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Catch Table Update for the West Greenland Shrimp Fishery

by

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Introduction

The table in present document summarize various recent catch estimates and TAC values for the shrimp fisheries on the West Greenland shelf in Div. SA 1 and SFA 1.

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) and from 2009 provisional catch furnished by industry observers for the present year has been used as a measure for catch information.

A projected catch in Greenland Subarea 1 has since 2010 been provided by the Greenland Fishery and License Kontrol (GFLK). The projected catch is based on cumulative catches from logbooks from the Greenlandic and EU fleets for the current year compared with past years.



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. 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).

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 (Table 1) and the catch from the logbooks (Table 1) 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 (Table 1) in some years can exceed the enacted TAC for Greenland (Table 1). 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 *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).

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.

Results

Greenland has set a TAC at 115 000 tonnes for the fishery in 2021 from where 1223 tonnes is set aside to Canada and 113 868 tonnes for Greenland. However, the Canadian authorities have enacted a TAC of 15 937 tonnes. Greenlandic catches in 2021 are projected to be 108 000 tonnes and Canadian catches 100 tonnes (person comm. Wojciech Walkusz, DFO-Canada), (Table 1.A).

From 2014 to 2016 a trial and development fishery has been conducted in the Melville Bay North of 73°30'N (for details on catches and TACs see Table 2, Table 1B). This area is now incorporated in the assessment. Hence catches from this area and TACs for this area are included in Table 1

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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

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---------|---------|---------|--------|--------|--------|--------------------|--------|--------|--------|--------|---------------------|
| STATLANT [‡] (SA1) (PRA and PAN) | 123973 | 122061 | 114958 | 91800 | 88834 | 71777 | 82922 | 88947 | 90457 | 98219 | 110095 | |
| GFLK [†] year (SA 1) (Quota drawdowns) (PRA) | 114314 | 118148 | 113257 | 92464 | 86625 | 68912 | 80855 | 85839 | 90498 | 97462 | 109526 | |
| Logbooks [‡] (SA 1 up to 76°00'N) (PRA) | 128109 | 122659 | 115965 | 95379 | 88765 | 72254 | 84356 | 89369 | 93189 | 101977 | 113117 | 113000 _p |
| STATLANT [‡] (0A) (PRA and PAN) | 5206 | 1193 | 12 | 2 | 0 | 2 | 1381 | 2778 | 1412 | 1328 | 204 | |
| DFO quota report SFA1 [§] (PRA) | 5882 | 1296 | 5 | 2 | 0 | 2 | 1163 | 3001 | 1689 | 2463 | 751 | 100 _p |
| DFO, Observer logbooks [¶] (PRA) | 5326 | 1330 | 5 | 2 | 0 | 2 | 1171 | 3215 | 1689 | 2463 | 751 | 100 _p |
| B. Input to Assessment Model (tonnes) for year: | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Total Catch for 2021 Assessment | 1339911 | 1239891 | 1159771 | 953811 | 887651 | 722561 | 855271 | 90000 | 101250 | 100000 | 117000 | 108000 _p |
| Total Catch for 2020 Assessment | 1339911 | 1239891 | 1159771 | 953811 | 887651 | 722561 | 855271 | 90000 | 101250 | 100000 | 117000 | |
| Total Catch for 2019 Assessment | 1339851 | 1238531 | 1159431 | 952881 | 873581 | 706501 | 82000 _p | 90000 | 101250 | 100000 | | |
| C. TACs (tonnes) for year: | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Greenland SA1 offshore | 60525 | 68400 | 55675 | 47802 | 45262 | 39365 | 45715 | 49223 | 55517 | 57332 | 60182 | 63373 |
| Greenland SA1 inshore | 50045 | 51600 | 42000 | 36061 | 34145 | 29696 | 34486 | 37134 | 41881 | 43251 | 45401 | 47806 |
| Greenland SA1 EU | 4000 | 4000 | 4000 | 3400 | 3400 | 2000 | 2600 | 2600 | 2600 | 2800 | 2800 | 2600 |
| Greenland set-aside for Canada | | | 3325 | 2737 | 2193 | 1939 | 2199 | 1044 | 1252 | 1617 | 1617 | 1223 |
| Greenland Trial Fishery (SA1 North of 73°30'N) | | | | 2000 | 3509 | 3000 | 3000 | | | | | |
| Total Greenland SA1 & SFA1 | | | 105000 | 92000 | 88509 | 76000 | 88000 | 90000 | 101250 | 105000 | 110000 | 115000 |
| Total Greenland enacted SA1 | 114570 | 124000 | 101675 | 89263 | 86316 | 74061 | 85801 | 88956 | 99998 | 103383 | 108383 | 113777 |
| Canada enacted SFA1 | 15583 | 15583 | 12750 | 11333 | 11333 | 8500 | 10625 | 12750 | 14875 | 14875 | 15229 | 15937 |
| Total enacted TAC, SA1 & SFA1 | 130153 | 139583 | 114425 | 100596 | 97649 | 82561 | 96426 | 101706 | 114873 | 118213 | 125229 | 130937 |
| Advised by SC | 110000 | 120000 | 90000 | 80000 | 80000 | 60000 | 90000 | 90000 | 105000 | 105000 | 110000 | 115000 |

† 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 | 3007 |
| 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.