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Catch Table Update for the West Greenland Shrimp Fishery

by

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Introduction

A catch table was presented to the 2007 meeting of NIPAG, to summarize various recent catch estimates and TAC values for the shrimp fisheries on the West Greenland shelf (SCR Doc 07/66). An updated version is given here.

In earlier years the provisional catch in Canadian SFA 1 had been estimated as the mean of the previous 5 years' catches. However, the fishery has fluctuated in recent years (Table 1.A): Since 2009, instead of using an average of earlier catches, a provisional catch furnished by industry observers for the present year has been used.

Since 2010 a projected catch in Greenland Subarea 1 has been provided by the Greenland Fishery and License Kontrol (GFLK) based on cumulative catches from logbooks for the Greenlandic and EU fleets for the current year compared with past years. However, the effort in the first half year of 2017 has been low compared to recent years so a provisional catch furnished by GFLK for the present year has been used. The provisional catch in 2017 for Greenland is set at 89.000 tonnes. Canadian catches in 2017 are projected to be close to 1.000 tonnes. The provisional catch for 2017 is set at 90.000 tonnes (Table 1.A).

From 2014 to 2016 a trial and development fishery has been conducted in the Melville Bay North of 73°30'N (SCR Doc 17/54). For details on catches and TACs in this area see Table 2. The area is now incorporated in the assessment starting this year (2017). Hence catches from this area and TACs for this area are included in Table 1. Accordingly the input data for the assessment model are increased in 2017 (Table 1.B).



The stock extends into the EEZs of both Greenland and Canada. There is no agreement on sharing the stock. In order to improve its management of its own fishery, Greenland has instituted a procedure for taking account of Canadian interests when setting quotas since 2012. After deciding on a TAC for the stock, Greenland reserves a portion of it for Canada before allocating quotas to fleets fishing in Greenland waters. The fraction set aside for Canada is based on a weighting of the Canadian portions of the standard survey area, recent survey estimates of biomass, and recent catches. Quota allocation within Greenland waters has also been changed in 2012 such that an agreed EU quota is deducted before allocating quotas to the Greenland offshore and inshore fleets (Table 1.C).

Quota drawdowns in Greenland have, until 1st of January 2011, been based not on live-caught weight, but on traded weight, less than the logbook recorded catch by an allowance for crushed and broken shrimps (G.H. 2010). This has caused a discrepancy between the quota drawdowns by GFLK (2nd row in table 1.A) and the catch from the logbooks (3rd row in table 1.A) amounting from 11% to 14% for the years 2007 to 2010. Since 2011, where quota drawdowns by legislation is required to be based on live-caught weight, this discrepancy has been less than 5%.

A Greenlandic licence holder who fishes out his quota may apply to start fishing the following year's quota from the 15th of November and licence holders with quotas unfished at the end of the year may apply to fish them until the 30th of April in the following year (G.H. 2002 and G.H. 2012). These concessions have in earlier years led to accumulation of unfished quotas and can partly explain how the quota drawdowns by GFLK (2nd row in table 1.A) in some years can exceed the enacted TAC for Greenland (7th row in table 1.C). In addition catches of *Pandalus montagui* have often not been distinguished in logbooks from *Pandalus borealis*, especially by vessels fishing bulk shrimps for landing in Greenland, the proportion of *P. montagui* being estimated by sampling the catch at the point of sale. Quota drawdowns were then restricted to the estimated weight of *P. borealis* and logbook records could in this way still come to exceed quotas. Since 2011 logbooks are required to record at least estimated catches of *P. montagui* (G.H. 2010).

Owing to reduced TACs for the Greenlandic fleet in recent years, (both because of a decreasing shrimp stock and the new way of allocating quotas implemented by the Greenlandic Government starting in 2012) and because the quota drawdowns since 2011 have been based on the actual amount of shrimps caught, both the inshore fleet and offshore fleet started fishing on its 2014 quota before the end of 2013 and started fishing on its 2015 quota before the end of 2014. Therefore quota drawdowns by GFLK (2nd row in table 1.A) in both 2013 and 2014 exceeds the enacted TAC for Greenland (7th row in table 1.C).

In recent years the capacity of the Greenland offshore fleet has been reduced and part of its quota has been sold to the Greenland inshore fleet.

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Table 1: Annual catch (A), Input of yearly catch figures to Assessment Model (B) and TAC (C), for the fishery for Northern Shrimp on the West Greenland shelf up to 76°00'N

A. Catch (tonnes) in year:	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
STATLANT [#] (SA1) (PRA and PAN)	142 245	148 550	133 561	123 973	122 061	114 958	91 800	88 834	71 777	80 008	
GFLK [†] year (SA 1) (Quota drawdowns) (PRA)	123 126	132 213	120 024	114 314	118 148	113 257	92 464	86 625	68 912	80 822	
Logbooks [‡] (SA 1 up to 76°00'N) (PRA)	139 657	153 889	135 029	128 109	122 659	115 965	95 379	88 765	72 254	84 356	89 000 _p
STATLANT [#] (0A) (PRA and PAN)	1 878	0	429	5 206	1 134	12	2	0	2	794	
DFO quota report SFA1 [§] (PRA)	1 945	0	220	5 882	1 296	5	2	0	2	1 171	
DFO, Observer logbooks [¶] (PRA)	2 024	0	167	5 326	1 330	5	2	0	2	1 171	1 000 _p
B. Input to Assessment Model (tonnes) for year:	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	
Total Catch for 2017 Assessment	144 190 _s	153 889 _/	135 458 _/	133 991 _/	123 989 _/	115 977 _/	95381 _/	88 765 _/	72 256 _/	85 527 _/	90 000 _p
Total Catch for 2016 Assessment	144 190 _s	153 707 _/	135 369 _/	133 985 _/	123 853 _/	115 943 _/	95 288 _/	87 358 _/	70 650 _/	82 000 _p	
Total Catch for 2015 Assessment	144 190 _s	153 889 _/	135 458 _/	133 990 _/	123 985 _/	115 975 _/	95 380 _/	88 765 _/	65 000 _p		
C. TACs (tonnes) for year:	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Greenland SA1 offshore	74 100	70 281	59 025	60 525	68 400	55 675	47 802	45 262	39 365	45 715	49 223
Greenland SA1 inshore	55 900	53 019	51 545	50 045	51 600	42 000	36 061	34 145	29 696	34 486	37 133
Greenland SA1 EU	4 000	4 000	4 000	4 000	4 000	4 000	3 400	3 400	2 000	2 600	2 600
Greenland set-aside for Canada						3 325	2 737	2 193	1 939	2 199	1 044
Greenland Trial Fishery (SA1 North of 73°30'N)							2 000	3 509	3 000	3 000	
Total Greenland SA1 & SFA1						105 000	92 000	88 509	76 000	88 000	90 000
Total Greenland enacted SA1	134 000	127 300	114 570	114 570	124 000	101 675	89 263	86 316	74 061	85 801	88 956
Canada enacted SFA1	18 417	18 417	15 583	15 583	15 583	12 750	11 333	11 333	8 500	10 625	12 750
Total enacted TAC, SA1 & SFA1	152 417	145 717	130 153	130 153	139 583	114 425	100 596	97 649	82 561	96 426	101 706
Advised by SC	130 000	110 000	110 000	110 000	120 000	90 000	80 000	80 000	60 000	90 000	90 000

† quota drawdowns (Northern Prawn, PRA) recorded in the GFLK data base; # species PRA (Northern Prawn) and PAN (Pandalid shrimps). ‡ since 2011 legally required to be 'live weight' and includes discards; § Canadian Shrimp Fishing Area 1 (SFA1) is NAFO Division 0A east of longitude 60°30'W; ¶ provided for 2006–15 through Tim Siferd and since 2016 through Wojciech Walkusz, Department of Fisheries and Oceans (DFO). GFLK = Greenland Fisheries and Licence Control. _s STATLANT + DFO Commercial Statistics, _/ logbooks from Greenland and the highest catch reported from Canada, _p provisional.

Table 2: Annual catch (A) and TAC (B), for the trial fishery for Northern Shrimp in Melville Bay from 73°30'N to 76°N

A. Catch (tonnes) in year:	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
GFLK [†] year (Quota drawdowns) (PRA)	-	-	-	-	-	-	0	1 392	1 552	2 611
Logbooks [‡] (North of 73°30'N) (PRA)	0	182	89	5	132	32	93	1 407	1 604	3 007
B. TACs (tonnes) for year:	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Greenland offshore fleet	-	-	-	-	-	-	2 000	2 000	1 943	1 943
Greenland inshore fleet	-	-	-	-	-	-	0	1 509	1 057	1 057
Total	-	-	-	-	-	-	2 000	3 509	3 000	3 000

[†] quota drawdowns (Northern Prawn, PRA) recorded in the GFLK data base. [‡] since 2011 legally required to be 'live weight' and includes discards