North-East Atlantic Commission

NEA(14)3

Report on the Use of the Framework of Indicators in 2014

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1. At its 2012 Annual Meeting, the North-East Atlantic Commission (NEAC) adopted a Framework of Indicators (FWI), developed by ICES, in order to identify if there had been any significant change in previously provided multi-annual management advice for the Faroese salmon fishery. The Commission also adopted a multi-annual Decision regarding the Salmon Fishery in Faroese waters in 2013, 2014 and 2015, (NEA(12)7). Under this Decision, the Commission decided not to set a quota for the salmon fishery in the Faroes Fishery Zone in 2013. The Decision would also apply in 2014 and 2015 unless application of the FWI in 2013 and 2014 showed that there had been a significant change in the indicators used and, therefore, that reassessment of the catch advice was required.

2. The Commission agreed to use the same procedure as the West Greenland Commission in applying the FWI. Thus, each NEAC Party was asked to nominate a representative to serve on the FWI Working Group in 2014. The representatives appointed were Jóannes Hansen / Jan Arge Jacobsen (Denmark (in respect of the Faroe Islands and Greenland)), Ian Russell (European Union), Peder Fiske (Norway), and Sergey Prusov (Russian Federation). Ian Russell served as the Group's Coordinator. The Group worked by correspondence to coordinate the data collection and apply the FWI. The Group's report is attached.

3. The report indicates that the results of the assessment in 2014 are consistent with the previous PFA forecast for three of the four stock complexes while for the fourth stock complex (Northern NEAC MSW salmon) the FWI suggested that the forecast of PFA was an over-estimate. As such, the Group has concluded that a 'no reassessment of the existing management advice for the Faroes fishery is required from ICES in 2014'. The Decision adopted in 2012 will continue to apply to the 2015 fishery. In accordance with the request for scientific advice adopted by the Council last year, ICES has been advised that it does not need to provide catch options or alternative management advice for the NEAC area.

4. This arrangement appeared to work well and within the timescale proposed by the Commission. We are grateful to the Group for its work.

Secretary
Edinburgh
8 April 2014

NASCO – NORTH EAST ATLANTIC COMMISSION

REPORT OF THE FRAMEWORK OF INDICATORS WORKING GROUP 2014

Introduction:

At its Annual Meeting in Edinburgh in 2012, the NASCO North East Atlantic Commission (NEAC) adopted a multi-annual regulatory measure for the Faroes salmon fishery for the years 2013, 2014 and 2015 (NEA(12)7), together with a Framework of Indicators (FWI). This regulatory measure (no quota set) applied to the fishery in 2013, and was to be carried forward to 2014 and 2015 without further review unless application of the FWI showed that there had been a significant change in the indicators used and, therefore, that a full reassessment of the management advice was required.

The Commission agreed that a similar procedure to that used for the West Greenland Commission FWI should be used in applying the new Faroes FWI in 2013. 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.

Application of the FWI in 2013 (NEA(13)3) indicated that there had been a significant change in the indicators for the Southern NEAC MSW stock complex, suggesting that the PFA forecast for this stock complex was an over-estimate. As a result, ICES was asked to carry out a full reassessment in 2013 to provide updated management advice for NEAC for 2013 - 2016 and to update the FWI. The reassessment indicated that there were no mixed-stock fishery catch options on the NEAC stock complexes for the years 2013/14 – 2015/16. ICES also updated the FWI, but recommended that in future the FWI should only be used to signal an under-estimate of forecast abundance when the fishery is closed (i.e. when a potential harvest might be available). Had this approach been used in 2013, the reassessment of the management advice would not have been required.

At its Annual Meeting in Drogheda, Ireland in 2013, the NASCO North East Atlantic Commission agreed to continue with the decision agreed in 2012 for the years 2013, 2014 and 2015 rather than negotiate a new measure in light of the updated advice from ICES (NEA(13)11). As such, both the West Greenland and North East Atlantic Commissions would be subject to negotiations for new measures in 2015. The Commission also agreed to the recommendation from ICES that the revised approach to running the FWI (i.e. that when the fishery is closed a reassessment will be only indicated where the FWI suggests that the forecast abundance was under-estimated) should be applied in 2014. The Commission further agreed that a small Working Group would again be established to run the FWI in January 2014.

The Working Group responsible for applying the FWI in 2014 comprised:

Sergey Prusov	Russian Federation
Peder Fiske	Norway
Jan Arge Jacobsen	Denmark (in respect of the Faroe Islands and Greenland)
Jóannes Hansen	Denmark (in respect of the Faroe Islands and Greenland)
Ian Russell	European Union

The Group was asked to complete their tasks before the end of January 2014 and to liaise with NASCO who would present their findings to the Parties and to ICES (Annex 1).

Work of the Working Group:

Ian Russell agreed to act as co-ordinator of the FWI Working Group for 2014. Requests for data to populate the FWI were sent to representatives from each of the North East Atlantic Commission (NEAC) countries which had indicator data sets included in the FWI. Returns were collated (Annex 2), and the co-ordinator then circulated the completed FWI worksheet for 2014 (Annex 3) and the draft report to the Working Group for their review and agreement.

Framework of Indicators Analysis – 2014:

The FWI worksheet was revised and updated by ICES in 2013. The FWI includes data from both NEAC areas (Northern NEAC and Southern NEAC) and has been further divided by sea-age into maturing (1SW salmon) and non-maturing (MSW salmon) components. There are thus four distinct 'management units' / stock complexes within the framework, and within these there are variable numbers of indicator data sets. Thus:

Northern NEAC 1SW salmon – 5 indicator data sets
Northern NEAC MSW salmon – 3 indicator data sets
Southern NEAC 1SW salmon – 5 indicator data sets
Southern NEAC MSW salmon – 13 indicator data sets

The Northern NEAC data sets all derive from Norway, while the Southern NEAC data sets derive from UK (Scotland), UK (N. Ireland), UK (England & Wales) and Iceland (south and east).

The FWI Working Group noted that the majority of the data sets used in applying the FWI in 2014 were reported to be preliminary values.

Each Working Group member has reviewed the raw data (Annex 2) and the FWI assessment spreadsheet (Annex 3) and confirmed their agreement with the following summary of the findings.

Northern NEAC 1SW salmon - Data were provided for four of the five indicators for the Northern NEAC 1SW stock complex; data on the return rate (% survival) of hatchery fish in the River Imsa were not available in time for inclusion in the FWI. The results for the four available indicators were all consistent with the PFA forecast for 2013. Thus, the indicators for this stock complex did not signal a need for a re-assessment in 2014.

Northern NEAC MSW salmon - One of the indicators for the Northern NEAC MSW stock complex (the count of returning salmon on the River Orkla, Norway) was not available in 2013 due to the counter being out of order. Data for the other two indicators provided variable results. One of the indicators was consistent with the PFA forecast for 2013, while the other suggested that the PFA forecast was an over-estimation. The aggregate score for this stock complex also indicates an over-estimation of PFA. However, in keeping with the agreement reached at NASCO in 2013 (NEA(13)11), a re-assessment is only signaled where

the indicators suggest the forecast PFA was under-estimated. Thus, the indicators for this stock complex did not signal a need for a re-assessment in 2014.

Southern NEAC 1SW salmon - Data were available for all five indicators for the Southern NEAC 1SW stock complex. The results for each of the indicators were consistent with the PFA forecast for 2013. Thus, the indicators for this stock complex did not signal a need for a re-assessment in 2014.

Southern NEAC MSW salmon – Data were available for 11 of the 13 indicators for the Southern NEAC MSW stock complex (estimated returns of 2SW salmon to the Rivers Baddoch and Girnoch, UK (Scotland), were unavailable). Most of the available indicators (8) were consistent with the PFA forecast for 2013. Two of the indicators suggested that the PFA forecast was an over-estimate and one suggested it was an under-estimate. However, on aggregate, the indicators for this stock complex did not signal a need for a re-assessment in 2014.

Conclusions:

The results of the NEAC FWI assessment in 2014 (based on indicator values for 2013) are consistent with the previous PFA forecast for 2013 for three of the four stock complexes. For the other stock complex, Northern NEAC MSW salmon, the FWI suggested that the forecast of PFA was an over-estimate.

NASCO agreement (NEA(13)11) confirms that, when the Faroes fishery is closed, the FWI should only be used to trigger a re-assessment when it signals an under-estimate of forecast abundance. Therefore, the FWI Working Group concludes that no re-assessment of the existing management advice for the Faroes fishery is required from ICES in 2014.

NEAC FWI Working Group
24th January 2014

Annex 1. Notification from NASCO of representation on the FWI Working Group

From: hq@nasco.int [mailto:hq@nasco.int]
Sent: 23 December 2013
To: Framework of Indicators Working Group NEAC
Subject: FWI Working Group – North East Atlantic Commission

Dear All

Thank you for agreeing to serve on the North-East Atlantic Commission's Framework of Indicators Working Group. There have been no changes to the representation on this Working Group since last year although, at this stage, we are still waiting for confirmation of the representative for Denmark (in respect of the Faroe Islands and Greenland). I have spoken to Jóannes Hansen and he has asked that, for the time being, correspondence be sent to both him and Jan Arge Jacobsen until the issue of the representative from the Faroe Islands is resolved, hopefully in early January.

For 2014 the members of the Group are as follows:

Denmark (in respect of the Faroe Islands and Greenland)	Jan Arge Jacobsen/Jóannes Hansen
European Union	Ian Russell
Norway	Peder Fiske
Russian Federation	Sergey Prusov

I would ask that you appoint a Coordinator to liaise with the NASCO Secretariat and that the Group's findings be reported to us no later than 31 January 2014 so that I can inform the Parties to the North-East Atlantic Commission and ICES of your findings. Ian Russell served as Coordinator for the Group's work in 2013.

With best wishes for Christmas and the New Year.

Best regards

Peter Hutchinson
Secretary

NEA14.358

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Annex 2. Data inputs for the NEAC Indicator Framework - 2013.

DATA INPUTS FOR THE NEAC FWI				
Indicators for Northern NEAC 1SW PFA			**2013**	**Comments**
	Indicator data set	**Country**		
1	Estimated returns (PFA) of 1SW salmon to the coast	Norway	209,000	
2	Return rate of 1SW wild salmon River Imsa (% survival)	Norway	1.80%	
3	Return rate of 1SW hatchery salmon River Imsa (% survival)	Norway	N/A	Data for 2013 unavailable
4	Count of returning salmon - River Øyensåa	Norway	1,593	
5	Count of returning salmon - River Nausta	Norway	926	
Indicators for Northern NEAC MSW PFA				
	Indicator data set	**Country**		
1	Estimated returns (PFA) of MSW salmon to the coast	Norway	187,000	
2	Count of returning salmon - River Orkla	Norway	N/A	Counter not operating for whole year
3	Count of returning salmon - River Nausta	Norway	926	
Indicators for Southern NEAC 1SW PFA				
	Indicator data set	**Country**		
1	Returning stock estimate - 1SW salmon River Itchen	UK (England & Wales)	359	
2	Returning stock estimate - 1SW salmon River Frome	UK (England & Wales)	156	
3	Estimated returns of 1SW salmon - River North Esk	UK (Scotland)	8,211	
4	Return rate of 1SW salmon River Bush (% survival)	UK (N. Ireland)	10.8	
5	Estimated returns of 1SW salmon to freshwater - River Bush	UK (N. Ireland)	1,387	
Indicators for Southern NEAC MSW PFA				
	Indicator data set	**Country**		
1	Estimated returns of 2SW salmon - River Baddoch	UK (Scotland)	N/A	Data for 2013 unavailable
2	Estimated returns of 2SW salmon - River Girnoch	UK (Scotland)	N/A	Data for 2013 unavailable
3	Estimated returns of 1SW salmon - River North Esk	UK (Scotland)	8,211	
4	Returning stock estimate - MSW salmon River Itchen	UK (England & Wales)	120	
5	Returning stock estimate - 1SW salmon River Itchen	UK (England & Wales)	359	
6	Returning stock estimate - MSW salmon River Frome	UK (England & Wales)	104	
7	Returning stock estimate - 1SW salmon River Frome	UK (England & Wales)	156	
8	Catch of MSW salmon - River Ellidaar	Iceland (South & East)	17	
9	Estimated returns of MSW salmon to freshwater - River Bush	UK (N. Ireland)	257	
10	Estimated returns of 1SW salmon to the coast - River Bush	UK (N. Ireland)	1,387	
11	Returning stock estimate - 1SW salmon River Tamar	UK (England & Wales)	1,272	
12	Count of returning MSW salmon - River Lune	UK (England & Wales)	1,895	
13	Count of returning MSW salmon - River Fowey	UK (England & Wales)	99	
Notes:				
	N/A indicates data not available for year in question			
	Most 2013 indicator values are preliminary data			
	Data relate to wild fish unless otherwise indicated			

Annex 3. Indicator Framework sheet for 2014 (indicator data sets for 2013).

FWI NEAC	2014	Indicators suggest:	PFA forecast OK or overestimated

Indicators for Northern NEAC 1SW PFA

		Insert data from 2013 here	N reg	Slope	Intercept	r^2	Median PFA	12.5%ile	87.5%ile	Reassess in year 2014? Outside 75% conf.lim. below	Outside 75% conf.lim. above	Outside 75% confidence limits below	Outside 75% confidence limits above
1	Returns all 1SW NO PFA est	209000	24	0.556089	-75637.55	0.92	496500	159955.46	240965.96	-1	-1	NO	NO
2	Survivals W 1SW NO Imsa	1.8	29	0.000012	-3.47	0.41	496500	-2.12	6.97	-1	-1	NO	NO
3	Survivals H 1SW NO Imsa		30	0.000006	-0.86	0.26	496500	-1.08	5.13	0	0	Uninformative	Uninformative
4	Counts all NO Øyensåa (1SW)	1593	14	0.003186	-40.17	0.41	496500	489.48	2593.62	-1	-1	NO	NO
5	Counts all NO Nausta (1SW)	926	15	0.002447	-316.47	0.33	496500	-78.96	1875.97	-1	-1	NO	NO
								Sum of scores		-4	-4		

Indicators do not suggest that the PFA forecast is an overestimation. | Indicators do not suggest that the PFA forecast is an underestimation.

Indicators for Northern NEAC MSW PFA

		Insert data from 2013 here	N reg	Slope	Intercept	r^2	Median PFA	12.5%ile	87.5%ile	Reassess in year 2014? Outside 75% conf.lim. below	Outside 75% conf.lim. above	Outside 75% conf.lim. below	Outside 75% conf.lim. above
1	PFA-MSW-CoastNorway	187000	24	0.365584	-22966.10	0.66	716600	205063.63	272959.72	1	-1	YES	NO
2	Orkla counts		17	0.014705	-4246.64	0.58	716600	4414.71	8167.04	0	0	Uninformative	Uninformative
3	Counts all NO Nausta	926	15	0.004601	-1819.20	0.35	716600	534.70	2421.12	-1	-1	NO	NO
								Sum of scores		0	-2		

Indicators suggest that the PFA forecast is an overestimation. | Indicators do not suggest that the PFA forecast is an underestimation.

Indicators for Southern NEAC 1SW PFA

		Insert data from 2013 here	N reg	Slope	Intercept	r^2	Median PFA	12.5%ile	87.5%ile	Reassess in year 2014? Outside 75% conf.lim. below	Outside 75% conf.lim. above	Outside 75% conf.lim. below	Outside 75% conf.lim. above
1	Ret. W 1SW UK(E&W) Itchen M	359	25	0.000300	-45.21	0.25	854200	-9.97	431.35	-1	-1	NO	NO
2	Ret. W 1SW UK(E&W) Frome M	156	40	0.000509	60.01	0.31	854200	-66.17	1055.71	-1	-1	NO	NO
3	Ret. W 1SW UK(Sc.) North Esk M	8211	32	0.006904	4310.62	0.55	854200	6874.53	13540.69	-1	-1	NO	NO
4	Surv. W 1SW UK(NI) Bush M	10.8	20	2.062E-05	-6.736871	0.44	854200	0.12	21.64	-1	-1	NO	NO
5	Ret. Freshw 1SW UK(NI) Bush	1387	38	0.000689	476.74	0.23	854200	250.40	1880.13	-1	-1	NO	NO
								Sum of scores		-5	-5		

Indicators do not suggest that the PFA forecast is an overestimation. | Indicators do not suggest that the PFA forecast is an underestimation.

Indicators for Southern NEAC MSW PFA

		Insert data from 2013 here	N reg	Slope	Intercept	r^2	Median PFA	12.5%ile	87.5%ile	Reassess in year 2014? Outside 75% conf.lim. below	Outside 75% conf.lim. above	Outside 75% conf.lim. below	Outside 75% conf.lim. above
1	Ret. W 2SW UK(Sc.) Baddoch NM		24	0.000034	2.48	0.46	623900	10.31	37.34	0	0	Uninformative	Uninformative
2	Ret. W 2SW UK(Sc.) Girnoch NM		40	0.000036	13.26	0.21	623900	-12.94	84.62	0	0	Uninformative	Uninformative
3	Ret. W 1SW UK(Sc.) North Esk NM	8211	31	0.006284	8223.40	0.36	623900	8291.95	15996.10	1	-1	YES	NO
4	Ret. W MSW UK(E&W) Itchen NM	120	25	0.000281	-88.25	0.65	623900	13.14	160.66	-1	-1	NO	NO
5	Ret. W 1SW UK(E&W) Itchen NM	359	24	0.000393	27.23	0.21	623900	46.13	498.11	-1	-1	NO	NO
6	Ret. W MSW UK(E&W) Frome NM	104	40	0.000761	58.52	0.48	623900	27.82	1039.06	-1	-1	NO	NO
7	Ret. W 1SW UK(E&W) Frome NM	156	39	0.000716	110.96	0.39	623900	36.90	1078.88	-1	-1	NO	NO
8	Catch W MSW Ice Ellidaar NM	17	41	0.000094	-26.92	0.57	623900	-24.65	88.20	-1	-1	NO	NO
9	Ret. Freshw 2SW UK(NI) Bush	257	37	0.000152	45.17	0.25	623900	2.86	277.71	-1	-1	NO	NO
10	Ret. W 1SW UK(NI) Bush NM	1387	19	0.005838	-1090.20	0.69	623900	940.87	4163.89	-1	-1	NO	NO
11	Ret. W 1SW UK(E&W) Tamar NM	1272	15	0.007933	-1234.40	0.20	623900	2496.41	4933.20	1	-1	YES	NO
12	Count MSW UK(E&W) Lune NM	1895	16	0.005016	-1786.39	0.34	623900	819.63	1866.21	-1	1	NO	YES
13	Count MSW UK(E&W) Fowey NM	99	16	0.000271	-89.16	0.28	623900	47.25	113.02	-1	-1	NO	NO
								Sum of scores		-7	-9		

Indicators do not suggest that the PFA forecast is an overestimation. | Indicators do not suggest that the PFA forecast is an underestimation.

Not available