

Gaspésie lobster trap spring fishery

Surveillance Report

Conformity Assessment Body (CAB)	Global Trust Certification
Assessment team	Lead Assessor, Géraldine Criquet Assessor, Jean-Claude Brêthes
Fishery client	Regroupement des Pêcheurs Professionnels du Sud de la Gaspésie (RPPSG)
Assessment Type	First Surveillance
Date	17 June 2022

1 Contents

1	Contents	2
1.1	List of Figures	3
1.2	List of Tables.....	3
2	Glossary	4
3	Executive summary	5
3.1	Summary of audit process.....	5
3.2	Summary of history of assessments.....	5
3.3	Summary of audit findings	6
3.4	Updated certification status.....	6
4	Report details	7
4.1	Surveillance information	7
4.2	Background	10
4.2.1	<i>Fishery updates</i>	10
4.2.1.1	<i>Lobster fishing opening and closing dates</i>	10
4.2.1.2	<i>Commercial licences</i>	10
4.2.2	<i>Management measures for the 2020 and 2021 fishing seasons</i>	10
4.2.3	<i>Principle 1 updates</i>	12
4.2.4	<i>Principle 2 updates</i>	14
4.2.4.1	<i>Primary and secondary species</i>	14
4.2.4.2	<i>ETP species</i>	15
4.2.4.2.1	<i>North Atlantic right whale (Eubalaena glacialis)</i>	15
4.2.4.3	<i>Habitats</i>	26
4.2.5	<i>Principle 3 updates</i>	26
4.2.5.1	<i>Changes in Science and Resource Management personnel</i>	26
4.2.5.2	<i>Indigenous relations framework</i>	26
4.2.5.3	<i>Update regarding the Integrated Fisheries Management Plan (IFMP)</i>	26
4.2.5.4	<i>Compliance and enforcement</i>	27
4.3	Changes to traceability.....	27
4.4	References.....	28
4.5	Version details.....	30
5	Results	31
5.1	Surveillance results overview.....	31
5.1.1	<i>Summary of conditions</i>	31
5.1.2	<i>Total Allowable Catch (TAC) and catch data</i>	31
5.2	Conditions and Recommendations	32
5.2.1	<i>Progress against conditions</i>	32
5.2.2	<i>Recommendations</i>	34
6	Appendices	36
6.1	Evaluation processes and techniques	36
6.1.1	<i>Site visit</i>	36
6.1.2	<i>Stakeholder participation</i>	36
6.2	Harmonised fishery assessments.....	40
6.3	Template information and copyright	42

1.1 List of Figures

Figure 1. Lobster landings in Gaspésie from 1945 to 2021. The green line represents the Upper Reference Point (USR). The red line represents the Lower Reference point (LRP). Drawn from DFO data.....	12
Figure 2. Lobster landings by fishing areas in Gaspésie. Drawn from DFO data.....	12
Figure 3. Lobster CPUEs in area 20, from 1986 to 2021.	13
Figure 4. Mean catch rates (\pm standard error) of lobster (all sizes) in the fishing areas 20. Source: RPPSG, 2022.	13
Figure 5. Mean catch rates of lobster by size categories. Red line: all sizes; COM (blue line): commercial size, available in 2023 PRE1 (green line): lobsters that will be available in 2024; PRE2 (light blue line): lobsters available in 2025. Source: RPPSG, 2022.	14
Figure 6. Spawning Stock Biomass (t) with horizontal lines indicating the reference point (SSBF40%; black), proposed USR (80%SSBF40%; green) and LRP (40%SSBF40%; red). Source: DFO 2021e.	14
Figure 7. Protecting the North Atlantic Right Whales. Canada’s fishing measures by year launched. Source: https://www.dfo-mpo.gc.ca/about-notre-sujet/publications/infographics-infographies/documents/narw-bnan-by-year-par-annee-eng.pdf	16
Figure 8. Fishing Area Closures to protect the NARW for 2022. Source: DFO 2022b.	19
Figure 9. Mandatory gear marking for LFAs 19, 20 and 21. Source: DFO 2020.	20
Figure 10. Ghost gears retrieved in LFA s 19, 20 and 21 for the 2020-2022 period.	21
Figure 11. Assessments of the North Atlantic right whale population 1990-2020. Annual assessments are shown by a point "estimate" along with error bars which represent 95% of the posterior probability. The model estimates the number of whale alive at the start of each year plus any new whales estimated to enter during that year. The estimate for 2020 was 336 +/- 14. Data from the North Atlantic Right Whale Catalog as of September 7, 2021. Source: Pettis <i>et al</i> 2021.	22
Figure 12. Annual North Atlantic right whale mortalities, 2012-2021, U.S. and Canada. Source: NOAA 2022.	23

1.2 List of Tables

Table 1. Summary of conditions.	6
Table 2. Surveillance announcement.	7
Table 3. 2020 and 2021 fishing seasons opening and closing dates. Source: DFO	10
Table 4. Number of commercial licences for the 2020 and 2021 fishing seasons. Source: DFO.	10
Table 5. Main management measures for the Gaspésie lobster trap spring fishery for the 2020-2022 period. Changes since the reassessment are identified in bold. Source: DFO 2021a & b.....	10
Table 6. Information on reported interactions (number of individuals) with ETP species for the 2019-2021 period. Source: DFO.15	15
Table 7. Newly reported entanglements (carrying gear) and updates to previously reported entanglements are in bold. Dead whales first sighted entangled at death are not included here. However, whales sighted alive as entangled and later dead are included. Source: Pettis <i>et al</i> 2021.	24
Table 8. Gaspésie lobster IFMP update timeline.	26
Table 9. Summary of surveillance and enforcement outcomes for LFAs 19-21 from 2019 to 2021. Source: DFO Gaspé Area Office	27
Table 10. MSC Scheme Documents and Report Templates used during this assessment.....	30
Table 11. Summary of conditions.	31
Table 12. Total Allowable Catch (TAC) and catch data.	31
Table 13. Lobster landings (t) for the Gaspésie lobster trap spring fishery per LFA for the 2020 and 2021 fishing season. Source: DFO.	31
Table 14. Condition 1.	32
Table 15. Updates on Recommendations made by the assessment team during the reassessment.....	34
Table 16. Remote surveillance audit schedule.	36
Table 17. Verbal submissions received from DFO.	37
Table 18. Verbal submissions received from the RPPSG during the client opening meeting.	38
Table 19. Verbal submissions received from the RPPSG during the client closing meeting.	38
Table 19. Overlapping fisheries.....	40
Table 20. Overlapping fisheries – Harmonisation activities.....	40
Table 21. Overlapping fisheries – Scoring differences.	40
Table 22. Overlapping fisheries – Rationale for scoring differences.....	41

2 Glossary

CHP	Conservation Harvest Plan
C&P	DFO Conservation and Protection
CPUE	Catch Per Unit Effort
DFO	Fisheries and Oceans Canada
ETP	Endangered, Threatened and Protected species
F	Fishing mortality
FSC	Food, Social and Ceremonial fishing
GSL	Gulf of St Lawrence
IFMP	Integrated Fisheries Management Plan
LFA	Lobster Fishing Area
LRP	Limit reference point
MMPA	U.S. Marine Mammal Protection Act
MPA	Marine protected area
MLS	Minimum landing size
MSC	Marine Stewardship Council
NAFO	Northwest Atlantic Fisheries Organisation
NARW	North Atlantic right whale
PCR	Public Certification Report
PI	Performance Indicator
RAP	Regional Advisory Process
RPPSG	Regroupement des Pêcheurs Professionnels du Sud de la Gaspésie
SARA	Species at Risk Act
SSB	Spawning stock biomass
UME	Unusual Mortality Event
UoA	Unit of Assessment
UoC	Unit of Certification
USR	Upper stock reference

3 Executive summary

This report contains the findings of the 1st MSC surveillance audit after reassessment in relation to the Regroupement des Pêcheurs Professionnels du Sud de la Gaspésie (RPPSG)'s certification of the Gaspésie lobster trap spring fishery. The objectives of the surveillance audit are:

1. To review any changes in the management of the fishery, including policies and regulations, personnel changes, scientific assessments of the target stock and associated bycatch species.
2. To evaluate the progress of the fishery against the Condition of Certification raised during the Reassessment.
3. To review any developments or changes within the fishery which impact traceability and the ability to segregate MSC fish products from non-MSC fish products.
4. To review any other significant changes in the fishery.

Global Trust Certification would like to thank the DFO personnel, the RPPSG and stakeholders for their collaboration and for providing the information and data necessary to carry out this audit.

3.1 Summary of audit process

The surveillance audit was announced on the 03 March 2022, at least 30 days before the surveillance audit activities in accordance with the MSC FCP v2.2 § 7.28.14.6. This surveillance audit was conducted off-site on the 04 and 05 April 2022, the surveillance programme was not changed from that previously indicated in the Public Certification Report. The audit team was as follows:

Surveillance Audit Team Leader : Dr. Géraldine Criquet, primarily responsible for Principle 2 and Traceability

Géraldine is an MSC approved Fisheries Team Leader - experienced fishery scientist in both Finfish and Shellfish fisheries, and ecosystems considerations, working for Global Trust as a full time employee since 9 years. Géraldine holds a PhD in Marine Ecology (École Pratique des Hautes Études, France) which focused on coral reef fisheries management, Marine Protected Areas, fish biology and ecology and fishing impacts on ecosystem. She worked 2 years for the Institut de Recherche pour le Développement (IRD) at Reunion Island for studying fish species growth and connectivity between fish populations in the Indian Ocean using otolith analysis. She served as Consultant for FAO on a Mediterranean Fisheries Program (COPEMED) and developed and implemented a catch monitoring program in the Marine Natural Reserve of Cerbère-Banyuls (France). Géraldine is an experienced full time MSC Lead Assessor with Global Trust, successfully leading MSC certifications and assessment teams and acting as Principle 2 expert for multiple MSC Pre, Full and Surveillance audits including for Canada Atlantic fisheries. Géraldine led the initial assessment, previous surveillance audits and the re-assessment of the Gaspésie lobster fishery.

Surveillance Audit Team Member: Pr. Jean-Claude Brêthes, Primary Responsibility for P1

Jean-Claude is a fisheries biology professional retired from the Institut des sciences de la mer at the Université du Québec at Rimouski. Previously he has held positions at Board, Chair and Director level for University undergraduate and post graduate fishery science/marine/oceanography courses, scientific advisory councils and committees for various government organizations such as the Canadian Atlantic Fisheries Advisory Council. His key experiences have been focused upon the dynamics and ecology and management of exploited species. In particular, Jean-Claude has conducted various projects on the ecology of snow crab, lobster and cod in locations in Atlantic Canada. He has published and presented several scientific papers in lobster fisheries in key journals and science fora and has also taken part in several MSC and related studies including lobster fisheries in this and other regions.

3.2 Summary of history of assessments

The fishery, initially named Gaspésie lobster trap fishery, was initially certified in March 2015. The full assessment was announced in April 2014 and was carried out using the MSC Certification Requirements v.1.3. The Risk-Based Framework was used to score PI 1.1.1 Stock status given that no biologically-based reference points were defined for the lobster stock. There were three conditions raised during the full assessment on PIs 2.1.1 Retained species outcome, 2.1.2 Retained species management and PI 3.2.1 Fishery-specific objectives. All conditions were closed at the 3rd surveillance audit.

The fishery qualified for a reduced re-assessment. The first re-assessment was announced in June 2019, and was conducted using the MSC FCP v2.1 and the MSC Fisheries Standard v2.01. The fishery was recertified in February 2021 with one condition raised on PI 2.3.1 Endangered Threatened and Protected (ETP) species outcome.

On the 21 September 2021, a stakeholder notification was issued to announce the change of the fishery name upon the request of the RPPSG. The fishery name was modified to the Gaspésie lobster trap spring fishery. There was no change to the definition of the Unit of Certification (UoC), this change was to highlight in the fishery name that the scope of the fishery certificate includes the commercial lobster fishing occurring during the spring season only.

3.3 Summary of audit findings

The audit team hasn't identified any factors that result in the fishery no longer being in compliance with the MSC Fisheries Standard.

The status of the condition is presented in Table 1. Table 11

Table 1. Summary of conditions.				
Condition number	PI	Original score	Status at 1st surveillance audit	Principle 2 score
1	2.3.1	75	Open – on target Not revised	85.3 – not revised

3.4 Updated certification status

Global Trust Certification determines that:

- **The Gaspésie lobster trap spring fishery continues to operate a well-managed and sustainable fishery and therefore, continued certification to the MSC Principles and Criteria for Sustainable Fishing is awarded.**

4 Report details

4.1 Surveillance information

Table 2. Surveillance announcement.

1	Fishery name	
	Gaspésie lobster trap spring fishery	
2	Unit(s) of Assessment (UoA)	
	UoA	Description
	Species	<i>Homarus americanus</i> , American lobster
	Stock	Gaspésie lobster stock
	Geographical area	FAO Fishing Area 21 Northwest Atlantic, NAFO Division 4T, Canada EEZ, Gaspé Peninsula, Lobster Fishing Areas (LFAs) 19, 20 and 21
	Harvest method/gear	Baited lobster trap
	Client group	Regroupement des Pêcheurs Professionnels du Sud de la Gaspésie (RPPSG)
	Other eligible fishers	There are no other eligible fishers. All commercial lobster harvesters entitled to fish lobster in LFAs 19, 20 and 21 during the spring season are members of the client group. In LFA 21, there is a Food, Social and Ceremonial (FSC) fishery which is conducted by Aboriginal groups for food, social and ceremonial purposes under the rights affirmed by the Supreme Court of Canada in the <i>Sparrow</i> decision (1990). Products from the FSC fishery are not for sale and therefore operators are not considered as other eligible fishers.
3	Date certified	Date of expiry
	03/05/2015	24/02/2026
4	Surveillance level and type	
	Surveillance level 4, off-site audit. The surveillance programme for this fishery has not changed from that previously indicated in the Public Certification Report (PCR).	
5	Surveillance number	
	1 st Surveillance	X
	2 nd Surveillance	
	3 rd Surveillance	
	4 th Surveillance	
	Other (expedited etc)	
6	Proposed team leader	
	<p>Dr. Géraldine Criquet, primarily responsible for Principle 2 and Traceability Géraldine meets Fishery Team Leader Qualification and Competency Criteria outlined in MSC FCP v.2.2, Annex PC, Table PC1. She has:</p> <ul style="list-style-type: none"> ▪ A degree in a relevant subject. ▪ 3 years' fisheries experience in the fisheries sector related to the tasks under her responsibility. ▪ Passed MSC's fishery team leader training at least every 5 years. ▪ Review any updates to the MSC Fisheries Program Documents at least annually. ▪ Passed new version of the compulsory online training modules when new versions of the MSC certification process are published prior to undertaking assessments against the revised MSC certification process. ▪ Passed the Lead Auditor ISO 19011 course. ▪ Had undertaken 2 MSC fishery assessments or surveillance site visits as a team member in the last 5 years. ▪ Has experience in applying different types of interviewing and facilitation techniques. 	

Table 2. Surveillance announcement.

	<p>Géraldine has a PhD in Marine Ecology and Biology. She updated her MSC’s Fishery Team Leader training completing the compulsory online training modules for version 2020. She passed the Lead Auditor ISO 19011 course. Géraldine led numerous MSC assessments and audits in the last 5 years and has participated in numerous site visits.</p> <p>In addition, Géraldine meets the Principle 2, Traceability and Current knowledge of the country, language and local fishery content components of the Fishery Team Qualification and Competency Criteria of Table PC3, she has:</p> <ul style="list-style-type: none"> ▪ 3 years’ experience in research into, policy analysis for, or management of, fisheries impacts on aquatic ecosystems. ▪ Passed MSC’s Traceability module. ▪ Knowledge of a common language spoken by clients and stakeholders. ▪ 2 assignments in the country or region in which the fishery under assessment is based in the last 10 years. <p>2</p> <p>Géraldine passed the MSC’s traceability online training for versions 2015, 2018 and 2020. She has extensive experience in studying fishing impacts on ecosystem in the North Atlantic, Indian Ocean, the Mediterranean and the Caribbean. Géraldine was involved in numerous MSC assessments and audits in Canada in the last 5 years and is fluent (mother tong) in French which is the common language used by the key stakeholders.</p> <p>Géraldine does not have any conflicts of interest in relation to the fishery and a short biography is provided in Appendix 1.</p>
7	Proposed team member
	<p>Pr. Jean-Claude Brêthes, primarily responsible for Principles 1</p> <p>Jean-Claude meets Fishery Team Member Qualification and Competency Criteria outlined in MSC FCP v.2.2, Annex PC, Table PC2.</p> <p>He has:</p> <ul style="list-style-type: none"> ▪ A degree in a relevant subject. ▪ Passed MSC’s fishery team member training within the last 5 years. ▪ Reviewed any updates to the MSC Fisheries Program Documents at least annually. ▪ Passed new version of the compulsory online training modules when new versions of the MSC Fisheries Standard are published prior to undertaking assessments against the new MSC Fisheries Standard. ▪ Passed new online training modules on modifications to the MSC Fisheries Standard before undertaking assessments using these modifications such as enhanced bivalves, salmon, and other modifications that may be developed in the future. <p>Jean-Claude has a PhD in Marine Biology. He completed MSC’s Fishery Team Member training for Standard v.1.3 and v.2.0 and reviewed the version 2020 of the MSC Fisheries Program Documents.</p> <p>.</p> <p>In addition, Jean-Claude meets the Principles 1 and Current knowledge of the country, language and local fishery content components of the Fishery Team Qualification and Competency Criteria of Table PC3, he has:</p> <ul style="list-style-type: none"> ▪ 3 years’ or more experience of applying relevant stock assessment techniques being used by the fishery under assessment. ▪ 3 years’ or more experience working with the biology and population dynamics of the target or species with similar biology. ▪ Knowledge of a common language spoken by clients and stakeholders. ▪ 2 assignments in the country or region in which the fishery under assessment is based in the last 10 years. <p>Jean-Claude has over 20 years’ experience in a large range of stock assessment techniques, research career which focused primarily on fishery and crustacean population biology and ecology in Canada Atlantic. Career included heavy involvement in the review and formulation of scientific advice for management of resources in Atlantic Canada. Jean-Claude is fluent in French (mother tong) which is the common language spoken by the client and stakeholders. He was involved in numerous MSC fisheries assessments and audits in Canada in the last 5 years.</p> <p>Jean-Claude does not have any conflicts of interest in relation to the fishery; and a short biography is provided in Appendix 1.</p>
8	Audit/review time and location

Table 2. Surveillance announcement.

	The surveillance audit will be held on 4 th and 5 th April 2022 from a remote location (assessor’s office).
9	Assessment and review activities
	<p>The objectives of this surveillance audit are :</p> <ol style="list-style-type: none"> 1. To review any changes in the management of the fishery, including regulations, key management or scientific staff or stock evaluation. 2. To evaluate the progress of the fishery against any Conditions of Certification raised during the Main Assessment and the previous surveillance audit. 3. To review any developments or changes within the fishery which impact traceability and the ability to segregate MSC from non-MSC products. 4. To review any other significant changes in the fishery.
10	Stakeholder opportunities
	<p>As part of this surveillance audit, the following stakeholder opportunities are available:</p> <ul style="list-style-type: none"> ▪ Stakeholders may submit written input using the ‘MSC Template for Stakeholder Input into Fishery Assessments’ which is available here: https://www.msc.org/what-you-can-do/engage-with-a-fishery-assessment. ▪ Stakeholders may consult directly with the audit team during the period specified in the 8. Audit/review time and location above. <p>Further information on Stakeholder input opportunities is provided in the Surveillance Announcement which is available on the MSC webpage for this fishery.</p>

4.2 Background

4.2.1 Fishery updates

4.2.1.1 Lobster fishing opening and closing dates

The fishing season is about 10 weeks and runs from beginning of May to beginning of July (Table 3). It is a maximum of 71 days for LFA 19 and a maximum of 69 days for the LFAs 20 and 21.

Table 3. 2020 and 2021 fishing seasons opening and closing dates. Source: DFO

Sub-area	2020 Opening and closing dates	2021 Opening and closing dates
19A2	2020-05-09 - 2020-07-18	2021-05-08 - 2021-07-17
19A3	2020-05-09 - 2020-07-18	2021-05-03 - 2021-07-12
19B	2020-05-09 - 2020-07-18	2021-04-28 - 2021-07-07
19C1	2020-05-09 - 2020-07-18	2021-05-08 - 2021-07-17
19C2	2020-05-09 - 2020-07-18	2021-05-02 - 2021-07-11
20A1	2020-05-09 - 2020-07-02*	2021-05-05 - 2021-07-12
20A2-20B8	2020-05-09 - 2020-07-02*	2021-04-24 - 2021-07-01
21A	2020-05-09 - 2020-07-16	2021-05-04 - 2021-07-11
21B	2020-05-09 - 2020-07-16	2021-05-05 - 2021-07-12

* Subareas for which fishing season opening was delayed due to the covid-19 and closing dates have not been pushed back. Consequently, the fishing season was shorter.

4.2.1.2 Commercial licences

Table 4. Number of commercial licences for the 2020 and 2021 fishing seasons. Source: DFO.

LFA	2020	2021
19	8	8
20	138	134
21 (commercial fishery)	13	13
TOTAL	159	155

Six licences have been removed for the LFA 20 due to the permanent merging of licences and through the RPPSG's buy-back program.

4.2.2 Management measures for the 2020 and 2021 fishing seasons

Some changes were implemented since the reassessment of the fishery (Table 5), as follows:

- The minimum landing size is now 83 mm for all LFAs.
- The maximum landing size is now 145 mm for all LFAs.
- The height of the rectangular escapement vent was increased from 46 mm to 47 mm.

Table 5. Main management measures for the Gaspésie lobster trap spring fishery for the 2020-2022 period. Changes since the reassessment are identified in **bold**. Source: DFO 2021a & b.

Lobster Fishing Area (LFA)	19	20	21
Lobster maximum and minimum landing sizes (MLS, mm)	Min : 83 mm	Min : 82,55 mm (2019-2020) Min : 83 mm (from 2021)	Min: 82,55 mm (2019-2020) Min : 83 mm (from 2021)
	Max: 150 mm (2019) Max : 145 mm (from 2020)	Max: 145 mm	Max: 150 mm (2019) Max : 145 mm (from 2020)
Maximum number of traps	250	235 435 (permanent licences merging done before December 1, 2018)	235 335 (permanent licences merging licences)

Table 5. Main management measures for the Gaspésie lobster trap spring fishery for the 2020-2022 period. Changes since the reassessment are identified in **bold**. Source: DFO 2021a & b.

Lobster Fishing Area (LFA)	19	20	21
		335 (permanent licences merging from December 1, 2018) 435 (temporary licences merging)	
Size of traps	92 cm length 61 cm width 50 cm height	<u>Wire traps</u> 92 cm length 54 cm width 39 cm height <u>Wood traps (or hybrid wood/other materials)</u> 92 cm length 61 cm width 46 cm height	<u>Wire traps</u> 92 cm length 54 cm width 39 cm height <u>Wood traps (or hybrid wood/other materials)</u> 92 cm length 61 cm width 46 cm height
Escape vents	<p><u>Circular Vents</u> Two unobstructed circular openings of a diameter no less than 65 mm, the top of the openings is at most 102 mm from the floor of the trap in at least one of the outer walls of each parlour.</p> <p><u>Rectangular Vents</u> Up to 2021: One unobstructed rectangular opening no less than 127 mm in length and 46 mm in height in at least one of the outer walls of each parlour, the top of the opening is at most 102 mm from the floor of the trap.</p> <p>From 2022: One unobstructed rectangular opening no less than 127 mm in length and 47 mm in height in at least one of the outer walls of each parlour, the top of the opening is at most 102 mm from the floor of the trap.</p>		
Trap lines		When fishing is carried out using lines of traps in sub-areas 20AB and 21A, they must count at least (minimum) 6 traps. The maximum distance authorised between each trap of a same trawl is 12 fathoms.	
Device against seals	The only authorized device to prevent seals to access the content of traps is a simple horizontal bar made of wood or wire located at the entry of the trap, of which the height is not more than 40 mm, fixed in a manner that the space located between this bar and the top of the runner is at a minimum of 165 mm.		
Other management measures	<ul style="list-style-type: none"> • Release of V-notched females is mandatory. • It is prohibited to haul the traps on the opening day. • It is prohibited to haul and bait the traps more than once a day. • It is the responsibility of fishermen to haul their trap at least every 72 hours. • Tagging of all traps is mandatory. • Floating cables are not allowed. • Management measures to minimise the risk of interactions with the North Atlantic right whale are presented in section 4.2.4.2. 		

4.2.3 Principle 1 updates

The Gaspésie lobster stock was assessed in March 12th 14th, 2019 (DFO, 2019). A new assessment was scheduled for 2022 but was postponed until 2023. After the size visit, DFO provided landings and CPUEs. The RPPSG provided the data of the post season surveys from 2011 to 2021.

In 2021 (provisory data), landings reached an historical high at 3,881 metric tons. They show a constant increasing trend since 2005 (Figure 1). The 2021 landings represent almost six times the Upper Reference Point (USR, 650 t), which means that the stock remains in the healthy zone, according to the precautionary approach.

The increase in landings is observed for all fishing areas (Figure 2).

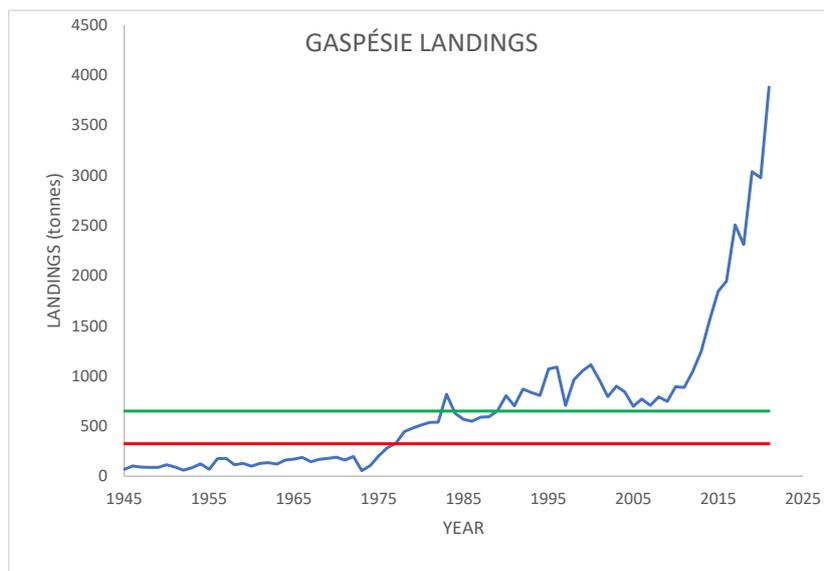


Figure 1. Lobster landings in Gaspésie from 1945 to 2021. The green line represents the Upper Reference Point (USR). The red line represents the Lower Reference point (LRP). Drawn from DFO data.

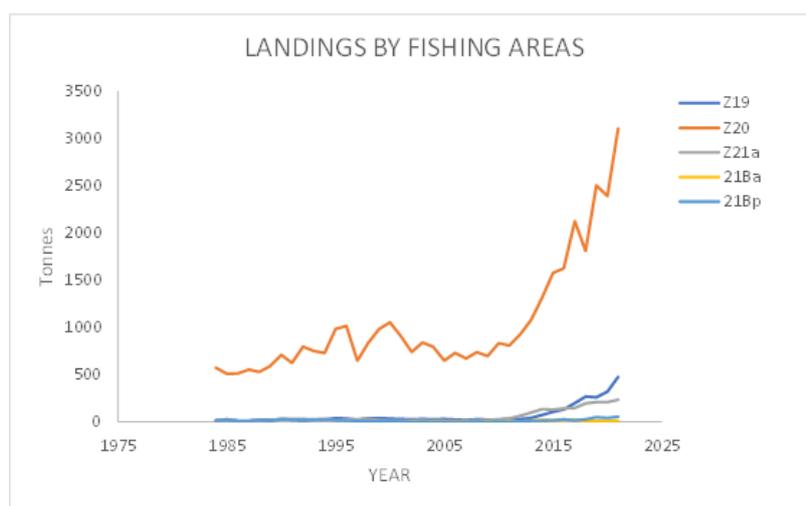


Figure 2. Lobster landings by fishing areas in Gaspésie. Drawn from DFO data.

For the LFA 20, CPUEs in weight and in number, also show a constant increasing trend since 2005, reaching an historical high in 2021, at 1.36 kg/trap and 2.27 ind./trap (Figure 3).

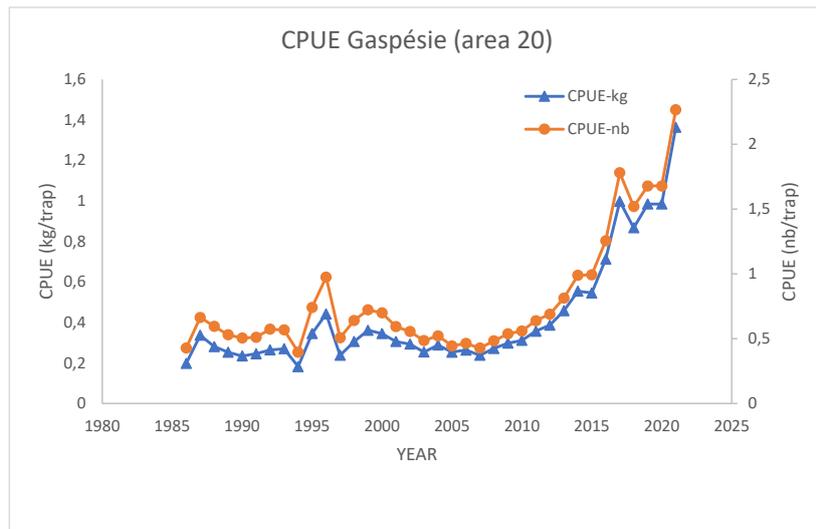


Figure 3. Lobster CPUEs in area 20, from 1986 to 2021.

CPUEs data for area 19 exist only for some years. CPUEs increased from 1.36 kg/trap in 2019 to 3.17 kg/trap in 2021, compared to 0.42 kg/trap in 2011.

Catch rates of the post-season survey show a recent positive trend (Figure 4).

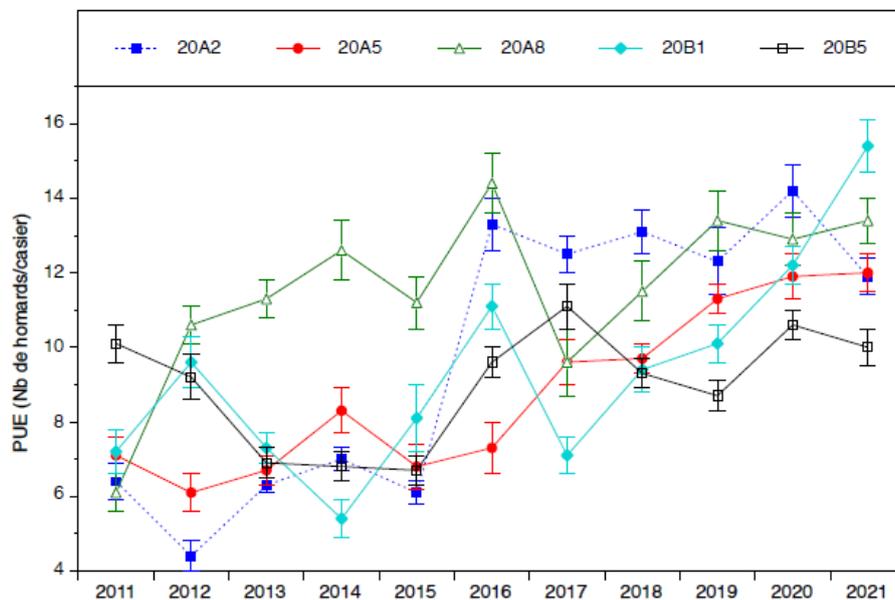


Figure 4. Mean catch rates (\pm standard error) of lobster (all sizes) in the fishing areas 20. Source: RPPSG, 2022.

That survey also indicates a positive forecast for the future years (Figure 4). Abundance of commercial sizes, that will be fishable in 2023, and the prerecruits 1 and 2, that will be available respectively in 2024 and 2025 are increasing. The status of prerecruits 2, available in 2026 remains uncertain.

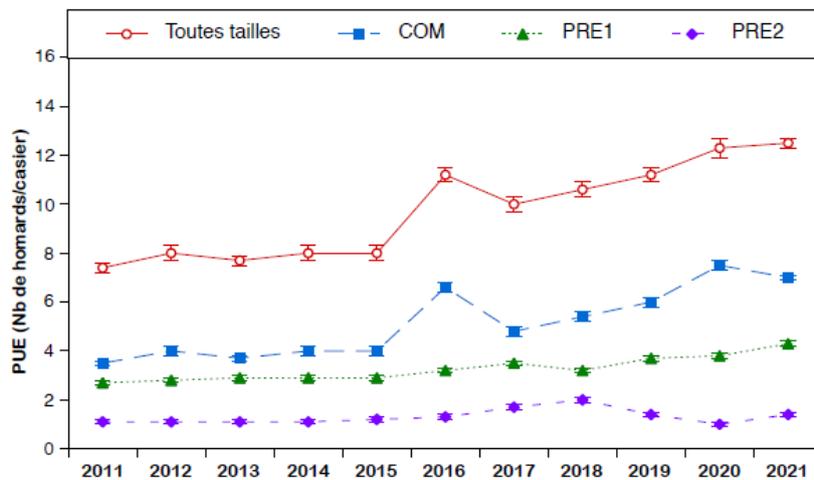


Figure 5. Mean catch rates of lobster by size categories. Red line: all sizes; COM (blue line): commercial size, available in 2023 PRE1 (green line): lobsters that will be available in 2024; PRE2 (light blue line): lobsters available in 2025. Source: RPPSG, 2022.

In conclusion, the Gaspésie lobster stock remains healthy and no concern arises for the near future.

4.2.4 Principle 2 updates

4.2.4.1 Primary and secondary species

There are no significant changes in the catch composition and the use of bait.

Main primary species are species used as bait, and no minor primary species were identified. The Atlantic mackerel (*Scomber scombrus*, northern spawning contingent of the Northwest Atlantic mackerel stock) remains the species the most used as bait (RPPSG 2022) representing approximately 20% of the total catches. The stock assessment report published in 2021 (DFO 2021e) concluded that the “*Spawning Stock Biomass (SSB) of the northern contingent of Atlantic mackerel was at the lowest value estimated and was at 58% of the Limit Reference Point (LRP) in 2020. The stock has been near or below the LRP for the past decade according to the Precautionary Approach.*” (Figure 6).

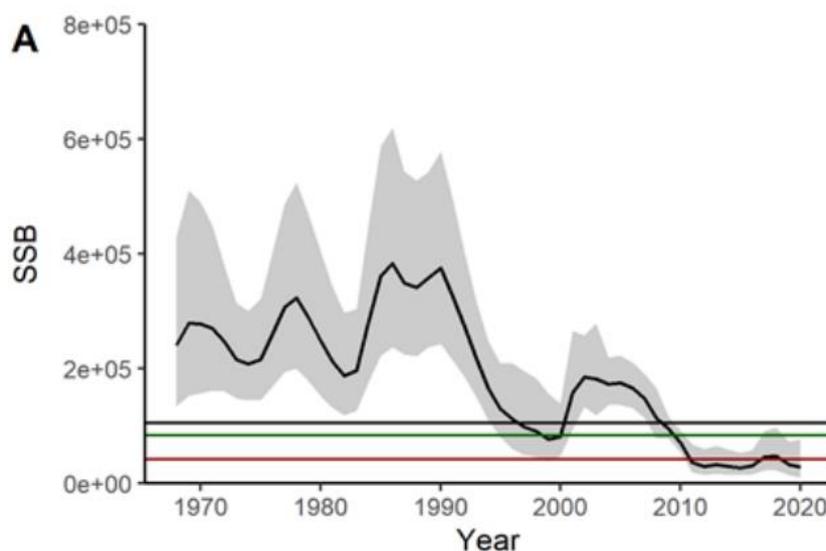


Figure 6. Spawning Stock Biomass (t) with horizontal lines indicating the reference point (SSBF40%; black), proposed USR (80%SSBF40%; green) and LRP (40%SSBF40%; red). Source: DFO 2021e.

There is partial strategy in place that is expected to not hinder the recovery of the northern spawning contingent of the Northwest Atlantic mackerel. Lobster fishing is limited in time, there is a trap allocation, fishing effort was reduced

though a reduction in the number of licences and traps per licence from 1998 to 2005 and after 2009, it is prohibited to haul and bait traps more than once a day. Regarding the Atlantic mackerel, the amount of mackerel used as bait decreased over time. Information recorded in the logbooks shows that 664 kg and 740 kg of mackerel were used in 2017 and 2020, respectively whereas 823 kg and 775 kg were used in 2016 and 2015, respectively. However, the amount of mackerel used increased in 2021 with 833 kg used. It is important to mention that the ratio amount of bait used/lobster catches has decreased over the time. 2020 and 2019 ratio is 0.428 and 0.376, respectively and is slightly below the 2019 ratio.

According to the Precautionary Approach for the mackerel stock, removals from all sources should be as low as possible to allow rebuilding. In March 2022, DFO announced the Minister’s decision to close Atlantic mackerel commercial and bait fisheries in all areas of the Atlantic Canada and Quebec (DFO 2022a).

Based on the above, the fishery remains in compliance with the requirements of Pls 2.1.1 and 2.1.2.

The data on non-target catch reported in logbooks provided by the RPPSG show that the non-target catch remains low with no species making more than 1% of the total catches. The catch profile remains similar with rock crab, sea urchin, sculpin, common whelk, cunner, toad crab, ocean pout, lumpfish, Atlantic eel, Atlantic spiny lumpsucker and Greenland cod being the main non-target species caught.

However, the audit team noted that catch of spiny dogfish, squid, Atlantic halibut and Atlantic salmon were reported in 2021 for the first time. It raised the question of the reliability of the catch data reported in the logbook as these species are unlikely to enter into a lobster trap. Catch composition will be further analysed during the 2nd surveillance audit to determine whether it is an isolated case of species misidentification or/and an oversight while selecting the species in the log drop down menu.

4.2.4.2 ETP species

The audit team was provided with data on reported interactions with ETP species for the 2019-2021 period (Table 6). It is similar to the reported interactions for the 2016-2018 period presented in the PCR with fish being the only ETP species reported to interact with the fishery. Wolffish and striped bass are released, and post-release survival is considered to be high (refer to section 8.3.1.2 in the PCR related to the bycatch program research conducted by DFO Gulf).

However, 11 seals were reported to be caught in 2021, all in Area 20A. Given that it is implausible that a seal gets caught into the trap or entangled in the vertical ropes, it was discussed during the remote meetings with DFO personnel and the RPPSG. There was a consensus amongst participants that the lobster harvester(s) likely reported seal sightings rather than interactions as defined in the Marine Mammal Interaction Form.

Table 6. Information on reported interactions (number of individuals) with ETP species for the 2019-2021 period. Source: DFO.

Species		SARA status	2019	2020	2021
Fish	Atlantic wolffish, <i>Anarhichas lupus</i>	Special concern	7	3	19
	Spotted wolffish, <i>Anarhichas minor</i>	Threatened	0	0	16
	Striped bass, <i>Morone saxatilis</i> St. Lawrence river population	Endangered	85	72	489
Marine mammal	Seal (non-specified)	Unknown	0	0	11

4.2.4.2.1 North Atlantic right whale (*Eubalaena glacialis*)

Management measures to minimise the risks of interaction with the North Atlantic right whale (NARW)

Following the 2017 unusual entanglements and mortalities event in the Gulf of St Lawrence, management measures to minimise the risks of interactions with the NARW have been implemented and refined year-over-year. Figure 7 illustrates the management measures implemented since 2018 by year launched.



Figure 7. Protecting the North Atlantic Right Whales. Canada’s fishing measures by year launched. Source: <https://www.dfo-mpo.gc.ca/about-notre-sujet/publications/infographics-infographies/documents/narw-bnan-by-year-par-annee-eng.pdf>

Whale Safe Gear Fund (WSGF)¹

DFO undertakes a variety of activities to reduce harm to large whales from entanglements in fishing gear, under the following three approaches:

1. Entanglement Prevention – removing and reducing fishing gear and rope in areas of whale presence or aggregation. Long-standing management practices, such as fishing season and trap limits, seasonal and temporary closures based on right whale presence, and removal of ghost gear from the ocean, help prevent whale interaction with fishing gear.
2. Entanglement Alleviation – reducing the severity and duration of the entanglements that occur despite measures to prevent entanglement. Incorporating whalesafe gear, including low breaking-strength, or ‘weak’, components designed to part when a whale becomes entangled in fishing gear.
3. Entanglement Response – assisting large whales in distress, in collaboration with trained expert responders and incident response networks under the umbrella of the Marine Mammal Response Program.

In February 2020, the Minister of Fisheries and Oceans and the Canadian Coast Guard announced new requirements for non-tended, fixed gear fisheries in Atlantic Canada and Quebec to adopt gear modifications to alleviate entanglements by the end of 2022. DFO’s Whalesafe Gear Adoption Fund (WSGF) is a new way to support this commitment to reducing harm and risk of harm to whales from commercial fishing activities. The fund consists of \$20M in contribution agreement funding over two years (2021-2023) to support projects that advance the adoption of methods to prevent and alleviate whale entanglement. Also, the US Marine Mammal Protection Act (MMPA) requires all fisheries exporting to the US to meet US Legislative standards related to marine mammal bycatch beginning in 2023, hence there is added pressure to meet this fish product export requirement. This initiative supports adoption of existing whalesafe gear, devices and systems in commercial fisheries, as well as trials and validation of such gear, devices and systems, under the operational conditions of fixed-gear fisheries in Atlantic Canada and Quebec, with the objective of bringing them to operational use by 2023 fishing seasons.

Whalesafe gear includes but is not limited to the following:

- Low breaking-strength or ‘weak’ rope, and/or various links that can be incorporated, to result in 1,700 lb or lower breaking strength;
- Equipment that permits hauling of buoy lines that incorporate low breaking strength rope and/or other weak components (e.g., hydraulic set limiter);
- Ropeless or rope-on-demand systems; and,
- Gear location marking systems supporting the operationalization of ‘ropeless’ fishing and the interoperability of different systems.

The following groups are eligible to apply to the Whalesafe Gear Adoption Fund: Canadian not-for-profit and charitable organizations; Canadian companies, businesses, organizations, associations; Indigenous organizations/communities; Recognized research, academic, and educational institutions. Industry feedback indicated concern about an increase in ghost gear due to weak breaking points and/or weak rope requirements.

In Gaspésie, the RPPSG initiated two projects on gear modifications testing:

1. Project aiming at the development of a solution to reduce the length of the line between surface buoys and traps. Testing occurred during the summer 2021.
2. Project aiming to test different weak breaking points. Testing occurred in 2021.

In addition, the RPPSG implemented since 2019 other projects in relation with the protection of the NARW:

1. *Analyse des mesures de gestion pour la protection de la baleine noire et de leur pertinence pour la pêche au homard en Gaspésie (2019-2020).*
2. *Projet Baleines et pêcheurs en Gaspésie: vers une coexistence sur le territoire maritime (2019- 2021).*

¹ DFO. 2022. Whalesafe Gear Adoption Fund page <https://www.dfo-mpo.gc.ca/species-especes/mammals-mammiferes/whales-baleines/gear-equipement/index-eng.html>

3. *Projet Baleines et pêcheurs en Gaspésie: vers une coexistence sur le territoire maritime – 2021 et après.*

Management measures for the 2022 fishing season (DFO 2022b)

Temporary and season-long fishing area closure (Figure 8)

- In areas subject to our closure protocols (the dynamic zone), if a right whale is visually or acoustically detected, a defined area around the position of the detection (approximately 2000 km²) will be closed to non-tended fixed gear fisheries, including lobster and crab, for 15 days.
- If a right whale is visually or acoustically detected again in the closed area during days 9-15, a closure extension is triggered.
 - In the Bay of Fundy and Critical Habitats in the Roseway and Grand Manan basins, if a whale is detected again during days 9-15, a temporary closure of an additional 15 days will be applied.
 - In the Gulf of St. Lawrence (including around Anticosti Island, the Cabot Strait, as well as the Strait of Belle-Isle), if a whale is detected again in a closed area during days 9-15, a season-long closure will be implemented; the area will remain closed until November 15, 2022.
- If a whale is not detected again in a closed area during days 9-15, the area will re-open to fishing after day 15.
- Two flights with no right whale detections are required before an area can re-open to fishing. If flights are unable to go out during days 9-15 (e.g. due to poor weather conditions), the area will remain closed until two flights can safely take place to indicate whether whales are likely no longer in the area.
- Outside the dynamic zone, closures will be considered on a case-by-case basis, with special consideration for sightings of 3 or more whales or a mother and calf pair.

Fishing Area Closures to Protect North Atlantic Right Whales

When a right whale is detected in the Gulf of St. Lawrence, Bay of Fundy and Roseway Basin, an area around it (approximately 2000 km²) will close for 15 days.

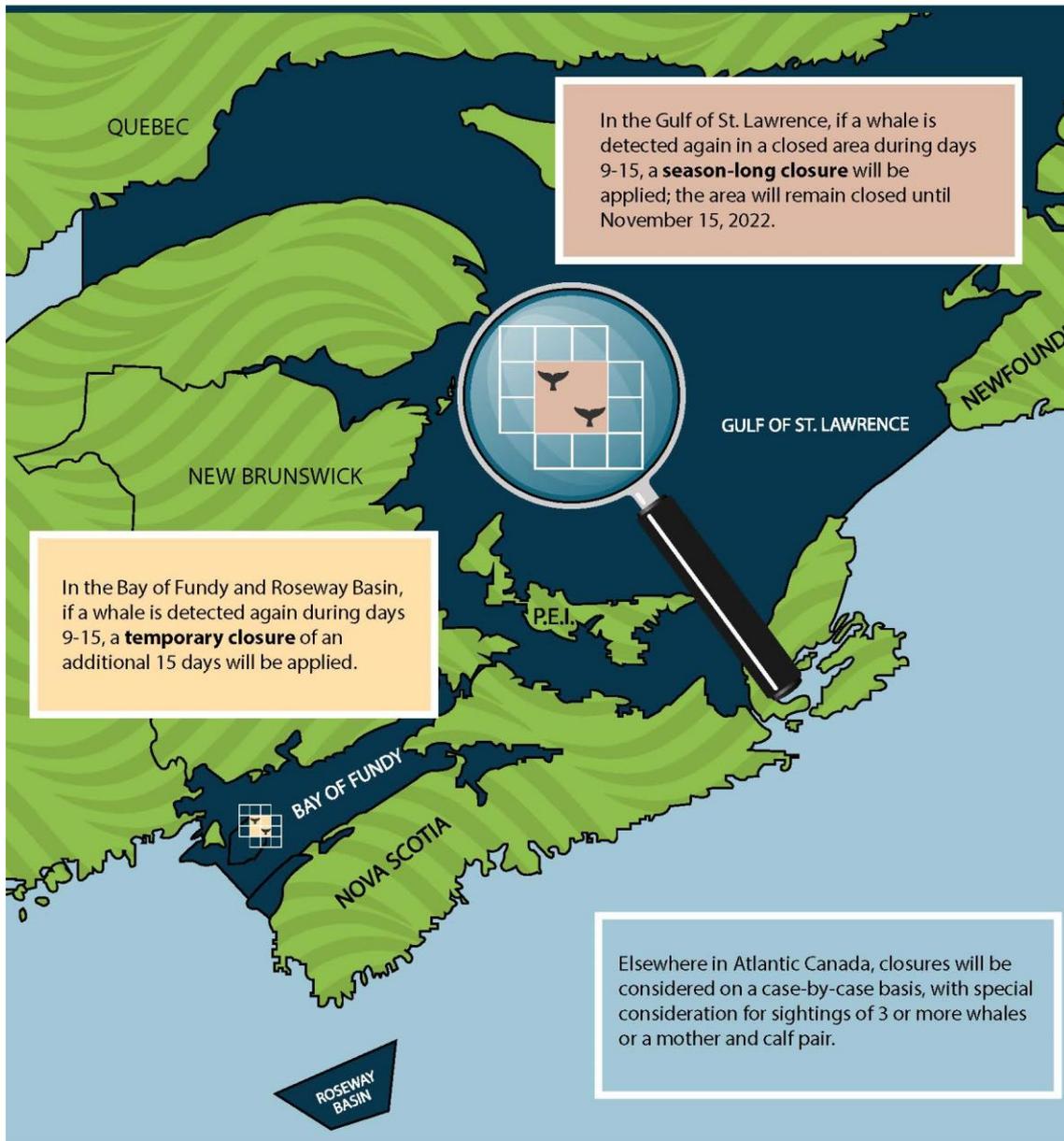


Figure 8. Fishing Area Closures to protect the NARW for 2022. Source: DFO 2022b.

Provisions for the water shallower than 20 fathoms

- Non-tended fixed gear fisheries, including snow crab, rock crab, and lobster, conducted in waters less than 20 fathoms in depth will be subject to temporary closures only if a right whale is observed in those waters.

- If one or more right whales are seen in waters between 10 and 20 fathoms in depth, a temporary closure would be put in place between 10 and 20 fathoms. Harvesters would then be required to move gear close to shore but would be allowed to continue to fish in the areas less than 10 fathoms deep.

- If one or more right whales are seen in waters less than 10 fathoms deep, a temporary closure would apply to the defined area around the sighting, regardless of depth, and would effectively close the area to the shoreline.

Effective tracking of fishing gear

- Gear marking is required for all non-tended fixed gear fisheries in Atlantic Canada and Quebec, including lobster and crab. The gear marking requirements identify region, fishery, and, for lobster and crab fisheries only, the specific fishing area. Gear marking requirements for Gaspésie lobster fishery is displayed in Figure 9.

19		20A		20B		21	
green	brown	green	white	green	grey	green	orange
yellow		yellow		yellow		yellow	

Figure 9. Mandatory gear marking for LFAs 19, 20 and 21. Source: DFO 2020.

Mandatory reporting for lost gear

- Licence holders in all commercial fisheries are required to report lost gear.

Mandatory of interactions between vessels or fishing gear and marine mammal

- Any accidental contact between a marine mammal and a vessel or fishing gear must be reported.

Mandatory Whalesafe gear

- Fisheries and Oceans Canada is working with harvesters, fishery by fishery, to implement whalesafe gear (i.e. low breaking-strength rope or links) by 2023.
- Industry trials of “whale safe” gear technologies that minimize or eliminate the risk of entanglement to whales are being supported.
- Ropeless/rope-on-demand gear trials are being authorized in closed areas.

Continued monitoring and reporting

- Detecting right whales visually and acoustically by aircraft and at-sea surveillance, and acoustically with hydrophones (underwater microphones) capable of near real-time detection on stationary buoys and mobile underwater gliders.
- Working together with multiple agencies to detect right whales, share data, and monitor active fishing areas, including closed fishing areas.
- Continuing research activities to better understand right whale behaviour, movement in Canadian waters, and how they are affected by environmental stressors.

Retrieving ghost gear from the Gulf of St. Lawrence and Bay of Fundy

- Ghost gear retrieval activities are taking place in areas of known gear-loss, and in areas where right whales are known to frequent.
- As of December 2021, 3,891 units of derelict fishing gear was retrieved from Canada’s east coast.

The Ghost Gear Fund implemented in 2020 resulting in the retrieval of approximately 150 ghost gears in LFAs 19, 20 and 21 (Figure 10).

GHOST GEAR RETRIEVED 2020-2022 - LOBSTER FISHING AREAS 19-21
 ÉNGINS FANTÔMES RÉCUPÉRÉS 2020-2022 - ZONES DE PÊCHES 19-21

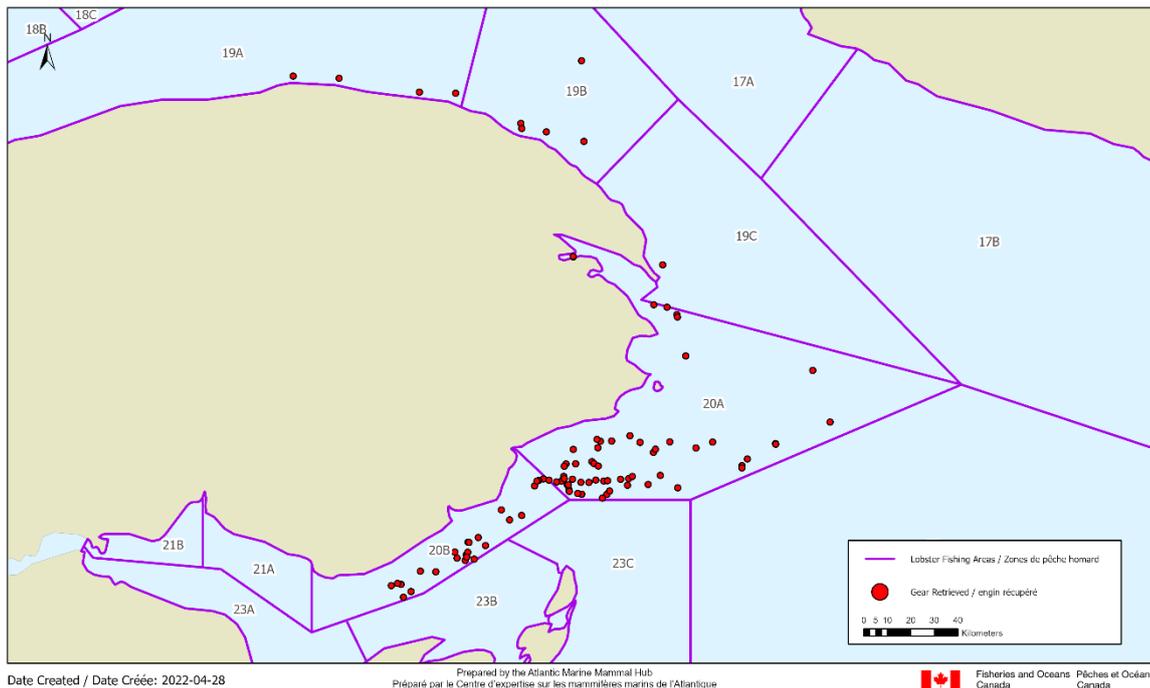


Figure 10. Ghost gears retrieved in LFA s 19, 20 and 21 for the 2020-2022 period.

Marine Mammal response

- Fisheries and Oceans Canada continues to support the Marine Mammal Response Program, which aims to assist marine mammals and sea turtles in distress, including right whales.
- In collaboration with conservation groups and non-governmental organizations, the Department supports marine mammal incident response networks in all regions.

Engagement with stakeholders

- Our adaptive management measures, which incorporate the best available science, were developed through close collaboration between our department, the fishing industry, and leading right whale scientists to achieve the goal of right whale protection and recovery.
- A technical working group of harvesters, right whale experts, and departmental officials meets regularly throughout the year to discuss management issues in related to right whales in Canadian waters.
- An annual North Atlantic right whale advisory meeting with stakeholders takes place each November.

NARW population status

The Pace et al. (2017) estimate for 2020 is 336 whales (95% confidence range +/- 14) using data as of September 7, 2021; this estimate represents an 8% decline over the 2019 estimate (Pettis et al 2021, Figure 11).

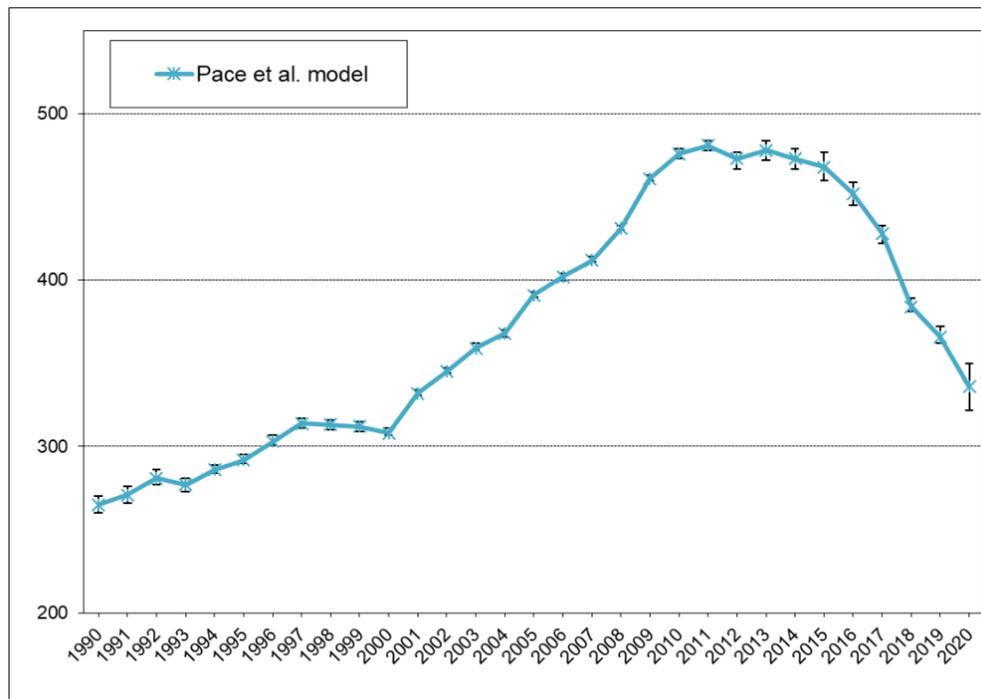


Figure 11. Assessments of the North Atlantic right whale population 1990-2020. Annual assessments are shown by a point "estimate" along with error bars which represent 95% of the posterior probability. The model estimates the number of whale alive at the start of each year plus any new whales estimated to enter during that year. The estimate for 2020 was 336 +/- 14. Data from the North Atlantic Right Whale Catalog as of September 7, 2021. Source: Pettis *et al* 2021.

NARW mortalities and entanglements

Since 2017, elevated numbers of dead or seriously injured NARW have been documented, necessitating an Unusual Mortality Event declaration and investigation. Beginning in 2017, elevated mortalities in North Atlantic right whales have been documented, primarily in Canada but some in the United States, and were collectively declared an Unusual Mortality Event (UME).

Following the 2017 unusual mortalities event in the Gulf of St Lawrence, there were no recorded mortalities in 2018, nine dead whales recorded in 2019 and no mortalities recorded in 2020 and 2021 in Canada (Figure 12). To date in 2022, no mortalities have been documented.

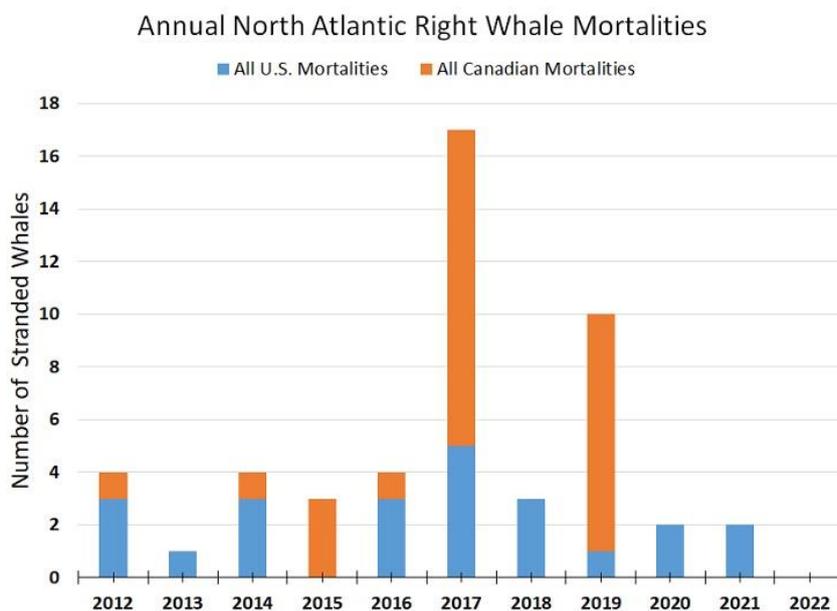


Figure 12. Annual North Atlantic right whale mortalities, 2012-2021, U.S. and Canada. Source: NOAA 2022.

The current total confirmed mortalities for the UME are 34 dead stranded whales (21 in Canada; 13 in the United States), and the leading category for the cause of death for this UME is “human interaction,” specifically from entanglements or vessel strikes. Additionally, since 2017, 16 live free-swimming non-stranded whales have been documented with serious injuries from entanglements or vessel strikes (as part of the US Serious Injury (SI) designation, not in place in Canada).

The US Marine Mammal Protection Act (MMPA) requires NOAA Fisheries to distinguish between injuries to marine mammals that are serious and those that are non-serious. Serious injury determination is a detailed assessment process that uses data, such as body condition and parameters of the human-caused injury, collected from living whales to determine an individual whale’s prognosis for survival. A serious injury designation indicates a whale is likely to die from those injuries with a >50% likelihood of mortality (although it was alive at its last sighting). More recent serious injury determinations (e.g., 2020 and 2021) are preliminary and subject to change as NARW UME has been updated to 50 individuals to include both the confirmed mortalities (dead stranded or floaters) (n=34) and seriously injured free-swimming whales (n=16). This number better reflects the confirmed number of whales likely removed from the population during the UME and more accurately reflects the population impacts.

None of the Serious Injury determinations made by NOAA were caused by or could be assigned to the Gaspésie lobster trap spring fishery.

There were five active entanglement/entrapment cases reported between 01 January 2021 – 31 December 2021, of which three were new (Table 7). Of the three newly entangled whales (with attached gear) detected in 2021, two were in U.S. waters and one in Canadian waters. After multiple disentanglement efforts in Cape Cod Bay and the Gulf of St. Lawrence, one of these whales was resighted, still entangled, in the southeast U.S. in December 2021 with a calf. The other two whales, both of which have entanglements that are considered life threatening, have not yet been resighted. Whales with attached gear tell only part of the entanglement story. Annual assessments of scarring show that interactions with fishing gear often occur without detection of the actual entangling gear. While still in preliminary analyses, there were at least seven additional entanglement events in Canadian waters and four in U.S. waters in 2021 resulting in scars only, highlighting the ongoing nature of this anthropogenic threat to the species.

Table 7. Newly reported entanglements (carrying gear) and updates to previously reported entanglements are in bold. Dead whales first sighted entangled at death are not included here. However, whales sighted alive as entangled and later dead are included. Source: Pettis *et al* 2021.

Whale #	Date of First Entanglement Sighting	First location	Sex	Age (in 2020)	Comments
3466	12/21/2019	~20m south Nantucket USA	M	15	At the initial entanglement sighting, the whale had multiple passes of yellow line through its mouth. The line appeared to be buoyant and trails behind the whale to a jumble and at least one bitter end. There is no evidence of tackle or buoys and the flippers do not appear to be involved. No response was mounted due to the time of day and distance from shore. The large amount of line and the jumble indicate that the whale will have difficulty shedding the gear and the configuration may become more complicated. Resighted on 01/18/2020, 01/22/2020, and 1/31/2020 southeast of Nantucket. Reporting group indicates no change in entanglement or condition. Response not possible given time of day and distance to shore. Resighted on 04/07/2021 in Southern New England and has shed the attached gear.
3920	10/19/2020	South of Nantucket	M	11	During a search for entangled right whale #4680, the CCS aerial survey team found #3920 entangled south of Nantucket on 10/19/2020. The free-swimming whale had line wrapped tightly around its head with line embedded in the forward part of the upper jaw. There was also trailing line. The CCS response team was able to locate the whale, affix a telemetry buoy to the entanglement, and remove ~100 feet of trailing line. Whale location and weather are being monitored for further intervention. Resighted on 02/18/2021 off Indialantic Florida. Sighted dead on 02/27/2021 off Myrtle Beach, SC. See mortality table #3 above.
1803	01/11/2021	10 miles east of St. Mary's River	M	33	The whale had multiple wraps of blue line around the peduncle and both fluke blades. A trap/pot trailed just aft of the flukes and at least one length of the blue line trailed 50-60 feet aft of the flukes. The overall body condition appears to be quite thin based on shipboards, but not emaciated. Cyamid presence/distribution and pallor on the flukes suggest a chronic entanglement. The flukes are in bad shape. There are multiple wraps on flukes with peduncle involvement and trailing gear. Whale was resighted on 1/12/2021. The Disentanglement team caught the trailing gear to attach buoy but the grapple did not hold. Concern about survival of this whale if gear is not shed. Pre-entanglement sighting was 04/07/2019 in Cape Cod Bay.
3560	03/10/2021	Cape Cod Bay	F	16	Entangled with gear. Partially disentangled, removed ~300ft of line. Resighted multiple times between May and August 2021 in the Gulf of St Lawrence and additional rope was removed. Whale was resighted 10/24/2021 in Southern New England and again on 12/02/2021 off the coast of Georgia with a calf. Two short lengths of line (less than a body length) anchored in the mouth remains on the whale with a possibility of an embedded wrap in forward part of rostrum.
4615	07/13/2021	Gulf of St. Lawrence	M	5	Whale seen gear free hours prior to initial entanglement sighting. Whale engaged in head raises, tail slashes/flicks, and rolling for much of the sighting. Active bleeding observed at areas where rope was contacting the body was also noted, all suggesting that the entanglement was relatively recent and that the whale was dealing with heavy gear. Telemetry buoy attached. Resighted next day still entangled but not since.

In recent research work, Pace et al. 2021 wrote that evaluations of the conservation status of the endangered North Atlantic right whale as well as many other wildlife species often rely extensively on counts and cause-of-death determinations of carcasses found accidentally or during dedicated surveys. Even when survey effort dedicated to a population is extensive, many deaths may go unseen. Pace et al. used an abundance estimation model to derive estimates of cryptic mortality for North Atlantic right whales and found that observed carcasses accounted for only 36% of all estimated death during 1990–2017. During this period, the number of deaths derived from the abundance model was 2.8 times the carcass count. They found strong evidence that total mortality varied over time, and that observed carcass counts were poor predictors of estimated annual numbers of whales dying. Importantly, there were substantial differences between fractions of deaths determined to be entanglement related during necropsy (49%) and the fraction of cryptic deaths suffering serious injuries related to entanglement (87%). Their analysis allowed the authors to caution strongly against relying on a single year's count of carcasses to infer differing amounts of total mortality. These counts are usually small (<10) and hence widely varying relative to their mean. Despite the cautionary note, Pace et al. found it of interest that during 2017, a year of an unusually high carcass count coupled with a dramatic increase in Canadian survey effort to find carcasses, the number of dead whales found may have accounted for nearly every whale estimated to have died that year. This finding is clearly not indicative of the recent past, given that the overall detection rate during 2010–2017 was only 29%.

Pace et al 2021 also highlighted a striking mismatch between the causes of serious injuries observed in living whales and the causes of mortality revealed in necropsies of dead whales. Entanglement accounted for the vast majority (54 of 62, or 87%) of serious injuries, but only 20 of 41 (49%) of mortality in examined carcasses. Collisions with vessels and “other” causes represent 8 of 62 (13%) of serious injury cases, but represent 21 of 42 (51%) of mortalities in examined carcasses, although blunt force trauma incurred by whales that are seriously injured by a vessel collision may be difficult to detect from photographs of free swimming whale that may ultimately die as a result of the collision. Despite the possibility of missing some vessel collisions that produced serious injuries, the disparity in observed rates of serious injury by cause suggests that cryptic deaths due to entanglements significantly outnumbers cryptic deaths from vessel collisions or other causes.

Regardless, annual counts of right whale carcasses do a poor job of indicating the total mortality for that year, and carcass detection rates seem to vary with effective survey effort. The incidence rates among causes of mortality differs significantly between those examined carcasses from which a cause of death was determined, and those animals whose likely death followed a serious injury. The evidence surrounding whales not recovered following their likely deaths, suggests that cryptic deaths are almost twice as likely to be due to entanglements than the records from examined carcasses whales indicate.

Recent scientific studies indicate significant negative effects resulting from entanglements, such as:

- Knowlton *et al.* 2012: Sublethal entanglement events are common, of the 626 NARW individuals assessed between 1980 and 2009, 519 (82.9%) had been entangled at least once and 306 of the 519 (59.0%) had been entangled more than once, all the while gear is rarely retrieved from whales that are killed by entanglement.
- Robbins *et al.* 2015: entanglement reduced survival of adults and juveniles by approximately 20%;
- Van der Hoop *et al.* 2017: chronic entanglement in fishing gear can be viewed as a costly unnatural life-history stage, requiring energy investment on the order of magnitude as a reproductive event or migration, and limiting an individual's future reproductive success;
- Kenney (2018): If the NARW population had not experienced nearly 3 decades of increasing entanglement, it could have been much more abundant and resilient to a disaster year like 2017;
- Pace *et al.* 2021: show that observed carcasses only accounted for 36% of all estimated death between 1990 and 2017 and that observed counts are poor predictors of estimated annual numbers of whales dying. In addition, the study finds that there are substantial differences between fractions of deaths determined to be entanglement (during necropsy – 49% of deaths) and the fraction of cryptic deaths suffering serious injuries related to entanglements (87% of deaths). The evidence surrounding whales not recovered following their likely deaths, suggests that cryptic deaths are almost twice as likely to be due to entanglements than the records from examined carcasses whales indicate.
- Stewart *et al.* 2021: evaluated changes in body lengths of North Atlantic right whales (NARW) using aerial photogrammetry measurements collected from crewed aircraft and remotely operated drones over a 20-year period. High rates of sub-lethal injuries and individual-level information on age, size and observed entanglements make this an ideal population to evaluate the effects that these widespread stressors may have on individual fitness. Entanglements in fishing gear are associated with shorter whales, and body lengths have been decreasing since 1981. Arrested growth may lead to reduced reproductive success and increased probability of lethal gear entanglements. Sub-lethal stressors threaten population recovery even in the absence of direct harvest.
- Willse *et al.* 2022: Attributing entanglement events to a specific fishery area may be enhanced by new gear marking rules, but it is unlikely that NARW mortalities will be discretely attributable in time for any immediate management action, unless more effective management measures are in place.

Considering recent data on entanglements and mortalities from Canadian waters and considering that there has been no confirmed entanglement or fishing mortality attributable to the Gaspésie lobster trap spring fishery fishery, the effects of the UoA on the NARW population/ stock are known and likely to be within these limits (effective zero take limit of Canada).

However, when taking into consideration the following:

1. Despite the management measures taken to date including extensive area closures, gear markings and speed restrictions, the NARW population has decreased by 21% since 2017;
2. Two dead NARW were recorded in the Cape Breton area in 2019 (cause of death unassigned) which overlaps with the area MSC UoAs operates;
3. Pace *et al.* 2021 show that observed carcasses only accounted for 36% of all estimated death between 1990 and 2017 and that observed counts are poor predictors of estimated annual numbers of whales dying. The evidence surrounding whales not recovered following their likely deaths, suggests that cryptic deaths are almost twice as likely to be due to entanglements than the records from examined carcasses whales indicate;
4. A host of recent scientific information from peer reviewed information indicating that entanglements do hinder population recovery;

Even when discounting the Southern Gulf of St Lawrence crab trap fishery which withdrawn from the MSC Fisheries Certification Program in 2021, it is too premature to conclude with any confidence that the combined effects of the Canadian MSC UoAs on the NARW population /stock are highly likely to be within Canadian limits (or in other words, not likely to cause mortalities in Canadian waters).

4.2.4.3 Habitats

There are no updates regarding habitats.

4.2.5 Principle 3 updates

4.2.5.1 Changes in Science and Resource Management personnel

The audit team was advised that there were no changes in Science and Resource Management personnel.

4.2.5.2 Indigenous relations framework

In June 2019, DFO announced the development of an inward facing, whole-of-department, long-term approach to advancing meaningful reconciliation with Indigenous peoples in the area of fisheries, oceans, aquatic habitat, and marine waterways. The approach is informed by a Strategy² and a multi-year Action Plan³ that will include, *inter alia* (among other things), additional communal-commercial access to the lobster fisheries in the DFO Regions.

In August 2021, the Minister of Fisheries, Oceans and Canadian Coast Guard announced that DFO has reached an agreement with the Listuguj Mi'gmaq Government to authorise a short commercial lobster fishing season during the fall in Area 21B, the Area in which the Listuguj Mi'gmaq Government has been conducting its fall Food, Social, and Ceremonial (FSC) lobster fishery for the past two decades (DFO 2021c). This commercial fishing season gives licence holders the right to sell product caught during the fall season.

A Conservation Harvesting Plan (CHP) was issued in September 2021 (DFO 2021d) and includes the management measures applying to this fall commercial fishery. To not exceed the historical fishing effort level in the area, DFO set a total annual allowable fishing effort of 105,000 traps/day in Area 21B. To account for the greater attractiveness of traps during the fall, a catchability factor of 7 is used to calculate the number of traps/days and total allowable effort. The total effort allowed in fall 2021 was deducted from the total effort allowed annually to determine the total effort allowed in spring 2022.

During the remote audit, the RPPSG expressed their concerns over the authorisation of a fall commercial fishery in relation to the potential impact on the lobster stock. They also mentioned the lack of consultation from DFO on this matter which resulted in tense relationships between the RPPSG and DFO. It is important to highlight that communication hasn't stopped between the RPPSG and DFO and the DFO's consultation process is still in place which was confirmed by both entities.

4.2.5.3 Update regarding the Integrated Fisheries Management Plan (IFMP)

The Performance Review is on-going and is expected to be completed by this fall. An update of the IFMP has started in 2022 and is scheduled to be completed in 2024. The IFMP Update timeline was provided to the team and is as follows:

Table 8. Gaspésie lobster IFMP update timeline.	
Steps	Deadlines
Update by the internal DFO committee of the Economic, Scientific, Compliance, Issues and Objectives sections	April to November 2022
Consultation with the association representatives via email on the revised document – virtual meeting if necessary	December 2022 – January 2023
DFO Management Approval Process	Summer 2023
Publication	Winter 2024

² <http://www.dfo-mpo.gc.ca/fisheries-peches/aboriginal-autochtones/reconciliation-eng.html>

³ <http://www.dfo-mpo.gc.ca/fisheries-peches/aboriginal-autochtones/action-plan-action/index-eng.html>

This timeline was presented during the 2022 Lobster Advisory Committee meeting.

4.2.5.4 Compliance and enforcement

Enforcement and compliance statistics provided by the Conservation and Protection Division of DFO’s Gaspé Area are summarized in Table 9 for the commercial Lobster fishery in LFAs 19-21. The data show that the program has continued to operate at comparable levels of effort year-over-year and has produced outcomes which suggest that the regulatory requirements of the fishery are monitored at a level that is appropriate for the scope and intensity of the fishery, and that systemic non-compliance is not occurring.

Table 9. Summary of surveillance and enforcement outcomes for LFAs 19-21 from 2019 to 2021. Source: DFO Gaspé Area Office

Outcomes/Year	2019	2020	2021
Surveillance activities (hours) (investigation, analysis, patrol, at-sea and aerial surveillance),	1,037	1,471	1,687
Verifications (numbers)	104	116	182
At-sea verifications (% average)	23.1 %	24.1 %	14.3 %
Warnings	24	67	61
Infractions (commercial fishery)	11	14	15
Complaints	6	6	8
Unauthorized fishing	3	12	4

4.3 Changes to traceability

A new short commercial lobster fishing season has been authorised during the fall in Area 21B starting from September 2021. The audit team has considered if there are any risks of mixing between the certified products from the commercial spring fishery and non-certified products from the commercial fall fishery.

The fisheries do not overlap in time, the spring fishery operates in Area 21B from beginning of May to mid-July whilst the commercial fishery operates in Area 21B from mid-September to mid-October. It was confirmed during the remote audit that fish tanks that are used to store live lobsters in storage facilities are emptied by end of July.

All handlers, buyers, dealers, distributors, live shippers and processors in all Atlantic Canadian provinces are required by regulation to be licensed with the competent provincial authority. All buyers are registered with the provincial government (MAPAQ) and as such must keep and submit records of purchases, first generated at the point of vessel landing by the buyers on transfer of product.

Purchases of lobsters must be documented on a purchase slip by the registered buyer containing details of purchases within a week. Information on the purchase slip includes the name of the permit holder, the name of the fishing vessel, the place of landing, the quantity of product per permit holder and the value. Therefore, the system allows buyers to know which LFA the fishing vessel/licence holder is part of. Upon landing, harvesters work with dealers to complete landing documentation as required by condition of the Quebec fish buyers licence. As a condition of license, Quebec receives weekly buying activity summaries by port, lobster size and price by size from the licensed buyers. Buyers must generate accurate detailed purchase slips regarding each landing from harvesters including vessel identification, landing port, date, landed weight and value. Fish buying licence holders are also subject to physical inspection by provincial authorities to ensure compliance to licence conditions.

The purchase slip booklets are obtained from the Regional DFO Office. They are used for other fisheries but buyers must identify species in each case. When a purchase slip is generated for each landed purchase of lobster, two carbon copies are generated. One is retained in the booklet, one is received by the harvester and one copy is returned to DFO Regional Statistical office. This creates options for catch reporting and verification using logbook, purchase slips (DFO) and weekly returns to the Provincial Government Office. Once submitted to provincial department, landings data are entered into the department’s statistical database and used as information to publish provincial landings and values statistics.

Therefore, there is no risk of mixing certified and non-certified products at landing sites, and during transport and storage. The audit team determines that the system remains robust to track and trace lobster and lobster products back to the UoC.

4.4 References

DFO 2019. Assessment of lobster (*Homarus americanus*) in the Gaspé (LFAs 19-21), Quebec, in 2018. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2019/060.

http://www.dfo-mpo.gc.ca/csas-sccs/Publications/SAR-AS/2019/2019_060-eng.html

DFO 2020. Notice to Fish Harvesters. Gear marking Eastern Canada for non-tended fixed gear fisheries, crab trap fisheries and lobster trap fisheries mandatory colour scheme. Approved April 22, 2020.

<https://www.qc.dfo-mpo.gc.ca/en/node/820>

DFO 2021a. Notice to Fish Harvesters. Conservation Harvesting Plan seasons 2019-2021 for Lobster – Area 19, 20 and 21 (Gaspé – Lower St. Lawrence). Approved April 11, 2019; amended April 20, 2020 and April 22, 2021.

<https://www.qc.dfo-mpo.gc.ca/en/node/861>

DFO 2021b. Notice to Fish Harvesters. Increasing the size of trap escape vents in the lobster fishery – Area 20. Lobster Areas 19, 20 and 21 – Gaspé-Lower St. Lawrence area – Season 2022. September 22, 2021.

DFO 2021 c. News Release. Fisheries and Oceans Canada and Listuguj Mi'gmaq Government Reach Agreement on a Fall Commercial Lobster Season. August 14, 2021.

<https://www.canada.ca/en/fisheries-oceans/news/2021/08/fisheries-and-oceans-canada-and-listuguj-migmaq-government-reach-agreement-on-a-fall-commercial-lobster-season.html>

DFO 2021d. Notice to Fish Harvesters. Conservation Harvesting Plan – Lobster Sub-area 21B Gaspé-Lower St. Lawrence season Fall 2021. Approved September 21, 2021.

<https://www.qc.dfo-mpo.gc.ca/en/conservation-harvesting-plan-lobster-sub-area-21b-gaspé-lower-st-lawrence-season-fall-2021>

DFO 2021e. Assessment of the northern contingent of Atlantic Mackerel (*Scomber scombrus*) in 2020. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2021/029.

<http://waves-vagues.dfo-mpo.gc.ca/Library/4098865x.pdf>

DFO 2022a. Notice to Fish Harvesters. Closure of the Atlantic mackerel commercial and bait fisheries in all areas of the Atlantic Canada and Quebec. March 31, 2022.

<https://www.qc.dfo-mpo.gc.ca/infoceans/en/node/1084>

DFO 2022b. 2022 fishery management measures for the North Atlantic Right Whales.

<https://www.dfo-mpo.gc.ca/fisheries-peches/commercial-commerciale/atl-arc/narw-bnan/management-gestion-eng.html>

Regroupement des Pêcheurs Professionnels du Sud de la Gaspésie (RPPSG) 2022. Bilan des saisons 2020 et 2021.

DFO website - Landed quantity per species and region for 2020

<https://www.dfo-mpo.gc.ca/stats/commercial/land-debarq/sea-maritimes/s2020aq-eng.htm>

Kenney, R.D. 2018. What if there were no fishing? North Atlantic right whale population trajectories without entanglement mortality. *Endangered Species Research* 37:233-237. <https://doi.org/10.3354/esr00926>

Knowlton, A. R., P. K. Hamilton, M. K. Marx, H. M. Pettis, and S. D. Kraus. 2012. Monitoring North Atlantic right whale *Eubalaena glacialis* entanglement rates: a 30 yr retrospective. *Marine Ecology Progress Series* 466:293–302. DOI: <https://doi.org/10.3354/meps09923>

NOAA 2022. 2017-2022 North Atlantic Right Whale Unusual Mortality Event. <https://www.fisheries.noaa.gov/national/marine-life-distress/2017-2022-north-atlantic-right-whale-unusual-mortality-event#:~:text=In%202019%2C%20nine%20dead%20whales,no%20mortalities%20have%20been%20documented.>

Pace, R.M. III, R. Williams, S.D. Kraus, A.R. Knowlton, and H.M. Pettis. 2021. Cryptic mortality of North Atlantic right whales. *Conservation Science and Practice* 3(2):e346. <https://conbio.onlinelibrary.wiley.com/doi/10.1111/csp2.346>

Pettis, H.M., Pace, R.M. III, Hamilton, P.K. 2022. North Atlantic Right Whale Consortium 2021 Annual Report Card. Report to the North Atlantic Right Whale Consortium. https://www.narwc.org/uploads/1/1/6/6/116623219/2021report_cardfinal.pdf

Robbins J., A. R. Knowlton and S. Landry 2015. Apparent survival of North Atlantic right whales after entanglements in fishing gear. *Biological Conservation* 1991: 421-427. <https://www.sciencedirect.com/science/article/abs/pii/S0006320715300306>

Stewart, J. D., J. W. Durban, A. R. Knowlton, M. S. Lynn, H. Fearnbach, J. Barbaro, W. L. Perryman, C. A. Miller, and M. J. Moore. 2021. Decreasing body lengths in North Atlantic right whales. *Current Biology* 31: 3174– 3179. <https://www.sciencedirect.com/science/article/abs/pii/S096098222100614X>

Van der Hoop, J.M., Corkeron P., Moore M. 2017. Entanglement is a costly life-history stage in large whales. *Ecol Evol.* 2017 Jan; 7(1): 92–106. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5213775/>

Willse, N., Summers E., Chen Y. 2022. Vertical Line Requirements and North Atlantic Right Whale Entanglement Risk Reduction for the Gulf of Maine American Lobster Fishery. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* 14:e10203, 2022 <https://afspubs.onlinelibrary.wiley.com/doi/full/10.1002/mcf2.10203>

4.5 Version details

The versions of the MSC fisheries program documents used for this assessment are outlined in Table 10 below.

Table 10. MSC Scheme Documents and Report Templates used during this assessment.

Document	Version Number
MSC Fisheries Certification Process (FCP) (and Guidance)	2.2
MSC Fisheries Standard (and Guidance)	2.01
MSC General Certification Requirements (GCR)	2.4.1
MSC Reporting Template	2.1

5 Results

5.1 Surveillance results overview

5.1.1 Summary of conditions

Table 11. Summary of conditions.

Condition number	Condition	Performance Indicator (PI)	Status	PI original score	PI revised score
1	The client shall provide evidence that the combined effects of the MSC UoAs on the North Atlantic right whale are known and are highly likely to be within the national limit.	2.3.1	On target - open	75	Not revised

5.1.2 Total Allowable Catch (TAC) and catch data

The Gaspésie lobster trap spring fishery is no TAC managed.

Landings for 2020 and 2021 fishing seasons are presented in Table 12 and Table 13.

Lobster landings from LFA 20 accounts for approximately 82% and 81% of the fishery landings in 2020 and 2021, respectively.

Table 12. Total Allowable Catch (TAC) and catch data.

TAC	Year	NA	NA	NA
UoA share of TAC	Year	NA	NA	NA
UoA share of total TAC	Year	NA	NA	NA
Total green weight catch by UoC	Year (most recent)	2021	3,798.50	n, t
Total green weight catch by UoC	Year (second most recent)	2020	2,926.80	n, t

Table 13. Lobster landings (t) for the Gaspésie lobster trap spring fishery per LFA for the 2020 and 2021 fishing season. Source: DFO.

LFA	2020	2021
19	282.8	417.2
20	2,390.9	3,090.8
21	253.1	290.5
TOTAL	2,926.8	3,798.5

The fishery accounts for 99.2% and 99.6% of the lobster total landings in Gaspésie in 2020 and 2021, respectively; the remaining <1% landings are from the Food, Social, and Ceremonial (FSC) fishery (2020) and the commercial fall fishery (2021).

The audit team was provided with the landings data for the FSC and the commercial fall fishery. However, it cannot be displayed in the surveillance report as these data are classified as confidential in accordance with the MSC FCP v2.2 §4.3.3.c.

In 2020, landings from the fishery accounts for approximately 28% of lobster total landings in Quebec and for approximately 4% of lobster total landings in the Canada Atlantic (landed quantity per species and region for 2020 are provided on the DFO website: <https://www.dfo-mpo.gc.ca/stats/commercial/land-debarq/sea-maritimes/s2020aq-eng.htm>).

5.2 Conditions and Recommendations

5.2.1 Progress against conditions

Table 14. Condition 1.

Performance Indicator	2.3.1 Scoring issue a
Score	75
Justification	<p>In 2017, an unprecedented NARW mortality event occurred in the GSL. Necropsies were performed on 7 of the 12 dead whales, it was confirmed that 2 of the NARW mortalities was caused by an entanglement in commercial snow crab fishing gear.</p> <p>In 2018, there was zero NARW mortality reported/observed in Canada. In November 2018, DFO reported three entanglement incidents for 2018: 2 in the GSL and one from either the GSL or Bay of Fundy. These reported entanglements occurred when GSL lobster and snow crab fisheries were closed, and there is no evidence that they have led to mortalities.</p> <p>In 2019, 9 dead NARW were reported in Canadian waters including 7 in the GSL. Five necropsies were performed. Preliminary examinations determined that death of three whales was due to vessel strike. Preliminary results for the other two were inconclusive. For all individual, additional analyses are being conducted and final results are still pending. According to DFO, none of the NARW found dead in Canadian waters had fresh entanglements scars and for now there is no confirmation that mortalities in Canadian waters were caused by entanglement in fishing gears.</p> <p>Between June 29th and August 6th, 2019, four free-swimming entangled right whales were reported in the GSL. However, fishing gear has not been identified and there is no evidence that these entanglements led to mortalities in Canada waters. Whale # 4423 was sighted entangled in the GSL in July 2019. However, this whale has been first sighted entangled in the Great South Channel (U.S) on April 25th, 2019. The whale has been resighted on October 28th, 2019 in the GSL gear free but in poor condition.</p> <p>Whale # 4440 was sighted entangled on June 29th, 2019. The whale was resighted in August gear free.</p> <p>Whale # 3125 was sighted entangled in July 4th, 2019. Several disentanglement attempts were made in July and August. A disentanglement team east of Cape Cod was able to cut some lines on August 2nd, 2019. The whale was able to open its mouth but was in poor condition.</p> <p>Whale # 1226 was found dead off the coast of New York (U.S.) on 16th September, 2019 and as per Pettis et al (2020), entanglement (the gear responsible for the entanglement has not been identified) was identified as the cause of death. However, NOAA Fisheries mentioned that the cause of death is pending determination. This whale was last sighted gear free in the GSL in July 2019 and was re-sighted in the GSL entangled on August 6th, 2019 when all lobster and snow crab fisheries were closed.</p> <p>The team has taken into account the above information and MSC SA3.10.3, which states that, "...when assessing (PI 2.3.1) scoring issue (a) and (b), the team shall take into account whether there are any changes in the catch or mortality of ETP species resulting from the implementation of measures to minimize their mortality (PI 2.3.2 scoring issue (e)).</p> <p>Following the unprecedented mortality and entanglement event in 2017, management measures to minimise the risk of interactions with NARW have been implemented in 2018 and again in 2019 (section 8.3.1.3 and PI 2.3.2). Available data and information show that there is a change in the mortality of NARW following the implementation of these mitigation measures, as presented above.</p> <p>However, entanglements and mortalities are still reported in Canada waters mainly in the Southern Gulf of St Lawrence. Given the uncertainty regarding the condition and survival of entangled whales and the fact that the cause of mortality is not identified in all cases, the assessment team determines that it cannot be concluded that the combined effects of the MSC UoAs are highly likely to be within the national limit. Therefore, SG80 is not met.</p>
Condition	The client shall provide evidence that the combined effects of the MSC UoAs on the North Atlantic right whale are known and are highly likely to be within the national limit.
Condition start	Publication date of the PCR (25 February 2021)
Condition deadline	At 2 nd surveillance audit (2023)
Milestones	<p>At 1st surveillance audit: the client shall provide documented evidence that a strategy for the protection and conservation of the NARW has been implemented successfully for all MSC Canadian UoAs that could potentially interact with the NARW population.</p> <p>Resulting score: 75.</p>

Table 14. Condition 1.

	<p>At 2nd surveillance audit: the client shall provide documented evidence that the combined effects of all MSC UoAs on the North Atlantic right whale are known and are highly likely to be within the national limit.</p> <p>Resulting score: 80.</p>
<p>Progress on Condition (Year 1)</p>	<p>Following the 2017 unusual entanglements and mortalities event in the Gulf of St Lawrence, management measures to minimise the risks of interactions with the NARW have been implemented and refined year-over-year.</p> <p>The 2022 management measures consist of:</p> <ul style="list-style-type: none"> • temporary and season-long fishery area closures • provisions for the waters shallower than 20 fathoms • effective tracking of fishing gears (gear marking requirement) • mandatory reporting for lost gear • mandatory reporting of interactions between vessel or fishing gear and marine mammal • mandatory Whalesafe gear • continued monitoring and reporting • retrieving ghost gear from the Gulf of St. Lawrence and Bay of Fundy • Marine Mammal response • engagement with stakeholders <p>Details on the history of the implementation of management measure and the 2022 measures are provided in section 4.2.4.2.1.</p> <p>There is documented evidence that a strategy to minimise the risks of interaction with the NARW have been implemented for Canada Atlantic non-tended fixed gear UoAs. There is a cohesive and strategic arrangement comprising several measures which is designed to manage the impact on the NAWR specifically. It is appropriate to the scale, intensity and cultural context of the Canada Atlantic non-tended fixed gear UoAs, and mechanisms are in place for the modification of fishing practices in the light of the identification of unacceptable impacts. Modifications of fishing gears and practices have been implemented and further modifications are currently tested (rope-less gears, weak breaking points or links). These measures are linked to an increased monitoring to detect NARW in Canadian waters (surveillance via aircraft, drones, underwater gliders and acoustic devices).</p> <p>The audit team determines that the Year 1 milestone is meet and the progress on the fishery is on target.</p> <p>Although mortalities have not been reported/detected in Canadian waters in 2020 and 2021, the audit team concludes that it is too premature to conclude with any confidence that the combined effects of the Canadian MSC UoAs on the NARW population /stock are highly likely to be within Canadian limits (or in other words, not likely to cause mortalities in Canadian waters) even when discounting the Southern Gulf of St Lawrence crab trap fishery withdrawal from the MSC Fisheries Certification Program in 2021 and taking into consideration the following:</p> <ol style="list-style-type: none"> 1. Despite the management measures taken to date including extensive area closures, gear markings and speed restrictions, the NARW population has decreased by 21% since 2017; 2. Two dead NARW were recorded in the Cape Breton area in 2019 (cause of death unassigned) which overlaps with the area MSC UoAs operates; 3. Pace et al. 2021 show that observed carcasses only accounted for 36% of all estimated death between 1990 and 2017 and that observed counts are poor predictors of estimated annual numbers of whales dying. The evidence surrounding whales not recovered following their likely deaths, suggests that cryptic deaths are almost twice as likely to be due to entanglements than the records from examined carcasses whales indicate; 4. A host of recent scientific information from peer reviewed information indicating that entanglements do hinder population recovery; <p>Therefore, the audit team determines that the Year 1 milestone is meet and the progress on the fishery is on target.</p>
<p>Progress status</p>	<p>On target - open</p>
<p>Remedial action</p>	<p>NA</p>
<p>Additional information</p>	<p>NA</p>

5.2.2 Recommendations

A recommendation is non-binding and therefore does not require the client to provide a client action plan. However, the client is encouraged to act upon within the spirit of the MSC certification for improvement and continuing efforts to ensure the long-term sustainability of the fishery.

Table 15. Updates on Recommendations made by the assessment team during the reassessment

Recommendation number	PI	Recommendation
1	1.2.1	<p>The assessors note that the legal carapace size for the lobster fishery in LFAs 19-21 has been adjusted on a few occasions in the past for the purpose of promoting conservation and sustainability. It appears to us that these adjustments were introduced without a corresponding assessment as to whether the dimensions of the mandatory escape vents on each lobster trap required an adjustment. The current escape vent dimensions have been in effect since at least 2002. We understand that it is a common practice in other lobster fisheries to assess if a change to the dimensions of the escape vents is necessary when a carapace size is changed.</p> <p>Accordingly, we recommend that the RPPSG, in collaboration with DFO and industry stakeholders, undertake an assessment of whether the current dimensions of the escape vents are appropriate for the fishery's carapace size in LFAs 19-21.</p>
Surveillance 1 update		<p>The size of the escape vents was discussed during the 2020 and 2021 Lobster Workshops, meeting minutes of both Workshops were provided to the audit team.</p> <p>The decision was taken to increase the height of the rectangular vents from 46 mm to 47 mm in 2022 following the increase in the MLS.</p> <p>Although the audit team determines that it's an improvement, no clear explanation on how the new size has been defined was provided. Therefore, it remains unclear to the team whether the dimension of the escape vent are appropriate for the MLS.</p>
2	2.3.2 2.3.3	<p>Following the 2017 North Atlantic right whale entanglements in snow crab gears and mortalities event, management measures have been implemented in 2018 in Quebec, Gulf and Maritimes Regions to minimise the risks of interactions between the North Atlantic right whale and fixed gears. These measures have been renewed and refined in 2019. As part of these measures, a very extensive North Atlantic right whale monitoring has been implemented in 2018 and renewed in 2019.</p> <p>The team recommends the continuation of management measures as well as the monitoring program to further reduce the risk of interaction of fixed gears with the North Atlantic right whale in Quebec, Gulf and Maritimes Regions.</p>
Surveillance 1 update		<p>Following the 2017 unusual entanglements and mortalities event in the Gulf of St Lawrence, management measures to minimise the risks of interactions with the NARW have been implemented and refined year-over-year.</p> <p>The 2022 management measures consist of:</p> <ul style="list-style-type: none"> • temporary and season-long fishery area closures • provisions for the waters shallower than 20 fathoms • effective tracking of fishing gears (gear marking requirement) • mandatory reporting for lost gear • mandatory reporting of interactions between vessel or fishing gear and marine mammal • mandatory Whalesafe gear • continued monitoring and reporting • retrieving ghost gear from the Gulf of St. Lawrence and Bay of Fundy • Marine Mammal response • engagement with stakeholders <p>Details on the history of the implementation of management measure and the 2022 measures are provided in section 4.2.4.2.1.</p>

Table 15. Updates on Recommendations made by the assessment team during the reassessment

Recommendation number	PI	Recommendation
		<p>These measures are linked to an increased monitoring to detect NARW in Canadian waters (surveillance via aircraft, drones, underwater gliders and acoustic devices).</p> <p>The audit team concludes that management measures and NARW monitoring continue to be implemented.</p>

6 Appendices

6.1 Evaluation processes and techniques

6.1.1 Site visit

The surveillance audit was announced on the 03 March 2022, at least 30 days before the surveillance audit activities in accordance with the MSC FCP v2.2 § 7.28.14.6. The surveillance audit was conducted off-site on the 04 and 05 April 2022.

The itinerary of the remote audit is presented Table 16.

Table 16. Remote surveillance audit schedule.		
Stakeholder	Date	Time
DFO	04 April 2022	Rimouski and Gaspé: 9.00 am France: 3.00 pm
RPPSG	04 April 2022	Rimouski and Gaspé: 2.00 pm France: 8.00 pm
RPPSG	05 April 2022	Rimouski and Gaspé: 10.30 am France: 4.30 pm

6.1.2 Stakeholder participation

As part of the surveillance audit, the available stakeholder opportunities were as follows:

- stakeholders had the opportunity to submit written input using the ‘MSC Template for Stakeholder Input into Fishery Assessments’ during the 30 days consultation from announcement and during the remote audit.
- stakeholders had the opportunity to consult directly with the audit team during the remote audit.

The RPPSG’s and DFO’s verbal submissions are summarized in Table 17, Table 18, and Table 19.

Table 17. Verbal submissions received from DFO.			
DFO meeting – 04 April 2022			
Participants	Organisation	Verbal submission	Audit team's response
Geraldine Criquet	Audit team	<ul style="list-style-type: none"> • Fishing season opening and closing dates • Number of licence per LFA • Experimental licences for sub-Area 19A-1 • Landings • The new commercial fall lobster fishery • Relationships DFO/RPPSG • Fishing gear for the lobster monitoring program in Gaspésie • Management measures • MLS vs size of escapement vents • Interactions with ETP species • Non-target species catch • Reliability of species at risk and marine mammals catch data reported in the elogs • NARW management measures • Condition on PI 2.3.1 • Changes in DFO personnel • IFMP update • Consultation processes • Enforcement and compliance 	The audit team confirmed that the data and information provided will serve to evaluate the fishery progress on the condition and to determine if the fishery continues to be in conformity with the MSC Fisheries Standard.
Jean-Claude Brêthes			
Magalie Hardy, Agente régionale principale, Pêche durable et Coordonnatrice écocertification Marie-Josée Roy, Gestionnaire de la Ressources et Coordonnatrice pêches autochtones Cédric Juillet, Responsable de la section des sciences benthiques et Biologiste évaluateur du crabe des neiges, assure l'intérim de Benoît Bruneau Raoult Bourgeois, Superviseur C&P, Gaspé sud Stéphane Boulay, Superviseur C&P, Gaspé Nord Hacène Tamdrari, Biologiste, Sciences benthiques, évaluateur oursin/concombre de mer, Représentant des sciences pour les relations avec les peuples autochtones, en soutien à Cédric Juillet Caroline Leclerc, Gestionnaire de la ressource, secteur Gaspésie-Bas-St-Laurent Jean-Michel Poulin, Agent régional principal, Espèces en péril et responsable du dossier MMPA Erick Saint-Laurent, Directeur de Secteur, Gaspésie Bas-St-Laurent	DFO		

Table 18. Verbal submissions received from the RPPSG during the client opening meeting.

RPPSG meeting – 04 April 2022			
Participants	Organisation	Verbal submission	Audit team’s response
Geraldine Criquet	Audit team	<ul style="list-style-type: none"> Fishing fleet Number of licence per LFA Experimental licences for sub-Area 19A-1 The new commercial fall lobster fishery Relationships DFO/RPPSG Traceability Bait Management measures MLS vs size of escapement vents Interactions with ETP species Non-target species catch NARW management measures RPPSG’s projects on the risks of interaction with the NARW Artificial reef project in Percé Condition on PI 2.3.1 Consultation processes Enforcement and compliance 	<p>The audit team confirmed that the data and information provided will serve to evaluate the fishery progress on the condition and to determine if the fishery continues to be in conformity with the MSC Fisheries Standard.</p>
Jean-Claude Brêthes			
Jean Côté	RPPSG		
Joël Berthelot			

Table 19. Verbal submissions received from the RPPSG during the client closing meeting.

RPPSG meeting – 05 April 2022			
Participants	Organisation	Verbal submission	Audit team’s response
Geraldine Criquet	Audit team	<ul style="list-style-type: none"> Consultation processes Relationships DFO/RPPSG 	<p>The audit team confirmed that the data and information provided will serve to evaluate the fishery progress on the condition and to determine if the fishery continues to be in conformity with the MSC Fisheries Standard.</p> <p>The audit team provided its preliminary analysis as follows:</p> <ul style="list-style-type: none"> the lobster stock is healthy there is a robust harvest strategy still in place
Jean-Claude Brêthes			
Jean Côté	RPPSG		
Joël Berthelot			

			<ul style="list-style-type: none"> • the team highlights the important to monitor the species and quantity of bait used • the consultation process remains robust despite the tense relationships between the RPPSG and DFO following the authorization of a commercial fall fishery • the compliance remains high • the likelihood of the condition on PI 2.3.1 to remain open <p>The lead assessor confirmed the date on which the draft report will be available and the deadline to submit the report to the MSC for publication.</p> <p>Also, the lead assessor informed that the 2nd surveillance audit should be on-site in accordance with the surveillance program.</p>
--	--	--	---

6.2 Harmonised fishery assessments

Fisheries highlighted in light orange were/are assessed by Global Trust Certification. Fisheries assessed by another CAB are highlighted in light grey.

Table 20. Overlapping fisheries

Fishery name	Certification status and date	Performance Indicators to harmonise
Maritime Canada inshore lobster trap fishery	Certified – PCR published on 25 February 2021. 1 st Surveillance audit announced on 14 March 2022	PIs 2.3.1 PIs 3.1.1, 3.1.2 and 3.1.3
Îles-de-la-Madeleine lobster	Certified 3 rd surveillance audit announced on 03 March 2022	PIs 2.3.1 PIs 3.1.1, 3.1.2 and 3.1.3
Scotian Shelf snow crab trap	Certified Second reassessment announced on 14 June 2022	PIs 2.3.1 PIs 3.1.1, 3.1.2 and 3.1.3
Newfoundland & Labrador snow crab	Certified 3 rd surveillance audit announced on 31 March 2022	PIs 2.3.1 PIs 3.1.1, 3.1.2 and 3.1.3
Canada Scotian Shelf prawn trawl and trap	Certified 3 rd surveillance audit announced on 13 May 2022	PIs 2.3.1 PIs 3.1.1, 3.1.2 and 3.1.3
AQIP snow crab trap	Certified – PCR published on 14 December 2020 1 st surveillance report published on 15 June 2022	PIs 2.3.1 PIs 3.1.1, 3.1.2 and 3.1.3

Table 21. Overlapping fisheries – Harmonisation activities.

Supporting information	
Harmonisation discussions via emails between teams involved in surveillance audits of Canada Atlantic crustacean fixed gear fisheries to discuss the progress of the fisheries on the condition on PI 2.3.1 on the NARW occurred during the March-May 2022 period. LR's and GTC's audit teams agreed that although mortalities have not been reported/detected in Canadian waters in 2020 and 2021, it is too premature to conclude with any confidence that the combined effects of the Canadian MSC UoAs on the NARW population /stock are highly likely to be within Canadian limits even when discounting the Southern Gulf of St Lawrence crab trap fishery withdrawal from the MSC Fisheries Certification Program in 2021.	
Was either FCP v2.2 Annex PB1.3.3.4 or PB1.3.4.5 applied when harmonising?	No
Date of harmonisation meeting	N/A
If applicable, describe the meeting outcome	
N/A	

Table 22. Overlapping fisheries – Scoring differences.

Performance Indicators (PIs)	Gaspésie lobster trap spring fishery	Maritime Canada inshore lobster trap fishery	Îles-de-la-Madeleine lobster	Scotian Shelf snow crab trap (ACDR)	Newfoundland & Labrador snow crab	Canada Scotian Shelf prawn trawl and trap	AQIP snow crab trap
PI 2.3.1	75	75	75	60-79	80	75	75
PI 3.1.1	100	95	85	≥80	90	100	100
PI 3.1.2	100	85	100	≥80	85	95	95
PI 3.1.3	100	100	100	≥80	90	100	100

Table 23. Overlapping fisheries – Rationale for scoring differences.

If applicable, explain and justify any difference in scoring and rationale for the relevant Performance Indicators (FCP v2.2 Annex PB1.3.6)

The audit team for the Newfoundland & Labrador snow crab trap is yet to finalise the surveillance report but it was agreed that scoring for PI 2.3.1 will be harmonised and the condition regarding the NARW will be reponed.

If exceptional circumstances apply, outline the situation and whether there is agreement between or among teams on this determination

N/A

6.3 Template information and copyright

This document was drafted using the ‘MSC Surveillance Reporting Template v2.1’. Note amendments have been made to formatting in order to comply with Global Trust Certification’s corporate identity; however, content and structure follow that of the original template.

The Marine Stewardship Council’s ‘MSC Surveillance Reporting Template v2.1’ and its content is copyright of “Marine Stewardship Council” - © “Marine Stewardship Council” 2020. All rights reserved.

Template version control		
Version	Date of publication	Description of amendment
1.0	08 October 2014	Date of issue
2.0	17 December 2018	Release alongside Fisheries Certification Process v2.1
2.01	28 March 2019	Minor document change for usability
2.1	25 March 2020	Minor document change for usability

A controlled document list of MSC program documents is available on the [MSC website \(www.msc.org\)](http://www.msc.org).

Senior Policy Manager
 Marine Stewardship Council
 Marine House
 1 Snow Hill
 London EC1A 2DH
 United Kingdom

Phone: + 44 (0) 20 7246 8900
 Fax: + 44 (0) 20 7246 8901
 Email: standards@msc.org