological studies on Grand Bank stock) 90 (larvae in plankton recorder surveys, 1974)
- Sandeel (see Sand lance)

Scientific Advisers (reports)

- MP(75): 27 (report to Panels 4 and 5, Nov 1974) 74 (report to Panel A on seals, Jan 1975) 186 (report to Panel 1, Jun 1975) 189 (report to Panel 2, Jun 1975) 186 189 196 (report to Panel 3, Jun 1975) 206 (report to Panel 4, Jun 1975) 230 (report to Panel 5, Jun 1975)

 - 241 (report to Panel A on seals, Jun 1975)

Scomber scombrus (see Mackerel, Atlantic)

- Scotian Shelf (Subarea 4)

- RB 11 :111 (spawning and development of witch) SP 10 :107 (temperature conditions, 1960-68) 115 (temperature conditions, 1972) RD 75 / 9 (circulation and physical oceanography) 14 (assessment of mackerel in SA 3 to 6) 30 (meristics of herring in Div. 4T and 4V) 36 (study on sampling herring catches) 39 (Canadian herring fishery in Div. 4VW) 40 (status of mackerel fishery) 56 (growth and mortality of herring)
 - - (growth and mortality of herring) 56
 - (seasonal distribution of haddock) (size and growth of Illex) 57
 - 58
 - (movements of tagged cod) 63
 - 73 (results of Canada-Spain ageing of cod) 91 (recaptures from cod tagging in 1969)
 - 110 (USA survey results for herring)

Seal, harp (Pagophilus groenlandicus)

- RB 11 : 93 (studies on harp seals in SA 1, 1953-72) RD 75 / 1 (Canadian research in 1974)
- RD 75 / 1 120
 - (Norwegian studies at Front in 1975)
 - 121
 - (assessment of stock at Front) (production and survival in NW Atlantic) 141
 - 142 (Canadian research in 1975)

 - 143 (mortality and production in NW Atlantic) 144 (aerial census by ultra-violet photography)
 - 145 (effect of management policy on the stocks)
 146 (management re scientific analysis)
 147 (comment of production of seals)

 - 148 (estimate of natural mortality rate) 149 (comment on natural mortality estimate) 150 (production in NW Atlantic, Mar 1975)

 - 151 (review of modified harp seal model)

Seal, hooded (Cystophora cristata)

RB 11 : 37 (studies on maturity and reproduction) 135 (age composition and mortality)

(larvae in plankton recorder surveys, 1974) 90

130 (important feeding relationships in SA 5) 137 (status of stock in Div. 3P)

Regulation (see Management)

Reinhardtius hippoglossoides (see Halibut, Greenland)

15

- 64 (survey results for SA 5, fall 1974)
 117 (prospects for recovery of finfish and sould biomass in SA 5 and 6)
 130 (some important feeding relationships)
-)
- 125 (status of yellowtail in Div. 3LNO) RD 75 / 6 (biomass estimates for capelin in SA 2 and 3) 7 (state of capelin stocks off Nfld) 14 (assessment of mackerel in SA 3 to 6)

- 28 (effect of unreported discards on biomass estimates of flatfish in Div. 3LNO) (assessment of cod in SA 1) 32 (simulation of mackerel fishery in SA 3 to 6). 40 (assessment of NW Atlantic mackerel) 44 (assessment of squids in SA 5 and 6) 48 (current status of haddock in Div. 5Z) 52 (A. plaice stocks in Div. 3LNO) 58 (estimates for *Illex* in SA 4 and 5) 61 (status of squid stocks in SA 5 and 6) 62 (assessment of silver hake in Div. 5Y) (changes in finfish biomass in SA 5 and 6) (status of butterfish in SA 5 and 6) 65 74 82 (TAC for red hake in Div. 5Z, 1976) 94 (assessment of silver hake in SA 5 and 6) 103 (reassessment of mackerel in SA 3 to 6) 103 (reassessment of mackerel in SA 3 to 6)
 117 (prospects for finfish stocks in SA 5 and 6)
 121 (assessment of harp seals at Front)
 124 (objective for managing single stocks)
 128 (resource management objectives)
 139 (changes in finfish biomass in SA 5+6, 1963-74)
 141 (harp scal curving in Mid Atlantic) 141 (harp seal survival in NM Atlantic)
 143 (mortality and production of harp seals)
 145 (management policy re harp seal stocks) 151 (review of modified harp seal model) SD 75 / 4 (stock records for some assessed stocks, 1974) Symposia Stomach contents (see Feeding) Stratified trawling RD 75 / 34 (sampling design for stratified surveys) 75 (stratification scheme for Baffin Is. area) Subarea 1 (see Greenland area) Subarea 2 (see Labrador area) Subarea 3 (see Flemish Cap; Grand Bank; Newfoundland area; Northeast Nfld Shelf; St. Pierre Bank) RD 75 / <u>Subarea 4</u> (see Bay of Fundy; Gulf of St. Lawrence; Nova Scotia area; Scotian Shelf) Subarea 5 (see Georges Bank; Gulf of Maine; New England) Subcommittee reports (STACRES) R (75): 23 (Assessments, Jun 1975) 65 (Biological Surveys, Jun 1975) 75 (Statistics and Sampling, Jun 1975) 89 (Environmental Studies, Jun 1975) Temperature ~~ .~

 - 109 (Steering and Publications, Jun 1975)

Surveys

- RB 11 : 61 (continuous plankton recorder surveys, 1961-71) SP 10 : 79 (international ice patrol operations, 1972) 95 (continuous plankton recorder surveys, 1972) (continuous plankton recorder surveys, 1972)
 (report of Biological Surveys Subc., Jun 1975)
 (Norwegian research on capelin, 1969-74)
 (acoustics for fish density estimation)
 (sampling design for trawl surveys)
 (joint USA-GDR herring survey, 1975)
 (results for haddock in Div. 5Z)
 (USA larval herring survey, fall 1974)
 (results for capelin and sandeel in SA 1)
 (results for redfish in SA 5) R (75): 65 RD 75 / 3 16 34 47 48 49 53 59 62 (results for silver hake in Div. 5Y)

 - 64 (results for squid in Div. 5Z, 1974) 65 (changes in finfish biomass in SA 5 and 6)

- 66 (USSR larval herring survey in SA 5, 1974)
 67 (FRG larval herring survey in SA 5, 1974)
 71 (French larval herring survey in SA 5, 1974)
 72 (variation in finfish biomass in Div. 3P)
 74 (results for butterfish in SA 5 and 6)
 75 (stratification scheme for SA 0)
 84 (USSR results for capelin in SA 2 and 3, 1974)
 85 (groundfish survey off Nfld, 1974)
 90 (continuous plankton recorder surveys, 1974)
 94 (results for silver hake in SA 5 and 6)
 109 (Polish larval herring survey in SA 5, 1974)
 110 (results for herring in SA 5) 10 (results for herring in SA 5)
 11 (results for larval herring, 1971-73)
 112 (summary of larval herring survey data, 1974)
 139 (results for finfish biomass, 1963-74)
 144 (aerial census of harp seal stocks)

Survival; Survival index (see also Mortality)

- RB 11 : 37 (maturity and reproduction in hooded seals)
- 93 (studies on harp seals in SA 1, 1953-72) RD 75 /121 (re assessment of harp seals at Front)
- - 122 (data on hooded seals at Front)
 141 (harp seal stocks in NW Atlantic)
 - 145 (management strategy for harp seals)
- SP 10 : 1 (environmental conditions in Grand Bank area in 1972 and their effect on fishery trends)

Т

Tagging (methods, recaptures, returns, losses, etc.) (see also migrations)

- 1 (Canadian research on harp seals, 1974) 38 (movements of herring tagged in Bay of Fundy) 52 (studies on A. plaice in Div. 3LNO)

 - 63 (results for cod in Div. 3P and 4R) 91 (results for cod tagged in Div. 4V, 1969)
 - 120 (Norwegian studies on seals, 1975) 142 (Canadian studies on seals, 1975)
- Temora spp. (copepod)
- SP 10 : 95 (in plankton recorder surveys, 1972)

SP 10 : 7	(1972 - an unusual year)
17	(conditions off Nfld, 1951-73)
33	(conditions in SA 2 and 3, 1971-73)
41	(Observations east of Grand Bank, 1972)
57	(observations in Nfld Ridge area, 1972)
/9	(Observations from ice patrol operations, 1972)
107	(conditions in SA 4 and 5, 1960-68)
115	(conditions in SA 4 and 5, 1972)
RD 75 / 9	(physical oceanography in SA 4 and 5)
10	(re cod recruitment in Div. 4RST)
29	(conditions in Div. 2J. fall 1974)
33 ((re herring and mackerel recruitment in Div ARST)
49	(data for USA larval herring survey, 1974)
04	(re squid distribution in Div. 57, 1974)
00 ((data for USSR larval herring survey, 1974)
0/ ((data for FRG larval herring survey, 1974)
71 (data for French larval herring survey, 1974)
/0 (CONDITIONS IN SA 2 and 3. 1974)
77 (conditions in SA 0 and 1, 1974)

98 (factors affecting cod growth in Div. 4T) 109 (data for Polish larval herring survey, 1974) 111 (data for larval herring surveys, 1971-73) 113 (re winter mortality of herring larvae in SA 5) 115 (re fluctuations in cod in Div. 3M)

Thysanoessa spp. (euphausiid)

SP 10 : 95 (in plankton recorder surveys, 1972)

Transport, mass (see Currents)

Trawling; Trawls; Trawl materials

RD 75 / 21 (observations on Spanish pair trawling) 34 (sampling design for stratified surveys) (stratification scheme for Baffin Is. area) 75 88 (measuring the meshes of nets) 89 (comparison of three mesh gauges) SD 75 / 23 (materials and mesh size sampling, 1974)

Turbot (see Halibut, Greenland)

Tusk (see Cusk)

U

Union of Soviet Socialist Republics (USSR)

SD 75 / 30 (research report for 1974)

United Kingdom (UK)

SD 75 / 24 (research report for 1974)

United States of America (USA)

SD 75 / 16 (research report for 1974)

Urophycis chuss (see Hake, red)

Urophycis tenuis (see Hake, white)

Vertebrae

RD 75 / 30 (meristics of herring in Div. 3P, 4T and 4V) 52 (meristics of A. plaice in Div. 3LNO)

<u>Virtual population analysis</u> (including Cohort analysis)

RB 11: 43 (assessment of S Gulf of St. Lawrence herring) 107 (assessment of cod in Div. 3NO) RD 75 / 14 (assessment of mackerel in SA 3 to 6) 31 (assessment of cod in SA 1) 40 (assessment of mackerel in ICNAF area) 62 (assessment of silver hake in Div. 5Y) 04 (assessment of silver hake in Div. 5Y) 94 (assessment of silver hake in SA 5 and 6) 103 (reassessment of mackerel in SA 3 to 6) 145 (assessment of harp seal stocks)

W

Water masses (see Currents)

Weather conditions (see Meteorology)

Weight (see also Catches)

RB 11 :145 (re length of herring in SW Nfld area) RD 75 / 31 (at age for cod in SA 1) 48 (at age for haddock in Div. 5Z) 62 (at age for silver hake in Div. 5Y) 74 (re length for butterfish in SA 5 and 6) 92 (at age for mackerel in SA 4, 1974) 94 (at age for silver hake in SA 5 and 6) 102 (at age for lewife in SA 5) 114 (at age for 1970 year-class of berring in 14 (at age for 1970 year-class of berring in 14 (at age for lewife in SA 5) 114 (at age for 1970 year-class of herring in SA 5)

West Greenland (see Greenland area)

White hake (see Hake, white)

Witch flounder (see Flounder, witch)

Wolffishes (Anarhichus spp.)

RD 75 / 21 (by-catch in Spanish cod fishery in SA 1) 72 (abundance in Div. 3P survey)

Working Group reports

- MP(75):118 (joint ICNAF/NEAFC meeting on logbooks and joint enforcement, Mar 1975)
- 149 (to STACTIC on enforcement problems, Jun 1975)
 R (75): 83 (to STACRES on fishing effort studies, Jun 1975)
 95 (meeting on environmental studies, Jun 1975)
- SD 75 / 7 (meeting on environmental studies, Sep 1974) 19 (meeting on herring assessments, Apr 1975) 21 (report of 8th session of CWP, Sep 1974)

Y

Yellowtail flounder (see Flounder, yellowtail)

Yield (equilibrium, sustainable, etc.)

- RB 11 : 5 (status of redfish stocks in SA 3) RD 75 / 51 (estimating parameters in fisheries models) 59 (assessment of redfish in SA 5) 117 (finfish biomass in SA 5 and 6) 119 (note on the mixed species problem)

 - 121 (assessment of harp seals at Front) 122 (data on hooded seals at Front)

 - 128 (objectives of resource management)
 - 123 (bijectives of resource management)
 133 (biological interaction re fishery management)
 137 (status of redfish stock in Div. 3P)
 138 (fishing patterns re fishery management)
 143 (mortality and production of harp seals)
 147 (production and yield of seals)

Yield per recruit

- RB 11 : 43 (herring stock in S Gulf of St. Lawrence) 107 (cod stock in Div. 3NO) 125 (yellowtail stock in Div. 3LNO) RD 75 / 22 (A. plaice stock in Div. 3P) 23 (witch flounder stock in Div. 3NO) 24 (G. halibut stock in Div. 2J+3KL) 61 (squid stocks in SA 5 and 6) 62 (silver hake stock in Div. 5Y) 137 (redfish stock in Div. 3P) 138 (fishing patterns re fishery management)

Ζ

Zooplankton (see also Plankton)

- RB 11 : 61 (in plankton recorder surveys, 1961-71) SP 10 : 95 (in plankton recorder surveys, 1972) RD 75 / 50 (re larval herring distribution in SA 5) 90 (in plankton recorder surveys, 1974)

A

ANDERSON, E. D. (USA) RD 75 / 13 (USSR and USA ageing of silver hake) 14 (assessment of mackerel in SA 3 to 6) 62 (assessment of silver hake in Div. 5Y) 94 (assessment of silver hake in SA 5 and 6) 103 (reassessment of mackerel in SA 3 to 6) ANON. (Canada) CD 75 / 1 (proposal for capelin TACs and allocations) 8 (proposal re fishing effort reduction in SA 2-4) 9 (boundary changes for cod and A. plaice) 10 (views on sampling of commercial catches) 11 (proposal re national allocation of TACs) 12 (re regulation of cod and haddock in Div. 4X) 13 (views on the by-catch problem) 16 (proposed amendment to quota regulation) 32 (herring size limit exemption in SA 4 and 5) 33 (mackerel size limit regulation in SA 3 to 6) 40 (reduction in fishing effort in SA 2 to 4) 42 (further views on reduction in fishing effort) 49 (further views on reduction in fishing effort) ANON. (Cuba) CD 75 / 39 (statement by the Government of Cuba) ANON. (Federal Republic of Germany) CD 75 / 17 (note on midwater trawls) ANON. (France) CD 75 / 37 (statement re report of Panels 2 and 3) 41 (memo on French fishing activities in SA 2-4) SD 75 / 25 (research report for 1974) ANON. (Iceland) CD 75 / 19 (fish and mesh size regulations in Iceland) ANON. (Italy) CD 75 / 36 (statement re allocation of squids in SA 5) 38 (proposed squid allocations for SA 5 and 6) ANON. (Netherlands) RD 75 / 88 (measuring the meshes of nets) ANON. (Spain) CD 75 / 35 (proposal on the squid fisheries) 48 (objection to 2nd-tier allocation in SA 5+6) ANON. (USA) CD 75 / 15 (views on exemptions in SA 3 to 5) 16 (proposed amendment to quota regulations) 18 (memo re Spanish fisheries in SA 5 and 6) 22 (registration of fishing vessels in SA 1-6) 23 (mackerel conservation in SA 3 to 6) 24 (herring regulations for SA 5 and 6) 25 (haddock and flounder regulations in SA 5)

- 28 (proposal on improved statistical reporting) 29 (proposed amendment to SA 5 haddock regulation) 30 (proposed amendment to SA 5 haddock regulation) 31 (views on control of by-catch) 32 (herring size limit exemption in SA 4 and 5) 33 (mackerel size limit regulation in SA 3 to 6)
 34 (views on SA 5 and 6 fishery problems) 45 (note on registration of fishing vessels) 46 (keeping of logbooks in SA 5 and 6) 47 (regulation of fishing gear in SA 5 and 6) 50 (intent to propose fishery regulations for SA 5-6) SD 75 / 16 (research report for 1974)

ANON. (USSR)

CD 75 / 14 (determining net materials used on vessels) 26 (national registration of fishing vessels)

ANTHONY, V. C. (USA)

RD 75 /110 (survey results for herring in SA 5)

ARMSTRONG, D. W. (UK)

RD 75 / 12 (bias in estimating mean length-at-age)

AU, DAVID (USA)

RD 75 / 61 (status of squid stocks in SA 5 and 6)

В

BAILEY, W. P. (Canada)

SP 10 : 7 (1972 - an unusual year?)

BAKANEV, V. S. (USSR)

RD 75 / 7 (state of the Nfld capelin stocks)

BALKOVOY, V. A. (USSR)

RD 75 / 66 (USSR larval herring survey in SA 5, 1974)

BENJAMINSEN, T. (Norway)

- RB 11 :135 (studies on hooded seals off Nfld) RD 75 /121 (assessment of harp seal stocks at Front) 122 (data on hooded seals at Front)

BERGFLØDT, B. (Norway)

RD 75 /120 (Norwegian seal fishery at Front, 1975)

BERTH, U. (GDR)

SD 75 / 29 (German Dem. Rep. research report, 1974)

BOROVKOV, V. A. (USSR)

- RD 75 / 78 (salinity conditions in SA 0 to 3, 1973-74) 79 (circulation in ICNAF area, 1973-74)
- BOWERING, W. R. (Canada)
- RD 75 / 23 (assessment of witch in Div. 3NO) 24 (assessment of G. halibut in SA 2+3KL)

BRENNAN, J. A. (USA)

- RD 75 / 68 (effect of by-catch on SA 5 and 6 fisheries) 70 (by-catch trends in SA 5 and 6 fisheries) 105 (USA sampling of haddock and yellowtail)

 - 117 (prospects for recovery of finfish in SA 5+6)
 - 132 (effort regulation and vessel efficiency)
- BRIAND, D. (France)
- RD 75 / 30 (meristics of herring in Div. 3P, 4R and 4V) 71 (French larval herring survey in SA 5, 1974)
- BROWN, B. E. (USA)
- RD 75 / 65 (changes in finfish biomass in SA 5 and 6) 68 (effect of by-catch on SA 5 and 6 fisheries) 117 (prospects for recovery of finfish in SA 5+6) 132 (effort regulation and vessel efficiency) 139 (finfish biomass in SA 5 and 6, 1963-74)
- BRYANTSEV, V. A. (USSR)
- SP 10 :107 (temperature conditions in SA 4 and 5, 1960-68)

BURMAKIN, V. V. (USSR)

SP 10 : 17 (temperature conditions in SA 2 and 3, 1971-73) RD 75 / 76 (water temperatures in SA 2 and 3, 1974) 96 (proposed standard hydrographic sections)

BURNS, T. (USA)

RD 75 /110 (survey results for herring in SA 5)

С

- CAPSTICK, C. K. (Canada)
- RD 75 /141 (harp seal survival in NW Atlantic) 151 (review of modified harp seal model)
- CHEKHOVA, V. A. (USSR)
- RD 75 / 85 (groundfish survey off Nfld, 1974)
- CLARK, S. H. (USA)
- RD 75 / 48 (status of haddock stock in Div. 5Z) 65 (changes in finfish biomass in SA 5 and 6) 139 (finfish biomass in SA 5 and 6, 1963-74)
- CLARKE, R. A. (Canada)
- SP 10 : 57 (circulation in the Nfld Ridge area, 1972)
- CLIFFORD, R. A. (USA)
- RD 75 / 93 (studies on herring egg beds in Div. 5Y)

COLEBROOK, J. M. (UK)

RB 11 : 61 (continuous plankton recorder surveys, 1961-71) SP 10 : 95 (continuous plankton recorder surveys, 1972)

COLTON, J. B. (USA)

RD 75 /108 (variation in SA 5 larval herring catches)

COOPER, G. A. (UK)

- RB 11 : 61 (continuous plankton recorder surveys, 1961-71) SP 10 : 95 (continuous plankton recorder surveys, 1972)
- COOPER, R. A. (USA)
- RD 75 / 93 (studies on herring egg beds in Div. 5Y)
- CRABTREE, J. J. (Canada)
- RD 75 / 98 (factors affecting cod growth in Div. 4T)
- CUSHING, D. H. (UK)
- RD 75 /129 (comment on proposal to limit fishing effort)
- CWP Secretary (L. P. D. Gertenbach)
- SD 75 / 20 (ADP developments re STATLANT forms) 21 (report of 8th session of CWP, Sep 1974) 37 (discrepancies in FAO and ICNAF statistics)

D

- DAVIS, C. W. (USA)
- RD 75 /110 (survey results for herring in SA 5) 118 (USA juvenile herring survey in SA 5, 1975)
- DORNHEIM, H. (FRG)
- RD 75 /114 (weight~at-age of herring in Div. 5Z)
- SD 75 / 36 (Fed. Rep. Germany research report, 1974)

DOUBLEDAY, W. G. (Canada)

- RD 75 / 17 (Canadian herring sampling experiment) 32 (simulation of mackerel fishery in SA 3 to 6) (sampling design for groundfish surveys) 34 (sampling study on Div. 4V herring) 36 42 (iterative solution to the catch equation) 54 (bias in estimating mean length-at-age) 99 (enhancing age-length keys)
- DOWD, R. G. (Canada)
- RD 75 / 16 (acoustics for estimating fish density)
- DRINKWATER, K. F. (Canada)
- RD 75 / 9 (oceanography in SA 4 and 5)
- DUMITRESCU, V. (Romania)
- SD 75 / 43 (Romanian research report, 1974)

Ë

EFANOV, V. N. (USSR)

RD 75 / 58 (size and growth of Illex in SA 4 and 5)

ELMINOWICZ, A. (Poland)

RD 75 / 41 (size and density of mackerel schools)

ERNST, P. (GDR)

SD 75 / 29 (German Dem. Rep. research report, 1974)

EVSEENKO, S. A. (USSR)

RB 11 :111 (spawning and development of witch in SA 2-5)

F

FALK, U. (GDR)

- RD 75 / 40 (assessment of mackerel stocks in ICNAF area)
- FITZGERALD, D. N. (Canada)
- RD 75 / 10 (temperature re cod recruitment in Div. 4RST) 33 (temp. re herring and mackerel in Div. 4RST)
- FOLKARD, A. R. (UK)
- SP 10 : 41 (current system east of Grand Bank, 1972)
- FOREST, A. (France)

RD 75 / 30 (meristics of herring in Div. 3P, 4R and 4V)

FUERTES, J. R. (Spain)

RD 75 / 21 (observations on pair trawling in SA 1) SD 75 / 13 (Spanish research report, 1974)

G

- GARROD, D. J. (UK)
- RB 11 : 17 (sources of error in catch and effort regulation) RD 75 /124 (objectives for managing single stocks) 128 (objectives of resource management)
- GIEDZ, M. (Poland)
- RD 75 / 37 (study on Georges Bank spawning herring) SD 75 / 28 (Polish research report for 1974)
- GREEN, J. R. (USA)
- RD 75 /108 (variation in larval herring catches in SA 5)
- GRIMM, S. K. (Poland)
- RD 75 /109 (Polish larval herring survey in SA 5, 1974)
- GRINKOV, Y. S. (USSR)
- RD 75 / 57 (distribution of haddock in Div. 4X)

GROSSLEIN, M. D. (USA)

- RD 75 /110 (survey results for herring in SA 5) 113 (winter mortality of herring larvae in SA 5)
- GULIMOV, A. V. (USSR)
- RD 75 / 6 (capelin biomass estimates for SA 2 and 3)

н

- HALLIDAY, R. G. (Canada)
- RD 75 / 73 (Canada-Spain cod otolith exchange program)
- HAMRE, J. (Norway)
- RD 75 / 20 (sampling methods for pelagic species)
- HARRIS, O. C. (UK)
- RD 75 /133 (species interaction and fishery management)
- HENNEMUTH, R. C. (USA)
- RD 75 / 47 (USA-GDR cooperative herring survey, 1975)
- HERMANN, F. (Denmark)
- SD 75 / 31 (Danish research report for 1974)
- HILL, H. W. (UK)
- SP 10 : 41 (current system east of Grand Bank, 1972)
- HODDER, V. M. (ICNAF)

RB 11 : 43 (assessment of herring in S Gulf of St. Lawrence)

- 145 (studies on herring in SW Nfld area, 1965-71) SP 11 : 1 (index and list of titles for ICNAF publications, 1950-74)
- HORSTED, Sv. Aa. (Denmark)
- RD 75 / 31 (assessment of cod in SA 1) SD 75 / 31 (Danish research report for 1974)
- HUNT, J. J. (Canada)
- RD 75 / 38 (movements of herring tagged in Bay of Fundy) 92 (age composition of mackerel in SA 4, 1974)

I

ICES (International Council for Exploration of the Sea)

SD 75 / 34 (1974 ICES resolutions relevant to ICNAF)

ICNAF (Int. Commission for the Northwest Atlantic Fisheries)

- MP(75): 5 (proceedings of 5th Special Meeting, Nov 1974) 49 (proceedings of 6th Special Meeting, Jan 1975) 81 (proceedings of ICNAF/NEAFC Meeting on Joint
- International Enforcement, Mar 1975) 127 (proceedings of 25th Annual Meeting, Jun 1975) R (75): 5 (report of STACRES, Special Meeting, Jan 1975) 11 (report of STACRES, Annual Meeting, Jun 1975) CD 75 / 20 (International Fisheries Pension Society report) D 75 / 20 (International Fisheries Pension Society report)

- SD 75 / 19 (report of herring working group, Apr 1975)

ICNAF Secretariat

- SB 23 : 1 (catch and effort statistics for 1973) SP 10 : 1 (index and list of titles of ICNAF publications, 1950-70)

SY 18 : 1 (lists of sampling data for 1973)
CD 75 / 5 (report on inspections and infringements, 1974)
6 (1975 fishery regulations, as on 10 Feb 1975)
21 (information on Secretariat staff, Jun 1975)
27 (status of reporting 1975 monthly catches)
43 (status of monthly catch reporting, Jan-Jun 1975)
44 (status of national reporting of data for ICNAF
publications)
SD 75 / 4 (stock records for some assessed stocks, 1974)
10 (finfish and squid catches, SA 5+6, 1964-73)
11 (efficiency of sampling TAC species, 1973)
14 (major CWP recommendations relevant to ICNAF)
22 (procedures for weather and ice reporting)
23 (trawl materials and mesh size sampling, 1974)
26 (provisional 1974 catches for TAC species)
34 (1974 ICES resolutions relevant to ICNAF)
35 (ICNAF statistical report for 1974/75)
45 (statistics on discards, 1973)
IKEDA, I. (Japan)
TREDA I. (Dapan)
DD 75 ()0 (and and should be taking in CA 5 and 5)

RD 75 / 19 (age and growth of *Loligo* in SA 5 and 6) 44 (assessment of squid stocks in SA 5 and 6) SD 75 / 12 (Japanese research report for 1974)

INNES, S. (Canada)

RD 75 /144 (aerial census of harp seal stocks, 1975)

ISAKOV, V. (USSR)

RD 75 / 40 (assessment of mackerel in ICNAF area)

J

JAKUPSSTOVU, S. H. (Norway)

RD 75 / 53 (studies on capelin and sandeel in SA 1)

JOAKIMSSON, G. (FRG)

RD 75 / 67 (FRG larval herring survey in SA 5, 1974)

JOHNSON, C. (UK)

RD 75 / 11 (fish market sampling in Scotland)

JONES, B. W. (UK)

SD 75 / 24 (United Kingdom research report for 1974)

JONES, P. G. W. (UK)

SP 10 : 41 (current system east of Grand Bank, 1972)

Κ

KALPAKIS, K. (Canada)

RD 75 /144 (aerial census of harp seal stocks, 1975)

KAPEL, F. O. (Denmark)

RB 11 : 93 (studies on harp seals in SA 1, 1953-72) RD 75 /123 (studies on hooded seals in NW Greenland)

KARAULOVSKY, V. P. (USSR)

RD 75 / 80 (hydrochemical studies in SA 5, 1971-73) 81 (oxygen consumption in SA 5)

KOVALEV, S. M. (USSR)

RD 75 / 6 (capelin biomass estimates for SA 2 and 3) 7 (state of the Nfld capelin stocks) 84 (studies on capelin in SA 2 and 3, 1974)

KAWAHARA, S. (Japan)

RD 75 / 19 (age and growth of Loligo in SA 5 and 6)

KOHLER, A. C. (Canada)

RD 75 / 10 (temperature re cod recruitment in Div. 4RST) 33 (herring and mackerel recruitment in Div. 4RST) 91 (results of cod tagging in Div. 4V in 1969)

KONSTANTINOV, K. G. (USSR)

RD 75 /115 (cod fluctuations re temperature in Div. 3M) SP 75 / 30 (USSR research report for 1974)

KUDLO, B. P. (USSR)

- SP 10 : 69 (circulation in Nfld area, 1972-73) 75 (salinity conditions in SA 2 and 3, 1972-73) RD 75 / 78 (salinity conditions in SA 0 to 3, 1973-74) 79 (circulation in SA 0 to 3, 1973-74) 96 (proposed standard hydrographic sections)
- KUDRIN, B. D. (USSR)
- RD 75 / 84 (studies on capelin in SA 2 and 3, 1974)

L

LABARTA, E. (Spain)

SD 75 / 13 (Spanish research report for 1974)

LAVIGNE, D. M. (Canada)

RD 75 /144 (aerial census of harp seal stocks) 145 (assessment of harp seal stocks) 148 (mortality estimate for harp seals) 150 (harp seal production, Mar 1975)

LETT, P. F. (Canada)

RD 75 / 10 (temperature re cod recruitment in Div. 4RST) 32 (simulation of mackerel fishery in SA 3 to 6) 33 (herring and mackerel recruitment in Div. 4RST) 145 (assessment of harp seal stocks) 148 (mortality estimate for harp seals)

LOPEZ-VEIGA, E. C. (Spain)

- RD 75 / 73 (Canada-Spain cod otolith exchange) SD 75 / 13 (Spanish research report for 1974)

LOUCKS, R. H. (Canada)

RD 75 / 9 (oceanography in SA 4 and 5)

LOUGH, R. G. (USA)

RD 75 / 49 (USA larval herring survey in SA 5, 1974) 50 (vertical distribution of larval herring) 113 (winter mortality of herring larvae)

М

- MASKO, W. (Poland)
- RD 75 /109 (Polish larval herring survey in SA 5, 1974)

MAURER, R. (USA)

RD 75 /130 (some important feeding relationships)

MAY, A. W. (Canada)

SD 75 / 15 (Canadian research report for 1974)

MAYO, R. K. (USA)

RD 75 / 59 (assessment of redfish in SA 5)

MERCER, M. C. (Canada)

RD 75 / 27 (size distribution of Illex in Nfld area)

MESNIL, B. (France)

RD 75 / 64 (squid survey in SA 5, fall 1974)

MESSTORFF, J. (FRG)

RD 75 / 75 (stratification scheme for Baffin 1s. area) SD 75 / 36 (Fed. Rep. Germany research report, 1974)

MEYER, A. (FRG)

SD 75/ 36 (Fed. Rep. Germany research report, 1974)

MINET, J. P. (France)

RD 75 / 63 (cod tagging results for Div. 3P and 4R) 72 (variation in groundfish biomass in Div. 3P)

MORRIS, T. L. (USA)

RD 75 / 49 (USA larval herring survey in SA 5, 1974)

MUIR, B. (Canada)

RD 75 /146 (seal management re scientific analyses)

Ν

NAGASAKI, F. (Japan)

RD 75 / 44 (assessment of squids in SA 5 and 6)

NAKONECHNAJA, A. P. (USSR)

RD 75 / 66 (USSR larval herring survey in SA 5, 1974)

NEAFC (Northeast Atlantic Fisheries Commission)

SD 75 / 2 (press notice, annual meeting, Jul 1974) 3 (press notice, special meeting, Nov 1974)

4 (press notice, special meeting, Jan 1975) 46 (press notice, annual meeting, May 1975)

NEVINSKY, M. M. (USSR)

RB 11 :111 (spawning and development of witch in SA 2-5) RD 75 / 83 (A. plaice eggs in Div. 3LN, 1970-71)

NICHOLSON, M. D. (UK)

RD 75 / 11 (fish market sampling in Scotland) 12 (bias in estimating mean length-at-age)

NICHY, F. E. (USA)

RD 75 / 13 (USSR and USA ageing of silver hake)

NOSKOV, A. S. (USSR)

SD 75 / 30 (USSR research report for 1974)

0

ØRITSLAND, T. (Norway)

- RB 11 : 37 (maturity and reproduction in hooded seals)
- 135 (studies on hooded seals off Nfld) RD 75 /121 (assessment of harp seals at Front) 122 (data on hooded seals at Front)
- ØSTVEDT, 0. J. (Norway)

RD 75 / 20 (sampling methods for pelagic species)

Ρ

PACIORKOWSKI, A. (Poland)

RD 75 / 37 (studies on spawning herring in SA 5) 40 (assessment of mackerel stocks in ICNAF area) SD 75 / 28 (Polish research report for 1974)

PALMER, J. E. (USA)

RD 75 / 68 (effect of by-catch on SA 5 and 6 fisheries) 132 (effort regulation and vessel efficiency)

PARSONS, D. G. (Canada)

RB 11 : 5 (status of redfish stocks in SA 3) RD 75 /137 (status of redfish stock in Div. 3P)

PARSONS, L. S. (Canada)

RB 11 : 5 (status of redfish stocks in SA 3) 75 (morphometrics of herring in SA 3 and 4) 145 (studies on herring in SW Nfld area, 1965-71)

PASTUSZAK, M. (Poland)

RD 75 /109 (Polish larval herring survey in SA 5, 1974)

PAULMIER, G. (France)

RD 75 / 64 (squid survey in SA 5, fall 1974) 71 (French larval herring survey in SA 5, 1974) PECCI, K. J. (USA)

- RD 75 / 68 (effect of by-catch on SA 5 and 6 fisheries) 132 (effort regulation and vessel efficiency)
- PINHORN, A. T. (Canada)
- RB 11 : 31 (natural mortality in Div. 2J+3KL cod) 107 (assessment of cod in Div. 3NO)
- PITT, T. K. (Canada)
- RB 11 :125 (status of yellowtail in Div. 3LNO) RD 75 / 22 (assessment of A. plaice in Subdiv. 3Ps)

 - (assessment of witch in Div. 3NO)
 (assessment of witch in Div. 3NO)
 (assessment of G. halibut in SA 2 and 3)
 (effect on unreported discards on flatfish
 - TACs in Div. 3LNO) 52 (A. plaice stocks in Div. 3L, 3N and 30)
- POPE, J. A. (UK)
- RD 75 / 11 (fish market sampling in Scotland)
- POPE, J. G. (UK)
- RB 11 : 17 (sources of error in catch and effort regulation) RD 75 /119 (note on the mixed species problem) 133 (species interaction and fishery management)
- POSTOLAKY, A. I. (USSR)
- RD 75 /101 (distribution of cod eggs in SA 2 and 3, 1974)

POTTER, D. C. (USA)

RD 75 / 49 (USA larval herring survey in SA 5, 1974)

PUZHAKOV, N. P. (USSR)

RD 75 / 58 (size and growth of Illex in SA 4 and 5) 102 (growth and mortality of alewife in SA 5)

R

- RAMSTER, J. W. (UK)
- SP 10 : 41 (current system east of Grand Bank, 1972)
- REINIGER, R. F. (Canada)
- SP 10 : 57 (circulation in the Nfld Ridge area, 1972)
- REUTER, J. (Netherlands)

RD 75 / 89 (comparison of 3 mesh gauges)

- RICKER, W. E. (Canada)
- RD 75 /143 (mortality and production of harp seals)

RIDGWAY, G. J. (USA)

RD 75 /100 (conceptual model of herring stocks in SA 5)

RIKHTER, V. A. (USSR)

RD 75 / 57 (distribution of haddock in Div. 4X) 82 (TAC for red hake in Div. 5Z, 1976)

- RITZHAUPT, H. (GDR)
- RD 75 / 40 (assessment of mackerel in ICNAF area) SP 75 / 29 (German Dem. Rep. research report, 1974)
- ROBE, R. Q. (USA)
- SP 10 :121 (circulation east of Grand Bank, 1973)

ROBINSON, G. A. (UK)

- RB 11 : 61 (continuous plankton recorder surveys, 1961-71) SP 10 : 95 (continuous plankton recorder surveys, 1972) RD 75 / 90 (continuous plankton recorder surveys, 1974)
- RONALD, K. (Canada)
- RD 75 /141 (harp seal survival in NW Atlantic) 144 (aerial census of harp seal stocks) 151 (review of modified harp seal model)
- ROTTINGEN, I. (Norway)
- RD 75 / 53 (studies on capelin and sandeel in SA 1)

S

SCHLITZ, R. (USA)

- RD 75 /111 (hydrographic data from larval surveys, 1971-73)
- SCHNACK, D. (FRG)
- RD 75 / 67 (FRG larval herring survey in SA 5, 1974) 112 (summary of larval herring survey data, 1974)
- SCOBIE, R. W. (USA)
- SP 10 : 79 (international ice patrol operations, 1972)
- SCOTT, J. S. (Canada)
- RD 75 / 38 (movements of herring tagged in Bay of Fundy) SD 75 / 15 (Canadian research report for 1974)
- SEREBRYAKOV, V. P. (USSR)
- RD 75 / 83 (A. plaice eggs in Div. 3LN, 1970-71)
- SEREBROV, L. I. (USSR)
- RD 75 / 7 (state of the Nfld capelin stocks)
- SERGEANT, D. E. (Canada)
- RD 75 / 1 (Canadian research on harp seals, 1974) 142 (Canadian studies on seals, 1975) 147 (comment on production of seals)
- SHOTTON, R. (Canada)
- RD 75 / 16 (acoustics for estimating fish density)
- SIGAEV, I. K. (USSR)

SP 10 :115 (hydrographic conditions in SA 4 and 5, 1972) RD 75 / 66 (USSR larval herring survey in SA 5, 1974)

24

SIMACHYOVA, I. N. (USSR)

RD 75 / 87 (age-length data for cod in SA 1, 1958-74)

SLEPOKUROV, V. A. (USSR)

RD 75 / 56 (growth and mortality of herring in Div. 4VWX)

SMEDSTAD, 0. M. (Norway)

RD 75 / 8 (effect of capelin fishery on Barents Sea cod)

SMIDT, E. (Denmark)

SD 75 / 31 (Danish research report for 1974)

SOKHNOV, V. V. (USSR)

RD 75 / 86 (studies on sandeels on Grand Bank, 1974)

STANEK, E. (Poland)

RD 75 / 5 (feeding of cod on capelin in SA 2 and 3)

STEIN, M. (FRG)

RD 75 / 29 (hydrography in Div. 2J, fall 1974)

STOBO, W. T. (Canada)

- RD 75 / 32 (simulation of mackerel fishery in SA 3 to 6) 38 (movements of herring tagged in Bay of Fundy) 39 (Canadian herring fishery in Div. 4VW, 1974/75)
- SUOMALA, J. B. (USA)

RD 75 / 95 (hydroacoustics for fish counting)

SUTCLIFFE, W. H. (Canada)

RD 75 / 9 (oceanography in SA 4 and 5)

SVETLOV, I. I. (USSR)

RD 75 / 77 (water temperatures in SA 0 to 1, 1974) 96 (proposed standard hydrographic sections)

Т

TEMPLEMAN, W. (Canada)

SP 10 : 17 (hydrographic conditions off Nfld, 1951-73)

U

ULLTANG, Ø. (Norway)

RD 75	5/3	(research on capelin in SA 2 and 3, 1969-74)
	4	(present capelin situation in Barents Sea)
		(sampling methods for pelagic fish)
	138	(fishing patterns re fishery management)
	149	(comment on mortality of harp seals)
SD 75	5 / 27	(Norwegian research report for 1974)

UZMANN, J. R. (USA)

RD 75 / 93 (studies on herring egg beds in Div. 5Y)

V

VALEUR, H. (Denmark)

SD 75 / 31 (Danish research report for 1974)

VASLABAN, G. (Romania)

SD 75 / 43 (Romanian research report for 1974)

W

WALTER, G. G. (USA)

RD 75 / 51 (estimating parameters in fisheries models)

WARE, D. M. (Canada)

RD 75 / 98 (factors affecting cod growth in Div. 4T)

WARING, G. (USA)

RD 75 / 74 (status of butterfish stock in SA 5 and 6) 110 (survey results for herring in SA 5)

WELLS, R. (Canada)

RB 11 :107 (assessment of cod in Div. 3NO) RD 75 / 73 (Canada-Spain cod otolith exchange)

WINTERS, G. H. (Canada)

RB 11 : 43 (assessment of herring in S Gulf of St. Lawrence

B 12



LIST OF TITLES, 1975

MEETING PROCEEDINGS, 1974/75

(Issued November 1975)

Abbreviation: MP

PART I	Proceedings of the Fifth Special Commission Meeting, Miami, Florida, USA, 11-15 November 1974			
	l. Proceedings of Joint Meetings of Panels 4 and 5	7		
	2. Supplement to Report of Proceedings	47		
PART II	Proceedings of the Sixth Special Commission Meeting, Bergen, Norway, 13-18 January 1975	49		
	L. Report of Meeting of STACRES (see <i>Redbook</i> 1975, Part A)			
	2. Report of Joint Meetings of Panels 2, 3 and 4	51		
	3. Report of Special Meeting of Panel A (Seals)	69		
	4. Supplement to Report of Proceedings	79		
PART III	Proceedings of the Joint ICNAF/NEAFC Meeting on Joint International Enforcement, Leningrad, USSR, 4-7 March 1975	81		
PART IV	Proceedings of the 25th Annual Meeting, Edinburgh, Scotland, 10-20 June 1975	127		
	L. Report of Meeting of STACRES (see <i>Redbook</i> 1975, Part B)			
	2. Ceremonial opening	129		
	3. Report of First Plenary Session	131		
	Report of Meetings of Standing Committee on International Control (STACTIC)	141		
	5. Report of Meeting of Standing Committee on Regulatory Measures (STACREM)	173		
	 Report of Meeting of Standing Committee on Finance and Administration (STACFAD) 	177		
	7. Report of Meeting of Panel 1	183		
	3. Report of Meeting of Panel 2	187		
	9. Report of Meetings of Panel 3	191		
	LO. Report of Meetings of Panel 4	199		
	L1. Report of Meetings of Panel 5	217		
	2. Report of Meeting of Panel A (Seals)	239		
	13. Report of Joint Meetings of Panels 2, 3, 4 and 5	247		
	4. Report of Joint Meetings of Panels 2 and 3	249		
	5. Report of Joint Meeting of Panels 4 and 5	253		
	16. Report of Joint Meeting of Panels 3, 4 and 5	255		
	17. Report of Joint Meeting of Panels 2, 3 and 4	259		

.

18.	Report of Joint Meeting of Panels 1-5	263
19.	Report of Final Plenary Session	265

REDBOOK 1975

(Issued August 1975)

Abbreviation: R

PART A.	Report of Standing Committee on Research and Statistics, January 1975. Special Meeting	5
PART B.	Report of Standing Committee on Research and Statistics, 1975 Annual Meeting (with 6 appendices)	11
	I. Report of Assessments Subcommittee	23
	II. Report of Biological Surveys Subcommittee	65
	III. Report of Statistics and Sampling Subcommittee	75
	IV. Report of ad hoc Working Group on Fishing Effort Studies	83
	V. Report of Environmental Subcommittee	89
	VI. Report of Steering and Publications Subcommittee	109
PART C.	Miscellaneous Items	
	1. Agenda for STACRES Meetings, 1975	113
	2. List of Recommendations	115
	3. List of Summary and Research Documents (to June 1975)	117
	4. List of Participants in Scientific Meetings	125

RESEARCH BULLETIN NO. 11

(Issued November 1975)

Abbreviation: RB

PARSONS, L. S., and D. G. PARSONS. An evaluation of the status of ICNAF Divisions 3P, 30 and 3LN redfish	5
POPE, J. G., and D. J. GARROD. Sources of error in catch and effort quota regulations with particular reference to variations in the catchability coefficient	17
PINHORN, A. T. Estimates of natural mortality for the cod stock complex in ICNAF Divisions 2J, 3K and 3L	31
ØRITSLAND, TORGER. Sexual maturity and reproductive performance of female hooded seals at Newfoundland	37
WINTERS, G. H., and V. M. HODDER. Analysis of the southern Gulf of St. Lawerence herring stock and implications concerning its future management	43

ROBINSON, G. A., J. M. COLEBROOK, and G. A. COOPER. The continuous plankton recorder survey: plankton in the ICNAF area, 1961-71, with special reference to 1971	61
PARSONS, L. S. Morphometric variation in Atlantic herring from Newfoundland and adjacent waters	73
KAPEL, FINN O. Age analyses and catch of the harp seal in Northwest Greenland, 1953-72	93
PINHORN, A. T., and R. WELLS. Virtual population assessment of the southern Grand Bank cod stock (ICNAF Divisions 3N and 30)	107
EVSEENKO, S. A., and M. M. NEVINSKY. Spawning and development of witch flounder, Glyptocephalus cynoglossus L., in the Northwest Atlantic	111
PITT, T. K. Status of the yellowtail flounder fishery in ICNAF Divisions 3L, 3N and 30	125
<u>ØRITSLAND, TORGER, and TERJE BENJAMINSEN</u> . Sex ratio, age composition and mortality of hooded seals at Newfoundland	135
PARSONS, L. S., and V. M. HODDER. Biological characteristics of southwest Newfoundland herring, 1965-71	145

SPECIAL PUBLICATION NO. 10

(Issued November 1975)

Abbreviation: SP

BAILEY, W. B. 1972: an unusual year?	7
TEMPLEMAN, WILFRED. Comparison of temperatures in July-August hydrographic sections of the eastern Newfoundland area in 1972 and 1973 with those from 1951 to 1971	17
BURMAKIN, V. V. Water temperature in the Labrador and Newfoundland areas in 1972 compared with 1971 and 1973	33
HILL, H. W., P. G. W. JONES, J. W. RAMSTER, and A. R. FOLKARD. The current system east of Newfoundland Grand Bank	41
REINIGER, R. F., and R. A. CLARKE. Circulation pattern in the Newfoundland Ridge area, 1972	57
KUDLO, B. P. Circulation of waters in the ICNAF area in April-June 1972 and 1973	69
<u>KUDLO, B. P</u> . Salinity of waters in the Newfoundland and south Labrador areas in April-June 1972 and 1973	75
SCOBIE, R. W. International ice patrol operations 1972 - why so many icebergs?	79
ROBINSON, G. A., J. M. COLEBROOK, and G. A. COOPER. The continuous plankton recorder survey: plankton in the ICNAF area in 1972	95
BRYANTSEV, V. A. Water temperatures in the Nova Scotia Shelf and Georges Bank areas, 1960-68	107
SIGAEV, I. K. Characteristic features of the hydrological conditions on the Nova Scotia Shelf and Georges Bank, 1972	115
ROBE, R. Q. Circulation east of the Grand Bank, 1973	121

C 2

SPECIAL PUBLICATION NO. 11

(Issued June 1975)

Abbreviation: SP

HODDER, V	<u>v. m</u> .	Index ar	nd list	of	titles	of	ICNAF	publications,	1950-1974	(125	pp)
-----------	---------------	----------	---------	----	--------	----	-------	---------------	-----------	------	-----

Subject index	11
Author index	59
List of titles	79

SAMPLING YEARBOOK, VOL. 18 (1973)

(Issued February 1975)

Abbreviation: SY

PART I.	Notes on sampling data for 1973		7
---------	---------------------------------	--	---

PART II.		
	redfish, silver hake, red hake, pollock, American plaice, witch, vellowtail.	
	Greenland halibut, winter flounder, herring, mackerel, argentine, alewife.	
	black seabass, butterfish, capelin, Greenland cod, roundnose grenadier, scup,	
	white hake, wolffish, squids (Illex and Loligo), and sea scallops)	13

STATISTICAL BULLETIN, VOL. 23 (1973)

(Issued January 1975)

Abbreviation: SB

PART I.	Tabular summaries of fish, invertebrate and seal catches, 1959–73) (Tables A to R)	11
PART II.	Fisheries statistics, 1973 (nominal catches and fishing effort, 6 tables of data by species, ICNAF division, country, gear, tonnage class of vessel, and month	
		21
PART III.	Sealing catch and effort statistics for 1973	241
PART IV.	Corrections and additions to previous issues of Statistical Bulletin	243
APPENDIX.	New Statistical Area 0 in Northwest Atlantic	277

LIST OF TITLES

COMMISSIONERS' DOCUMENTS 1975

Abbreviation: CD

Doc. Serial

- 75/1 3417 <u>CANADA</u>. Revised Canadian proposal for TACs and allocations of capelin quotas in Subareas 2 and 3 of the Convention Area.
- 75/2 3583 * <u>ICNAF Secretariat</u>. Administrative report for the year ending 30 June 1975 as on 20 May 1975) (Publ. in *ICNAF Annu. Rept.* Vol. 25 for 1974/75: 7-16).
- 75/3 3566 * <u>ICNAF</u>. Panel memberships as on 1 May 1975 (see *ICNAF Annu. Rept.* Vol. 25 for 1974/75: 7)
- 75/4 3484 * <u>ICNAF Secretariat</u>. Status of Commission proposals for changes in the Convention and for international regulation of the trawl fishery under the Convention (see *ICNAF Annu. Rept*. Vol. 25 for 1974/75: 11-12).
- 75/5 3645 ICNAF Secretariat. Summary of inspections, infringements and disposition of infringements for 1974. + 3 Addenda.
- 75/6 3444 ICNAF Secretariat. 1975 ICNAF fishery regulations (as on 10 February 1975).
- 75/7 3450 UNITED STATES OF AMERICA. Amendment of the Convention Memorandum by the Government of the United States of America.
- 75/8 3459 <u>CANADA</u>. Canadian proposal for reduction in fishing effort on groundfish stocks in Subareas 2, 3 and 4 in 1976.
- 75/9 3460 <u>CANADA</u>. Canadian proposal to study changes in quota boundaries for Div. 2J+3KL cod and Div. 3LNO American plaice.
- 75/10 3461 <u>CANADA</u>. Canadian views on the biological sampling of commercial fish catches in the ICNAF Area.
- 75/11 3462 <u>CANADA</u>. Canadian proposal on the national allocation of TACs.
- 75/12 3463 <u>CANADA</u>. Canadian proposal for quota regulation of the fishery for haddock and cod in Division 4X of Subarea 4 of the Convention Area.
- 75/13 3464 CANADA. Canadian views on the by-catch problem.
- 75/14 3486 UNION OF SOVIET SOCIALIST REPUBLICS. Proposal on the methods of determination of net materials used on vessels.
- 75/15 3488 UNITED STATES OF AMERICA. Views on the exemption in ICNAF trawl regulations in Subareas 3, 4 and 5.
- 75/16 3489 <u>CANADA and UNITED STATES OF AMERICA</u>. Joint US-Canada proposal for amendment of proposal (14) for management of international quota regulation.
- 75/17 3491 FEDERAL REPUBLIC OF GERMANY. Note on midwater trawls.
- 75/18 3492 UNITED STATES OF AMERICA. Memorandum by the United States reconciliation of interpretations presented in Commissioners' Documents 74/41 and 74/44 - Spanish fisheries in Subarea 5 and Statistical Area 6.
- 75/19 3582 ICELAND. Minimum fish and mesh size regulations in Iceland.

^{75/20 3614 &}lt;u>ICNAF</u>. International Fisheries Commissions Pension Society - draft of President's letter to Commissioners.

^{*} Indexing refers to the publication indicated in parentheses.

Commissioners' Documents (continued)

- 75/21 3615 <u>ICNAF Secretariat</u>. Salary scales and position descriptions for members of the ICNAF Secretariat, prepared 4 June 1975.
- 75/22 3640 UNITED STATES OF AMERICA. Note by US Commissioners on the national registration of vessels engaged in fisheries or fishing support operations in the Convention Area or Statistical Area 6.
- 75/23 3641 UNITED STATES OF AMERICA. Note by US Commissioners on mackerel conservation in Subareas 3-5 and Statistical Area 6.
- 75/24 3642 UNITED STATES OF AMERICA. Note by US Commissioners on herring regulations for Subarea 5 and Statistical Area 6.
- 75/25 3643 UNITED STATES OF AMERICA. Note by US Commissioners on haddock and flounder regulations in Subarea 5.
- 75/26 3646 UNION OF SOVIET SOCIALIST REPUBLICS. USSR proposal for national registration of fishing vessels.
- 75/27 3647 <u>ICNAF Secretariat</u>. Status of reporting 1975 monthly catch statistics by member countries.
- 75/28 3648 UNITED STATES OF AMERICA. US proposal on improved statistical reporting.
- 75/29 3649 UNITED STATES OF AMERICA. US proposal to amend international quota regulations of the fishery for haddock in Subarea 5.
- 75/30 3650 <u>UNITED STATES OF AMERICA</u>. US proposal for amendment of ICNAF haddock regulations for Subarea 5.
- 75/31 3651 UNITED STATES OF AMERICA. US views regarding control and enforcement of bycatch.
- 75/32 3652 <u>CANADA and UNITED STATES OF AMERICA</u>. Canadian and US proposal to amend the herring size limit exemption in Subareas 4 and 5 of the Convention Area.
- 75/33 3653 <u>CANADA and UNITED STATES OF AMERICA</u>. Joint US-Canadian proposal for international size limit regulation of the fishery for mackerel in Subareas 3, 4 and 5 and Statistical Area 6.
- 75/34 3654 UNITED STATES OF AMERICA. Memorandum by the United States concerning Subarea 5 - Statistical Area 6 problems.
- 75/35 3655 SPAIN. Proposal by the Spanish delegation on the squid fisheries.
- 75/36 3663 ITALY. Statement to Panel 5 Commissioners by the Italian delegate allocation of squids, *Illex* and *Loligo*.
- 75/37 3665 FRANCE. Statement by the French delegation at the Plenary Session, Friday, 20 June, regarding the Report of the Joint Meeting of Panels 2 and 3 (see ICNAF Meet. Proc. No. 14, Addendum).
- 75/38 3666 ITALY. Proposed squid (Loligo) allocations for Subarea 5 and Statistical Area 6 by the Italian delegate.
- 75/39 3671 CUBA. Statement by the Government of the Republic of Cuba.
- 75/40 3672 <u>CANADA</u>. Elaboration of Canadian proposal for reduction in fishing effort on groundfish stocks in Subareas 2, 3 and 4 in 1976.
- 75/41 3673 FRANCE. Memorandum by the French delegation on French fishing activities in recent years in ICNAF Subareas 2, 3 and 4.
- 75/42 3674 <u>CANADA</u>. Further elaboration of Canadian proposal for reduction in fishing effort on groundfish stocks in Subareas 2, 3 and 4 in 1976.

32

Commissioners' Documents (continued)

- 75/43 3683 ICNAF Secretariat. Status of the provisional monthly catch reporting system for January to June 1975.
- 75/44 3686 <u>ICNAF Secretariat</u>. Status of national reporting of information required for various Commission publications.
- 75/45 3695 UNITED STATES OF AMERICA. Note by US Commissioners on the national registration of vessels engaged in fishing or equipped to fish for sea fish in the Convention Area or Statistical Areas 0 and 6.
- 75/46 3696 UNITED STATES OF AMERICA. Memorandum by United States concerning keeping of logbooks Subarea 5 and Statistical Area 6.
- 75/47 3697 UNITED STATES OF AMERICA. US proposal for international regulation of fishing gear employed in the fisheries in Subarea 5 of the Convention Area.
- 75/48 3698 SPAIN. Spanish objection to proposal (11), paragraph (b), adopted by the Commission at the 1975 Annual Meeting.
- 75/49 3708 <u>CANADA</u>. Further Canadian views on the proposal for reduction in fishing effort on groundfish stocks in Subareas 2, 3 and 4 in 1976.
- 75/50 3710 UNITED STATES OF AMERICA. Note by US Commissioners concerning regulation of international fisheries in the Convention Area and Statistical Areas 0 and 6 intent to make proposals.

RESEARCH DOCUMENTS 1975

Abbreviation: RD

Doc.	• <u>Serial</u>	
75/1	3428	SERGEANT, D. E. Results of Canadian research on harp seals, 1974.
75/2	3430	* <u>WINTERS, G. H</u> . Review of capelin ecology and estimation of surplus yield from predator dynamics (Publ. in <i>ICNAF Res. Bull</i> . No. 13: in press).
75/3	3431	ULLTANG, Ø. A summary of Norwegian research carried out on capelin in New- foundland and Labrador waters, 1969-1974.
75/4	3432	ULLTANG, ϕ . The present capelin situation in the Barents Sea.
75/5	3433	<u>STANEK, E</u> . The percentage of capelin in the stomach contents of cod in ICNAF Subareas 2 and 3.
75/6	3434	GULIMOV, A. V., and S. M. KOVALEV. Estimation of commercial stock of Newfound- land capelin within a single mathematical model.
75/7	3435	SEREBROV, L. I., V. S. BAKANEV, and S. M. KOVALEV. The state of Newfoundland capelin stock.
75/8	3436	SMEDSTAD, O. M. Some notes about the influence of the capelin fishery on the food supply of Arcto-Norwegian cod.
75/9	3451	SUTCLIFFE, W., R. H. LOUCKS, and K. F. DRINKWATER. Consideration of coastal circulation and fish production on the Scotian Shelf and in the Gulf of Main.

^{*} Indexing refers to the publication indicated in parentheses.

34

Research Documents (continued)

- 75/10 3452 * LETT, P. F., A. C. KOHLER, and D. N. FITZGERALD. A model of the interaction of temperature with the recruitment mechanism for the Gulf of St. Lawrence cod stock (Publ. in J. Fish. Res. Bd. Canada 32(9): 1613-1627).
- 75/11 3453 JOHNSTON, C., M. D. NICHOLSON, and J. A. POPE. Fish market sampling in Scotland.
- 75/12 3454 <u>NICHOLSON, M. D., and D. W. ARMSTRONG</u>. A note on a possible source of bias in the estimation of mean length at age.
- 75/13 3457 <u>ANDERSON, E. D., and F. E. NICHY</u>. A comparison between US and USSR silver hake ageing.
- 75/14 3458 <u>ANDERSON, E. D</u>. The effect of a combined assessment for mackerel in ICNAF Subareas 3, 4 and 5, and Statistical Area 6.
- 75/15 3465 * <u>ANDERSON, E. D.</u> Relative abundance of Atlantic mackerel off the northeastern coast of the United States (Publ. in *ICNAF Res. Bull.* No. 12: 5-22).
- 75/16 3468 <u>SHOTTON, R., and R. G. DOWD</u>. Current research in acoustic fish stock assessment at the Marine Ecology Laboratory.
- 75/17 3469 DOUBLEDAY, W. G. Beaver Harbour herring sampling experiment.
- 75/18 3470 * BROWN, B. E., J. A. BRENNAN, M. D. GROSSLEIN, E. G. HEYERDAHL, and R. C. HENNEMUTH. The effect of fishing on the marine finfish biomass in the Northwest Atlantic from the eastern edge of the Gulf of Maine to Cape Hatteras (Publ. in ICNAF Res. Bull. No. 12: 49-68).
- 75/19 3471 <u>IKEDA, I., and S. KAWAHARA</u>. Age and growth of common American squid (*Loligo*) estimated from size composition.
- 75/20 3472 <u>HAMRE, J., Ø. ULLTANG, and O. J. ØSTVEDT</u>. Report on the Norwegian sampling program for industrial catches of herring, mackerel and capelin.
- 75/21 3475 <u>FUERTES, J. R.</u> Observations on board a Spanish pair trawler in Subarea 1 of the ICNAF Area.
- 75/22 3477 <u>PITT, T. K</u>. An assessment of American plaice in ICNAF Subdivision 3Ps. + Corrigendum.
- 75/23 3478 BOWERING, W. R., and T. K. PITT. Yield-per-recruit assessment of witch (*Glyptocephalus cynoglossus*) for ICNAF Divisions 3N and 30.
- 75/24 3479 <u>BOWERING, W. R., and T. K. PITT</u>. Yield-per-recruit assessment of Greenland halibut (*Reinhardtius hippoglossoides*) in ICNAF Subarea 2 and Divisions 3KL.
- 75/25 3480 * <u>BOWERING, W. R</u>. Length-weight relationship in witch (*Glyptocephalus cynoglossus*) in the Newfoundland area of the Northwest Atlantic (Publ. in *ICNAF Res. Bull.* No. 12: 135-136).
- 75/26 3481 * <u>PARSONS, L. S.</u> Distribution and relative abundance of roundnose, roughead and common grenadiers in the Northwest Atlantic (Publ. in *ICNAF Sel*. *Papers* No. 1: 73-88).
- 75/27 3482 <u>MERCER, M. C</u>. Size distribution of the migrant ommastrephid squid, *Illex illecebrosus* (LeSueur), in Newfoundland inshore waters.
- 75/28 3483 <u>PITT, T. K.</u> Possible effects of non-reported discards of flatfish on TAC of plaice and yellowtail in ICNAF Divisions 3LNO. + Corrigendum.
- 75/29 3494 <u>STEIN, M</u>. Hydrographic conditions on Hamilton Inlet Bank (Div. 2J) in the fall of 1974.

<u>Research Documents</u> (continued)

75/30	3496	FOREST, A., and D. BRIAND. Supplementary data on meristic characteristics of herring (<i>Clupea harengus harengus</i> L.) stocks of the southern part of the Gulf of St. Lawrence, the southern coast of Newfoundland and Banquereau Bank.
75/31	3510	HORSTED, Sv. Aa. Subarea 1 cod - data for 1974 and estimates of yield, 1957-77.
75/32	3511	LETT, P. F., W. T. STOBO, and W. G. DOUBLEDAY. A system simulation of the Atlantic mackerel fishery in ICNAF Subareas 3, 4 and 5, and Statistical Area 6, with special reference to stock management.
75/33	3512	LETT, P. F., A. C. KOHLER, and D. N. FITZGERALD. The influence of temperature on the interaction of the recruitment mechanisms of Atlantic herring and mackerel in the Gulf of St. Lawrence.
75/34	3513	DOUBLEDAY, W. G. A sampling design for combined echo-counting and trawling surveys for groundfish abundance.
75/35	3514	* <u>DOUBLEDAY, W. G</u> . A least squares approach to analyzing catch at age data (Publ. in <i>ICNAF Res. Bull.</i> No. 12: 69-82).
75/36	3515	DOUBLEDAY, W. G. Preliminary report on a sampling study of Subdiv. 4Vn commercial herring landings for 1974.
75/37	3516	PACIORKOWSKI, A., and M. GIEDZ. Polish observations on the course of Georges Bank herring spawning in relation to catch per tow, 1972–1974.
75/38	3517	STOBO, W. T., J. S. SCOTT, and J. J. HUNT. Movements of herring tagged in the Bay of Fundy.
75/39	3518	STOBO, W. T. The 1974-75 Canadian Cape Breton (Div. 4VWa) herring fishery.
75/40	3519	FALK, U., V. ISAAKOV, A. PACIORKOWSKI, and H. RITZHAUPT. Assessment of mackerel stock in the northwestern Atlantic Ocean in 1974-1976.
75/41	3520	ELMINOWICZ, A. Size and density of mackerel schools measured by echo sounders and catches.
75/42	3521	DOUBLEDAY, W. G. A simple iterative solution to the catch equation.
75/43	3522	* <u>HALLIDAY, R. G., and W. G. DOUBLEDAY</u> . Catch and effort trends for the finfish resources of the Scotian Shelf and an estimate of the maximum sustainable yield of groundfish (Publ. in <i>ICNAF Sel. Papers</i> No. 1: 117-128).
75/44	3523	IKEDA, I., and F. NAGASAKI. Stock assessment of <i>Loligo</i> in ICNAF Subarea 5 and Statistical Area 6.
75/45	3524	* <u>PARSONS, L. S., and D. G. PARSONS</u> . Effects of diurnal variation in availabil- ity upon estimation of redfish numbers and biomass from stratified-random bottom trawl surveys (Publ. in <i>ICNAF Sel. Papers</i> No. 1: 19-30).
75/46	3525	* <u>PENTTILA, J. A., and V. M. GIFFORD</u> . Growth and mortality rates for cod from the Georges Bank and Gulf of Maine areas (Publ. in <i>ICNAF Res. Bull</i> . No. 12: 29-36).
75/47	3526	HENNEMUTH, R. C. Ernest Haeckel joint cooperative herring work in Subarea 5.
75/48	3527	CLARK, S. Current status of the Georges Bank (Subdiv. 5Ze) haddock stock. + Corrigendum.
75/49	3528	LOUGH, R. G., T. L. MORRIS JR, and D. C. POTTER. Report of US fall 1974 larval herring cruises.
75/50	3529	LOUGH, R. G. A preliminary report of the vertical distribution of herring larvae on Georges Bank.

Research Documents (continued)

36

75/51	3530	WALTER, G. G. Graphical methods for estimating parameters in simple models of fisheries.
75/52	3531	<u>PITT, T. K</u> . The delineation of American plaice stocks with special reference to ICNAF Divisions 3LNO.
75/53	3532	JAKUPSSTOVU, S. H., and I. RØTTINGEN. Investigations on capelin (Mallotus villosus) and sand eel (Ammodytes sp.) at West Greenland in June-July 1974.
75/54	3534	DOUBLEDAY, W. G. A note concerning ICNAF Res. Doc. 75/12, "A note on a possible source of bias in the estimation of mean length at age".
75/55	3535	* <u>PINHORN, A. T</u> . Catch and effort relationships of the groundfish resource in Subareas 2 and 3. + Addendum (Publ. in <i>ICNAF Sel. Papers</i> No. 1: 107-116).
75/56	3538	<u>SLEPOKUROV, V. A</u> . The determination of parameters of the growth equation of Bertalanffy and preliminary assessment of the natural mortality rates of Nova Scotia herring.
75/57	35 39	RIKHTER, V. A., and YU. S. GRINKOV. Seasonal distribution of haddock in Division 4X.
75/58	3540	EFANOV, V. N., and N. P. PUZHAKOV. Size composition, growth, mortality rate and condition of shortfin squid (<i>Illex illecebrosus</i>) stocks in the West Atlantic.
75 /59	3541	MAYO, R. K. A preliminary assessment of the redfish fishery in ICNAF Subarea 5.
75/60	3542	* <u>TIBBETTS, ANNE M</u> . Squid fisheries (<i>Loligo pealei</i> and <i>Illex illecebrosus</i>) off the northeast United States, ICNAF Subarea 5 and Statistical Area 6 (Publ. in <i>ICNAF Sel. Papers</i> No. 2: 85-110).
75/61	3543	<u>AU, D. W. K</u> . Considerations on squid (<i>Loligo</i> and <i>Illex</i>) population dynamics and recommendations for rational exploitation.
75/62	3544	ANDERSON, E. D. Assessment of the ICNAF Division 5Y silver hake stock.
75/63	3547	MINET, J. P. First results of cod tagging experiment on western and southern banks of Newfoundland (ICNAF Divisions 4R and 3P). + Addendum.
75/64	3548	PAULMIER, G., and B. MESNIL. Squids, Loligo pealei and Illex illecebrosus, on Georges Bank - R/V Cryos cruise, September-October 1974. + Corrigendum.
75/65	3549	CLARK, S. H., and B. E. BROWN. Changes in biomass of finfish and squid in ICNAF Subarea 5 and Statistical Area 6 as evidenced by <i>Albatross IV</i> autumn survey data.
75/66	3550	BALKOVOY, V. A., I. K. SIGAEV, and A. P. NAKONECHNAJA. The results of the survey on abundance and distribution of herring larvae on Georges Bank, 18-30 October 1974.
75/67	3551	SCHNACK, D., and G. JOAKIMSSON. Report of the ICNAF larval herring cruise, Anton Dohrn, November 1974, in Georges Bank-Gulf of Maine area.
75/68	3552	BROWN, B. E., J. A. BRENNAN, and J. E. PALMER. Linear programming simulations of the effects of by-catch on national catches in 1975 in ICNAF Subarea 5 and Statistical Area 6.
75/69	3553	* <u>CHANG, S., and A. L. PACHECO</u> . An evaluation of the summer flounder population in Subarea 5 and Statistical Area 6 (Publ. in <i>ICNAF Sel. Papers</i> No. 1: 59-72).
75/70	3554	

75/70 3554 BRENNAN, J. A. By-catch trends of selected fisheries operating in ICNAF Subarea 5 and Statistical Area 6.

75/71	3555	PAULMIER, G., and D. BRIAND. Environment and distribution of herring larvae on Georges Bank and the Nova Scotia Shelf in September 1974. + Corrigendum.
75/72	3556	MINET, J. P. Seasonal variation in the biomass of the main commercial species from surveys on St. Pierre Bank, 1971-72.
75/73	3557	LOPEZ-VEIGA, E. C., R. G. HALLIDAY, and R. WELLS. Results of the Canada-Spain cod otolith exchange.
75/74	3558	<u>WARING, G</u> . A preliminary analysis of the status of butterfish in ICNAF Subarea 5 and Statistical Area 6.
75/75	3502	MESSTORFF, J. Design of a stratification scheme for the Baffin Island area.
75/76	3503	BURMAKIN, V. V. Water temperature in the Labrador and Newfoundland areas in 1974.
75/77	3504	SVETLOV, I. I. Some peculiarities of temperature conditions of waters of the West Greenland and Baffin Land Currents in 1974.
75/78	350 5	KUDLO, B. P., and V. A. BOROVKOV. Salinity of waters in the Davis Strait, Labrador, and Newfoundland areas in 1973-1974.
75/79	3506	KUDLO, B. P., and V. A. BOROVKOV. Circulation of waters in the ICNAF Area in 1973-1974.
75/80	3507	KARAULOVSKY, V. P. Hydrochemical conditions in Georges Bank area in the summer-fall period, 1971-1973.
75/81	3508	KARAULOVSKY, V. P. Biochemical oxygen consumption in the waters of the Northwest Atlantic.
75/82	3509	<u>RIKHTER, V. A</u> . An estimate of total allowable catch of red hake from Georges Bank, 1976.
75/83	3559	NEVINSKY, M. M., and V. P. SEREBRIAKOV. The abundance of American plaice spawning stock on the Grand Bank, ICNAF Divisions 3L and 3N in 1970 and 1971.
75/84	3560	KOVALYOV, S. M., and B. D. KUDRIN. Soviet investigations of Newfoundland capelin in 1974.
75/85	3561	CHEKHOVA, V. A. Trawl survey of demersal fishes in the Newfoundland area in 1974.
75/86	3562	SOKHNOV, V. V. Results of sand eel investigations in the Newfoundland Grand Bank area in 1974.
75/87	3563	SIMACHYOVA, I. N. On the age-length structure of the West Greenland cod stock in 1958-1974.
75/88	3564	ANON. (Netherland). Measuring of meshes of nets.
75/89	3565	REUTER, J. A comparison between a few mesh measuring gauges.
75/90	3569	ROBINSON, G. A. The Continuous Plankton Recorder Survey: Plankton in ICNAF Area in 1974.
75/91	3570	KOHLER, A. C. Recoveries from 1969 cod tagging in ICNAF Subdivision 4Vn.
75/92	3571	HUNT, J. J. Canadian mackerel catches (m.t.) and numbers at age in Subarea 4 for 1974.
75/93	3573	COOPER, R. A., J. R. UZMANN, R. A. CLIFFORD, and K. J. PECCI. Direct obser- vations of herring (<i>Clupea harengus harengus</i> L.) egg beds on Jeffreys Ledge, Gulf of Maine, in 1974.

38

Research Documents (continued)

75/94	3574	ANDERSON, E. D.	Assessment	of the	ICNAF	Subdivision	5Ze	and	Subdivision	5Żw
		Statistical	Area 6 silv	er hake	stocl	ks.				

- 75/95 3575 <u>SUOMALA, JR, J. B</u>. A short note on the applicability of hydroacoustic methods for demersal fish counting and abundance estimations.
- 75/96 3576 <u>KUDLO, B. P., V. V. BURMAKIN, and I. I. SVETLOV</u>. Proposals on the standardization of oceanographic sections in the ICNAF Area.
- 75/97 3580 * TEMPLEMAN, W. Biological and oceanographic background of Flemish Cap as an area for research on the reasons for year-class success and failure in cod and redfish (Publ. in *ICNAF Res. Bull.* No. 12: 91~118).
- 75/98 3584 CRABTREE, S. J., and D. M. WARE. An analysis of some factors affecting the growth rates of Gulf of St. Lawrence cod from 1949 to 1973.
- 75/99 3585 DOUBLEDAY, W. G. Enhancing age length keys.
- 75/100 3586 <u>RIDGWAY, G. J.</u> A conceptual model of stocks of herring (*Clupea harengus*) in the Gulf of Maine.
- 75/101 3593 <u>POSTOLAKY, A. I.</u> Distribution and abundance of cod eggs in the South Labrador and Newfoundland areas in 1974.
- 75/102 3594 <u>PUZHAKOV, N. P.</u> The growth and mortality of alewife (Alosa pseudoharengus) from the New England area.
- 75/103 3595 <u>ANDERSON, E. D</u>. Reassessment of mackerel in ICNAF Subareas 3, 4 and 5, and Statistical Area 6.
- 75/104 3597 * DOUBLEDAY, W. G., and R. G. HALLIDAY. An analysis of the silver hake fishery on the Scotian Shelf (Publ. in ICNAF Sel. Papers No. 1: 41-58).
- 75/105 3598 BRENNAN, J. A. Adequacy of US sampling scheme for estimating catch at age for two stocks.
- 75/106 3599 * COHEN, E. B. An overview of the plankton communities of the Gulf of Maine (Publ. in ICNAF Sel. Papers No. 1: 89-106).
- 75/107 3600 * BUMPUS, D. F. Review of the physical oceanography of Georges Bank (Publ. in ICNAF Res. Bull. No. 12: 119-134).
- 75/108 3601 <u>COLTON JR, J. B., and J. R. GREEN</u>. Progress report on analysis of sampler and behaviour related variation in the catch of larval herring on ICNAF larval herring surveys.
- 75/109 3602 <u>GRIMM, S. K., W. MASTO, and M. PASTUSZAK</u>. Report on larval herring distribution in the Gulf of Maine and on Georges Bank, 27 September-18 October 1974.
- 75/110 3603 <u>ANTHONY, V., C. W. DAVIS, G. WARING, M. D. GROSSLEIN, and T. BURNS</u>. Size distribution and recruitment estimates for sea herring of the Georges Bank - Gulf of Maine region, based on trawl surveys by research vessels.
- 75/111 3604 <u>SCHLITZ, R.</u> A preliminary summary of hydrographic data collected on ICNAF larval herring surveys, 1971-1973.
- 75/112 3605 <u>SCHNACK, D</u>. Summary of the ICNAF joint larval herring survey in Georges Bank - Gulf of Maine areas, September-December 1974.
- 75/113 3606 LOUGH, R. G., and M. D. GROSSLEIN. Winter mortality of Georges Bank herring larvae.
- 75/114 3607 DORNHEIM, H. Mean weight at age of the 1970 year-class herring in ICNAF Div. 52.
- 75/115 3608 KONSTANTINOV, K. G. The impact of water temperature on the fluctuations in the abundance of Flemish Cap Bank cod.

Research Documents (continued)

- 75/116 3609 * TRITES, R. W. Preliminary recommendations for standard sections in the Northwest Atlantic (Publ. in *ICNAF Sel. Papers* No. 3: 109-117).
- 75/117 3610 BRENNAN, J. A., and B. E. BROWN. Estimates of probability of recovery of the Subarea 5 and Statistical Area 6 biomass under various levels of 2nd tier TAC.
- 75/118 3611 <u>DAVIS, C. W.</u> Preliminary results of juvenile fish survey on Georges Bank and Nantucket Shoals by *Albatross IV*, 13-22 May 1975.
- 75/119 3620 POPE, J. G. Note on the mixed species problem.
- 75/120 3624 <u>BERGFLØDT, B</u>. Report on the sealing season and Norwegian seal investigations off Newfoundland-Labrador in 1975.
- 75/121 3625 <u>BENJAMINSEN, T., and T. ØRITSLAND</u>. The survival of year-classes and estimates of production and sustainable yield of Northwest Atlantic harp seals.
- 75/122 3626 <u>ØRITSLAND, T., and T. BENJAMINSEN</u>. Additional data on the sex ratio, age composition and mortality of Newfoundland hood seals with an estimate of pup production and sustainable yield.
- 75/123 3627 KAPEL, F. O. Age analysis of hood seals in Northwest Greenland.
- 75/124 3675 <u>GARROD, D. J.</u> Specified stock size as an objective for the management of single stocks.
- 75/125 3676 * HORWOOD, J. W. Interactive fisheries: a two-species Schaefer model (Publ. in ICNAF Sel. Papers No. 1: 151-156).
- 75/126 3677 * POPE, J. G. The application of mixed fisheries theory to the cod and redfish stocks of Subarea 2 and Division 3K (Publ. in *ICNAF Sel. Papers* No. 1: 163-170).
- 75/127 3678 * POPE, J. G. The effect of biological interactions on the theory of mixed fisheries (Publ. in *ICNAF Sel. Papers* No. 1: 157-162).
- 75/128 3679 GARROD, D. J. Resource management, its objectives and implementation.
- 75/129 3680 CUSHING, D. H. On the Canadian proposal to restrict fishing effort.
- 75/130 3681 MAURER, R. A preliminary description of some important feeding relationships.
- 75/131 3682 * <u>WALTER, G. G.</u> Non-equilibrium regulation of fisheries (Publ. in *ICNAF Sel*. *Papers* No. 1: 129-140).
- 75/132 3684 <u>BRENNAN, J. A., B. E. BROWN, and J. E. PALMER</u>. Effects of increased vessel efficiency on effort regulation. + Addendum.
- 75/133 3685 <u>POPE, J. G., and O. C. HARRIS</u>. The South African pilchard fishery and anchovy stock complex: an example of the effects of biological interactions between species on management strategy.
- 75/134 3687 * DOUBLEDAY, W. G. Environmental fluctuations and fisheries management (Publ. in *ICNAF Sel. Papers* No. 1: 141-150).
- 75/135 3688 * MAYO, R. K., and D. S. MILLER. A preliminary assessment of the redfish, Sebastes marinus (L.), in ICNAF Divisions 4V, 4W and 4X (Publ. in ICNAF Sel. Papers No. 1: 31-40).
- 75/136 3689 * <u>HALLIDAY, R. G.</u> Eastern Scotian Shelf cod (ICNAF Division 4VsW): a reconstruction of possible events in the fishery in 1958 to 1974 and a reestimation of potential yield (Publ. in *ICNAF Sel. Papers* No. 1: 7-18).
- 75/137 3690 PARSONS, L. S., and D. G. PARSONS. Status of Division 3P redfish.

LIST OF TITLES

Research Documents (continued)

40

- 75/138 3691 ULLTANG, Ø. Some aspects of fishing patterns in relation to fishery management.
- 75/139 3692 <u>CLARK, S. H., and B. E. BROWN</u>. Changes in biomass of finfish and squid from the Gulf of Maine to Cape Hatteras, 1963-1974, as determined from research vessel survey data.
- 75/140 3693 * LETT, P. F., and W. G. DOUBLEDAY. A system simulation to determine the implications of fluctuations in recruitment on management policies of fish stocks with special reference to Gulf of St. Lawrence cod (Publ. in ICNAF Sel. Papers No. 1: 171-193).
- 75/141 3714 <u>RONALD, K., and C. K. CAPSTICK</u>. Harp seal survival as predicted by a modification of Allen's model. + 2 Addenda.
- 75/142 3715 <u>SERGEANT, D. E.</u> Results of research on harp seals in 1975 with an estimate of production.
- 75/143 3716 <u>RICKER, W. E.</u> Mortality and production of harp seals, with reference to a paper of Benjaminsen and Øritsland (1975).
- 75/144 3717 <u>LAVIGNE, D. M., S. INNES, K. KALPAKIS, and K. RONALD</u>. An aerial census of western Atlantic harp seals (*Pagophilus groenlandicus*) using ultra-violet photography.
- 75/145 3718 LETT, P. F., and D. M. LAVIGNE. The impact of current management policies on stocks of western Atlantic harp seals, Pagophilus groenlandicus.
- 75/146 3719 <u>MUIR, B. S.</u> Consideration of present management regime for harp seals in relation to recent scientific analysis.
- 75/147 3720 SERGEANT, D. E. Comments on new estimates of production and sustainable yield of harp and hooded seals.
- 75/148 3721 LETT, P. F., and D. M. LAVIGNE. The estimation of natural mortality for the harp seal (Pagophilus groenlandicus).
- 75/149 3727 ULLTANG, Ø. Comments on an attempt by P. F. Lett and D. M. Lavigne to estimate mortality for northwestern Atlantic harp seals from catch and effort data.
- 75/150 3728 <u>LAVIGNE, D. M.</u> Harp seal, *Pagophilus groenlandicus*, production in the western Atlantic during March 1975.
- 75/151 3729 RONALD, K., and C. K. CAPSTICK. A further review of Allen, Ronald, Capstick harp seal model, based on data from Scientific Advisers Meeting held at Ottawa in November 1975.

SUMMARY DOCUMENTS - 1975

Abbreviation: SD

Doc.	<u>Serial</u>	
7 5/ 1	3420 * <u>ICNA</u>	F. Proceedings of Fifth Special Commission Meeting, Miami, Florida, USA, 11-15 November 1974 (Publ. in <i>ICNAF Meet. Proc.</i> 1974/75: 5-47).
75/2	3424 <u>NEAF</u>	C. Northeast Atlantic Fisheries Commission, Twelfth Meeting, 26 June-2 July 1974: press notice.
75/3	3425 <u>NEAF</u>	C. Northeast Atlantic Fisheries Commission, Mid-term Meeting, 4-8 November 1974: press notice.

^{*} Indexing refers to the publication indicated in parentheses.

Summary Documents (continued)

•

75/4	3423	ICNAF Secretariat. Stock records for some species considered at the 1974 Assessments Meetings.
75/5	3437	* <u>ICNAF</u> . Report of meetings of Standing Committee on Research and Statistics (STACRES), Special Meeting, January 1975 (Publ. in <i>ICNAF Redbook</i> 1975: 5-9).
75/6	3441	* <u>ICNAF</u> . Proceedings of Sixth Special Commission Meeting, Bergen, Norway, 13-18 January 1975 (Publ. in <i>ICNAF Meet. Proc.</i> 1974/75: 49-79).
75/7	3442	* <u>ICNAF</u> . Report of Meeting of ICNAF Environmental Working Group, Charlottenlund, Denmark, 23-25 September 1974 (see <i>ICNAF Redbook</i> 1975: 91).
75/8	3447	<u>NEAFC</u> . Northeast Atlantic Fisheries Commission, Special Meeting, 13-15 January 1975: press notice.
75/9	3500	* <u>ICNAF</u> . Report of Joint ICNAF/NEAFC Meeting on International Control, Leningrad, USSR, 4-7 March 1975 (Publ. in <i>ICNAF Meet. Proc.</i> 1974/75: 81-125).
75/10	3456	<u>ICNAF Secretariat</u> . Nominal catches of finfish and squids in Subarea 5 and Statistical Area 6, 1964-73.
75/11	3466	ICNAF Secretariat. Efficiency of sampling the major fisheries of the Northwest Atlantic in 1973.
75/12	3474	IKEDA, IKUO. Japanese research report, 1974.
75/13	3476	LOPEZ-VEIGA, E. C., J. R. FUERTES, and E. LABARTA. Spanish research report, 1974.
75/14	3485	ICNAF Secretariat. Major CWP recommendations of direct relevance to ICNAF.
75/15	3487	MAY, A. W., and J. S. SCOTT. Canadian research report, 1974.
75/16	3490	ANON. United States research report, 1974.
75/17	3495	* <u>ICNAF</u> . Report of Biological Surveys Subcommittee, April 1975 (Publ. in <i>ICNAF Redbook</i> 1975: 65-73).
75/18	3498	* <u>ICNAF</u> . Report of Assessments Subcommittee, April 1975 (Publ. in <i>ICNAF Redbook</i> 1975: 23-63).
75/19	3499	ICNAF. Report of Herring Working Group, April 1975.
75/20	3567	CWP Secretary. ADP developments in the STATLANT Forms NS, A and B.
75/21	3572	<u>CWP Secretary</u> . Report of the Eighth Session of the CWP (Coordinating Working Party on Atlantic Fishery Statistics), Paris France, 12-20 September 1974 (see also <i>FAO Fish</i> . Rept. No. 156).
75/22	3577	ICNAF Secretariat. Procedures for weather reporting by fishing vessels.
75/23	3578	ICNAF Secretariat. Summary of trawl materials and mesh size sampling, 1974.
75/24	3579	JONES, B. W. United Kingdom research report, 1974.
75/25	3581	ANON. French research report, 1974.
75/26	3644	ICNAF Secretariat. Provisional nominal catches in 1974 by country and stock area for species proposed for regulation in 1976.
75/27	3533	ULLTANG, Ø., and T. ØRITSLAND. Norwegian research report, 1974.
75/28	3536	GIEDZ, M., A. PACIORKOWSKI, and E. STANEK. Polish research report, 1974.

42

Summary Documents (continued)

- 75/29 3545 ERNST, P., U. BERTH, and H. RITZHAUPT. GDR research report, 1974.
- 75/30 3546 KONSTANTINOV, K. G., and A. S. NOSKOV. USSR research report, 1974.
- 75/31 3589 HORSTED, Sv. Aa., E. SMIDT, F. HERMANN, and H. H. VALEUR. Danish research report for 1974.
- 75/32 3590 * <u>ICNAF Secretariat</u>. Provisional nominal catches in the Northwest Atlantic, 1974 (see *ICNAF Stat*. Bull. Vol. 24: 26-64).
- 75/33 3591 * ICNAF Secretariat. Provisional sealing statistics for the Northwest Atlantic in 1974 (see ICNAF Stat. Bull. Vol. 24: 253-254).
- 75/34 3592 ICNAF Secretariat. Extracts from resolutions passed at the 1974 ICES Meeting relevant to research and statistical activities of ICNAF.
- 75/35 3596 ICNAF Secretariat. Report on statistical activities during the year 1974/75.
- 75/36 3612 <u>MEYER, A., J. MESSTORFF, and H. DORNHEIM</u>. Federal Republic of Germany research report, 1974.
- 75/37 3613 <u>CWP Secretary</u>. Discrepancies in ICNAF and FAO catch statistics by species items.
- 75/38 3616 * <u>ULLTANG</u>, Ø. Status of fisheries and research carried out in Subarea 1, Statistical Area 0 and off East Greenland in 1974 (see ICNAF Annu. Rept. Vol. 25, p. 105).
- 75/39 3617 * CLARK, S., and V. C. ANTHONY. Status of fisheries and research carried out in Subarea 5 and Statistical Area 6 in 1974 (see ICNAF Annu. Rept. Vol. 25, p. 105).
- 75/40 3618 * PINHORN, A. T. Status of fisheries and research carried out in Subarea 2 in 1974 (see ICNAF Annu. Rept. Vol. 25, p. 105).
- 75/41 3619 * <u>HALLIDAY, R. G.</u> Status of fisheries and research carried out in Subarea 4 in 1974 (see *ICNAF Annu. Rept.* Vol. 25, p. 105).
- 75/42 3621 * PARRISH, B. B. Status of fisheries and research carried out in Subarea 3 in 1974 (see ICNAF Annu. Rept. Vol. 25, p. 105).
- 75/43 3622 DUMITRESCU, V., and G. VASLABAN. Romanian research report for 1974.
- 75/44 3628 * MANSFIELD, A. W. Status of harp and hooded seal fisheries and research carried out in 1974 (see ICNAF Annu. Rept. Vol. 25, p. 105).
- 75/45 3668 ICNAF Secretariat. Statistics on discards, 1973.
- 75/46 3669 <u>NEAFC</u>. Northeast Atlantic Fisheries Commission, Thirteenth Annual Meeting, 21-28 May 1975: press notice.

^{75/47 3722 *} Report of scientific advisers to Panel A (Seals), Ottawa, Canada, 17-19 November 1975 (see ICNAF Redbook 1976: 193-196).

^{*} Indexing refers to the publication indicated in parentheses.