



West Greenland Commission

WGC(20)05

Report on the Use of the Framework of Indicators in 2020

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1. At its Annual Meeting in Portland (Maine, USA) in June 2018, the West Greenland Commission adopted a multi-annual regulatory measure for the West Greenland salmon fishery for the years 2018 to 2020 (WGC(18)11). This regulatory measure applied to the fishery in 2018 and would be carried forward to 2019 and 2020 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.
2. The Commission agreed that the same procedure used in previous years (2008, 2010, 2011, 2013, 2014, 2016, 2017 and 2019) should again be used in applying the FWI in 2020. 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 appointed representatives were: Gérald Chaput (Canada), Katrine Kærgaard (Denmark (in respect of the Faroe Islands and Greenland)), Niall Ó Maoiléidigh (European Union) and Dan Kircheis (Unites States). The Group worked by correspondence to co-ordinate the data collection and apply the FWI and its report is attached
3. 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 reassessment of the ICES management advice for the 2020 fishery is not required’.
4. In light of the Group’s conclusions, ICES has been informed that the items relating to the provision of catch options or alternative management advice (items 3.4 (NAC) and 4.3 (WGC)) and updating of the Framework of Indicators (items 3.4 (NAC) and 4.3 (WGC)) of the Request for Scientific Advice from ICES, CNL(19)11, do not need to be addressed in 2020.
5. The arrangement for applying the FWI again appeared to work well and within the timescale proposed by the Commission. We are grateful to the FWI Working Group for its work in 2020.

Secretary
Edinburgh
06 April 2020

NASCO – WEST GREENLAND COMMISSION

REPORT OF THE FRAMEWORK OF INDICATORS WORKING GROUP 2020

Introduction:

At its Annual Meeting in Portland (Maine, USA) in June 2018, the West Greenland Commission adopted a multi-annual regulatory measure for the West Greenland salmon fishery for the years 2018 to 2020 (WGC(18)11). This regulatory measure applied to the fishery in 2018 and would be carried forward to 2019 and 2020 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 previous years (2008, 2010, 2011, 2013, 2014, 2016, 2017, and 2019) should again be used in applying the FWI in 2020. 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:

Gérald Chaput	Canada
Katrine Kærgaard	Denmark (in respect of the Faroe Islands and Greenland)
Niall Ó Maoiléidigh	European Union
Dan Kircheis	USA

The Group was asked to complete their tasks by January 31, 2020 and to liaise with the NASCO Secretariat who would present their findings to the Parties and to ICES.

Work procedure of the Working Group:

Gérald Chaput agreed to act as co-ordinator of the FWI Working Group for 2020 (Annex 3). Annex 4 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’, and returns were sent to the co-ordinator. The co-ordinator then circulated the completed FWI worksheet for 2020 (Annexes 5 and 6) and the draft report to the Working Group for their review and agreement.

Framework of Indicators Analysis – 2020:

ICES updated the FWI at the March 2018 meeting of the Working Group on North Atlantic Salmon and presented the updated framework analysis at the West Greenland Commission during the 2018 Annual Meeting of NASCO.

The FWI worksheet includes data from four North American Commission “management ‘units’”: USA, Scotia-Fundy, Gulf, and Quebec. 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 2019.

Data were provided for all the indicators in the FWI. Of the 21 indicators for the 2019 return year in the FWI, all except one were below their threshold values, ranging from 1% to 98% of their respective threshold value. The single indicator above the threshold value in 2019 was the estimated 2SW return rate of salmon from the St. Jean River (Quebec) at 261% of its threshold value.

The assessment indicates that the Management Objectives are not expected to have been met in the four management areas included in the FWI.

Conclusions:

As ICES indicated that there was no catch option on mixed-stock fisheries at West Greenland that would satisfy the management objectives, the catch option on the sheet was set to 0. 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 reassessment of the ICES management advice for the 2020 fishery is not required.

**FWI Working Group
4 February, 2020**

Annex 1. Initial communication from NASCO to Heads of West Greenland Commission regarding application of the Framework of Indicators for 2019.

From: NASCO <hq@nasco.int>

Date: 2019-12-05 4:48 AM (GMT-05:00)

To: "Doucet, Serge" <Serge.Doucet@dfo-mpo.gc.ca>, Katrine Kærgaard <katk@nanoq.gl>, Arnaud Peyronnet <Arnaud.PEYRONNET@ec.europa.eu>, Kimberly Damon-Randall <kimberly.damon-randall@noaa.gov>

Cc: "Sondergaard, Lis" <Lis.Sondergaard@dfo-mpo.gc.ca>, John Biilmann <johb@nanoq.gl>, MARE-B2-NASCO@ec.europa.eu

Subject: West Greenland Commission Framework of Indicators

To: Heads of Delegations of the West Greenland Commission

From: Secretary

Re: Framework of Indicators – West Greenland Commission

At the Thirty-Fifth Annual Meeting of the West Greenland Commission in Portland, Maine in 2018, a multi-annual regulatory measure was adopted for the West Greenland salmon fishery for the years 2018, 2019 and 2020, WGC(18)11. Under this measure, the Framework of Indicators (FWI) provided by ICES is to be applied in 2019 and 2020 to identify if there have been any significant changes to the indicators used and consequently that a reassessment of the multi-annual advice is warranted.

When the FWI was run in previous years, a small Working 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 2020 and the Secretariat will liaise with the Group and present the findings to the Parties and to ICES.

The members of the Group, when it was last convened in 2019 were:

Gérald Chaput	Canada
Katrine Kærgaard	Denmark (in respect of the Faroe Islands and Greenland)
Niall Ó Maoiléidigh	European Union
Rory Saunders	United States

We need to resolve the membership of the Group to apply the FWI in 2020, including appointing a replacement for Rory Saunders. I would be grateful, therefore, if you could advise me of the name of your representative **by 7 January 2020**. Once the membership is resolved, the Group will be able to assemble the data and conduct its assessment.

Kind regards,

Dr Emma Hatfield
Secretary

WGC14.1122

Annex 2. Notification of representation on the FWI Working Group 2019.

From: NASCO <hq@nasco.int>

Sent: Thursday, January 9, 2020 6:12 AM

To: Chaput, Gerald <Gerald.Chaput@dfo-mpo.gc.ca>; Katrine Kærgeard <katk@nanoq.gl>; Niall Ó Maoiléidigh <niall.omaileidigh@marine.ie>; dan.kircheis@noaa.gov

Subject: West Greenland Commission's Framework of Indicators Working Group

Dear All

We are most grateful to you all for serving on the West Greenland Commission's Framework of Indicators Working Group. There is one change from the 2019 participants. Dan Kercheis has replaced Rory Saunders as the representative of the United States on the Group as Rory is no longer part of the US delegation to NASCO and I would like to thank Dan for agreeing to participate in this work.

The members of the Group for the 2020 assessment are as follows:

Canada	Gérald Chaput
Denmark (in respect of the Faroe Islands and Greenland)	Katrine Kærgeard
European Union	Niall Ó Maoiléidigh
USA	Dan Kircheis

I would ask that you appoint a Co-ordinator to liaise with the NASCO Secretariat and that the Group's findings be reported to us no later than **31 January 2020** so that we can inform the Parties to the West Greenland Commission and ICES of your findings. Gérald Chaput served as Co-ordinator for the Group's work in 2019. I attach a copy of the Group's report from 2019, WGC(19)03.

Kind regards
Emma

Dr Emma Hatfield
Secretary

WGC14.1123

Annex 3. Agreement on tasks and coordination of the FWI Working Group 2016.

From: Chaput, Gerald
Sent: Thursday, January 9, 2020 10:21 AM
To: 'NASCO' <hq@nasco.int>; Katrine Kærgaard <katk@nanoq.gl>; Niall Ó Maoiléidigh <niall.omaoleidigh@marine.ie>; dan.kircheis@noaa.gov
Subject: RE: West Greenland Commission's Framework of Indicators Working Group

Good morning everyone,
First, best wishes for this new year, 2020 already, and I hope you are well.
It is been quite mild so far, weather wise this winter. It should be no surprise I suppose as it was recently announced that 2019 was the second warmest year on record. That is unfortunate for many things.
I would be happy to coordinate the work of the group again, as the majority of the indicators are from Canadian stocks.
Happy to have Dan as part of the group and I will be contacting Dan shortly regarding the inputs required for the US indicators in the framework.
But I am also happy if someone else offers to coordinate the work. You will have my full support.
Talk again shortly,
Best regards,

Gérald Chaput
Coordinator, Centre for Science Advice, Gulf Region
Fisheries and Oceans Canada/Government of Canada
Gerald.Chaput@dfo-mpo.gc.ca / Tel: 506-851-2022

From: Niall O'Maoileidigh <niall.omaoleidigh@marine.ie>
Sent: Thursday, January 9, 2020 11:18 AM
To: Chaput, Gerald <Gerald.Chaput@dfo-mpo.gc.ca>; 'NASCO' <hq@nasco.int>; Katrine Kærgaard <katk@nanoq.gl>; dan.kircheis@noaa.gov
Subject: RE: West Greenland Commission's Framework of Indicators Working Group

Hi all and as we say in Irish
Athbhliain faoi shéan is faoi mhaise daoibh !!! or Have a happy and prosperous new year !
I'm very happy to participate again in 2020 and looking forward to the deliberations and outcome.
Regards
NÓM

From: Katrine Kærgaard <katk@nanoq.gl>
Sent: Thursday, January 9, 2020 11:34 AM
To: Chaput, Gerald <Gerald.Chaput@dfo-mpo.gc.ca>; NASCO <hq@nasco.int>; Niall O'Maoileidigh <niall.omaoleidigh@marine.ie>; dan.kircheis@noaa.gov
Subject: Sv: West Greenland Commission's Framework of Indicators Working Group (Nanoq - ID nr.: 12719897)

Dear all,
Godt nytår! Happy new year!
Welcome, to the team Dan! Looking forward to cooperating with you.

Gerald, thank you for offering yourself again! I will be more than happy for you to chair this team.

Venlig hilsen| best regards
Katrine Kærgaard
Chefkonsulent| Chief Advisor

From: NASCO <hq@nasco.int>
Sent: Friday, January 10, 2020 1:21 PM
To: Chaput, Gerald <Gerald.Chaput@dfo-mpo.gc.ca>; Katrine Kærgaard <katk@nanoq.gl>; Niall Ó Maoiléidigh <niall.omaoleidigh@marine.ie>; dan.kircheis@noaa.gov
Subject: RE: West Greenland Commission's Framework of Indicators Working Group

Dear Gerald,
Happy New Year to you.
It seems to me as if the rest of the Group are happy for you to be the Co-ordinator again. I look forward to hearing from you in a couple of weeks with the results of your deliberations.
Kind regards,
Emma

From: Chaput, Gerald
Sent: Saturday, January 18, 2020 1:57 PM
To: Douglas, Scott <Scott.Douglas@dfo-mpo.gc.ca>; Daigle, Abby <Abby.Daigle@dfo-mpo.gc.ca>; Dustin.Raab@dfo-mpo.gc.ca; Reader, Jeff <Jeff.Reader@dfo-mpo.gc.ca>
Cc: Robertson, Martha <Martha.Robertson@dfo-mpo.gc.ca>; Chamberland, Paul <Paul.Chamberland@dfo-mpo.gc.ca>; Jones, Ross (Science) <Ross.Jones@dfo-mpo.gc.ca>; Moreau, Darek <Darek.Moreau@dfo-mpo.gc.ca>
Subject: RE: West Greenland Commission - Framework of Indicators data required for 2019 - by Jan 28 2020

Hello everyone,
At the Thirty-Fifth Annual Meeting of the West Greenland Commission of NASCO in Portland (Maine) in 2018, a multi-annual regulatory measure was adopted for the West Greenland salmon fishery for the years 2018, 2019 and 2020, WGC(18)11.

Under this measure, the Framework of Indicators (FWI) provided by ICES is to be applied in Jan. 2019 and Jan. 2020 to identify if there have been any significant changes to the indicators of status and consequently that a reassessment of the multi-annual advice is warranted.

For those of you that are new to this request, the framework of indicators is used as a check on salmon abundance to determine if the recent year abundance is in line with expectations or if revised catch advice is required, in this case for the 2020 salmon fishery at Greenland. I have extracted the section from the 2018 ICES Working Group report that describes the framework of indicators and how it would be used.

We are now asked to provide the data to complete the framework of indicators based on data from 2019.

The Excel spreadsheet of the framework is attached.

There is a tab that shows the input data provided last year for the 2018 indicator values.

Data are required from the following:

- Jeff: Saint John River returns and return rates
- Dustin: LaHave River and North River returns data
- Scott: Miramichi 1SW and 2SW returns
- Abby: Margaree returns of large salmon

It would be great if the data could be provided by Jan. 28, 2020, you can add it to the tab referencing the 2019 input.

The framework group is asked to complete the compilation and return their report to NASCO by Jan. 31, 2020.

As always, please don't hesitate to contact me if you have any questions.

Gérald Chaput

From: Chaput, Gerald

Sent: Saturday, January 18, 2020 2:05 PM

To: Julien.April@mffp.gouv.qc.ca

Subject: RE: West Greenland Commission - données pour le cadre des indicateurs du saumon - retour demandé ici le 28 janvier 2020

Salut Julien,

J'espère que tu vas bien.

C'est le temps encore une fois de faire la mise à jour du cadre des indicateurs (FWI) pour l'OCSAN qui va servir à déterminer si une ré-évaluation et un nouvel avis sera requis pour la pêche au Groenland de 2020.

En pièce-jointe le fichier Excel du cadre des indicateurs.

J'espère que tu seras en mesure encore une fois cette année d'ajouter les valeurs pour les populations de saumon du Québec dans le cadre, l'onglet « 2019 input ».

Un retour ici le 28 janvier 2020 serait grandement apprécié.

A très bientôt,

Gérald Chaput

From: Chaput, Gerald

Sent: Saturday, January 18, 2020 2:11 PM

To: 'Dan Kircheis - NOAA Federal' <dan.kircheis@noaa.gov>

Subject: FW: West Greenland Commission - Framework of Indicators data required for 2019 - by Jan 28 2020

Hello Dan, welcome onboard!

I have sent out a request to the Canadian contacts for the 2019 indicator values from their respective jurisdictions.

This is the content of the message sent to them, and to you now as the provider for the single indicator from the Penobscot.

At the Thirty-Fifth Annual Meeting of the West Greenland Commission of NASCO in Portland (Maine) in 2018, a multi-annual regulatory measure was adopted for the West Greenland salmon fishery for the years 2018, 2019 and 2020, WGC(18)11.

Under this measure, the Framework of Indicators (FWI) provided by ICES is to be applied in Jan. 2019 and Jan. 2020 to identify if there have been any significant changes to the indicators of status and consequently that a reassessment of the multi-annual advice is warranted.

For those of you that are new to this request, the framework of indicators is used as a check on salmon abundance to determine if the recent year abundance is in line with expectations or if revised catch advice is required, in this case for the 2020 salmon fishery at Greenland. I have extracted the section from the 2018 ICES Working Group report that describes the framework of indicators and how it would be used.

We are now asked to provide the data to complete the framework of indicators based on data from 2019.

The Excel spreadsheet of the framework is attached.

There is a tab that shows the input data provided last year for the 2018 indicator values.

Data are required from the following:

- Dan Kircheis (NOAA): indicator for Penobscot (USA)
- Jeff Reader (DFO): Saint John River returns and return rates (SF)
- Dustin Raab (DFO): LaHave River and North River returns data (SF)
- Scott Douglas (DFO): Miramichi 1SW and 2SW returns (Gulf)
- Abby Daigle (DFO): Margaree returns of large salmon (Gulf)
- Julien April (MFFP): indicators for Quebec

It would be great if the data could be provided by Jan. 28, 2020, you can add it to the tab referencing the 2019 input.

The framework group is asked to complete the compilation and return their report to NASCO by Jan. 31, 2020.

As always, please don't hesitate to contact me if you have any questions.

Gérald Chaput

Annex 4. Summary of Correspondence by FWI Working Group 2020

Date	Contact	Action
5 Dec. 2019	Secretariat	Request to Heads of WGC for nominations to the FWI Working Group
9 Jan. 2020	Secretariat	Confirmation of membership and responsibilities of FWI Working Group
10 Jan. 2020	Group	Agreement on coordinator and tasks
18 Jan. 2020	Chaput	Request for data inputs sent to Canadian and USA contacts
20 Jan. 2020	Scott Douglas	Data submitted to coordinator for SFA 16 indicators for Canada
21 Jan. 2020	Dan Kircheis	Data submitted to coordinator for indicator for USA
23 Jan. 2020	Dustin Raab	Data submitted to coordinator for SFA 19 and 21 indicator for Canada
27 Jan. 2020	Julien April	Data submitted to coordinator for indicators for Quebec
28 Jan. 2020	Jeff Reader	Data submitted to coordinator for SFA 23 indicators for Canada
30 Jan. 2020	Abby Daigle	Data submitted to coordinator for SFA 18 indicator for Canada
30 Jan. 2020	Chaput	Draft report circulated to FWI-WG for approval including FWI input data, FWI worksheet and draft conclusions of assessment.
3 Feb. 2020	Ó Maoiléidigh	Confirmed agreement with assessment and report on behalf of EU
4 Feb. 2020	Kærgaard	Confirmed agreement with assessment and report on behalf of Denmark (in respect of the Faroe Islands and Greenland)
4 Feb. 2020	Kircheis	Confirmed agreement with assessment and report on behalf of USA
4 Feb. 2020	Chaput	Agreed Report of FWI-Working Group sent to General Secretary of NASCO

Annex 5. Data inputs to 2019 for the 2020 Indicator Framework (including comments by data providers).

Geographic Area	River/ Indicator	2019 value	Comment	Provider
USA	Penobscot Hatchery and Wild 2SW Returns	899	Provisional estimate	Dan Kircheis
Scotia-Fundy	Saint John <i>Wild</i> Return Large	39	Estimated total (adjusted) homewater returns of wild and hatchery MSW fish destined for Mactaquac Dam on the Saint John River, N.B., in 2019 was 205.	Jeff Reader, Jan. 28, 2020
	Lahave Return Large	22	Morgan Falls Fishway count (scaled for total LaHave watershed area)	Dustin Raab
	North Return Large	215	Dive count (October 30, 2019) adjusted for observation efficiency	Dustin Raab
	Saint John Hatchery Survival 2SW (%)	0	We had no 1.2 returns in 2019 so the hatchery smolt-to-2SW rate for Mactaquac was 0.000%.	Jeff Reader, Jan. 28, 2020
	Saint John Hatchery Survival 1SW (%)	0.152		Jeff Reader, Jan. 28, 2020
	Saint John <i>Wild</i> Return 1SW	108	Estimated total (adjusted) homewater returns of wild and hatchery 1SW fish destined for Mactaquac Dam on the Saint John River, N.B., in 2019 was 507.	Jeff Reader, Jan. 28, 2020
	LaHave Return 1SW	278	Morgan Falls Fishway count (scaled for total LaHave watershed area)	Dustin Raab
Gulf	Miramichi Return 2SW	4745		Scott Douglas January 20, 2020
	Miramichi Return 1SW	8800		Scott Douglas January 20, 2020
	Margaree Return Large	2539	Median value as of January 28th, 2020	Abby Daigle January 30, 2020
Quebec	Bonaventure Return Large	1051		Julien April, Jan. 20, 2020
	Grande Rivière Return Large	234		Julien April, Jan. 20, 2020
	Saint-Jean Return Large	716		Julien April, Jan. 20, 2020
	Dartmouth Return Large	742		Julien April, Jan. 20, 2020
	Madeleine Return Large	543		Julien April, Jan. 20, 2020
	York Return Large	948	Data from the mid-summer assesment. The fall assesment was not possible because of low water visibility	Julien April, Jan. 20, 2020
	De la Trinité Return Large	99		Julien April, Jan. 20, 2020
	De la Trinité Return Small	150		Julien April, Jan. 20, 2020
	Saint-Jean 2SW Survival	1.88		Julien April, Jan. 20, 2020
	De la Trinité 2SW Survival	0.29		Julien April, Jan. 20, 2020
Newfoundland	NA			
Labrador	NA			
Southern NEAC	NA			

Annex 6. Indicator Framework sheet with 2020 indicators analysis.

Catch Advice	Catch option > 0 (Yes = 1, No = 0)
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0

Overall Recommendation
No Significant Change Identified by Indicators

Geographic Area	River/ Indicator	Ratio Value				True High	Indicator State	Probability of Correct Assignment	Indicator Score	Management Objective Met?
		2019 Value	Threshold	Threshold	True Low					
USA	Penobscot Hatchery and Wild 2SW Returns	899	38%	2,368	100%	100%	-1	1	-1	
	<i>possible range</i>				-1.00	1.00				
	Average		38%						-1.00	No
Scotia-Fundy	Saint John <i>Wild</i> Return Large	39	1%	3,329	97%	100%	-1	0.97	-0.97	
	Lahave Return Large	22	8%	285	81%	85%	-1	0.81	-0.81	
	North Return Large	215	34%	626	96%	74%	-1	0.96	-0.96	
	Saint John Hatchery Survival 2SW (%)	0		0.222	96%	81%				
	Saint John Hatchery Survival 1SW (%)	0.152	20%	0.763	89%	73%	-1	0.89	-0.89	
	Saint John <i>Wild</i> Return 1SW	108	5%	2,276	89%	80%	-1	0.89	-0.89	
	LaHave Return 1SW	278	17%	1,679	96%	67%	-1	0.96	-0.96	
	<i>possible range</i>				-0.78	0.68				
	Average		14%						-0.91	No
Gulf	Miramichi Return 2SW	4745	32%	14,669	100%	82%	-1	1.00	-1.00	
	Miramichi Return 1SW	8800	21%	41,588	92%	68%	-1	0.92	-0.92	
	Margaree Return Large	2539	81%	3,149	88%	56%	-1	0.88	-0.88	
	<i>possible range</i>				-0.93	0.69				
	Average		45%						-0.93	No
Quebec	Bonaventure Return Large	1051	71%	1,479	82%	76%	-1	0.82	-0.82	
	Grande Rivière Return Large	234	53%	442	100%	89%	-1	1.00	-1.00	
	Saint-Jean Return Large	716	94%	758	88%	78%	-1	0.88	-0.88	
	Dartmouth Return Large	742	98%	756	84%	87%	-1	0.84	-0.84	
	Madeleine Return Large	543	81%	672	88%	79%	-1	0.88	-0.88	
	York Return Large	948	67%	1405	73%	83%	-1	0.73	-0.73	
	De la Trinité Return Large	99	26%	385	82%	100%	-1	0.82	-0.82	
	De la Trinité Return Small	150	26%	578	83%	85%	-1	0.83	-0.83	
	Saint-Jean 2SW Survival	1.88	261%	0.72	100%	50%	1	0.5	0.5	
	De la Trinité 2SW Survival	0.29	59%	0.49	92%	68%	-1	0.92	-0.92	
	<i>possible range</i>				-0.87	0.80				
	Average		84%						-0.72	No
Newfoundland	<i>possible range</i>									
	Average								NA	Unknown
Labrador	<i>possible range</i>									
	Average								NA	Unknown
Southern NEAC	<i>possible range</i>									
	Average								NA	Unknown