

Northwest Atlantic



Fisheries Organization

Serial No. N5426

NAFO SCS Doc. 07/20

SCIENTIFIC COUNCIL MEETING – OCTOBER/NOVEMBER 2006

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 and that Designated Experts should update the information annually for review by STACFIS (*NAFO Sci. Coun. Rep.*, 1991, p. 114). The following tabulations were received at the Secretariat from the Designated Experts during the year 2007.

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				Individual weights	Country	SCS/ SCR Doc. No
										abundance	bio-mass	ALK	LF			
Greenland Deep Sea	1CD	Sep-Nov	Since 1997	Stratified Random bottom Trawl, Alfredo trawl	Greenland halibut Roundnose grenadier	61	Y	?	400-1500 m	Y	Y	Y	Y	Y	Greenland	SCR 07/29
Greenland Shrimp Trawl	1A-F	Jul-Sep	Since 1988	Stratified Random bottom Trawl, Cosmos trawl	Shrimp Groundfish	244	N	?	50-600m	Y	Y	Y	Y	Y	Greenland	SCR 07/28
Canadian 0A, deep sea	Div. 0A	Oct-Nov	1999-2001-2004-2006	Stratified Random bottom Trawl, Alfredo trawl	Greenland halibut; groundfish	62	Y	?	400-1500	Y	Y	N	Y	Y	Canada	SCR 07/41
Canada 0A, shrimp trawl	Div. 0A	Aug-Sep	2006	Stratified Random bottom Trawl Cosmos trawl	<i>Pandalus sp.</i> , Groundfish	88	Y	?	100-800	Y	Y	N	Y	Y	Canada	SCR 07/41

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				Individual weights	Country	SCS/ SCR Doc. No.
Inshore juvenile GRL	Disko Bay	July	since 2001	Gillnet mesh (mm) 46, 55, 60, 70	Greenland Halibut	44	Y	-	200-700m	N	N	Y	Y	Y	Greenland	06/35
Inshore juvenile GHL	Disko Bay	July	Since 2001	Gillnet & longline calibration	Greenland Halibut	3	Y	-	200-700m	N	N	Y	Y	Y	Greenland	05/57
Inshore longline	Disko Bay	July	Since 1993	Fixed station Longline	Greenland Halibut	3	Y	-	200-700m	N	N	Y	Y	Y	Greenland	98/44, 00/29, 00/47, 01/68, 06/35
Inshore longline	Uummannaq	August	Since 1993	Fixed station Longline	Greenland Halibut	11	Y	-	200-900m	N	N	Y	Y	Y	Greenland	98/44, 00/29, 00/47, 01/68, 06/35
Shrimp	1A-F	Jul-Sep	Since 1991	Stratified-random trawl	Shrimp	244	N	-	50-600m	Y	Y	N	Y	Y	Greenland	07/28,

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				Individual weights	Country	SCS/ SCR Doc. No.
Greenland Deep Sea	1CD	Aug-Nov	Since 1997	Stratified Random Bottom Trawl	Greenland halibut, Roundnose grenadier	61	Y	?	400-1500m	Y	Y	N	Y	N	Greenland	SCR 07/28

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.
										abundance	bio-mass	ALK	LF			
West Greenland Groundfish	1B - 1F	Oct-Nov	since 1982	Stratified random bottom trawl	Cod, redfish, other finfish	50	N	80	0-400m	Y	Y	N	Y	Y	EU-Germany	SCR 07/17
Greenland – Deepsea	1C - 1D	Aug-Nov	since 1997	Stratified random bottom trawl	Greenland halibut, Roundnose Grenadier	61	Y	?	400-1500m	Y	Y	N	Y	N	Greenland	SCR 07/29
Greenland shrimp	1A - 1F	Jul-Aug	since 1992	Stratified random bottom trawl	Shrimp, groundfish	244	N	?	50-600m	Y	Y	N	Y	N	Greenland	SCR 07/28

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				Individual weights	Country	SCS/ SCR Doc. No.
West Greenland groundfish	1B - 1F	Oct-Nov	since 1982	Stratified random bottom trawl	Cod, redfish Other finfish	50	N	?	0-400m	Y	Y	N	Y	U	EU-Germany	SCS 07/17
Greenland/ Deepsea	1C - 1D	Aug--Nov	Since 1997	"	Greenland halibut Roundnose grenadier	61	Y	?	400-1500m	Y	Y	N	Y	N	Greenland/	SCR 07/29
Greenland shrimp	1A - 1F	Jul-Aug	since 1992	"	Shrimp	244	N	?	50-600m	Y	Y	N	Y	N	Greenland	SCR 076/28

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				Individual weights	Country	SCS/ SCR Doc. No.
										abundance	bio-mass	ALK	LF			
EU- bottom trawl survey	3M	Jul	since 1988	Stratified random	all	179	N	100%	< 750 m (88-02) < 1400 m (03-)	Y	Y	Y	Y	Y	EU	SCR 07/10
Russian trawl survey	3M	May-June	1983-1993 1995-1996 2001-2002	Stratified Random (and acoustic survey 1987-93)	all	94	Y	100%	< 1280 m	Y	Y	N	N	N	Russia	SCS 03/9
Canadian groundfish survey	3M	Sept/Oct	1996	Stratified random	all	68	Y	100%	< 730 m	Y	Y	N	N	N	Canada New-foundland	SCR 97/42

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.
										abundance	bio-mass	ALK	LF			
EU Flemish Cap Survey	3M	Summer July	1988	Stratified random bottom trawl	Groundfish and shirmp	176	N	100%	127-1400m	Y	Y	Y	Y	Y	EU/ESP EU/PRT	06/16

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 distribu- tion (%)	Depth range	Research data related to stock size estimates				Indiv- idual weights	Country	SCS/ SCR Doc. No.
										abun- dance	bio- mass	ALK	LF			
EU – bottom Trawl	3M	Summer Jul	1988	Stratified-random bottom trawl	Groundfish and shrimp	179	N	100	127- 1400m	Y	Y	Y	Y	Y	EU- Spain EU- Portugal	07/10

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				Individual weights	Country	SCS/ SCR Doc. No.
Groundfish	3NO	Apr-Jun	1972-05 (except 1983)	Stratified-random Bottom trawl	Multi-species	157	Y	100	45-719 m	Y	Y	Y	Y	Y	Canada	n/a
Juvenile flatfish	3NO	Sep	1989-94	Stratified-random Bottom trawl	Groundfish		Y	100	30-150	Y	Y	Y	Y	Y	Canada	SCR 96/80
Groundfish	3NO	Oct05-Oct06	1990-06	Stratified-random Bottom trawl	Multi-species	144	Y	100	42-1445 m	Y	Y	Y	Y	Y	Canada	SCR 07/40
EU-Spain	3NO Reg. Area	Jun	1995-06	Stratified-random 1995-2000 (Pedreira trawl) 2001-2006 (Campelen trawl)	Groundfish	120	N	20	45-1480 m	Y	Y	N	Y	N	Spain	SCR 07/36

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	Research data related to stock size estimates				Individual 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	Sometimes	USSR	86/66
USSR groundfish	3L, 3N	Apr-Jun (mostly)	1983-91, 1993, 1994	Stratified-random Bottom trawl	Multi-species	approx. 48-3L	Y	Unknown	to 732 m	Y	Y	Y	Y	Sometimes	USSR	86/66
					Groundfish	approx. 42-3N	Y	Unknown	to 732 m	Y	Y	Y	Y		USSR	
USSR acoustic	3LN	Apr-Jun	1987-91, 1993	Acoustic	Multi-species	unknown midwater sampl.	Y	Unknown	to 732 m	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	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	N	Canada	NAFO Studies No. 2
Canada groundfish	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	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	Canada	NAFO Studies No. 2
Canadian Groundfish (Autumn)	3LN	Autumn (Oct-Dec)	1991-06	Stratified-random Bottom trawl	Multi-species Groundfish	185 in 3L 70 in 3N	Y	Unknown	61-1401 in 3L 46-650 in 3N	Y	Y	N	Y	Y	Canada	07/18 and pers. com.
Canadian Groundfish (Spring)	3LN	Spring (May-Jun)	1991-06	Stratified-random Bottom trawl	Multi-species Groundfish	141 in 3L 22 in 3N	Y	Unknown	60-701 in 3L 46-77 in 3N	Y	Y	N	Y	Y	Canada	07/18 and pers. com.

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				Individual weights	Country	SCS/ SCR Doc. No.
										abundance	bio-mass	ALK	LF			
Canadian spring	3LNO	Apr-Jun	1971-2006	Stratified random Campelen	Multispecies	195*	Y	95	to 701 m	Y	Y	N	Y	Y	Canada	SCR 07/56
Canadian autumn	3LNO	Sep-Dec	1990-2006	Stratified random Campelen	Multispecies	329*	Y	100	to 1455 m	Y	Y	Y	Y	Y	Canada	SCR 07/56
EU-Spain	3NO Reg. Area	Apr-Jun	1995-2006	Stratified random Campelen	Groundfish	120	N	11	to 1 460 m	Y	Y	N	Y	N	Spain	SCR 07/35 SCS 07/8
Canadian DFO-Industry Co-operative	3NO expanded to 3L in 2000	July-Aug Quarterly in 1997-98	1996-2004	Grid survey with commercial Engel trawl (unlined)	Yellowtail (by-catches of cod, A. plaice)	61 (July) 80 (Aug)	Y	22	45-90 m	N	N	N	N	N	Canada	SCR 05/9

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 (2006)	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.
Canadian Groundfish (Spring)	Div. 3LNO	Spring (Apr-Jun)	1971-2006	Stratified random - bottom trawl	Groundfish & shellfish	195	Y	95	to 731m	Y	Y	N	Y	Y	Canada	07/51
Canadian Groundfish (Autumn)	Div. 3LNO	Autumn (Oct-Dec)	1990-2006	Stratified-random - bottom trawl	Groundfish & shellfish	329	Y	100	to 659 m	Y	Y	N	Y	Y	Canada	07/51
Spanish Groundfish (Spring)	Div. 3NO Regulatory Area	Spring (Apr-May)	1995-2006	Stratified-random - bottom trawl	Groundfish & shellfish	120	N	~ 11	to 1 460 m	Y	Y	N	Y	N	Spain	07/36

Stock name: Witch flounder in Divisions 3N and 30																
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.
										abundance	bio-mass	ALK	LF			
Canadian Groundfish (Spring)	Div. 3LNO	Spring (Apr-Jun)	1971-05	Stratified Random - Bottom trawl	Multispecies	290	Y	100	45 to 719m	Y	Y	Previous to 1994	Y	Y	Canada	06/37
Canadian Groundfish (Autumn)	Div. 3LNO	Autumn (Oct-Dec)	1990-06	Stratified-Random - Bottom trawl	Multispecies	154-3L 70-3N 74-3O	Y	100	46 to 1401m	Y	Y	"	Y	Y	Canada	
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	Y	N	N	Spain	00/46

Stock name: Capelin 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					Country	SCS/ SCR Doc. No.
										Abundance x109	bio-mass x103 t	ALK	LF	Indiv- idual weights		
Multi-species bottom trawl survey	3NO	6	1977-2006	Stratified-random, Campelen 1800	Demersal fishes	54	+	50	45-105m	0.8	9.6	N	Y	Y	CAN	SCR 07/12

Stock name: Redfish in Divisions 30																
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.
USSR ground-fish	30	Apr-Jun (mostly)	1983-91, 1993, 1994	Stratified-random Bottom trawl	Multi-species Groundfish	75-100	Y	Unknown	to 732 m	Y	Y	Y	Y	Sometimes	Russia	86/66
Canada ground-fish	30	Apr-Jun	1971-90	Stratified-random Bottom trawl	Multi-species Groundfish	30-36 in redfish depths	Y	Unknown	to 367m	Y	Y	Y	Y	N	Canada	NAFO Studies No. 2
Canada ground-fish	30	Oct-Dec series + Apr-May series	1991-06	Stratified-random Bottom trawl	Multi-species Groundfish	30-36 in redfish depths	Y	Unknown	93--1410 m	Y	Y	Y	Y	Some Surveys	Canada	07/55

Stock name: Thorny skate in Divisions 3L, 3N, 3O, and 3Ps																
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.
										abundance	bio-mass	ALK	LF			
Canadian Groundfish (Spring)	Div. 3LNOPs	Spring (Apr-Jun)	1971-2006	Stratified random - bottom trawl	Groundfish & shellfish	102	Y	100	50 to 731m	Y	Y	N	Y	Y	Canada	07/33
Canadian Groundfish (Autumn)	Div. 3LN0	Autumn (Oct-Dec)	1990-2006	Stratified-random - bottom trawl	Groundfish & shellfish	144	Y	100	35 to 1 462m	Y	Y	N	Y	Y	Canada	07/06, 08,09, 12
Spanish Groundfish (Spring)	Div. 3NO Regulatory Area	Spring (Apr-May)	1995-2006	Stratified-random - bottom trawl	Groundfish & shellfish	120	N	unknown	56 to 1 464m	Y	Y	N	Y	N	Spain	07/37

Stock name: White hake in Divisions 3N, 3O, and 3Ps																
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 (2005)	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.
Canadian Groundfish (Spring)	Div.3NOPs	Spring (Apr-Jun)	1971-2006	Stratified random - bottom trawl	Groundfish & shellfish	102	Y	100	50 to 731m	Y	Y	N	Y	Y	Canada	07/21, 52
Canadian Groundfish (Autumn)	Div. 3NO	Autumn (Oct-Dec)	1990-2006	Stratified-random - bottom trawl	Groundfish & shellfish	144	Y	100	35 to 1 462m	Y	Y	N	Y	Y	Canada	SCS 07/06, 08, 09,12
Spanish Groundfish (Spring)	Div. 3NO Regulatory Area	Spring (Apr-May)	1995-2006	Stratified-random - bottom trawl	Groundfish & shellfish	120	N	unknown	56 to 1 464m	Y	Y	N	Y	N	Spain	07/37

Stock name: Roughhead Grenadier in Subareas 2 and 3																
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				Individual weights	Country	SCR Doc. No.
Canadian Autumn Survey	2GHJ 3MLNO	Oct-Dec	1978	Stratified random <= 1994 Engel >=1995 Campelen	Groundfish Shellfish	704 in 2006	Yes		<1500	+	+			No	CAN	SCR 07/18
Canadian Spring Survey	3LNO	Spring May-July	1978	Stratified random <=1995 Engel >= 1996 Campelen	Groundfish Shellfish	195 in 2006* coverage Problem s	Yes		<730 m		+			No	CAN	SCR 07/18
Canadian deepwater	3MLN	August February Spring	1991 1994 1995	Bottom trawl	Groundfish				<1500	+	+		+	No	CAN	SCR 95/51
Spanish Surveys in Div. 3NO	3NO	May-June	1995	Stratified Random <=2001 Pedreira >=2001 Campelen	Groundfish	120 in 2006	No		<1500	+	+		+	+	EU-ESP	SCR 07/37
EU Flemish Cap Surveys	3M	July	1988	Stratified Random (Lofoten)	Groundfish Shrimp	181 in 2006	No	Flemish Cap	<1500	+	+	+	+	+	EU-ESP EU-PRT	SCR 07/10 SCR 07/25
Russian	3M	May/June	2001 and 2002	Stratified random bottom trawl	Groundfish	94	Yes	Flemish Cap	120- 1280 m	+	+		+		RUS	SCR 03/09 SCR 07/10
EU Deepwater	3LMN	April-May	1996	Longline	Groundfish	64	Yes		700- 3100m				+	+	EU-ESP EU-PRT	SCR 96/34, 97/19, 97/20

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				Individual weights	Country	SCR Doc. No.
Canadian autumn groundfish	2J,3K, 3L	Autumn	78-06 2J3K 84-06 3L	Stratified-random Engel trawl 1978-94 2J3K Yankee trawl 1981-82 3L Engel trawl 1984-94 3L Campelen Trawl all areas 1995-06	Multispecies (Cod, flounders, G. halibut, Redfish & shellfish)	456 in 2006	Y	This column not appropriate for this species given differences in depth coverage and areas covered in the surveys.	2J3K in 2006 107-1443m 3L in 2006 61-1401 m	Y	Y	Prior to 1994	Y	Y	Canada	07/27

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 distribu- tion (%)	Depth range	Research data related to stock size estimates				Indiv- idual weights	Country	SCS/ SCR Doc. No.
										abun- dance	bio- mass	ALK	LF			
Canadian groundfish spring	3LNO	Apr-June	1995-2006	Stratified-random Campelen trawl	Groundfish	195 in 2006	Y		46-701 m	Y	Y	Y	Y	Y	Canada	07/45
Canadian autumn groundfish	2J,3K, 3L	Fall	1978-2006 2J3K 1981-2006 3L	Stratified-random Engel trawl 1978-94 2J3K Yankee trawl 1981-82 3L Engel trawl 1984-94 3L Campelen Trawl all areas 1995-2006	Groundfish (Cod, flounders, G. halibut, Redfish & shellfish)	456 in 2006	Y	This column not appropriate for this species given differences in depth coverage and areas covered in the surveys.	2J3K in 2006 107-1443 m 3L in 2006 61-1401 m	Y	Y	Y	Y	Y	Canada	07/45
EU bottom trawl	3M	Jul	1988-2006	Stratified-random Bottom trawl	Groundfish & shrimp	179 in 2006	N		128-1400 m	Y	Y	Y	Y	Y	EU	07/10
EU-Spain bottom trawl	Reg. Area 3NO	Apr-May	1995-2006	Stratified-random Bottom trawl	Groundfish	120 in 2006	N		56-1464 m in recent years	Y	Y	N	Y	Y	Spain	07/35
Canadian groundfish	2GH	Sep-Oct	occasion since 1978	Stratified-random Campelen in 1996-2006	Groundfish & shellfish	81 in 2H in 2006	Y		107-1437 m in 2006	Y	Y	Y	Y	Y	Canada	07/45
Canadian groundfish	3MNO	Sep-Dec	3NO 1990-2006 3M* 1996-2003, 2005-06	Stratified-random Campelen	Groundfish	70-3N 74-3O in 2006	Y	3M * full coverage 1996; since 1997 only in deepwater Sackville Spur, Flem. Pass	650 m 3N 674 m 3O in 2006	Y	Y	Y	Y	Y	Canada	07/45
Russian	3M	May	1987-96	Stratified-random Bottom trawl	Groundfish	90	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	94	Y	Flemish Cap	732-1280 m	Y		Y	Y	N	Russia	01/10
	3M	May-June	2001-02	Stratified-random Bottom trawl	Groundfish		Y		127-1280	Y	Y	Y	Y	N	Russia	03/09

Stock name: Short-finned Squid in Subareas 3 and 4																
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
										abundance	bio-mass	ALK	LF			
July multispecies bottom trawl	SA 4	July	Since 1970	Stratified random bottom trawl	Multi-species	~ 190	Y	Unknown	20-366 m	Y	Y	N	Y	N	Canada	06/46
Autumn multispecies bottom trawl	4T	Sept.	Since 1971	Stratified random bottom trawl	Multi-species		Y, after 1986	Unknown, likely < 20%		Y	Y	N	Unknown	N	Canada	06/46
EU Flemish Cap multispecies bottom trawl	3M	July	Since 1988	Stratified random bottom trawl	Multi-species	101-121	N, 0600-2200	Unknown, likely < 10%	127-730 m, up to 1,400 m in 2005	Y	Y	N	Y	N	EU (Spain)	06/46, 06/16
Spring multispecies bottom trawl	3LNOP	April-June	Since 1996	Stratified random bottom trawl	Multi-species	470-597	Y	Unknown	20-870 m, but inconsistent inshore	Y	Y	N	Y	N	Canada	06/45, 06/46
Autumn multispecies bottom trawl	3KLNO	Mainly Sept-Dec, but extends through Jan in some years	Since 1995	Stratified random bottom trawl	Multi-species	608-840	Y	Unknown	30-1,500 m, but inconsistent inshore and > 730 m	Y	Y	N	Y	N	Canada	06/45, 06/46

Stock name: Northern Shrimp 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 size estimates				Individual weights	Country	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	~350	Yes	100% of area covered	30-732 m	Y	Y	N	Y	N	Canada	SCR 06/73
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	SCR 06/73

Stock name: Northern Shrimp in Divisions 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 distribu- tion (%)	Depth range	Research data related to stock size estimates				Indiv- idual weights	Country	SCS/ SCR Doc. No
										abun- dance	bio- mass	ALK	LF			
EU-Bottom trawl Survey	3M	Jul	1988 to present	Stratified- random bottom trawl	All	179	No	100%	<750 m(88-02) <1400m (03-07)	Y	Y	Y	Y	Y	EU	SCR 07/76

Stock name: Shrimp 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 ¹	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
										abundance	bio-mass	ALK	LF			
West Greenland Trawl Survey	SA 0+1(West Greenland Shelf) 2003	Jul-Aug	Since 1988)	Startified semi-systematic; trawl; Skjervøy 3000 w/bobbins	Northern shrimp; Groundfish	172/ 31	No	95	150-600 m	Y	Y	N/A ²	Y	Y	GRL	SCR 03/71
	2004					187/ 21										SCR 04/72
	2005			Stratified semi-systematic; trawl; Cosmos 2000 w/rockhopper		194/ 24										SCR 05/74
	2006					221/ 28/ 12										SCR 06/58
	2007															

¹ First number is number of stations trawled at depths between 150 and 600 m targeting shrimp; second number is number of stations in water shallower than 150 m targeting principally Atlantic cod; Third number is number of stations in water deeper than 600 m targeting principally Greenland halibut.

² Lack of satisfactory method of ageing shrimp precludes generating age-length keys.

[illegible]