

Northwest Atlantic



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**Provisional Index and List of Titles of Research
and Summary Documents of 1998**

by

NAFO Secretariat

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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 for 1985-89 was published in February 1991 and the third for 1990-94 was published in November 1995. This compilation relates to all SCR documents (Doc. No. 1-124) and SCS documents (Doc. No. 1-21) for the calendar year 1998.

The list of SCR and SCS documents of 1998 in the first section of this document maintains the previous format and is arranged by consecutive document number.

Compilation of the 1998 author index generally follows guidelines that were used in preparing the Index of Meeting Documents for 1979-84, 1985-89 and 1990-94. 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 1998 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.

LIST OF RESEARCH AND SUMMARY DOCUMENTS

RESEARCH DOCUMENTS (SCR)

SCR No.	Ser. No.	Author(s) and Title
98/1*	N2972	NEDREAAS, K. H. Catch statistics and biological sampling from the Norwegian fishery in NAFO in 1995 (revised) and 1996 (preliminary). (6 pages)
98/2*	N2975	RIKHTER, V. A. Problems of fishery management: precautionary approach and some others. (2 pages)
98/3*	N2977	CADRIN, S. X., and U. SKÚLADÓTTIR. Surplus production analysis of shrimp in the Denmark Strait. (20 pages)
98/4*	N2978	RÄTZ, H. J., and J. LLORET. Checking of some conventional management reference points for the cod stock off Greenland. (7 pages)
98/5*	N2979	MYERS, R. A., K. G. BOWEN, N. J. BARROWMAN, and G. MERTZ. The maximum reproductive rate of fish at low populations sizes. (21 pages)
98/6*	N2980	VAZQUEZ, A., and S. CERVIÑO. Covariance among survey indices of abundance at age. (10 pages)
98/7*	N2981	BELL, E. D., and G. STEFANSSON. Performance of some harvest control rules. (19 pages)
98/8*	N2983	CADDY, J. F. Deciding on precautionary management measures for a stock and appropriate limit reference points (LRPs) as a basis for a multi-LRP Harvest Law. (13 pages)
98/9*	N2984	COOK, R. M. Application of gloss methodology to 3NO cod. (12 pages)
98/10*	N2985	MOHN, R., and G. BLACK. Illustrations of the precautionary approach using 4TVW haddock and 4VsW cod and 3LNO American plaice. (23 pages)
98/11*	N2986	RIVARD, D. Elements of a non-parametric precautionary framework. (15 pages)
98/12*	N2988	BELL, E., and G. STEFÁNSSON. In search of stability: how to halt the decline of fish stocks. (5 pages)
98/13 ^a	N2992	SAVVATIMSKY, P. I., and A. A. VASKOV. Results of Russian surveys on Greenland halibut stock assessment on the Flemish Cap in 1987-1996. (10 pages)
98/14 ^a	N2993	SAVVATIMSKY, P. I. Results from the assessment of roundnose grenadier stocks in NAFO Divisions 2G and 2H by the data from Russian trawl surveys in 1987-1992. (9 pages)
98/15 ^a	N2994	VASKOV, A. A., V. S. MAMYLOV, and S. V. RATUSHNY. Review of 1983-1996 Russian trawl acoustic surveys to assess redfish stock on the Flemish Cap Bank. (16 pages)
98/16 ^a	N2995	MELNIKOV, S. P. Peculiarities of deepwater redfish, <i>Sebastes mentella</i> , distribution by depths in the Irminger Sea. (9 pages)
98/17 ^a	N2996	BENWAY, R. L. Surface and bottom temperatures and surface salinities: New York to the Gulf Stream, Massachusetts to Cape Sable, N.S., 1997. (12 pages)
98/18 ^a	N2997	STEIN, M., and V. A. BOROVKOV. First report of joint Russian/German project "assessment of short-time climatic variations in the Labrador Sea". (2 pages)

* Scientific Council Workshop on the Precautionary Approach to Fisheries Management

^a Scientific Council Meeting, 3-18 June 1998

SCR No.	Serial No.	Author(s) and Title
98/19 ^a	N3000	SAVVATIMSKY, P. I., and K. V. GORCHINSKY. Results from studies on length and weight growth in <i>Macrourus berglax</i> and its bathymetric distribution off the Bear Island (the Norwegian Sea) and in the Northwest Atlantic. (9 pages)
98/20 ^a	N3002	STEIN, M., J. LLORET, and H.-J. RÄTZ. North Atlantic Oscillation (NAO) Index - environmental variability effects on marine fisheries? (6 pages + corrigendum)
98/21 ^a	N3005	RÄTZ, H.-J. Abundance, biomass and size composition of dominant demersal fish stocks and trend in near bottom temperature off West and East Greenland, 1982-97. (22 pages)
98/22 ^a	N3006	DOUGHERTY-POUPORE, T. Marine Environmental Data Service Report for 1997. (29 pages)
98/23 ^a	N3007	BUCH, E. Oceanographic investigations off West Greenland, 1997. (18 pages)
98/24 ^a	N3008	BUCH, E. Oceanographic investigations in West Greenland waters, 1981-1997. (28 pages)
98/25 ^a	N3010	JØRGENSEN, O. A. Survey for Greenland halibut in NAFO Divisions 1C-1D. (26 pages)
98/26 ^a	N3011	JUNQUERA, S., and X. PAZ. Non-traditional resources: skate fishery and survey results in Divisions 3NO. (6 pages)
98/27 ^a	N3012	DURÁN, P., S. JUNQUERA, and J. PAZ. Observations of length at maturity in yellowtail flounder on the Grand Bank (1995-97). (6 pages)
98/28 ^a	N3013	JUNQUERA, S. A proposal to rename the STACFIS section dealing with grenadiers. (1 page)
98/29 ^a	N3016	SKÚLADÓTTIR, U. The by-catch in the shrimp fishery of Iceland at Flemish Cap in 1997 and 1998. (5 pages)
98/30 ^a	N3017	VAZQUEZ, A., A. AVILA DE MELO, and F. SABORIDO-REY. Results from bottom trawl survey of Flemish Cap in July 1997. (38 pages)
98/31 ^a	N3018	SARASUA, A. M. RUIZ, and E. RODRÍQUEZ-MARÍN. Population structure of roughhead grenadier (<i>Macrourus berglax</i>) on Flemish Cap in 1997. (12 pages)
98/32 ^a	N3019	J. GIL, R. F. SANCHEZ, M. BLANCO, and I. REGUERA. Hydrodynamics associated to the confluence of Labrador and North Atlantic currents over Flemish Cap in summer 1997. (11 pages)
98/33 ^a	N3020	RODRÍQUEZ-MARÍN, E., M. RUIZ, and A. SARASUA. Validation of roughhead grenadier (<i>Macrourus berglax</i>) otolith reading. (12 pages)
98/34 ^a	N3021	PUNZÓN, A., and M. A. HERRERA. Feeding of <i>cetoroscylium fabricci</i> (Reinhardt, 1825) and the influence of the fishery on its diet in Flemish Pass (NAFO Divisions 3LM). (11 pages)
98/35 ^a	N3022	COLBOURNE, E., B. and K. D. FOOTE. Oceanographic variability on the Flemish Cap. (56 pages)
98/36 ^a	N3023	STEIN, M. Climatic conditions around Greenland - 1997. (20 pages)

^a Scientific Council Meeting, 3-18 June 1998

SCR No.	Serial No.	Author(s) and Title
98/37 ^a	N3024	DRINKWATER, K. F., D. B. MOUNTAIN, and A. HERMAN. Recent changes in the hydrography of the Scotian Shelf and Gulf of Maine - a return to conditions of the 1960s? (16 pages)
98/38 ^a	N3026	DRINKWATER, K. F., E. COLBOURNE, and D. GILBERT. Overview of environmental conditions in the Northwest Atlantic in 1997. (81 pages)
98/39 ^a	N3027	BRODIE, W. B., and W. R. BOWERING. Data from the commercial fishery for Greenland halibut in Subarea 0. (11 pages)
98/40 ^a	N3028	ENGELSTOFT, J. J., and O. JØRGENSEN. Biomass and abundance of demersal fish stocks off West Greenland estimated from the Greenland trawl survey, 1988-1997. (19 pages)
98/41 ^a	N3030	JØRGENSEN, O. A., and D. M. CARLSSON. An estimate of by-catch of fish in the West Greenland shrimp fishery based on survey data. (20 pages)
98/42 ^a	N3032	GONZÁLEZ, G. COSTAS, I. BRUNO, and X PAZ. Feeding chronology of American plaice (<i>Hippoglossoides platessoides</i>) and yellowtail flounder (<i>Limanda ferruginea</i>) in the Grand Bank (NAFO Division 3N). (19 pages)
98/43 ^a	N3034	SARASUA, A., RODRÍQUEZ-MARÍN, E., and M. RUIZ. A review of roughhead grenadier (<i>Macrourus berglax</i>) population structure on Flemish Cap (NAFO Division 3M), 1991-1997. (14 pages)
98/44 ^a	N3035	SIMONSEN, C. S. An assessment of the Greenland halibut stock component in NAFO Division 1A inshore. (18 pages)
98/45 ^a	N3036	RÄTZ, H.-J. Assessment of other finfish in NAFO Subarea 1. (5 pages)
98/46 ^a	N3037	LILLY, G. R., P. A. SHELTON, J. BRATTEY, N. CADIGAN, E. F. MURPHY, D. E. STANSBURY, M. B. DAVIS, and M. J. MORGAN. An assessment of the cod stock in NAFO Divisions 2J+3KL. (94 pages)
98/47 ^a	N3038	BRODIE, W. B., W. R. BOWERING, D. POWER, and D. ORR. An assessment of Greenland halibut in NAFO Subarea 2 and Divisions 3KLMNO. (38 pages)
98/48 ^a	N3039	DURÁN, P., X. PAZ and E. DE CÁRDENAS. Results from the 98 Spanish bottom trawl survey in the NAFO Regulatory Area for Divisions 3NO. (20 pages)
98/49 ^a	N3040	BOWERING, W. R., and D. C. ORR. An evaluation of the current status and historic review of the witch flounder resource in NAFO Divisions 3NO. (31 pages)
98/50 ^a	N3041	BOWERING, W.R., and D. C. ORR. Results of data conversions for witch flounder in Div. 3NO from comparative fishing trials between the <i>Engel</i> otter trawl and the <i>Campelen 1800</i> shrimp trawl used on research vessels on the southern Grand Bank. (23 pages)
98/51 ^a	N3042	DE CÁRDENAS, E., and S. JUNQUERA. An assessment of the American plaice in Division 3M. (7 pages)
98/52 ^a	N3043	VAZQUEZ, A., and L. MOTOS. An assessment of the cod stock in NAFO Division 3M. (15 pages)

^a Scientific Council Meeting, 3-18 June 1998

SCR No.	Serial No.	Author(s) and Title
98/53 ^a	N3044	AVILA DE MELO, A., F. SABORIDO-REY, and R. ALPOIM. An assessment of redfish in NAFO Div. 3M including an approach to precautionary management based on spawning biomass and growth. (51 pages)
98/54 ^a	N3045	DAWE, E. G., E. B. COLBOURNE, and K. F. DRINKWATER. Environmental effects on short-finned squid recruitment to Canadian fishing areas. (14 pages + corrigendum)
98/55 ^a	N3046	BECK, P. C., E. G. DAWE, and J. DREW. An update of the fishery for short-finned squid (<i>Illex illecebrosus</i>) in the Newfoundland area during 1994-97 with descriptions of some biological characteristics. (16 pages)
98/56 ^a	N3047	JØRGENSEN, O. A. Assessment of the Greenland halibut stock component in NAFO Subarea 0 + Div. 1A offshore + Div. 1B-1F. (16 pages)
98/57 ^a	N3049	POWER, D., and D. MADDOCK PARSONS. An assessment of roundnose grenadier (<i>Coryphaenoides rupestris</i>) in NAFO Subareas 2+3 and catch information on roughhead grenadier (<i>Macrourus berglax</i>). (11 pages)
98/58 ^a	N3050	VAZQUEZ, A., and S. CERVIÑO. Fishing mortality of cod in Flemish Cap calculated from survey results. (6 pages)
98/59 ^a	N3051	DAWE, E. G., and L. C. HENDRICKSON. A review of the biology, population dynamics, and exploitation of short-finned squid in the Northwest Atlantic Ocean, in relation to assessment and management of the resource. (33 pages)
98/60 ^a	N3052	WALSH, S. J., and D. ORR. Conversion factors for yellowtail flounder survey indices derived from comparative fishing trials between the Engel 145 otter trawl and the Campelen 1800 shrimp trawl. (10 pages)
98/61 ^a	N3053	BOWERING, W. R., and D. C. ORR. Survey data conversions for witch flounder in Div. 2J, 3K and 3L from comparative fishing trials between the <i>Engel</i> otter trawl and the <i>Campelen 1800</i> shrimp trawl. (27 pages)
98/62 ^a	N3054	MURPHY, E. F. Cod in Divisions 2J+3KL – estimates of biomass and age composition for the portion of the stock in the NAFO Regulatory Area from Canadian research vessel surveys. (12 pages)
98/63 ^a	N3055	DE CÁRDENAS, E., L. MOTOS, and S. JUNQUERA. Expected trends on the 2J3KLMNO Greenland halibut in <i>status quo</i> conditions. (5 pages)
98/64 ^a	N3056	BOWERING, W. R. Changes in distribution and trends in stock size of the witch flounder resource in Divisions 2J, 3K and 3L. (16 pages)
98/65 ^a	N3057	STANSBURY, D. E., P. A. SHELTON, E. F. MURPHY, G. R. LILLY, and J. BRATTEY. An assessment of the cod stock in NAFO Divisions 3NO. (38 pages)
98/66 ^a	N3058	WALSH, S. J., and B. R. McCALLUM. Size selectivity and trawling efficiency of two sampling trawls used in resource surveys of yellowtail flounder on Grand Bank, NAFO Div. 3LNO. (18 pages)
98/67 ^a	N3059	RÄTZ, H. –J. Assessment of redfish in NAFO Subarea 1. (6 pages)

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SCR No.	Serial No.	Author(s) and Title
98/68 ^a	N3060	MOTOS, L., and A. SARASUA. Age structured model for the cod population in NAFO Divisions 3NO. (6 pages)
98/69 ^a	N3061	BRODIE, W. B., W. R. BOWERING, D. ORR, D. MADDOCK PARSONS, and M. J. MORGAN. Assessment data for Divisions 3LNO American plaice. (30 pages)
98/70 ^a	N3062	MORGAN, M. J., W. B. BRODIE, W. R. BOWERING, D. MADDOCK PARSONS, and D. C. ORR. Results of data conversions for American plaice in Div. 3LNO from comparative fishing trials between the Engel otter trawl and the Campelen 1800 shrimp trawl. (10 pages)
98/71 ^a	N3063	POWER, D., and D. C. ORR. Canadian research survey data conversions for redfish in Div. 3LN based on comparative fishing trials between an Engel 145 otter trawl and a Campelen 1800 shrimp trawl. (21 pages)
98/72 ^a	N3064	WALSH, S. J., W. B. BRODIE, M. VEITCH, D. ORR, C. McFADDEN, and D. MADDOCK PARSONS. An Assessment of the Grand Bank yellowtail flounder stock in NAFO Divisions 3LNO. (78 pages)
98/73 ^a	N3065	BRODIE, W. B., D. MADDOCK PARSONS, C. McFADDEN, D. ORR, and S. J. WALSH. Results of surveys directed at yellowtail flounder in NAFO Divisions 3NO, conducted on a Canadian commercial trawler, 1996-1998. (34 pages)
98/74 ^a	N3066	POWER, D., and D. MADDOCK PARSONS. The status of the redfish resource in NAFO Divisions 3LN. (23 pages)
98/75 ^a	N3068	RIVARD, D., L. C. HENDRICKSON, and F. M. SERCHUK. Yield estimates for short-finned squid (<i>Illex illecebrosus</i>) in SA 3-4 from research vessel survey relative biomass indices. (4 pages)
98/76 ^a	N3069	VARIOUS. Report of Scientific Council Workshop on the Precautionary Approach to Fisheries Management. (62 pages)
98/77 ^a	N3070	RIVARD, D. and J. CASEY. Evaluation of possible limit reference points for Greenland halibut in NAFO Subareas 2+3, including an approach based on escapement considerations. (13 pages)
98/78 ^b	N3077	RIKHTER, V. A. On interpretation of plots of "stock-recruitment" relation of silver hake (<i>Merluccius bilinearis</i>) from the north-west Atlantic. (14 pages)
98/79 ^b	N3080	MASON, C. S., B. PETRIE, and B. J. TOPLISS. Satellite measurements of sea surface temperature: an application to regional ocean climate. (10 pages)
98/80 ^b	N3081	KULKA, D.W. Update on the by-catch in the NAFO Division 3M shrimp fishery, 1993-1997. (17 pages)
98/81 ^b	N3082	DEL RIO, J. L. Northern shrimp (<i>Pandalus borealis</i>) on Flemish Cap in July-August, 1998. (12 pages)
98/82 ^b	N3083	SIEGSTAD, H. The Greenland fishery for northern shrimp (<i>Pandalus borealis</i>) on Flemish Cap, NAFO Division 3M, in 1997 and 1998. (7 pages)

^a Scientific Council Meeting, 3-18 June 1998

^b Scientific Council Annual Meeting, 6-18 September 1998

SCR No.	Serial No.	Author(s) and Title
98/83 ^b	N3084	NICOLAISEN, A. Biomass estimate, length and age distribution of the northern shrimp (<i>Pandalus borealis</i>) stock on Flemish Cap (NAFO Div. 3M) in July 1998 and Faroese catches in 1997 and 1998. (19 pages)
98/84 ^b	N3085	NICOLAISEN, A. An area swept estimate of the northern shrimp (<i>Pandalus borealis</i>) stock biomass on the Nose of Grand Bank (NAFO Div. 3L) in June 1998. (4 pages)
98/85 ^b	N3086	PARSONS, D. G., and P. J. VEITCH. The Canadian fishery for northern shrimp (<i>Pandalus borealis</i>) on Flemish Cap (NAFO Division 3M), 1993 to 1998. (8 pages)
98/86 ^b	N3087	COLBOURNE, E. Oceanographic conditions on the Flemish Cap during the summer of 1998, with comparisons to the previous year and the 1961-1990 average. (15 pages)
98/87 ^b	N3088	GODØ, O. R. Updated catch and effort data from the Norwegian fishery for shrimp on Flemish Cap, 1997-1998. (2 pages)
98/88 ^b	N3089	SUDNIK SVETLANA, A. On absolute individual fecundity of shrimp (<i>Pandalus borealis</i>) at Flemish Cap. (6 pages)
98/89 ^b	N3090	SKÚLÁDOTTIR, U. The Icelandic shrimp fishery (<i>Pandalus borealis</i> Kr.) at the Flemish Cap in 1993-1998. (27 pages)
98/90 ^b	N3091	SKÚLÁDOTTIR, U. The age composition and proportions of males and females in the commercial catches of shrimp (<i>Pandalus borealis</i> Kr.) at Flemish Cap in 1993-1998. (4 pages)
98/91 ^b	N3092	PARSONS, D. G., P. J. VEITCH, and D. W. KULKA. Distribution, biomass, abundance and some biological characteristics of shrimp (<i>Pandalus borealis</i>) in NAFO Divisions 3LNO inferred from data obtained during Canadian research trawl surveys, 1995-1997. (9 pages)
98/92 ^b	N3093	PARSONS, D. G. The international fishery for shrimp (<i>Pandalus borealis</i>) in Division 3M (Flemish Cap), 1993-1998. (12 pages)
98/93 ^b	N3094	BURTON, M. P. M. Potential errors in measuring spawning stock biomass: determining the effects of non-participatory adults for some Atlantic groundfish species. (8 pages)
98/94 ^b	N3095	COOK, R. M., P. KUNZLIK, J. HISLOP, and D. POULDING. Models of growth and maturity for North Sea cod. (13 pages)
98/95 ^b	N3096	JUNQUERA, S., E. ROMÁN, X. PAZ, and G. RAMILO. Changes in Greenland halibut growth, condition and fecundity in Northwest Atlantic (Flemish Pass, Flemish Cap and southern Grand Bank). (13 pages)
98/96 ^b	N3097	JAKOBSEN, T., and A. AJIAD. Management implications from sexual differences in maturation and spawning mortality of Northeast Arctic cod. (7 pages)
98/97 ^b	N3098	SABORIDO-REY, F., O. S. KJESBU, and A. THORSEN. Buoyancy of Atlantic cod (<i>Gadus morhua</i>) larvae in relation to spawning experience: first and second time spawners. (18 pages)
98/98 ^b	N3099	SHELTON, P. A., G. R. LILLY, and E. COLBOURNE. Patterns in the annual weight increment for Divisions 2J+3KL cod and possible prediction for stock projection. (23 pages)

^a Scientific Council Meeting, 3-18 June 1998

^b Scientific Council Annual Meeting, 6-18 September 1998

SCR No.	Serial No.	Author(s) and Title
98/99 ^b	N4000	MORGAN, M. J. The effect of a change in perception of length distribution of a population on maturity-at-age, weight-at-age and spawning stock biomass. (15 pages)
98/100 ^b	N4001	WIGLEY, S. E., J. M. BURNETT, and P. J. RAGO. An evaluation of maturity estimates derived from two different sampling schemes: are the observed changes fact or artifact? (17 pages)
98/101 ^b	N4002	RÄTZ, H-J., M. STEIN, and J. LLORET. Variation in growth and recruitment of Atlantic cod (<i>Gadus morhua</i>) off Greenland during the second half of the 20 th century. (16 pages)
98/102 ^b	N4003	KORSBREKKE, K. Variations in maturity of haddock in the Barents Sea in relation to year-class strength, age, size, sex and area. (11 pages)
98/103 ^b	N4004	AJIAD, A., T. JAKOBSEN, and O. NAKKEN. Sexual difference in maturation of Northeast Arctic cod. (24 pages)
98/104 ^b	N4005	O'BRIEN, L. Factors influencing rates of maturation in the Georges Bank and Gulf of Maine Atlantic cod stocks. (34 pages)
98/105 ^b	N4006	WALSH, S. J., and M. J. MORGAN. Factors in maturation of yellowtail flounder (<i>Pleuronectes ferruginea</i>) on the Grand Bank. (36 pages)
98/106 ^b	N4007	TAYLOR, L., and G. STEFANSSON. Growth and maturation of haddock (<i>Melanogrammus aeglefinus</i>) in Icelandic waters. (25 pages)
98/107 ^b	N4008	GUNDERSEN, A. C., O. S. KJESBU, A. STENE, and K. H. NEDREAAS. Fecundity of Northeast Arctic Greenland halibut (<i>Reinhardtius hippoglossoides</i>). (9 pages)
98/108 ^b	N4009	STENE, A., A. C. GUNDERSEN, O. T. ALBERT, P. SOLEMDAL, and K. H. NEDREAAS. Early development of Northeast Arctic Greenland halibut (<i>Reinhardtius hippoglossoides</i>). (8 pages)
98/109 ^b	N4010	STEIN, M., and V. A. BOROVKOV. Second Report of Joint Russian/German Project "Assessment of short-time climatic variations in the Labrador Sea". (3 pages)
98/110 ^b	N4011	GODØ, O. R., and T. HAUG. Growth rate and sexual maturity in cod (<i>Gadus morhua</i>) and Atlantic halibut (<i>Hippoglossus hippoglossus</i>). (15 pages)
98/111 ^c	N4020	HVINGEL, C., and O. FOLMER. The Greenlandic fishery for northern shrimp (<i>Pandalus borealis</i>) off West Greenland, 1970-1998. (24 pages)
98/112 ^c	N4021	HVINGEL, C., and O. FOLMER. The Greenlandic fishery for northern shrimp (<i>Pandalus borealis</i>) in Denmark Strait, 1997-September 1998. (20 pages)
98/113 ^c	N4022	HVINGEL, C., H. LASSEN, and D. G. PARSONS. A biomass index for northern shrimp (<i>Pandalus borealis</i>) in Davis Strait based on multiplicative modelling of commercial catch-per-unit-effort data. (17 pages)

^a Scientific Council Meeting, 3-18 June 1998

^b Scientific Council Annual Meeting, 6-18 September 1998

^c Scientific Council Meeting, 6-10 November 1998

SCR No.	Serial No.	Author(s) and Title
98/114 ^c	N4023	CARLSSON, D., O. FOLMER, C. HVINGEL, P. KANNEWORFF, M. PENNINGTON, and H. SIEGSTAD. A review of the trawl survey of the shrimp stock off West Greenland. (20 pages)
98/115 ^c	N4024	CARLSSON, D. M., and P. KANNEWORFF. Stratified-random trawl survey for shrimp (<i>Pandalus borealis</i>) in Disko Bay and Vaigat, inshore West Greenland, 1998. (13 pages)
98/116 ^c	N4025	HVINGEL, C., and M. C. S. KINGSLEY. Jack-knifing a logistic model of biomass dynamics of the West Greenland shrimp stock. (4 pages)
98/117 ^c	N4026	CADRIN, S. X., and U. SKÚLADÓTTIR. Surplus production analysis of shrimp in the Denmark Strait, 1977-1998. (21 pages)
98/118 ^c	N4027	CARLSSON, D. M., and P. KANNEWORFF. Offshore stratified-random trawl survey for shrimp (<i>Pandalus borealis</i>) in NAFO Subareas 0+1, in 1998. (18 pages)
98/119 ^c	N4028	KINGSLEY, M. C. S., and D. M. CARLSSON. An experimental investigation on spatial and depth variation in catch of shrimp, Greenland halibut and redfish. (6 pages)
98/120 ^c	N4029	SKÚLADÓTTIR, U. The Icelandic shrimp fishery (<i>Pandalus borealis</i>) in the Denmark Strait in 1997-1998 and some reflection on age groups in the years 1991-1997. (12 pages)
98/121 ^c	N4030	SKÚLADÓTTIR, U. Preliminary assessment of shrimp in the Denmark Strait in 1998. (16 pages)
98/122 ^c	N4031	SKÚLADÓTTIR, U. The catch statistics of the shrimp fishery (<i>Pandalus borealis</i>) in the Denmark Strait in the years 1980-1998. (21 pages)
98/123 ^c	N4032	SIEGSTAD, H. Preliminary assessment of shrimp (<i>Pandalus borealis</i>) in Davis Strait 1998 (Subareas 0+1). (19 pages)
98/124 ^c	N4033	STEIN, M. Do hydrographic conditions affect the distribution of shrimp (<i>Pandalus borealis</i>) off East Greenland? (13 pages)

SUMMARY DOCUMENTS (SCS)

SCS No.	Serial No.	Author(s) and Title
98/1 ^a	N2987	NAFO. Report of Scientific Council on the Development of Precautionary Approach to Fisheries Management. (60 pages + corrigendum)
98/2 ^a	N2989	CHAMUT, P. S. Canadian request for scientific advice on management in 1999 of certain stocks in Subareas 0 to 4. (2 pages)
98/3 ^a	N2990	DIRECTOR. Denmark (Greenland) request for scientific advice on management of certain stock in 1999. (1 page, revised)
98/4 ^a	N2991	NAFO SECRETARIAT. Tagging activities reported for the Northwest Atlantic in 1997. (3 pages)

^a Scientific Council Meeting, 3-18 June 1998

^b Scientific Council Annual Meeting, 6-18 September 1998

^c Scientific Council Meeting, 6-10 November 1998

SCS No.	Serial No.	Author(s) and Title
98/5 ^a	N2998	VALDÉS, E., and I. RAMOS. Cuban research report for 1997. (6 pages)
98/6 ^a	N2999	RIKHTER, V. A., I. K. SIGAEV, A. A. VASKOV, and B. I. BERENBOIM. Russian research report for 1997. (4 pages)
98/7 ^a	N3001	RÄTZ, H.-J., M. STEIN, and P. CORNUS. German research report for 1997. (3 pages)
98/8 ^a	N3003	NAFO SECRETARIAT. Provisional index and list of titles of research and summary documents of 1997. (27 pages + corrigendum)
98/9 ^a	N3004	NAFO SECRETARIAT. List of biological sampling data for 1996 and 1997. (54 pages)
98/10 ^a	N3009	MAHÉ, J.-C. French research report for 1997. (6 pages)
98/11 ^a	N3014	JUNQUERA, S., A. SARASÚA, E. RODRIGUEZ-MARÍN, E. DE CÁRDENAS, and L. MOTOS. Spanish research report for 1997. (12 pages, revised)
98/12 ^a	N3015	CLARK, S. H., and K. SOSEBEE. United States research report for 1997. (14 pages, revised)
98/13 ^a	N3025	ALPOIM, R., M. L. GODINHO, E. SANTOS, and A. M. AVILA DE MELO. Portuguese research report for 1997. (38 pages)
98/14 ^a	N3029	SIMONSEN, C. S. Denmark/Greenland research report for 1997. (6 pages)
98/15 ^a	N3033	PERRY, G. Canadian research report for 1997. PART I - Newfoundland Region. (10 pages)
98/16 ^a	N3048	ICES/NAFO. Report of Joint ICES/NAFO Working Group on Harp and Hooded Seals and Chairman's Summary. (33 pages)
98/17 ^a	N3071	NAFO. Report of Scientific Council, 3-18 June 1998 Meeting. (171 pages)
98/18 ^a	N4035	NAFO. A compilation of research vessel surveys on a stock-by-stock basis. (21 pages)
98/19 ^b	N4013	NAFO. Report of Scientific Council, 6-18 September 1998 Meeting. (53 pages)
98/20 ^b	N4019	NAFO SECRETARIAT. Notes on acquisition and publications of statistics since June 1997. (2 pages)
98/21 ^c	N4036	NAFO. Report of Scientific Council, 6-10 November 1998 Meeting. (23 pages)

^a Scientific Council Meeting, 3-18 June 1998

^b Scientific Council Annual Meeting, 6-18 September 1998

^c Scientific Council Meeting, 6-10 November 1998

[A]

Abundance: abundance index

- SCR 98/ 6 (covariance among survey indices of abundance-at-age)
 13 (Russian surveys on G. halibut, Flemish Cap, 1987-96)
 14 (Russian surveys on roundnose grenadier, Div. 2GH, 1987-92)
 15 (Russian surveys on redfish, Flemish Cap, 1983-96)
 25 (Greenland survey off W. Greenland)
 30 (results of EU trawl survey, Div. 3M, 1997)
 31 (population of roughhead grenadier, Flemish Cap, 1997)
 40 (biomass and abundance of fish off W. Greenland, 1988-97)
 46 (assessment of cod in Div. 2J+3KL)
 47 (assessment of G. halibut in SA0 & Div. 3KLMNO)
 48 (results of Spanish trawl survey, Div. 3NO, 1998)
 49 (evaluation of witch flounder in Div. 3NO)
 51 (assessment of A. plaice in Div. 3M)
 52 (assessment of cod in Div. 3M)
 54 (environmental effects on squid recruitment)
 57 (assessment of roundnose grenadier in SA2+3)
 58 (fishing mortality of cod on Flemish Cap)
 59 (review of short-finned squid in the NW Atlantic)
 60 (conversion factors for yellowtail flo. survey indices)
 64 (distribution and stock size of witch flo. in Div. 2J+3KL)
 65 (assessment of cod in Div. 3NO)
 66 (survey sampling of yellowtail flo. on Grand Bank)
 67 (assessment of redfish in SA1)
 69 (assessment of A. plaice in Div. 3LNO)
 72 (assessment of yellowtail in Div. 3LNO)
 74 (status of redfish in Div. 3LN)
 91 (information on shrimp in Div. 3LNO from surveys)
 95 (changes in G. halibut in NW Atlantic)
 102 (maturity of haddock in Barents Sea)
 105 (maturation of yellowtail flo. on Grand Bank)
 118 (offshore survey for shrimp in SA 0+1, 1998)
 119 (investigation in catch of shrimp, G. halibut and redfish)
 121 (assessment of shrimp in Denmark Strait)

Acoustics

- SCR 98/ 15 (Russian surveys on redfish, Flemish Cap, 1983-96)
 46 (assessment of cod in Div. 2J + 3KL)

ADAPT

- SCR 98/ 46 (assessment of cod in Div. 2J + 3KL)
 65 (assessment of cod in Div. 3NO)

Age, composition

- SCR 98/ 19 (growth rate and distribution of roundnose grenadier)
 30 (results of EU trawl survey, Div. 3M, 1997)
 31 (population of roughhead grenadier, Flemish Cap, 1997)
 39 (data for G. halibut in SA0)
 43 (roughhead grenadier population on Flemish Cap, 1991-97)
 51 (assessment of A. plaice in Div. 3M)
 62 (biomass and age composition of cod in Div. 2J+3KL)
 65 (assessment of cod in Div. 3NO)
 73 (survey results for yellowtail flo. in Div. 3NO, 1996-98)
 89 (Icelandic shrimp fishery at Flemish Cap)
 90 (age and sex composition of shrimp on Flemish Cap)
 94 (models of growth and maturity for North Sea cod)

Age, determination

- SCR 98/ 33 (validation of roughhead grenadier otolith reading)
 120 (Icelandic shrimp fishery in Denmark Strait, 1997-98)

American plaice (see Plaice, American)Anarhichas sp. (see Wolffish)Arctic cod (see Cod, Arctic)Assessment (general) (see also by specific stocks)

- SCR 98/ 11 (non-parametric precautionary framework)
 13 (Russian surveys on G. halibut, Flemish Cap, 1987-96)
 45 (assessment of finfish in SA1)
 51 (assessment of A. plaice in Div. 3M)
 SCS 98/ 2 (Canadian request for scientific advice for 1999)
 3 (Denmark-Greenland request for scientific advice for 1999)

Cod (Divisions 2J, 3K and 3L)

- SCR 98/ 38 (overview of environmental conditions, NW Atlantic, 1997)
 46 (assessment of cod in Div. 2J+3KL)

Cod (Division 3M)

- SCR 98/ 30 (results of EU trawl survey, Div. 3M, 1997)
 52 (assessment of cod in Div. 3M)
 58 (fishing mortality of cod on Flemish Cap)

- SCS 98/ 11 (Spanish research report for 1997)
 13 (Portuguese research report for 1997)

Cod (Divisions 3N and 3O)

- SCR 98/ 48 (results of Spanish trawl survey, Div. 3NO, 1998)
 65 (assessment of cod Div. 3NO)
 68 (age structured model for cod in Div. 3NO)

- SCS 98/ 13 (Portuguese research report for 1997)
 15 (Canadian research report for 1997)

Redfish (Subarea 1)

- SCR 98/ 21 (survey information on demersal stocks and temperature)
 25 (Greenland survey off W. Greenland)
 40 (biomass and abundance of fish off W. Greenland, 1988-97)
 41 (estimate of by-catch in W. Greenland shrimp fishery)
 67 (conversion factors for redfish survey indices)

- SCS 98/ 7 (German research report for 1997)
 14 (Denmark-Greenland research report for 1997)

Redfish (Division 3M)

- SCR 98/ 15 (Russian surveys on redfish, Flemish Cap, 1987-96)
 29 (by-catch in Icelandic shrimp fishery, Flemish Cap, 1997 & 98)
 30 (results of EU trawl survey)
 53 (assessment of redfish in Div. 3M)

- SCS 98/ 13 (Portuguese research report for 1997)

Redfish (Divisions 3L and 3N)

- SCR 98/ 71 (conversion factors for redfish survey indices)
 74 (status of redfish in Div. 3LN)

- SCS 98/ 6 (Russian research report for 1997)
 13 (assessment of redfish in Div. 3M)

American plaice (Divisions 3L, 3N and 3O)

- SCR 98/ 48 (results of Spanish trawl survey, Div. 3NO, 1998)
 69 (assessment of A. plaice in Div. 3LNO)
 SCR 98/ 70 (conversion factors for A. plaice survey indices)

- SCS 98/ 11 (Spanish research report for 1997)
13 (Portuguese research report for 1997)

American plaice (Division 3M)

- SCR 98/ 30 (results of EU trawl survey, Div. 3M, 1997)
51 (assessment of A. plaice in Div. 3M)

- SCS 98/ 13 (Portuguese research report for 1997)

Witch flounder (Divisions 3N and 3O)

- SCR 948/ 48 (results of Spanish trawl survey, Div. 3NO, 1998)
49 (evaluation of witch flounder in Div. 3NO)
50 (data conversions for witch flo.)

Yellowtail flounder (Divisions 3L, 3N and 3O)

- SCR 98/ 27 (yellowtail flo. Length at maturity, Grand Bank, 1995-97)
42 (feeding of A. plaice and yellowtail flo. on Grand Bank)
48 (results of Spanish trawl survey, Div. 3NO, 1998)
60 (conversion factors for yellowtail flo. survey indices)
66 (survey sampling of yellowtail flo. on Grand Bank)
72 (assessment of yellowtail flo. in Div. 3LNO)
73 (survey results for yellowtail flo. in Div. 3LNO, 1996-98)

- SCS 98/ 11 (Spanish research report for 1997)

Greenland halibut (Subarea 0 + Division 1A Offshore and Divisions 1B-F)

- SCR 98/ 25 (Greenland survey off W. Greenland)
39 (data for G. halibut on SA0)
40 (biomass and abundance of fish off W. Greenland, 1988-97)
41 (estimate of by-catch in W. Greenland shrimp fishery)
56 (assessment of G. halibut in SA0 and SA1)

- SCS 98/ 7 (German research report for 1997)
14 (Denmark-Greenland research report for 1997)
15 (Canadian research report for 1997)

Greenland halibut (Division 1A Inshore)

- SCR 98/ 40 (biomass and abundance of fish off W. Greenland)
41 (estimate of by-catch in W. Greenland shrimp fishery)
44 (assessment of G. halibut inshore Div. 1A)

- SCS 98/ 14 (Denmark-Greenland research report for 1997)

Greenland halibut (Subarea 2 and Divisions 3KLMNO)

- SCR 98/ 13 (Russian surveys on G. halibut, Flemish Cap, 1987-96)
29 (by-catch in Icelandic shrimp fishery, Flemish cap, 1997 & 98)
30 (results of EU trawl survey, Div. 3M, 1997)
47 (assessment of G. halibut in SA0 & Div. 3KLMNO)
48 (results of Spanish trawl survey, Div. 3NO, 1998)
63 (G. halibut trends in Div. 2J+3KLMNO)

- SCS 98/ 10 (French research report for 1997)
11 (Spanish research report for 1997)
13 (Portuguese research report for 1997)

Roundnose grenadier (Subareas 0+1)

- SCR 98/ 25 (Greenland survey off W. Greenland)

- SCS 98/ 7 (German research report for 1997)
14 (Denmark-Greenland research report for 1997)

Roundnose grenadier (Subareas 2+3)

- SCR 98/ 14 (Russian surveys on roundnose grenadier, Div. 2GH, 1987-95)
28 (proposal to rename grenadiers section in STACFIS)
57 (assessment of roundnose grenadier in SA2+3)

- SCS 98/ 10 (French research report for 1997)

Other finfishes (Subarea 1)

- SCR 98/ 21 (survey information on demersal stocks and temperature)
25 (Greenland survey off W. Greenland)
40 (biomass and abundance of fish off W. Greenland, 1988-97)
41 (estimate of by-catch in W. Greenland shrimp fishery)
45 (assessment of finfish in SA 1)

- SCS 98/ 7 (German research report for 1997)
14 (Denmark-Greenland research report for 1997)

Short-finned squid (Subareas 3+4)

- SCR 98/ 54 (environmental effects on squid recruitment)
55 (squid fishery in Newfoundland area, 1994-97)
59 (review of short-finned squid in the NW Atlantic)
75 (yield estimates for squid in SA 3-4 from survey indices)

- SCS 98/ 5 (Cuban research report for 1997)
12 (US research report for 1997)
15 (Canadian research report for 1997)

Shrimp (Division 3M)

- SCR 98/ 29 (by-catch in Icelandic shrimp fishery, Flemish Cap, 1997 & 98)
80 (by-catch in Div. 3M shrimp fishery, Jul-Aug 1998)
81 (shrimp on Flemish Cap, Jul-Aug 1998)
82 (Greenland shrimp fishery in Div. 3M, 1997 and 1998)
83 (information on shrimp on Flemish Cap, 1997 and 1998)
85 (Canadian shrimp fishery on Flemish Cap, 1993-98)
87 (catch and effort data from Norwegian shrimp fishery, 1997-98)
88 (individual fecundity of shrimp on Flemish Cap)
89 (Icelandic shrimp fishery at Flemish Cap)
90 (age and sex composition of shrimp on Flemish Cap)
91 (information on shrimp in Div. 3LNO from surveys)
92 (shrimp fishery on Flemish Cap)

Shrimp (Subareas 0+1)

- SCR 98/ 111 (Greenland shrimp fishery off W. Greenland, 1970-98)
113 (biomass index for shrimp in Davis Strait)
114 (review of survey for shrimp off W. Greenland)
115 (shrimp survey, inshore W. Greenland, 1998)
116 (model of biomass dynamics of W. Greenland shrimp)
118 (offshore survey for shrimp in SA 0+1, 1998)
119 (investigation in catch of shrimp, G. halibut and redfish)
123 (assessment of shrimp in Davis Strait, 1998)

Shrimp (Denmark Strait)

- SCR 98/ 112 (Greenland shrimp fishery in Denmark Strait, 1997-98)
117 (revised surplus production analysis of shrimp, Denmark Strait)
120 (Icelandic shrimp fishery in Denmark Strait, 1997-98)
121 (assessment of shrimp in Denmark Strait)
122 (catch statistics for shrimp in Denmark Strait, 1980-98)
124 (hydrographic conditions in relation to shrimp off E. Greenland)

Atlantic cod (see Cod, Atlantic)

Atlantic halibut (see Halibut, Atlantic)

Atlantic Ocean, Northeast

- SCR 98/ 19 (growth rate and distribution of roundnose grenadier)
 94 (models of growth and maturity for North Sea cod)
 103 (sexual difference in maturation of NE Arctic cod)
 107 (fecundity of G. halibut in the NE Arctic)
 108 (early development of G. halibut in the NE Arctic)
 110 (growth and maturity in cod and A. halibut)

Atlantic Ocean, Northwest (see also under names of specific areas)

- SCR 98/ 19 (growth rate and distribution of roundnose grenadier)
 22 (MEDS report for 1997)
 38 (overview of environmental conditions, NW Atlantic, 1997)
 54 (environmental effects on squid recruitment)
 59 (review of short-finned squid in the NW Atlantic)
 75 (yield estimates for squid in SA3-4 from survey indices)
 78 (analysis of stock-recruitment in silver hake)
 79 (measurements of sea surface temperature)

- SCS 98/ 2 (Canadian request for scientific advice for 1999)
 3 (Denmark-Greenland request for scientific advice for 1999)
 4 (tagging activities reported in 1997)
 5 (Cuban research report for 1997)
 6 (Russian research report for 1997)
 7 (German research report for 1997)
 9 (list of biological sampling for 1996 and 1997)
 10 (French research report for 1997)
 11 (Spanish research report for 1997)
 12 (US research report for 1997)
 13 (Portuguese research report for 1997)
 14 (Denmark-Greenland research report for 1997)
 15 (Canadian research report for 1997)
 16 (report of ICES/NAFO working group on seals)
 18 (research vessel surveys by stock)

Atlantic redfishes (see Redfishes, Atlantic)Atmosphere

- SCR 98/ 18 (1st Russian/German project, climatic variations Labrador Sea)
 20 (effects of NAO index on marine fisheries)
 24 (oceanographic investigations off W. Greenland, 1981-97)
 36 (climatic conditions around Greenland, 1997)
 37 (hydrological changes on Scotian Shelf and Gulf of Maine)
 38 (overview of environmental conditions, NW Atlantic, 1997)
 54 (environmental effects on squid recruitment)
 109 (2nd Russian/German project, climatic variations Labrador Sea)

[B]Barents Sea

- SCR 98/ 102 (maturity of haddock in Barents Sea)
 103 (sexual difference in maturation of NE Arctic cod)

Beaked redfish (see Redfish, beaked)Biological characteristics

- SCR 98/ 16 (redfish distribution by depths in the Irminger Sea)
 43 (roughhead grenadier population on Flemish Cap, 1991-97)
 55 (squid fishery in Newfoundland area, 1994-97)
 59 (review of short-finned squid in the NW Atlantic)
 115 (shrimp survey, inshore W. Greenland, 1998)

Biomass (see also Abundance; Stock size)

- SCR 98/ 3 (surplus production analysis of shrimp, Denmark St.)
 4 (management reference points for cod off Greenland)
 9 (application of G(loss) methodology to cod)
 13 (Russian surveys on G. halibut, Flemish Cap, 1987-96)
 14 (Russian surveys on roundnose grenadier, Div. 2GH, 1987-93)
 15 (Russian surveys on redfish, Flemish Cap, 1983-97)
 25 (Greenland survey off W. Greenland)
 30 (results of EU trawl survey, Div. 3M, 1997)
 31 (population of roughhead grenadier, Flemish Cap, 1997)
 40 (biomass and abundance of fish off W. Greenland, 1988-97)
 46 (assessment of cod in Div. 2J+3KL)
 47 (assessment of G. halibut in SA0 & Div. 3KLMNO)
 48 (results of Spanish trawl survey, Div. 3NO, 1998)
 49 (evaluation of witch flounder in Div. 3NO)
 51 (assessment of A. plaice in Div. 3M)
 52 (assessment of cod in Div. 3M)
 53 (assessment of redfish in Div. 3M)
 57 (assessment of roundnose grenadier in SA2+3)
 59 (review of short-finned squid in the NW Atlantic)
 62 (biomass and age composition of cod in Div. 2J+3KL)
 63 (G. halibut trends in Div. 2J+3KLMNO)
 64 (distribution and stock size of witch flo. in Div. 2J+3KL)
 65 (assessment of cod in Div. 3NO)
 67 (assessment of redfish in SA1)
 69 (assessment of A. plaice in Div. 3LNO)
 72 (assessment of yellowtail flo. in Div. 3LNO)
 75 (yield estimates for squid in SA 3-4 from survey indices)
 78 (analysis of stock-recruitment in silver hake)
 81 (shrimp on Flemish Cap, Jul-Aug 1998)
 83 (information on shrimp on Flemish Cap, 1997 and 1998)
 84 (shrimp biomass in Div. 3L, June 1998)
 91 (information on shrimp in Div. 3LNO from surveys)
 93 (errors in measuring spawning stock biomass)
 96 (maturation and spawning mortality of NE Arctic cod)
 99 (effects of gear changes on A. plaice)
 101 (historical growth of cod off Greenland)
 103 (sexual difference in maturation of NE Arctic cod)
 113 (biomass index for shrimp in Davis Strait)
 115 (shrimp survey, inshore W. Greenland, 1998)
 117 (revised surplus production analysis of shrimp, Denmark St.)
 118 (offshore survey for shrimp in SA 0+1, 1998)
 123 (assessment of shrimp in Davis Strait, 1998)

Boreogadus saida (see Cod, Arctic)Buoys

- SCR 98/ 22 (MEDS report for 1997)

By-catch

- SCR 98/ 19 (growth rate and distribution of roundnose grenadier)
 26 (survey results for skates in Div. 3NO)
 29 (by-catch in Icelandic shrimp fishery, Flemish Cap, 1997 & 98)
 41 (estimate of by-catch in W. Greenland shrimp fishery)
 51 (assessment of A. plaice in Div. 3M)
 53 (assessment of redfish in Div. 3M)
 80 (by-catch in Div. 3M shrimp fishery, 1993-97)
 82 (Greenland shrimp fishery in Div. 3M, 1997 and 1998)
 89 (Icelandic shrimp fishery at Flemish Cap)
 111 (Greenland shrimp fishery off W. Greenland, 1970-98)
 123 (assessment of shrimp in Davis Strait, 1998)

[C]Canada

SCR 98/ 85 (Canadian shrimp fishery on Flemish Cap, 1993-98)
91 (information on shrimp in Div. 3LNO from surveys)

SCS 98/ 2 (Canadian request for scientific advice for 1999)
15 (Canadian research report for 1997)

Capelin (*Mallotus villosus*)

SCR 98/ 103 (sexual difference in maturation of NE Arctic cod)

Catch; catch/effort

SCR 98/ 1 (stats and sampling from Norwegian fishery, 1995 and 1996)
3 (surplus production analysis of shrimp, Denmark St.)
14 (Russian surveys on roundnose grenadier, Div. 2GH, 1987-96)
26 (survey results for skates in Div. 3NO)
28 (proposal to rename grenadiers section in STACFIS)
39 (data for G. halibut in SA0)
44 (assessment of G. halibut inshore Div. 1A)
45 (assessment of finfish in SA1)
47 (assessment of G. halibut in SA0 & Div. 3KLMNO)
49 (evaluation of witch flounder in Div. 3NO)
51 (assessment of A. plaice in Div. 3M)
52 (assessment of cod in Div. 3M)
53 (assessment of redfish in Div. 3M)
55 (squid fishery in Newfoundland area, 1994-97)
56 (assessment of G. halibut in SA0 and SA1)
57 (assessment of roundnose grenadier in SA2+3)
63 (G. halibut trends in Div. 2J+3KLMNO)
64 (distribution and stock size of witch flo. in Div. 2J+3KL)
65 (assessment of cod in Div. 3NO)
66 (survey sampling of yellowtail flo. on Grand Bank)
67 (assessment of redfish in SA1)
69 (assessment of A. plaice in Div. 3LNO)
72 (assessment of yellowtail flo. in Div. 3LNO)
73 (survey results for yellowtail flo. in Div. 3NO, 1996-98)
74 (status of redfish in Div. 3LN)
82 (Greenland shrimp fishery in Div. 3M, 1997 and 1998)
83 (information on shrimp on Flemish Cap, 1997 and 1998)
85 (Canadian shrimp fishery on Flemish Cap, 1993-98)
87 (catch and effort data from Norwegian shrimp fishery, 1997-98)
92 (shrimp fishery on Flemish Cap)
111 (Greenland shrimp fishery off W. Greenland, 1970-98)
112 (Greenland shrimp fishery in Denmark Strait, 1997-98)
117 (revised surplus production analysis of shrimp, Denmark St.)
120 (Icelandic shrimp fishery in Denmark Strait, 1997-98)
121 (assessment of shrimp in Denmark Strait)
122 (catch statistics for shrimp in Denmark Strait, 1980-98)

Climate

SCR 98/ 18 (1st Russian/German project, climatic variations Labrador Sea)
23 (oceanographic investigations off Greenland, 1997)
24 (oceanographic investigations off W. Greenland, 1981-97)
36 (climatic conditions around Greenland, 1997)
38 (overview of environmental conditions, NW Atlantic, 1997)
79 (measurements of sea surface temperature)
109 (2nd Russian/German project, climatic variations Labrador Sea)
110 (growth and maturity in cod and A. halibut)

Cod, Atlantic (*Gadus morhua*) (see also specific stock)

SCR 98/ 4 (management reference points for cod off Greenland)
6 (covariance among survey indices of abundance at age)
9 (application of G(loss) methodology to cod)
SCR 98/ 10 (application of precautionary approach to cod, haddock, plaice)

11 (non-parametric precautionary framework)
20 (effects of NAO index on marine fisheries)
30 (results of EU trawl survey, Div. 3M, 1997)
40 (biomass and abundance of fish off W. Greenland, 1988-97)
46 (assessment of cod in Div. 2J+3KL)
48 (results of Spanish trawl survey, Div. 3NO, 1998)
52 (assessment of cod in Div. 3M)
58 (fishing mortality of cod on Flemish Cap)
62 (biomass and age composition of cod in Div. 2J+3KL)
65 (assessment of cod in Div. 3NO)
68 (age structured model for cod in Div. 3NO)
94 (models of growth and maturity for North Sea cod)
97 (buoyancy of cod larvae)
98 (weight increments for cod in Div. 2J+3KL)
101 (historical growth of cod off Greenland)
104 (rates of maturation of cod on George's Bank and Gulf of Maine)
110 (growth and maturity in cod and A. halibut)

Cod, Greenland (*Gadus ogac*)

SCR 98/ 45 (assessment of finfish in SA1)

Commercial fisheries

SCR 98/ 8 (precautionary measures and reference points)
12 (how to halt the decline of fish stocks)
33 (validation of roughhead grenadier otolith reading)
43 (roughhead grenadier population on Flemish Cap, 1991-97)
76 (report of workshop on precautionary approach, March 1998)
80 (by-catch in Div. 3M shrimp fishery, 1993-97)
85 (Canadian shrimp fishery on Flemish Cap, 1993-98)
90 (age and sex composition of shrimp on Flemish Cap)
113 (biomass index for shrimp in Davis Strait)
122 (catch statistics for shrimp in Denmark Strait, 1980-98)

SCS 98/ 1 (Scientific Council report on precautionary approach)

Conversion factors

SCR 98/ 50 (data conversions for witch flo.)
60 (conversion factors for yellowtail flo. survey indices)
61 (conversion factors for witch flo. survey indices)
70 (conversion factors for A. plaice survey indices)
71 (conversion factors for redfish survey indices)
99 (effects of gear changes on A. plaice)

Coryphaenoides rupestris (see Grenadier, roundnose)Cuba

SCS 98/ 5 (Cuban research report for 1997)

Currents (water circulation)

SCR 98/ 24 (oceanographic investigations off W. Greenland, 1981-97)
32 (physical oceanography survey, Flemish Cap, 1997)
35 (oceanographic variability on Flemish Cap)
37 (hydrological changes on Scotian Shelf and Gulf of Maine)
38 (overview of environmental conditions, NW Atlantic, 1997)
86 (oceanographic conditions on Flemish Cap, 1998)

[D]Davis Strait

SCR 98/ 44 (assessment of G. halibut inshore Div. 1A)
56 (assessment of G. halibut in SA0 and SA1)
SCR 98/; 113 (biomass index for shrimp in Davis Strait)
118 (offshore survey for shrimp in SA 0+1, 1998)

- 123 (assessment of shrimp in Davis Strait, 1998)

Denmark (in respect of the Faroe Islands and Greenland) (see under Faroe Islands and Greenland)

Denmark Strait

- SCR 98/ 3 (surplus production analysis of shrimp, Denmark Strait)
 112 (Greenland shrimp fishery in Denmark Strait, 1997-98)
 117 (revised surplus production analysis of shrimp, Denmark Strait)
 120 (Icelandic shrimp fishery in Denmark Strait, 1997-99)
 121 (assessment of shrimp in Denmark Strait)
 122 (catch statistics for shrimp in Denmark Strait, 1980-98)

Depth

- SCR 98/ 16 (redfish distribution by depths in the Irminger Sea)
 118 (offshore survey for shrimp in SA 0+1, 1998)
 119 (investigation in catch of shrimp, G. halibut and redfish)

Discards (fish discarded at sea)

- SCR 98/ 34 (feeding of dogfish on Flemish Pass)
 82 (Greenland shrimp fishery in Div. 3M, 1997 and 1998)
 111 (Greenland shrimp fishery off W. Greenland, 1970-98)
 123 (assessment of shrimp in Davis Strait, 1998)

Distribution (see also Abundance)

- SCR 98/ 16 (redfish distribution by depths in the Irminger Sea)
 26 (survey results for skates in Div. 3NO)
 27 (yellowtail flo. length at maturity, Grand Bank, 1995-97)
 31 (population of roughhead grenadier, Flemish Cap, 1997)
 42 (feeding of A. plaice and yellowtail flo. on Grand Bank)
 47 (assessment of G. halibut in SA0 & Div. 3KLMNO)
 48 (results of Spanish trawl survey, Div. 3NO, 1998)
 55 (squid fishery in Newfoundland area, 1994-97)
 57 (assessment of roundnose grenadier in SA2+3)
 59 (review of short-finned squid in the NW Atlantic)
 63 (G. halibut trends in Div. 2J+3KLMNO)
 64 (distribution and stock size of witch flo. in Div. 2J+3KL)
 72 (assessment of yellowtail flo. in Div. 3LNO)
 73 (survey results for yellowtail flo. in Div. 3NO, 1996-98)
 81 (shrimp on Flemish Cap, Jul-Aug 1998)
 82 (shrimp on Flemish cap, Jul-Aug 1998)
 83 (information on shrimp on Flemish Cap, 1997 and 1998)
 91 (information on shrimp in Div. 3LNO from surveys)
 108 (early development of G. halibut in the NE Arctic)
 111 (Greenland shrimp fishery off W. Greenland, 1970-98)
 112 (Greenland shrimp fishery in Denmark Strait, 1997-98)
 118 (offshore survey for shrimp in SA 0+1, 1998)
 124 (hydrographic conditions in relation to shrimp off E. Greenland)

Diurnal effects

- SCR 98/ 42 (feeding of A. plaice and yellowtail flo. on Grand Bank)

[E]

East Greenland Area (see Greenland, East)

Echo sounding (see Acoustics)

Ecology (see Environment)

Effort (see catch)

Eggs; Ova

- SCR 98/ 88 (individual fecundity of shrimp on Flemish Cap)

- 93 (errors in measuring spawning stock biomass)
 97 (buoyance of cod larvae)
 108 (early development of G. halibut in the NE Arctic)

Environment (see also specific subject headings)

- SCR 98/ 22 (MEDS report for 1997)
 38 (overview of environmental conditions, NW Atlantic, 1997)
 54 (environmental effects on squid recruitment)
 59 (review of short-finned squid in the NW Atlantic)
 98 (weight increments for cod in Div. 2J+3KL)
 102 (maturity of haddock in Barents Sea)
 124 (hydrographic conditions in relation to shrimp off E. Greenland)

European Union (see individual countries)

[F]

Faroe Islands (Denmark in respect of Faroe Islands)

- SCR 98/ 83 (information on shrimp on Flemish Cap, 1997 and 1998)
 84 (shrimp biomass in Div. 3L, June 1998)

Fecundity

- SCR 98/ 88 (individual fecundity of shrimp on Flemish Cap)
 93 (errors in measuring spawning stock biomass)
 95 (changes in G. halibut in NW Atlantic)
 107 (fecundity of G. halibut in the NE Arctic)

Feeding; Food

- SCR 98/ 16 (redfish distribution by depths in the Irminger Sea)
 34 (feeding of dogfish on Flemish Pass)
 42 (feeding of A. plaice and yellowtail flo. on Grand Bank)

Finfishes (see specific names) (see also specific stock)

Fishing effort (see Catch)

Fishing gear (see also specific gears)

- SCR 98/ 50 (data conversions for witch flo.)
 60 (conversion factors for yellowtail flo. survey indices)
 61 (conversion factors for witch flo. survey indices)
 66 (survey sampling of yellowtail flo. on Grand Bank)
 70 (conversion factors for A. plaice survey indices)
 71 (conversion factors for redfish survey indices)
 80 (by-catch in Div. 3M shrimp fishery, 1993-97)

Flemish Cap (Division 3M)

- SCR 98/ 13 (Russian surveys on G. halibut, Flemish Cap, 1987-96)
 15 (Russian surveys on redfish, Flemish Cap, 1983-97)
 30 (results of EU trawl survey, Div. 3M, 1997)
 31 (population of roughhead grenadier, Flemish Cap 1997)
 32 (physical oceanography survey, Flemish Cap, 1997)
 34 (feeding of dogfish on Flemish Pass)
 35 (oceanographic variability on Flemish Cap)
 43 (roughhead grenadier population on Flemish Cap, 1991-97)
 51 (assessment of A. plaice in Div. 3M)
 52 (assessment of cod in Div. 3M)
 53 (assessment of redfish in Div. 3M)
 58 (fishing mortality of cod on Flemish Cap)
 80 (by-catch in Div. 3M shrimp fishery, 1993-97)
 SCR 98/ 81 (shrimp on Flemish cap, Jul-Aug 1998)
 82 (Greenland shrimp fishery in Div. 3M, 1997 and 1998)
 83 (information on shrimp on Flemish Cap, 1997 and 1998)
 85 (Canadian shrimp fishery on Flemish Cap, 1993-98)

- 86 (oceanographic conditions on Flemish Cap, 1998)
- 87 (catch and effort data from Norwegian shrimp fishery, 1997-98)
- 88 (individual fecundity of shrimp on Flemish Cap)
- 89 (Icelandic shrimp fishery at Flemish Cap)
- 90 (age and sex composition of shrimp on Flemish Cap)
- 92 (shrimp fishery on Flemish Cap)
- 95 (changes in G. halibut in NW Atlantic)

Flemish Pass

- SCR 98/ 95 (changes in G. halibut in NW Atlantic)

Flounder, witch (*Glyptocephalus cynoglossus*) (see also specific stock)

- SCR 98/ 48 (results of Spanish trawl survey, Div. 3NO, 1998)
- 49 (evaluation of witch flounder in Div. 3NO)
- 50 (data conversions for witch flo.)
- 61 (conversion factors for witch flo. survey indices)
- 64 (distribution and stock size of witch flo. in Div. 2J+3KL)

Flounder, yellowtail (*Limanda ferruginea*) (see also specific stock)

- SCR 98/ 27 (yellowtail flo. length at maturity, Grand Bank, 1995-97)
- 42 (feeding of A. plaice and yellowtail flo. on Grand Bank)
- 48 (results of Spanish trawl survey, Div. 3NO, 1998)
- 60 (conversion factors for yellowtail flo. survey indices)
- 66 (survey sampling of yellowtail flo. on Grand Bank)
- 70 (conversion factors for A. plaice survey indices)
- 72 (assessment of yellowtail flo. in Div. 3LNO)
- 73 (survey results for yellowtail flo. in Div. 3NO, 1996-98)
- 105 (maturation of yellowtail flo. on Grand Bank)

France

- SCS 98/ 10 (French research report for 1997)

[G]

Gadus ogac (see Cod, Greenland)

Gadus morhua (see Cod, Atlantic)

Georges Bank (Subarea 5)

- SCR 98/ 78 (analysis of stock recruitment in silver hake)
- 104 (rates of maturation of cod on Georges Bank and Gulf of Maine)

Germany

- SCS 98/ 7 (German research report for 1997)

Glyptocephalus cynoglossus (see Flounder, witch)

Grand Bank (Div. 3LNO including inshore)

- SCR 98/ 9 (application of G(loss) methodology to cod)
- 26 (survey results for skates in Div. 3NO)
- 27 (yellowtail flo. length at maturity, Grand Bank, 1995-97)
- 38 (overview of environmental conditions, NW Atlantic, 1997)
- 42 (feeding of A. plaice and yellowtail flo. on Grand Bank)
- 48 (results of Spanish trawl survey, Div. 3NO, 1998)
- 49 (evaluation of witch flounder in Div. 3NO)
- 50 (data conversions for witch flounder)
- 65 (assessment of cod in Div. 3NO)
- SCR 98/ 66 (survey sampling of yellowtail flo. on Grand Bank)
- 68 (age structured model for cod in Div. 3NO)
- 72 (assessment of yellowtail flo. on Div. 3LNO)
- 73 (survey results for yellowtail flo. in Div. 3NO, 1996-98)
- 84 (shrimp biomass in Div. 3L, June 1998)

- 95 (changes in G. halibut in NW Atlantic)
- 105 (maturation of yellowtail flo. on Grand Bank)

Greenland (Denmark in respect of Greenland)

- SCR 98/ 82 (Greenland shrimp fishery in Div. 3M, 1997 and 1998)
- 111 (Greenland shrimp fishery off W. Greenland, 1970-98)
- 112 (Greenland shrimp fishery in Denmark Strait, 1997-98)
- 114 (review of survey for shrimp off W. Greenland)
- 118 (offshore survey for shrimp in SA 0+1)

- SCS 98/ 3 (Denmark-Greenland request for scientific advice for 1999)
- 14 (Denmark-Greenland research report for 1997)

Greenland, East (see also Denmark Strait)

- SCR 98/ 21 (survey information on demersal stocks and temperature)
- 124 (hydrographic conditions in relation to shrimp off E. Greenland)

Greenland, West (Subarea 1)

- SCR 98/ 1 (stats and sampling from Norwegian fishery, 1995 and 1997)
- 20 (effects of NAO index on marine fisheries)
- 21 (survey information on demersal stocks and temperature)
- 23 (oceanographic investigations off Greenland, 1997)
- 24 (oceanographic investigations off W. Greenland, 1981-97)
- 25 (Greenland survey off W. Greenland)
- 36 (climatic conditions around Greenland, 1997)
- 40 (biomass and abundance of fish off W. Greenland, 1988-97)
- 41 (estimate of by-catch in W. Greenland shrimp fishery)
- 44 (assessment of G. halibut inshore Div. 1A)
- 67 (assessment of redfish in SA1)
- 101 (historical growth of cod off Greenland)
- 111 (Greenland shrimp fishery off W. Greenland, 1970-98)
- 114 (review of survey for shrimp off W. Greenland)
- 115 (shrimp survey, inshore W. Greenland, 1998)
- 116 (model of biomass dynamics of W. Greenland shrimp)

Greenland cod (see Cod, Greenland)

Greenland halibut (see Halibut, Greenland)

Grenadier, roughhead (*Macrourus berglax*)

- SCR 98/ 25 (Greenland survey off W. Greenland)
- 28 (proposal to rename grenadiers section in STACFIS)
- 31 (population of roughhead grenadier, Flemish Cap, 1997)
- 33 (validation of roughhead grenadier otolith reading)
- 43 (roughhead grenadier population on Flemish Cap, 1991-97)
- 57 (assessment of roundnose grenadier in SA 2+3)

Grenadier, roundnose (*Coryphaenoides rupestris*) (see also specific stock)

- SCR 98/ 14 (Russian surveys on roundnose grenadier, Div. 2GH, 1987-94)
- 19 (growth rate and distribution of roundnose grenadier)
- 25 (Greenland survey off W. Greenland)
- 28 (proposal to rename grenadiers section in STACFIS)
- 57 (assessment of roundnose grenadier in SA2+3)

Groundfish (see also common names)

- SCR 98/ 93 (errors in measuring spawning stock biomass)

Growth

- SCR 98/ 19 (growth rate and distribution of roundnose grenadier)
 59 (review of short-finned squid in the NW Atlantic)
 72 (assessment of yellowtail flo. in Div. 3LNO)
 93 (errors in measuring spawning stock biomass)
 94 (models of growth and maturity for North Sea cod)
 95 (changes in G. halibut in NW Atlantic)
 98 (weight increments for cod in Div. 2J+3KL)
 101 (historical growth of cod off Greenland)
 102 (maturity of haddock in Barents Sea)
 103 (sexual difference in maturation of NE Arctic cod)
 105 (maturation of yellowtail flo. on Grand Bank)
 106 (growth and maturation of haddock in Icelandic waters)
 110 (growth and maturity in cod and A. halibut)

Gulf of Maine (Division 5Y)

- SCR 98/ 17 (water temperature & salinity, Mid-Atlantic Bight, 1997)
 37 (hydrological changes on Scotian Shelf and Gulf of Maine)
 38 (overview of environmental conditions, NW Atlantic, 1997)
 104 (rates of maturation of cod on Georges Bank and Gulf of Maine)

Gulf of St. Lawrence (Div. 4RST)

- SCR 98/ 38 (overview of environmental conditions, NW Atlantic, 1997)

[H]Haddock (*Melanogrammus aeglefinus*)

- SCR 98/ 10 (application of precautionary approach to cod, haddock, plaice)
 100 (evaluation of maturity estimates from sampling)
 102 (maturity of haddock in Barents Sea)
 106 (growth and maturation of haddock in Icelandic waters)

Hake, silver (*Merluccius bilinearis*) (see also specific stock)

- SCR 98/ 78 (analysis of stock-recruitment in silver hake)

Halibut, Atlantic (*Hippoglossus hippoglossus*)

- SCR 98/ 45 (assessment of finfish in SA 1)
 110 (growth and maturity in cod and A. halibut)

Halibut, Greenland (*Reinhardtius hippoglossoides*) (see also specific stock)

- SCR 98/ 13 (Russian surveys on G. halibut, Flemish Cap, 1987-96)
 25 (Greenland survey off W. Greenland)
 29 (by-catch in Icelandic shrimp fishery, Flemish Cap, 1997 & 98)
 30 (results of EU trawl survey, Div. 3M, 1997)
 39 (data for G. halibut in SA0)
 40 (biomass and abundance of fish off W. Greenland, 1988-97)
 41 (estimate of by-catch in W. Greenland shrimp fishery)
 44 (assessment of G. halibut inshore Div. 1A)
 47 (assessment of G. halibut in SA0 & Div. 3KLMNO)
 48 (results of Spanish trawl survey, Div. 3NO, 1998)
 56 (assessment of G. halibut in SA0 and SA1)
 63 (G. halibut trends in Div. 2J+3KLMNO)
 77 (possible reference points for G. halibut in SA 2+3)
 95 (changes in G. halibut in NW Atlantic)
 107 (fecundity of G. halibut in the NE Arctic)
 108 (early development of G. halibut in the NE Arctic)
 119 (investigation in catch of shrimp, G. halibut and redfish)

Hippoglossoides platessoides (see Plaice, American)Hippoglossus hippoglossus (see Halibut, Atlantic)Hydroacoustics (see Acoustics)Hydrography (see also specific subjects)

- SCR 98/ 37 (hydrological changes on Scotian Shelf and Gulf of Maine)
 38 (overview of environmental conditions, NW Atlantic, 1997)

[I]Ice; Icebergs

- SCR 98/ 18 (1st Russian/German project, climatic variations Labrador Sea)
 35 (oceanographic variability on Flemish Cap)
 38 (overview of environmental conditions, NW Atlantic, 1997)

Iceland

- SCR 98/ 89 (Icelandic shrimp fishery at Flemish Cap)
 106 (growth and maturation of haddock in Icelandic waters)
 120 (Icelandic shrimp fishery in Denmark Strait, 1997-98)

ICES (International Council for the Exploration of the Sea)

- SCR 98/ 12 (how to halt the decline of fish stocks)
 76 (report of workshop on precautionary approach, March 1998)
 94 (models of growth and maturity for North Sea cod)

- SCS 98/ 16 (report of ICES/NAFO working group on seals)

Inshore (see also respective areas)

- SCR 98/ 44 (assessment of G. halibut inshore Div. 1A)
 115 (shrimp survey, inshore W. Greenland, 1998)

Irminger Sea

- SCR 98/ 16 (redfish distribution by depths in the Irminger Sea)

[J]Juveniles

- SCR 98/ 15 (Russian surveys on redfish, Flemish Cap, 1983-96)

[L]Labrador area (Subarea 2)

- SCR 98/ 18 (1st Russian/German project, climatic variations Labrador Sea)
 38 (overview of environmental conditions, NW Atlantic, 1997)
 46 (assessment of cod in Div. 2J+3KL)
 62 (biomass and age composition of cod in Div. 2J+3KL)
 109 (2nd Russian/German project, climatic variations Labrador Sea)

Larvae

- SCR 98/ 97 (buoyance of cod larvae)

Length

- SCR 98/ 1 (stats and sampling from Norwegian fishery, 1995 and 1999)
 6 (covariance among survey indices of abundance at age)
 16 (redfish distribution by depths in the Irminger Sea)
 19 (growth rate and distribution of roundnose grenadier)
 25 (Greenland survey off W. Greenland)
 26 (survey results for skates in Div. 3NO)
 27 (yellowtail flo. length at maturity, Grand bank, 1995-97)
 SCR 98/ 29 (by-catch in Icelandic shrimp fishery, Flemish Cap, 1997 & 98)
 31 (population of roughhead grenadier, Flemish Cap, 1997)

- 43 (roughhead grenadier population on Flemish Cap, 1991-97)
- 48 (results of Spanish trawl survey, Div. 3NO, 1998)
- 53 (assessment of redfish in Div. 3M)
- 55 (squid fishery in Newfoundland area, 1994-97)
- 65 (assessment of cod in Div. 3NO)
- 66 (survey sampling of yellowtail flo. on Grand Bank)
- 73 (survey results for yellowtail flo. in Div. 3NO, 1996-98)
- 74 (status of redfish in Div. 3LN)
- 81 (shrimp on Flemish cap, Jul-Aug 1998)
- 82 (Greenland shrimp fishery in Div. 3M, 1997 and 1998)
- 85 (Canadian shrimp fishery on Flemish cap, 1993-98)
- 88 (individual fecundity of shrimp on Flemish Cap)
- 89 (Icelandic shrimp fishery at Flemish Cap)
- 91 (information on shrimp in Div. 3LNO from surveys)
- 99 (effects of gear changes on A. plaice)
- 101 (historical growth of cod off Greenland)
- 103 (sexual difference in maturation of NE Arctic cod)
- 107 (fecundity of G. halibut in the NE Arctic)

Limanda ferruginea (see Flounder, yellowtail)

Logbook

- SCR 98/ 112 (Greenland shrimp fishery in Denmark Strait, 1997-98)
- 120 (Icelandic shrimp fishery in Denmark Strait, 1997-98)

[M]

Macrourus berglax (see Grenadier, roughhead)

Mallotus villotus (see Capelin)

Management

- SCR 98/ 2 (reference points in fishery management)
- 3 (surplus production analysis of shrimp, Denmark St.)
- 4 (management reference points for cod off Greenland)
- 5 (reproductive rate of fish at low populations)
- 7 (performance of harvest control rules)
- 8 (precautionary measures and reference points)
- 10 (application of precautionary approach to cod, haddock, plaice)
- 11 (non-parametric precautionary framework)
- 12 (how to halt the decline of fish stocks)
- 20 (effects of NAO index on marine fisheries)
- 28 (proposal to rename grenadiers section in STACFIS)
- 59 (review of short-finned squid in the NW Atlantic)
- 76 (report of workshop on precautionary approach, March 1998)
- 96 (maturation and spawning mortality of NE Arctic cod)
- 98 (weight increments for cod in Div. 2J+3KL)
- 117 (revised surplus production analysis of shrimp, Denmark St.)
- SCS 98/ 1 (Scientific Council report on precautionary approach)
- 2 (Canadian request for scientific advice for 1999)
- 3 (Denmark-Greenland request for scientific advice for 1999)

Maturation, Maturity

- SCR 98/ 27 (yellowtail flo. length at maturity, Grand Bank, 1995-97)
- 65 (assessment of cod in Div. 3NO)
- 88 (individual fecundity of shrimp on Flemish Cap)
- 94 (models of growth and maturity for North Sea cod)
- 95 (changes in G. halibut in NW Atlantic)
- 96 (maturation and spawning mortality of NE Arctic cod)
- 99 (effects of gear changes on A. plaice)
- 100 (evaluation of maturity estimates from sampling)
- 102 (maturity of haddock in Barents Sea)
- SCR 98 103 (sexual difference in maturation of NE Arctic cod)
- 104 (rates of maturation of cod on Georges Bank and Gulf of Maine)
- 105 (maturation of yellowtail flo. on Grand Bank)

- 106 (growth and maturation of haddock in Icelandic waters)
- 110 (growth and maturity in cod and A. halibut)
- 121 (assessment of shrimp in Denmark Strait)

MEDS (Marine Environmental Data Service)

- SCR 98/ 22 (MEDS report for 1999)

Melanogrammus aeglefinus (see Haddock)

Merluccius bilinearis (see Hake, silver)

Meteorology

- SCR 98/ 18 (1st Russian/German project, climatic variations Labrador Sea)
- 38 (overview of environmental conditions, NW Atlantic, 1997)
- 109 (2nd Russian/German project, climatic variations Labrador Sea)

Mid-Atlantic Bight

- SCR 98/ 17 (water temperature & salinity, Mid-Atlantic Bight, 1997)

Morphology

- SCR 98/ 108 (early development of G. halibut in the NE Arctic)

Mortality

- SCR 98/ 4 (management reference points for cod off Greenland)
- 9 (application of G(loss) methodology to cod)
- 44 (assessment of G. halibut inshore Div. 1A)
- 46 (assessment of cod in Div. 2J+3KL)
- 47 (assessment of G. halibut in SA0 & Div. 3KLMNO)
- 53 (assessment of redfish in Div. 3M)
- 58 (fishing mortality of cod on Flemish Cap)
- 65 (assessment of cod in Div. 3NO)
- 69 (assessment of A. plaice in Div. 3LNO)
- 72 (assessment of yellowtail flo. in Div. 3LNO)
- 75 (yield estimates for squid in SA 3-4 from survey indices)
- 77 (possible reference points for G. halibut in SA 2+3)
- 96 (maturation and spawning mortality of NE Arctic cod)
- 105 (maturation of yellowtail flo. on Grand Bank)

Multiplicative model (see also under assessments)

- SCR 98/ 39 (data for G. halibut in SA0)
- 47 (assessment of G. halibut in SA0 & Div. 3KLMNO)

[N]

NAFO (Northwest Atlantic Fisheries Organization)

- SCS 98/ 16 (report of ICES/NAFO working group on seals)

Newfoundland area (Subarea 3, see also Inshore)

- SCR 98/ 55 (squid fishery in Newfoundland area, 1994-97)
- 63 (G. halibut trends in Div. 2J+3KLMNO)
- 64 (distribution and stock size of witch flo. in Div. 2J+3KL)

Northeast Atlantic (see Atlantic Ocean, Northeast)

Northwest Atlantic (see Atlantic Ocean, Northwest)

Norway

- SCR 98/ 102 (maturity of haddock in Barents Sea)
 103 (sexual difference in maturation of NE Arctic cod)

[O]Oceanography (see also specific areas)

- SCR 98/ 23 (oceanographic investigations off Greenland)
 24 (oceanographic investigations off W. Greenland, 1981-97)
 30 (results of EU trawl survey, Div. 3M, 1997)
 32 (physical oceanography survey, Flemish Cap, 1997)
 35 (oceanographic variability on Flemish Cap)
 86 (oceanographic conditions on Flemish cap, 1998)

Otoliths

- SCR 98/ 6 (covariance among survey indices of abundance at age)
 25 (Greenland survey off W. Greenland)
 31 (population of roughhead grenadier, Flemish Cap, 1997)
 33 (validation of roughhead grenadier otolith reading)

Oxygen

- SCR 98/ 86 (oceanographic conditions on Flemish Cap, 1998)

[P]Pandalus sp. (see Shrimp)Pandalus borealis (see Shrimp)Plaice, American (*Hippoglossoides platessoides*) (see also specific stock)

- SCR 98/ 10 (application of precautionary approach to cod, haddock, plaice)
 25 (Greenland survey off W. Greenland)
 30 (results of EU trawl survey, Div. 3M, 1997)
 41 (estimate of by-catch in W. Greenland shrimp fishery)
 42 (feeding of A. plaice and yellowtail flo. on Grand Bank)
 45 (assessment of finfish in SA 1)
 48 (results of Spanish trawl survey, Div. 3NO, 1998)
 51 (assessment of A. plaice in Div. 3M)
 69 (assessment of A. plaice in Div. 3LNO)
 100 (evaluation of maturity estimates from sampling)

Portugal

- SCS 98/ 13 (Portuguese research report for 1997)

Precautionary Approach

- SCR 98/ 2 (reference points in fishery management)
 4 (management reference points for cod off Greenland)
 7 (performance of harvest control rules)
 10 (application of precautionary approach to cod, haddock, plaice)
 11 (non-parametric precautionary framework)
 12 (how to halt the decline of fish stocks)
 53 (assessment of redfish in Div. 3M)
 76 (report of workshop on precautionary approach, March 1998)
 77 (possible reference points for G. halibut in SA 2+3)

- SCS 98/ 1 (Scientific Council report on precautionary approach)

Publications

- SCS 98/ 8 (provisional index for 1998 SCR and SCS documents)

[Q]Quotas

- SCS 98/ 17 (report of Scientific Council June 1998 meeting)
 19 (report of Scientific Council September 1998 meeting)
 21 (report of Scientific Council November 1998 meeting)

[R]Raja sp. (see Skates)Recruitment

- SCR 98/ 5 (reproductive rate of fish at low populations)
 20 (effects of NAO index on marine fisheries)
 21 (survey information on demersal stocks and temperature)
 42 (feeding of A. plaice and yellowtail flo. on Grand Bank)
 44 (assessment of G. halibut inshore Div. 1A)
 46 (assessment of cod in Div. 2J+3KL)
 47 (assessment of G. halibut in SA0 & Div. 3KLMNO)
 52 (assessment of cod in Div. 3M)
 54 (environmental effects on squid recruitment)
 66 (survey sampling of yellowtail flo. on Grand Bank)
 69 (assessment of A. plaice in Div. 3LNO)
 74 (status of redfish in Div. 3LN)
 78 (analysis of stock-recruitment in silver hake)
 93 (errors in measuring spawning stock biomass)
 101 (historical growth of cod off Greenland)

Redfishes, Atlantic (*Sebastes* sp.) (see also specific stock)

- SCR 98/ 15 (Russian surveys on redfish, Flemish Cap, 1983-96)
 16 (redfish distribution by depths in the Irminger Sea)
 29 (by-catch in Icelandic shrimp fishery, Flemish Cap, 1997 & 98)
 30 (results of EU trawl survey, Div. 3M, 1997)
 40 (biomass and abundance of fish off W. Greenland, 1988-97)
 41 (estimate of by-catch in W. Greenland shrimp fishery)
 53 (assessment of redfish in Div. 3M)
 67 (assessment of redfish in SA1)
 71 (conversion factors for redfish survey indices)
 74 (status of redfish in Div. 3LN)
 80 (by-catch in Div. 3M shrimp fishery, 1993-97)
 119 (investigation in catch of shrimp, G. halibut and redfish)

Redfish, beaked (*Sebastes mentella*)

- SCR 98/ 25 (Greenland survey off W. Greenland)

Reinhardtius hippoglossoides (see Halibut, Greenland)Reference Points

- SCR 98/ 2 (reference points in fishery management)
 4 (management reference points for cod off Greenland)
 7 (performance of harvest control rules)
 8 (precautionary measures and reference points)
 47 (assessment of G. halibut in SA0 & Div. 3KLMNO)
 49 (evaluation of witch flounder in Div. 3NO)
 59 (review of short-finned squid in the NW Atlantic)
 65 (assessment of cod in Div. 3NO)
 76 (report of workshop on precautionary approach)
 77 (possible reference points for G. halibut in SA 2+3)
 78 (analysis of stock-recruitment in silver hake)

Regulatory Area

- SCR 98/ 47 (assessment of G. halibut in SA0 & Div. 3KLMNO)
 48 (results of Spanish trawl survey, Div. 3NO, 1998)
 62 (biomass and age composition of cod in Div. 2J+3KL)

Remote sensing

- SCR 98/ 79 (measurements of sea surface temperature)

Reproduction

- SCR 98/ 5 (reproductive rate of fish at low populations)
 95 (changes in G. halibut in NW Atlantic)
 105 (maturation of yellowtail flo. on Grand Bank)

Research reports (national)

- SCS 98/ 5 (Cuban research report for 1997)
 6 (Russian research report for 1997)
 7 (German research report for 1997)
 10 (French research report for 1997)
 11 (Spanish research report for 1997)
 12 (US research report for 1997)
 13 (Portuguese research report for 1997)
 14 (Denmark-Greenland research report for 1997)
 15 (Canadian research report for 1997)

Roughhead grenadier (see Grenadier, roughhead)

Roundnose grenadier (see Grenadier, roundnose)

Russian Federation (Russia)

- SCS 98/ 6 (Russian research report for 1997)

[S]

STACFEN

- SCS 98/ 17 (report of Scientific Council June 1998 meeting)

STACFIS

- SCR 98/ 28 (proposal to rename grenadiers section in STACFIS)

- SCS 98/ 17 (report of Scientific Council June 1998 meeting)
 19 (report of Scientific Council September 1998 meeting)
 21 (report of Scientific Council November 1998 meeting)

STACPUB

- SCS 98/ 17 (report of Scientific Council June 1998 meeting)
 19 (report of Scientific Council September 1998 meeting)

STACREC

- SCS 97/ 17 (report of Scientific Council June 1998 meeting)
 18 (research vessel surveys by stock)
 19 (report of Scientific Council September 1998 meeting)

Salinity

- SCR 98/ 17 (water temperature & salinity, Mid-Atlantic Bight, 1997)
 22 (MEDS report for 1997)
 23 (oceanographic investigations off Greenland, 1997)
 35 (oceanographic variability on Flemish Cap)
 36 (climatic conditions around Greenland, 1997)
 37 (hydrological changes on Scotian Shelf and Gulf of Maine)
 SCR 98/ 86 (oceanographic conditions on Flemish Cap)

Sampling, biological

- SCR 98/ 46 (assessment of cod in Div. 2J+3KL)
 53 (assessment of redfish in Div. 3M)
 100 (evaluation of maturity estimates from sampling)
 120 (Icelandic shrimp fishery in Denmark Strait, 1997-98)

- SCS 98/ 9 (list of biological sampling for 1996 and 1997)

Scientific Council

- SCR 98/ 76 (report of workshop on precautionary approach, March 1998)

- SCS 98/ 1 (Scientific Council report on precautionary approach)
 17 (report of Scientific Council June 1998 meeting)
 19 (report of Scientific Council September 1998 meeting)
 21 (report of Scientific Council November 1998 meeting)

Scotian Shelf (Div. 4VWX)

- SCR 98/ 37 (hydrological changes on Scotian Shelf and Gulf of Maine)
 78 (analysis of stock-recruitment in silver hake)

Seals

- SCS 98/ 16 (report of ICES/NAFO working group on seals)

Sebastes sp. (see Redfishes, Atlantic)

Sebastes mentella (see Redfish, beaked)

Sequential population analysis (SPA) (see also under assessments)

- SCR 98/ 5 (reproductive rate of fish at low populations)
 46 (assessment of cod in Div. 2J+3KL)

Sex composition

- SCR 98/ 16 (redfish distribution by depths in the Irminger Sea)
 31 (population of roughhead grenadier, Flemish Cap, 1997)
 81 (shrimp on Flemish Cap, Jul-Aug 1998)
 89 (Icelandic shrimp fishery at Flemish Cap)
 90 (age and sex composition of shrimp on Flemish Cap)

Shrimp (*Pandalus* sp.) (see also under assessments)

- SCR 98/ 3 (surplus production analysis of shrimp Denmark St.)
 80 (by-catch in Div. 3M shrimp fishery, 1993-97)
 81 (shrimp on Flemish Cap, Jul-Aug 1998)
 82 (Greenland shrimp fishery in Div. 3M, 1997 and 1998)
 83 (information on shrimp on Flemish Cap, 1997 and 1998)
 84 (shrimp biomass in Div. 3L, June 1998)
 85 (Canadian shrimp fishery on Flemish Cap, 1993-98)
 87 (catch and effort data from Norwegian shrimp fishery, 1997-98)
 88 (individual fecundity of shrimp on Flemish Cap)
 89 (Icelandic shrimp fishery at Flemish Cap)
 90 (age and sex composition of shrimp on Flemish Cap)
 91 (information on shrimp in Div. 3LNO from surveys)
 92 (shrimp fishery on Flemish Cap)
 111 (Greenland shrimp fishery off W. Greenland, 1970-98)
 112 (Greenland shrimp fishery in Denmark Strait, 1997-98)
 113 (biomass index for shrimp in Davis Strait)
 114 (review of survey for shrimp off W. Greenland)
 115 (shrimp survey, inshore W. Greenland, 1998)
 116 (model of biomass dynamics of W. Greenland shrimp)
 117 (revised surplus production analysis of shrimp – Denmark St.)
 118 (offshore survey for shrimp in SA 0+1, 1998)
 SCR 98/ 119 (investigation in catch of shrimp, G. halibut and redfish)
 120 (Icelandic shrimp fishery in Denmark Strait, 1997-98)

- 121 (assessment of shrimp in Denmark Strait)
- 122 (catch statistics for shrimp in Denmark Strait, 1980-98)
- 124 (hydrographic conditions in relation to shrimp off E. Greenland)

SCS 98/ 21 (report of Scientific Council November 1998 meeting)

Silver hake (see Hake, silver)

Size composition

- SCR 98/ 119 (investigation in catch of shrimp, G. halibut and redfish)
- 123 (assessment of shrimp in Davis Strait, 1998)

Skates (*Raja* sp.)

- SCR 98/ 26 (survey results for skates in Div. 3NO)
- 41 (estimate of by-catch in W. Greenland shrimp fishery)
- 45 (assessment of finfish in SA1)

Spain

- SCR 98/ 48 (results of Spanish trawl survey, Div. 3NO, 1998)

SCS 98/ 11 (Spanish research report for 1997)

Spawning (see also Maturation, Reproduction)

- SCR 98/ 5 (reproductive rate of fish at low populations)
- 93 (errors in measuring spawning stock biomass)
- 96 (maturation and spawning mortality of NE Arctic cod)
- 97 (buoyance of cod larvae)
- 107 (fecundity of G. halibut in the NE Arctic)
- 108 (early development of G. halibut in the NE Arctic)

Squid

- SCR 98/ 54 (environmental effects on squid recruitment)
- 55 (squid fishery in Newfoundland area, 1994-97)
- 59 (review of short-finned squid in the NW Atlantic)
- 75 (yield estimates for squid in SA 3-4 from survey indices)

Statistics

- SCR 98/ 1 (stats and sampling from Norwegian fishery, 1995 and 1996)
- 122 (catch statistics for shrimp in Denmark Strait, 1980-98)

SCS 98/ 20 (acquisition and publication of statistics since 1997)

Statistical model

- SCR 98/ 68 (age structured model for cod in Div. 3NO)
- 116 (model of biomass dynamics of W. Greenland shrimp)
- 120 (Icelandic shrimp fishery in Denmark Strait, 1997-98)

Stock; stock size (see also Abundance; Assessment)

- SCR 98/ 12 (how to halt the decline of fish stocks)
- 62 (biomass and age composition of cod in Div. 2J+3KL)
- 77 (possible reference points for G. halibut in SA 2+3)
- 95 (changes in G. halibut in NW Atlantic)
- 104 (rates of maturation of cod on Georges Bank and Gulf of Maine)
- 111 (Greenland shrimp fishery off W. Greenland, 1970-98)

Surveys, biological

- SCR 98/ 6 (covariance among survey indices of abundance at age)
- 13 (Russian surveys on G. halibut, Flemish Cap, 1987-96)
- SCR 98/ 14 (Russian surveys on roundnose grenadier, Div. 2GH, 1987-95)
- 15 (Russian surveys on redfish, Flemish Cap, 1983-96)
- 21 (survey information on demersal stocks and temperature)

- 25 (Greenland survey off W. Greenland)
- 30 (results of EU trawl survey, Div. 3M, 1997)
- 31 (population of roughhead grenadier, Flemish Cap, 1997)
- 32 (physical oceanography survey, Flemish Cap, 1997)
- 40 (biomass and abundance of fish off W. Greenland, 1988-97)
- 41 (estimate of by-catch in W. Greenland shrimp fishery)
- 44 (assessment of G. halibut inshore Div. 1A)
- 45 (assessment of finfish in SA 1)
- 46 (assessment of cod in Div. 2J+3KL)
- 47 (assessment of G. halibut in SA0 & Div. 3KLMNO)
- 48 (results of Spanish trawl survey, Div. 3NO, 1998)
- 49 (evaluation of witch flo. in Div. 3NO)
- 51 (assessment of A. plaice in Div. 3M)
- 60 (conversion factors for yellowtail flo. survey indices)
- 61 (conversion factors for witch flo. survey indices)
- 62 (biomass and age composition of cod in Div. 2J+3KL)
- 65 (assessment of cod in Div. 3NO)
- 66 (survey sampling of yellowtail flo. on Grand Bank)
- 67 (assessment of redfish in SA1)
- 70 (conversion factors for A. plaice survey indices)
- 71 (conversion factors for redfish survey indices)
- 72 (assessment of yellowtail flo. in Div. 3LNO)
- 73 (survey results for yellowtail flo. in Div. 3NO, 1996-98)
- 74 (status of redfish in Div. 3LN)
- 75 (yield estimates for squid in SA 3-4 from survey indices)
- 81 (shrimp on Flemish Cap, Jul-Aug 1998)
- 84 (shrimp biomass in Div. 3L, June 1998)
- 91 (information on shrimp in Div. 3LNO from surveys)
- 99 (effects of gear changes on A. plaice)
- 100 (evaluation of maturity estimates from sampling)
- 102 (maturity of haddock in Barents Sea)
- 103 (sexual difference in maturation of NE Arctic cod)
- 114 (review of survey for shrimp off W. Greenland)
- 115 (shrimp survey, inshore W. Greenland, 1998)
- 118 (offshore survey for shrimp in SA 0+1, 1998)
- 119 (investigation in catch of shrimp, G. halibut and redfish)
- 123 (assessment of shrimp in Davis Strait, 1998)

SCS 98/ 18 (research vessel surveys by stock)

[T]

Tagging (methods, recaptures, returns, etc.)

SCS 98/ 4 (tagging activities reported in 1997)

Temperature

- SCR 98/ 17 (water temperature & salinity, Mid-Atlantic Bight, 1997)
- 20 (effects of NAO index on marine fisheries)
- 21 (survey information on demersal stocks and temperature)
- 22 (MEDS report for 1997)
- 23 (oceanographic investigations off Greenland, 1997)
- 24 (oceanographic investigations off W. Greenland, 1981-97)
- 25 (Greenland survey off W. Greenland)
- 32 (physical oceanography survey, Flemish Cap, 1997)
- 35 (oceanographic variability on Flemish Cap)
- 36 (climatic conditions around Greenland, 1997)
- 37 (hydrological changes on Scotian Shelf and Gulf of Maine)
- 38 (overview of environmental conditions, NW Atlantic, 1997)
- 54 (environmental effects on squid recruitment)
- 79 (measurements of sea surface temperature)
- 86 (oceanographic conditions on Flemish Cap, 1998)
- 101 (historical growth of cod off Greenland)
- SCR 98/ 104 (rates of maturation of cod on Georges Bank and Gulf of Maine)
- 124 (hydrographic conditions in relation to shrimp off E. Greenland)

Trawls (see also Fishing gear)

- SCR 98/ 15 (Russian surveys on redfish, Flemish Cap, 1983-96)
 66 (survey sampling of yellowtail flo. on Grand Bank)

[U]

United States of America (USA)

- SCS 98/ 12 (US research report for 1997)

[V]

VPA (see under assessments)

[W]

Weight (see also Catch)

- SCR 98/ 19 (growth rate and distribution of roundnose grenadier)
 21 (survey information on demersal stocks and temperature)
 39 (data for G. halibut in SA0)
 46 (assessment of cod in Div. 2J+3KL)
 47 (assessment of G. halibut in SA0 & Div. 3KLMNO)
 51 (assessment of A. plaice in Div. 3M)
 56 (assessment of G. halibut in SA0 and SA1)
 65 (assessment of cod in Div. 3NO)
 74 (status of redfish in Div. 3LN)
 91 (information on shrimp in Div. 3LNO from surveys)
 94 (models of growth and maturity for North Sea cod0)
 98 (weight increments for cod in Div. 2J+3KL)
 99 (effects of gear changes on A. plaice)

West Greenland (see Greenland, West)Witch flounder (see Flounder, witch)Wolffish (*Anarhichas* sp.)

- SCR 98/ 29 (by-catch in Icelandic shrimp fishery, Flemish Cap, 1997 & 98)
 41 (estimate of by-catch in W. Greenland shrimp fishery)
 45 (assessment of finfish in SA 1)

[Y]

Yellowtail flounder (see Flounder, yellowtail)Yield; Yield-per-recruit

- SCR 98/ 44 (assessment of G. halibut inshore Div. 1A)
 49 (evaluation of witch flounder in Div. 3NO)
 51 (assessment of A. plaice in Div. 3M)
 53 (assessment of redfish in Div. 3M)
 56 (assessment of G. halibut in SA0 and SA1)
 74 (status of redfish in Div. 3LN)
 75 (yield estimates for squid in SA 3-4 from survey indices)
 77 (possible reference points for G. halibut in SA 2+3)

[A]AJIAD, A. (Norway)

- SCR 98/ 96 (maturation and spawning mortality of NE Arctic cod)
 103 (sexual difference in maturation of NE Arctic cod)

ALBERT, O. T. (Norway)

- SCR 98/ 108 (early development of G. halibut in the NE Arctic)

ALPOIM, R. (Portugal)

- SCR 98/ 53 (assessment of redfish in Div. 3M)

- SCS 98/ 13 (Portuguese research report for 1997)

AVILA DE MELO, A. (Portugal)

- SCR 98/ 30 (results of EU trawl survey, Div. 3M, 1997)
 53 (assessment of redfish in Div. 3M)

- SCS 98 13 (Portuguese research report for 1997)

[B]BARROWMAN, N. J. (Canada)

- SCR 98/ 5 (reproductive rate of fish at low populations)

BECK, P. C. (Canada)

- SCR 98/ 55 (squid fishery in Newfoundland area, 1994-97)

BELL, E. D. (Iceland)

- SCR 98/ 7 (performance of harvest control rules)
 12 (how to halt the decline of fish stocks)

BENWAY, R. L. (USA)

- SCR 98/ 17 (water temperature & salinity, Mid-Atlantic Bight, 1997)

BERENBOIM, B. I. (Russia)

- SCR 98/ 6 (Russian research report for 1997)

BLACK, G. (Canada)

- SCR 98/ 10 (application of precautionary approach to cod, haddock, plaice)

BLANCO, M. (Spain)

- SCR 98/ 32 (physical oceanography survey, Flemish Cap, 1997)

BOROVKOV, V. A. (Russia)

- SCR 98/ 18 (1st Russian/German project, climatic variations Labrador Sea)
 109 (2nd Russian/German project, climatic variations Labrador Sea)

BOWEN, K. G. (Canada)

- SCR 98/ 5 (reproductive rate of fish at low populations)

BOWERING, W. R. (Canada)

- SCR 98/ 39 (data for Greenland halibut in SA 0)

- SCR 98/ 47 (assessment of Greenland halibut in SA0 & Div. 3KLMNO)
 49 (evaluation of witch flounder in Div. 3NO)
 50 (data conversions for witch flounder)
 61 (conversion factors for witch flounder survey indices)
 64 (distribution and stock size of witch flounder in Div. 2J+3KL)
 69 (assessment of A. plaice in Div. 3LNO)
 70 (conversion factors for A. plaice survey indices)

BRATTEY, J. (Canada)

- SCR 98 46 (assessment of cod in Div. 2J+3KL)
 65 (assessment of cod in Div. 3NO)

BRODIE, W. B. (Canada)

- SCR 98/ 39 (data for Greenland halibut in SA 0)
 47 (assessment of Greenland halibut in SA0 & Div. 3KLMNO)
 69 (assessment of A. plaice in Div. 3LNO)
 70 (conversion factors for A. plaice survey indices)
 72 (assessment of yellowtail flo. in Div. 3LNO)
 73 (survey results for yellowtail flo. in Div. 3NO, 1996-98)

BRUNO, I. (Spain)

- SCR 98/ 42 (feeding of A. plaice and yellowtail flo. on Grand Bank)

BUCH, E. (Denmark)

- SCR 98/ 23 (oceanographic investigations off Greenland, 1997)
 24 (oceanographic investigations off W. Greenland, 1981-97)

BURNETT, J. M. (USA)

- SCR 98/ 100 (evaluation of maturity estimates from sampling)

BURTON, M. P. M. (Canada)

- SCR 98/ 93 (errors in measuring spawning stock biomass)

[C]CADDY, J. F. (FAO)

- SCR 98/ 8 (precautionary measures and reference points)

CADIGAN, N. (Canada)

- SCR 98/ 46 (assessment of cod in Div. 2J+3KL)

CADRIN, S. X. (USA)

- SCR 98/ 3 (surplus production analysis of shrimp, Denmark St.)
 117 (revised surplus production analysis of shrimp, Denmark St.)

CARLSSON, D. M. (Denmark)

- SCR 98/ 41 (estimate of by-catch in W. Greenland shrimp fishery)
 114 (review of survey for shrimp off W. Greenland)
 115 (shrimp survey, inshore W. Greenland, 1998)
 118 (offshore survey for shrimp in SA 0+1, 1998)
 119 (investigation in catch of shrimp, G. halibut and redfish)

CASEY, J. (UK)

- SCR 98/ 77 (possible reference points for G. halibut in SA 2+3)

CERVINO, S. (Spain)

SCR 98/ 6 (covariance among survey indices of abundance at age)
58 (fishing mortality of cod on Flemish Cap)

CHAMUT, P. S. (Canada)

SCS 98/ 2 (Canadian request for scientific advice for 1999)

CLARK, S. H. (USA)

SCS 98/ 12 (US research report for 1997)

COLBOURNE, E. B. (Canada)

SCR 98/ 35 (oceanographic variability on Flemish Cap)
38 (overview of environmental conditions, NW Atlantic, 1997)
54 (environmental effects on squid recruitment)
86 (oceanographic conditions on Flemish Cap, 1998)
98 (weight increments for cod in Div. 2J+3KL)

COOK, R. M. (UK)

SCR 98/ 9 (application of G(loss) methodology to cod)
94 (models of growth and maturity for North Sea cod)

CORNUS, P. (Germany)

SCR 98/ 7 (German research report for 1997)

COSTAS, G. (Spain)

SCR 98/ 42 (feeding of A. plaice and yellowtail flo. on Grand Bank)

[D]DAVIS, M. B. (Canada)

SCR 98/ 46 (assessment of cod in Div. 2J+3KL)

DAWE, E. G. (Canada)

SCR 98/ 54 (environmental effects on squid recruitment)
55 (squid fishery in Newfoundland area, 1994-97)
59 (review of short-finned squid in the Northwest Atlantic)

DE CÁRDENAS, E. (Spain)

SCR 98/ 48 (results of Spanish trawl survey, Div. 3NO, 1998)
51 (assessment of A. plaice in Div. 3M)
63 (G. halibut trends in Div. 2J+3KLMNO)

SCS 98/ 11 (Spanish research report for 1997)

DEL RIO, J. L. (Spain)

SCR 98/ 81 (shrimp on Flemish Cap, Jul-Aug 1998)

DENMARK (in respect of Greenland)

SCS 98/ 3 (Denmark-Greenland request for scientific advice for 1999)

DOUGHERTY-POUPORE, T. (Canada)

SCR 98/ 22 (MEDS report for 1997)

DREW, J. (Canada)

SCR 98/ 55 (squid fishery in Newfoundland area, 1994-97)

DRINKWATER, K. F. (Canada)

SCR 98/ 37 (hydrological changes on Scotian Shelf and Gulf of Maine)
38 (overview of environmental conditions, NW Atlantic, 1997)
54 (environmental effects on squid recruitment)

DURÁN, P. (Spain)

SCR 98/ 27 (yellowtail flo. length at maturity, Grand Bank, 1995-97)
48 (results of Spanish trawl survey, Div. 3NO, 1998)

[E]ENGELSTOFT, J. J. (Greenland)

SCR 98/ 40 (biomass and abundance of fish off W. Greenland, 1988-97)

[F]FOLMER, O. (Greenland)

SCR 98/ 111 (Greenland shrimp fishery off W. Greenland, 1970-98)
112 (Greenland shrimp fishery in Denmark Strait, 1997-98)
114 (review of survey for shrimp off W. Greenland)

FOOTE, K. D. (Canada)

SCR 98/ 35 (oceanographic variability on Flemish Cap)

[G]GIL, J. (Spain)

SCR 98/ 32 (physical oceanography survey, Flemish Cap, 1997)

GILBERT, D. (Canada)

SCR 98/ 38 (overview of environmental conditions, NW Atlantic, 1997)

GODINHO, M. L. (Portugal)

SCS 98/ 3 (Portuguese research report for 1997)

GODØ, O. R. (Norway)

SCR 98/ 87 (catch and effort data from Norwegian shrimp fishery, 1997-98)
110 (growth and maturity in cod and A. halibut)

GONZÁLEZ, C. (Spain)

SCR 98/ 42 (feeding of A. plaice and yellowtail flo. on Grand Bank)

GORCHINSKY, K. V. (Russia)

SCR 98/ 19 (growth rate and distribution of roundnose grenadier)

GUNDERSEN, A. C. (Norway)

SCR 98/ 107 (fecundity of G. halibut in the NE Arctic)
108 (early development of G. halibut in the NE Arctic)

[H]

HAUG, T. (Norway)

SCR 98/ 110 (growth and maturity in cod and A. halibut)

HENDRICKSON, L. C. (USA)SCR 98/ 59 (review of short-finned squid in the Northwest Atlantic)
75 (yield estimates for squid in SA 3-4 from survey indices)HERMAN, A. (Canada)

SCR 98/ 37 (hydrological changes on Scotian Shelf and Gulf of Maine)

HERRERA, M. A. (Spain)

SCR 98/ 34 (feeding of dogfish on Flemish Pass)

HISLOP, J. (UK)

SCR 98/ 94 (models of growth and maturity for North Sea cod)

HVINGEL, C. (Greenland)SCR 98/ 111 (Greenland shrimp fishery off W. Greenland, 1970-98)
112 (Greenland shrimp fishery in Denmark Strait, 1997-98)
113 (biomass index for shrimp in Davis Strait)
114 (review of survey for shrimp off W. Greenland)
116 (model of biomass dynamics of W. Greenland shrimp)**[I]**ICES (International Council for the Exploration of the Sea)

SCS 98/ 16 (report of ICES/NAFO working group on seals)

[J]JAKOBSEN, T. (Norway)SCR 98/ 96 (maturation and spawning mortality of NE Arctic cod)
103 (sexual difference in maturation of NE Arctic cod)JØRGENSEN, O. A. (Denmark)SCR 98/ 25 (Greenland survey off W. Greenland)
40 (biomass and abundance of fish off W. Greenland, 1988-97)
41 (estimate of by-catch in W. Greenland shrimp fishery)
56 (assessment of G. halibut in SA0 and SA1)JUNQUERA, S. (Spain)SCR 98/ 26 (survey results for skates in Div. 3NO)
27 (yellowtail flo. length at maturity, Grand Bank, 1995-97)
28 (proposal to rename grenadiers section in STACFIS)
51 (assessment of A. plaice in Div. 3M)
63 (Greenland halibut trends in Div. 2J+3KLMNO)
95 (changes in Greenland halibut in NW Atlantic)

SCS 98/ 11 (Spanish research report for 1997)

[K]KANNEWORFF, P. (Greenland)SCR 98/ 114 (review of survey for shrimp off W. Greenland)
115 (shrimp survey, inshore W. Greenland, 1998)
118 (offshore survey for shrimp in SA 0+1, 1998)KINGSLEY, M. C. S. (Greenland)SCR 98/ 116 (model of biomass dynamics of W. Greenland shrimp)
119 (investigation in catch of shrimp, G. halibut and redfish)KJESBU, O. S. (Norway)SCR 98/ 97 (buoyancy of cod larvae)
107 (fecundity of G. halibut in the NE Arctic)KORSBREKKE, K. (Norway)

SCR 98/ 102 (maturity of haddock in Barents Sea)

KULKA, D. W. (Canada)SCR 98/ 80 (by-catch in Div. 3M shrimp fishery, 1993-97)
91 (information on shrimp in Div. 3LNO from surveys)KUNZLIK, P. (UK)

SCR 98/ 94 (models of growth and maturity for North Sea cod)

[L]LASSEN, H. (Denmark)

SCR 98/ 113 (biomass index for shrimp in Davis Strait)

LILLY, G. R. (Canada)SCR 98/ 46 (assessment of cod in Div. 2J+3KL)
65 (assessment of cod in Div. 3NO)
98 (weight increments for cod in Div. 2J+3KL)LLORET, J. (Spain)SCR 98/ 4 (management reference points for cod off Greenland)
20 (effects of NAO index on marine fisheries)
101 (historical growth of cod off Greenland)**[M]**MADDOCK PARSONS, D. (Canada)SCR 98/ 57 (assessment of roundnose grenadier in SA2+3)
69 (assessment of A. plaice in Div. 3LNO)
70 (conversion factors for A. plaice survey indices)
72 (assessment of yellowtail in Div. 3LNO)
73 (survey results for yellowtail in Div. 3NO, 1996-98)
74 (status of redfish in Div. 3LN)MAHÉ, J.-C. (France)

SCS 98/ 10 (French research report for 1997)

MAMYLOV, V. S. (Russia)

SCR 98/ 15 (Russian surveys on redfish, Flemish Cap, 1983-96)

MASON, C. S. (Canada)

SCR 98/ 79 (measurements of sea surface temperature)

McCALLUM, B. R. (Canada)

SCR 98/ 66 (survey sampling of yellowtail flo. on Grand Bank)

McFADDEN, C. (Canada)

SCR 98/ 72 (assessment of yellowtail flo. in Div. 3LNO)
 73 (survey results for yellowtail flo. in Div. 3NO, 1996-98)

MELNIKOVA, S. P. (Russia)

SCR 98/ 16 (redfish distribution by depths in the Irminger Sea)

MERTZ, G. (Canada)

SCR 98/ 5 (reproductive rate of fish at low populations)

MOHN, R. (Canada)

SCR 98/ 10 (application of precautionary approach to cod, haddock, plaice)

MORGAN, M. J. (Canada)

SCR 98/ 46 (assessment of cod in Div. 2J+3KL)
 69 (assessment of A. plaice in Div. 3LNO)
 70 (conversion factors for A. plaice survey indices)
 99 (effects of gear changes on A. plaice)
 105 (maturation of yellowtail flo. on Grand Bank)

MOTOS, L. (Spain)

SCR 98/ 52 (assessment of cod in Div. 3M)
 63 (Greenland halibut trends in Div. 2J+3KLMNO)
 68 (age structured model for cod in Div. 3NO)

SCS 98/ 11 (Spanish research report for 1997)

MOUNTAIN, D. B. (USA)

SCR 98/ 37 (hydrological changes on Scotian Shelf and Gulf of Maine)

MURPHY, E. F. (Canada)

SCR 98/ 46 (assessment of cod in Div. 2J+3KL)
 62 (biomass and age composition of cod in Div. 2J+3KL)
 65 (assessment of cod in Div. 3NO)

MYERS, R. A. (Canada)

SCR 98/ 5 (reproductive rate of fish at low populations)

[N]

NAFO

SCR 98/ 76 (report of workshop on Precautionary Approach, March 1998)

SCS 98/ 1 (Scientific Council report on precautionary approach)
 16 (report of ICES/NAFO working group on seals)

SCS 98/ 17 (report of Scientific Council June 1998 meeting)

18 (research vessel surveys by stock)
 19 (report of Scientific Council September 1998 meeting)
 21 (report of Scientific Council November 1998 meeting)

NAFO SECRETARIAT

SCR 98/ 4 (tagging activities reported in 1997)
 8 (provisional index for 1997 SCR and SCS documents)
 9 (list of biological sampling for 1996 and 1997)
 20 (acquisition and publication of statistics since 1997)

NAKKEN, O. (Norway)

SCR 98/ 103 (sexual difference in maturation of NE Arctic cod)

NEDREAAS, K. H. (Norway)

SCR 98/ 1 (stats and sampling from Norwegian fishery, 1995 and 1996)
 107 (fecundity of G. halibut in the NE Arctic)
 108 (early development of G. halibut in the NE Arctic)

NICOLAISEN, A. (Faroes)

SCR 98/ 83 (information on shrimp on Flemish Cap, 1997 and 1998)
 84 (shrimp biomass in Div. 3L, June 1998)

[O]

O'BRIEN, L. (USA)

SCR 98/ 104 (rates of maturation of cod on Georges Bank and Gulf of Maine)

ORR, D. (Canada)

SCR 98/ 47 (assessment of Greenland halibut in SA0 & Div. 3KLMNO)
 49 (evaluation of witch flo. in Div. 3NO)
 50 (data conversions for witch flo.)
 60 (conversion factors for yellowtail flo. survey indices)
 61 (conversion factors for witch flo. survey indices)
 69 (assessment of A. plaice in Div. 3LNO)
 70 (conversion factors for A. plaice survey indices)
 71 (conversion factors for redfish survey indices)
 72 (assessment of yellowtail flo. in Div. 3LNO)
 73 (survey results for yellowtail flo. in Div. 3NO, 1996-98)

[P]

PARSONS, D. G. (Canada)

SCR 98/ 85 (Canadian shrimp fishery on Flemish Cap, 1993-98)
 91 (information on shrimp in Div. 3LNO from surveys)
 92 (shrimp fishery on Flemish Cap)
 113 (biomass index for shrimp in Davis Strait)

PAZ, X. (Spain)

SCR 98/ 26 (survey results for skates in Div. 3NO)
 27 (yellowtail flo. length at maturity, Grand Bank, 1995-97)
 42 (feeding of A. plaice and yellowtail on Grand Bank)
 47 (results of Spanish trawl survey, Div. 3NO, 1998)
 95 (changes in Greenland halibut in NW Atlantic)

PENNINGTON, M. (Norway)

SCR 98/ 114 (review of survey for shrimp off W. Greenland)
PERRY, G. (Canada)

SCR 98/ 15 (Canadian research report for 1997)

PETRIE, B. (Canada)

SCR 98/ 79 (measurements of sea surface temperature)

POULDING, D. (UK)

SCR 98/ 94 (models of growth and maturity for North Sea cod)

POWER, D. (Canada)

SCR 98/ 47 (assessment of G. halibut in SA0 & Div. 3KLMNO)

57 (assessment of roundnose grenadier in SA2+3)

71 (conversion factors for redfish survey indices)

74 (status of redfish in Div. 3LN)

PUNZÓN, A. (Spain)

SCR 98/ 34 (feeding of dogfish on Flemish Pass)

[R]

RAGO, P. J. (USA)

SCR 98/ 100 (evaluation of maturity estimates from sampling)

RAMILO, G. (Spain)

SCR 98/ 95 (changes in G. halibut in NW Atlantic)

RAMOS, I. (Cuba)

SCS 98/ 5 (Cuban research report for 1997)

RATUSHNY, S. V. (Russia)

SCR 98/ 15 (Russian surveys on redfish, Flemish Cap, 1983-97)

RÄTZ, H.-J. (Germany)

SCR 98/ 4 (management reference points for cod off Greenland)
20 (effects of NAO index on marine fisheries)
21 (survey information on demersal stocks and temperature)
45 (assessment of finfish in SA 1)
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REGUERA, I. (Spain)

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78 (analysis of stock-recruitment in silver hake)

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33 (validation of roughhead grenadier otolith reading)
43 (roughhead grenadier population on Flemish Cap, 1991-97)

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SABORIDO-REY, F. (Spain)

SCR 98/ 30 (results of EU trawl survey, Div. 3M, 1997)
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68 (age structured model for cod in Div. 3NO)

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SAVVATIMSKY, P. I. (Russia)

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19 (growth rate and distribution of roundnose grenadier)

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SIEGSTAD, H. (Greenland)

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114 (review of survey for shrimp off W. Greenland)
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SKÚLADÓTTIR, U. (Iceland)

SCR 98/ 3 (surplus production analysis of shrimp, Denmark St.)
 29 (by-catch in Icelandic shrimp fishery, Flemish Cap, 1997 & 98)
 89 (Icelandic shrimp fishery at Flemish Cap)
 90 (age and sex composition of shrimp on Flemish Cap)
 117 (revised surplus production analysis of shrimp, Denmark St.)
 120 (Icelandic shrimp fishery in Denmark Strait, 1997-98)
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 122 (catch statistics for shrimp in Denmark Strait, 1980-98)

SOLEMDAL, P. (Norway)

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SOSEBEE, K. (USA)

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STEFÁNSSON, G. (Iceland)

SCR 98/ 7 (performance of harvest control rules)
 12 (how to halt the decline of fish stocks)
 106 (growth and maturation of haddock in Icelandic waters)

STEIN, M. (Germany)

SCR 98/ 18 (1st Russian/German project, climatic variations Labrador Sea)
 20 (effects of NAO index on marine fisheries)
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STENE, A. (Norway)

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VALDES, E. (Cuba)

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VAZQUEZ, A. (Spain)

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 30 (results of EU trawl survey, Div. 3M, 1997)
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VEITCH, P. J. (Canada)

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WALSH, S. J. (Canada)

SCR 98/ 60 (conversion factors for yellowtail flo. survey indices)
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 72 (assessment of yellowtail flo. in Div. 3LNO)
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