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Northwest Atlantic



Fisheries Organization

Serial No. N4583

NAFO SCS Doc. 01/27

SCIENTIFIC COUNCIL MEETING – NOVEMBER 2001

A Compilation of Research Vessel Surveys on a Stock-by-stock Basis

by

NAFO Secretariat

Discussions at the Scientific Council Meeting in June 1990 resulted in the compilation of information on research vessel surveys on a stock-by-stock basis (SCS Doc. 90/22, Serial No. N1820). This inventory was judged to be very helpful for the establishment of future inventories. It was agreed that the Designated Experts for the stocks be responsible for future compilations. The tabulations prepared at the June 1991 Meeting were presented and it was concluded (*NAFO Sci. Coun. Rep.*, 1991, p. 114) that Designated Experts should update the information annually for review by STACFIS. The following tabulations were received at the Secretariat from the Designated Experts during the year 2001.

Stock name: Greenland halibut in Subarea 0, Division 1A offshore and Divisions 1B-F																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates				Indiv - idual weights	Country	SCS/ SCR Doc. No
Canada SA 0 survey	0A	Oct	1999	Stratified Random bottom	Greenland halibut	65	Y	?	400-1500m	Y	Y	Y	Y	Y	Canada	00/31
	0B	Oct	2000	Trawl	Greenland halibut	64	Y	?	400-1500 m	Y	Y	Y	Y	Y	Canada	01/42
Greenland Deep Sea	1CD	Sep-Oct	Since 1997	Stratified Random bottom Trawl	Greenland halibut Roundnose grenadier	30	N	?	400-1500 m	Y	Y	Y	Y	Y	Greenland	01/23
Greenland Shrimp Trawl	1A-F	Jul-Sep	Since 1988		Shrimp Groundfish	232	N	?	0-600m	Y	Y	Y	Y	Y	Greenland	01/35

Stock name: Greenland halibut in Division 1A inshore																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates				Indiv - idual weights	Country	SCS/ SCR Doc. No.
Inshore longline	Disko Bay Uummannaq Upemavik (2 a year)	Jul-Aug	since 1993	Fixed station Longlines	Greenland Halibut	30 in each location (60 a year)	Yes	?	200-900m	N	N	Y	Y	Y	Greenland	98/44
Inshore longline	Disko Bay Uummannaq Upemavik (2 a year)	Jul-Aug	Since 1993	Fixed station Longline	Greenland Halibut	30 in each location (60 a year)	Yes	?	200-900m	N	N	Y	Y	Y	Greenland	00/29 00/47
Inshore longline	Disko Bay Uummannaq Upemavik (2 a year)	Jul-Aug	Since 1993	Fixed station longline	Greenland halibut		Yes	?	200-1200m	N	N	Y	Y	Y	Greenland	01/68

Stock name: Roundnose Grenadier in Subareas 0+1																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates				Indiv - idual weights	Country	SCS/ SCR Doc. No.
Greenland Deep Sea	1CD	Sep-Oct	1997	Stratified Random Bottom Trawl	Greenland halibut, Roundnose grenadier	56	N	?	400-1500m	Y	Y	N	Y	N	Greenland	99/30
Greenland Deep Sea	1CD	Sep-Oct	1997	Stratified Random Bottom Trawl	Greenland halibut, Roundnose grenadier	30	N	?	400-1500m	Y	Y	N	Y	N	Greenland	01/23

Stock name: Redfish in Subarea 1																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates				Individual weights	Country	SCS/ SCR Doc. No.
West Greenland Groundfish	1B - 1F	Oct-Nov	since 1982	Stratified random bottom trawl	Cod, redfish, other finfish	73	N	80	0-400m	Y	Y	N	Y	Y	EU-Germany	01/15
Greenland – Deepsea	1A - 1D	Sep-Oct	1987-95 since 1997	Stratified random bottom trawl	Greenland halibut, Roundnose Grenadier	30	N	80	600-1500m	Y	Y	N	Y	N	Greenland	01/23
Greenland shrimp	1A - 1F	Jul-Aug	since 1992	Stratified random bottom trawl	Shrimp	232	N	80	0-600m	Y	Y	N	Y	N	Greenland	01/35

Stock name: Other Finfish in Subarea 1																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of Sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates				Indiv - idual weights	Country	SCS/ SCR Doc. No.
West Greenland groundfish	1B - 1F	Oct-Nov	since 1982	Stratified random bottom trawl	Cod, redfish Other finfish	73	N	80	0- 400m	Y	Y	N	Y	U	EU-Germany	01/15
Greenland/ Deepsea	1A - 1D	Sep-Oct	1987-95 1997	"	Greenland halibut Roundnose grenadier	30	N	80	400- 1500m	Y	Y	N	Y	N	Greenland/	01/23
Greenland shrimp	1A - 1F	Jul-Aug	since 1992	"	Shrimp	232	N	80	0- 600m	Y	Y	N	Y	N	Greenland	01/35

Stock name: Cod in Division 3M																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates				Indiv - idual weights	Country	SCS/ SCR Doc. No.
EU- bottom Trawl survey	3M	Jul	1988	Stratified random	Cod	120	N	100%	to 730 m	Y	Y	Y	Y	Y	EU	01/22

Stock name: Redfish in Division 3M																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates				Individual weights	Country	SCS/ SCR Doc. No.
EU Flemish Cap Survey	3M	Summer Jul-Aug	1988	Stratified random bottom trawl	Groundfish and shrimp	120	N		127-730 m	Y	Y	Y	Y	Y	EU/ESP EU/PRT	01/22

Stock name: American plaice in Division 3M																
Name of survey	Location (Div.)	Season months(s)	Years of survey since	Type of survey and gears	Target Species	No. of Sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates				Indiv - idual weights	Country	SCS/ SCR Doc. No.
EU – bottom trawl	3M	Summer Jul	1988	Stratified-random bottom trawl	Groundfish and shrimp	120	N	100	127-731 m	Y	Y	Y	Y	Y	EU-Spain EU-Portugal	01/22

Stock name: Cod in Divisions 3NO																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates				Indiv - idual weights	Country	SCS/ SCR Doc. No.
Groundfish	3NO	Apr, May	1972-98 (except 1983)	Stratified-random Bottom trawl	Multi-species	160	Y	100	30-400 ftm	Y	Y	Y	Y	Y	Canada	01/72
Juvenile flatfish	3NO	Sep	1989-94	Stratified-random Bottom trawl	Groundfish		Y	100	30-150	Y	Y	Y	Y	Y	Canada	96/80
Groundfish	3NO	Oct, Nov	1990-98	Stratified-random Bottom trawl	Multi-species	160	Y	100	30-800 ftm	Y	Y	Y	Y	Y	Canada	01/72
EU-Spain	3NO Reg. Area	May	1995-99	Stratified-random & Lofoten	Groundfish	137	N	20	1 100 m	Y	Y	N	Y	N	Spain	SCS 01/18

Stock name: Redfish in Divisions 3LN																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	abundance	bio-mass	ALK	LF	Indiv - idual weights	Country	SCS/ SCR Doc. No.
USSR groundfish	3L, 3N	Apr-Jul (mostly)	1972-82	Fixed station Bottom trawl	Multi-species Groundfish	50-60 per Div.	Y	Unknown	1972-76: to 367m 1977-82: to 732 m	Y Y	Y Y	Y Y	Y Y	Sometimes	USSR	86/66
USSR ground-fish	3L, 3N	Apr-Jun (mostly)	1983-91, 1993, 1994	Stratified-random Bottom trawl	Multi-species Groundfish	approx. 48-3L approx. 42-3N	Y Y	Unknown Unknown	to 732 m to 732 m	Y Y Y	Y Y Y	Y Y	Y Y	Sometimes	USSR	86/66
USSR acoustic	3LN	Apr-Jun	1987-91, 1993	Acoustic	Multi-species	unknown midwater sampl.	Y	Unknown	to 732 m	Y Y	Y Y			Sometimes	USSR	88/24
Canadian groundfish (covering deep-water strata)	3L	various	1978-86	Stratified-random Bottom Trawl	Multi-species Groundfish	min. of 40 in depths >183m	Y	Unknown	to 732 m	Y Y Y	Y Y Y	Y Y	Y Y	Sometimes	Canada	NAFO Studies No. 2
Canada redfish	3L	Jan	1990	Stratified-random Bottom trawl	Redfish	55	Y	Unknown	183-732 m	Y Y Y	Y Y Y	Y Y	Y Y	N	Canada	NAFO Studies No. 2
Canada ground-fish	3LN	Apr-Jun	1990-93	Stratified-random Bottom trawl	Multi-species Groundfish	90 in redfish depths	Y	Unknown	to 732 m	Y Y Y	Y Y Y	Y Y	Y Y	Y	Canada	NAFO Studies No. 2
Canada redfish	3L, 3N (since 1990)	Aug	1990-91, 1993	Stratified-random Bottom trawl	Redfish	59-3L 47-3N	Y	Unknown	183-732 m	Y Y Y	Y Y Y	Y Y	Y Y	Y	Canada	NAFO Studies No. 2
Canada ground-fish	3L	Oct-Dec + Apr-May	1990-00	Stratified-random Bottom trawl	Multi-species Groundfish	44-53N in depths 184-914 m	Y	Unknown	to 732 m	Y Y Y	Y Y Y	Y Y	Y Y	N	Canada	NAFO Studies No. 2
Canada ground-fish	3N	Oct-Dec + Apr-May	1991-00	Stratified-random Bottom trawl	Multi-species Groundfish	30-36 in depths 93-914 m	Y	Unknown	to 732 m	Y Y Y	Y Y Y	Y Y	Y Y	Y	Canada	NAFO Studies No. 2

Stock name: American plaice in Divisions 3LNO																
Name of survey	Location (Div.)	Season Months(s)	Years of Survey from, to or since	Type of survey and gears	Target Species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth Range	Research data related to stock estimates				Indiv - idual weights	Country	SCS/ SCR Doc. No.
Canadian spring	3LNO	Apr-Jun	1971-2001	Stratified random Campelen	Groundfish	310	Y	95	to 730 m	Y	Y	Y	Y	Y	Canada	01/59
Canadian autumn	3LNO	Sep-Dec	1990-2001	Stratified random Campelen	Groundfish Shellfish	310	Y	100	to 1 460 m	Y	Y	Y	Y	Y	Canada	01/59
EU-Spain	3NO Reg. Area	Apr-May	1995-2001	Stratified random Padreira	Groundfish	124	N	10	to 1 460 m	Y	Y	N	Y	N	Spain	01/58
Canadian DFO-Industry Co-operative	3NO expanded to 3L in 2000	July Quarterly in 1997-98	1996-2000	Grid survey with commercial Engel trawl (unlined)	Yellowtail (by-catches of cod, A. plaice)	50-80 sets per survey (285 total in 1997)	Y	35	45-90 m	N	N	N	N	N	Canada	01/70

Stock name: Yellowtail flounder in Divisions 3L, 3N and 3O																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target Species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates				Indiv - idual weights	Country	SCS/ SCR Doc. No.
Canadian Groundfish (Spring)	Div. 3LN0	Spring (Apr-Jun)	1971-2000	Stratified random - bottom trawl	Groundfish	243	Y	100	51 to 941m	Y	Y	Y	Y	Y	Canada	01/50
Canadian Groundfish (Autumn)	Div. 3LN0	Autumn (Oct-Nov)	1990-2000	Stratified-random - bottom trawl	Groundfish	315	Y	100	51 to 1 437m	Y	Y	Y	Y	Y	Canada	01/50
Spanish Groundfish (Spring)	Div. 3NO Regulatory Area	Spring (Apr-May)	1995-2000	Stratified-random - bottom trawl	Groundfish	124	N	unknown	45 to 1 280m	Y	Y	N	N	N	Spain	00/46
Canadian DFO/Industry	Div. 3NO	Winter 1997 Spring 1997 Summer 1997 Autumn 1997 Winter 1998 Spring 1998 Summer 1998 Autumn 1998 Winter 1998 Spring 1999 Summer 1999 Summer 2000	1996-2000	Grid survey with fixed stations	Yellowtail	285	Y	80	45-90m	N	N	N	Y	N	Canada	01/70

Stock name: Witch flounder in Divisions 3N and 3O																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target Species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates				Indiv - idual weights	Country	SCS/ SCR Doc. No.
Canadian Groundfish (Spring)	Div. 3LN0	Spring (Apr-Jun)	1971-00	Stratified Random - Bottom trawl	Groundfish	about 300	Y	100	51 to 731m	Y	Y	Y	Y	Y	Canada	01/63
Canadian Groundfish (Autumn)	Div. 3LN0	Autumn (Oct-Nov)	1990-00	Stratified- Random - Bottom trawl	Groundfish	176-3L 94-3N 100-3O	Y	100	51 to 1424m	Y	Y	Y	Y	Y	Canada	01/63
Spanish Groundfish (Spring)	Div. 3NO Regulatory Area	Spring (Apr-May)	1995-2000	Stratified- Random - Bottom trawl	Groundfish	118	N	unknown	45 to 1500m	Y	Y	N	N	N	Spain	00/46

Stock name: Greenland halibut in Subareas 2+3KLMNO																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates				Indiv - idual weights	Country	SCS/ SCR Doc. No.
Canadian autumn groundfish	2J,3K, 3L	Sep-Dec	78-00 2J3K 81-00 3L	Stratified-random Engel trawl 1978-94 2J3K Yankee trawl 1981-82 3L Engel trawl 1984-94 3L Campelen Trawl all areas 1995-00	Groundfish (Cod, flounders, G. halibut, Redfish & shellfish)	452 in 2000	Y	This column not appropriate for this species given differences in depth coverage and areas covered in the surveys.	2J3K in 2000 113-1400 m 3L in 2000 42-1430 m	Y	Y	Y	Y	Y	Canada	01/39
EU bottom trawl	3M	Jul	1988-00	Stratified-random Bottom trawl	Groundfish & shrimp	120 in 2000	N		731 m	N	N	Y	Y	Y	EU	01/22
EU-Spain bottom trawl	Reg. Area 3NO	Apr-May	1995-2000	Stratified-random Bottom trawl	Groundfish	118 in 2000	N		1430 m in recent years	Y	Y	N	Y	Y	Spain	00/46
Japan groundfish	2GH	August	1996 only	Stratified-random Bottom trawl	Groundfish	134	Y		about 1300 m	Y	Y	Y	Y	N	Japan	97/25
Canadian groundfish	2GH	Sep-Oct	occasion since 1978	Stratified-random Campelen in 1996-99	Groundfish & shellfish	150 in 1999	Y		201-1382 m	Y	Y	Y	Y	Y	Canada	01/39
Canadian groundfish	3MNO	Sep-Dec	3NO 1990-00 *3M 1996-00	Stratified-random Campelen	Groundfish	28-3M 94-3N 100-3O in 2000	Y	3M * 1997 only in deepwater Sackville Spur, Flem. Pass	1401 m 3M 1418 m 3N 1424 m 3O in 2000	Y	Y	Y	Y	Y	Canada	01/39
Russian	3M	May	1987-96	Stratified-random Bottom trawl	Groundfish	-	Y		914 m in 1996	Y	Y	Y	Y	N	Russia	98/13
	3LM Fl. Pass	Feb Apr-May	1995-96 2000	Stratified-random Bottom trawl	Groundfish	-	Y		732-1280 m	Y	Y	Y	Y	N	Russia	01/10

Stock name: Cod Divisions 2J+3KL																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates				Indiv - idual weights	Country	SCR Doc. No.
Groundfish	2J3K	Oct, Nov, Dec	1977-00	Stratified-random Bottom trawl	Groundfish	400	Y	100	100-1000 m 30-400 ftm	Y	Y	Y	Y	Y	Canada	01/33
Groundfish	3L	Oct, Nov	1981-00	Stratified-random Bottom trawl	Groundfish	160	Y		30-800 ftm	Y	Y	Y	Y	Y	Canada	01/33
Groundfish	3L	May-Jun	1971-01	Stratified-random Bottom trawl	Groundfish	160	Y			Y	Y	Y	Y	Y	Canada	01/33
Acoustics	3L	Apr	1997	Acoustic	Cod		Y			N	Y	Y	Y	N	Canada	97/49
Juvenile flatfish	3L	Aug, Sep	1989-94	Stratified-random Bottom trawl	Groundfish		Y		30-150 ftm	Y	Y	Y	N	N	Canada	95/59
Juvenile cod	2J3KL	Aug, Sep	1992-99	Fixed station	0-group cod	100-150	Y		30-400 ftm	Y	N	Y	Y	N	Canada	00/33
Acoustic	3KL	Oct-Dec	1997	Acoustic	cod/herring		N	70	<120m	N	Y	Y	Y	N	Canada	98/46

Stock name: Witch flounder in Div. 2J+3KL													
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates	Indiv - idual weights	Country	SCR Doc. No.
Canadian autumn groundfish	2J,3K, 3L	Sep-Dec	78-00 2J3K 81-00 3L	Stratified-random Engel trawl 1978-94 2J3K Yankee trawl 1981- 82 3L Engel trawl 1984-94 3L Campelen Trawl all areas 1995-00	Groundfish (Cod, flounders, G. halibut, Redfish & shellfish)	452 in 2000	Y	This column not appropriate for this species given differences in depth coverage and areas covered in the surveys.	2J3K in 2000 113-1400m 3L in 2000 42-1430 m	abun- dance ALK bio- mass LF	Y Y Y Y	Y	Canada 01/64

Stock name: Elasmobranchs in Subareas 2-6																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of sets	24 hr fishing	Area of Coverage in Relation to stock distribution (%)		Research data related to stock size estimates				Individual weights	Country	SCS/ SCR Doc. No.
Spring Multispecies	SA 3	Apr-Jun	From 1971 to date	Stratified-random	Multispecies	~200	Y	Partial	50-1100 m	Y	Y	N	Y	N	Canada	
Fall Multispecies	SA 3	Sep-Nov	From 1978 to date	Stratified-random	Multispecies	~250	Y	All	50-1100 m	Y	Y	N	Y	N	Canada	
Canada/Greenland Groundfish survey	OB	Oct	2000	Stratified-random bottom trawl	Greenland halibut & Groundfish	64/69	Y	Partial	400-1500 m	Y	Y	N	Y	Y	Canada/Greenland	01/42
Bottom trawl Scotian Shelf	SA4	Jul	1970-2000	Stratified-random bottom trawl	Multi-species	-	Y	?	?	Y	Y	N	Y	N	Canada	
Spanish bottom trawl	3NO (NRA)	May	1995-2000	Stratified-random Bottom trawl	Groundfish	-	-	-	to 800 fm	Y	Y	N	Y	N	Spain	SCS 01/18
R/V bottom trawl survey	SA 4-6	Autumn Spring Winter	1963-2000 1968-2000 1992-2000	Bottom trawl	Groundfish	-	-	-	-	Y	Y	N	Y	Y (for 1992-2000)	USA	00/19

Stock name: Shrimp in 3LNO																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates				Indiv - idual weights		SCS/ SCR Doc. No
Multi-species Spring Survey	3LNO 3Ps	May to June	1999 to present	Stratified-random bottom trawl	Groundfish Shellfish (crab, shrimp)/ capelin	312	Yes	100% of area covered	30-732 m	Y	Y	N	Y	N	Canada	01/186
Multi-species Autumn Survey	2J 3KLNO	October to December	1995 to present	Stratified-random bottom trawl	Groundfish Shellfish (crab, shrimp)/ capelin	(370 sets done in Div. 3LNO)	Yes	100% of area covered	30-1500 m	Y	Y	N	Y	N	Canada	01/186

Stock name: Shrimp in Division 3M																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock size estimates				Indiv - idual weights	Country	SCS/ SCR Doc. No
EU-bottom trawl	3M	Jul	1988	Stratified-random bottom trawl	All	120	N	100	80-730 m	Y	Y	N	Y	Y	EU	96/94 96/98
Faroe Shrimp trawl survey	3M	Jun/Jul	1997	Stratified-random bottom trawl	Shrimp	61	Y	100	200-600 m	Y	Y	N	Y	Y	Faroe Islands	01/187 01/188

Stock name: Shrimp – Subareas 0+1																
Name of survey	Location (Div.)	Season months(s)	Years of survey from, to or since	Type of survey and gears	Target species	No. of sets	24 hr fishing	Area of coverage in relation to stock distribution (%)	Depth range	Research data related to stock estimates				Indiv - idual weights	Country	SCS/ SCR Doc. No.
West Greenland trawl survey	SA 0+1 (West Greenland Shelf)	Jul- Sep	since 1988	Stratified-random survey Skjervøy 3000 with bobbin gear	Northern shrimp groundfish	245	N	95	150-600m	Y	Y	N	Y	Y	Greenland	01/175

