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SCIENTIFIC COUNCIL MEETING - JUNE 2000

Fishing Trends in the Northwest Atlantic, 1991-1998

by

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During its June meeting in 1994, the Scientific Council reported that STATLANT 21A data were not submitted in time for consideration during that meeting. This resulted in the Council's inability to review the general changes in catches by species from the previous year. This review of general changes in catches in fact has not been carried out since then.

Over recent years data submission in advance of the June meetings have improved. In a compilation of data the Secretariat noted the review of changes in catches from one year to the next was indeed possible. The following tabulations show such changes in catches between years, and the tabulations presented in this document include the years in which the Scientific Council had not recorded information (since 1993).

1992 and 1993

Species	SA 1992	A0 1993	SA1 1992 1993			SA2 1992 1993		A3 1993	S. 1992	A4 1993	SA 1992	A5 1993		SA6 1992 1993		al 1993
Cod		+	6	2	+	+	80	41	114	40	39	31	+	+	239	115
Haddock	_	-	-	-	_	_	1	1	17	8	6	5		_	25	14
Redfishes	+	+	+	1	+	_	79	85	76	48	1	1	+	_	156	135
Silver hake	_	_	_	_	_	_	+	+	40	30	12	9	4	8	56	47
Red hake	_	_	_	_	_	_	+	+	1	+	2	1	1	1	3	2
Pollock	_	_	_	_	_	_	i	1	31	17	10	10	+	+	42	27
American plaice	+	-	_	-	+	-	14	9	7	3	7	6	-	+	28	18
Witch flounder	_	_	_	_	+	_	9	6	3	2	2	3	+	+	14	10
Yellowtail flounder	_	-	_	-	_	-	11	7	2	2	5	4	+	+	18	12
Greenland halibut	12	7	18	17	2	2	56	52	3	3	-	_	-	_	91	81
Other flounders	+	+	+	+	+	1	2	2	10	8	10	8	7	4	29	22
Roundnose grenadier	+	+	+	+	+	+	7	2	_	1	_	_	_	_	8	4
White hake	_	-	-	_	_	-	3	2	9	6	10	9	+	+	21	18
Wolffishes	+	+	+	-	+	-	2	3	1	1	1	1	+	-	3	4
Other groundfish	+	+	2	3	1	+	1	3	5	3	21	26	8	9	38	45
Atlantic herring	_	_	_	_	_	_	11	6	205	197	51	48	4	2	273	252
Atlantic mackerel	-	-	-	-	-	-	4	5	23	22	5	3	6	2	39	32
Atlantic menhaden	_	-	_	-	_	-	_	_	_	-	11	12	275	305	286	317
Other pelagics	-	-	-	-	-	-	1	1	2	2	5	6	8	5	16	15
Capelin	_	_	+	+	-	+	23	39	10	11	-	_	_	_	32	50
Dogfish	-	-	+	-	-	-	-	+	1	1	10	15	7	1	18	18
Skates	+	-	-	-	-	-	8	10	+	+	12	12	1	1	21	23
Sharks	+	+	+	+	+	+	+	1	1	1	+	+	1	1	3	2
Other finfish	-	+	+	+	+	+	3	1	15	9	1	1	15	6	35	17
Squids	-	_	-	_	-	_	1	+	1	2	6	9	31	33	39	44
Clams	-	-	2	2	-	-	12	21	5	4	36	56	369	365	425	448
Scallops	-	-	-	-	+	+	6	3	35	36	131	90	41	23	213	152
Other molluscs	-	-	-	-	+	-	+	+	7	8	27	20	70	64	105	91
Shrimp	8	6	80	70	15	13	2	30	15	18	1	2	1	+	123	139
Crabs	-	-	+	+	1	2	15	21	22	27	3	3	44	37	85	91
Lobsters	-	-	-	-	-	-	2	1	40	40	23	23	3	3	68	67
Other invertebrates	-	-	-	-	-	-	-	-	1	1	12	20	+	1	14	22
Total	21	13	108	95	19	19	356	353	701	552	463	433	898	869	2566	2334

General Trends 1992-1993

Final data for 1992 and 1993 as published in NAFO Statistical Bulletin has been used to compile Table 1. The overall nominal catch (round fresh weight) of all finfish and invertebrate stocks was 2.33 million tons in 1993 which represented a decrease (9%) from the 1992 catch of 2.57 million tons. The total "groundfish" catch, which represented 24% over the overall catch in 1993 was 38% less than in 1992 (768 000 tons and 554 000 tons in 1992 and 1993 respectively). Decreases were noted for all major species, cod (52%), haddock (44%), redfishes (13%), American plaice (36%), witch flounder (29%), yellowtail flounder (33%) and Greenland halibut (11%). The total "pelagic" catch, which represented 26% of the overall catch in 1993, increased very slightly (<1%) to 616 000 tons from 614 000 tons in 1992. Decreases were noted for herring (8%), mackerel (18%), with an increase noted for menhaden (11%). The total "finfish" catch which represented 5% of the overall catch in 1993 increased slightly to 110 000 tons from 109 000 tons in 1992. Capelin catches increased 56%, returning to a similar catch as in 1991. Dogfish, skates and sharks are listed separately in this table and 1993 catches remained similar to 1992 values. The total catch of "invertebrates", which represented 45% of the overall catch in 1993 decreased (2%) to 1.05 million tons from 1.07 million tons in 1992. Increases were noted for squids (13%), clams (5%), shrimp (13%) and crabs (7%), but decreases were noted for scallops (29%) and "other molluscs" (13%).

a) Subarea 0

The overall total nominal catch in 1993 was 13 000 tons a decrease (38%) from 1992 (21 000 tons). Greenland halibut decreased 42% and shrimp 25%.

b) Subarea 1

The overall nominal catch in 1993 decreased 12% from 1992 (95 000 tons from 108 000 tons) The cod catch (only 2% of the total SA1 catch) decreased significantly (67%) and shrimp decreased (13%). Greenland halibut remained at a similar level in 1993 (17 000 tons).

c) Subarea 2

The overall nominal catch remained constant in 1993 (19 000 tons). Shrimp decreased (13% or 2 000 tons) but other scattered species increased.

d) Subarea 3

The overall nominal catch decreased slightly (1%) to 353 000 tons in 1993 from 356 000 in 1992. Cod decreased (49%), flounders overall decreased (17%), herring decreased (45%) but increases were noted for redfishes (7%), capelin (70%), clams (75%) and shrimp (from 2 000 to 30 000). Skates represented 20% of the total finfish catch in Subarea 3.

e) Subarea 4

The overall nominal catch decreased 27% in 1993 to 552 000 tons from 701 000 tons in 1992. Decreases were noted for cod (65%), haddock (53%), redfishes (37%), silver hake (25%), pollock (45%), herring (4%) and flounder species generally. Increases were noted for shrimp (20%) and crabs (23%).

f) Subarea 5

The overall nominal catch declined 6% to 433 000 tons in 1993 from 463 000 tons in 1992. Cod declined (21%), silver hake (25%), herring (6 %) and scallops (31%). Increases were noted for "other groundfish" (24%), dogfish (50%) and clams (56%). Dogfish and skates made up the majority of catch of "finfish" in Subarea 5.

g) Subarea 6

The overall total nominal catch declined 3% from 898 000 tons in 1992 to 869 000 tons in 1993. Decreases were noted for clams (1%), scallops (44%), "other molluscs" (9%) and crabs (16%). Increases were noted for menhaden (11%).

1993 and 1994

Species	SA0		SA1		SA2			A3		A4	SA		SA6		Total	
	1993	1994	1993	1994	1993	1994	1993	1994	1993	1994	1993	1994	1993 1	994	1993	1994¹
Cod	+	_	2	2	+	+	41	11	40	15	31	5	+	_	115	51
Haddock	-	-	-	-	-	-	1	+	8	5	5	2	-	-	14	7
Redfishes	+	-	1	1	-	-	85	35	48	32	1	+	-	-	135	68
Silver hake	-	-	-	-	-	-	+	+	30	8	9	-	8	-	47	24
Red hake	-	-	-	-	-	-	+	+	+	+	1	-	1	-	2	2
Pollock	-	-	-	-	-	-	1	+	17	12	10	3	+	-	27	19
American plaice	-	-	-	-	-	-	9	1	3	3	6	+	+	-	18	9
Witch flounder	-	-	-	-	-	-	6	1	2	1	3	+	+	-	10	5
Yellowtail flounder	-	-	-	-	-	-	7	+	2	1	4	1	+	-	12	6
Greenland halibut	7	4	17	20	2	1	52	50	3	4	-	-	-	-	81	79
Other flounders	+	+	+	+	1	-	2	2	7	6	8	1	4	-	22	19
Roundnose grenadier	+	+	+	+	+	+	2	2	1	+	-	-	-	-	4	2
Roughhead grenadier	*	-	*	-	*	-	*	2	*	-	*	-	*	-	*	2
White hake	-	-	-	-	-	-	2	1	6	5	9	1	+	-	18	12
Wolffishes	+	-	-	+	-	-	3	3	1	+	1	+	-	-	4	4
Other groundfish	+	+	3	2	+	+	3	1	3	3	26	1	9	-	45	37
Atlantic herring	_	_	_	_	-	+	6	5	197	201	48	+	2	_	252	252
Atlantic mackerel	-	-	-	-	-	-	5	+	22	21	3	-	2	-	32	30
Atlantic menhaden	-	-	-	-	-	-	-	-	-	-	12	-	305	-	317	252
Other pelagics	-	-	-	-	-	-	1	1	2	1	6	+	5	-	15	14
Capelin	_	_	+	+	+	_	39	1	11	1	-	_	_	_	50	2
Dogfish	-	+	-	+	-	-	+	+	1	2	15	-	1	-	18	16
Skates	-	-	-	+	-	+	10	15	+	2	12	+	1	-	23	26
Sharks	+	-	+	+	+	-	1	+	1	2	+	+	1	-	2	3
Other finfish	+	-	+	1	+	+	1	+	9	9	1	-	6	-	17	34
Squids	-	-	-	-	_	-	+	2	2	4	9	-	33	-	44	48
Clams	-	-	2	2	-	-	21	16	4	10	56	-	365	-	448	403
Scallops	-	-	-	-	+	+	3	5	36	44	90	42	23	-	152	159
Other molluscs	-	-	-	-	-	+	+	+	8	10	20	-	64	-	91	72
Shrimp	6	5	70	74	13	22	30	25	18	20	2	-	+	-	139	149
Crabs	-	-	+	+	2	3	21	24	27	38	3	-	37	-	91	110
Lobsters	-	-	-	-	-	-	1	1	40	40	23	-	3	-	67	73
Other invertebrates	-	-	-	-	-	-	-	-	1	2	20	-	1	-	22	23
Total	13	9	94	103	19	27	353	208	552	502	433	57	869	-	2334	2013

^{*} Included in "Other groundfish"

General Trends 1993-1994

Recognizing that USA data for 1994 is not available broken down by Subarea, the following trends were noted. Total USA catch is included in the "Total" column. The overall nominal catch (round fresh weight) of all finfish and invertebrate stocks was 2.01 million tons in 1994 which represented a decrease (14%) from the 1993 catch of 2.33 million tons. The total "groundfish" catch, which represented 17% of the overall catch in 1994 was 38% less than in 1993 (346 000 tons in 1994 and 554 000 tons in 1993). Decreases were noted for all major species - cod (56%), haddock (50%), redfishes (50%), silver hake (49%), pollock (30%), American plaice (50%), witch flounder (50%), yellowtail flounder (50%) and Greenland halibut (2%). The total "pelagic" catch, which represented 27% of the overall catch in 1994 decreased (11%) to 548 000 tons from 616 000 tons in 1993. The herring catch remained the same but decreases were noted for mackerel (6%) and menhaden (20%). The total "finfish" catch represented 4% of the total catch in 1994, decreased (26%) to 81 000 tons from 110 000 tons in 1993. This was due mainly to a substantial decrease (96%) in capelin. Finfish generally increased (31%). The "invertebrate" catch represented 52% of the overall catch and decreased only slightly (2%) to 1.04 million tons in 1994 from 1.05 million tons in 1993. Decreases were noted for clams (10%) and "other molluscs" (21%) but increases were noted for squids (9%), scallops (5%), shrimp (7%), crabs (20%) and lobsters (9%).

¹ Total includes USA catches which have not been broken down by Subarea.

Assuming the majority of the USA catch was in Subareas 5 and 6 no trends were noted for these Subareas. The following trends were noted for Subarea 0-4.

a) Subarea 0

The total overall nominal catch in 1994 was 9 000 tons, a decrease (21%) over 1993. Greenland halibut and shrimp continued to decrease (43% and 17%, respectively).

b) Subarea 1

The catch in Subarea 1 increased (10%) in 1994 to 103 000 tons from 94 000 tons in 1993. Greenland halibut increased (18%) as did shrimp (6%).

c) Subarea 2

The overall nominal catch increased (42%) to 27 000 tons in 1994 from 19 000 tons in 1993. This was due to an increase in shrimp catch (69%).

d) Subarea 3

The overall nominal catch in 1994 decreased (41%) to 208 000 tons from 353 000 tons in 1993. Decreases were noted for cod (73%), redfishes (62%), all flounders generally (29%), clams (24%) and shrimp (17%). Although not comprising large portions of the total catch increases were noted for skates (50%), scallops (67%) and crabs (14%).

e) Subarea 4

The total overall nominal catch in SA4 decreased (9%) to 502 000 tons in 1994 from 552 000 tons in 1993. Decreased catches were noted for cod (62%), redfishes (33%), silver hake (73%) and capelin (91%). Increases were noted for herring (2%), clams (150%), scallops (25%) and crabs (41%).

1994 and 1995

Species	SA0 1994 1995		SA1 1994 1995		S <i>A</i> 1994 :		S. 1994	A3 1995	Sz 1994	A4 1995	S <i>A</i> 1994 1		SA6 1994 1995		Tota 1994 ¹	l 1995 ¹
Cod	_	_	2	2	+	_	11	5	15	10	5	1		_	51	32
Haddock	-	-	-	-	-	-	+	+	5	6	2	2	-	-	7	8
Redfishes	-	+	1	2	_	+	35	16	32	12	+	+	_	-	68	31
Silver hake	-	-	-	-	-	-	+	-	8	17	-	-	-	-	24	32
Red hake	-	-	-	-	-	-	+	+	+	+	-	-	-	-	2	2
Pollock	-	-	-	-	-	-	+	+	12	9	3	1	-	-	19	14
American plaice	-	-	-	-	-	-	1	1	3	3	+	+	-	-	9	8
Witch flounder	-	-	-	-	-	+	1	2	1	1	+	+	-	-	5	5
Yellowtail flounder	-	-	-	-	-	-	+	+	1	1	1	+	-	-	6	3
Greenland halibut	4	3	20	22	1	2	50	14	4	2	-	-	-	-	79	44
Other flounders	+	+	+	+	_	+	2	1	6	4	1	+	_	-	19	16
Roundnose grenadier	+	+	+	+	+	+	2	+	+	3	-	1	-	-	2	4
Roughhead grenadier	-	+	-	-	-	+	2	+	-	1	-	-	-	-	2	1
White hake	-	-	-	-	-	-	1	1	5	5	1	+	-	-	12	11
Wolffishes	-	-	+	+	_	+	3	2	+	+	+	+	_	-	4	3
Other groundfish	+	+	2	3	+	+	1	1	3	3	1	1	-	+	37	40
Atlantic herring	-	-	-	-	+	+	5	5	201	189	+	-	_	-	252	262
Atlantic mackerel	-	-	-	-	-	-	+	+	21	18	-	-	-	-	30	26
Atlantic menhaden	-	-	-	-	-	-	-	-	-	-	-	-	-	-	252	342
Other pelagics	-	-	-	-	-	-	1	+	1	2	+	+	-	-	14	10
Capelin	-	-	+	+	-	-	1	+	1	+	-	-	_	-	2	+
Dogfish	+	+	+	+	-	-	+	+	2	1	-	-	-	-	16	20
Skates	-	-	+	-	+	+	15	11	2	2	+	+	-	-	26	20
Sharks	-	+	+	+	-	+	+	1	2	1	+	+	-	-	3	2
Other finfish	-	-	1	1	+	+	+	+	9	8	-	-	-	1	34	39
Squids	-	-	-	-	-	-	2	+	4	1	-	-	-	-	48	34
Clams	-	-	2	5	-	-	16	14	10	16	-	-	-	-	403	418
Scallops	-	-	-	-	+	+	5	9	44	43	42	16	-	-	159	135
Other molluscs	-	-	-	-	+	-	+	1	10	8	-	-	-	-	72	76
Shrimp	5	6	74	75	22	24	25	34	20	20	-	-	-	-	149	167
Crabs	-	-	+	1	3	3	24	29	38	41	-	+	-	-	110	120
Lobsters	-	-	-	-	-	-	1	1	40	40	-	+	-	-	73	73
Other invertebrates	-	3	-	-	-	+	-	-	2	3	-	-	-	-	23	23
Total	9	12	103	112	27	30	208	153	502	467	57	23	-	1	2013	2024

¹ Total includes USA catches which have not been broken down by Subarea.

General Trends for 1994-95

While recognizing the USA data is not broken down by Subarea the following trends were noted. The overall nominal catch (round fresh weight) of all finfish and invertebrate stocks was 2.02 million tons in 1995, a slight increase (<1%) from the 1994 catch of 2.01 million tons. The total "groundfish" catch, which represented 13% of the overall catch in 1995 was 26% less than in 1994 (346 000 tons and 254 000 tons in 1994 and 1995, respectively). Decreases were noted for cod (37%), redfish (54%), pollock (26%), Greenland halibut (44%) and increases noted for silver hake (33%) and "other groundfish" (8%). The total "pelagic" catch which represented 32% of the overall catch in 1995, increased (17%) to 640 000 tons from 548 000 tons in 1994. Increases were noted for herring (4%) and menhaden (36%). These species comprised the major proportion of the catch. The total "other finfish" catch, which represented 4% of the total catch remained at a similar level to 1994 at 81 000 tons. Capelin catches decreased to less than 500 tons and skates decreased (23%). Increases were noted for dogfish (25%) and "other finfish" (15%). The total catch of "invertebrates" which represented 52% of the overall catch in 1995, increased (1%) to 1.046 million tons from 1.037 million tons in 1994. Increases were noted for clams (4%), shrimp (12%), crabs (9%), with decreases for squids (29%) and scallops (15%).

Assuming the majority of the USA catch is in Subarea 5 and 6, no trends were noted for these Subareas. The following trends were noted for Subarea 0-4.

a) Subarea 0

The overall total nominal catch in 1995 was 12 000 tons, an increase of 33%. This was due mainly to an increased catch of "other invertebrates" of 3 tons.

b) Subarea 1

The total overall nominal catch in 1995 was 112 000 tons, a 9% increase over the 1994 total of 103 000 tons. Increases were noted for Greenland halibut (10%), shrimp (1%), clams (150%) and redfish (1 000 to 2 000 tons).

c) Subarea 2

The total nominal catch increased 11% in 1995 to 30 000 tons from 27 000 tons in 1994. Greenland halibut increased from 1 000 tons to 2 000 tons and shrimp increased (9% or 2 000 tons).

d) Subarea 3

The overall catch in 1995 decreased (26%) from 208 000 tons in 1994 to 153 000 tons. Decreases were noted most major finfish species including cod (55%), redfish (54%), Greenland halibut (72%) and skates (26%). Increases were noted for shrimp (36%) and crabs (21%).

e) Subarea 4

The overall total nominal catch decreased (7%) to 467 000 tons in 1995 from 502 000 tons in 1994. Decreases were noted for cod (33%), redfish (62%) and herring (6%). Invertebrate catches remained relatively stable, although clams increased (60%) and crabs (8%).

1995 and 1996

Species	SA0 1995 1996		SA 1995 1		SA 1995		SA 1995			SA4 1995 1996		5 1996	SA6 1995 1996		1995 ¹	otal 1996¹
Cod	_	_	2	1	_	-	5	3	10	12	1	2	_	-	32	32
Haddock	-	-	-	-	-	-	+	+	6	6	2	4	-	-	8	11
Redfishes	+	+	2	1	+	+	16	18	12	8	+	+	-	-	31	27
Silver hake	_	-	-	_	_	-	_	-	17	26	-	-	-	-	32	43
Red hake	-	-	-	+	-	-	+	1	+	+	-	-	-	-	2	3
Pollock	-	-	-	-	-	-	+	+	9	8	1	1	-	-	14	13
American plaice	-	-	-	-	-	+	1	1	3	2	+	+	-	-	8	8
Witch flounder	-	-	-	-	+	+	2	2	1	1	+	+	-	-	5	6
Yellowtail flounder	-	-	-	-	-	-	+	+	1	1	+	+	-	-	3	4
Greenland halibut	3	7	22	22	2	2	14	17	2	2	-	-	-	-	44	50
Other flounders	+	+	+	+	+	+	1	1	4	4	+	+	-	-	16	15
Roundnose grenadier	+	+	+	+	+	+	+	+	3	+	1	-	-	-	4	1
Roughhead grenadier	+	+	-	+	+	+	+	4	1	-	-	-	-	-	1	4
White hake	-	-	-	-	-	-	1	1	5	4	+	+	-	-	11	8
Wolffishes	-	-	+	+	+	+	2	1	+	+	+	+	-	-	3	2
Other groundfish	+	+	3	3	+	+	1	1	3	3	1	+	+	-	40	38
Atlantic herring	_	_	_	_	+	+	5	2	189	183	-	3	_	_	262	276
Atlantic mackerel	_	-	_	_	-	-	+	+	18	20	_	-	_	-	26	36
Atlantic menhaden	-	-	-	-	-	-	-	-	_	-	-	-	-	-	342	283
Other pelagics	-	-	-	-	-	-	+	+	2	1	+	+	-	-	10	13
Capelin	_	_	+	+	+	+	+	26	+	7	_	_	_	_	+	33
Dogfish	+	+	+	-	_	-	+	+	1	+	_	-	_	-	20	22
Skates	-	-	-	+	+	+	11	7	2	2	+	+	-	-	20	23
Sharks	+	+	+	+	+	+	1	+	1	1	+	+	-	-	2	2
Other finfish	-	-	1	1	+	+	+	+	8	6	-	-	1	+	39	40
Squids	_	_	_	_	_	_	+	8	1	1	-	_	_	_	34	38
Clams	-	-	5	-	_	-	14	7	16	23	-	-	-	-	418	385
Scallops	_	-	_	1	+	+	9	11	43	24	16	25	_	-	135	127
Other molluses	-	-	-	-	-	+	1	1	8	12	_	-	-	-	76	73
Shrimp	6	7	75	67	24	23	34	47	20	22	-	-	-	-	167	174
Crabs	_	+	1	1	3	3	29	34	41	34	+	+	-	-	120	113
Lobsters	_	-	-	-	-	-	1	1	40	39	+	+	-	-	73	72
Other invertebrates	-	3	-	-	+	+	-	-	3	3	-	-	-	-	23	20
Total	12	16	112	96	30	29	153	197	467	456	23	36	1	+	2024	1994

¹ Total includes USA catches which have not been broken down by Subarea.

General Trends for 1995-1996

While recognizing that the USA data for 1995 and 1996 is not broken down by Subareas the following trends were noted. The overall nominal catch (round fresh weight) of all finfish and invertebrate stocks was 1.99 million tons, a decrease (1.5%) from 2.02 million tons in 1995. The total "groundfish" catch, which represented 13% of the total catch increased (4%) to 265 000 tons in 1996 from 254 000 tons in 1995. Catches of cod and flounders remained stable but increases were noted for haddock (38%), silver hake (34%) and Greenland halibut (14%). Decreases were noted for redfish (13%). Pelagics represented 30% of the overall catch and decreased (5%) to 608 000 tons compared to 640 000 tons in 1995. The decrease was entirely due menhaden (17%), all other species increased, herring (5%), mackerel (38%) and "other pelagics" (30%). Catches of "finfish" which represented 6% of the total nominal catch increased in 1996 (48%) to 120 000 tons from 81 000 tons in 1995. This was due mainly to capelin which increased from less than 500 tons to 33 000 tons. Other species remained similar with slight increases noted for dogfish (10%) and skates (15%). Invertebrates represented 50% of the total overall catch and decreased (<1%) in 1996 to 1 million tons from 1.04 million tons in 1995. Decreases were noted for clams (8%), scallops (6%), crabs (6%) but shrimp increased (4%).

Assuming most of the USA catch is in Subareas 5 and 6 no trends were noted for those Subareas. The following trends were noted for SA0-4.

a) Subarea 0

The total overall nominal catch in 1996 was 16 000 tons, an increase of 33% over the 1995 catch of 12 000 tons. This was due to an increase in Greenland halibut (133%) and shrimp (17%).

b) Subarea 1

The catch decreased (14%) in 1996 to 96 000 tons from 112 000 tons in 1995. This was due to a decrease in shrimp (11%) and a decrease in clams from 5 000 tons to zero tons.

c) Subarea 2

The catch remained similar in 1996 at 29 000 tons compared to 30 000 tons in 1995. Catches remained stable.

d) Subarea 3

Overall nominal catch increased (22%) in 1996 to 197 000 tons from 153 000 tons in 1995. There was a major increase in capelin from less than 500 tons to 26 000 tons and other increases were noted for redfish (12%), Greenland halibut (21%), shrimp (38%), crabs (17%) and roughhead grenadier from less than 500 tons to 4 000 tons and squids from less than 500 tons to 8 000 tons. Decreases were noted for cod (40%), herring (60%), clams (50%).

e) Subarea 4

Nominal catch in SA4 decreased (2%) in 1996 to 456 000 tons from 467 000 tons. Decreases were noted for redfish (33%), herring (3%), scallops (44%), crabs (17%) and increases noted for cod (20%), silver hake (53%), clams (44%) and shrimp (10%).

1996 and 1997

Species	SA0 1996 1997		SA 1996 1		SA: 1996 1		SA 1996		SA 1996		SA5 1996 1997		SA6 1996 1997		1996 ¹	otal 1997 ¹
Cod	-	_	1	1	_	+	3	14	12	17	2	3	_	32	32	47
Haddock	-	-	-	-	-	-	+	+	6	7	4	3	-	8	11	11
Redfishes	+	+	1	1	+	+	18	12	8	10	+	+	-	-	27	24
Silver hake	-	-	_	_	_	-	-	-	26	17	_	-	-	_	43	32
Red hake	-	-	+	-	-	-	1	1	+	+	-	-	-	-	3	3
Pollock	-	-	-	-	-	-	+	1	8	11	1	1	-	-	13	17
American plaice	-	-	-	-	+	+	1	2	2	3	+	+	-	-	8	9
Witch flounder	-	-	-	-	+	+	2	2	1	1	+	+	-	-	6	5
Yellowtail flounder	-	-	-	-	-	-	+	1	1	1	+	1	-	-	4	5
Greenland halibut	7	4	22	26	2	3	17	17	2	3	-	-	-	-	50	52
Other flounders	+	+	+	+	+	+	1	1	4	4	+	+	-	-	15	16
Roundnose grenadier	+	+	+	+	+	+	+	+	+	+	_	-	-	_	1	+
Roughhead grenadier	+	-	+	-	+	+	4	5	-	-	-	-	-	-	4	5
White hake	-	-	-	-	-	-	1	1	4	3	+	+	-	-	8	7
Wolffishes	-	-	+	+	+	+	1	1	+	1	+	+	-	-	2	2
Other groundfish	+	-	3	3	+	+	1	1	3	3	+	+	+	-	38	42
Atlantic herring	_	-	_	_	+	+	2	8	183	179	3	+	_	_	276	283
Atlantic mackerel	_	-	_	-	_	-	+	+	20	21	_	-	_	-	36	37
Atlantic menhaden	-	-	-	-	-	-	-	-	_	-	-	-	-	-	283	245
Other pelagics	-	-	-	-	-	-	+	+	1	2	+	+	-	-	13	12
Capelin	_	_	+	+	+	+	26	14	7	8	_	_	_	_	33	22
Dogfish	+	-	_	-	_	-	+	+	+	+	_	-	_	-	22	19
Skates	-	-	+	-	+	+	7	13	2	1	+	-	-	-	23	25
Sharks	+	-	+	_	+	-	+	+	1	1	+	+	-	_	2	2
Other finfish	-	-	1	1	+	+	+	+	6	7	-	-	+	+	40	51
Squids	_	-	_	_	-	-	8	13	1	3	_	_	_	_	38	46
Clams	-	-	-	2	-	-	7	8	23	24	-	-	-	-	385	359
Scallops	-	-	1	-	+	1	11	10	24	20	25	35	-	-	127	116
Other molluscs	_	-	_	-	+	+	1	1	12	12	_	-	-	-	73	76
Shrimp	7	9	67	60	23	39	47	29	22	24	-	-	-	-	174	169
Crabs	+	-	1	3	3	3	34	42	34	34	+	+	-	-	113	130
Lobsters	-	-	-	-	-	-	1	1	39	39	+	+	-	-	72	72
Other invertebrates	3	-	-	-	+	-	-	-	3	3	-	-	-	-	20	3
Total	16	13	96	97	29	46	197	200	456	459	23	45	+	+	1994	1957

¹ Total includes USA catches which have not been broken down by Subarea.

General Trends for 1996-1997

While recognizing that the USA data for 1997 and 1996 is not broken down by Subarea the following trends were noted. The overall nominal catch (round fresh weight) of all finfish and invertebrate stocks in 1997 was 1.96 million tons, a decrease (2%) from 1.99 million tons in 1996. The total "groundfish" catch, which represented 14% of the total catch, increased (5%) to 277 000 tons from 265 000 tons in 1996. Increases were noted for cod (47%), pollock (30%), Greenland halibut (4%), roughhead grenadier (25%) and "other groundfish" (11%). Decreases were noted for redfishes (11%), silver hake (25%) and white hake (13%). Pelagics, which represent 29% of the total catch, decreased 5% to 577 000 tons from 608 000 tons in 1996. Menhaden decreased (13%) while herring increased (3%). Finfish represented 6% of the overall catch and decreased (1%) to 119 000 tons from 120 000 tons in 1996. Capelin decreased (33%), dogfish (14%) but "other finfish" increased (28%). Invertebrates represented 50% of the total catch, decreased 3% to 971 000 tons from 1 002 000 tons in 1996. Decreases were noted for clams (7%), scallops (9%), shrimp (3%) and "other invertebrates" (85%). Increases were noted for squids (21%) and crabs (15%).

Assuming most of the USA catch is in Subareas 5 and 6 no trends were noted for those Subareas. The following trends were noted for SA 0-4.

a) Subarea 0

Catches decreased 19% due mainly to a decrease in Greenland halibut of 43%.

b) Subarea 1

Total catches remained stable at 97 000 tons, although, Greenland halibut increased (18%) and shrimp decreased (10%).

c) Subarea 2

Catches in 1997 increased 59% to 46 000 tons from 29 000 tons in 1996. Shrimp catches made up the increase (70%).

d) Subarea 3

Catches in 1997 increased slightly (2%) to 200 000 tons from 197 000 tons in 1996. Cod increased (366%), skates (86%), squids (63%) and crabs (24%). Decreases were noted for redfish (33%), capelin (46%) and shrimp (38%).

e) Subarea 4

Catches increased slightly (<1%) to 459 000 tons from 456 000 tons in 1996. Most species remained stable.

1997 and 1998¹

Species		A0	SA		SA2		SA		SA		SA		SA6		Т	otal
	1997	1998	1997	1998	1997	1998	1997	1998	1997	1998	1997	1998	1997 1	998	1997 ²	1998 ²
Cod	-	-	1	+	+	+	14	26	17	14	3	2	32	-	47	53
Haddock	-	-	-	-	-	-	+	+	7	8	3	3	8	-	11	15
Redfishes	+	-	1	1	+	-	12	24	10	8	+	+	-	-	24	34
Silver hake	-	-	-	-	-	-	-	-	17	17	-	-	-	-	32	32
Red hake	-	-	-	-	-	-	1	1	+	+	-	-	-	-	3	3
Pollock	-	-	-	-	-	-	1	1	11	13	1	2	-	-	17	21
American plaice	-	-	-	+	+	-	2	2	3	3	+	+	-	-	9	9
Witch flounder	-	-	-	-	+	+	2	2	1	2	+	+	-	-	5	6
Yellowtail flounder	-	-	-	-	-	-	1	5	1	+	1	1	-	-	5	10
Greenland halibut	4	4	26	24	3	3	17	18	3	4	-	-	-	-	52	52
Other flounders	+	+	+	+	+	-	1	1	4	3	+	+	-	-	16	15
Roundnose grenadier	+	+	+	+	+	-	+	+	+	-	-	-	_	-	+	+
Roughhead grenadier	-	+	-	-	+	+	5	7	-	-	-	-	-	-	5	7
White hake	-	-	-	-	-	-	1	1	3	2	+	+	-	-	7	6
Wolffishes	-	-	+	+	+	+	1	1	1	+	+	+	-	-	2	1
Other groundfish	-	-	3	3	+	-	1	1	3	3	+	+	-	-	42	37
Atlantic herring	_	_	_	_	+	+	8	4	179	186	+	_	_	_	283	272
Atlantic mackerel	_	-	_	-	_	-	+	+	21	19	_	-	-	-	37	34
Atlantic menhaden	-	-	-	-	-	-	-	-	-	-	-	-	-	-	245	249
Other pelagics	-	-	-	-	-	-	+	+	2	1	+	+	-	-	12	11
Capelin	_	_	+	+	+	+	14	29	8	9	_	_	_	_	22	38
Dogfish	-	-	-	-	_	-	+	1	+	1	_	-	-	-	19	22
Skates	-	-	-	-	+	+	13	12	1	1	_	1	-	-	25	26
Sharks	-	-	-	_	+	-	+	+	1	1	+	+	_	-	2	2
Other finfish	-	-	1	1	+	+	+	+	7	7	-	-	+	-	51	37
Squids	_	_	_	_	-	-	13	1	3	1	_	_	_	_	46	44
Clams	-	-	2	-	-	-	8	1	24	30	-	-	-	-	359	337
Scallops	-	-	-	2	1	1	10	4	20	24	35	33	-	-	116	112
Other molluscs	-	-	-	-	+	+	1	+	12	14	-	-	_	-	76	60
Shrimp	9	10	60	65	39	62	29	29	24	27	-	-	_	-	169	198
Crabs	-	-	3	2	3	4	42	48	34	32	-	-	-	-	130	129
Lobsters	-	-	-	-	-	-	1	1	39	40	+	+	-	-	72	77
Other invertebrates	-	-	-	-	+	-	-	+	3	3	+	+	-	-	3	16
Total	13	14	97	99	46	70	200	221	459	474	45	43	+	-	1957	1962

¹ Catches do not include Faroe Islands.

General Trends for 1997-1998

While recognizing that the USA data for 1998 and 1997 is not broken down by Subarea and that data for the Faroes Islands was not available the following trends were noted. The overall nominal catch (round fresh weight) of all finfish and invertebrate stocks in 1997 was 1.962 million tons, a slight increase from 1.957 million tons in 1997. The total "groundfish" catch, which represented 15% of the total catch, increased (5%) to 301 000 tons from 277 000 tons in 1997. Increases were noted for cod (13%), haddock (36%), redfishes (42%), pollock (24%). Pelagics which represented 29% of the total catch, decreased 2% to 566 000 tons from 577 000 tons. Decreases were noted for herring (4%), mackerel (9%) but menhaden increased (2%). Finfish represented 6% of the total overall catch and increased 5% to 125 000 tons from 119 000 tons. Increases were noted for capelin (73%), dogfish (16%) but "other finfish" decreased (27%). Invertebrates represented 50% of the catch, increased very slightly to 973 000 tons in 1998 from 971 000 tons in 1997. Increases were noted for shrimp (17%), lobsters (7%) and "other invertebrates" (from 3 000 tons to 16 000 tons), decreases were noted for squid (4%), clams (6%), scallops (3%) and "other molluscs" (21%).

² Total includes USA catches which have not been broken down by Subarea.

Assuming most of the USA catch is in Subareas 5 and 6 no trends were noted for those Subareas. No catches were available for Faroe Islands. The following trends were noted for SA 0-4.

a) Subarea 0

Catches remained similar in 1998 at 14 000 tons from 13 000 tons in 1997.

b) Subarea 1

Catches remained similar overall in 1998 at 99 000 tons compared to 97 000 tons in 1997. Greenland halibut decreased (7%) but shrimp increased (8%).

c) Subarea 2

Catches increased 52% to 70 000 tons in 1998 from 46 000 tons in 1997. This was due to an increase in shrimp (59%).

d) Subarea 3

The overall catches increased (11%) in 1998 to 221 000 tons from 200 000 tons in 1997. Increases were noted for cod (86%), redfishes (100%), capelin (107%). Decreases were noted for squids (92%), clams (87%), and scallops (60%).

e) Subarea 4

Catches increased (4%) to 474 000 tons from 459 000 tons in 1997. Increases were noted for herring (4%), clams (25%), shrimp (13%). Decreases were noted for cod (18%).