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# SCIENTIFIC COUNCIL MEETING - JUNE 1993

# Provisional Index and List of Titles of Research

and Summary Documents of 1992

by

# NAFO Secretariat

# CONTENTS

																											<u>P</u> :	age
Introduction																												
List of Titles Subject Index	•			. •	 		 				• •	•	٠.	•	•		٠.	. •	 	• •					 •			3
Subject Index		٠.	٠.		 	•		• .							•				 							 •	1	. 1
Author Index					 		 			 			٠.		•		٠.		    -		•		٠.		 ,	 •	2	!5

# Introduction

The Scientific Council has agreed that research documents (SCR) and summary documents (SCS) should be indexed on an annual basis and that these provisional indexes be combined for publication at 5-year intervals. The first NAFO issue of Index of Meeting Documents for 1979-84 was published in March 1985. The second NAFO issue of Index of Meeting Documents for 1985-89 was published in February 1991. This provisional index relates to all SCR documents (No. 1-84 and SCS documents (No. 1-25) for the calendar year 1992.

The list of SCR and SCS documents of 1992 in the first section of this document maintains the previous format and is arranged by consecutive document number.

Compilation of the 1992 author index generally follows guidelines that were used in preparing the Index of Meeting Documents for 1979-84 and 1985-89. Each of the research and summary documents is identified by its 3-character code (i.e. SCR or SCS), followed by the last two digits of the year of issue, an oblique (/), and then the designated document number. This is followed in parentheses by a shortened version of the title or an expression which indicates the object of the referenced paper.

The 1992 subject index follows the same format as the author index. However, it differs from subject indexes prior to 1988 in that the text between parentheses is not altered from that used in the author index.

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# LIST OF RESEARCH AND SUMMARY DOCUMENTS, 1992

# RESEARCH DOCUMENTS (SCR)

SCR No.	Ser. No.	
92/1ª	N2034	Bakanev, V. S. Results from acoustic capelin surveys in Div. 3LNO and 2J+3KL in 1991. (12 pages)
92/2ª	N2035	Nakashima, B. S., and B. W. Slaney. Capelin (Mallotus villosus) egg deposition on fifteen spawning beaches in Conception Bay, Newfoundland in 1987-91. (8 pages)
92/3ª	N2036	Nakashima, B. S., and R. W. Harnum. The inshore capelin fishery in NAFO Division 3L in 1991. (16 pages)
92/4ª	N2037	Shelton, P. A., J. E. Carscadden, and J. M. Hoenig. Estimates of survival rates and risk evaluation of the 10% harvest rate procedure for capelin in NAFO Division 3L. (18 pages)
92/5ª	N2038	Nakashima, B. S. Results of aerial surveys of capelin (Mallotus villosus) schools using the compact airborne spectrographic imager (CASI). (12 pages)
92/6 <sup>a,b</sup>	N2039	Narayanan, S., S. Prinsenberg, and E. B. Colbourne. Overview of environmental conditions in NAFO Divisions 2J+3KL in 1991. (25 pages)
92/7ª	N2040	<u>Lilly, G. R.</u> Distribution of capelin on Grand Bank (Div. 3LNO) in the springs of 1987 and 1991, as inferred from bottom-trawl by-catches and cod stomachs examinations. (9 pages)
92/8ª	N2041	Lilly, G. R. By-catches of capelin in Canadian bottom-trawl surveys from northern Labrador to the southern Grand Bank (Div. 2GHJ3KLNO) in autumn 1991. (7 pages)
92/9°	N2051	Savvatimsky, P. I. Distribution and biological characteristic of rock grenadier (Coryphaenoides rupestris) as shown by trawl surveys in the Northwest Atlantic in 1989-1991. (12 pages)
92/10°	N2052	Savvatimsky, P. I. Age structure of Macrourus berglax L. in the Northwest Atlantic in 1985. (28 pages)
92/11°	N2053	Savvatimsky, P. I., and S. A. Kuzmin. On by-catch of cod in research redfish catch on the Flemish Cap Bank in 1988-1991. (12 pages)
92/12°	N2054	Vaskov, A. A., and I. A. Oganin. Evaluation of redfish stocks in Divisions 3LN and 3M by the trawl-acoustic survey in 1991. (12 pages)
92/13 <sup>b,c</sup>	N2055	Kuzmin, S. A. Stock assessment of cod from NAFO Subarea 3 by the data from 1991 trawl-acoustic survey. (11 pages)
92/14 <sup>b,c</sup>	N2056	Albikovskaya, L. K., and O. V. Gerasimova. Feeding and trophic relations between cod and capelin off the northwestern Newfoundland (3K) in spring-summer. (7 pages)
92/15 <sup>b</sup>	N2057	Gerasimova, O. V., L. K. Albikovskaya, and S. A. Kuzmin. A study of trophic interrelations between cod (Gadus morhua) and capelin (Mallotus villosus) on the Newfoundland Shelf in spring and summer seasons of 1985-1991. (16 pages)

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4		
<b>92/16</b> ° 1	N2061	Benway, R. L., J. W. Jossi, and J. Prezioso. Surface and bottom temperatures, and surface salinities: New York to the Gulf Stream, Massachusetts to Cape Sable, N.S. 1991. (14 pages)
92/17° 1	N2062	Smedstad, O. M., and S. Torheim. Norwegian investigations on shrimp ( <i>Pandalus borealis</i> ) in East Greenland Waters in 1991. (8 pages)
92/18 <sup>b</sup>	N2063	Baird, J. W., C. A. Bishop, W. B. Brodie, and E. F. Murphy. An assessment of cod stock in NAFO Divisions 2J3KL. (69 pages)
92/19 <sup>b</sup>	N2064	Stein, M. Variability of climate - impact on cod recruitment off West Greenland. (15 pages)
<b>92/20°</b>	N2065	Stein, M. On the consistency of thermal events in the East Greenland/West Greenland current system. (10 pages)
<b>92/21°</b>	N2068	Borovkov, V. A., and I. I. Tevs. Oceanographic conditions in NAFO Subareas 0, 2 and 3 in 1991. (15 pages)
92/22°	N2069	Gorchinsky, K. V., and A. A. Vaskov. Trawl survey results on Greenland halibut stock evaluation in NAFO Div. 0B and 2GH in October/December 1991. (15 pages)
92/23°	N2070	Gasiukov, P. S. Status of silver hake stocks in NAFO Divisions 4VWX in 1991 and TAC for 1993. (20 pages)
92/24°	N2071	<u>Vazquez, A.</u> Minimum landing size for cod and flatfish in NAFO area corresponding to a cod end mesh size of 120 millimeters. (11 pages)
92/25°	N2072	Paz, J., and M. G. Larrañeta. Cod stock-recruitment relationship in NAFO Divisions 3NO. (10 pages)
92/26°	N2073	Zamarro, J. The fecundity of American plaice (Hippoglossoides platessoides) from the south of the Grand Bank and Flemish Cap. (11 pages)
92/27°	N2074	Vazquez, A. Results from bottom trawl survey of Flemish Cap in July 1991. (17 pages)
92/28°	N2075	Junquera, S., S. Iglesias, and E. de Cárdenas. Spanish fishery of Greenland halibut (Reinhardtius hippoglossoides) in 1990-1991. (14 pages)
92/29°	N2076	de Cárdenas, E., and Ph. Moguedet. Preliminary results from EEC cod tagging on Flemish Cap. (8 pages)
92/30°	N2077	Cornus, H. P. 1991 assessment of redfishes (Sebastes marinus and Sebastes mentella) in NAFO Subarea 1. (14 pages)
92/31°	N2078	de Cárdenas, E., Ph. Moguedet, and J. A. Pereiro. On the isolation of the cod population in Flemish Cap (Division 3M). (16 pages)
92/32°	N2079	Wieland, K. Distribution of 0-group redfish (Sebastes spp.) off West Greenland in autumn 1991. (9 pages)
92/33°	N2080	Moguedet, Ph. Cod migrations in the Gulf of St. Lawrence and south areas off Newfoundland. (18 pages)

92/34°	N2081	Bez, N., and Ph. Moguedet. Comparison of the relative fishing powers of St. Pierre and Miquelon trawlers from 1986 to 1991 in the NAFO Subdivision 3Ps. Limits in the use of a multiplicative model (Robson, 1966). (22 pages)
92/35°	N2083	Rikhter, V. A., and V. I. Vinogradov. On relationships between silver hake weight growth and abundance of fishery population of the Nova Scotian Shelf. (11 pages)
92/36°	N2084	Sigaev, I. K. Anomalies of water temperature and water-mass border indices in the Northwest Atlantic area in 1990 and 1991. (5 pages)
92/37°	N2085	Shcherbich, L. V., A. P. Senina, and Yu. A. Markov. Age determination methods for Nova Scotian hake. (14 pages)
92/38°	N2086	Sigaev, I. K., V. A. Rikhter, and V. F. Turok. The results of mackerel (Scomber scombrus) study on the Scotian Shelf in June 1990. (9 pages)
92/39°	N2087	Rikhter, V. A., and V. F. Turok. Distribution of hake, other fish species and short-finned squid on the Scotian Shelf in 1991, based on data of Soviet observers. (14 pages)
92/40°	N2088	Rätz, H-J. Decrease in fish biomass off West Greenland (Subdivisions 1B-1F) continued. (8 pages)
92/41°	N2092	Junquera, S., and J. Zamarro. Sexual maturity and spawning of the Greenland halibut (Reinhardtius hippoglossoides) from Flemish Pass area. (10 pages)
92/42°	N2093	Barsukov, V. B., N. I. Litvinenko, and V. P. Serebryakov. Identification of redfishes (Sebastes, Scorpaenidae) in the North Atlantic (some recommendations). (17 pages)
92/43°·	N2094	Pedersen, S. A., and K. H. Nygård. Survey biomass of fishes in the Disko Bay area West Greenland-September 1991. (9 pages)
92/44°	N2095	Pedersen, S. A., and P. Kanneworff. Survey biomass of redfish (Sebastes spp.) off West Greenland (NAFO Subareas 0+1), July-August 1988-91. (12 pages)
92/45°	N2096	Kanneworff, P., and S. A. Pedersen. Survey biomass of Greenland halibut (Reinhardtius hippoglossoides) off West Greenland (NAFO Subareas 0+1), July-August 1988-91. (11 pages)
92/46°	N2097	Hassager, T. K., and K. Lehmann. Investigation of sampling bias on length distribution of <i>Pandalus borealis</i> when sampling from the hatch. (8 pages)
92/47°	N2098	Hassager, T. K. Do length-at-age vary with depth? The Northern Shrimp (Pandalus borealis) in Davis Strait (NAFO Division 1B). (7 pages)
92/48°	N2100	Yano, K., and O. Jørgensen. Results of two stratified-random bottom trawl surveys at West Greenland in 1991. (14 pages)
92/49°	N2101	Skúladóttir, U. The catch statistics of the shrimp fishery (Pandalus borealis) in the Denmark Strait in the years 1980-1991. (9 pages)
92/50°	N2102	Waldron, D. E., M. A. Showell, and M. C. Bourbonnais. Status of the Scotian Shelf silver hake (whiting) population in 1991 with projections to 1993. (22 pages)

6		
92/51°	N2103	Boje, J. An assessment of the Greenland halibut stock component in NAFO Subareas 0+1. (4 pages)
92/52°	N2104	Kenchington, T. J., R. G. Halliday, G. D. Harrison. Fishing grounds exploited in 1990 by longliners based in Canada's Scotia-Fundy region. (34 pages)
92/53°	N2105	Jørgensen, O. A., and J. Boje. A comparison of the selectivity in trawl and long-line fishery for Greenland halibut. (5 pages)
92/54° ·	N2107	Rønnow, B. Analysis of the catch curves for Pandalus borealis in Disko Bay, West Greenland. (12 pages)
92/55°	N2108	Carlsson, D. M., P. Kanneworff, and K. H. Nygaard. Report on a stratified-random trawl survey for shrimp ( <i>Pandalus borealis</i> ) in inshore areas West Greenland, NAFO Subarea 1, in 1991. (18 pages)
92/56°	N2109	Carlsson, D. M., and P. Kanneworff. Estimate of shrimp discard from shrimp factory trawlers in Davis Strait and Denmark Strait in 1991. (6 pages)
92/57°	N2110	Miller, D. S. Results of an acoustic survey for capelin (Mallotus villosus) in NAFO Division 3L in 1992. (4 pages)
92/58°	N2111	Parsons, D. G., and P. J. Veitch. Analysis of the fishery data for northern shrimp (Pandalus borealis) in Division 0A, 1979-1991. (14 pages)
92/59°	N2113	Power, D., and A. A. Vaskov. Abundance and biomass estimates of redfish (S. mentella) in Div. 3LN from Russian groundfish surveys from 1984-91. (9 pages)
92/60°	N2114	Walsh, S. J. Juvenile flatfish fisheries on the Grand Bank: a discussion of conservation techniques. (13 pages)
92/61°	N2115	Brodie, W. B., and S. J. Walsh. An assessment of the yellowtail flounder stock in Divisions 3LNO. (28 pages)
92/62°	N2116	Skúladóttir, U. The Icelandic shrimp fishery (Pandalus borealis) in the Denmark Strait in 1991 and early-1992. (7 pages)
92/63°	N2117	Stein, M. A note on the consistency of hydrographic events off Labrador and off West Greenland. (3 pages)
92/64°	N2118	Carlsson, D. M., and P. Kanneworff. The commercial shrimp fishery in Denmark Strait in 1991 and early 1992. (26 pages)
92/65°	N2119	Carlsson, D. M., and P. Kanneworff. The shrimp fishery in NAFO Subarea 1 in 1991. (21 pages)
92/66°	N2120	Mena, I. Northern prawn (Pandalus borealis) stock in Flemish Cap. (3 pages)
92/67°	N2121	Carlsson, D. M., and P. Kanneworff. Report on a stratified-random trawl survey for shrimp (Pandalus borealis) in NAFO Subareas 0+1 in July-September 1991, and a comparison with earlier surveys. (27 pages)
92/68°	N2122	Bishop, C. A., E. F. Murphy, and J. W. Baird. Cod in Divisions 2J+3KL - estimates of biomass and age composition for the portion of the stock in the NAFO Regulatory Area. (8 pages)

92/69°	N2123	Keeley, J. R. Marine Environmental Data Service Report for 1991. (18 pages)
92/70°	N2124	Ross, C. K. Moored current meter measurements across Davis Strait. (8 pages)
92/71°	N2125	<u>Drinkwater, K. F., P. C. Smith, and R. Pettipas.</u> Spatial and temporal scales of temperature variability in the Bay of Fundy. (17 pages)
92/72°	N2126	Drinkwater, K. F. AFAP climate studies in the Scotia-Fundy region. (8 pages)
92/73°	N2127	<u>Drinkwater, K. F., B. Petrie, and S. Narayanan.</u> Overview of environmental conditions in the Northwest Atlantic in 1991. (36 pages)
92/74°	N2129	Myers, R. A., K. Drinkwater, and S. Brown. The influence of salinity on 2J3KL cod recruitment. (12 pages)
92/75°	N2130	Baird, J. W., C. A. Bishop, and E. F. Murphy. An assessment of the cod stock in NAFO Div. 3NO. (28 pages)
92/76°	N2131	Brodie, W. B., and W. R. Bowering. Results for American plaice from Canadian surveys in Div. 3M, 1978-85. (4 pages)
92/77°	N2132	Savard, L., D. Parsons, U. Skúladóttir, D. Carlsson, P. Kanneworff, and H. Siegstad. Assessment of shrimp in Denmark Strait. (12 pages)
92/78°	N2133	Walsh, S. J. Distribution and abundance of juvenile and adult American plaice on the Grand Bank, NAFO Divisions 3LNO. (11 pages)
92/79°	N2134	Brodie, W. B., J. W. Baird, and J. Morgan. An assessment of the American place stock in Div. 3LNO. (43 pages)
· 92/80°	N2135	Power, D. An assessment of redfish in NAFO Divisions 3LN. (31 pages)
92/81°	N2136	Brodie, W. B., and J. W. Baird. Data for the assessment of Greenland halibut in SA 2 + Divisions 3KLM. (16 pages)
92/82°	N2137	Brodie, W. B., J. W. Baird, and D. Power. Analysis of data from deepwater surveys in Div. 0B, 2GHJ, and 3KLM in 1991. (8 pages)
92/83°	N2140	Parsons, D. G., L. Savard, D. M. Carlsson, P. Kanneworff, and H. Siegstad. Assessment of shrimp in Davis Strait Subareas 0+1. (14 pages)
92/84 <sup>d</sup>	N2145	<u>Bakanev, V. S.</u> Evaluation of index for 0-group capelin abundance in NAFO Divisions 3LNO in November. (6 pages)

a = Scientific Council Meeting, 3-6 March 1992
 b = Scientific Council Special Meeting, 1-4 June 1992
 c = Scientific Council Meeting, 3-17 June 1992
 d = Scientific Council Annual Meeting, 14-18 September 1992

# SUMMARY DOCUMENTS (SCS)

SCS #	<u>Ser. #</u>	
92/1ª	N2042	NAFO. Report of Scientific Council, March 1992 Meeting. (25 pages)
92/2°	N2043	Rawson, B. Canadian request for scientific advice on management in 1993 of certain stocks in Subareas 0 to 4. (1 page)
92/3°	N2044	Paulsen, J. Denmark (Greenland) request for scientific advice on management of certain stocks in 1993. (2 pages)
92/4°	N2046	NAFO Secretariat. Provisional index and list of titles of Research and Summary Documents for 1991. (22 pages)
92/5°	N2047	NAFO Secretariat. Historical catches of selected species by stock area and country for the period 1980-90. (38 pages)
92/6°	N2048	NAFO Secretariat. List of biological sampling data for 1990. (50 pages + 6 page add.)
92/7°	N2049	NAFO Secretariat. Notes on statistical activities and publications since June 1991. (2 pages)
92/8°	N2050	NAFO Secretariat. Tagging activities reported for the Northwest Atlantic in 1991. (3 pages)
92/9 <sup>b,c</sup>	N2058	Koeller, P., J. S. Loch, M. M. Roberge, J-D. Lambert, and M. Bérubé. Canadian research report for 1991. (33 pages)
92/10 <sup>b,c</sup>	N2060	NAFO Secretariat. Report of the Joint ICES/NAFO Working Group on harp and hooded seals, Copenhagen, 14-18 October 1991. (31 pages)
92/11 <sup>c</sup>	N2059	Assistant Executive Secretary. Report to the CWP on NAFO Statistical Program, Publications and ADP. (6 pages)
92/12 <sup>b,c</sup>	N2066	Borovkov, V., S. Kovalev, P. Savvatimsky, V. A. Rikhter, and I. K. Sigaev. Russian research report for 1991. (21 pages)
92/13 <sup>b,c</sup>	N2067	Vazquez, A., G. Perez-Gandaras, J. Paz, J. Zamarro, and S. Junguera. Spanish research report for 1991. (10 pages)
92/14 <sup>b,c</sup>	N2082	Alpoim, R. L., M. Carneiro, L. Godinho, and A. Avila de Melo. Portuguese research report for 1991. (68 pages)
92/15°	N2089	Stern, H., and F. M. Serchuk. United States research report for 1991. (17 pages)
92/16 <sup>b</sup>	N2090	EC Group. Report of an EC group of experts. London England, 17-19 March 1992. An assessment of the stock of cod in NAFO Divisions 2J3KL. (11 pages)
92/17°	N2091	Cornus, H. P., P. Ernst, H. J. Rätz, and M. Stein. German research report for 1991. (7 pages)
92/18°	N2099	Yokawa, K. Japanese research report for 1991. (4 pages)
92/19°	N2106	Siegstad, H. Denmark/Greenland research report for 1991. (5 pages)

92/20 <sup>b</sup>	N2112	NAFO. Report of the Special Meeting Scientific Council, 1-4 June 1992. (39 pages)
92/21°	N2128	REINERT, J. Faroe Islands research report for 1991. (5 pages)
92/22°	N2138	NAFO Secretariat. A compilation of research vessel surveys on a stock-by-stock basis. (18 pages)
92/23°	N2139	NAFO. Report of Scientific Council, 3-16 June 1992 Meeting. (151 pages)
92/24 <sup>d</sup>	N2159	NAFO. Report of Scientific Council, 14-18 September 1992. (27 pages)
92/25	N2166	NAFO Secretariat. Provisional nominal catches in the Northwest Atlantic, 1991. (43 pages)

<sup>a = Scientific Council Meeting, 3-6 March 1992
b = Scientific Council Special Meeting, 1-4 June 1992
c = Scientific Council Meeting, 3-17 June 1992
d = Scientific Council Annual Meeting, 14-18 September 1992</sup> 

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### Abundance; abundance index

- SCR 92/ 1 (capelin acoustic surveys, Div 2J+3KLNO, 1991)
  - 5 (aerial surveys of capelin by CASI, 1990-91)
  - 12 (trawl acoustic survey of redfish, Div 3LMN, 1991)
  - 13 (assessment of cod by acoustic survey, SA 3, 1991)
  - 27 (results of bottom trawl survey, Flemish Cap, 1991)
  - 30 (assessment of redfishes, SA 1, 1991)
  - 35 (S. hake weight growth & abundance on NS Shelf, 1977-90)
  - 40 (decrease in fish biomass off W Greenland, Div 1B-1F)
  - 44 (biomass of redfish, W Greenland, 1988-91)
  - 45 (biomass of G halibut, W Greenland, 1988-91)
  - 50 (status of Scotian Shelf S hake population, 1991)
  - 51 (assessment of G halibut stock, SA 0+1, 1992)
  - 59 (abund. & biomass of redfish, Div 3LN, 1984-91)
  - 76 (Canadian survey results, A plaice, Div 3M, 1978-85)
  - 77 (assessment of shrimp in Denmark Strait, 1992)
  - 78 (distribution & abundance of A plaice, Div 3LNO, 1991)
  - 81 (assessment of G halibut, SA 2 + Div 3KLM, 1992)
  - 84 (capelin 0-group trawl survey, Div 3LNO, 1991)

# Acoustics

- SCR 92/ 1 (capelin acoustic surveys, Div 2J+3KLNO, 1991)
  - 4 (evaluation of management procedures for capelin, Div 3L)
  - 11 (cod by-catch from redfish fishery, Div 3M, 1988-81)
  - 12 (trawl acoustic survey of redfish, Div 3LMN, 1991)
  - 13 (assessment of cod by acoustic survey, SA 3, 1991)
  - 14 (spring-summer relations, cod & capelin, Div 3K, 1987-90)
  - 18 (assessment of the cod stock, Div 2J+3KL, 1992)
  - 57 (acoustic surveys for capelin, Div 3L, 1992)

# Adaptive framework (ADAPT) (see also under assessment)

- SCR 92/23 (status of S hake, Div 4VWX, 1991 & TAC for 1993)
  - 50 (status of Scotian Shelf S hake population, 1991)
  - 75 (assessment of cod, Div 3N0, 1992)
  - 79 (assessment of A plaice, Div 3LNO, 1992)

# Age, composition

- SCR 92/ 1 (capelin acoustic surveys, Div 2]+3KLNO, 1991)
  - 3 (inshore capelin fishery, Div 3L, 1991)
  - 9 (distribution & biology of rock grenadier, 1989-91)
  - 10 (age structure of roughhead grenadier, 1985)
  - 15 (relations between cod & capelin, Div 3L, 1985-91)
  - 22 (trawl surveys on G halibut, Div 0B + 2GH, 1991)
  - 23 (status of S hake, Div 4VWX, 1991 & TAC for 1993)
  - 27 (results of bottom trawl survey, Flemish Cap, 1991)
  - 38 (results of mackerel study on the Scotian shelf in 1990)
  - 68 (cod biomass & age outside 200 miles, Div 2J+3KL, 1977-91)
  - 75 (assessment of cod, Div 3N0, 1992)
  - 78 (distribution & abundance of A plaice, Div 3LNO, 1991)
  - 83 (assessment of shrimp in Davis Strait, SA 0+1, 1992)

# Age, determination

- SCR 92/10 (age structure of roughhead grenadier, 1985)
  - 37 (age determination methods for Scotian Shelf S. hake)
  - 38 (results of mackerel study on the Scotian shelf in 1990)
  - 47 (length-at-age of shrimp vs depth, Davis Strait, 1988-90)

# American plaice (see Plaice, American)

Anathichas lupus (see Wolffish, Atlantic)

Anarhichas minor (see Wolffish, spotted)

Arctic cod (see Cod, Arctic)

Assessment (see by specific stocks)

# Cod (Divisions 2J+3KL)

- SCR 92/ 6 (overview of environmental conditions, Div 2I+3KL, 1991)
  - 13 (assessment of cod by acoustic survey, SA 3, 1991)
  - 14 (spring-summer relations, cod & capelin, Div 3K, 1987-90)
  - 15 (relations between cod & capelin, Div 3L, 1985-91)
  - 18 (assessment of the cod stock, Div 2J+3KL, 1992)
  - 19 (climate us cod recruitment, W Greenland)
- SCS 92/ 1 (report of Scientific Council, 3-6 Mar 1992)
  - 9 (Canadian research report for 1991)
  - 10 (report of ICES/NAFO Group on seals, Oct 1991)
  - 12 (Russian research report for 1991)
  - 13 (Spanish research report for 1991)
  - 14 (Portuguese research report for 1991)
  - 16 (report of EC experts re cod 2J3KL, 17-19 Mar, 1991)

#### Cod (Division 3M)

- SCR 92/11 (cod by-catch from redfish fishery, Div 3M, 1988-81)
  - 13 (assessment of cod by acoustic survey, SA 3, 1991)
  - 21 (oceanographic conditions, SA 0+2+3, 1991)
  - 27 (results of bottom trawl survey, Flemish Cap, 1991)
  - 29 (prelim. results from EEC cod tagging on Flemish Cap)
  - 31 (isolation of cod population on Flemish Cap)
- SCS 92/ 12 (Russian research report for 1991)
  - 13 (Spanish research report for 1991)
  - 14 (Portuguese research report for 1991)
  - 18 (Japanese research report for 1991)

# Cod (Divisions 3N and 3O)

- SCR 92/13 (assessment of cod by acoustic survey, SA 3, 1991)
  - 25 (cod stock recruitment relationship, Div 3NO, 1992)
  - 75 (assessment of cod, Div 3N0, 1992)
- SCS 92/ 12 (Russian research report for 1991)
  - 13 (Spanish research report for 1991)
  - 14 (Portuguese research report for 1991)

# Redfish (Subarea 1)

- SCR 92/30 (assessment of redfishes, SA 1, 1991)
  - 32 (distribution of 0-group redfish off W Greenland, 1991)
  - 43 (biomass of shrimp & by-catches, W Greenland, 1991)
  - 44 (biomass of redfish, W Greenland, 1988-91)
  - 48 (results of two trawl surveys, SA 1, 1991)
- SCS 92/ 17 (German research report for 1991)
  - 18 (Japanese research report for 1991)

#### Redfish (Division 3M) Greenland halibut (Subareas 0 and 1) (trawl acoustic survey of redfish, Div 3LMN, 1991) SCR 92/22 (trawl surveys on G halibut, Div 0B + 2GH, 1991) (assessment of cod by acoustic survey, SA 3, 1991) (biomass of shrimp & by-catches, W Greenland, 1991) 13 (spring-summer relations, cod & capelin, Div 3K, 1987-90) (biomass of G halibut, W Greenland, 1988-91) 45 17 (Norwegian shrimp study in E Greenland waters, 1991) 48 (results of two trawl surveys, SA 1, 1991) SCS 92/ 12 (Russian research report for 1991) SCR 92/51 (assessment of G halibut stock, SA 0+1, 1992) 17 (German research report for 1991) (selectivity in trawl & longline fishery, G halibut) Redfish (Divisions 3L and 3N) SCS 92/ 12 (Russian research report for 1991) 17 (German research report for 1991) SCR 92/12 (trawl acoustic survey of redfish, Div 3LMN, 1991) (Denmark/Greenland research report for 1991) (abund. & biomass of redfish, Div 3LN, 1984-91) 59 (assessment of redfish, Div 3LN, 1992) Greenland halibut (Subarea 2 and Div. 3K+3L) SCS 92/ 12 (Russian research report for 1991) SCR 92/22 (trawl surveys on G halibut, Div 0B + 2GH, 1991) 14 (results of bottom trawl survey, Flemish Cap, 1991) (Portuguese research report for 1991) 17 (German research report for 1991) 28 (Spanish fishery of G halibut, 1990-91) 18 (Japanese research report for 1991) 41 (sexual matur. & spawning of G. halibut, Div 3LM, 1990-91) (research vessel surveys, Div OB + 2GHJ + 3LKM, 1991) Silver hake (Divisions 4V, 4W and 4X) SCS 92/ 12 (Russian research report for 1991) SCR 92/23 (status of S hake, Div 4VWX, 1991 & TAC for 1993) (Spanish research report for 1991) (S. hake weight growth & abundance on NS Shelf, 1977-90) (Portuguese research report for 1991) 35 (dist. of S hake & other species, Div 4VWX, 1991) (German research report for 1991) 50 (status of Scotian Shelf S hake population, 1991) Roundnose grenadler (Subareas 0 and 1) SCS 92/ 12 (Russian research report for 1991) SCR 92/ 9 (distribution & biology of rock grenadier, 1989-91) 15 (US research report for 1991) 18 (Japanese research report for 1991) 48 (results of two trawl surveys, SA 1, 1991) SCS 92/ 12 (Russian research report for 1991) American plaice (Division 3M) (German research report for 1991) 17 SCR 92/27 (results of bottom trawl survey, Flemish Cap, 1991) 18 (Japanese research report for 1991) 76 (Canadian survey results, A plaice, Div 3M, 1978-85) (Denmark/Greenland research report for 1991) SCS 92/12 (Russian research report for 1991) Roundnose grenadier (Subareas 2 and 3) 13 (Spanish research report for 1991) 14 (Portuguese research report for 1991) SCR 92/ 9 (distribution & biology of rock grenadier, 1989-91) 28 (Spanish fishery of G halibut, 1990-91) American plaice (Divisions 3L, 3N and 3O) 82 (research vessel surveys, Div 0B + 2GHJ + 3LKM, 1991) SCR 92/79 (assessment of A plaice, Div 3LNO, 1992) SCS 92/ 12 (Russian research report for 1991) (Portuguese research report for 1991) (Russian research report for 1991) SCS 92/ 12 (Spanish research report for 1991) Capelin (Division 3L) (Portuguese research report for 1991) (capelin acoustic surveys, Div 2J+3KLNO, 1991) SCR 92/ 1 Witch flounder (Divisions 3N and 3O) (capelin surveys on spawning beaches, 1987-91) (inshore capelin fishery, Div 3L, 1991) SCR 92/24 (selectivity of cod & flatfish in 120mm codend) (evaluation of management procedures for capelin, Div 3L) (aerial surveys of capelin by CASI, 1990-91) 39 (dist. of S hake & other species, Div 4VWX, 1991) (overview of environmental conditions, Div 2J+3KL, 1991) (distribution of capelin, Div 3LNO, 1987 & 1991) SCS 92/ 12 (Russian research report for 1991) 13 (Spanish research report for 1991) (by-catches of capelin, Div 2GHJ+3KLNO, 1991) (Portuguese research report for 1991) 57 (acoustic surveys for capelin, Div 3L, 1992) Yellowtail flounder (Divisions 3L, 3N and 3O) (report of Scientific Council, 3-6 Mar 1992) 12 (Russian research report for 1991) SCR 92/61 (assessment of yellowtail flounder, Div 3LNO, 1992) Capelin (Divisions 3N and 3O) SCS 92/ 12 (Russian research report for 1991) (Spanish research report for 1991) SCS 92/ 12 (Russian research report for 1991) 14 (Portuguese research report for 1991)

#### Squid (Subarcas 3 and 4) Atlantic Ocean, Northeast (see also under names of specific areas as only the more general references are listed here) (dist. of S hake & other species, Div 4VWX, 1991) SCR 92/39 SCR 92/17 (Norwegian shrimp study in E Greenland waters, 1991) (US research report for 1991) SCS 92/ 15 20 (consistency of thermal events E Greenl./W Greenl.) (Japanese research report for 1991) (catch statistics of shrimp, Denmark Strait, 1980-91) 56 (shrimp discards, Davis Strait & Denmark Strait) Shrimp (Subareas 0 and 1) (shrimp fishery in Denmark Strait, 1991-92) 62 (shrimp fishery, Denmark Strait 1991-early 1992) SCR 92/46 (shrimp sampling investigation bias, Div 1B, 1990) (length-at-age of shrimp us depth, Davis Strait, 1988-90) (report of ICES/NAFO Group on seals, Oct 1991) SCS 92/ 10 (analysis of the catch curves for shrimp, W Greenland). 55 (shrimp strat. random trawl survey, SA 0+1, 1991) Atlantic Ocean, Northwest (see also under names of specific areas as only 56 (shrimp discards, Davis Strait & Denmark Strait) the more general references are listed here) (analysis of data for shrimp, Div OA, 1979-91) (shrimp fishery, SA 1, 1991) SCR 92/19 (climate vs cod recruitment, W Greenland) (shrimp strat. random trawl survey, SA 0+1, 1991) 21 (oceanographic conditions, SA 0+2+3, 1991) (anomalies of some hydrological features, 1990-91) 36 Shrimp (Denmark Strait) 69 (MEDS report for 1991) 72 (ocean climate on Scotian Shelf & Gulf of Maine) SCR 92/17 (Norwegian shrimp study in E Greenland waters, 1991) (overview of NAFO environmental conditions, 1991) (catch statistics of shrimp, Denmark Strait, 1980-91) 56 (shrimp discards, Davis Strait & Denmark Strait) SCS 92/ 2 (Canadian request for scientific advice for 1993) 62 (shrimp fishery in Denmark Strait, 1991-92) (Denmark-Greenland request for sci. advice 1993) (shrimp fishery, Denmark Strait 1991-early 1992) (historical catches for some stocks, 1980-90) (assessment of shrimp in Denmark Strait, 1992) (list of biological sampling data for 1990) (statistical activities & publications note, 1992) Other finfish (Subarea 1) (tagging activities reported in 1990) (Canadian research report for 1991) SCR 92/40 (decrease in fish biomass off W Greenland, Div 1B-1F) (report of ICES/NAFO Group on seals, Oct 1991) (biomass of shrimp & by-catches, W Greenland, 1991) (Russian research report for 1991) (results of two trawl surveys, SA 1, 1991) (Spanish research report for 1991) 13 (Portuguese research report for 1991) Atlantic cod (see Cod, Atlantic) 15 (US research report for 1991) 17 (German research report for 1991) Atlantic halibut (see Halibut, Atlantic) (Japanese research report for 1991) (Denmark/Greenland research report for 1991) Atlantic herring (see Herring, Atlantic) (Faroe Islands research report for 1991) Atlantic mackerel (see Mackerel, Atlantic) Atlantic redfish (see Redfish, Atlantic) Atlantic Ocean, North (see also Arctic) Atmosphere SCR 92/20 (consistency of thermal events E Greenl./W Greenl.) , SCR 92/21 (oceanographic conditions, SA 0+2+3, 1991) (oceanographic conditions, SA 0+2+3, 1991) (assessment of redfishes, SA 1, 1991) 30 42 (recommendations for species identification of redfish) (biomass of shrimp & bycatches, W Greenland, 1991) [B] 43 (biomass of redfish, W Greenland, 1988-91) 44 (biomass of G halibut, W Greenland, 1988-91) Baffin Island (Subarea 0) (catch statistics of shrimp, Denmark Strait, 1980-91) 49 (distribution & biology of rock grenadier, 1989-91) (assessment of G halibut stock, SA 0+1, 1992) SCR 92/ 9 54 (analysis of the catch curves for shrimp, W Greenland) 10 (age structure of roughhead grenadier, 1985) 56 (shrimp discards, Davis Strait & Denmark Strait) 21 (oceanographic conditions, SA 0+2+3, 1991) (analysis of data for shrimp, Div 0A, 1979-91) (trawl surveys on G halibut, Div 0B + 2GH, 1991) (shrimp fishery, SA 1, 1991) 65 (biomass of G halibut, W Greenland, 1988-91) 45 (shrimp strat. random trawl survey, SA 0+1, 1991) (assessment of G halibut stock, SA 0+1, 1992) 67 51 70 (moored current meter measurements, Davis Strait, 1987-91) 58 (analysis of data for shrimp, Div OA, 1979-91) 73 (overview of NAFO environmental conditions, 1991) 67 (shrimp strat. random trawl survey, SA 0+1, 1991) (assessment of shrimp in Denmark Strait, 1992) (research vessel surveys, Div 0B + 2GHI + 3LKM, 1991) (assessment of shrimp in Davis Strait, SA 0+1, 1992) (assessment of shrimp in Davis Strait, SA 0+1, 1992) SCS 92/ 2 (Canadian request for scientific advice for 1993) (Russian research report for 1991) 12

(Japanese research report for 1991)

SCS 92/ 19 (Denmark/Greenland research report for 1991) [C] (research vessel surveys by stock, 1992) (report of Scientific Council, 3-17 Jun 1992) CAFSAC (prov. nominal catches in the NW Atlantic, 1991) SCR 92/ 6 (overview of environmental conditions, Div 2J+3KL, 1991) Bay of Fundy 18 (assessment of the cod stock, Div 2J+3KL, 1992) SCR 92/52 (area, season fished by longline fleet, Can-SF, 1990) (report of EC experts re cod 2J3KL, 17-19 Mar, 1991) (MEDS report for 1991) 69 (analysis of temperature variability in Bay of Fundy) Canada (overview of NAFO environmental conditions, 1991) SCR 92/ 2 (capelin surveys on spawning beaches, 1987-91) Biological markers (inshore capelin fishery, Div 3L, 1991) (evaluation of management procedures for capelin, Div 3L) SCR 92/31 (isolation of cod population on Flemish Cap) (aerial surveys of capelin by CASI, 1990-91) (distribution of capelin, Div 3LNO, 1987 & 1991) Biological surveys (see Surveys, biological) (by-catches of capelin, Div 2GHJ+3KLNO, 1991) 18 (assessment of the cod stock, Div 21+3KL, 1992) Biomass (see also Abundance; Stock size) 50 (status of Scotian Shelf S hake population, 1991) (area, season fished by longline fleet, Can-SF, 1990) 52 (capelin acoustic surveys, Div 2]+3KLNO, 1991) 92/ 57 (acoustic surveys for capelin, Div 3L, 1992) (cod biomass & age outside 200 miles, Div 2J+3KL, 1977-91) (aerial surveys of capelin by CASI, 1990-91) 68 11 (cod by-catch from redfish fishery, Div 3M, 1988-81) 72 (ocean climate on Scotian Shelf & Gulf of Maine) (trawl acoustic survey of redfish, Div 3LMN, 1991) 12 74 (influence of summer salinity, cod recruitment, Div 2]+3KL) (assessment of cod by acoustic survey, SA 3, 1991) 13 (Canadian survey results, A plaice, Div 3M, 1978-85) 18 (assessment of the cod stock, Div 2J+3KL, 1992) (trawl surveys on G halibut, Div 0B + 2GH, 1991) 22 SCS 92/ 1 (report of Scientific Council, 3-6 Mar 1992) (status of S hake, Div 4VWX, 1991 & TAC for 1993) (Canadian request for scientific advice for 1993) 25 (cod stock recruitment relationship, Div 3NO, 1992) 9 (Canadian research report for 1991) 27 (results of bottom trawl survey, Flemish Cap, 1991) 30 (assessment of redfishes, SA 1, 1991) Capelin (Mallotus villosus) 40 (decrease in fish biomass off W Greenland, Div 1B-1F) (biomass of shrimp & by-catches, W Greenland, 1991) SCR 92/ 1 (capelin acoustic surveys, Div 2J+3KLNO, 1991) (biomass of redfish, W Greenland, 1988-91) 44 (capelin surveys on spawning beaches, 1987-91) (biomass of G halibut, W Greenland, 1988-91) (inshore capelin fishery, Div 3L, 1991) 48 (results of two trawl surveys, SA 1, 1991) (evaluation of management procedures for capelin, Div 3L) 51 (assessment of G halibut stock, SA 0+1, 1992) (aerial surveys of capelin by CASI, 1990-91) 55 (shrimp strat. random trawl survey, SA 0+1, 1991) (distribution of capelin, Div 3LNO, 1987 & 1991) (acoustic surveys for capelin, Div 3L, 1992) 57 (by-catches of capelin, Div 2GHJ+3KLNO, 1991) (abund. & biomass of redfish, Div 3LN, 1984-91) 14 (spring-summer relations, cod & capelin, Div 3K, 1987-90) 66 (length dist & fecundity of shrimp, Flemish Cap, 1991) (relations between cod & capelin, Div 3L, 1985-91) (shrimp strat. random trawl survey, SA 0+1, 1991) 67 57 (acoustic surveys for capelin, Div 3L, 1992) (cod biomass & age outside 200 miles, Div 2J+3KL, 1977-91) (capelin 0-group trawl survey, Div 3LNO, 1991) (Canadian survey results, A plaice, Div 3M, 1978-85) 76 (distribution & abundance of A plaice, Div 3LNO, 1991) SCS 92/ 1 (report of Scientific Council, 3-6 Mar 1992) 79 (assessment of A plaice, Div 3LNO, 1992) (assessment of shrimp in Davis Strait, SA 0+1, 1992) Catch; catch/effort SCS 92/ 16 (report of EC experts re cod 2J3KL, 17-19 Mar, 1991) (inshore capelin fishery, Div 3L, 1991) SCR 92/ 3 (distribution & biology of rock grenadier, 1989-91) Bivalves (general) (see under common names) 11 (cod by-catch from redfish fishery, Div 3M, 1988-81) 17 (Norwegian shrimp study in E Greenland waters, 1991) By-catch 18 (assessment of the cod stock, Div 2J+3KL, 1992) 23 (status of S hake, Div 4VWX, 1991 & TAC for 1993) SCR 92/11 (cod by-catch from redfish fishery, Div 3M, 1988-81) 28 (Spanish fishery of G halibut, 1990-91) (Norwegian shrimp study in E Greenland waters, 1991) 35 17 (S. hake weight growth & abundance on NS Shelf, 1977-90) 30 (assessment of redfishes, SA 1, 1991) (decrease in fish biomass off W Greenland, Div 1B-1F) 40 (biomass of shrimp & by-catches, W Greenland, 1991) 43 49 (catch statistics of shrimp, Denmark Strait, 1980-91) (biomass of G halibut, W Greenland, 1988-91) (status of Scotian Shelf S hake population, 1991) 50 (analysis of data for shrimp, Div OA, 1979-91) 51 (assessment of G halibut stock, SA 0+1, 1992) 77 (assessment of shrimp in Denmark Strait, 1992) 54 (analysis of the catch curves for shrimp, W Greenland) (assessment of G halibut, SA 2 + Div 3KLM, 1992)

(shrimp strat, random trawl survey, SA 0+1, 1991)

SUBJECT INDEX

15

CR 92/56	(shrimp discards, Davis Strait & Denmark Strait)	Commercial	fisheries
58	(analysis of data for shrimp, Div OA, 1979-91)		·
61	(assessment of yellowtail flounder, Div 3LNO, 1992)	SCR 92/11	(cod by-catch from redfish fishery, Div 3M, 1988-81)
62	(shrimp fishery in Denmark Strait, 1991-92)	17	(Norwegian shrimp study in E Greenland waters, 1991)
64	(shrimp fishery, Denmark Strait 1991-early 1992)	18	(assessment of the cod stock, Div 2J+3KL, 1992)
65	(shrimp fishery, SA 1, 1991)	22	(trawl surveys on G halibut, Div 0B + 2GH, 1991)
75	(assessment of cod, Div 3N0, 1992)	39	(dist. of S hake & other species, Div 4VWX, 1991)
77	(assessment of shrimp in Denmark Strait, 1992)	54	(analysis of the catch curves for shrimp, W Greenland)
78	(distribution & abundance of A plaice, Div 3LNO, 1991)	56	(shrimp discards, Davis Strait & Denmark Strait)
79	(assessment of A plaice, Div 3LNO, 1992)	64	(shrimp fishery, Denmark Strait 1991-early 1992)
80	(assessment of redfish, Div 3LN, 1992)	75	(assessment of cod, Div 3NO, 1992)
81	(assessment of G halibut, SA 2 + Div 3KLM, 1992)	77	(assessment of shrimp in Denmark Strait, 1992)
82	(research vessel surveys, Div 0B + 2GHJ + 3LKM, 1991)	83	(assessment of shrimp in Davis Strait, SA 0+1, 1992)
83	(assessment of shrimp in Davis Strait, SA 0+1, 1992)		(assessment of diffinity in David Ottale, Ort O. 1, 1992)
03	the second state of the second	Currents (wa	ter circulation)
SCS 92/ 5	(historical catches for some stocks, 1980-90)	Carreries (**	
10	(report of ICES/NAFO Group on seals, Oct 1991)	SCR 92/19	(climate vs cod recruitment, W Greenland)
25	(prov. nominal catches in the NW Atlantic, 1991)	20	(consistency of thermal events E Greenl./W Greenl.)
23	(prov. nominal catches in the IV w Atlantic, 1991)	31	
	/ d		(isolation of cod population on Flemish Cap)
epnalopods	(see under common names)	. 63	(consistency of hydrographic events, Labrador & W Green.)
<b>31</b> .		69	(MEDS report for 1991)
Climate		70	(moored current meter measurements, Davis Strait, 1987-91)
		73	(overview of NAFO environmental conditions, 1991)
SCR 92/16	(water temperature & salinity, G. of Maine, 1991)		, and the second se
19	(climate vs cod recruitment, W Greenland)		•
20	(consistency of thermal events E Greenl./W Greenl.)		· ·
21	(oceanographic conditions, SA 0+2+3, 1991)		[D]
36	(anomolies of some hydrological features, 1990-91)	, -	
63	(consistency of hydrographic events, Labrador & W Green.)	Davis Strait	(see Atlantic Ocean, North)
71	(analysis of temperature variability in Bay of Fundy)		
72	(ocean climate on Scotian Shelf & Gulf of Maine)	Denmark (	•
73	(overview of NAFO environmental conditions, 1991)		
	-	SCR 92/43	(biomass of shrimp & by-catches, W Greenland, 1991)
Circulation,	atmospheric (see Meteorology)	44	(biomass of redfish, W Greenland, 1988-91)
		45	(biomass of G halibut, W Greenland, 1988-91)
Cod, Arctic	(Boreogadus saida) (see also Cod, Atlantic)	46	(shrimp sampling investigation bias, Div 1B, 1990)
	· · · · · · · · · · · · · · · · · · ·	48	(results of two trawl surveys, SA 1, 1991)
Cod, Atlanti	<u>c</u> (Gadus morhua)	53	(selectivity in trawl & longline fishery, G halibut)
	<b>^</b>		
SCR 92/ 7	(distribution of capelin, Div 3LNO, 1987 & 1991)	SCS 92/ 3	(Denmark-Greenland request for sci. advice 1993)
12	(trawl acoustic survey of redfish, Div 3LMN, 1991)	19	(Denmark/Greenland research report for 1991)
13	(assessment of cod by acoustic survey, SA 3, 1991)	21	(Faroe Islands research report for 1991)
14	(spring-summer relations, cod & capelin, Div 3K, 1987-90)		
19	(climate vs cod recruitment, W Greenland)	Denmark Str	ait (see Greenland, East)
24	(selectivity of cod & flatfish in 120mm codend)		<del></del>
25	(cod stock recruitment relationship, Div 3NO, 1992)	Depth	·
27	(results of bottom trawl survey, Flemish Cap, 1991)	<del></del>	
29	(prelim. results from EEC cod tagging on Flemish Cap)	SCR 92/ 9	(distribution & biology of rock grenadier, 1989-91)
31	(isolation of cod population on Flemish Cap)	12	(trawl acoustic survey of redfish, Div 3LMN, 1991)
33	(cod migrations in Gulf of St. Lawrence & off S. Nfld)	13	(assessment of cod by acoustic survey, SA 3, 1991)
39	(dist. of S hake & other species, Div 4VWX, 1991)	20	(consistency of thermal events E Greenl./W Greenl.)
40	(decrease in fish biomass off W Greenland, Div 1B-1F)	21	(oceanographic conditions, SA 0+2+3, 1991)
	· ·	22	(trawl surveys on G halibut, Div 0B + 2GH, 1991)
43	(biomass of shrimp & by-catches, W Greenland, 1991) (area, season fished by longline fleet, Can-SF, 1990)		
52	· · · · · · · · · · · · · · · · · · ·	28	(Spanish fishery of G halibut, 1990-91)
68	(cod biomass & age outside 200 miles, Div 2]+3KL, 1977-91)	40	(decrease in fish biomass off W Greenland, Div 1B-1F)
74	(influence of summer salinity, cod recruitment, Div 2J+3KL)	. 45	(biomass of G halibur, W Greenland, 1988-91)
. 75	(assessment of cod, Div 3N0, 1992)	47	(length-at-age of shrimp us depth, Davis Strait, 1988-90)
	, , , , , , , , , , , , , , , , , , , ,	53	(selectivity in trawl & longline fishery, G halibut)
SCR 92/19	(Denmark/Greenland research report for 1991)	67	(shrimp strat. random trawl survey, SA 0+1, 1991)
20	(report of Scientific Council, 2-4 Jun, 1992)	82	(research vessel surveys, Div 0B + 2GHJ + 3LKM, 1991)
Cohort analy	rsis (see under assessments)	Discards (fiel	n discarded at sea)
	<u></u>		
	· '	SCR 92/ 3	(inshore capelin fishery, Div 3L, 1991)
		17	(Norwegian shrimp study in E Greenland waters, 1991)

SCR 92/56 (shrimp discards, Davis Strait & Denmark Strait) 58 (analysis of data for shrimp, Div OA, 1979-91) (assessment of shrimp in Denmark Strait, 1992) (assessment of shrimp in Davis Strait, SA 0+1, 1992) Distribution (see also Abundance) SCR 92/ 1 (capelin acoustic surveys, Div 2J+3KLNO, 1991) (by-catches of capelin, Div 2GHJ+3KLNO, 1991) (distribution & biology of rock grenadier, 1989-91) (trawl acoustic survey of redfish, Div 3LMN, 1991) 12 (spring-summer relations, cod & capelin, Div 3K, 1987-90) 14 (relations between cod & capelin, Div 3L, 1985-91) (assessment of the cod stock, Div 2J+3KL, 1992) 18 22 (trawl surveys on G halibut, Div 0B + 2GH, 1991) (Spanish fishery of G halibut, 1990-91) 28 32 (distribution of 0-group redfish off W Greenland, 1991) 33 (cod migrations in Gulf of St. Lawrence & off S. Nfld) (results of mackerel study on the Scotian shelf in 1990) 38 39 (dist. of S hake & other species, Div 4VWX, 1991) (biomass of redfish, W Greenland, 1988-91) 44 (biomass of G halibut, W Greenland, 1988-91) 45 (shrimp sampling investigation bias, Div 1B, 1990) 46 (results of two trawl surveys, SA 1, 1991) 48 58 (analysis of data for shrimp, Div OA, 1979-91) (shrimp fishery, Denmark Strait 1991-early 1992) (shrimp fishery, SA 1, 1991) 65 (shrimp strat. random trawl survey, SA 0+1, 1991) 67 (capelin 0-group trawl survey, Div 3LNO, 1991) (report of ICES/NAFO Group on seals, Oct 1991) SCS 92/ 10 (report of EC experts re cod 2J3KL, 17-19 Mar, 1991) Diurnal effects/patterns SCR 92/38 (results of mackerel study on the Scotian shelf in 1990) (biomass of G halibut, W Greenland, 1988-91) 45 (shrimp strat. random trawl survey, SA 0+1, 1991) (shrimp strat. random trawl survey, SA 0+1, 1991) [E] East Greenland Area (see Greenland, East) Echo-sounding (see Acoustics) Ecology (see Environment) **Eddies** SCR 92/69 (MEDS report for 1991) (overview of NAFO environmental conditions, 1991) Effort (see Catch) Eggs; Ova SCR 92/ 2 (capelin surveys on spawning beaches, 1987-91) 26 (fecundity of A plaice on S Grand Bank & Flemish Cap)

(isolation of cod population on Flemish Cap)

(sexual matur. & spawning of G. halibut, Div 3LM, 1990-91)

31

41

Environment (see also specific subject headings). SCR 92/ 6 (overview of environmental conditions, Div 2J+3KL, 1991) (assessment of the cod stock, Div 2)+3KL, 1992) 18 SCR 92/19 (climate vs cod recruitment, W Greenland) 20 (consistency of thermal events E Greenl./W Greenl.) (cod migrations in Gulf of St. Lawrence & off S. Nfld) (consistency of hydrographic events, Labrador & W Green.) (MEDS report for 1991) 69 (ocean climate on Scotian Shelf & Gulf of Maine) 72 (overview of NAFO environmental conditions, 1991) SCS 92/ 20 (report of Scientific Council, 2-4 Jun, 1992) Environmental Subcommittee (NAFO) SCS 92/23 (report of Scientific Council, 3-17 Jun 1992) Euphausiids (see under plankton and specific names) [F] Faroe Islands (see Denmark) Fecundity SCR 92/ 2 (capelin surveys on spawning beaches, 1987-91) (fecundity of A plaice on S Grand Bank & Flemish Cap) (shrimp fishery in Denmark Strait, 1991-92) Feeding, Food SCR 92/ 7 (distribution of capelin, Div 3LNO, 1987 & 1991) (spring-summer relations, cod & capelin, Div 3K, 1987-90) (relations between cod & capelin, Div 3L, 1985-91) SCS 92/ 10 (report of ICES/NAFO Group on seals, Oct 1991) Fishing effort (see catch) Fishing gear (see also specific gear) SCR 92/18 (assessment of the cod stock, Div 2J+3KL, 1992) (fishing power comparison in France-SP trawlers, 1986-91) 52 (area, season fished by longline fleet, Can-SF, 1990) (shrimp strat. random trawl survey, SA 0+1, 1991) (shrimp discards, Davis Strait & Denmark Strait) (assessment of A plaice, Div 3LNO, 1992) (assessment of G halibut, SA 2 + Div 3KLM, 1992) Flatfish (see specific names) Flemish Cap (Div. 3M) (see also Grand Bank) SCR 92/11 (cod by-catch from redfish fishery, Div 3M, 1988-81) 12 (trawl acoustic survey of redfish, Div 3LMN, 1991) (fecundity of A plaice on S Grand Bank & Flemish Cap) (results of bottom trawl survey, Flemish Cap, 1991) 27 (prelim. results from EEC cod tagging on Flemish Cap)

(isolation of cod population on Flemish Cap)

(sexual matur. & spawning of G. halibut, Div 3LM, 1990-91) (length dist & fecundity of shrimp, Flemish Cap, 1991) (Canadian survey results, A plaice, Div 3M, 1978-85)

31

# Flounder, witch (Glyptocephalus cynoglossus)

- SCR 92/24 (selectivity of cod & flatfish in 120mm codend)
  - 39 (dist. of S hake & other species, Div 4VWX, 1991)

# Flounder, yellowtail (Limanda ferruginea)

- SCR 92/24 (selectivity of cod & flatfish in 120mm codend)
  - 39 (dist. of S hake & other species, Div 4VWX, 1991)
  - 60 (nursery areas for juv. flounder, Grand Bank)
  - 61 (assessment of yellowtail flounder, Div 3LNO, 1992)

#### Food (see Feeding)

# France (St. Pierre et Miquelon)

- SCR 92/33 (cod migrations in Gulf of St. Lawrence & off S. Nfld)
  - 34 (fishing power comparison in France-SP trawlers, 1986-91)

# Fylla Bank (see also Greenland, West)

- SCR 92/19 (climate us cod recruitment, WiGreenland)
  - 20 (consistency of thermal events E Greenl./W Greenl.)

#### [G]

# Gadidae (see under specific common names)

# Gadus morhua (see Cod, Atlantic)

### Genetics

- SCR 92/31 (isolation of cod population on Flemish Cap)
- Georges Bank (Div. 5Z) (see also New England area)
- SCR 92/16 (water temperature & salinity, G. of Maine, 1991)
  - 73 (overview of NAFO environmental conditions, 1991)
- SCS 92/ 15 (US research report for 1991)

# Germany

- SCR 92/30 (assessment of redfishes, SA 1, 1991)
- SCS 92/ 17 (German research report for 1991)
- Gillnet (see also Fishing gear)
- Glyptocephalus cynoglossus (see Flounder, witch)
- Golden redfish (see Redfishes, golden)

# Grand Bank (Div. 3LNO including inshore)

- SCR 92/ 1 (capelin acoustic surveys, Div 2J+3KLNO, 1991)
  - 7 (distribution of capelin, Div 3LNO, 1987 & 1991)
  - 8 (by-catches of capelin, Div 2GHJ+3KLNO, 1991)
  - 15 (relations between cod & capelin, Div 3L, 1985-91)
  - 25 (cod stock recruitment relationship, Div 3NO, 1992)
  - 29 (prelim. results from EEC cod tagging on Flemish Cap)
  - 60 (nursery areas for juv. flounder, Grand Bank)
  - 75 (assessment of cod, Div 3N0, 1992)

- SCR 92/78 (distribution & abundance of A plaice, Div 3LNO, 1991)
  - 79 (assessment of A plaice, Div 3LNO, 1992)
  - 84 (capelin 0-group trawl survey, Div 3LNO, 1991)

# Greenland (see Denmark and specific area)

# Greenland, East (Denmark Strait)

- SCR 92/17 (Norwegian shrimp study in E Greenland waters, 1991)
  - 20 (consistency of thermal events E Greenl./W Greenl.)
  - 49 (catch statistics of shrimp, Denmark Strait, 1980-91)
  - 56 (shrimp discards, Davis Strait & Denmark Strait)
  - 62 (shrimp fishery in Denmark Strait, 1991-92)
  - 64 (shrimp fishery, Denmark Strait 1991-early 1992)
  - 77 (assessment of shrimp in Denmark Strait, 1992)
- SCS 92/ 3 (Denmark-Greenland request for sci. advice 1993)
  - 19 (Denmark/Greenland research report for 1991)
  - 21 (Faroe Islands research report for 1991)

# Greenland, West (Subarea 1)

- SCR 92/19 (climate vs cod recruitment, W Greenland)
  - 20 (consistency of thermal events E Greenl./W Greenl.)
  - 30 (assessment of redfishes, SA 1, 1991)
  - 32 (distribution of 0-group redfish off W Greenland, 1991)
  - 40 (decrease in fish biomass off W Greenland, Div 1B-1F)
  - 43 (biomass of shrimp & by-catches, W Greenland, 1991)
  - 44 (biomass of redfish, W Greenland, 1988-91)
  - 45 (biomass of G halibut, W Greenland, 1988-91)
  - 46 (shrimp sampling investigation bias, Div 1B, 1990)
  - 47 (length-at-age of shrimp us depth, Davis Strait, 1988-90)
  - 48 (results of two trawl surveys, SA 1, 1991)
  - 51 (assessment of G halibut stock, SA 0+1, 1992)
  - 53 (selectivity in trawl & longline fishery, G halibut)
  - 54 (analysis of the catch curves for shrimp, W Greenland)
  - 55 (shrimp strat. random trawl survey, SA 0+1, 1991)
  - 56 (shrimp discards, Davis Strait & Denmark Strait)
  - 63 (consistency of hydrographic events, Labrador & W Green.)
  - 83 (assessment of shrimp in Davis Strait, SA 0+1, 1992)

# Greenland halibut (see Halibut, Greenland)

# Grenadier, roughhead (Macrourus berglax)

- SCR 92/10 (age structure of roughhead grenadier, 1985)
  - 82 (research vessel surveys, Div 0B + 2GHJ + 3LKM, 1991)

# Grenadier, roundnose (Coryphaenoides rupestris)

- SCR 92/ 9 (distribution & biology of rock grenadier, 1989-91)
  - 48 (results of two trawl surveys, SA 1, 1991)
  - 82 (research vessel surveys, Div 0B + 2GHJ + 3LKM, 1991)

# Groundfish (see also common names)

- SCR 92/ 9 (distribution & biology of rock grenadier, 1989-91)
  - 22 (trawl surveys on G halibut, Div 0B + 2GH, 1991)
  - 27 (results of bottom trawl survey, Flemish Cap, 1991)
  - 40 (decrease in fish biomass off W Greenland, Div 1B-1F)
  - 48 (results of two trawl surveys, SA 1, 1991)
  - 72 (ocean climate on Scotian Shelf & Gulf of Maine)

#### Growth

- SCR 92/10 (age structure of roughhead grenadier, 1985)
  - 15 (relations between cod & capelin, Div 3L, 1985-91)
  - 37 (age determination methods for Scotian Shelf S. hake)
  - 60 (status of Scotian Shelf S hake population, 1991)

#### Gulf of Maine (Div. 5Y)

- SCR 92/16 (water temperature & salinity, G. of Maine, 1991)
  - 72 (ocean climate on Scotian Shelf & Gulf of Maine)

# Gulf of St. Lawrence (Div. 4RSTV)

SCR 92/33 (cod migrations in Gulf of St. Lawrence & off S. Nfld)

Gulf Stream (see also hydrography and oceanography)

SCR 92/16 (water temperature & salinity, G. of Maine, 1991)

#### [H]

## Haddock (Melanogrammus aeglefinus)

- SCR 92/39 (dist. of S hake & other species, Div 4VWX, 1991)
  - 52 (area, season fished by longline fleet, Can-SF, 1990)

#### Hake, red (Urophycis chuss)

SCR 92/39 (dist. of S hake & other species, Div 4VWX, 1991)

# Hake, silver (Merluccius bilinearis)

- SCR 92/23 (status of S hake, Div 4VWX, 1991 & TAC for 1993)
  - 35 (S. hake weight growth & abundance on NS Shelf, 1977-90)
  - 37 (age determination methods for Scotian Shelf S. hake)
  - 39 (dist. of S hake & other species, Div 4VWX, 1991)
  - 50 (status of Scotian Shelf S hake population, 1991)

# Hake, white (Urophycis tenuis)

- SCR 92/39 (dist. of S hake & other species, Div 4VWX, 1991)
  - 52 (area, season fished by longline fleet, Can-SF, 1990)

# Halibut, Atlantic (Hippoglossus hippoglossus)

SCR 92/52 (area, season fished by longline fleet, Can-SF; 1990)

# Halibut, Greenland (Reinhardtius hippoglossoides)

- SCR 92/22 (trawl surveys on G halibut, Div 0B + 2GH, 1991)
  - 28 (Spanish fishery of G halibut, 1990-91)
  - 39 (dist. of S hake & other species, Div 4VWX, 1991)
  - 41 (sexual matur. & spawning of G. halibut, Div 3LM; 1990-91)
  - 43 (biomass of shrimp & by-catches, W Greenland, 1991)
  - 45 (biomass of G halibut, W Greenland, 1988-91)
  - 48 (results of two trawl surveys, SA 1, 1991)
  - 51 (assessment of G halibut stock, SA 0+1, 1992)
  - 53 (selectivity in trawl & longline fishery, G halibut)
  - 81 (assessment of G halibut, SA 2 + Div 3KLM, 1992)
  - 82 (research vessel surveys, Div 0B + 2GHJ + 3LKM, 1991)

# Herring, Atlantic (Clupea harengus)

SCR 92/39 (dist. of S hake & other species, Div 4VWX, 1991)

Hippoglossus hippoglossus (see Halibut, Atlantic)

# Hydroacoustics (see Acoustics)

### Hydrography (see also specific subjects)

- SCR 92/16 (water temperature & salinity, G. of Maine, 1991)
  - 20 (consistency of thermal events E Green!./W Green!.)
  - 21 (oceanographic conditions, SA 0+2+3, 1991)
  - 32 (distribution of 0-group redfish off W Greenland, 1991)
  - 36 (anomalies of some hydrological features, 1990-91)
  - 63 (consistency of hydrographic events, Labrador & W Green.)

### [1]

# ICES (International Council for the Exploration of the Sea)

SCS 92/ 10 (report of ICES/NAFO Group on seals, Oct 1991)

# Ice; Icebergs

- SCR 92/ 6 (overview of environmental conditions, Div 2J+3KL, 1991)
  - 20 (consistency of thermal events E Greenl./W Greenl.)
  - 21 (oceanographic conditions, SA 0+2+3, 1991)
  - 73 (overview of NAFO environmental conditions, 1991)
- SCR 92/74 (influence of summer salinity, cod recruitment, Div 2J+3KL)

# Iceland area (see also Greenland, East)

- SCR 92/17 (Norwegian shrimp study in E Greenland waters, 1991)
  - 49 (catch statistics of shrimp, Denmark Strait, 1980-91)
  - 62 (shrimp fishery in Denmark Strait, 1991-92)

# Ichthyoplankton (see Plankton)

# Illex illecebrosus (see Squid, short-finned)

# Inshore (see also respective areas)

- / 1 (capelin acoustic surveys, Div 2J+3KLNO, 1991)
  - 2 (capelin surveys on spawning beaches, 1987-91)
  - 3 (inshore capelin fishery, Div 3L, 1991)
  - 4 (evaluation of management procedures for capelin, Div 3L)
  - 5 (aerial surveys of capelin by CASI, 1990-91)
  - 6 (overview of environmental conditions, Div 2J+3KL, 1991)
  - 8 (by-catches of capelin, Div 2GHJ+3KLNO, 1991)
  - 55 (shrimp strat. random trawl survey, SA 0+1, 1991)
  - 57 (acoustic surveys for capelin, Div 3L, 1992)

# Irminger Current (see also currents)

- SCR 92/20 (consistency of thermal events E Greenl./W Greenl.)
  - 63 (consistency of hydrographic events, Labrador & W Green.)
  - 73 (overview of NAFO environmental conditions, 1991)

	<b>[1]</b>	SCR 92/46	(shrimp sampling investigation bias, Div 1B, 1990)
•		47	(length-at-age of shrimp vs depth, Davis Strait, 1988-90)
]apan		48	(results of two trawl surveys, SA 1, 1991)
	•	53	(selectivity in trawl & longline fishery, G halibut)
SCR 92/48	(results of two trawl surveys, SA 1, 1991)	. 54	(analysis of the catch curves for shrimp, W Greenland)
53	(selectivity in trawl & longline fishery, G halibut)	55	(shrimp strat. random trawl survey, SA 0+1, 1991)
		61	(assessment of yellowtail flounder, Div 3LNO, 1992)
SCS 92/ 18	(Japanese research report for 1991)	62	(shrimp fishery in Denmark Strait, 1991-92)
		64	(shrimp fishery, Denmark Strait 1991-early 1992)
Juveniles		√ 66	(length dist & fecundity of shrimp, Flemish Cap, 1991)
000 001 50	(	83	(assessment of shrimp in Davis Strait, SA 0+1, 1992)
SCR 92/50	(status of Scotian Shelf S hake population, 1991)	84	(capelin 0-group trawl survey, Div 3LNO, 1991)
60	(nursery areas for juv. flounder, Grand Bank) .	1 : da farra	ginea (see Flounder, yellowrail)
		Linking jemi	ginea (see Flounder, yellowiail)
		<u>Logbooks</u>	
	(L)		
		SCR 92/49	(catch statistics of shrimp, Denmark Strait, 1980-91)
Labrador area	(Subarea 2)	58	(analysis of data for shrimp, Div OA, 1979-91)
000 004 4	/ I	64	(shrimp fishery, Denmark Strait 1991-early 1992)
SCR 92/ 1	(capelin acoustic surveys, Div 2J+3KLNO, 1991)	65	(shrimp fishery, SA 1, 1991)
6	(overview of environmental conditions, Div 2J+3KL, 1991)		
8	(by-catches of capelin, Div 2GHJ+3KLNO, 1991)	<u>Loligo pealei</u> (	see Squid, long-finned)
9 10	(distribution & biology of rock grenadier, 1989-91) (age structure of roughhead grenadier, 1985)	1 61	
18	(assessment of the cod stock, Div 2]+3KL, 1992)	Long-nined	squid (see Squid, long-finned)
21	(oceanographic conditions, SA 0+2+3, 1991)	Longline	
22	(trawl surveys on G halibut, Div 0B + 2GH, 1991)	<u> </u>	
36	(anomalies of some hydrological features, 1990-91)	SCR 92/51	(assessment of G halibut stock , SA 0+1, 1992)
63	(consistency of hydrographic events, Labrador & W Green.)	52	(area, season fished by longline fleet, Can-SF, 1990)
74	(influence of summer salinity, cod recruitment, Div 2J+3KL)	53	(selectivity in trawl & longline fishery, G halibut)
82	(research vessel surveys, Div 0B + 2GHJ + 3LKM, 1991)		•
Larvae			
			[M]
SCR 92/ 2	(capelin surveys on spawning beaches, 1987-91)		
31	(isolation of cod population on Flemish Cap)	MEDS (Mari	ne Environmental Data Service)
42	(recommendations for species identification of redfish)		4
		SCR 92/69	(MEDS report for 1991)
Laurec/Sheph	<u>erd</u>		
000 00/10		Mackerel, A	clantic (Scomber scombrus)
SCR 92/18	(assessment of the cod stock, Div 2J+3KL, 1992)		
79	(assessment of A plaice, Div 3LNO, 1992)	SCR 92/25	(cod stock recruitment relationship, Div 3NO, 1992)
000 03/ 1/	/ . CEC	38	(results of mackerel study on the Scotian shelf in 1990)
SCS 92/ 16	(report of EC experts re cod 2J3KL, 17-19 Mar, 1991)	39	(dist. of S hake & other species, Div 4VWX, 1991)
Length; Length	th composition	Macrouridae	(see Grenadier)
			, <del>-</del>
SCR 92/ 1	(analis assertis sussess Dis 21+2VI NO 1001)	2 ( 11 .11	sus (see Capelin)
9	(capelin acoustic surveys, Div 2J+3KLNO, 1991)	Mallotus villo:	ous (see Capenin)
	(distribution & biology of rock grenadier, 1989-91)	Mallotus villo	(see Capetiti)
10		Mallotus villos  Management	<del></del>
10	(distribution & biology of rock grenadier, 1989-91)		<del></del>
	(distribution & biology of rock grenadier, 1989-91) (age structure of roughhead grenadier, 1985)		<del>-</del>
12	(distribution & biology of rock grenadier, 1989-91) (age structure of roughhead grenadier, 1985) (trawl acoustic survey of redfish, Div 3LMN, 1991)	Management	(evaluation of management procedures for capelin, Div 3L
12 13 15 17	(distribution & biology of rock grenadier, 1989-91) (age structure of roughhead grenadier, 1985) (trawl acoustic survey of redfish, Div 3LMN, 1991) (assessment of cod by acoustic survey, SA 3, 1991) (relations between cod & capelin, Div 3L, 1985-91) (Norwegian shrimp study in E Greenland waters, 1991)	Management SCR 92/ 4	<del>-</del>
12 13 15 17 22	(distribution & biology of rock grenadier, 1989-91) (age structure of roughhead grenadier, 1985) (trawl acoustic survey of redfish, Div 3LMN, 1991) (assessment of cod by acoustic survey, SA 3, 1991) (relations between cod & capelin, Div 3L, 1985-91) (Norwegian shrimp study in E Greenland waters, 1991) (trawl surveys on G halibut, Div 0B + 2GH, 1991)	Management SCR 92/ 4	(evaluation of management procedures for capelin, Div 3L
12 13 15 17 22 24	(distribution & biology of rock grenadier, 1989-91) (age structure of roughhead grenadier, 1985) (trawl acoustic survey of redfish, Div 3LMN, 1991) (assessment of cod by acoustic survey, SA 3, 1991) (relations between cod & capelin, Div 3L, 1985-91) (Norwegian shrimp study in E Greenland waters, 1991) (trawl surveys on G halibut, Div 0B + 2GH, 1991) (selectivity of cod & flatfish in 120mm codend)	Management SCR 92/ 4	(evaluation of management procedures for capelin, Div 3L (cod biomass & age outside 200 miles, Div 2J+3KL, 1977-91
12 13 15 17 22 24 28	(distribution & biology of rock grenadier, 1989-91) (age structure of roughhead grenadier, 1985) (trawl acoustic survey of redfish, Div 3LMN, 1991) (assessment of cod by acoustic survey, SA 3, 1991) (relations between cod & capelin, Div 3L, 1985-91) (Norwegian shrimp study in E Greenland waters, 1991) (trawl surveys on G halibut, Div 0B + 2GH, 1991) (selectivity of cod & flatfish in 120mm codend) (Spanish fishery of G halibut, 1990-91)	Management SCR 92/ 4 68 SCS 92/ 1	(evaluation of management procedures for capelin, Div 3L (cod biomass & age outside 200 miles, Div 2]+3KL, 1977-91 (report of Scientific Council, 3-6 Mar 1992) (Canadian request for scientific advice for 1993) (Denmark-Greenland request for sci. advice 1993)
12 13 15 17 22 24 28 29	(distribution & biology of rock grenadier, 1989-91) (age structure of roughhead grenadier, 1985) (trawl acoustic survey of redfish, Div 3LMN, 1991) (assessment of cod by acoustic survey, SA 3, 1991) (relations between cod & capelin, Div 3L, 1985-91) (Norwegian shrimp study in E Greenland waters, 1991) (trawl surveys on G halibut, Div 0B + 2GH, 1991) (selectivity of cod & flatfish in 120mm codend) (Spanish fishery of G halibut, 1990-91) (prelim. results from EEC cod tagging on Flemish Cap)	Management SCR 92/ 4 68 SCS 92/ 1 2 3 16	(evaluation of management procedures for capelin, Div 3L (cod biomass & age outside 200 miles, Div 2J+3KL, 1977-91 (report of Scientific Council, 3-6 Mar 1992) (Canadian request for scientific advice for 1993) (Denmark-Greenland request for sci. advice 1993) (report of EC experts re cod 2J3KL, 17-19 Mar, 1991)
12 13 15 17 22 24 28 29 30	(distribution & biology of rock grenadier, 1989-91) (age structure of roughhead grenadier, 1985) (trawl acoustic survey of redfish, Div 3LMN, 1991) (assessment of cod by acoustic survey, SA 3, 1991) (relations between cod & capelin, Div 3L, 1985-91) (Norwegian shrimp study in E Greenland waters, 1991) (trawl surveys on G halibut, Div 0B + 2GH, 1991) (selectivity of cod & flatfish in 120mm codend) (Spanish fishery of G halibut, 1990-91) (prelim. results from EEC cod tagging on Flemish Cap) (assessment of redfishes, SA 1, 1991)	Management SCR 92/ 4 68 SCS 92/ 1 2 3 16 20	(evaluation of management procedures for capelin, Div 3L (cod biomass & age outside 200 miles, Div 2]+3KL, 1977-91 (report of Scientific Council, 3-6 Mar 1992) (Canadian request for scientific advice for 1993) (Denmark-Greenland request for sci. advice 1993) (report of EC experts re cod 2]3KL, 17-19 Mar, 1991) (report of Scientific Council, 2-4 Jun, 1992)
12 13 15 17 22 24 28 29 30 37	(distribution & biology of rock grenadier, 1989-91) (age structure of roughhead grenadier, 1985) (trawl acoustic survey of redfish, Div 3LMN, 1991) (assessment of cod by acoustic survey, SA 3, 1991) (relations between cod & capelin, Div 3L, 1985-91) (Norwegian shrimp study in E Greenland waters, 1991) (trawl surveys on G halibut, Div 0B + 2GH, 1991) (selectivity of cod & flatfish in 120mm codend) (Spanish fishery of G halibut, 1990-91) (prelim. results from EEC cod tagging on Flemish Cap) (assessment of redfishes, SA 1, 1991) (age determination methods for Scotian Shelf S. hake)	Management SCR 92/ 4 68 SCS 92/ 1 2 3 16	(evaluation of management procedures for capelin, Div 3L (cod biomass & age outside 200 miles, Div 2J+3KL, 1977-91 (report of Scientific Council, 3-6 Mar 1992) (Canadian request for scientific advice for 1993) (Denmark-Greenland request for sci. advice 1993) (report of EC experts re cod 2J3KL, 17-19 Mar, 1991)
12 13 15 17 22 24 28 29 30 37 38	(distribution & biology of rock grenadier, 1989-91) (age structure of roughhead grenadier, 1985) (trawl acoustic survey of redfish, Div 3LMN, 1991) (assessment of cod by acoustic survey, SA 3, 1991) (relations between cod & capelin, Div 3L, 1985-91) (Norwegian shrimp study in E Greenland waters, 1991) (trawl surveys on G halibut, Div 0B + 2GH, 1991) (selectivity of cod & flatfish in 120mm codend) (Spanish fishery of G halibut, 1990-91) (prelim. results from EEC cod tagging on Flemish Cap) (assessment of redfishes, SA 1, 1991) (age determination methods for Scotian Shelf S. hake) (results of mackerel study on the Scotian shelf in 1990)	Management SCR 92/ 4 68 SCS 92/ 1 2 3 16 20 23	(evaluation of management procedures for capelin, Div 3L (cod biomass & age outside 200 miles, Div 2J+3KL, 1977-91 (report of Scientific Council, 3-6 Mar 1992) (Canadian request for scientific advice for 1993) (Denmark-Greenland request for sci. advice 1993) (report of EC experts re cod 2J3KL, 17-19 Mar, 1991) (report of Scientific Council, 2-4 Jun, 1992) (report of Scientific Council, 3-17 Jun 1992)
12 13 15 17 22 24 28 29 30 37 38 41	(distribution & biology of rock grenadier, 1989-91) (age structure of roughhead grenadier, 1985) (trawl acoustic survey of redfish, Div 3LMN, 1991) (assessment of cod by acoustic survey, SA 3, 1991) (relations between cod & capelin, Div 3L, 1985-91) (Norwegian shrimp study in E Greenland waters, 1991) (trawl surveys on G halibut, Div 0B + 2GH, 1991) (selectivity of cod & flatfish in 120mm codend) (Spanish fishery of G halibut, 1990-91) (prelim. results from EEC cod tagging on Flemish Cap) (assessment of redfishes, SA 1, 1991) (age determination methods for Scotian Shelf S. hake) (results of mackerel study on the Scotian shelf in 1990) (sexual matur. & spawning of G. halibut, Div 3LM, 1990-91)	Management SCR 92/ 4 68 SCS 92/ 1 2 3 16 20 23	(evaluation of management procedures for capelin, Div 3L (cod biomass & age outside 200 miles, Div 2]+3KL, 1977-91 (report of Scientific Council, 3-6 Mar 1992) (Canadian request for scientific advice for 1993) (Denmark-Greenland request for sci. advice 1993) (report of EC experts re cod 2]3KL, 17-19 Mar, 1991) (report of Scientific Council, 2-4 Jun, 1992)
12 13 15 17 22 24 28 29 30 37 38	(distribution & biology of rock grenadier, 1989-91) (age structure of roughhead grenadier, 1985) (trawl acoustic survey of redfish, Div 3LMN, 1991) (assessment of cod by acoustic survey, SA 3, 1991) (relations between cod & capelin, Div 3L, 1985-91) (Norwegian shrimp study in E Greenland waters, 1991) (trawl surveys on G halibut, Div 0B + 2GH, 1991) (selectivity of cod & flatfish in 120mm codend) (Spanish fishery of G halibut, 1990-91) (prelim. results from EEC cod tagging on Flemish Cap) (assessment of redfishes, SA 1, 1991) (age determination methods for Scotian Shelf S. hake) (results of mackerel study on the Scotian shelf in 1990)	Management SCR 92/ 4 68 SCS 92/ 1 2 3 16 20 23	(evaluation of management procedures for capelin, Div 3L (cod biomass & age outside 200 miles, Div 2J+3KL, 1977-91 (report of Scientific Council, 3-6 Mar 1992) (Canadian request for scientific advice for 1993) (Denmark-Greenland request for sci. advice 1993) (report of EC experts re cod 2J3KL, 17-19 Mar, 1991) (report of Scientific Council, 2-4 Jun, 1992) (report of Scientific Council, 3-17 Jun 1992)

#### Maturation; Maturity

- SCR 92/22 (trawl surveys on G halibut, Div 0B + 2GH, 1991)
  - 28 (Spanish fishery of G halibut, 1990-91)
  - 29 (prelim, results from EEC cod tagging on Flemish Cap)
  - 41 (sexual matur. & spawning of G. halibut, Div 3LM, 1990-91)

# Merluccius bilinearis (see Hake, silver)

#### Mesh size

- SCR 92/ 7 (distribution of capelin, Div 3LNO, 1987 & 1991)
  - 8 (by-catches of capelin, Div 2GHJ+3KLNO, 1991)
  - 24 (selectivity of cod & flatfish in 120mm codend)
  - 60 (nursery areas for juv. flounder, Grand Bank)

# Meteorology

- SCR 92/ 6 (overview of environmental conditions, Div 2J+3KL, 1991)
  - 20 (consistency of thermal events E Greenl./W Greenl.)
  - 21 (oceanographic conditions, SA 0+2+3, 1991)
  - 63 (consistency of hydrographic events, Labrador & W Green.)
  - 72 (ocean climate on Scotian Shelf & Gulf of Maine)
  - 73 (overview of NAFO environmental conditions, 1991)

# Migration (see also Tagging)

- SCR 92/15 (relations between cod & capelin, Div 3L, 1985-91)
  - 31 (isolation of cod population on Flemish Cap)
  - 33 (cod migrations in Gulf of St. Lawrence & off S. Nfld)

SCS 92/ 10 (report of ICES/NAFO Group on seals, Oct 1991)

### Molluscs (general) (see under common names)

# Morphology

SCR 92/42 (recommendations for species identification of redfish)

#### Mortality

- SCR 92/ 4 (evaluation of management procedures for capelin, Div 3L)
  - 7 (distribution of capelin, Div 3LNO, 1987 & 1991)
  - 14 (spring-summer relations, cod & capelin, Div 3K, 1987-90)
  - 15 (relations between cod & capelin, Div 3L, 1985-91)
  - 24 (selectivity of cod & flatfish in 120mm codend)
  - 25 (cod stock recruitment relationship, Div 3NO, 1992)
  - 31 (isolation of cod population on Flemish Cap)
  - 48 (results of two trawl surveys, SA 1, 1991)
  - 56 (shrimp discards, Davis Strait & Denmark Strait)
  - 77 (assessment of shrimp in Denmark Strait, 1992)
  - 83 (assessment of shrimp in Davis Strait, SA 0+1, 1992)

# Multiplicative model (see under assessments)

# [N]

### Nematodes

SCR 92/31 (isolation of cod population on Flemish Cap)

New England area (Subareas 5 and 6) (pertains generally to southern New England, see Georges Bank and Gulf of Maine for other parts of the area)

- SCR 92/16 (water temperature & salinity, G. of Maine, 1991)
  - 72 (ocean climate on Scotian Shelf & Gulf of Maine)

# Newfoundland area (Subarea 3, see also inshore)

- SCR 92/ 6 (overview of environmental conditions, Div 2J+3KL, 1991)
  - 8 (by-catches of capelin, Div 2GHJ+3KLNO, 1991)
  - 74 (influence of summer salinity, cod recruitment, Div 2J+3KL)

# Northeast Atlantic (see Atlantic Ocean, Northeast)

Northern shrimp (see Shrimp, northern)

Northwest Atlantic (see Atlantic Ocean, Northwest)

#### Norway

SCR 92/17 (Norwegian shrimp study in E Greenland waters, 1991)

# Nursery

- SCR 92/43 (biomass of shrimp & by-catches, W Greenland, 1991)
  - 44 (biomass of redfish, W Greenland, 1988-91)
  - 45 (biomass of G halibut, W Greenland, 1988-91)
  - 60 (nursery areas for juv. flounder, Grand Bank)
  - 78 (distribution & abundance of A plaice, Div 3LNO, 1991)

#### [0]

# Oceanography (see also specific subjects)

- SCR 92/ 6 (overview of environmental conditions, Div 2J+3KL, 1991)
  - 21 (oceanographic conditions, SA 0+2+3, 1991)
  - 26 (fecundity of A plaice on S Grand Bank & Flemish Cap)
  - 72 (ocean climate on Scotian Shelf & Gulf of Maine)
  - 73 (overview of NAFO environmental conditions, 1991)

# **Otoliths**

- SCR 92/37 (age determination methods for Scotian Shelf S. hake)
  - 39 (dist. of S hake & other species, Div 4VWX, 1991)

Otter trawls (see Trawls)

Ova; Ovaries (see Eggs)

# [P]

Pandalus sp. (see Shrimp)

Pandalus borealis (see Shrimp)

Pandalus montaqui (see Shrimp)

# Photography (see Remote-sensing)

#### Phytoplankton (see Plankton)

# Plaice, American (Hippoglossoides platessoides)

- SCR 92/24 -(selectivity of cod & flatfish in 120mm codend)
  - 25 (cod stock recruitment relationship, Div 3NO, 1992)
  - (fecundity of A plaice on S Grand Bank & Flemish Cap)
  - (results of bottom trawl survey, Flemish Cap, 1991) 27
  - (decrease in fish biomass off W Greenland, Div 1B-1F) 40
  - (nursery areas for juv. flounder, Grand Bank) 60
  - (Canadian survey results, A plaice, Div 3M, 1978-85) 76
  - (distribution & abundance of A plaice, Div 3LNO, 1991)
    - (assessment of A plaice, Div 3LNO, 1992)

#### Plankton

SCR 92/14 (spring-summer relations, cod & capelin, Div 3K, 1987-90)

# Pollachius virens (see Pollock)

# Pollock (saithe, Pollachius virens)

SCR 93/39 (dist. of S hake & other species, Div 4VWX, 1991)

# Portugal

SCS 92/ 14 (Portuguese research report for 1991)

# Predation (see also Feeding)

- SCR 92/ 7 (distribution of capelin, Div 3LNO, 1987 & 1991)
  - (spring-summer relations, cod & capelin, Div 3K, 1987-90)
  - (relations between cod & capelin, Div 3L, 1985-91)

# Pressure (atmospheric)

- SCR 92/ 6 (overview of environmental conditions, Div 2J+3KL, 1991)
  - (consistency of thermal events E Greenl./W Greenl.) 20
  - (oceanographic conditions, SA 0+2+3, 1991) 21
  - (consistency of hydrographic events, Labrador & W Green.)
  - (analysis of temperature variability in Bay of Fundy) 71
  - (ocean climate on Scotian Shelf & Gulf of Maine)
  - (overview of NAFO environmental conditions, 1991)

#### **Publications**

- (provisional index for 1991 SCR and SCS documents) SCS 92/ 4
  - (statistical activities & publications note, 1992)
  - (report to CWP on NAFO statistical activities)

#### [R]

### Recruitment

- SCR 92/ 1 (capelin acoustic surveys, Div 2J+3KLNO, 1991)
  - (cod stock recruitment relationship, Div 3NO, 1992) 25
  - 32 (distribution of 0-group redfish off W Greenland, 1991)
  - (shrimp fishery, SA 1, 1991) 65
  - 67 (shrimp strat, random trawl survey, SA 0+1, 1991)
  - (influence of summer salinity, cod recruitment, Div 2J+3KL)
  - (assessment of cod, Div 3N0, 1992) 75

- SCR 92/79 (assessment of A plaice, Div 3LNO, 1992)
- SCS 92/ 16 (report of EC experts re cod 2J3KL, 17-19 Mar, 1991)

# Redfishes, Atlantic (Sebastes sp.)

- SCR 92/11 (cod by-catch from redfish fishery, Div 3M, 1988-81)
  - 12 (trawl acoustic survey of redfish, Div 3LMN, 1991)
  - 27 (results of bottom trawl survey, Flemish Cap, 1991)
  - 32 (distribution of 0-group redfish off W Greenland, 1991)
  - 39 (dist. of S hake & other species, Div 4VWX, 1991)
  - (decrease in fish biomass off W Greenland, Div 1B-1F) 40
  - 42
  - (recommendations for species identification of redfish)
  - (biomass of shrimp & by-catches, W Greenland, 1991) 44 (biomass of redfish, W Greenland, 1988-91)
  - (results of two trawl surveys, SA 1, 1991)
  - 59 (abund. & biomass of redfish, Div 3LN, 1984-91)
  - (assessment of redfish, Div 3LN, 1992)
  - (research vessel surveys, Div 0B + 2GH] + 3LKM, 1991)

#### Redfish, beaked (Sebastes fasciatus, S. mentella)

- SCR 92/30 (assessment of redfishes, SA 1, 1991)
  - 42 (recommendations for species identification of redfish)

# Redfish, golden (Sebastes marinus)

- SCR 92/30 (assessment of redfishes, SA 1, 1991)
  - 42 (recommendations for species identification of redfish)

# Reinhardius hippoglossoides (see Halibut, Greenland)

### Remote-sensing

- SCR 92/ 5 (aerial surveys of capelin by CASI, 1990-91)
  - (analysis of temperature variability in Bay of Fundy)
  - (overview of NAFO environmental conditions, 1991)

# Reproduction (see also Eggs, Maturity, Spawning)

SCR 92/41 (sexual matur. & spawning of G. halibut, Div 3LM, 1990-91)

# Research reports (national)

- SCS 92/ 9 (Canadian research report for 1991)
  - 12 (Russian research report for 1991)
  - (Spanish research report for 1991) 13
  - (Portuguese research report for 1991) 14
  - 15 (US research report for 1991)
  - 17 (German research report for 1991)
  - (Japanese research report for 1991) 18
  - 19 (Denmark/Greenland research report for 1991)
  - 21 (Faroe Islands research report for 1991)

# Roughhead grenadier (see Grenadier, roughhead)

# Roundnose grenadier (see Grenadier, roundnose)

# Russia (see Russian Federation)

#### Russian Federation

- SCR 92/ 1 (capelin acoustic surveys, Div 2J+3KLNO, 1991)
  - 37 (age determination methods for Scotian Shelf S. hake)
  - 38 (results of mackerel study on the Scotian shelf in 1990)

SCR 92/39 (dist. of S hake & other species, Div 4VWX, 1991) (abund. & biomass of redfish, Div 3LN, 1984-91) (capelin 0-group trawl survey, Div 3LNO, 1991) SCS 92/ 12 (Russian research report for 1991) [S] STACFIS (Standing Committee on Fishery Science) (report of Scientific Council, 3-6 Mar 1992) SCS 92/ 1 (report of Scientific Council, 2-4 Jun, 1992) 20 23 (report of Scientific Council, 3-17 Jun 1992) 24 (report of Scientific Council, 14-18 Sep 1992) STACPUB (Standing Committee on Publications) SCS 92/ 1 (report of Scientific Council, 3-6 Mar 1992) 23 (report of Scientific Council, 3-17 Jun 1992) 24 (report of Scientific Council, 14-18 Sep 1992). STACREC (Standing Committee on Research Coordination) (research vessel surveys by stock, 1992) (report of Scientific Council, 3-17 Jun 1992) (report of Scientific Council, 14-18 Sep 1992) Saithe (see Pollock) Salinity (water temperature & salinity, G. of Maine, 1991) SCR 92/16 (oceanographic conditions, SA 0+2+3, 1991) 21 (moored current meter measurements, Davis Strait, 1987-91) 72 (ocean climate on Scotian Shelf & Gulf of Maine) (overview of NAFO environmental conditions, 1991) 73 (influence of summer salinity, cod recruitment, Div 2J+3KL) Sampling, biological SCR 92/18 (assessment of the cod stock, Div 2J+3KL, 1992) (biomass of shrimp & by-catches, W Greenland, 1991) (shrimp sampling investigation bias, Div 1B, 1990) 46 (status of Scotian Shelf S hake population, 1991) (analysis of the catch curves for shrimp, W Greenland) 54 57 (acoustic surveys for capelin, Div 3L, 1992) 62 (shrimp fishery in Denmark Strait, 1991-92) (shrimp fishery, Denmark Strait 1991-early 1992) 64 (shrimp fishery, SA 1, 1991) (shrimp strat. random trawl survey, SA 0+1, 1991) 67 69 (MEDS report for 1991) (assessment of redfish, Div 3LN, 1992) 80 (assessment of G halibut, SA 2 + Div 3KLM, 1992) (list of biological sampling data for 1990) SCS 92/ 6 Satellite imagery (see also Remote-sensing) SCR 92/71 (analysis of temperature variability in Bay of Fundy) (overview of NAFO environmental conditions, 1991)

Scallop, sea (Placopecten magellanicus)

# Scientific Council SCS 92/ 1 (report of Scientific Council, 3-6 Mar 1992) (report of Scientific Council, 2-4 Jun, 1992) (report of Scientific Council, 3-17 Jun 1992) (report of Scientific Council, 14-18 Sep 1992) Scotian Shelf (Div. 4VWX) SCR 92/35 (S. hake weight growth & abundance on NS Shelf, 1977-90) 36 (anomalies of some hydrological features, 1990-91) 37 (age determination methods for Scotian Shelf S. hake) (results of mackerel study on the Scotian shelf in 1990) (dist. of S hake & other species, Div 4VWX, 1991) (status of Scotian Shelf S hake population, 1991) Seals SCS 92/ 10 (report of ICES/NAFO Group on seals, Oct 1991) Sebastes sp. (see under Redfishes, Atlantic) Sequential population analysis (SPA) (see under assessments) Short-finned squid (see Squid, short-finned) Shrimp (Pandalus sp.) SCR 92/17 (Norwegian shrimp study in E Greenland waters, 1991) (biomass of shrimp & by-catches, W Greenland, 1991) (shrimp sampling investigation bias, Div 1B, 1990) 46 47 (length-at-age of shrimp us depth, Davis Strait, 1988-90) (catch statistics of shrimp, Denmark Strait, 1980-91) 49 (analysis of the catch curves for shrimp, W Greenland) 55 (shrimp strat. random trawl survey, SA 0+1, 1991) 56 (shrimp discards, Davis Strait & Denmark Strait) (analysis of data for shrimp, Div 0A, 1979-91) 58 62 (shrimp fishery in Denmark Strait, 1991-92) (shrimp fishery, Denmark Strait 1991-early 1992) 64 (shrimp fishery, SA 1, 1991) (length dist & fecundity of shrimp, Flemish Cap, 1991) 66 (shrimp strat. random trawl survey, SA 0+1, 1991) 77 (assessment of shrimp in Denmark Strait, 1992) (distribution & abundance of A plaice, Div 3LNO, 1991) (assessment of shrimp in Davis Strait, SA 0+1, 1992) Silver hake (see Hake, silver) Skates | SCR 92/40 (decrease in fish biomass off W Greenland, Div 1B-1F) Spain. SCR 92/28 (Spanish fishery of G halibut, 1990-91) (sexual matur. & spawning of G. halibut, Div 3LM, 1990-91) SCS 92/ 13 (Spanish research report for 1991) Spawning (see also Eggs, Maturation, Reproduction) SCR 92/ 2 (capelin surveys on spawning beaches, 1987-91)

(isolation of cod population on Flemish Cap)

(sexual matur. & spawning of G. halibut, Div 3LM, 1990-91)

# Squid (species)

SCR 92/39 (dist. of S hake & other species, Div 4VWX, 1991)

# Squid, long-finned (Loligo pealei)

SCS 92/ 15 (US research report for 1991)

# Squid, short-finned (Illex illecebrosus)

SCR 92/39 (dist. of S hake & other species, Div 4VWX, 1991)

60 (nursery areas for juv. flounder, Grand Bank)

#### Statistics

SCR 92/12 (trawl acoustic survey of redfish, Div 3LMN, 1991)

- 49 (catch statistics of shrimp, Denmark Strait, 1980-91)
- 58 (analysis of data for shrimp, Div 0A, 1979-91)
- 69 (MEDS report for 1991)
- 73 (overview of NAFO environmental conditions, 1991)
- 75 (assessment of cod, Div 3N0, 1992)
- SCS 92/ 5 (historical catches for some stocks, 1980-90)
  - 7 (statistical activities & publications note, 1992)
  - 11 (report to CWP on NAFO statistical activities)
  - 25 (prov. nominal catches in the NW Atlantic, 1991)

# Stock, discrimination (see also Distribution)

SCR 92/ 4 (evaluation of management procedures for capelin, Div 3L)

- 5 (aerial surveys of capelin by CASI, 1990-91)
- 10 (age structure of roughhead grenadier, 1985)
- 29 (prelim. results from EEC cod tagging on Flemish Cap)
- 31 (isolation of cod population on Flemish Cap)
- 42 (recommendations for species identification of redfish)
- 51 (assessment of G halibut stock, SA 0+1, 1992)
- 66 (length dist & fecundity of shrimp, Flemish Cap, 1991)

# Stock, stock size (see also Abundance; Assessment)

- SCR 92/ 1 (capelin acoustic surveys, Div 2J+3KLNO, 1991)
  - 12 (trawl acoustic survey of redfish, Div 3LMN, 1991)
  - 18 (assessment of the cod stock, Div 2J+3KL, 1992)
  - 22 (trawl surveys on G halibut, Div 0B + 2GH, 1991)
  - 25 (cod stock recruitment relationship, Div 3NO, 1992)
  - 27 (results of bottom trawl survey, Flemish Cap, 1991)
  - 35 (S. hake weight growth & abundance on NS Shelf, 1977-90)
  - 48 (results of two trawl surveys, SA 1, 1991)
  - 55 (shrimp strat. random trawl survey, SA 0+1, 1991)
  - 68 (cod biomass & age outside 200 miles, Div 2J+3KL, 1977-91)
  - 75 (assessment of cod, Div 3N0, 1992)

SCS 92/ 10 (report of ICES/NAFO Group on seals, Oct 1991)

# Subcommittee, reports

SCS 92/23 (report of Scientific Council, 3-17 Jun 1992)

# Surveillance

SCR 92/18 (assessment of the cod stock, Div 2J+3KL, 1992)

# Surveys, biological

SCR 92/ 1 (capelin acoustic surveys, Div 2J+3KLNO, 1991)

- SCR 92/ 2 (capelin surveys on spawning beaches, 1987-91)
  - 4 (evaluation of management procedures for capelin, Div 3L)
  - 5 (aerial surveys of capelin by CASI, 1990-91)
  - 7 (distribution of capelin, Div 3LNO, 1987 & 1991)
  - 8 (by-catches of capelin, Div 2GHJ+3KLNO, 1991)
  - 9 (distribution & biology of rock grenadier, 1989-91)
  - 11 (cod by-catch from redfish fishery, Div 3M, 1988-81)
  - 12 (trawl acoustic survey of redfish, Div 3LMN, 1991)
  - 13 (assessment of cod by acoustic survey, SA 3, 1991)
  - 17 (Norwegian shrimp study in E Greenland waters, 1991)
  - 18 (assessment of the cod stock, Div 2J+3KL, 1992)
  - 21 (oceanographic conditions, SA 0+2+3, 1991)
  - 22 (trawl surveys on G halibut, Div 0B + 2GH, 1991)
  - 27 (results of bottom trawl survey, Flemish Cap, 1991)
  - 30 (assessment of redfishes, SA 1, 1991)
  - 38 (results of mackerel study on the Scotian shelf in 1990)
  - 40 (decrease in fish biomass off W Greenland, Div 1B-1F)
  - 43 (biomass of shrimp & by-catches, W Greenland, 1991)
  - 44 (biomass of redfish, W Greenland, 1988-91)
  - 45 (biomass of G halibut, W Greenland, 1988-91)
  - 48 (results of two trawl surveys, SA 1, 1991)
  - 50 (status of Scotian Shelf S hake population, 1991)
  - 51 (assessment of G halibut stock, SA 0+1, 1992)
  - 53 (selectivity in trawl & longline fishery, G halibut)
  - 55 (shrimp strat. random trawl survey, SA 0+1, 1991)
  - 57 (acoustic surveys for capelin, Div 3L, 1992)
  - 59 (abund. & biomass of redfish, Div 3LN, 1984-91)
  - 61 (assessment of yellowtail flounder, Div 3LNO, 1992)
  - 66 (length dist & fecundity of shrimp, Flemish Cap, 1991)
  - 67 (shrimp strat. random trawl survey, SA 0+1, 1991)
  - 68 (cod biomass & age outside 200 miles, Div 2J+3KL, 1977-91)
  - 69 (MEDS report for 1991)
  - 75 (assessment of cod, Div 3N0, 1992)
  - 76 (Canadian survey results, A plaice, Div 3M, 1978-85)
  - 77 (assessment of shrimp in Denmark Strait, 1992)
  - 78 (distribution & abundance of A plaice, Div 3LNO, 1991)
  - 79 (assessment of A plaice, Div 3LNO, 1992)
  - 80 (assessment of redfish, Div 3LN, 1992)
  - 81 (assessment of G halibut, SA 2 + Div 3KLM, 1992)
  - 82 (research vessel surveys, Div 0B + 2GHJ + 3LKM, 1991)
  - 84 (capelin 0-group trawl survey, Div 3LNO, 1991)

SCS 92/22 (research vessel surveys by stock, 1992)

# Symposia

SCS 92/24 (report of Scientific Council, 14-18 Sep 1992)

[T]

# TAC (Total allowable catch)

- SCR 92/ 4 (evaluation of management procedures for capelin, Div 3L)
  - 18 (assessment of the cod stock, Div 2J+3KL, 1992)
  - 61 (assessment of yellowtail flounder, Div 3LNO, 1992)
  - 77 (assessment of shrimp in Denmark Strait, 1992)
  - 79 (assessment of A plaice, Div 3LNO, 1992)
  - 81 (assessment of G halibut, SA 2 + Div 3KLM, 1992)
  - 83 (assessment of shrimp in Davis Strait, SA 0+1, 1992)

Tagging (methods, recaptures, returns, etc.)

SCR 92/29 (prelim. results from EEC cod tagging on Flemish Cap)

24 (isolation of cod population on Flemish Cap) SCR 92 31 (cod migrations in Gulf of St. Lawrence & off S. Nfld) 33 SCS 92/ 8 (tagging activities reported in 1990) Temperature SCR 92/ 6 (overview of environmental conditions, Div 2J+3KL, 1991) (water temperature & salinity, G. of Maine, 1991) 16 (climate vs cod recruitment, W Greenland) 19 (consistency of thermal events E Greenl./W Greenl.) 20 (oceanographic conditions, SA 0+2+3, 1991)

36 (anomalies of some hydrological features, 1990-91) (decrease in fish biomass off W Greenland, Div 1B-1F) 40

(consistency of hydrographic events, Labrador & W Green.)

69 (MEDS report for 1991)

(moored current meter measurements, Davis Strait, 1987-91)

(analysis of temperature variability in Bay of Fundy) 71 72 (ocean climate on Scotian Shelf & Gulf of Maine)

(overview of NAFO environmental conditions, 1991)

(assessment of A plaice, Div 3LNO, 1992)

# Trawl (see also fishing gear)

(by-catches of capelin, Div 2GHJ+3KLNO, 1991) SCR 92/ 8

(cod by-catch from redfish fishery, Div 3M, 1988-81) 11

(selectivity of cod & flatfish in 120mm codend) 24

27 (results of bottom trawl survey, Flemish Cap, 1991)

(Spanish fishery of G halibut, 1990-91)

(distribution of 0-group redfish off W Greenland, 1991)

(fishing power comparison in France-SP trawlers, 1986-91)

(sexual matur. & spawning of G. halibut, Div 3LM, 1990-91) 41

(biomass of redfish, W Greenland, 1988-91) 44

(biomass of G halibut, W Greenland, 1988-91) 45

53 (selectivity in trawl & longline fishery, G halibut)

(shrimp strat. random trawl survey, SA 0+1, 1991)

[U]

USA (see United States of America)

# United States of America (USA)

SCR 92/16 (water temperature & salinity, G. of Maine, 1991) 72 (ocean climate on Scotian Shelf & Gulf of Maine)

SCS 92/ 15 (US research report for 1991)

[V]

VPA (see under assessments)

# Von Bertalanffy

SCR 92/35 (S. hake weight growth & abundance on NS Shelf, 1977-90)

Warm-core rings (see Eddies)

Water circulation (see Currents)

#### Waves

SCR 92/69 (MEDS report for 1991)

(overview of NAFO environmental conditions, 1991)

# Weight (see also Catch)

SCR 92/ 9 (distribution & biology of rock grenadier, 1989-91)

10 (age structure of roughhead grenadier, 1985)

15 (relations between cod & capelin, Div 3L, 1985-91)

(assessment of the cod stock, Div 2J+3KL, 1992)

(status of S hake, Div 4VWX, 1991 & TAC for 1993) 23

26 (fecundity of A plaice on S Grand Bank & Flemish Cap)

29 (prelim. results from EEC cod tagging on Flemish Cap)

35 (S. hake weight growth & abundance on NS Shelf, 1977-90)

(shrimp discards, Davis Strait & Denmark Strait)

61 (assessment of yellowtail flounder, Div 3LNO, 1992)

66 (length dist & fecundity of shrimp, Flemish Cap, 1991)

75 (assessment of cod, Div 3NO, 1992)

76 (Canadian survey results, A plaice, Div 3M, 1978-85)

78 (distribution & abundance of A plaice, Div 3LNO, 1991)

(assessment of A plaice, Div 3LNO, 1992) 79 80 (assessment of redfish, Div 3LN, 1992)

81 (assessment of G halibut, SA 2 + Div 3KLM, 1992)

(research vessel surveys, Div 0B + 2GHJ + 3LKM, 1991)

# West Greenland (see Greenland, West)

# Winds

SCR 92/69 (MEDS report for 1991)

(overview of NAFO environmental conditions, 1991)

Witch flounder (see Flounder, witch)

Wolffishes (Anarhichas sp.)

SCR 92/40 (decrease in fish biomass off W Greenland, Div 1B-1F)

[Y]

Yellowtail flounder (see Flounder, yellowtail)

# Yield; Yield-per-recruit

SCR 92/ 23 (status of S hake, Div 4VWX, 1991 & TAC for 1993)

(status of Scotian Shelf S hake population, 1991)

75 (assessment of cod, Div 3N0, 1992)

[Z]

Zooplankton (see Plankton)

[A]

# ALBIKOVSKAYA, L. K. (Russia)

SCR 92/14 (spring-summer relations, cod & capelin, Div 3K, 1987-90)

15 (relations between cod & capelin, Div 3L, 1985-91)

ALPOIM, R. (Portugal)

SCS 92/ 14 (Portuguese research report for 1990)

# ASSISTANT EXECUTIVE SECRETARY

SCS 92/ 11 (report to CWP on NAFO statistical activities)

AVILA DE MELO, A. M. (Portugal)

SCS 92/ 14 (Portuguese research report for 1991)

[B]

# BAIRD, J. W. (Canada)

SCR 92/18 (assessment of the cod stock, Div 2J+3KL, 1992)

- 68 (cod biomass & age outside 200 miles, Div 2J+3KL, 1977-91)
- 75 (assessment of cod, Div 3N0, 1992)
- 79 (assessment of A plaice, Div 3LNO, 1992)
- 81 (assessment of G halibut, SA 2 + Div 3KLM, 1992)
- 82 (research vessel surveys, Div 0B + 2GHJ + 3LKM, 1991)

# BAKANEV, V. S. (Russia)

SCR 92/ 1 (capelin acoustic surveys, Div 2J+3KLNO, 1991)

84 (capelin 0-group trawl survey, Div 3LNO, 1991)

# BARSUKOV, V. B. (Russia)

SCR 92/42 (recommendations for species identification of redfish)

BENWAY, R. L. (USA)

SCR 92/16 (water temperature & salinity, G. of Maine, 1991)

BERUBE, M. (Canada)

SCS 92/ 9 (Canadian research report for 1991)

BEZ, N. (France)

SCR 92/34 (fishing power comparison in France-SP trawlers, 1986-91)

BISHOP, C. A. (Canada)

SCR 92/18 (assessment of the cod stock, Div 2J+3KL, 1992)

- 68 (cod biomass & age outside 200 miles, Div 2J+3KL, 1977-91)
- 75 (assessment of cod, Div 3N0, 1992)

BOJE, J. (Denmark)

SCR 92/51 (assessment of G halibut stock . SA 0+1, 1992)

53 (selectivity in trawl & longline fishery, G halibut)

BOROVKOV, V. A. (Russia)

SCR 92/21 (oceanographic conditions, SA 0+2+3, 1991)

SCS 92/ 12 (Russian research report for 1991)

BOURBONNAIS, M. C. (Canada)

SCR 92/50 (status of Scotian Shelf S hake population, 1991)

BOWERING, W. R. (Canada)

SCR 92/76 (Canadian survey results, A plaice, Div 3M, 1978-85)

BRODIE, W. B. (Canada)

SCR 92/18 (assessment of the cod stock, Div 2J+3KL, 1992)

- 61 (assessment of yellowtail flounder, Div 3LNO, 1992)
- 76 (Canadian survey results, A plaice, Div 3M, 1978-85)
- 79 (assessment of A plaice, Div 3LNO, 1992)
- 81 (assessment of G halibut, SA 2 + Div 3KLM, 1992)
- 82 (research vessel surveys, Div 0B + 2GHJ + 3LKM, 1991)

BROWN, S. (Canada)

SCR 92/74 (influence of summer salinity, cod recruitment, Div 2J+3KL)

[C]

CARLSSON, D. M. (Denmark)

SCR 92/55 (shrimp strat. random trawl survey, SA 0+1, 1991)

- 56 (shrimp discards, Davis Strait & Denmark Strait)
- 64 (shrimp fishery, Denmark Strait 1991-early 1992)
- 65 (shrimp fishery, SA 1, 1991)
- 67 (shrimp strat. random trawl survey, SA 0+1, 1991)
- 77 (assessment of shrimp in Denmark Strait, 1992)
- 83 (assessment of shrimp in Davis Strait, SA 0+1, 1992)

CARNEIRO, M. (Portugal)

SCS 92/ 14 (Portuguese research report for 1991)

CARSCADDEN, J. E. (Canada)

SCR 92/ 4 (evaluation of management procedures for capelin, Div 3L)

COLBOURNE, E. B. (Canada)

SCR 92/ 6 (overview of environmental conditions, Div 2J+3KL, 1991)

CORNUS, H. P. (Republic of Germany)

SCR 92/30 (assessment of redfishes, SA 1, 1991)

SCS 92/ 17 (German research report for 1991)

[D]

# DE CARDENAS, E. (Spain)

SCR 92/28 (Spanish fishery of G halibut, 1990-91)

29 (prelim. results from EEC cod tagging on Flemish Cap)

31 (isolation of cod population on Flemish Cap)

# DRINKWATER, K. F. (Canada)

SCR 92/71 (analysis of temperature variability in Bay of Fundy)

72 (ocean climate on Scotian Shelf & Gulf of Maine)

73 (overview of NAFO environmental conditions, 1991)

74 (influence of summer salinity, cod recruitment, Div 2J+3KL)

[E]

# **EC GROUP**

SCS 92/ 16 (report of EC experts re cod 2J3KL, 17-19 Mar, 1991)

ERNST, P. (Republic of Germany)

SCS 92/ 17 (German research report for 1991)

[G]

# GASIUKOV, P. S. (Russia)

SCR 92/23 (status of S hake, Div 4VWX, 1991 & TAC for 1993)

# GERASIMOVA, O. V. (Russia)

SCR 92/14 (spring-summer relations, cod & capelin, Div 3K, 1987-90)

5 (relations between cod & capelin, Div 3L, 1985-91)

# GODINHO, M. L. (Portugal)

SCS 92/ 14 (Portuguese research report for 1991)

# GROCHINSKY, K. V. (Russia)

SCR 92/22 (trawl surveys on G halibut, Div 0B + 2GH, 1991)

[H]

# HALLIDAY, R. G. (Canada)

SCR 92/52 (area, season fished by longline fleet, Can-SF, 1990)

# HARNUM, R. W. (Canada)

SCR 92/ 3 (inshore capelin fishery, Div 3L, 1991)

# HARRISON, G. D. (Canada)

SCR 92/52 (area, season fished by longline fleet, Can-SF, 1990)

# HASSAGER, T. K. (Denmark)

SCR 92/46 (shrimp sampling investigation bias, Div 1B, 1990)

47 (length-at-age of shrimp vs depth, Davis Strait, 1988-90)

# HOENIG, J. M. (Canada)

SCR 92/ 4 (evaluation of management procedures for capelin, Div 3L)

[1]

# IGLESIAS, S. (Spain)

SCR 92/28 (Spanish fishery of G halibut, 1990-91)

(J)

### JØRGENSEN, O. A. (Denmark)

SCR 92/48 (results of two trawl surveys, SA 1, 1991)

53 (selectivity in trawl & longline fishery, G halibut)

JOSSI, J. W. (USA)

SCR 92/16 (water temperature & salinity, G. of Maine, 1991)

JUNQUERA, S. (Spain)

SCR 92/28 (Spanish fishery of G halibut, 1990-91)

41 (sexual matur, & spawning of G. halibut, Div 3LM, 1990-91)

SCS 92/ 13 (Spanish research report for 1991)

[K]

# KANNEWORFF, P. (Denmark)

SCR 92/44 (biomass of redfish, W Greenland, 1988-91)

45 (biomass of G halibut, W Greenland, 1988-91)

55 (shrimp strat. random trawl survey, SA 0+1, 1991)

56 (shrimp discards, Davis Strait & Denmark Strait)

64 (shrimp fishery, Denmark Strait 1991-early 1992)

65 (shrimp fishery, SA 1, 1991)

67 (shrimp strat. random trawl survey, SA 0+1, 1991)

77 (assessment of shrimp in Denmark Strait, 1992)

83 (assessment of shrimp in Davis Strait, SA 0+1, 1992)

# KEELEY, J. R. (Canada)

SCR 92/69 (MEDS report for 1991)

# KENCHINGTON, T. J. (Canada)

SCR 92/52 (area, season fished by longline fleet, Can-SF, 1990)

# KOELLER, P. A. (Canada)

SCS 92/ 9 (Canadian research report for 1991)

# KOVALEV, S. (Russia)

SCS 92/ 12 (Russian research report for 1991)

#### KUZMIN, S. A. (Russia)

- SCR 92/11 (cod by-catch from redfish fishery, Div 3M, 1988-81)
  - 13 (assessment of cod by acoustic survey, SA 3, 1991)
  - 15 (relations between cod & capelin, Div 3L, 1985-91)

#### [L]

# LAMBERT, J. D. (Canada)

SCS 92/ 9 (Canadian research report for 1991)

# LARRAÑETA, M. G. (Spain)

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### LEHMANN, K. M. (Denmark)

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# LILLY, G. R. (Canada)

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8 (by-catches of capelin, Div 2GHJ+3KLNO, 1991)

# LITVINENKO, N. I. (Russia)

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# LOCK, J. S. (Canada)

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# [M]

# MARKOV, Yu. A. (Russia)

SCR 92/37 (age determination methods for Scotian Shelf S. hake)

# MENA, I. (Spain)

SCR 92/66 (length dist & fecundity of shrimp, Flemish Cap, 1991)

# MILLER, D. S. (Canada)

SCR 92/57 (acoustic surveys for capelin, Div 3L, 1992)

# MOGUEDET, Ph. (France)

- SCR 92/29 (prelim. results from EEC cod tagging on Flemish Cap)
  - 31 (isolation of cod population on Flemish Cap)
  - 33 (cod migrations in Gulf of St. Lawrence & off S. Nfld)
  - 34 (fishing power comparison in France-SP trawlers, 1986-91)

# MORGAN, J. (Canada)

SCR 92/79 (assessment of A plaice, Div 3LNO, 1992)

# MURPHY, E. F. (Canada)

SCR 92/18 (assessment of the cod stock, Div 2]+3KL, 1992)

68 (cod biomass & age outside 200 miles, Div 2J+3KL, 1977-91)

75 (assessment of cod, Div 3N0, 1992)

# MYERS, R. A. (Canada)

SCR 92/74 (influence of summer salinity, cod recruitment, Div 2J+3KL)

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# NAKASHIMA, B. S. (Canada)

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3 (inshore capelin fishery, Div 3L, 1991)

5 (aerial surveys of capelin by CASI, 1990-91)

# NARAYANAN, S. (Canada)

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73 (overview of NAFO environmental conditions, 1991)

# NYGAARD, K. H. (Denmark)

SCR 92/43 (biomass of shrimp & by-catches, W Greenland, 1991)

55 (shrimp strat. random trawl survey, SA 0+1, 1991)

# [O]

### OGANIN, I. A. (Russia)

SCR 92/12 (trawl acoustic survey of redfish, Div 3LMN, 1991)

# [P]

# PARSONS, D. G. (Canada)

SCR 92/58 (analysis of data for shrimp, Div 0A, 1979-91)

77 (assessment of shrimp in Denmark Strait, 1992)

83 (assessment of shrimp in Davis Strait, SA 0+1, 1992)

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45 (biomass of G halibut, W Greenland, 1988-91)

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SCR 92/71 (analysis of temperature variability in Bay of Fundy)

POWER, D. (Canada)

SCR 92/59 (abund. & biomass of redfish, Div 3LN, 1984-91)

80 (assessment of redfish, Div 3LN, 1992)

82 (research vessel surveys, Div OB + 2GHJ + 3LKM, 1991)

PREZIOSO, J. (USA)

SCR 92/16 (water temperature & salinity, G. of Maine, 1991)

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38 (results of mackerel study on the Scotian shelf in 1990)

39 (dist. of S hake & other species, Div. 4VWX, 1991)

SCS 92/ 12 (Russian research report for 1991)

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10 (age structure of roughhead grenadier, 1985)

11 (cod by-catch from redfish fishery, Div 3M, 1988-81)

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# SIGAEV, I. K. (Russia)

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38 (results of mackerel study on the Scotian shelf in 1990)

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# SKÚLADÓTTIR, U. (Iceland)

SCR 92/49 (catch statistics of shrimp, Denmark Strait, 1980-91)

62 (shrimp fishery in Denmark Strait, 1991-92)

77 (assessment of shrimp in Denmark Strait, 1992)

#### SLANEY, B. W. (Canada)

SCR 92/ 2 (capelin surveys on spawning beaches, 1987-91)

# SMEDSTAD, O. M. (Norway)

SCR 92/17 (Norwegian shrimp study in E Greenland waters, 1991)

# SMITH, P. C. (Canada)

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# STEIN, M. (Republic of Germany)

SCR 92/19 (climate vs cod recruitment, W Greenland)

20 (consistency of thermal events E Greenl./W Greenl.)

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SCS 92/ 15 (US research report for 1991)

[T]

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# TORHEIM, S. (Norway)

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# TUROK, V. F. (Russia)

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39 (dist. of S hake & other species, Div 4VWX, 1991)

# VASKOV, A. A. (Russia)

SCR 92/12 (trawl acoustic survey of redfish, Div 3LMN, 1991)

22 (trawl surveys on G halibut, Div 0B + 2GH, 1991)

59 (abund. & biomass of redfish, Div 3LN, 1984-91)

# VAZQUEZ, A. (Spein)

SCR 92/24 (selectivity of cod & flatfish in 120mm codend)

27 (results of bottom trawl survey, Flemish Cap, 1991)

SCS 92/13 (Spanish research report for 1991)

# VEITCH, P. J. (Canada)

SCR 92/58 (analysis of data for shrimp, Div 0A, 1979-91)

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# WALSH, S. J. (Canada)

SCR 92/60 (nursery areas for juv. flounder, Grand Bank)

61 (assessment of yellowtail flounder, Div 3LNO, 1992)

78 (distribution & abundance of A plaice, Div 3LNO, 1991)

# WIELAND, K. (Republic of Germany)

SCR 92/32 (distribution of 0-group redfish off W Greenland, 1991)

[Y]

# YANO, K. (Japan)

SCR 92/48 (results of two trawl surveys, SA 1, 1991)

# YOKAWA, K. (Japan)

SCS 92/ 18 (Japanese research report for 1991)

[Z]

#### ZAMARRO, J. (Spain)

SCR 92/26 (fecundity of A plaice on S Grand Bank & Flemish Cap)

41 (sexual matur. & spawning of G. halibut, Div 3LM, 1990-91)

SCS 92/ 13 (Spanish research report for 1991)