MARITIME CANADA CLIMATE SUMMARY May 2023

Prolonged Dry Conditions Result in Largest Forest Fire in Nova Scotia History

The dry conditions over most of the region which began in February brought devastating forest fires to SW NS, suburban areas to the west of Halifax, and SE NB, causing the loss of around 200 homes in NS and the evacuation of thousands of residents. Continuing from the record low precipitation at some locations in April, most stations in NS received less than 50% of their normal May amounts. For four months (beginning in February) most of the region has received less than 60% of normal precipitation. May temperatures followed the trend of April with most of the region close to or slightly below normal. A hot spell at the end of the month resulted in new daily records with Charlo, NB setting a record for May with 33.6 C on the 31st. Coastal Sea surface temperatures continued to be above normal with positive anomalies of 5 C in the eastern Bay of Fundy and the Northumberland Strait – not a good omen for the beginning of the Atlantic hurricane season.

The Warmest (°C)

New Brunswick	
Bathurst A	33.7
Nova Scotia	
Bedford Range	32.3
Prince Edward Island	
Summerside	30.9

The Coldest (°C)

New Brunswick	
Mactaquac Prov Park	-6.0
Nova Scotia	
NE Margaree	-6.0
Prince Edward Island	
Maple Plains	-3.6

The Wettest (Total mm)

New Brunswick	
Mechanic Settlement	121.3
Nova Scotia	
North Mountain	169.5
Prince Edward Island	
East Point	66.7

The Capital Stats

	Mean Temperature (°C)			Extremes	
Station Name	Monthly Mean	Normal Mean	Diff from Normal	Max (Date)	Min (Date)
Charlottetown	8.5	9.2	-0.7	28.3 (28)	1.6 (23)
Halifax	9.3	10.0	-0.7	31.4 (28)	-0.8 (7)
Fredericton	10.8	11.3	-0.5	32.8(28)	2.8 (10)

	Total Precipitation			Snowfall	
Station Name	Monthly Total (mm)	Normal Total (mm)	Percent Normal	Total (cm)	SOG End of Month
Charlottetown	46.9	91.0	52	NA	NA
Halifax	63.5	111.9	57	NA	NA
Fredericton	86.5	103.8	83	NA	NA

Daily Temperature Records

Given the near to slightly below normal mean temperatures, there were some notably warm and cool periods. Region wide there were 48 new daily highs set - 20 in NS, 19 NB, and 9 PEI. The majority set on the 28^{th} and 31^{st} . 5 of the NB records on 31^{st} were above 33 C including the May record of 33.6 C at Charlo. In contrast there were 34 new daily record lows - 14 in NB and NS and 6 in PEI. The 10^{th} and 23^{rd} saw multiple records across the region - all below zero.

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

May 1-2 After a dry April, a slow-moving trough brought much needed rain (10-30 mm) to most areas. Exceptions include areas along the central Atlantic coast of NS and isolated regions of the Fundy coast in NB where 60-80 mm of rain fell. The trough was also accompanied by gusty easterly winds of generally 60-80 km/h along exposed coastal areas and Les Suêtes winds in Cape Breton gusted up to 156 km/h.

May 8-9 A spring snowfall blanketed elevated terrain in northern Cape Breton with up to 15 cm of snow and caused isolated power outages due to the wet and heavy snow.

May 20-21 Rainy and windy conditions were felt across most regions in the Maritimes as a trough of low pressure traversed the region. Amounts varied from west to east with southwestern NB receiving the highest amounts between 30-45 mm and Cape Breton receiving only 3-5 mm. Gusty northwest winds of 60-80 km/h were strongest over eastern areas and caused power outages.

May 24-26 A trough of low pressure stalled over portions of central and northern NB as a low-pressure system moved south of NS and affected eastern NS and Cape Breton. Both areas saw widespread rainfall amounts of 25-50 mm, which eased the dry conditions so far this spring. Locally, the Broad Cove area in northern Cape Breton received 69 mm.

May 28 The first taste of summer brought the region's first maximum temperatures that exceeded 30°C in all three provinces along with some daily records. The hot and dry conditions were also accompanied by strong westerly winds that gusted near 60-70 km/h across the region.

May 31-Jun 1 The first heat event of the year affected parts of the region. Charlo, NB recorded a maximum temperature of 33.6°C on May 31st, setting a new record for May at that location, and Bathurst, NB, tied its record daily maximum temperature for May, at 33.7°C.

Fire Wealher The ongoing and persistent dry conditions since February combined with a warm and windy air mass produced several wildfires in NS and NB beginning early in the month and intensified on May 28th. The daily fire danger index for May 28th was high to extreme for most regions. A wildfire of historic proportions caused thousands of residents to be evacuated in NS along with a number of school and road closures. The flames damaged or destroyed more than 200 homes and structures in Nova Scotia. The province's largest fire on record, estimated to be 20,000 hectares as of May 31st continued to burn out of control in Shelburne County.

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

CONGRESS 2023: Thanks again to everyone who contributed to making this year's congress a success. You can now find all the recorded content on the <u>CMOS YouTube Channel</u>.

REMINDER, Upcoming Event: What: Fire Weather

When: Thursday June 29, 2023
Where: Webinar (link to follow)

Who: Hosted by CoCoRaHS, Tim Brown, Director Western Regional Climate Center

Desert Research Institute

NEWS FROM THE CLEAN FOUNDATION: The Clean Foundation is offering some interesting opportunities for students of all ages – Apply to join Nova Scotia's first Youth Climate Council, or sign your kids up for a fun and educational summer camp. <u>Click here for more details</u>.