Historical Climatology: Northwestern Pennsylvania

Pennsylvania Climatic Division 10 Northwest

***Included counties**: Erie, Warren, McKean, Potter, Crawford, Mercer, Venango, Forest, Clarion, Jefferson*

Mean Annual Temperature 1981-2010	46.9°F	8.3°C
Mean Annual Total Precipitation 1981-2010	44.9 in	114.1 cm

Geography

Immediately adjacent to Lake Erie is the Lake Erie Plain, a narrow strip of flat, rich land 3 to 4 miles wide. Fine alluvial soils and a favorable climate sustain substantial vegetable and fruit cultivation typical of the area surrounding Lake Erie. The division extends irregularly inland and east, including much of Allegheny National Forest and the cities of Erie, Brookville, and Coudersport.

Overview

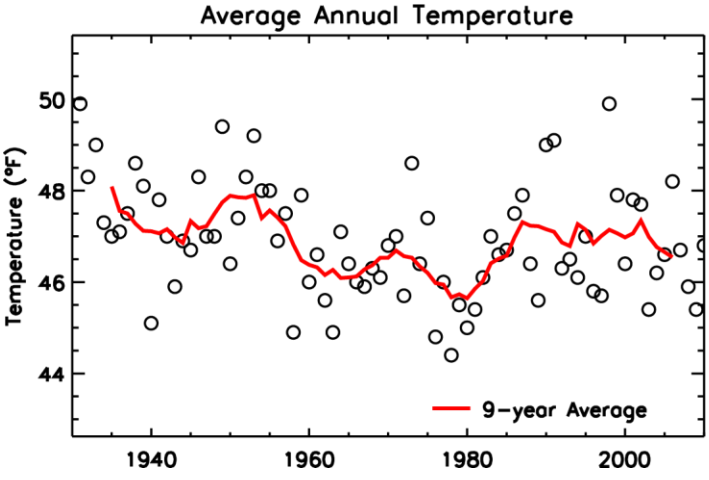
Although the northwestern areas of Pennsylvania's Northwest Climatic Division experience a strong lake effect, the climate of is primarily continental, characterized by larger temperature ranges than in areas at the same latitude near the Great Lakes which have moderated temperatures. The northwestern sections of the division do, however, reside in the "snowbelt" of northern Pennsylvania and can experience significant lake-effect snow. inters are typically cold and dry. Because the day-to-day weather is controlled by the movement of pressure systems across the nation, this area seldom experiences prolonged periods of extreme heat or cold, though hot and humid days are more frequent than in more northerly locations. Precipitation is well-distributed throughout the year with slightly more rain falling during the late spring and early summer. Summer precipitation comes mainly in the form of afternoon thunderstorms.

Changes in Mean Temperature (°F) from 1951-1980 to 1981-2010

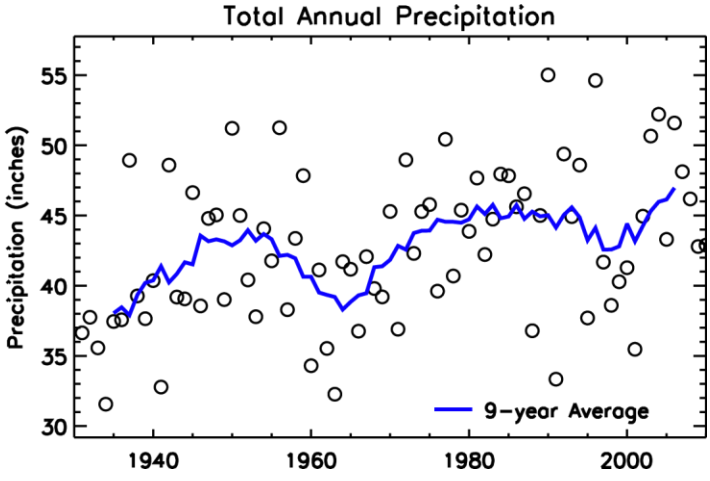
Annual	0.3
Winter, December-February	1.1
Spring, March-May	0.3
Summer, June-August	0.0
Fall, September-November	-0.2

Change in Mean Total Precipitation (%) from 1951-1980 to 1981-2010

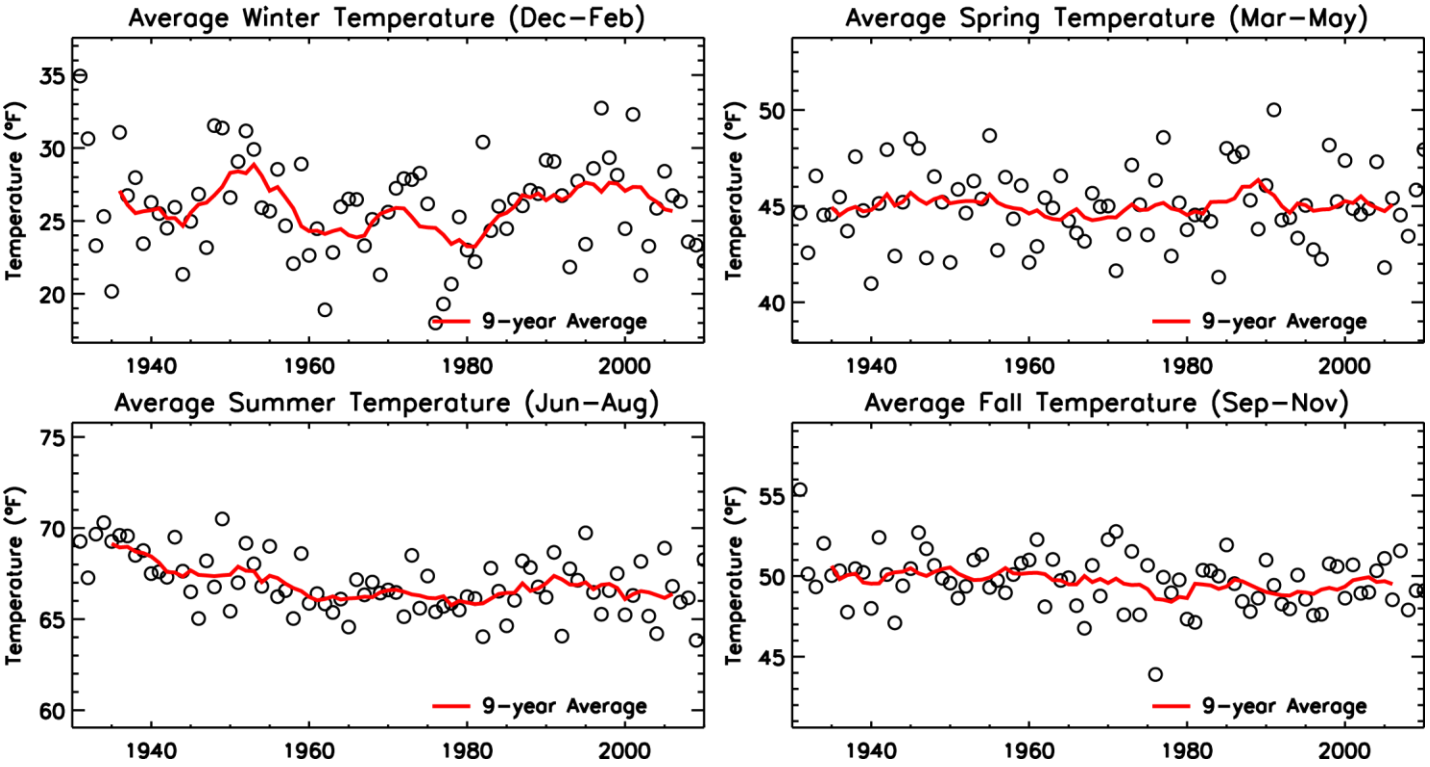
Annual	7.1
Winter, December-February	3.3
Spring, March-May	-0.1
Summer, June-August	10.0
Fall, September-November	13.9



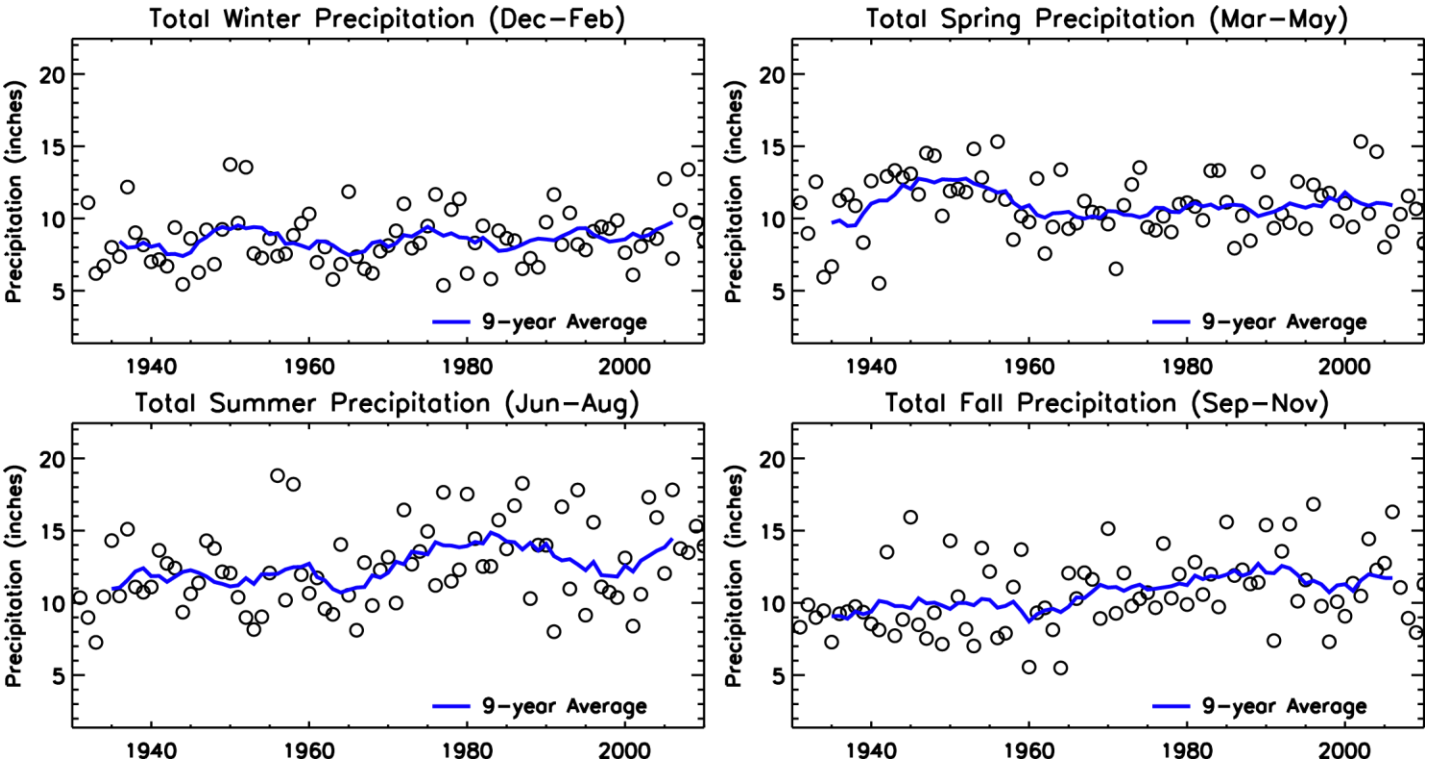
Mean annual temperatures from 1931 to 2011. An open circle represents the average temperature of a single year. The solid line represents the 9-year running mean.



Annual precipitation totals from 1931 to 2011. An open circle represents the total precipitation for a single year. The solid line represents the 9-year running mean.



Mean seasonal temperatures from 1931 to 2011. An open circle represents the average seasonal temperature of a single year. The solid line is the 9-year running mean. Winter values include data from the December of the previous year.



Total seasonal precipitation from 1931 to 2011. An open circle represents the total seasonal precipitation for a single year. The solid line represents the 9-year running mean of the total seasonal precipitation. Winter values include data from the December of the previous year.