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Atlantic salmon in the North-East Atlantic Commission Area in 2021

Photo by Cliff Mason



ICES
CIEM

ICES advice letter to NASCO 2022



The ICES advice for North Atlantic Salmon Stocks is published today, May 6th 2022 in response to the advice requested by NASCO in the CNL(21)14 *Request for Scientific Advice from ICES*. The advice is based on the full ICES assessments that were conducted in 2021. The assessments are outlined in the [Working Group on North Atlantic Salmon 2021 report] along with the Frameworks of Indicators (which were provided in 2021 for use in 2022 and 2023). ICES states that the advice provided in 2022 conforms to the 10 principles that govern ICES advice, which include that the advice is based on the best available science and conforms to our data quality. The advice is suitable and a valid source of information for management actions scheduled in the relevant NASCO Salmon Commission areas.

In response to the crisis in Europe, ICES suspended all meetings in March 2022, including WGNAS. As a result, the WGNAS was not able to respond fully to the 2022 Terms of Reference. While the WGNAS was not able to reschedule their annual meeting, group members met by correspondence in April to discuss existing data, the advice published in 2021, and quality assurance issues, to evaluate recommendations for advice for the North Atlantic Salmon Stocks for the years outlined in the NASCO recurrent advice request. The 2022 WGNAS report will be updated mid-May with sections specifying the process evaluating the re-issued advice.

The requests for advice on Atlantic salmon in the East Greenland area and the provision of an update on the distribution and abundance of pink salmon across the North Atlantic should be released in early September 2022, including underpinning report materials.

ICES has been in dialogue with the NASCO Secretariat about the suspension of meetings in March, and also the ramifications of that decision. ICES appreciates the useful and constructive feedback throughout this process from NASCO.

Terms of Reference



2. With respect to Atlantic salmon in the North-East Atlantic Commission area:

- 2.1 describe the key events of the 2021 fisheries;
- 2.2 review and report on the development of age-specific stock conservation limits, including updating the time-series of the number of river stocks with established CLs by jurisdiction;
- 2.3 describe the status of the stocks, including updating the time-series of trends in the number of river stocks meeting CLs by jurisdiction;
- 2.4 provide catch options or alternative management advice for the 2022/2023 - 2024/2025 fishing seasons, with an assessment of risks relative to the objective of exceeding stock conservation limits, or pre-defined NASCO Management Objectives, and advise on the implications of these options for stock rebuilding; and
- 2.5 update the Framework of Indicators used to identify any significant change in the previously provided multi-annual management advice.

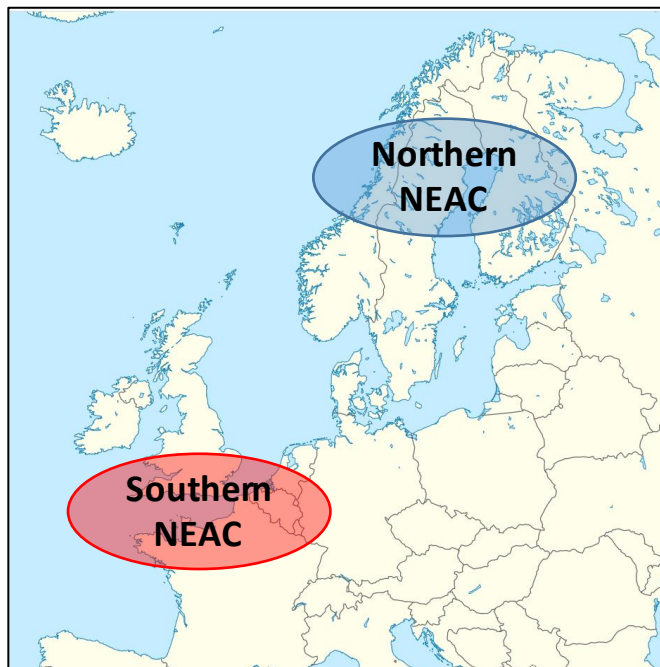
Background

- North-East Atlantic Commission (NEAC) stocks are combined into two groups for the provision of management advice for fisheries at West Greenland and Faroes

Southern group (Southern NEAC) :

- UK (Scotland)
- UK (England & Wales)
- UK (Northern Ireland)
- Ireland
- France
- Spain
- Iceland (south/west region)

- Total of 7 stock units



Northern group (Northern NEAC) :

- Russia
- Finland
- Norway
- Sweden
- Denmark
- Iceland (north/east region)

- Total of 11 stock units

3.4 Catch options or alternative management advice

PFA Forecast N. NEAC

- 1SW maturing and 1SW non-maturing at full reproductive capacity in 2021
- But forecast indicates could both be at risk of suffering reduced reproductive capacity (lower 95th percentile Bayesian credible intervals below SERs)

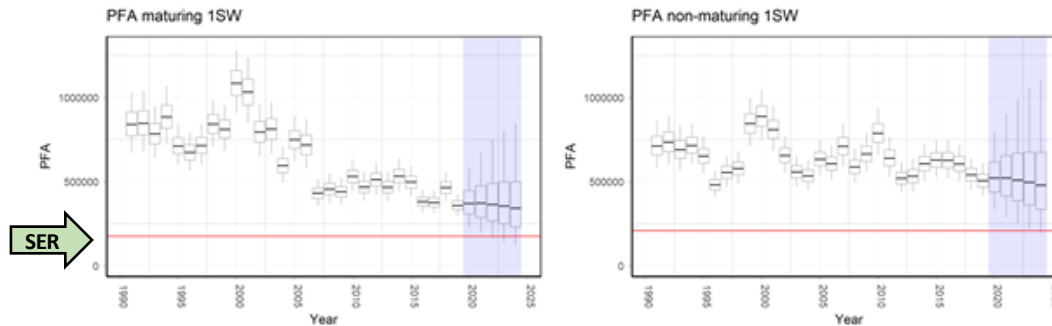


Figure 10: sal.neac.all

3.4 Catch options or alternative management advice

PFA Forecast S. NEAC

- 1SW maturing in 2021 at risk of suffering reduced reproductive capacity
- 1SW non-maturing in 2021 at full reproductive capacity
- Forecast indicates 1SW maturing could be suffering reduced reproductive capacity post 2021
- Forecast indicates 1SW non-maturing could at risk of suffering reduced reproductive capacity post 2021

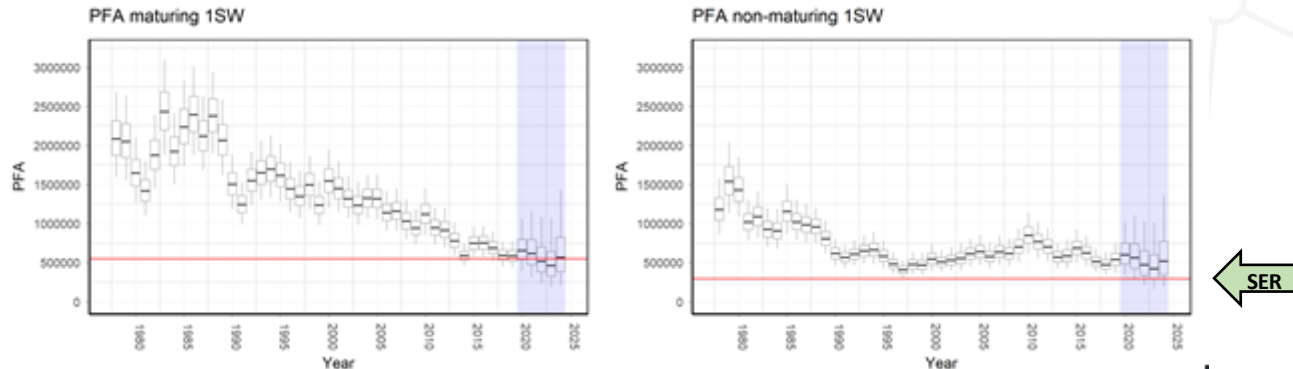


Figure 11: sal.neac.all

3.4 Catch options or alternative management advice



- No probabilities that the NEAC 1SW and MSW will meet or exceed the SER simultaneously for both regions at any TAC option
- **No 2022-2024 catch options**

Catch options season	TAC option (t)	NEAC-N-1SW	NEAC-N-MSW	NEAC-S-1SW	NEAC-S-MSW	All complexes simultaneous
2022/23	0	91%	98%	36%	84%	30%
	20	91%	94%	35%	80%	28%
	40	90%	89%	35%	77%	25%
	60	90%	81%	34%	73%	22%
	80	90%	72%	34%	69%	19%
	100	90%	63%	33%	66%	15%
	120	90%	53%	32%	62%	13%
	140	90%	45%	32%	58%	10%
	160	90%	37%	31%	55%	8%
	180	90%	31%	31%	51%	6%
200	90%	25%	30%	48%	5%	
2023/24	0	87%	96%	52%	75%	37%
	20	87%	91%	52%	71%	34%
	40	87%	85%	51%	67%	30%
	60	87%	77%	51%	63%	26%
	80	87%	67%	50%	59%	22%
	100	86%	59%	50%	56%	18%
	120	86%	51%	49%	52%	15%
	140	86%	43%	49%	49%	12%
	160	86%	36%	48%	45%	10%
	180	86%	30%	47%	42%	8%
200	86%	26%	47%	39%	6%	

Table 7: sal.neac.all

3.4 Catch options or alternative management advice



- No probabilities (0% or close to 0%) that the **1SW** will meet or exceed the SER simultaneously at country level for any TAC option

- No 2021-2024 catch options**

Catch options season	TAC option (t)	Russia	Finland	Norway	Sweden	Iceland	UK (Scotland)	UK (N. Ireland)	Ireland	UK (England & Wales)	France	All 1SW MUS simultaneous
2022/ 23	0	27%	33%	95%	84%	66%	63%	25%	24%	23%	28%	0.00%
	20	27%	33%	95%	84%	65%	63%	25%	24%	23%	28%	0.00%
	40	27%	33%	95%	84%	65%	62%	24%	24%	23%	28%	0.00%
	60	27%	33%	95%	84%	65%	61%	24%	23%	22%	28%	0.00%
	80	27%	33%	94%	84%	65%	61%	24%	23%	22%	28%	0.00%
	100	27%	33%	94%	84%	64%	60%	24%	23%	22%	28%	0.00%
	120	26%	33%	94%	84%	64%	60%	24%	23%	22%	28%	0.00%
	140	26%	33%	94%	84%	64%	59%	23%	23%	22%	28%	0.00%
	160	26%	32%	94%	84%	64%	58%	23%	22%	22%	27%	0.00%
	180	26%	32%	94%	84%	63%	58%	23%	22%	21%	27%	0.00%
200	26%	32%	94%	84%	63%	57%	23%	22%	21%	27%	0.00%	
2023/ 24	0	37%	29%	92%	83%	55%	68%	34%	32%	34%	32%	0.10%
	20	37%	28%	92%	83%	54%	67%	33%	32%	34%	32%	0.00%
	40	36%	28%	92%	83%	54%	67%	33%	32%	34%	32%	0.00%
	60	36%	28%	92%	83%	54%	66%	33%	32%	33%	32%	0.00%
	80	36%	28%	92%	83%	54%	66%	33%	31%	33%	32%	0.00%
	100	36%	28%	92%	83%	54%	65%	32%	31%	33%	31%	0.00%
	120	36%	28%	91%	83%	53%	65%	32%	31%	33%	31%	0.00%
	140	36%	28%	91%	83%	53%	64%	32%	31%	33%	31%	0.00%
	160	36%	28%	91%	83%	53%	64%	32%	31%	33%	31%	0.00%
	180	36%	28%	91%	83%	53%	63%	31%	31%	32%	31%	0.00%
200	35%	28%	91%	82%	52%	63%	31%	30%	32%	31%	0.00%	

Table 9: sal.neac.all

3.4 Catch options or alternative management advice



- No probabilities (0% or close to 0%) that the **MSW** will meet or exceed the SER simultaneously at country level for any TAC option

- No 2021-2024 catch options

Catch options season	TAC option (t)	Russia	Finland	Norway	Sweden	Iceland	UK (Scotland)	UK (N. Ireland)	Ireland	UK (England & Wales)	France	All MSW MUS simultaneous
2022/ 23	0	43%	41%	98%	95%	87%	78%	18%	22%	94%	64%	0.20%
	20	31%	34%	96%	93%	83%	74%	18%	21%	92%	63%	0.10%
	40	21%	28%	93%	91%	80%	71%	17%	21%	91%	62%	0.00%
	60	15%	24%	89%	89%	76%	67%	16%	20%	90%	60%	0.00%
	80	10%	20%	85%	87%	72%	64%	16%	20%	89%	59%	0.00%
	100	7%	17%	80%	84%	69%	60%	15%	19%	87%	58%	0.00%
	120	5%	15%	74%	82%	65%	57%	15%	19%	86%	57%	0.00%
	140	4%	13%	68%	80%	62%	53%	15%	18%	84%	55%	0.00%
	160	3%	11%	63%	78%	59%	50%	14%	18%	83%	54%	0.00%
	180	2%	10%	57%	76%	56%	47%	14%	18%	81%	53%	0.00%
200	1%	8%	52%	73%	53%	43%	13%	17%	80%	52%	0.00%	
2023/ 24	0	40%	36%	97%	95%	81%	70%	17%	22%	90%	49%	0.10%
	20	29%	30%	94%	94%	77%	66%	16%	22%	89%	48%	0.00%
	40	21%	25%	90%	92%	73%	63%	16%	21%	87%	47%	0.00%
	60	15%	21%	85%	90%	70%	59%	15%	21%	86%	46%	0.00%
	80	11%	18%	80%	89%	66%	56%	15%	20%	84%	45%	0.00%
	100	8%	16%	75%	87%	63%	52%	14%	20%	82%	43%	0.00%
	120	6%	14%	70%	85%	60%	49%	14%	19%	81%	42%	0.00%
	140	4%	12%	65%	84%	57%	46%	13%	19%	79%	41%	0.00%
	160	3%	11%	59%	82%	54%	43%	13%	19%	77%	40%	0.00%
	180	3%	10%	54%	81%	51%	40%	13%	18%	76%	39%	0.00%
200	2%	8%	49%	79%	48%	37%	13%	18%	74%	38%	0.00%	

Table 10: sal.neac.all