



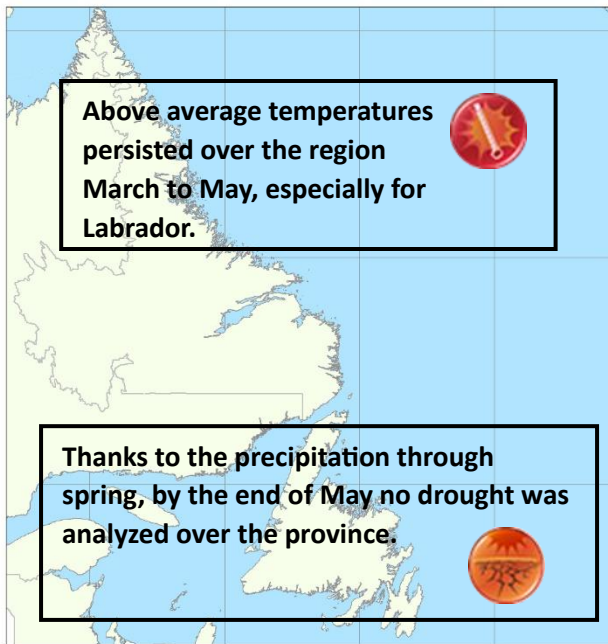
Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

Newfoundland and Labrador

Quarterly Climate Summary: Spring 2024

Summary & significant weather events (March – May)



Warm temperatures, especially in March and April, led to above normal overall temperatures for the season. New daily high temperature records were reported in April, contributing to the above normal month for average daily mean temperatures over most of the region. March and April were the most active months with blizzard-like conditions, mixed precipitation, flooding, and strong winds. With the warmer temperatures, we saw more rain than snow compared to normal conditions.

The ice coverage along the Labrador coast and around Newfoundland has been below normal this season with the end of the season arriving four weeks earlier than normal.

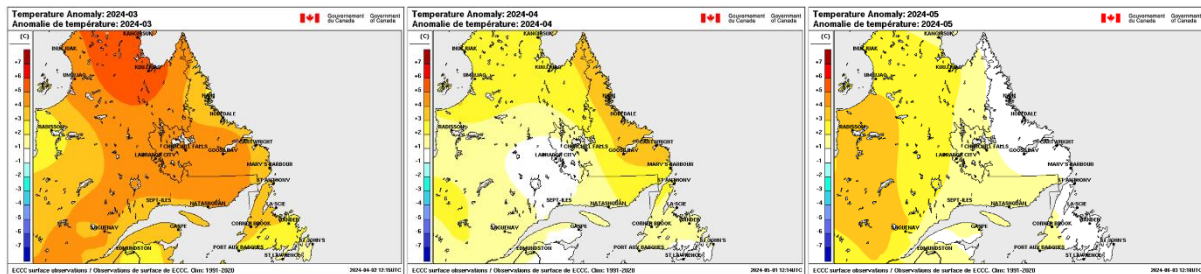
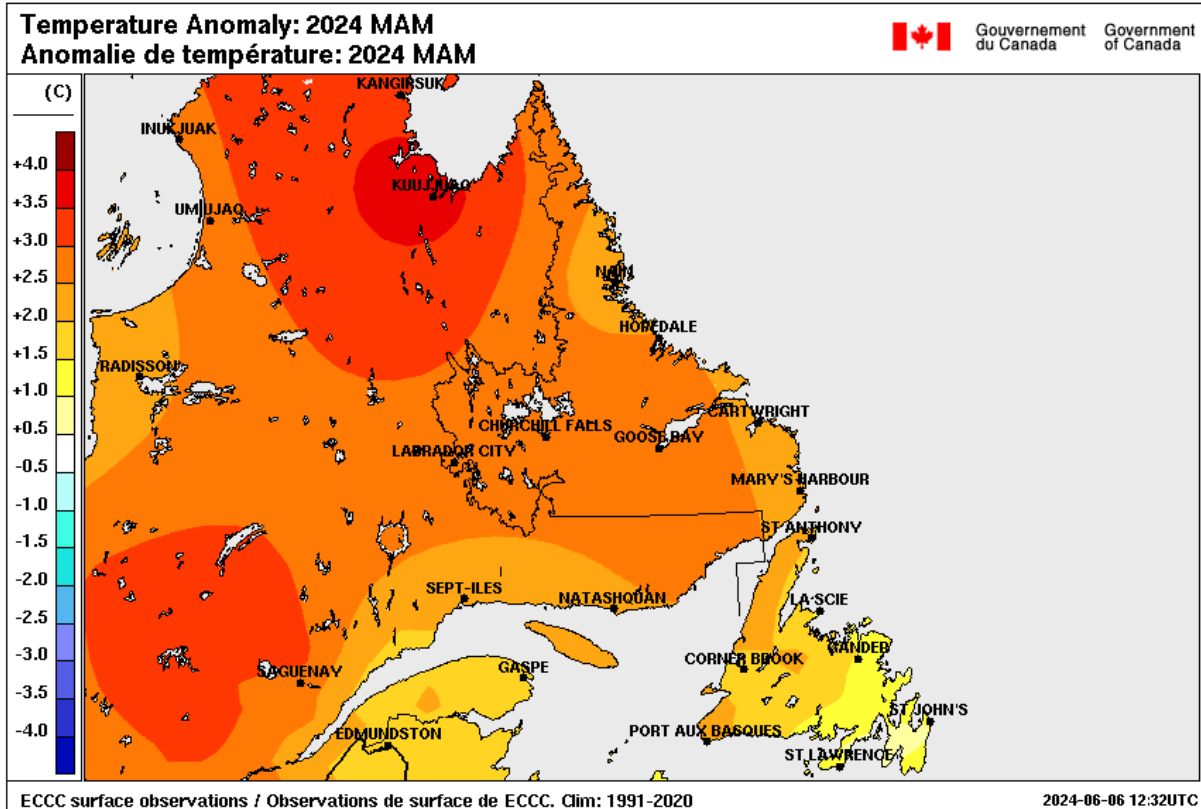
Thanks to the active weather over the region, drought conditions were remedied over the region, with no drought analyzed over the province by the end of May.

The outlook for the upcoming summer shows that warm conditions are expected to continue, with all of Atlantic Canada having a strong signal of above average temperatures.

Regional Climate Overview (March- May)

Temperature

Temperatures were warmer than the long-term average over Newfoundland and Labrador this spring, mostly dominated by the temperatures in March over Labrador. May was the closest to normal out of the three, but no regions had below normal monthly average temperatures. Many stations within the region saw a top 10 warmest Spring season, with Channel-Port aux Basques and Hopedale seeing their second warmest.

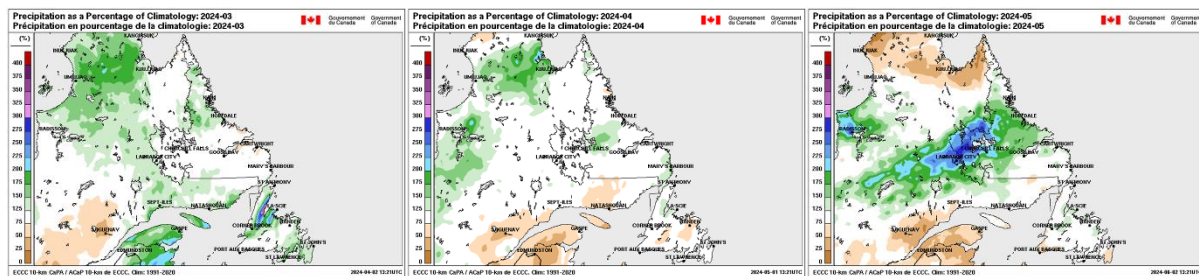
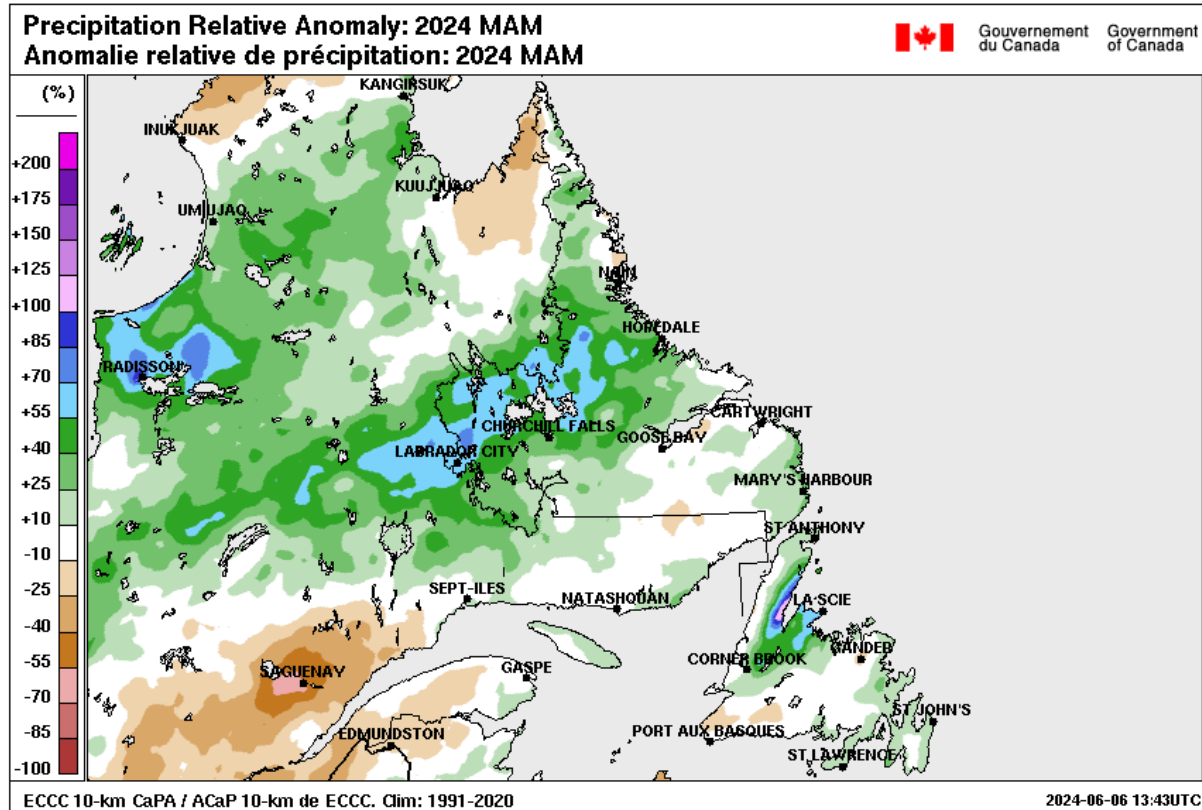


Above top: Temperature anomalies for Newfoundland and Labrador for March – May 2024 combined.

Above bottom, left to right: Temperature anomalies for Newfoundland and Labrador for Mar., Apr., and May 2024

Precipitation

With only a few small exceptions, most of the region experienced near to above normal precipitation over the period. Precipitation over western Labrador in May and around the Northern Peninsula in March provided above normal precipitation. In line with the warmer temperatures during Spring those areas saw higher rainfall amounts than normal while snowfall amounts were less than normal.

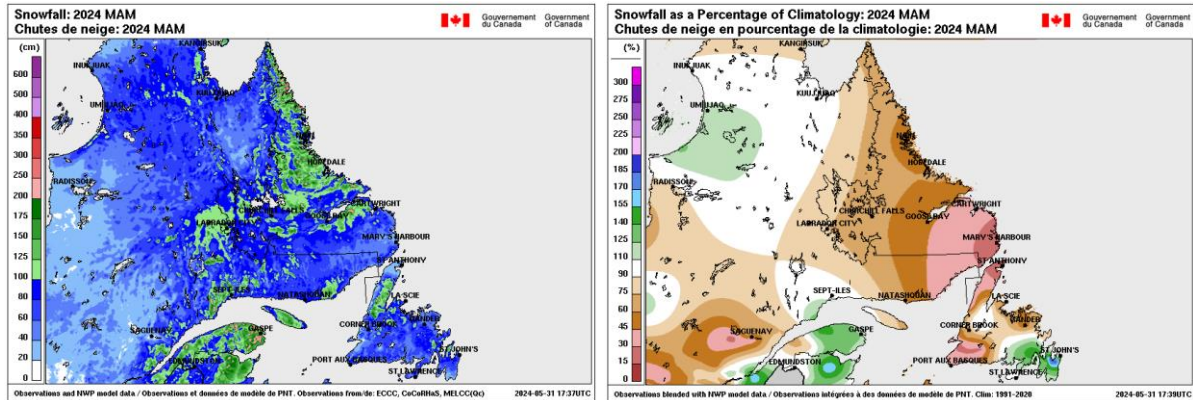


Above top: Precipitation as a percentage of 1991–2020 average for Newfoundland and Labrador for Mar.-May 2024 combined.

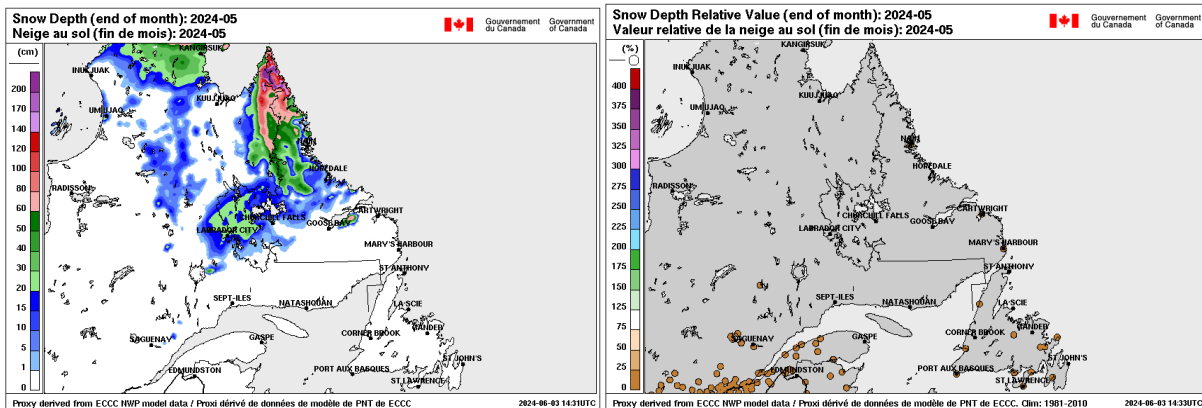
Above bottom, left to right: Precipitation anomalies for Newfoundland and Labrador for March, April, and May 2024.

Total Snowfall and Snow Depth

As we transition to longer days and warmer weather, most snow that fell over the period melted, with Newfoundland being snow-free by the end of May. Most regions had less snow fall than normal, except for the Avalon Peninsula and surrounding region which received more than normal.



Total snowfall (estimated) for March 2024, April 2024, and May 2024 combined based on a blend of observations and modelled data (left); snowfall as a percentage of climatology (1991 – 2020) (right).



Snow depth (estimated – end of the month) for Newfoundland and Labrador at the end of May 2024 derived from model data (left); snow depth (estimated - end of the month) derived from model data as a percentage of climatology (1981-2010) for May 2024 (right)

Seasonal station data compared to 1981-2010 normals

Seasonal temperature averages and precipitation totals compared to seasonal normals (1981 - 2010) for March to May 2024 for selected locations in Newfoundland and Labrador.

Location	Mean Temperature (°C)					Total Precipitation (mm)		
	Seasonal Mean	Average of Monthly Normal Means	Diff.	Rank ³ (Warmest)	Data Start Year	Seasonal Total	Total of Monthly Normals	Seasonal Total as % of Normal
Bonavista	2.9	1.3	1.6	6	1956	312.8	262.2	119
Channel-Port aux Basques	3.5	1.2	2.3	2	1898	299.3	365.3	82
Corner Brook	4.5	2.5	2.0		1933	382.3	260.0	147
Gander	3.2	1.5	1.7	8	1937	231.1	297.2	78
St. John's	2.9	1.9	1.0	>10	1874	378.4	367.7	103
St. Lawrence	4.0	1.8	2.2	3	1966	407.0	373.7	109
Stephenville	4.5	2.2	2.2	8	1889	325.9	261.3	125
Terra Nova Nat Park	3.0	2.1	0.9	>10	1962	N/A	N/A	N/A
Cartwright	0.4	-2.4	2.8	4	1934	N/A	N/A	N/A
Happy Valley-Goose Bay (Goose A)	1.2	-1.7	2.9	4	1941	223.2	198.2	113
Hopedale	-2.0	-4.1	2.1	2	1942	N/A		N/A
Labrador City (Wabush)	-2.5	-4.5	2.0	7	1960	N/A	N/A	N/A
L'anse au Loup (Blanc Sablon)	1.1	-1.5	2.6	4	1965	208.4	199.4	104
Nain	-3.3	-5.2	1.9	7	1984	N/A	N/A	N/A

Temperature difference: cells shaded pink if $\geq 1^\circ\text{C}$, blue if $\leq -1^\circ\text{C}$. Precipitation as a percent of normal: cells shaded green if $\geq 125\%$ of normal, yellow if $\leq 75\%$ of normal

Rank provides a ranking of mean temperature (eg. 1 warmest, 2 second warmest etc.) for the season against long-term data for the season, based on a selection of stations reporting daily data through the period of record, not adjusted or homogenized. *tied with an earlier year.

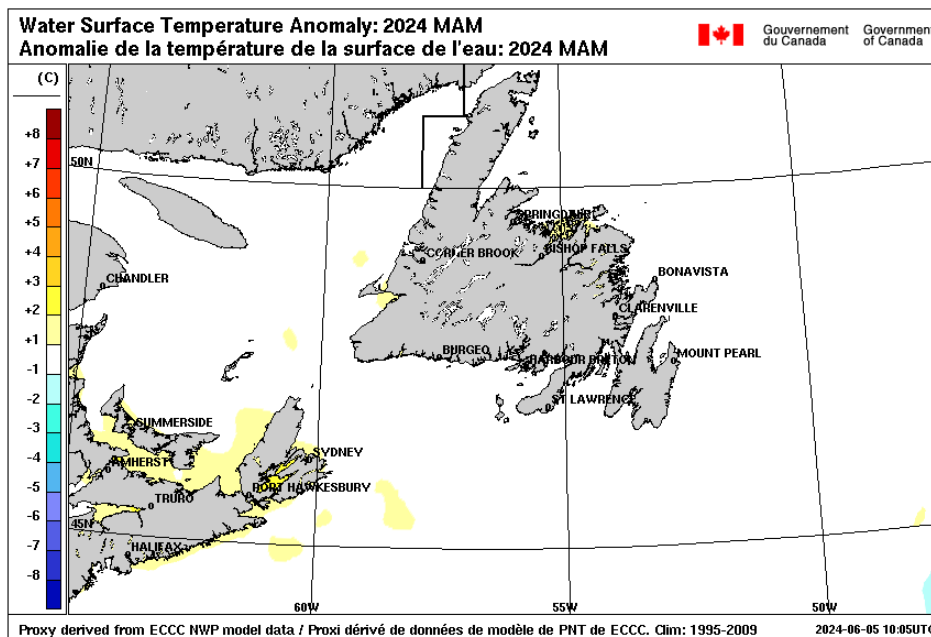
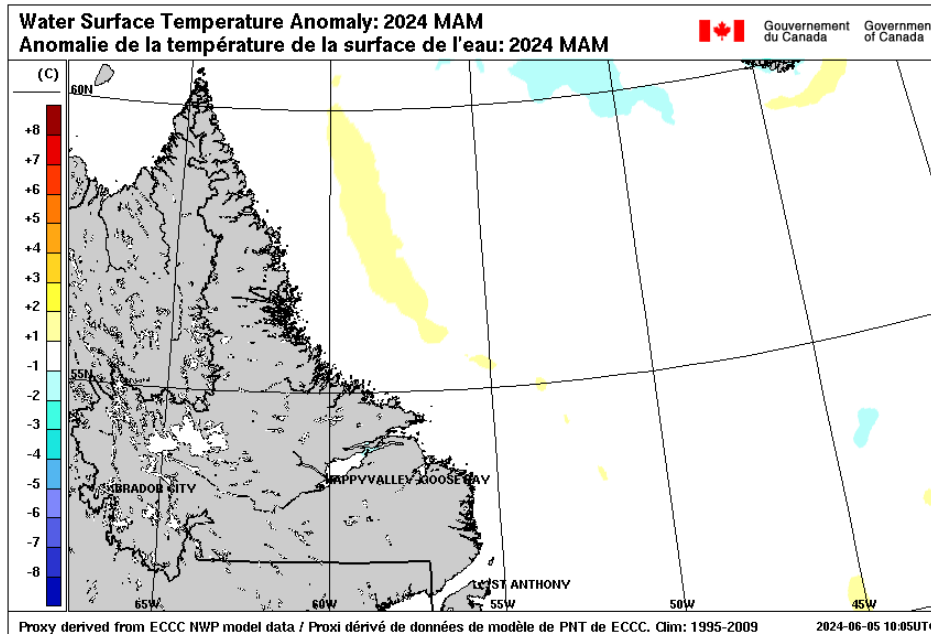
Seasonal rainfall and snowfall totals (March to May 2024), and May 2024 end of month snow on ground compared to 1981-2010 normals (for same or nearby station).

Location	Prov	Total Rainfall (mm)			Total Snowfall (cm)			Last Month, Snow on Ground (SOG) (cm)		
		Seasonal Total	Sum of Monthly Normal	Seas. Total as % of Normal	Seasonal Total	Sum of Monthly Normal	Seas. Total as % of Normal	End Month SOG	Norm End Mo SOG	End Mo as % Normal
Corner Brook	NL	314.6	178.9	176	68.0	81.0	84	0	0	N/A
Deer Lake (Airport)	NL	255.7	143.1	179	55.8	88.7	63	N/A	0	N/A
Gander (Airport)	NL	148.4	158.4	94	55.3	138.9	40	N/A	0	N/A
Gander	NL	N/A		N/A	70.4	138.9	51	0	4	0
St. John's (Airport)	NL	271.8	278.8	97	126.4	87.0	145	N/A	0	N/A
Stephenville (Airport)	NL	293.2	192.4	152	32.7	74.7	44	N/A	0	N/A
Happy Valley-Goose Bay	NL	122.7	76.8	160	115.9	139.2	83	N/A	0	N/A
Labrador City (Wabush (Airport))	NL	N/A		N/A	84.0	124.7	67	N/A		N/A
L'anse au Loup (Lourdes de Blanc Sablon A)	QC	169.6	94.0	180	46.1	105.1	44	N/A	0	N/A
L'anse au Loup	NL	N/A		N/A	39.4	105.1	37	N/A		N/A
Makkovik (Airport)	NL	N/A		N/A	57.0	122.3	47	N/A		N/A
Nain (Airport)	NL	N/A		N/A	107.0	151.8	71	N/A		N/A

Rainfall, snowfall, end month SOG as a percent of normal: cells shaded green if $\geq 125\%$ of normal, yellow if $\leq 75\%$ of normal; *snowfall for Makkovik, Nain, and Labrador City (Wabush) estimated from remarks
Note: station data preliminary, archived values may change subject to further review (see Notes on [Data Quality](#))

Sea Surface Temperature

Sea surface temperatures averaged over March to May were mostly near the long-term average along the coast of Labrador and around Newfoundland. Only small pockets around Newfoundland and in the Labrador Sea were above.



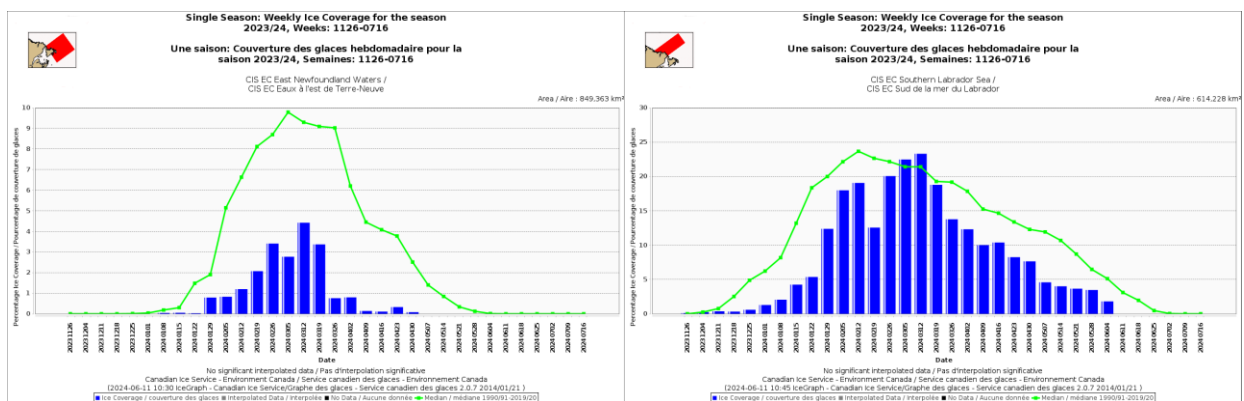
Water surface temperature anomaly (departure from average) maps for Mar.-May 2024 combined, based on ECCC numerical weather prediction (NWP) model data, with climatology based on 1995 to 2009, for Labrador (top) and Newfoundland (bottom) marine areas.

Sea ice Coverage: (Analysis / Concentration departure from normal / seasonal coverage charts)

Sea ice coverage along the Labrador coast and around Newfoundland continued to be below normal during the spring.

The beginning of March saw sea ice continue to grow along the Labrador coast, even surpassing the climatological median for the first two weeks of the month. The second half of March; however, brought about the onset of the spring melt as ice coverage dropped steeply, accelerating to be 4 weeks ahead of schedule by the end of the month. Through April, the spring melt continued ahead of schedule by 3-4 weeks. This meant that the rate of ice melt followed the typical pace for the month. The sea ice pack continued to loosen and become less concentrated, in particular, south of Groswater Bay. The ice in Lake Melville fractured during the last week of April. The ice melt along the Labrador coast slowed in May as ice retreated to form a dense ice pack along the coast north of Groswater Bay. This also slowed the spring melt to be two weeks ahead of normal by the end of May.

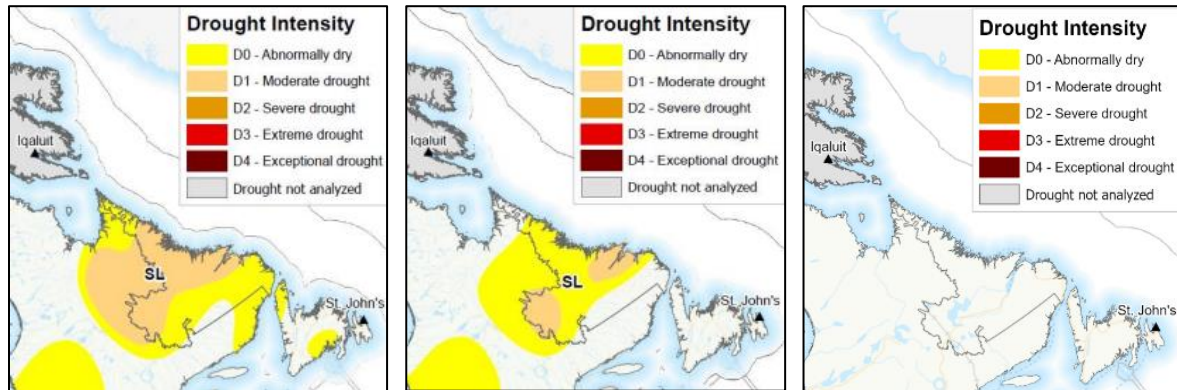
In the waters around Newfoundland, ice coverage grew in early-March and reached the seasonal peak in the second week of the month. Coverage declined slightly after that followed by a sharp drop at the end of March, reducing ice coverage to under a tenth of the normal coverage, 0.8% compared to the usual 9%. By early April, ice was mainly confined to the waters of the Northeast Coast and around the Northern Peninsula. Ice coverage did not change much through April; as the ice melted, more ice drifted in from the Labrador coast. The transport of ice into Newfoundland waters came to a halt at the end of April and the existing ice in the area completely melted within the first week of May. The total accumulated ice coverage for the Newfoundland waters was 0.6% compared to the median of 2.6%. This ranked the 2023-24 ice season as the 4th lowest ice coverage for the East Newfoundland Waters.



Weekly ice coverage for the season up to the week of June 11, 2024, for East Newfoundland waters (left) and Southern Labrador Sea (right). Source: Canadian Ice Service – Environment and Climate Change Canada.

Regional Impacts

Canadian Drought Monitor (Agriculture and Agri-Food Canada)



Canadian Drought Monitor Map for Mar. 31, 2024 (left), Apr. 30, 2024 (middle) and May 31, 2024 (right). S = Short-Term, impacts typically less than 6 months (e.g. agriculture, grasslands); L = Long-Term, impacts typically greater than 6 months (e.g. hydrology, ecology) Source: <https://agriculture.canada.ca/en/agricultural-production/weather/canadian-drought-monitor>

By the end of **March**, western and northern Labrador had moderate drought conditions with abnormally dry conditions elsewhere. For Newfoundland, some areas were abnormally dry, but the majority of the region was not in drought conditions.

By the end of **April**, Labrador had some areas of abnormally dry to moderate drought, but regions were smaller than the end of March. Newfoundland had no drought conditions.

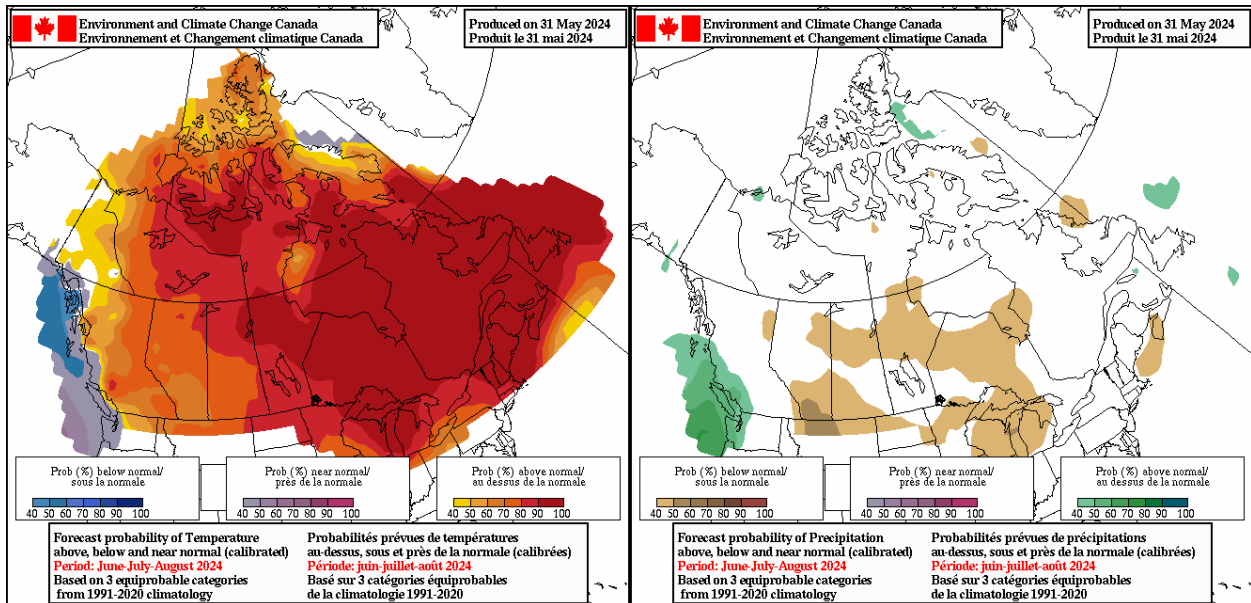
By the end of **May**, no regions were in drought conditions.

Forestry/Wildland Fires

The NRCan Canadian Wildland Forestry Information Service (CWFIS) weekly National Wildland Fire Situation Report indicated that as of June 12, 2024, the number of fires (to date) in the province was below the 10-year average, however the estimated area burned (to date) was above the 10-year average.

Temperature & Precipitation Seasonal Forecast

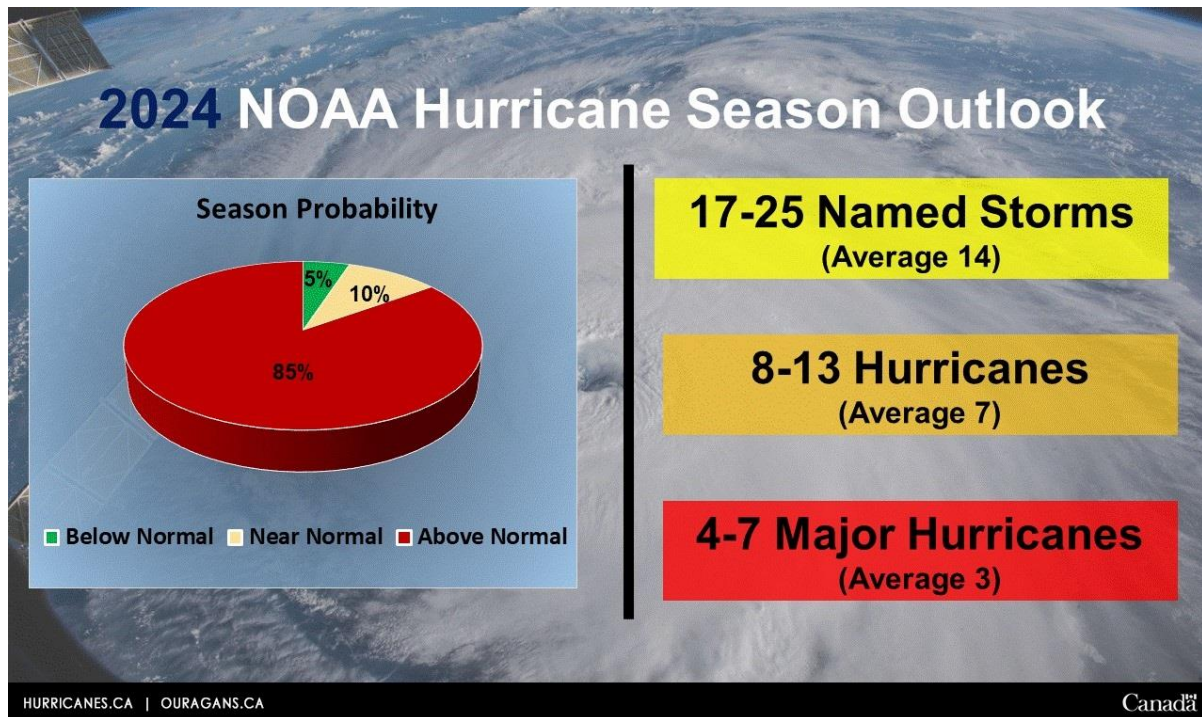
The seasonal forecast shows above average temperatures for all of Atlantic Canada, with Newfoundland and Labrador with a 90 – 100 % chance of above average temperatures. For precipitation, there is no signal of above or below for most of the region, with just a small section of the Labrador coast with a slight signal of below average.



Probability of above, below and near normal temperature (left) and precipitation (right) for summer (Jun 2024 – Aug 2024). Produced May 31, 2024. Source: [Seasonal forecasts for Canada](#)

Atlantic Hurricane Season Outlook

For the 2024 Atlantic Hurricane Season (June 1-November 30), NOAA is predicting above normal activity due to two main factors: near-record warm ocean temperatures in the Atlantic Ocean, and the development of La Nina conditions in the Pacific. This year's May outlook calls for the highest number of named storms, hurricanes, and major hurricanes ever issued.



Summary infographic showing hurricane season probability and numbers of named storms predicted from NOAA's 2024 Atlantic Hurricane Season Outlook. Source: NOAA/Canadian Hurricane Centre

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Previous summaries can be found here: <https://www.arctic-rcc.org/>