



SCIENTIFIC COUNCIL MEETING -2020

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 2020.



Stock name: Greenland halibut in Subarea 0 +1 (offshore)																
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	Aug-Nov	1997 – 2017, 2019	Stratified Random bottom Trawl, Alfredo trawl	Greenland halibut	70	Y	?	400-1500 m	Y	Y	N	Y	Y	Greenland	SCR 20/12
Greenland Shrimp Trawl	1A-F	Jul-Sep	Since 1988	Stratified Random bottom Trawl, Cosmos trawl	Shrimp Groundfish	198	N	?	50-600m	Y	Y	N	Y	Y	Greenland	SCR 20/06
Canada Deep Sea	0A	Oct-Nov	1999 2001 2004 2006 2008 2010 2012 2014-2017	Stratified Random bottom Trawl, Alfredo trawl	Greenland halibut	72	Y	?	400-1500 m	Y	Y	N	Y	Y	Canada	SCR 20/07
Canada Deep Sea	0B	Oct-Nov	2019 2000 2001 2011 2013 2014-2016	Stratified Random bottom Trawl, Alfredo trawl	Greenland halibut	81	Y	?	400-1500 m	Y	Y	N	Y	Y	Canada	SCR 17/28



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
										Abundance	Bio-mass	ALK	LF			
Disko bay Inshore	Disko Bay	Jun-Jul	1993-01 2001-19	Longline Gillnet	Greenland halibut	0 32	Y	-	200-700m	Y	Y	Y	Y	Y	Greenland	20/016
Uummannaq Inshore	Uummannaq	Aug-Sep	1993-15 2011-19	Longline Gillnet	Greenland halibut	0 44	Y	-	200-900m	Y	Y	Y	Y	Y	Greenland	20/016
Upernavik Inshore	Upernavik	Aug-Sep	1998-14 2012-19	Longline Gillnet	Greenland halibut	- 34	Y	-	200-900m	Y	Y	Y	Y	Y	Greenland	20/016
Greenland Shrimp and Fish survey	Disko bay + (1A-1F)	Jul-Sep	1991-19	Stratified-random trawl	Shrimp & fish	17	N	-	50-600m	Y	Y	Y	Y	Y	Greenland	20/006 20/016

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	1982 - 2019	Stratified random bottom trawl	Cod, redfish, other finfish	39	N	?	0-400m	Y	Y	N	Y	Y	EU-Germany	20/052
Greenland – Deepsea	1C - 1D	Aug-Nov	since 1997	Stratified random bottom trawl	Greenland halibut,	70	Y	?	400-1500m	Y	Y	N	Y	Y	Greenland	20/012
Greenland Shrimp and Fish survey	1A - 1F	Jul-Aug	since 1992	Stratified random bottom trawl	Shrimp & fish	198	N	?	50-600m	Y	Y	N	Y	Y	Greenland	20/006

Stock name: Wolffish in SA1 and American plaice in SA 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 finfish	39	N	?	0-400m	Y	Y	N	Y	Y	EU-Germany	SCR 20/052
Greenland Shrimp and Fish survey	1A - 1F	Jul-Aug	since 1992	Stratified random bottom trawl	Shrimp, finfish	198	N	?	50-600m	Y	Y	N	Y	N	Greenland	SCR 20/006



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	Biomass	ALK	LF			
EU-bottom trawl survey	3M	Jun-Jul	since 1988	Stratified random	All	180	N	100%	<750 m (88-03) <1400m (04-19)	Y	Y	Y	Y	Y	EU	SCR 20/11
Canadian Flemish Cap survey	3M	Jan-Feb	1978-1995	Stratified random	All	132	Y	100%	<730 m	Y	Y	Y	Y	Y	Canada Newfoundland	SCR 92/76
Russian trawl survey	3M	May-June	1983-1993 1995-1196 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 Newfoundland	SCR 97/42



Stock name: Golden redfish (<i>S. norvegicus</i>) 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				Individual weights	Country	SCS/ SCR Doc. No.
EU – bottom Trawl	3M	Summer Jun/Jul	1988	Stratified-random bottom trawl	Groundfish and shrimp	181	N	100	127-1460m	Y	Y	Y	Y	Y	EU-Spain EU-Portugal	20/11

Stock name: Beaked redfish (<i>S. mentella</i> and <i>S. fasciatus</i>) 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				Individual weights	Country	SCS/ SCR Doc. No.
EU – bottom Trawl	3M	Summer Jun/Jul	1988	Stratified-random bottom trawl	Groundfish and shrimp	181	N	100	127-1460m	Y	Y	Y	Y	Y	EU-Spain EU-Portugal	20/11



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 Jun/Jul	1988	Stratified- random bottom trawl	Groundfish and shrimp	181	N	100	127- 1460 m	Y	Y	Y	Y	Y	EU- Spain EU- Portugal	20/11

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
										Abundance	Bio-mass	ALK	LF			
Canadian Spring Bottom Trawl Survey	3NO	Apr-Jun	1972-2019 (except 1983, 2006)	Stratified-random Bottom trawl	Multi-species	134	Y	100	38-666 m	Y	Y	Y	Y	Y	Canada	SCR 20/02
Juvenile flatfish	3NO	Sep	1989-94	Stratified-random Bottom trawl	Groundfish		Y	100	30-150 m	Y	Y	Y	Y	Y	Canada	SCR 96/80
Canadian Autumn Bottom Trawl Survey	3NO	Oct-Dec	1990-2019 (except 2014)	Stratified-random Bottom trawl	Multi-species	121	Y	100	39-641 m	Y	Y	Y	Y	Y	Canada	SCR 20/02
EU-Spain	3NO - Regulatory Area	Jun	1995-2019	Stratified-random Bottom trawl	Multi-species	122	N	20	44-1450 m	Y	Y	Y	Y	Y	Spain	SCR 20/08

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.
										abundance LF	bio-mass	ALK				
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	Y	Y	Y	Y	Some-times	USSR	86/66
									1977-82: to 732 m	Y	Y	Y	Y			
USSR ground-fish	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	Some-times	USSR	86/66
					Groundfish	approx. 42-3N	Y	Unknown	to 732 m	Y	Y	Y	Y			
USSR acoustic	3LN	Apr-Jun	1987-91, 1993	Acoustic	Multi-species	unknown midwater sampl.	Y	Unknown	to 732 m	Y	Y			Some-times	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	Some-times	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 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	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 (Sep-Nov)	1991-19	Stratified-random Bottom trawl	Multi-species Groundfish	45 in 3L 30 in 3N	Y	Unknown	186-620 in 3L 95-684 in 3N	Y	Y	N	Y	Y	Canada	20/002 and pers. com.
Canadian Groundfish (Spring)	3LN	Spring (May-Jun)	1991-19	Stratified-random Bottom trawl	Multi-species Groundfish	47 in 3L 30 in 3N	Y	Unknown	186-694 in 3L 96-685 in 3N	Y	Y	N	Y	Y	Canada	20/002 and pers. com.
Spanish Groundfish (Spring)	3N	Spring (May-Jun)	1995-19	Stratified-random Bottom trawl	Multi-species Groundfish	93	N	Unknown	44-1450	Y	Y	N	Y	Y	EU-Spain	20/009 and pers. com.
Spanish Groundfish (Summer)	3L	Summer (July-August)	2006-19	Stratified-random Bottom trawl	Multi-species Groundfish	96	N	Unknown	104-1478	Y	Y	N	Y	Y	EU-Spain	20/014 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 size estimates				Individual weights	Country	SCS/ SCR Doc. No
										Abundance	Bio-mass	ALK	LF			
Canadian spring	3LNO	May-Jun	1971-2021 (no 2006 or 2015, 2017, 2020)	Stratified random Campelen	Multispecies	171	Y	95	44-732 m	Y	Y	Y	Y	Y	Canada	20/11 18/39
Canadian autumn	3LNO	Sep-Dec	1990-2020 (no 2004 or 2014)	Stratified random Campelen	Multispecies	286	Y	100	42-1379 m	Y	Y	Y	Y	Y	Canada	20/11 18/39
EU-Spain	3NO Reg. Area	Jun	1995-2019 (no 2020)	Stratified random Campelen	Groundfish	122	N	11	44-1450 m	Y	Y	N	Y	N	Spain	20/08
EU-Spain	3L Reg. Area	Jul-Aug	2003-2019 (no 2005, 2020)	Stratified random Campelen	Groundfish	99	N	unknown	106-1433	Y	Y	N	Y	N	Spain	20/13
Canadian DFO-Industry Co-operative	3NO – expanded to 3L in 2000	Jul-Aug (quarterly in 1997-98)	1996-2004	Grid survey with commercial Engel trawl (unlined)	Yellowtail (bycatches of cod, A. plaice)	61 - Jul 80 - Aug	Y	22	45-90	N	N	N	N	N	Canada	05/9

Stock name: Yellowtail flounder 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
										Abundance	Bio-mass	AL K	LF			
Canadian Groundfish Spring	3LNO	May-June	Since 1971	Stratified Random Campelen Trawl	Groundfish & shellfish	280	Y	100	39-694	Y	Y	N	Y	Y	Canada	20/002
Canadian Groundfish autumn	3LNO	Sep- Nov.	Since 1990	Stratified Random Campelen Trawl	Groundfish & shellfish	274	Y	100	42-684	Y	Y	N	Y	Y	Canada	20/002
Spanish Groundfish	3NO	June	Since 1995	Stratified Random Campelen Trawl	Groundfish & shellfish	115	N		44-1450	Y	Y	N	Y	N	Spain	20/009

Stock name: Witch flounder in Divisions 3N and 3O																
Name of survey	Location (Div.)	Season months	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. 3NO	Spring (Apr-Jun)	1971-2019	Stratified Random - Campelen trawl	Groundfish and shellfish	147	Y	100	39-685 m	Y	Y	N	Y	Y	Canada	20/02
Canadian Groundfish (Autumn)	Div. 3NO	Autumn (Sep-Oct)	1990-2019	Stratified-Random - Campelen trawl	Groundfish and shellfish	145	Y	100	42-684m	Y	Y	N	Y	Y	Canada	20/02
Spanish Groundfish	Div. 3NO	June	1995-2019	Stratified-Random - Campelen trawl	Groundfish	194	N		45 to 1450m	Y	Y	N	Y	N	Spain	20/09



Stock name: Capelin 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
										Abundance	Bio-mass	ALK	LF			
Multi-species bottom rawl survey	3NO	6	1977-2006	Stratified-random, Campelen 1800	Demersal fishes	54	+	50	45-105 m	Y	Y	N	Y	Y	Canada	07/12

Stock name: Redfish in Divisions 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				Individual weights	Country	SCS/ SCR Doc. No.
										abundance	bio-mass	ALK	LF			
USSR ground-fish	3O	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	3O	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
EU-Spain	3O	Jun	1995-2019	Stratified-random Bottom trawl	Multi-species Groundfish	6-23	N	Unknown	93 - 1410 m	Y	Y	N	Y	Some Surveys	Spain	SCR 20/009
Canada ground-fish	3O	Sep-Dec series + Apr-May series	1991-2013, 2015-19 1991-2015-19	Stratified-random Bottom trawl	Multi-species Groundfish	24-40 + 35-51 in redfish depths	Y	Unknown	To 1464 m	Y	Y	N	Y	Y	Canada	SCR 20/002
									To 732 m	Y	Y	N	Y	Y		



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 (2019)	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 (March-June)	1971-2019	Stratified random - bottom trawl	Groundfish & shellfish	622	Y	100	39 to 694 m	Y	Y	N	Y	Y	Canada	SCR 20/02
Canadian Groundfish (Autumn)	Div. 3LNO	Autumn (Sept-Nov)	1990-2019	Stratified-random - bottom trawl	Groundfish & shellfish	274	Y	80	42 to 684m	Y	Y	N	Y	Y	Canada	SCR 20/02
EU-Spain Groundfish	Div. 3NO Regulatory Area	Spring (May-June)	1997-2019	Stratified-random - bottom trawl	Groundfish	115	N	15	44 to 1 450m	Y	Y	N	Y	Y	EU-Spain	SCR 20/10
EU-Spain Groundfish	Div. 3L Regulatory Area	Summer (July-August)	2003-2019	Stratified-random - bottom trawl	Groundfish	96	N	10	120 to 1 359m	Y	Y	N	Y	Y	EU-Spain	SCR 20/14



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 (2019)	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 (March-May)	1971-2019	Stratified random - bottom trawl	Groundfish & shellfish	622	Y	100	39 to 694m	Y	Y	N	Y	Y	Canada	SCR 20/15
Canadian Groundfish (Autumn)	Div. 3NO	Autumn (Sept-Oct)	1990-2019	Stratified-random - bottom trawl	Groundfish & shellfish	274	Y	65	42 to 684	Y	Y	N	Y	Y	Canada	SCR 20/15
EU-Spain Groundfish (Spring)	Div. 3NO Regulatory Area	Spring (May-June)	1997-2019	Stratified-random - bottom trawl	Groundfish	114	N	25	44 to 1 450m	Y	Y	N	Y	Y	EU-Spain	SCR 20/020



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				Indiv- idual weights	Country	SCR Doc. No.
										abun- dance	bio- mass	ALK	LF			
Canadian Autumn Survey	2GHJ 3MLNO	Oct-Dec	1978	Stratified random <= 1994 Engel >=1995 Campelen	Groundfish Shellfish	486 in 2019	Yes		<1500	+	+		+	No	CAN	SCR 20/02 20/04
Canadian Spring Survey	3LNO	Spring May-July	1978	Stratified random <=1995 Engel >= 1996 Campelen	Groundfish Shellfish	451 in 2019	Yes		<730 m		+			No	CAN	SCR 20/02
Canadian deepwater	3MLN	August February Spring	1991 1994 1995	Bottom trawl	Groundfish				<1500	+	+		+	No	CAN	SCR 95/51
Spanish Surveys in Div. 3NO	3NO	June	1995	Stratified Random <=2001 Pedreira >=2001 Campelen	Groundfish	115 in 2019	No	Low	<1500	+	+		+	+	EU-ESP	SCR 20/10
Spanish Surveys in Div. 3L	3L	August	2003	Stratified Random Campelen	Groundfish	96 in 2019	No	Low	<1500	+	+		+	+	EU-ESP	SCR 20/14
EU Flemish Cap Surveys	3M	July	1988	Stratified Random (Lofoten)	Groundfish Shrimp	180 in 2019	No	Flemish Cap	<1500	+	+	+	+	+	EU-ESP EU-PRT	SCR 20/11
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: 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				Individual weights	Country	SCS/ SCR Doc. No
										Abundance	Bio-mass	ALK	LF			
Canadian groundfish spring	3LNO	Apr-June	1995-2019 2006, 2015, 2020 incomplete	Stratified-random Campelen trawl	Multi-species survey	260	Y		42-725 m	Y	Y	Y	Y	Y	Canada	19/36 20/02
Canadian autumn groundfish	2J,3K, 3L	Autumn	1978-20202J3K 1981-20203L	Stratified-random Engel trawl 1978-94 2J3K Yankee trawl 1981-82 3L Engel trawl 1984-94 3L Campelen Trawl all areas 1995-2018	Multi-species survey	2J -91 3K -111 3L - 141	Y	This column not appropriate for this species given differences in depth coverage and areas covered in the surveys	2J 129-1325 m 3K 139-658 m 3L 62-668 m	Y	Y	Y	Y	Y	Canada	19/36 20/02
EU bottom trawl	3M	Jun-Jul	1988-2020	Stratified-random Lofoten trawl	Groundfish & shrimp	181	N		128-1460 m	Y	Y	Y	Y	Y	EU	20/11
EU-Spain bottom trawl	Reg. Area 3LNO	Apr-May	3NO 1995-2019 3L 2003-19; Ex.200, 2008, 2020	Stratified-random Bottom trawl	Groundfish	3NO - 114 3L - 100	N		3NO 44-1450m 3L 126-1447 m	Y	Y	N	Y	Y	Spain	20/08 20/13
Canadian groundfish	2GH	Sep-Oct	2G no longer covered; 2H annually	Stratified-random Campelen in 1996-2018	Multi-species survey	2H-83	Y		98-1399 m 2H	Y	Y	Y	Y	Y	Canada	19/36 20/02
Canadian groundfish	3MNO	Sep-Dec	3NO 1990-2020 3M 1996-2003, 2006-07	Stratified-random Campelen	Multi-species survey	70-3N 75-3O			3N 40-634 m 3O 64-7665 m						Canada	20/02
Russian	3M	May	1987-96	Stratified-random Bottom trawl	Groundfish	90	Y	Flemish Cap	914 m in 1996	Y	Y	Y	Y	N	Russia	98/13
Russian	3LM Flemish Pass	Feb Apr-May	1995-96 2000	Stratified-random Bottom trawl	Groundfish	84	Y		732-1280 m	Y	Y	Y	Y	N	Russia	01/10
Russian	3M	May-Jun	2001-02	Stratified-random Bottom trawl	Groundfish		Y		127-1280m	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				Indiv. 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	SCR 19/42REV
CA Autumn multispecies bottom trawl	4T	Sep	Since 1971	Stratified random bottom trawl	Multi-species	63-202; increased over the years	Y, after 1986	Unknown , likely < 20%		Y	Y	N	Unknown	N	Canada	SCR 19/42REV
EU Flemish Cap multispecies bottom trawl	3M	July	Since 1988	Stratified random bottom trawl	Multi-species	101-121	N, 0600-2200	Unknown , likely < 5%	127-730 m, up to 1,400 m in 2005	Y	Y	N	Y	N	EU (Spain)	SCR 16/21 SCR19/42REV
CA 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	SCR 19/42REV
CA Autumn multispecies bottom trawl	3KLNO	Mainly Sept-Dec, but also Jan in some years	Since 1995	Stratified random bottom trawl	Multi-species	608-840	Y	Unknown	30-1 500 m, variable inshore and > 730 m	Y	Y	N	Y	N	Canada	SCR 19/42REV

**The data in this table is only updated every three years (e.g., 2016 and 2019) when a full assessment is conducted*

Stock name: Northern Shrimp in Divisions 3LNO																
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			
Multi-species Spring Survey	3LNO 3Ps	May to June	1999 to present	Stratified-random bottom trawl	Groundfish Shellfish (crab, shrimp)/ capelin	~300 sets in 3LNO	Yes	100% of area covered	30-732 m	Y	Y	N	Y	N	Canada	SCR 16/58
Multi-species Autumn Survey	2HJ 3KLNO	October to December	1995 to present	Stratified-random bottom trawl	Groundfish Shellfish (crab, shrimp)/ capelin	~300 sets in 3LNO	Yes	100% of area covered	30-1500 m	Y	Y	N	Y	N	Canada	CSAS 2017/ 12
EU Bottom Trawl Survey	3NO	May June	1995 - present	Stratified-random bottom trawl	Groundfish Shellfish (crab, shrimp)/ capelin	95	No		60-1500	Y	Y				EU-Spain	SCR 16/51
EU Bottom Trawl Survey	3L	August	2003 - present	Stratified-random bottom trawl	Groundfish Shellfish (crab, shrimp)/ capelin	97	No		60-1500	Y	Y		Y	Y	Spain	SCR 16/51

Stock name: Northern 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				Individual weights	Country	SCS/ SCR Doc. No
										Abundance	Bio-mass	ALK	LF			
EU-Flemish Cap Survey	3M	Jul	1988 to present	Stratified-random bottom trawl	All	181	N	100%	<750m (88-02) <1400m (03-20)	Y	Y	Y	Y	Y	EU	SCR 20/051 SCR 20/064



Stock name: : Northern 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 ²	LF			
West Greenland Trawl Survey (West Greenland Shelf)	SA 0+1	Jun-Jul	Since 1988	Stratified semi-systematic; trawl; Cosmos 2000 w/rockhopper	Northern shrimp and groundfish	187	N	95	150-600m	Y	Y	N/A	Y	Y	GRL	20/053 20/056

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.

Stock name: : Northern Shrimp in Denmark Strait*																
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			
East Greenland Trawl Survey	ICES XIV	July- Aug	Since 2008 No surveys in 2017, 2018, and 2019 Survey in 2020	Stratified semi-systematic; trawl; Cosmos 2000 w/rockhopper	Northern shrimp Groundfish	98	N	unknown	0-600m	Y	Y	N	Y	Y	Greenland	20/060

*No update for 2017 -2019 due to a cancelled survey.

