

West Greenland Commission

WGC(11)3

Report on the Use of the Framework of Indicators in 2011

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1. At its 2009 Annual Meeting, in Molde, Norway, the West Greenland Commission adopted a regulatory measure (WGC(09)7) for the fishing of salmon at West Greenland in 2009, with possible application in 2010 and 2011. Under this measure the catch at West Greenland in 2009 was restricted to the amount used for internal consumption in Greenland, which in the past has been estimated to be 20 tonnes annually. There would be no commercial export of salmon. The regulatory measure would also apply in 2010 and 2011 if the framework of indicators (FWI) developed by ICES indicates that there has not been a significant change in the indicators and, therefore, that reassessment of the catch advice is required.
2. The Commission had agreed that the same procedure used in 2008 for applying the FWI should apply to the new regulatory measure, WGC(09)7. Under this arrangement a small group comprising one representative from each member of the Commission would work by correspondence to coordinate the data collection and application of the FWI. The Secretariat would liaise with the Group's Coordinator and would report the Group's findings to the Parties and to ICES. Following application of the FWI in 2010, no reassessment of the advice was required and the measure applied to the 2010 fishery.
3. In accordance with this decision, each WGC Party was again asked to nominate a representative to serve on the FWI Working Group in 2011. The representatives appointed were Gerald Chaput (Canada), Sonja Feldthaus (Denmark (in respect of the Faroe Islands and Greenland)), Ted Potter (European Union) and Rory Saunders (USA). Ted Potter served as the Group's Coordinator. The Group's report is attached. The Group's overall conclusion is that the FWI does not show that there has been a significant change in the indicators used and, therefore, a reassessment of the ICES management advice for the 2011 fishery at West Greenland is not required. This means that the multi-annual regulatory measure agreed in 2009 will continue to apply to the 2011 fishery and there will not, therefore, be a need for negotiations on a new measure at the Twenty-Eighth Annual Meeting. It also means that, in accordance with the request for scientific advice adopted by the Council last year, ICES is not be required to provide advice on stock status or management options for either the NAC or WGC areas.
4. This arrangement again appeared to work well and within the timescale proposed by the Commission. We are grateful to the Group for its work. A full report will be presented to the Commission in June.

Secretary
Edinburgh
7 April 2011

NASCO - WEST GREENLAND COMMISSION

REPORT OF THE FRAMEWORK OF INDICATORS WORKING GROUP 2011

Introduction:

At its Annual Meeting in Molde, the West Greenland Commission adopted a multi-annual regulatory measure for the West Greenland salmon fishery for the years 2009, 2010 and 2011 (WGC(09)7). This regulatory measure applied to the fishery in 2009 and 2010, and it will be carried forward to 2011 without further review unless application of the Framework of Indicators (FWI) shows that there has been a significant change in the indicators used and, therefore, that a full reassessment of the management advice is required.

The Commission agreed that the same procedure used in 2008 should again be used in applying the FWI in 2011 under the current regulatory measure. Thus, a small group comprising one representative from each member of the Commission was appointed to work by correspondence to collect the data and apply the FWI (Annex 1 and 2). The Working Group comprised:

Gerald Chaput	Canada
Sonja Feldthaus	Denmark (in respect of the Faroe Islands and Greenland)
Ted Potter	European Union
Rory Saunders	USA

The Group was asked complete their tasks before the end of January 2010 and to liaise with the NASCO who would present their findings to the Parties and to ICES.

Work of the Working Group:

Ted Potter agreed to act as coordinator of the FWI Working Group for 2011. Annex 3 summarizes the chronology of the work undertaken by the Group. A request for data to populate the FWI was circulated to representatives from each of the North American Commission 'management units' (Annex 4), and returns were sent to the coordinator. The coordinator then circulated the completed FWI worksheet for 2010 (Annex 5) and the draft report to the Working Group for their review and agreement.

Framework of Indicators Analysis – 2010:

The FWI worksheet includes data from five North American Commission 'management units': Newfoundland, Gulf, Quebec, Scotia-Fundy, and USA. Each Working Group member has reviewed the raw data and the FWI assessment spreadsheet and confirmed their agreement with the following summary of the findings for the return year 2010 (Annex 3).

Data for two of the indicators from the Scotia-Fundy region of Canada ('Lahave Survival Hatchery 2SW (%)' and 'Lahave Survival Hatchery 1SW (%)') ceased to be collected from 2008 and have not been included in the FWI for 2009 or 2010. Data for the 'Margaree

Return Small' indicator was unavailable at the time of this report for 2010. In addition, the data-coordinator for Scotia-Fundy management unit has indicated that this is likely to be the last year that data will be available for the LaHave, and possibly the North rivers.

The indicators for the return year 2010 are mixed (Annex 5), with all but one of the 15 indicator scores for Quebec and Newfoundland being positive but all but two of the 16 indicator scores for Scotia-Fundy and USA being negative. The two remaining indicators for the Gulf management unit are strongly divergent, one being positive and the other negative. Nine of the indicators for Quebec and Newfoundland were the highest for the period 2008-2010, with the remainder being second highest, whereas seven of the indicators for Scotia-Fundy, Gulf, and USA were the lowest in the series, with a number continuing to be at critically low levels.

The data-coordinator for the Scotia-Fundy management unit has noted that the indicator for St. Mary's River appears abnormally low and has suggested that it might be omitted from this year's assessment. However, omitting this value only results in the average indicator score for Scotia-Fundy increasing from -0.73 to -0.71, and so has minimal effect on the overall assessment.

The Group also noted that 50,000 smolts have been stocked annually into the Narraguagus River since 2008. This is not the first time smolts have been stocked in the Narraguagus, but it is clearly a fairly large departure from past practices and appears to have resulted in a substantial increase in adult returns. Nevertheless, the indicator score for the 'Narraguagus Returns' is still negative.

The assessment therefore indicates that the Management Objectives should be met for Quebec and Newfoundland, but are not expected to be met for Gulf, Scotia-Fundy and USA.

Conclusions:

The overall conclusion of the FWI Working Group is that the FWI does not show that there has been a significant change in the indicators used and therefore a re-assessment of the ICES management advice for the 2011 fishery is not required.

In view of the various changes to the indicator data sets, the Working Group recommends that ICES be asked to review the FWI worksheet, as per the three year cycle anticipated (for 2012 – 2014) and before it is used in association with a future multi-annual regulatory measure for the West Greenland salmon fishery.

**FWI Working Group
31st January 2011**

Appendix 1. Initial communication from NASCO to Heads of West Greenland Commission regarding application of the Framework of Indicators

From: hq@nasco.int [mailto:hq@nasco.int]
Sent: 15 November 2010 17:52
To: Heads of West Greenland Commission
Cc: Sonja Feldthaus (SOFE@nanoq.gl); Jacob S Isbosethsen (JSIS@nanoq.gl); Alan Gray (alan.gray@ec.europa.eu); Julius Peedah (JUPE@nanoq.gl); Kimberly Blankenkemper (Kimberly.Blankenbeker@noaa.gov); Mary Colligan (mary.a.colligan@noaa.gov); Rory Saunders (rory.saunders@noaa.gov); Ted Potter (Cefas); Timothy Sheehan (Tim.Sheehan@noaa.gov)
Subject: Framework of Indicators

To: Heads of West Greenland Commission
From: Secretary
RE: Framework of Indicators

At the 2009 Annual Meeting of the West Greenland Commission a multi-annual regulatory measure was adopted for the West Greenland salmon fishery for the years 2009, 2010 and 2011, WGC(09)7. This measure will therefore apply again to the 2011 fishery unless the application of the Framework of Indicators (FWI) shows that there has been a significant change in the indicators used and therefore that a re-assessment of the management advice is required.

When the FWI was run in 2008 and 2010 a small Group comprising one representative of each member of the Commission worked by correspondence to collate the data and apply the FWI. This task needs to be completed by the end of January 2011 and the Secretariat will liaise with the Co-ordinator of the Group and present the findings to the Parties and to ICES.

Last year the members of the Group, which completed its work effectively and within the agreed timescale, were:

Gerald Chaput	Canada
Julius Peedah	Denmark (in respect of the Faroe Islands and Greenland)
Ted Potter	EU
Rory Saunders	USA (Coordinator)

We need to resolve the membership of the Group to apply the FWI for 2011 and I would be grateful, therefore, if you would confirm the name of your representative by 10 December. Once membership of the Group is agreed it can conduct its assessment once it has received the data required.

Best regards

Malcolm Windsor
Secretary

WGC14.301

Appendix 2. Notification of representation on the FWI Working Group

From: hq@nasco.int [mailto:hq@nasco.int]
Sent: 08 December 2010 10:58
To: FWI Working Group
Subject: FWI Working Group

Dear All,

We have been advised that the representatives on the Framework of Indicators Working Group will be as follows:

Canada	Gerald Chaput
Denmark	Sonja Feldthaus (in respect of the Faroe Islands and Greenland)
European Union	Ted Potter
USA	Rory Saunders

I would ask that this Group appoint a Coordinator to liaise with the NASCO Secretariat and that the Group's findings be reported to us no later than 31 January 2011 so that I can advise the Parties to the West Greenland Commission and ICES. Rory Saunders served as Coordinator last year.

Thank you for agreeing to contribute to the work of this Group.

Best regards

Malcolm Windsor
Secretary

WGC14.304

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Annex 3. Summary of requests and receipts of data for Indicator Framework

Date	Contact	Action
08-Apr-09	ICES-WGNAS	finalized and updated FWI
30-Apr-09	ICES-ACOM	reviewed and approved FWI
04-Jun-09	NASCO-WGC	FWI presented by ICES accepted by NASCO for the 2010 and 2011 advice years.
15-Nov-10	Secretariat	Request to Heads of WGC for nominations to the FWI Working Group
08-Dec-10	Secretariat	Confirmation of membership and responsibilities of FWI Working Group
08-Dec-10	FWI-CG	Agreement on Ted Potter as coordinator of FWI-WG for 2011
17-Dec-10	Potter	Request for data inputs sent to Canadian and USA contacts
20-Dec-10	Veinott	Data submitted to coordinator for Newfoundland indicators
06-Jan-10	Saunders	Data submitted to coordinator from USA indicators
20-Jan-11	Dionne	Data submitted to coordinator for Quebec indicators
21-Jan-11	Gibson	Data submitted to coordinator for Scotia-Fundy indicators
30-Jan-11	Chaput	Data submitted to coordinator for Miramichi River - Gulf indicators
31-Jan-11	Potter	Completed FWI worksheet and prepared draft report.
31-Jan-11	Potter	Draft report circulated to FWI-WG for approval including FWI input data, FWI worksheet and draft conclusions of assessment.
31-Jan-11	Chaput	Confirmed agreement with assessment and report on behalf of Canada
31-Jan-11	Saunders	Confirmed agreement with assessment and report on behalf of USA
31-Jan-11	Potter	Informed Malcolm Windsor that report would be delayed past deadline
3-Feb-11	Feldthaus	Confirmed agreement with assessment and report on behalf of Denmark (in respect of the Faroe Islands and Greenland)
3-Feb-11	Potter	Agreed Report of FWI-Working Group sent to Malcolm Windsor, NASCO

Annex 4. Requests to provide indicator data to populate the framework spreadsheet.

From: Ted Potter (Cefas)

Sent: 17 December 2010 14:29

To: Rory Saunders; Gibson, Jamie; Veinott, Geoff; Melanie.Dionne@mrnf.gouv.qc.ca

Cc: 'Chaput, Gerald'; 'SOFE@nanoq.g'

Subject: Data to run the Framework of indicators for NASCO / données pour faire tourner le cadre d'indicateurs pour l'OCSAN

[Le message en français suit:](#)

Dear colleagues,

NASCO employs a Framework of Indicators (FWI) to indicate whether a full re-assessment of the multi-year catch advice for West Greenland may be required. This is based on returns and return rates of salmon to rivers in eastern North America. The framework was initially developed by ICES in 2007 and accepted by NASCO at the June 2007 meeting. The ICES Working Group updated the FWI in April 2009. The updated FWI was accepted by NASCO in June 2009 and is to be used for determining whether or not catch advice will be requested from ICES for the June 2011 meeting.

A coordination group (Gerald Chaput, Rory Saunders, Sonja Feldthaus and myself) working on behalf of NASCO has been established. The group is asking you to update the data for 2010 for those rivers which are included in the framework. The attached spreadsheet contains the list of rivers which are in the framework and I am requesting you to input the corresponding returns or return rates for the most recent year, 2010. For your information, I have included the 2008-09 data for each of the indicators which have been assembled in previous years. I have indicated to the best of my knowledge the contacts for each river. If the contact is not appropriate, please forward the request to the appropriate person or indicate to me who that person is and I will request the information.

The framework of indicators analysis is to be completed by January 31 2011, therefore, the coordination group would appreciate receiving your inputs by Wednesday, January 22, 2011. Please return your inputs to me. Please feel free to contact Gerald, Rory or myself if you have any questions.

Thank you, and have a very merry Christmas! Ted

[Bonjour,](#)

[NASCO emploie un cadre d'indicateurs a été préparé afin de déterminer si une ré-évaluation complète des avis multi-années pour la pêche au Groenland serait nécessaire pour une année dite. Le cadre d'indicateurs a été développé par le CIEM en 2007 et accepté par l'OCSAN en juin 2007. Le groupe de travail du CIEM a mis à jour le cadre en avril 2009 et l'OCSAN a accepté le cadre révisé en juin 2009 afin de savoir si le d'avis devrait être demandé au CIEM pour la réunion de l'OCSAN de juin 2011.](#)

[Un groupe de coordination \(Gérald Chaput, Rory Saunders, Sonja Feldthaus et moi-même\) a été formé pour entreprendre ce travail pour l'OCSAN. Le groupe de coordination sollicite présentement vos données pour 2010 propres aux rivières/indicateurs dans le cadre. Le fichier Excel en pièce-jointe comprend la liste des rivières qui sont incluses dans le cadre and je vous demande d'inscrire les retours ou taux de retours correspondants pour la dernière année, 2010. Pour votre information, j'ai inclus les données pour 2008-09 pour chacun des indicateurs qui ont été assemblés en années précédentes. A mes meilleurs connaissances, j'ai indiqué la personne contacte pour chaque rivière ou région. Si la personne indiquée n'est pas la bonne, pourriez-vous transmettre ce message à la bonne personne ou m'aviser et j'entreprendrai la communication avec elle moi-même.](#)

On nous demande de compléter l'analyse du cadre d'indicateur pour le 31 janvier 2011 alors le groupe de coordination serait reconnaissant si le fichier pourrait nous être retourné d'ici mercredi le 22 janvier, 2011. Vous pouvez retourner vos informations à moi-même. Vous pouvez contacter soit Gerald, Rory ou moi-même si vous avez des questions.

Merci et Noël heureux !

Ted

Ted Potter

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Annex 5. Data inputs to Indicator Framework for 2008-2010.

Contact / responsibility Contacte / responsable	Geographic Area / Région	River and Indicator / Rivière et indicateur	Units Unités	2008 Value	2009 Value	2010 Value
Rory Saunders	USA	Penobscot 2SW Returns	Number of 2SW fish (wild & hatchery)	1,377	1757	861
		Penobscot 1SW Returns	Number of 1SW fish (wild & hatchery)	736	197	435
		Penobscot 2SW Survival (%)	Return rate (%) of hatchery smolts to 2SW fish	0.24	0.30	0.16
		Penobscot 1SW Survival (%)	Return rate (%) of hatchery smolts to 1SW fish	0.12	0.04	0.07
		Narraguagus Returns	Number of fish all ages and sizes	23	38	75
Jamie Gibson (DFO)	Scotia-Fundy	Saint John Return Large	Number of large salmon (wild)	143	337	275
		Lahave Return Large	Number of large salmon (wild)	192	103	103
		St. Mary's Return Large	Number of large salmon (wild)	65	99	26
		Baddeck Return Large	Number of large salmon (wild)	129	134	202
		North Return Large	Number of large salmon (wild)	454	468	343
		Saint John Survival Hatchery 2SW (%)	Return rate (%) of hatchery smolts to 2SW fish	0.05	0.14	0.13
		Saint John Survival Hatchery 1SW (%)	Return rate (%) of hatchery smolts to 1SW fish	0.70	0.13	1.435
		Saint John Return 1SW	Number of small salmon (wild)	796	437	1708
		LaHave Return 1SW	Number of small salmon (wild)	1,158	327	586
		St. Mary's Return 1SW	Number of small salmon (wild)	656	265	137
		North Return 1SW	Number of small salmon (wild)	176	95	73
Gérald Chaput (DFO)	Gulf	Miramichi Return 2SW	Number of 2SW fish	11,500	13,100	8,517
		Miramichi Return 1SW	Number of 1SW fish	31,600*	12,370	50,200
		Margaree Return Small	Number of small salmon (all)	1,311	276	na
Mélanie Dionne (MRNF)	Quebec	Cascapédia (Q1) Return Large	Retour de pluribermarin / number of large salmon	1,119	1,723	2,256
		Bonaventure (Q1) Return Large	Retour de pluribermarin / number of large salmon	753	1,430	1,851
		Grande Rivière (Q2) Return Large	Retour de pluribermarin / number of large salmon	337	442	577
		Saint-Jean (Q2) Return Large	Retour de pluribermarin / number of large salmon	605	722	898
		Dartmouth (Q2) Return Large	Retour de pluribermarin / number of large salmon	348	653	580
		Madeleine (Q3) Return Large	Retour de pluribermarin / number of large salmon	623	620	620
		Sainte-Anne (Q3) Return Large	Retour de pluribermarin / number of large salmon	584	632	731
		Mitis (Q3) Return Large	Retour de pluribermarin / number of large salmon	464	945	470
		De la Trinite (Q7) Return Large	Retour de pluribermarin / number of large salmon	328	216	258
Geoff Veinott (DFO)	Newfoundland	Terra Nova Return Small	Number of small salmon (wild)	3,575	2,503	4,147
		Exploits Return Small	Number of small salmon (wild)	31,823	32,252	39,130
		Middle Brook Return Small	Number of small salmon (wild)	2,167	1,842	2,574
		Gander Return Small	Number of small salmon (wild)	22,442	18,883	23,184
		Torrent Return Small	Number of small salmon (wild)	5,847	2,758	4,861
		Western Arm Brook Survival Small (%)	Return rate (%) of wild smolts to small salmon	11.6	6.1	9.6
				*updated		

Annex 6. Indicator Framework sheet with 2010 analysis.

Catch Advice	Catch option > 0 (Yes = 1, No = 0)										
Overall Recommendation											
No Significant Change Identified by Indicators											
River/ Indicator	2010 Value	Ratio Value to Threshold	Threshold	True Low	True High	Indicator State	Probability of Correct Assignment	Indicator Score	Management Objective Met?	Comment	
Penobscot 2SW Returns	861	61%	1,415	100%	92%	-1	1	-1			
Penobscot 1SW Returns	435	88%	495	83%	88%	-1	0.83	-0.83			
Penobscot 2SW Survival (%)	0.16	66%	0.24	100%	60%	-1	1	-1			
Penobscot 1SW Survival (%)	0.07	106%	0.07	85%	73%	1	0.73	0.73			
Narraguagus Returns	75	75%	100	95%	61%	-1	0.95	-0.95			
possible range				-0.93	0.75						
Average		79%						-0.61	No		
Saint John Return Large	275	12%	2,309	100%	92%	-1	1	-1			
Lahave Return Large	103	34%	301	74%	100%	-1	0.74	-0.74			
St. Mary's Return Large	26	12%	221	100%	82%	-1	1	-1		Uncertain data	
Baddeck Return Large	202	92%	220	75%	83%	-1	0.75	-0.75			
North Return Large	343	73%	467	94%	100%	-1	0.94	-0.94			
Saint John Survival 2SW (%)	0.13	59%	0.22	88%	88%	-1	0.88	-0.88			
Lahave Survival 2SW (%)										No data	
Saint John Survival 1SW (%)	1.435	191%	0.75	83%	87%	1	0.87	0.87			
Lahave Survival 1SW (%)										No data	
Saint John Return 1SW	1,708	75%	2,276	83%	90%	-1	0.83	-0.83			
LaHave Return 1SW	586	30%	1,931	93%	86%	-1	0.93	-0.93			
St. Mary's Return 1SW	137	9%	1,583	93%	84%	-1	0.93	-0.93			
North Return 1SW	73	43%	169	93%	70%	-1	0.93	-0.93			
possible range				-0.89	-0.87						
Average		57%						-0.73	No		
Miramichi Return 2SW	8,517	50%	17,060	93%	83%	-1	0.93	-0.93			
Miramichi Return 1SW	50,200	116%	43,170	83%	84%	1	0.84	0.84			
Margaree Return Small	-		899	83%	58%					No data	
possible range				-0.59	-0.56						
Average		83%						-0.05	No		
Cascapédia Return Large	2,256	165%	1,367	83%	84%	1	0.84	0.84			
Bonaventure Return Large	1,851	170%	1,090	83%	84%	1	0.84	0.84			
Grande Rivière Return Large	577	139%	414	89%	100%	1	1	1			
Saint-Jean Return Large	898	131%	687	86%	89%	1	0.89	0.89			
Dartmouth Return Large	580	102%	566	86%	89%	1	0.89	0.89			
Madeleine Return Large	620	95%	653	70%	93%	-1	0.7	-0.7			
Sainte-Anne Return Large	731	169%	433	67%	88%	1	0.88	0.88			
Mitis Return Large	470	136%	345	71%	83%	1	0.83	0.83			
De la Trinite Return Large	258	103%	250	71%	83%	1	0.83	0.83			
possible range				-0.78	-0.88						
Average		135%						0.70	Yes		
Terra Nova Return Small	4,147	248%	1,674	87%	67%	1	0.67	0.67			
Exploits Return Small	39,130	180%	21,713	77%	88%	1	0.88	0.88			
Middle Brook Return Small	2,574	147%	1,751	71%	83%	1	0.83	0.83			
Gander Return Small	23,184	165%	14,078	70%	89%	1	0.89	0.89			
Torrent Return Small	4,861	123%	3,955	85%	82%	1	0.82	0.82			
Western Arm Brook Survival Small (%)	10	217%	4.43	80%	57%	1	0.57	0.57			
possible range				-0.78	-0.78						
Average		180%						0.78	Yes		
possible range											
Average								NA	Unknown		
possible range											
Average								NA	Unknown		