

SUMMER 2019

CLIMATE TRENDS AND VARIATIONS BULLETIN

This bulletin summarizes recent climate data and presents it in a historical context. It first examines the national average temperature for the season and then highlights interesting regional temperature information.

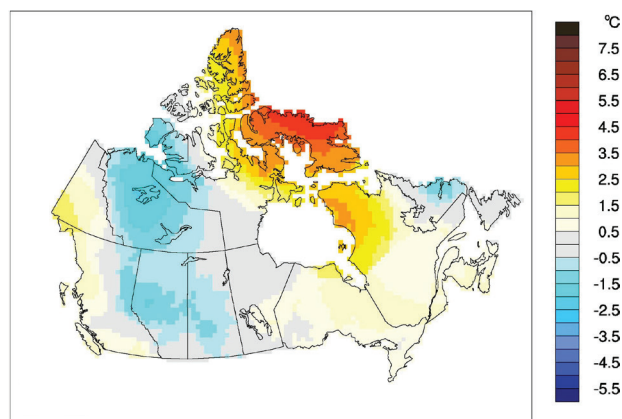
Over the past decade, precipitation-monitoring technology has evolved and Environment and Climate Change Canada (ECCC) and its partners implemented a transition from manual observations to using automatic precipitation gauges. Extensive data integration is required to link the current precipitation observations to the long-term historical manual observations. The update and reporting of historical adjusted precipitation trends and variations will be on temporary hiatus pending the extensive data reconciliation, and resumed thereafter. ECCC remains committed to providing credible climate data to inform adaptation decision making, while ensuring the necessary data reconciliation occurs as monitoring technology evolves.

NATIONAL TEMPERATURE

The national average temperature for the summer (June–August) of 2019 was 0.6°C above the baseline average (defined as the mean over the 1961–1990 reference period), based on preliminary data, which is the 25th warmest observed since nationwide recording began in 1948. The warmest summer occurred in 2012, when the national average temperature was 1.8°C above the baseline average. The coldest summer occurred in 1978, when the national average temperature was 1.0°C below the baseline average. The temperature departures map shows that northeastern Nunavut experienced temperatures more than 3.0°C above the baseline. Yukon, western and southern British Columbia, Ontario, Quebec, New Brunswick, Nova Scotia and Prince Edward Island also

experienced temperatures above the baseline average. Below average temperatures were experienced in Northwest Territories, northeastern British Columbia, Alberta, Saskatchewan and Labrador.

TEMPERATURE DEPARTURES FROM THE 1961–1990 AVERAGE – SUMMER 2019



The time series graph shows that averaged summer temperatures across the country have fluctuated from year to year over the 1948–2019 period. With the exception of 2004, averaged summer temperatures have remained above the baseline average since 1993. The linear trend indicates that summer temperatures averaged across the nation have warmed by 1.4°C over the past 72 years.

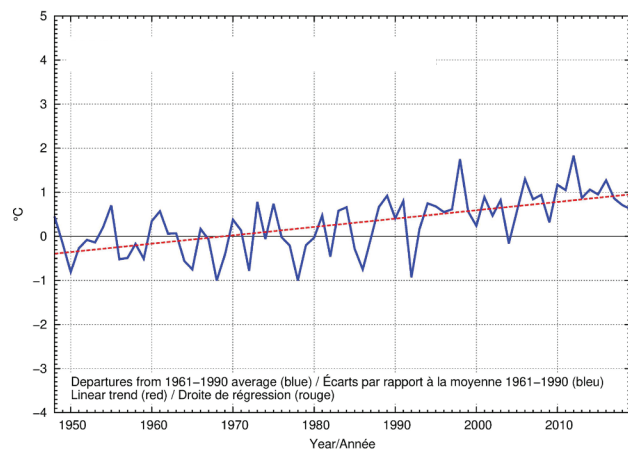


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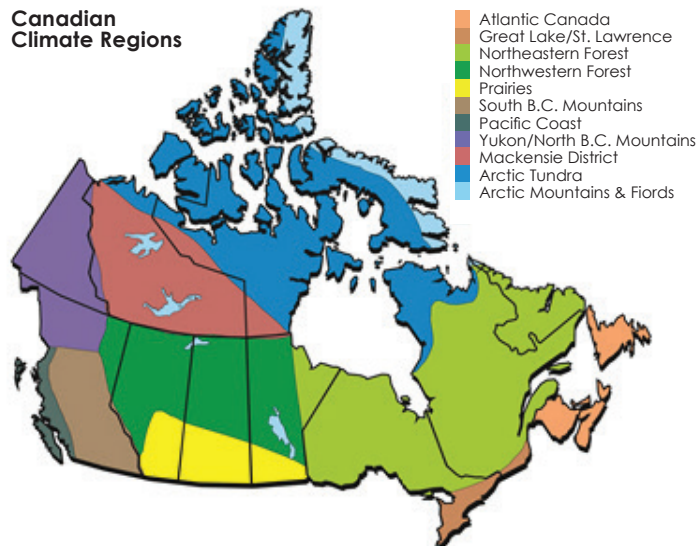
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SUMMER NATIONAL TEMPERATURE DEPARTURES AND LONG-TERM TREND, 1948–2019



Canadian Climate Regions



REGIONAL TEMPERATURE

When examined on a regional basis, average summer temperatures for 2019 were among the 10 warmest on record since 1948 for one of the eleven climate regions: Arctic Mountains and Fiords (warmest at 3.5°C above average). Average summer temperature for 2019 were among the 10 coldest on record for one of the eleven climate regions: Mackenzie District (8th coldest at 1.1°C below average). All eleven-climate regions exhibit positive trends for summer temperatures over the 72 years of record. The strongest trend is observed in the Mackenzie District region (+1.8°C), while the weakest trend (+0.9°C) is found in the Prairies region. A table listing the regional and national temperature departures and rankings from 1948 to 2019 and a table that summarizes regional and national trends and extremes summaries are available on request to ec.btv-cctv.ec@canada.ca.

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