

MARITIME CANADA CLIMATE SUMMARY

December 2022

December Rounds Out the Year with Continued Above Normal Temperatures

Virtually the whole of December saw above normal temperature with two exceptionally warm periods at the beginning and the end of the month. This resulted in positive anomalies of up to 4 C at some stations, and at almost all stations, the month ranked in the top 10 warmest. NE NB recorded above normal precipitation amounts – much of it as snowfall. Elsewhere amounts were near to below normal. Parts of mainland NS have recorded below normal amounts since July. Except for parts of northern NB and the Cape Breton Highlands, snowfall was mostly below normal and little to no snow fell in parts of western and central Mainland NS – e.g., Halifax Airport reported just 1.4 cm compared to the December norm of 45.4. The warm temperatures also resulted in below normal sea-ice in the Gulf with just 1% cover at the end of the month compared to the normal 5%. Sea Surface temperatures continued above normal with the highest anomalies remaining near 5 C in eastern Bay of Fundy and the Northumberland Strait.

The Warmest (°C)

New Brunswick	
St Stephen	12.8
Nova Scotia	
Beaver Island	16.4
Prince Edward Island	
St Peters	12.1

The Coldest (°C)

New Brunswick	
Edmundston	-24.3
Nova Scotia	
Debert	-17.2
Prince Edward Island	
Maple Plains	-15.1

The Wettest (Total mm)

New Brunswick	
Mechanic Settlement	242.8
Nova Scotia	
Ingonish Beach	356.2
Prince Edward Island	
St Peters	132.6

The Capital Stats

Station Name	Mean Temperature (°C)			Extremes	
	Monthly Mean	Normal Mean	Diff from Normal	Max (Date)	Min (Date)
Charlottetown	-0.3	-3.3	3.0	10.8 (1)	-12.2(28)
Halifax	+0.7	-2.4	3.1	13.7 (24)	-9.2 (28)
Fredericton	-1.7	-5.3	3.6	11.8 (3)	-14.8 (28)

Station Name	Total Precipitation			Snowfall	
	Monthly Total (mm)	Normal Total (mm)	Percent Normal	Total (cm)	SOG End of Month
Charlottetown	98.8	118.1	84	25.6	NA
Halifax	166.7	143.3	116	1.4	0.0
Fredericton	111.4	91.8	121	46.0	5.0

Daily Temperature Records

Given the large positive temperature anomalies, not surprisingly, 68 new daily record highs were set across the region – 32 in NS, 29 in NB and 6 in PEI. There were no new daily record lows set. In NS and PEI, many of the new highs were set on New Year's Eve: -20 in NS and 4 in PEI, with 14.7 C at Tatamagouche and Truro being the highest. In NB the warm period at the beginning of the month saw 9 new records set on the 3rd and 9 set on the 31st.

Significant Weather Events (information provided by Climate Services, ECCC)

Nov 30-Dec 1. A vigorous system ushered in December with wind, rain and mild temperatures. Strong southeasterly winds swept across the region giving gusts ranging from 80-113 km/h and causing thousands to lose power. Rainfall was less impactful with amounts generally ranging from 15- 30 mm with locally higher amounts in the Bay of Fundy region. Temperatures climbed into the double- digits for many areas and melted snowpack in northern NB.

Dec 13-14. A winter storm system brought mostly snow and wind to the eastern regions and prompting the first winter storm warnings of the season. Strong northerly winds were confined to mainly PEI and northeastern NB where gusts as high as 117 km/h occurred at North Cape, PEI. Snowfall amounts were generally 10-20 cm across Cape Breton, eastern NS, PEI and eastern NB with a report of 40 cm in Morell, PEI. The combination of heavy, wet snow and strong winds caused thousands to lose power and subsequent building and school closures

Dec 17-20. A low-pressure system moved south of the region and stalled bringing continuous light to moderate precipitation to most areas. The greatest precipitation was confined to Cape Breton, western NS and southwestern NB where largely 40-60 mm fell. Precipitation fell as mostly rain in NS but fell as wet snow (30-50 cm) in NB and caused localized power outages.

Dec 23-24. An intense system brought very strong winds and mostly rain to the region. Southeasterly wind gusts exceeded 100 km/h in all three provinces. Localized extreme wind gusts of up to 167 km/h were measured in the Grand Etang area of Cape Breton. Provincial power utilities reported over 200,000 customers in the Maritimes lost power, which required days to restore in some locations. Shingle damage to roofs was widespread in the hardest hit regions, such as the Acadian Peninsula and PEI. Rainfall amounts of 15-25 mm fell across most areas with localized amounts of 60 mm in both NB and NS and 99 mm in Ingonish Beach, NS. Coastal flooding was reported in the Bay of Chaleur, which resulted a road closure and local evacuations in Charlo, NB. Several daily maximum temperatures in NS and southern NB were broken. Temperatures climbed as high as 14 to 16°C at several sites in Nova Scotia. Daily maximum temperature anomalies were 4 to 11 degrees above average on the 24th.

[Thousands without power as Nova Scotia feels the effects of high winds and rain | CBC News](#)

Dec 25-26. Cold, arctic air combined with a swly flow created snow squalls which developed over the Bay of Fundy and affected southeastern NB, PEI and northern NS. Whiteout conditions were reported along the TransCanada highway between NB and NS. There were localized snowfall amounts of near 30 cm during a busy travel period.

Dec 31. A mild air mass ushered in double-digit maximum temperatures across all three provinces as 2022 came to close. Shelburne Sandy Point, NS and Western Head, NS saw the warmest daily maximum temperatures in the Maritimes, of about 14°C. Daily maximum temperature anomalies of 10 to 15 degrees above average blanketed the region.

Compiled by Peter J. Lewis with data and information provided by Client Service Operations Atlantic, Meteorological Service of Canada
Environment and Climate Change Canada / Government of Canada

Other CMOS News

CMOS Congress 2023: The theme of this year's congress is **Connecting on the Rock: From the Marine Environment to the Blue Economy**. The congress will be held at [The Sheraton Newfoundland](#) in St. John's from May 28th – June 1st. The Scientific Program Committee has selected [30+ Scientific Sessions](#) that promise an interesting program. The [CALL FOR ABSTRACTS IS NOW OPEN](#) with a deadline of *Tuesday February 14th*. Please visit the [congress website](#) for more details.

NSIS Sponsored Competition: Each year the [Nova Scotian Institute of Science](#) sponsors a competition that acknowledges and rewards students for excellence in the written communication of science and technology. [Click here](#) for more information. If you know any students enrolled at Nova Scotian universities or colleges who are interested in science & technology, we ask that you bring this to their attention.

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