North American Commission Annual Report (Tabled by Canada)

Submitted by: Fisheries and Oceans Canada
Date: Data cover calendar year 2024

1. Summary of salmonid controlled disease incidents

The Canadian Food Inspection Agency (CFIA) is responsible for Canada's National Aquatic Animal Health Program and is the Competent Authority for aquatic animal health which includes meeting Canada's international reporting obligations to the World Organisation of Animal Health (WOAH) under the World Trade Organization (WTO) Sanitary and Phytosanitary (SPS) Agreement.

The CFIA updates the health status of Canada's aquatic animals monthly as mandatory notifications of aquatic animal diseases are confirmed (See Annex).

For more information, please consult the CFIA website or contact:

- Disease Status in Canada: Dr. Martin Appelt, Senior Director, Animal Health Directorate, Animal Health Programs Division, Programs and Policy Branch, CFIA. Martin.Appelt@inspection.gc.ca
- International Trade: Dr. Suminder Sawhney, Director, Animal Import/Export Division, International Affairs Branch, CFIA. Suminder.Sawhney@inspection.gc.ca

2024 summary of federally reportable diseases of salmonids

https://www.inspection.gc.ca/animal-health/aquatic-animals/diseases/reportable-diseases/federally-reportable-aquatic-animal-diseases/eng/1339174937153

Current as of: 2024-12-31

Disease	**Total (Quebec/Atlantic Region)**
Ceratomyxosis (*Ceratomyxa shasta*)	0
Infectious haematopoietic necrosis	0
Infectious pancreatic necrosis	3
Infectious salmon anaemia	8
Viral haemorrhagic septicaemia	0
Whirling disease (*Myxobolus cerebralis*)	0

Confirmed cases of federally reportable diseases in 2024 that affected salmonids[1] in the Atlantic Region are summarized in the tables below.

[1] Reporting does not distinguish whether the salmonids were cultured or wild.

Locations infected with infectious pancreatic necrosis[2]:

Date confirmed	Location	Animal type infected	Scientific Name
December 6	Quebec	Brook trout	*Salvelinus fontinalis*
April 12	Quebec	Brook trout	*Salvelinus fontinalis*
March 14	Quebec	Brook trout	*Salvelinus fontinalis*

Locations infected with infectious salmon anaemia[3]:

Date confirmed	Location	Animal type infected	Scientific Name
July 18	New Brunswick	Atlantic salmon	*Salmo salar*
July 11 Table note*	New Brunswick	Atlantic salmon	*Salmo salar*
July 8	New Brunswick	Atlantic salmon	*Salmo salar*
July 8	Newfoundland	Atlantic salmon	*Salmo salar*
April 25 Table note*	New Brunswick	Atlantic salmon	*Salmo salar*
February 19 Table note*	New Brunswick	Atlantic salmon	*Salmo salar*
January 25	New Brunswick	Atlantic salmon	*Salmo salar*
January 8 Table note*	New Brunswick	Atlantic salmon	*Salmo salar*

*Table Note * This virus strain is not known to cause disease.*

2. Summary of breaches of containment of salmonids from net cages

Species (Strain, if applicable)	Number[1]	Average size of fish[2]	Location[3]	Result[4]	Cause of the Breach
Atlantic Salmon (Saint John River)	50	2.5 kg	Aquaculture Bay Management Area (ABMA) 3A, New Brunswick	N/A	Storm damage
Atlantic Salmon (Saint John River)	10	8.0 kg	ABMA 2B, New Brunswick	N/A	Hole by predator
Atlantic Salmon (Saga Strain) - Triploid	50	80 g	Annapolis Basin, Nova Scotia	N/A	Human error while handling

Notes:

1. This should be the best estimate possible, though it is recognized that exact numbers may be difficult to obtain.
2. Based on the codes of containment, it was agreed that average size is a more accurate measurement than life stage.
3. The more specific the information the better, however bay level is considered sufficient.
4. This refers to using recapture methods as detailed in the relevant code of containment and summarizing the results of the recapture attempt.

[2] https://inspection.canada.ca/animal-health/aquatic-animals/diseases/reportable-diseases/infectious-pancreatic-necrosis/locations-infected/eng/1549521244435/1549521244700
[3] https://inspection.canada.ca/animal-health/aquatic-animals/diseases/reportable-diseases/isa/locations-infected/eng/1549521878704/1549521878969

There are no marine net-pens in Quebec or Prince Edward Island.

There were no reported or confirmed escape events in Newfoundland and Labrador[4] in 2024.

In New Brunswick[5], the escapes listed above were suspected events. Suspected events are those where it is uncertain if any fish have escaped but circumstances, such as a hole in a containment net, indicate that it is possible that a fish may have escaped. In these instances, an initial notification report is submitted with follow-up estimated escape inventory.

In Nova Scotia[6], per Section 34 and 35 of the Nova Scotia *Aquaculture Management Regulations*, a third-party audit of the containment management section of the Farm Management Plan was required. The report submitted by the third-party included corrective actions taken in response to the results from the audit. The Nova Scotia Department of Fisheries and Aquaculture (DFA) will complete an inventory reconciliation for all confirmed and suspected breaches of containment reported in 2024. Should there be inventory variances that cannot be explained, DFA will report, as required. Completed inventory reconciliations for confirmed and suspected breaches of containment reported in 2023 did not result in inventory variances that could not be explained.

[4] In Newfoundland and Labrador, escape reporting in managed by the Code of Containment for the Culture of Salmonids, which is a condition of all salmonid aquaculture site licences in the Province, but is co-administered by the Province and DFO. The code requires licensees to immediately report escape incidents to both DFO and the provincial Department of Fisheries, Forestry and Aquaculture (FFA). The Province also requires public reporting as per AP 17 of the FFA Aquaculture Policy and Procedures Manual (via the NAIA website or company website) within 24 hours of escapes, incident events and disease events.

[5] As per the New Brunswick Aquaculture Act, 2019, 56(3) a licence holder shall report to the Chief Veterinary Officer any failure of the site's containment structures in accordance with the regulations, which adopt the Code of Containment for Finfish Aquaculture in New Brunswick, published by Atlantic Canada Fish Farmers Association. Finfish escapes or failure of containment structures where losses are equal to or greater than 50 fish are posted on the public facing registry, as per the General Regulation, 2022-28, section 7(b)(iv). A link to the public registry can be found at: https://dnr-mrn.gnb.ca/AquacultureRegistry/AquacultureRegistry.aspx

[6] In Nova Scotia, per Section 33(2) of the Aquaculture Management Regulations (AMRs), a licence holder or any personnel of their aquacultural operation who know or suspect a breach must immediately notify the Department of Fisheries and Aquaculture. As outlined in Section 15 of the AMRs, a licence holder must have information and procedures in their Farm Management Plan (FMP) that outlines how they limit the risk of a breach, and their response to a known or suspected breach. The minimum compliance requirements for a licence holders FMP can be found here: https://novascotia.ca/fish/documents/compliance-documents/Minimum-compliance-requirements-Marine-Finfish.pdf

3. Compilation of confirmed farmed Atlantic salmon escapees caught at monitoring facilities along the Atlantic coast

Salmon escapees caught at monitoring facilities in rivers of DFO Maritimes and Newfoundland Regions from 2015 to 2024. No salmon escapees were caught in the province of Quebec and DFO Gulf Region in 2024. Escapees were confirmed by scale analysis and physical appearance.

Year	**New Brunswick**			**Nova Scotia**	**Newfoundland and Labrador**	
	Big Salmon River	Magaguadavic River	Saint John River (Mactaquac Dam)	Gaspereau River (White Rock)	Garnish River	**Total**
2015	0	0	0	0	8	**8**
2016	0	0	0	0	3	**3**
2017	0	0	0	1	7	**8**
2018	0	0	1	1	5	**7**
2019	3	78	3	0	0	**84**
2020	0	0	0	0	1	**1**
2021	0	3	0	2	1	**6**
2022	0	59	4	0	0	**63**
2023	0	65	0	0	0	**65**
2024	0	17	0	0	0	**17**
Total	**3**	**222**	**8**	**4**	**25**	**262**

4. Summary of Salmonid introductions from outside the Commission Area

Species (strain, if applicable)	Number	Life Stage	Origin[1]	Destination[2]	Purpose[3]	Land-Based or Marine
Atlantic Salmon (*Salmo salar*) Saga Strain, All-Female – Triploid	570,000	Eggs	Hafnarfjordur, Iceland	Centre Burlington, Nova Scotia	Aquaculture	Land-Based
Atlantic Salmon (*Salmo salar*) Stofnfiskur Strain, All-Female – Triploid	445,000	Eggs	Hafnarfjordur, Iceland	Wentworth Valley, Nova Scotia	Aquaculture	Land-Based
Rainbow Trout (*Oncorhychus mykiss*) Steelhead Strain, All-Female - Triploid	63,000	Eggs	Rochester, Washington State, USA	Centrelea, Nova Scotia	Aquaculture	Land-Based
Rainbow Trout (*Oncorhychus mykiss*) Steelhead Strain, All-Female - Triploid	850,000	Eggs	Hoodsport, Washington State, USA	Wolfville, Nova Scotia	Aquaculture	Land-Based
Rainbow Trout (*Oncorhychus mykiss*) Troutlodge Strain, Mixed Sex - Diploid	1,000,000	Eggs	Hoodsport, Washington State, USA	Merigomish, Nova Scotia	Aquaculture	Land-Based
Rainbow Trout *(Oncorhychus mykiss*), All Female - Diploid	100,000	Eggs	Hoodsport, Washington State, USA	St. Andrews, Nova Scotia	Enhancement	Land-Based
Rainbow Trout *(Onchorynchus Mykiss)*	4,100,000	Eyed egg	Washington State, USA	Brookvale, Prince Edward Island	Aquaculture	Land-Based
Rainbow Trout (*Onchorynchus Mykiss)*	100,000	Eyed egg	Washington State, USA	Victoria, Prince Edward Island	Research	Land-Based
Atlantic Salmon (*Salmo salar*)	70,000	Eyed egg	Iceland	Victoria, Prince Edward Island	Research	Land-Based
Atlantic Salmon (*Salmo salar*), All-Female-Triploid	5,400,000	Eggs	Iceland	Marystown, Newfoundland and Labrador	Aquaculture	Land-Based
Rainbow Trout *(Onchorynchus Mykiss)*	3,000	Eggs	Washington State, USA	St. John's, Newfoundland and Labrador	Research	Land-Based
Arctic Char	200	2-4 kg	Anola, Manitoba	Québec	Aquaculture	Land-

(*Salvelinus alpinus*)						Based
Rainbow Trout *(Onchorynchus Mykiss)*	125,000	Eggs	Washington State, USA	Québec	Aquaculture	Land-Based

Notes:

1. This would be the province or state for introductions from the west coast; or country for international introductions. It was decided that introductions between Canada and the US that are within the NASCO Commission Area (between Maine and New Brunswick, for example) would not be included here as those introductions would be captured in other avenues and because these are not as relevant.
2. The more specific the information the better. However, Bay level is considered sufficient.
3. This refers to the intention for the introduction – aquaculture, research, stock enhancement, recreational fishing, etc.

5. Summary of Transgenic activities within the Country [Annex 1 of NAC (10)6]

In 2024, there were no known violations of the Canadian Environmental Protection Act in respect of transgenic (genetically modified) Atlantic salmon. Commercial production of growth enhanced transgenic Atlantic salmon in Canada was terminated in December, when AquaBounty Limited, the company that marketed the world's first transgenic animal for human consumption, the AquAdvantage Salmon, announced its intension to close its last remaining hatchery and research facility in Fortune, Prince Edward Island. A second facility at Rollo Bay had previously been closed in 2023. Environment and Climate Change Canada (ECCC) conducted a site visit of the Fortune facility in September 2024. At the time, there were no genetically-modified fish in the facility, only conventional salmon. There was no production of transgenic salmon in Nova Scotia, New Brunswick or Newfoundland and Labrador.

In keeping with Annex 5, paragraph d) of the Williamsburg Resolution, DFO has established and continues to operate the Centre for Aquatic Biotechnology Regulatory Research (CABRR), in British Columbia, where contained, land-based research is undertaken to provide scientific knowledge that informs risk assessment, risk management and regulatory approaches for transgenic salmonids. To facilitate decision-making in the absence of full scientific certainty, where there is a risk of serious or irreversible harm, the Government of Canada has developed a Framework for the Application of Precaution in Science-Based Decision Making about Risk. This approach is aligned with Article 7 of the Williamsburg Resolution.

Although the following project is unrelated to transgenic activity, Canada has agreed to provide introductions and transfers information regarding Newfoundland and Labrador's Grieg Project in future North American Commission reports, as available.

Grieg operates a state of the art hatchery / smolt facility in Marystown, Newfoundland and is licensed to operate 13 licensed marine farms in Placentia Bay, Newfoundland. Each marine farm consists of multiple cages with nets extending down to 43 meters.

The project proposal was received in February 2016 and has undergone a series of provincial and federal reviews and assessments. More information on the timeline and other relevant documents is publicly available from the Government of Newfoundland and Labrador at https://www.gov.nl.ca/mae/projects/project-1834/. Additionally, DFO published two CSAS reviews of Grieg's proposed sites, and can be found at the following links: https://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2019/2019_029-

eng.html and https://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2022/2022_044-eng.html.

In 2020, Grieg introduced their initial batches of triploid (all female) European salmon eggs at their land-based hatchery in Marystown. Following a suspected detection of the Infectious Salmon Anaemia (ISA) virus in 2021, the hatchery population was culled. To date, no further ISA detections have been reported in subsequent egg introductions.

In 2022, Grieg stocked two marine sites in Placentia Bay, Newfoundland, which have now been fully harvested. Three sites were stocked in 2023 and are expected to be harvested in 2025, while three additional sites were stocked in 2024 and are anticipated to be harvested in 2026.

Prior to DFO approving the transfer of smolt to marine cages, the company is required to sample fish (via blood) to verify triploidy, beyond the two-step validation conducted at the source in Iceland. The development of a triploid verification methodology was a condition of release from their provincial environmental assessment and was approved by both provincial and federal governments.

Annex

Additional Information

- Information on all confirmed findings of regulated diseases is publicly available on the CFIA's website (see http://www.inspection.gc.ca/animals/aquatic-animals/diseases/reportable/2017/eng/1339174937153/1339175227861).

- The CFIA also maintains information on the status of controlled diseases in Canada (see http://www.inspection.gc.ca/animals/aquatic-animals/eng/1299155892122/1320536294234