a) Northern shrimp in Subarea 0 and Subarea 1 Advice September 2025 for 2026

Recommendation for 2026

In line with Greenland's stated management objective of maintaining a mortality risk of no more than 35% (subject to a risk of biomass being below B_{lim} of less than 1%), Scientific Council advises that catches in 2026 should not exceed 75 000 t.

With regard to the Canadian harvest strategy, Scientific Council notes that catches of 75 000 t in 2026 would result in a 33%, 31% and 30% risk of exceeding Z_{msy} in 2026, 2027 and 2028, respectively, assuming catches and the stock biomass at the same level as in 2026.

Management Objectives

A management plan and management objectives have been defined by the Government of Greenland in 2018. The objective is to maintain a mortality risk of no more than 35% (subject to a risk of biomass being below B_{lim} of less than 1%). Canada has a harvest strategy with the objective to maintain the stock in the Healthy Zone (>80% of B_{msy}); when the biomass is above 80% of B_{msy}, the risk of being above Z_{msy} should not exceed 35%, based on the 3-year projections. General principles from the *Convention on Cooperation in the Northwest Atlantic Fisheries* are applied.

Objective	***Status***	***Comment/consideration***
Maintain risk of being above Z_{msy} not exceeding 35%	🔴	The projected catches for 2025 equates to a risk of being above Z_{msy} by the end of 2025 of 45%. Scientific Council noted that the mortality is higher than the risk level of 35%.
Maintain the stock in the Healthy Zone (>75% of B_{msy})	🟢	The stock is below B_{msy} in 2025
Maintain risk of biomass being below B_{lim} of less than 1%	🟢	The risk of biomass in 2025 being below B_{lim} is less than 1%

🟢 OK

🟡 Intermediate

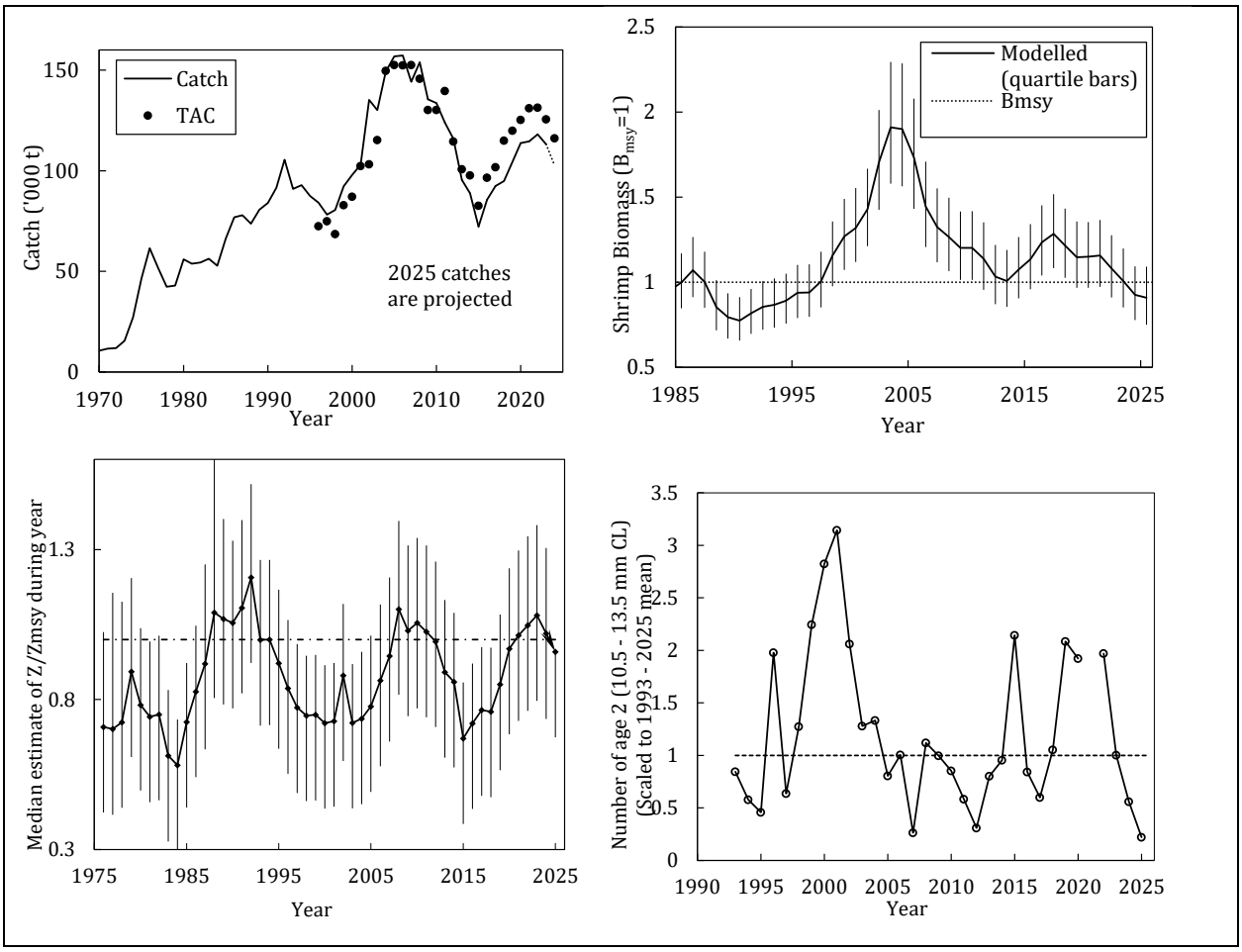
🔴 Not accomplished

Management unit

The stock is distributed throughout Subarea 1, extends into Div. 0A east of 60°30'W, and is assessed as a single stock. In 2024, more than 99% of the landings were from Greenland.

Stock status

At the end of 2025, we expect the stock to be in the Healthy Zone of the NAFO PA Framework. Biomass is below B_{msy} but above $B_{trigger}$. The probability of being below B_{lim} is very low (<1%). The probability of total mortality (Z) being above Z_{msy} is 45%. Recruitment (number of age-2 shrimp) in 2025 was below the time-series average.



Reference points

B_{lim} has been established as 30% of B_{msy}, $B_{trigger}$ is defined as 0.75 of B_{msy}, and Z_{msy} has been set as the mortality reference point. B_{msy} and Z_{msy} are estimated directly from the assessment model.

Projections

Predicted probabilities of transgressing reference points in 2026-2028 under eight catch options and subject to predation by a cod stock with an effective biomass of 14 Kt were estimated.

14 000 t cod	Catch option ('000 tons)							
Risk of:	**65**	**70**	**75**	**80**	**85**	**90**	**95**	**100**
falling below B_{msy} end 2026 (%)	58	59	60	61	61	62	62	62
falling below B_{msy} end 2027 (%)	54	55	57	58	58	59	60	62
falling below B_{msy} end 2028 (%)	50	52	53	55	55	58	59	61
falling below B_{msy} end 2026 (%)	0	0	0	0	0	0	0	0
falling below B_{lim} end 2027 (%)	0	0	0	0	0	0	0	0
falling below B_{lim} end 2028 (%)	0	0	0	0	0	0	1	0
exceeding Z_{msy} in 2026 (%)	21	26	33	38	44	49	54	59
exceeding Z_{msy} in 2027 (%)	19	25	31	37	42	48	53	58
exceeding Z_{msy} in 2028 (%)	18	24	30	36	41	47	52	57
falling below B_{msy} 80% end 2026 (%)	30	30	31	32	32	33	34	35
falling below B_{msy} 80% end 2027 (%)	28	30	30	30	32	33	34	36
falling below B_{msy} 80% end 2028 (%)	27	27	30	30	31	35	36	37
falling below $B_{trigger}$ end 2026 (%)	23	24	24	24	25	26	27	27
falling below $B_{trigger}$ end 2027 (%)	21	23	24	25	25	27	28	29
falling below $B_{trigger}$ end 2028 (%)	21	21	24	24	26	28	29	31

Assessment

A Schaefer surplus-production model was used for the assessment of this stock.

The next assessment is scheduled for 2026.

Human impact

Mortality related to the fishery has been documented. Other human sources (*e.g.*, pollution, shipping, oil-industry) are un-documented.

Biological and Environmental Interactions

There is no integrated summary information available on the structure, status and trends of the marine ecosystem for the area inhabited by this stock.
Atlantic cod is an important predator on shrimp and this assessment incorporates this interaction. Other predation is likely but not explicitly considered. Shrimp might be important predators on, for example, fish eggs and larvae.

Ecosystem sustainability of catches

Shrimp is included in the benthivore guild. There are currently neither Ecosystem Production Units (EPUs) defined nor Total Catch Index (TCI) estimated for the distribution area of this stock.

Fishery

Shrimp are caught in a directed trawl fishery. The fishery is regulated by TAC.

Recent catches and TACs ('000 t) have been as follows:

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
TAC										
SC Advised	90	90	105	105	110	115	115	110	95	80
Enacted GRL	82.8	87.9	99.9	103.4	108.3	113.7	113.8	109.1	101.7	82.3
*Greenland set aside to Canada	2.2	1.0	1.3	1.6	1.6	1.2	1.2	0.9	0.8	0.8
Enacted CAN	10.6	12.7	14.9	14.9	15.2	15.9	16.2	15.6	13.5	11.3
Enacted total	93.4	100.6	114.8	118.3	123.5	129.6	130.0	124.7	115.2	93.6
Catches (STACFIS)										
SA 1	84.4	89.4	93.2	102.0	113.1	114.3	118.1	113.0	99.8	83.0[1]
Division 0A	1.2	3.2	1.7	2.5	0.6	0.2	0.0	0.0	0.0[2]	2.0[1]
TOTAL	85.5	92.6	94.9	104.4	113.8	114.6	118.1	113.2	99.8	85.0[1]
STATLANT 21										
SA 1	82.9	88.9	90.5	98.2	110.1	107.4	117.8	110.2	97.2	-
Division 0A	2.8	1.4	1.3	0.2	0.2	0.0	0.0	-	-	-

[1] Projected total catch for the year.
[2] Total catch in Canadian Shrimp Fishing Area 1 in Division 0A was 1.214 tons in 2024.
* Not included in enacted total

Effects of the fishery on the ecosystem

Measures to reduce effects of the fishery on the ecosystem include area closures, moving rules and gear modifications to reduce damage to benthic communities and reduce bycatch.

Special comment

Scientific Council **recommends** that *the projection table should be given in projected catch increments of no less than 5 Kt due to uncertainty in calculating risk levels.*

STACFIS **recommends** *the continued development of reference points consistent with the NAFO PA Framework, notably* F_{msy}.

Source of Information

SCS Doc. 13/04, NAFO/COM-SC Doc. 24-03, SCR Docs. 20/053, 20/057, 22/045, 25/046, 25/052, 25/055.