



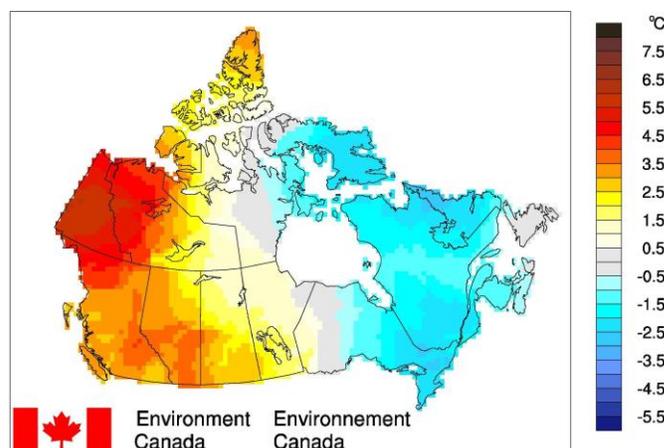
Climate Trends and Variations Bulletin – Winter 2014–2015

This bulletin summarizes recent climate data and presents it in a historical context. It first examines the national average temperature for the season or year, and then highlights interesting regional temperature information. Precipitation is examined in the same manner.

National Temperature

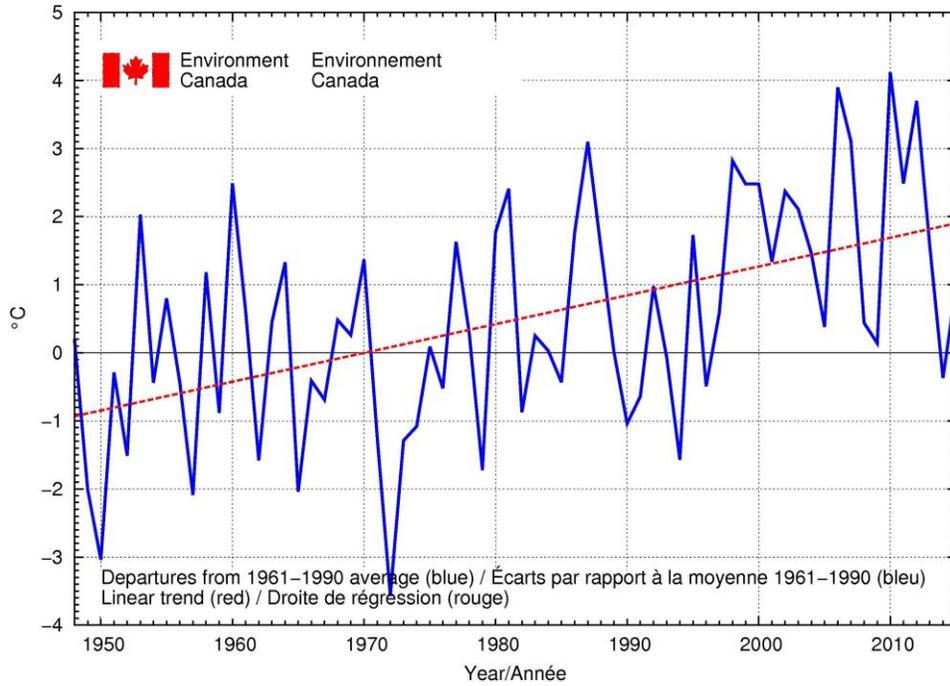
The national average temperature for the winter of 2014–2015 (December 2014 to February 2015) was 1.0°C above the baseline average (defined as the mean over the 1961–1990 reference period), based on preliminary data, which is the 27th warmest observed since nationwide recording began in 1948. The warmest winter occurred in 2009–2010, when the national average temperature was 4.1°C above the baseline average. The coldest winter occurred in 1971–1972, when the national average temperature was 3.6°C below the baseline average. The temperature departures map for winter 2014–2015 (below) shows that British Columbia, Alberta, Saskatchewan, Manitoba, western Ontario, Yukon, Northwest Territories and western Nunavut experienced temperatures above the baseline average. Below-average temperatures were mainly recorded in eastern Ontario, Quebec, most of the Atlantic provinces and eastern Nunavut.

Temperature Departures from the 1961–1990 Average – Winter 2014–2015



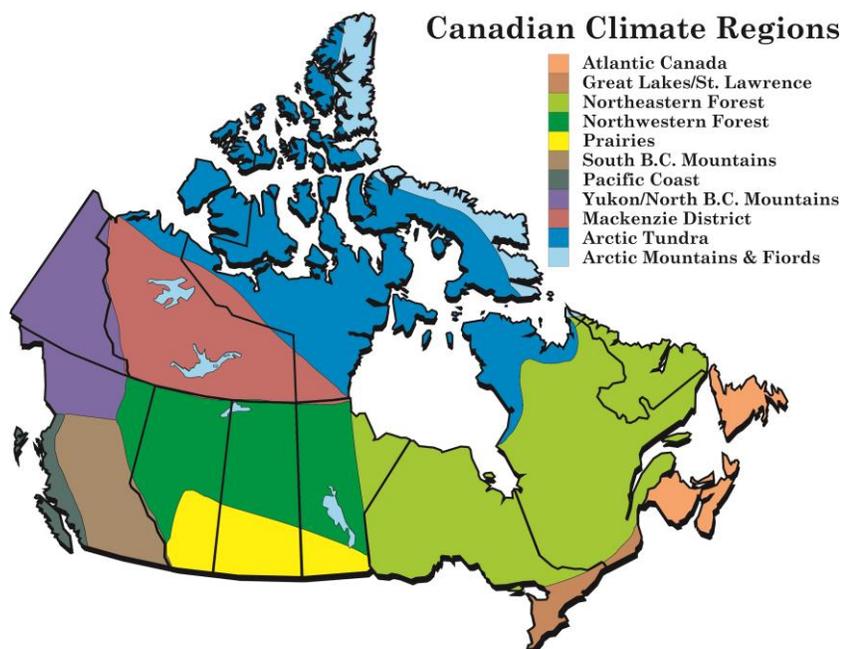
The time series graph (below) shows that, when averaged across the country, winter temperatures have fluctuated from year to year over the period 1948–2015. The linear trend indicates that winter temperatures averaged across the nation have warmed by 3.0°C over the past 68 years.

Winter National Temperature Departures and Long-term Trend, 1948–2015



Regional Temperature

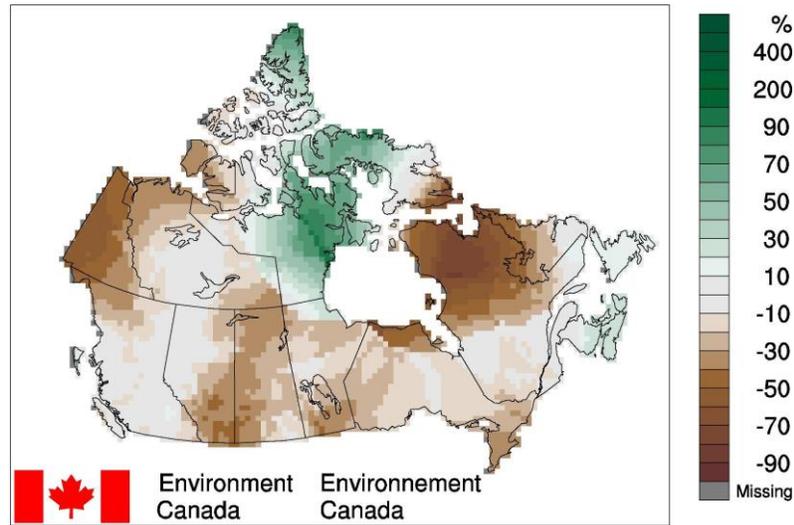
When examined on a regional basis, average winter temperatures for 2014–2015 were among the 10 warmest on record for 3 of the 11 climate regions: the Pacific Coast (warmest at 3.1°C above average), the South B.C. Mountains (2nd warmest at 3.3°C above average), and the Yukon/North B.C. Mountains (6th warmest at 5.1°C above average). Two of the 11 regions experienced an average winter temperature for 2014–2015 that ranked among the 10 coldest since 1948: the Great Lakes/St. Lawrence region (4th coldest at 2.3°C below average) and the Northeastern Forest (10th coldest at 1.3°C below average). All 11 climate regions exhibit positive trends in winter temperatures over the 68 years of record. The strongest trend is observed in the Yukon/North B.C. Mountains region (5.3°C), while the weakest trend (0.3°C) is found in Atlantic Canada. A table listing the regional and national temperature departures and rankings from 1948 to 2015 and a table that summarizes regional and national trends and extremes are available on request to CTVB@ec.gc.ca.



National Precipitation

The national average precipitation for the winter of 2014–2015 was 10% below the baseline average, based on preliminary data, making it the 13th driest winter since nationwide recording began in 1948. The wettest winter was 2010–2011 (28% above the baseline average), and the driest winter was 1956–1957 (20% below the baseline average). The precipitation percent departure map for the winter of 2014–2015 (below) shows conditions notably drier than average in most of Yukon, eastern Alberta, Saskatchewan, Manitoba, Ontario and northern Quebec. Wetter-than-average conditions were mainly experienced in central Nunavut and Atlantic Canada.

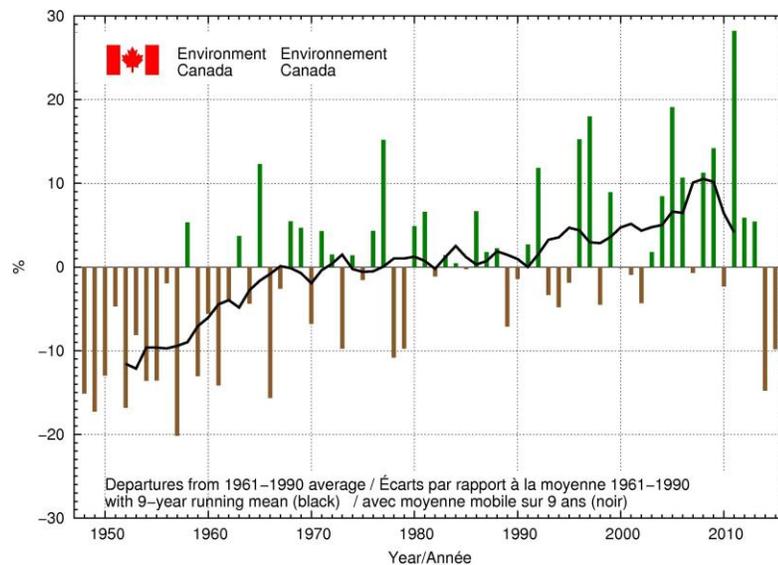
Precipitation Departures from the 1961–1990 Average – Winter 2014–2015



It should be noted that “average” precipitation in northern Canada is generally much less than it is in southern Canada, and hence a percent departure in the north represents much less precipitation than the same percentage in the south. The national precipitation rankings are therefore often skewed by the northern departures and do not necessarily represent rankings for the volume of water falling on the country.

The precipitation percent departures graph (below) shows that, when averaged across the nation, winters have tended to be wetter than the 1961–1990 average since the mid-1970s, although the two most recent winters were drier than average based on preliminary data.

Winter National Precipitation Departures with Nine-year Running Mean, 1948–2015



Regional Precipitation

Precipitation for the winter of 2014–2015 was among the 10 driest recorded since 1948 in 5 of the 11 climate regions: the Yukon/Northern B.C. Mountains (4th driest at 35% below average), the Northeastern Forest (4th driest at 24% below average), the Great Lakes/St. Lawrence region (5th driest at 23% below average), the Prairies (6th driest at 30% below average), and the Northwestern Forest (9th driest at 17% below average). Precipitation for the winter of 2014–2015 was among the 10 wettest since 1948 in only one region: the Atlantic Canada region (9th wettest at 16% above average). A table listing the regional and national precipitation departures and rankings from 1948 to 2015 and a table that summarizes regional and national extremes are available on request to CTVB@ec.gc.ca.

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