MARITIME CANADA CLIMATE SUMMARY **July 2022**

A Warm July with Variable Precipitation

After a relatively cool to near normal beginning, temperatures took an upswing for the final two thirds of the month leading to a multi-day heat wave between the 21st and 25th. Several daily maximum records were set. NS saw the warmest temperatures with 35.4 C recorded at Ingonish Beach on the 25th marking the 2nd warmest July day at that site. After one widespread precipitation event at the beginning of the month, precipitation was highly variable across the region and mostly convective. NB and PEI ended up with near to above normal amounts and NS near to below normal. The area around Woodstock, NB recorded 187.8 mm – the 3rd wettest July since records began in 1886. Meanwhile Sydney, NS, after it's 3rd wettest June, received only 38% of its July average. Coastal sea surface temperatures for the final week of the month remained mostly above normal with the exception of areas of near to slightly below normal along the Atlantic of NS and near Grand Manan.

The Warmest (°C)

New Brunswick	
Moncton A	33.4
Nova Scotia	
Ingonish Beach	35.4
Prince Edward Island	
Maple Plains	
St. Peters	
Stanhope	31.2

The Coldest (°C)

New Brunswick	
Edmundston	2.9
Nova Scotia	
Pockwock Lake	4.5
Prince Edward Island	
Maple Plains	6.8

The Wettest (Total mm)

New Brunswick	
Woodstock	187.8
Nova Scotia	
Parrsboro	112.1
Prince Edward Island	
Charlottetown A.	114.2

The Capital Stats

	Mean Temperature (°C)			Extremes	
Station Name	Monthly Mean	Normal Mean	Diff from Normal	Max (Date)	Min (Date)
Charlottetown	20.2	18.7	1.5	30.9 (24)	11.3 (14)
Halifax	20.1	18.8	1.3	30.8 (24)	10.4 (12)
Fredericton	20.1	19.4	0.7	32.9 (24)	5.6 (10)

	Total Precipitation			Snowfall	
Station Name	Monthly Total (mm)	Normal Total (mm)	Percent Normal	Total (cm)	SOG End of Month
Charlottetown	114.2	79.9	143	NA	NA
Halifax	62.4	95.5	65	NA	NA
Fredericton	112.9	89.0	127	NA	NA

Daily Temperature Records

A total of 67 new daily high records were set across the region – 47 in NS, 13 in NB and 7 in PEI. The majority of these records occurred during the heat event between the 21st to 25th. The highest was the 35.4 C recorded at Ingonish Beach NS on the 25th. Most of the new records were in excess of 30 C. There were only 4 new record low temperatures - all of them in the SW corner of NB on the night of the 10th in the +4-5 C range.

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

July 5-6: A slow-moving trough of low pressure crossed the Maritimes and provided widespread rain to all regions. Rainfall amounts totaled 20-40 mm with localized amounts exceeding 50 mm in embedded convective showers. A volunteer observation near St. Annes, NS reported the greatest amount at 66 mm. Gusty northwesterly winds behind the system exceeded 80 km/h along parts of PEI and Cape Breton. The extensive cloud cover from the system also resulted in the coolest conditions for the month as average daily temperatures were near 2 to 4 degrees below normal and as much as 5 degrees below normal in parts of NB.

Some of the warmest temperatures of the year thus far were recorded in some localities in a southwesterly flow ahead of an unseasonable system that brought widespread rain to central and southern NB, PEI, and parts of central NS. Fredericton, Bathurst, and Charlo in NB and Sydney, Kentville, and Antigonish in NS all registered their first 30°C day of the year while Stanhope on PEI saw 29.3°C as the warmest day to date. Rainfall amounts of 15-35 mm fell Monday night and into Tuesday morning with localized higher amounts and was the most rain that fell during the entire month over the region. Severe thunderstorms moved through western NB Tuesday afternoon and evening causing gusty winds and heavy downpours. The strongest wind gusts were reported in Lakeville, NB and exceeded 100 km/h. The gusty winds that accompanied the severe thunderstorms resulted in over 4000 customers without power across the province. The Crowe Brook forestry station reported 62 mm of rain associated with the system.

July 21-25: A hot and humid air mass ushered in the first heat warnings of the year. Sunny skies and record setting daily maximum temperatures were observed across the area, with maximum temperatures reaching 33.4°C in NB, and reaching 31.2°C in PEI. Ingonish, NS recorded a maximum temperature of 35.4°C on July 25th making it the 2nd warmest temperature in July and the 5th warmest temperature ever. Average daily temperatures on the 24th were 2 to 5 degrees above normal and near 6 degrees above normal in parts of PEI and NS. Maximum humidex values of 43 were reported at both Greenwood and Kejimkujik Park, NS during the period. The heat wave coincided with no-swimming advisories at some beaches in NB and NS. On the 24th and 25th, a cold front passed through the region putting an end to the sultry conditions but also initiated some severe thunderstorms. Luckily, only minor damage in the form of some fallen trees and broken branches from wind gusts were reported in northern NB. In NS, over 3000 customers lost power due to the thunderstorms.

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 Halifax Exec: And we're back! After a nice break, the CMOS-Halifax executive will have their first meeting of the new year on **Thursday, September 22**nd. Please feel free to join us and hear about our plans for the year. There is no commitment to join the executive, but it's a good opportunity to connect with the local CMOS community. RSVP to Shannon.Nudds@dfo-mpo.gc.ca.

Upcoming Lecture: Who: Dr. Adam Stepanek, hosted by AMS Webinars

What: Top Ten Ways to Be Successful When Looking for a Job in Weather, Water, and Climate

When: Thursday Sept. 15: 1:00 PM ADT

Where: Click here to register.