NOT TO BE CITED WITHOUT PRIOR REFERENCE TO THE AUTHOR(S)

Northwest Atlantic



Fisheries Organization

Serial No. N6106

NAFO SCR Doc. 12/045

NAFO/ICES PANDALUS ASSESSMENT GROUP—OCTOBER 2012

Catch Table Update for the West Greenland Shrimp Fishery

by

Michael C.S. Kingsley and Nanette Hammeken Arboe

Greenland Institute of Natural Resources Box 570, 3900 Nuuk, Greenland

Introduction

A catch table was presented to the 2007 meeting of NIPAG, to summarise 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.

STATLANT 21A catch data has improved in recent years and is now more nearly consistent with logbook data. STATLANT data for 2008–11 was reviewed to try to sort out the meanings of the different species reported (see Appendix). The totals for PAN and PRA have been entered in Table A2.

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: there was no fishery in 2008 and reported catches for 2009 were insignificant; in 2010 the fishery returned to more usual levels and a provisional catch estimate of 4500 t furnished by industry observers was in the event exceeded by about 1000 t. Since then, instead of using an average of earlier catches, a provisional catch furnished by industry observers for the present year has been used.

In Greenland Subarea 1 the provisional catch for each year had been projected from the first 6 months' logbook catches and the average proportion caught in the first 6 months of the previous 5 years. In recent years the fishing pattern has altered, with more intense fishing in the second half of the year. This has caused our projections to be lower than the actual catches; in both 2008 and 2009 the current year's catch was underestimated by more than 20 000 t. Since 2010 a projected catch in Greenland Subarea 1 has been provided by the Greenland Fishery and Licence Kontrol (GFLK) based on

cumulative catches from logbooks for the Greenlandic and EU fleets for the current year compared with past years (Fig. 1).



Cumulative transactions to day 210 show 2012 to be falling between the catch trends of 2002 and 2011 (Fig. 1).

Fig. 1. Northern Shrimp in West Greenland: cumulative transactions over the year, 1999–2012. (With thanks to Mads Rossing Lund of GFLK.)

Acknowledgements

We thank Mads Rossing Lund of the Greenland Fishery and Licence Control (GFLK) for providing the data and figure on cumulative catches for the Greenlandic fleet and Tim Siferd from the Canadian Department of Fisheries and Oceans (DFO) for providing the information on the catches in 2011 for the Canadian fleet.

References

KINGSLEY, M.C.S 2007. Catches of Northern Shrimp (*Pandalus borealis*) off West Greenland, 1999-2006. NAFO SCR Doc. 07/66, Ser. No. 5451. 4 pp.

Source (date last fetched)	2004	2005	2006	2007	2008	2009	2010	2011	2012
$GFLK^{\dagger}$ year (12-09-17) (SA 1)	119 942	129 647	127 327	123 126	132 213	120 024	114 314	117.818	
STATLANT [#] (SA1) (12-09-16)	142 311	149 978	153 188	142 245	148 550	133 561	123 973	121 207	
Logbooks, SA 1 (12-09-11) [‡]	135 212	147 687	150 533	139 657	153 889	135 029	128 108	122 655	
STATLANT [#] (0A) (12-09-16)	6861	6410	3788	1878	0	429	5206	859	
DFO quota report SFA1 [§] (12-09-15)	7021	6921	4127	1945	0	220	5882	1296	0*
DFO, Observer logbooks [#]	7209	6088	3589	2024	0	167	5326	1330	
Total Catch for 2012 Assessment	149 347s	156 899 <i>s</i>	157 315 <i>s</i>	144 190 <i>s</i>	153 889/	135 458/	133 990/	123 985/	110 000 <i>p</i>
Total Catch for 2011 Assessment	149 347s	156 899 <i>s</i>	157 315 <i>s</i>	144 190 <i>s</i>	153 889/	135 458/	133 986/	126 000 <i>p</i>	
Total Catch for 2010 Assessment	149 347s	156 899 <i>s</i>	157 315 <i>s</i>	144 190 <i>s</i>	152 749/	134 890/	138 500p		
Total Catch for 2009 Assessment	149 347 <i>s</i>	156 899 <i>s</i>	157 315 <i>s</i>	144 190 <i>s</i>	152 749/	108 812 <i>p</i>			
TACs									
Total Greenland SA1 & SFA1									105 000 [▽]
Greenland set-aside for Canada									3325^{∇}
Greenland SA1 offshore	75 452	74 100	74 100	74 100	70 281	59 025	60 525	68 400	55 675 [⊽]

Table 1: Annual catch and TAC data (mt) for the fishery for Northern Shrimp on the West Greenland shelf.

Greenland SA1 inshore	55 900	55 900	55 900	55 900	53 019	51 545	50 045	51 600	42 000 [▽]
Greenland SA1 EU	4000	4000	4000	4000	4000	4000	4000	4000	$4000^{ abla}$
Total Greenland enacted SA1	135 352	134 000	134 000	134 000	127 300	114 570	114570	124 000	$101675^{ abla}$
Canada enacted SFA1	14 167	18 453*	18 380	18 417	18 417	18 417	18 417	18 417	16 921 [◊]
Total enacted TAC, SA1 & SFA1	149 519	152 453	152 380	152 417	145 717	132 987	132 987	142 417	118 596
Advised by SC	130 000	130 000	130 000	130 000	110 000	110 000	110 000	120 000	90 000

[†] quota drawdowns recorded in the GFLK data base; [#] species PRA (Northern Prawn) and PAN (Pandalid shrimps). [‡] since 2004 legally required to be 'live weight' and includes discards; the data fetched in September 2012 was used to update existing files held by Grønlands Naturinstitut; [§] Canadian Shrimp Fishing Area 1 is NAFO Division 0A east of longitude 60°30'W; ^{*} Newfoundland only, landings to 15.09.2012; [#] provided for 1999– 2005 through David Orr in St John's, for 2006–12 through Tim Siferd in Winnipeg. / logbooks, *s* STATLANT + DFO Commercial Statistics, *p* provisional; ^o DFO, internal Canadian Atlantic Quota Reports; ^{∇} <u>http://dk.nanoq.gl/Emner/Landsstyre/Departementer/Departement_for_fiskeri/</u> TACere_og%20kvoter_Fordeling_af_kvoter/Kvoter%202012/ Rejekvote_2012.aspx Appendix: STATLANT 21A Reporting of Shrimp Catches.

Species reporting in NAFO STATLANT 21A was looked at for 2008–2011. NAFO STATLANT 21A statistics allow reporting of three kinds of shrimp: PRA, or Northern prawn, which is *Pandalus borealis*, AES, or Aesop shrimp, which is *P. montagui*, and PAN (Pandalid shrimps), which off West Greenland could be either or both. Greenland logbook data for the West Greenland fishery seems to show that clean catches of *P. montagui* are rare to non-existent while clean catches of *P. borealis* account for almost all the catch of this species. NAFO instructions on reporting say only that 'Quantities reported as "unspecified", "various", etc., should be reduced to a minimum.' In practice, reporting appears to vary from country to country and from region to region. Fishing in NAFO Division 0A (practically equivalent to Canadian SFA1, since Canada recorded no catch in SFA0 in these years), Canada–Newfoundland reported only PRA while Canada–Maritimes reported only PAN. Of EU countries, Denmark Mainland and Estonia reported only PRA while the UK reported only PAN. Denmark Greenland reported no PAN, only PRA and AES.

Country	AES	PAN	PRA
Canada Maritimes		1123	
Canada Newfoundland			2747
Denmark Greenland	140		514605
Denmark Mainland			11832
Estonia			1305
United Kingdom		2173	

Table A1: *P. borealis* in West Greenland: STATLANT 21A reported catches of shrimps in NAFO Div. 0A and NAFO SA1, 2008–11. (NAFO, 12-09-16.)

We have deduced that the distinction between PAN and PRA is one of reporting country—or region—rather than of species and the STATLANT 21A distinction is probably not useful, so we have included all reports of both in the STATLANT entries in the Catch Table although some proportion of the reports of both PRA and PAN is probably *P. montagui*. We have assumed that the Greenland reports of AES, on the other hand, do represent a species distinction, probably referring to clean, or almost clean, catches of *P. montagui*, and have omitted them.

		NAFO SA1	-		NAFO Div. 0A				
Year	EU	Grld	Total	Canada	EU	Grld	Total		
2008	3805	144745	148550	0	0	0	0		
2009	3882	129679	133561	220	209	0	429		
2010	745	123228	123973	3645	1428	133	5206		
2011	4387	116820	121207	5	854	0	859		

Table A2: *P. borealis* in West Greenland: STATLANT 21A reported catches of PRA and PAN in NAFO Div. 0A (Canadian SFA1) and NAFO SA1, 2008–11. (NAFO, 12-09-16.)