

MARITIME CANADA CLIMATE SUMMARY

June 2023

From Drought to Deluge – New Record Rainfall Totals Set in Nova Scotia

After 4 months of well-below normal precipitation across the Region which had led to near drought conditions and record- setting forest fires in NS, June produced record rainfall totals for Kentville and Kejimikujik where records began in 1888 and 1942 respectively. Several other stations reported near record amounts - it was the 3rd wettest June on record at Halifax Airport. In addition, many stations recorded significantly more days with reported rainfall – St John, NB had 21 days with rain compared to the normal 12.9, Halifax Airport 18 days compared to 12.9 and Charlottetown 19 compared to 13.7. Mean temperatures for the month were within 1 C of normal at almost all stations, however, a cool northeasterly airflow early in the month resulted in many low maximum temperature records - several in the single digits - more than 10 C below normal. Coastal sea surface temperatures remained around 5 C above normal in most locations.

The Warmest (°C)

New Brunswick	
Miramichi	35.5
Nova Scotia	
Bedford Range	34.5
Prince Edward Island	
Maple Plains	32.9

The Coldest (°C)

New Brunswick	
Mactaquac Prov Park	0.0
Nova Scotia	
Collegeville	1.0
Prince Edward Island	
Maple Plains	3.5

The Wettest (Total mm)

New Brunswick	
St John A	226.4
Nova Scotia	
Kejimikujik	329.2
Prince Edward Island	
Harrington	136.5

The Capital Stats

Station Name	Mean Temperature (°C)			Extremes	
	Monthly Mean	Normal Mean	Diff from Normal	Max (Date)	Min (Date)
Charlottetown	15.1	14.5	0.6	30.7 (1)	4.2 (20)
Halifax	15.4	15.1	0.3	33.1 (1)	7.2 (4)
Fredericton	15.4	16.4	-1.0	34.8 (1)	4.3 (3)

Station Name	Total Precipitation			Snowfall	
	Monthly Total (mm)	Normal Total (mm)	Percent Normal	Total (cm)	SOG End of Month
Charlottetown	128.4	98.8	130	NA	NA
Halifax	213.7	96.2	222	NA	NA
Fredericton	133.5	86.3	155	NA	NA

Daily Temperature Records

The heat event which had already set several new daily record high temperatures across the region on May 31st continued through June 1st with 19 new records in NB, the highest 35.5 in Miramichi. Of the 21 new daily maximums in NS, 8 were set on the 1st as were 3 of the 7 new maximums in PEI. The heat event was followed abruptly by an abnormally cool period 3rd to 5th – when 47 new low daily maximum records were set - nearly all were the single digits.

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

June 2-7 A nearly stationary weather pattern brought consecutive days of moisture to the Maritimes, which greatly assisted in reducing the ongoing dryness in the region. Most areas saw 50-100 mm of rain with localized amounts of up to 200 mm for the Kejimikujik Park area of NS. In addition, a northeasterly wind drastically cooled temperatures experienced nearly a day earlier with average daily temperatures of up to 10 degrees colder than normal. Dozens of low maximum temperature records were broken with maximum temperatures only reaching the 5 to 9C range.

June 15 Slow-moving thunderstorms brought pea-size hail and heavy downpours over localized areas of southern NB and the Annapolis valley in NS. A volunteer report from Hoyt, NB recorded 47 mm in less than 90 minutes while amounts reached as high as 80 mm in the Digby area of NS. Lightning also struck a historic church in Falmouth, NS.

June 17-18 An unseasonable low-pressure system brought widespread rain of generally 15-30 mm across the region. The highest rainfall amounts of near 50 mm were reported in central and western NS associated with embedded thunderstorms.

June 22-24 A sultry air mass moved into the region and prompted the first heat warnings of the season along with a few new daily maximum temperature records for all three provinces. Maximum temperatures reached into the low 30s for both NB and NS with PEI having values slightly cooler. Humidex values of 37 were also reported in both NB and NS on June 23rd and 24th.

June 25 Smoke from wildfires in Quebec caused widespread poor air quality in NB and PEI. The worst AQHI values of 9 were experienced in northwest NB. Luckily, the poor conditions were brief, as the winds shifted and increased associated with the passage of a cold front, which cleared the air gradually from north to south through the day.

June 25-30 A persistent southerly flow and a series of weak low-pressure systems maintained cloud and periods of rain across the Maritimes for the last week of June and persisted into the first few days of July. For the hardest hit areas, total rainfall amounts up to the end of June generally ranged from 75 to 170 mm in NB, 60 to 100 mm in NS and 30 to 60 mm in PEI. The highest reported amount was 168 mm at Norton, NB.

June 29 A line of training thunderstorms brought heavy downpours over localized areas of northwestern NB, including Edmundston during the late afternoon. A volunteer observer in nearby St. Hilaire, NB reported 55 mm in approximately 45 minutes. The intense rainfall over a short duration caused several road closures in the area due to washouts and flooding, as well as at least 60 homes with flooded basements.

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

ATTENTION STUDENTS AND EARLY CAREER PROFESSIONALS: The CMOS students reps have created a slack group for students and early career professionals. Click [here to join](#), and get connected!!

Canadian Meteorological and Oceanographic Society (CMOS) | Halifax Chapter
cmos@cmos.ca | www.cmos.ca | Follow us on [Facebook](#) and [Twitter](#)

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