

September 2023 Northern Michigan Climate Summary

Alpena

Average Temperature	Average Temp. Departure	Precipitation	Precipitation Departure
61.9°F	+2.9°F	0.82"	-2.02"

Houghton Lake

Average Temperature	Average Temp. Departure	Precipitation	Precipitation Departure
60.4°F	+2.1°F	1.08"	-1.51"

Sault Ste. Marie

Average Temperature	Average Temp. Departure	Precipitation	Precipitation Departure
61.5°F	+3.1°F	0.95"	-2.98"

Gaylord

Average Temperature	Average Temp. Departure	Precipitation	Precipitation Departure
62.2°F	+5.3°F	2.17"	-1.57"

Traverse City

Average Temperature	Average Temp. Departure	Precipitation	Precipitation Departure
65.4°F	+3.5°F	4.95"	+1.34"

September 2023 Notes

Alpena (Records 1916 - Present)

- 4th driest September on record
 - 0.82" of rainfall observed
- 7th warmest September on record
 - Average temperature: 61.9°F
- Daily record high temperatures
 - September 4th: 94°F (tied record from 1929)
 - September 5th: 92°F (broke 90°F record from 1922)

Sault Sainte Marie (Records 1888 - Present)

- 3rd driest September on record
 - 0.95" of rainfall observed
- 6th warmest September on record
 - Average temperature: 61.5°F
- Daily record high temperature
 - September 5th: 88°F (tied record from 1948)

Houghton Lake (Records 1919 - Present)

- 10th driest September on record
 - 1.08" of rainfall observed

Gaylord (Records 1951 - Present)

- 5th warmest September on record
 - Average temperature: 62.2°F
- Daily record high temperatures
 - September 4th: 94°F (broke 90°F record from 1999)
 - September 5th: 92°F (broke 91°F record from 1999)

Traverse City (Records 1897 - Present)

- 8th warmest September on record
 - Average temperature: 65.4°F
- Daily rainfall record
 - September 6th: 2.48" (breaks 1.48" record from 1990)
- Daily record high temperatures
 - September 4th: 92°F (tied record from 1929)
 - September 5th: 94°F (broke 93°F record from 1999)

The first weekend of September generally marks the unofficial “last weekend of Summer”. While the heat got cranked up for the holiday, summer didn’t seem to want to loosen its grip in northern Michigan in September 2023. Temperatures kicked off with a bang as a robust ridge of high pressure associated with a heatwave in the Great Plains was forced eastward into the Great Lakes. The result was several days with temperatures peaking well into the 80s, and even into the mid 90s. Most climate sites observed either a tied or broken record at some point during this stretch of mid-summer like heat. A cold front eventually passed through the region after Labor Day, bringing cooler temperatures with highs in the 60s for mid month as a cooler Canadian high pressure ruled the weather pattern. Toward the end of the month, another warm ridge of high pressure moved into the region, resulting in the last week and a half of September 2023 seeing temperatures holding in the 70s and 80s (normal high temperatures at this time of the month are generally in the lower-to-upper 60s).

As far as precipitation goes, persistent high pressure led to a largely dry pattern that mainly featured the occasional day with a highly localized shower or storm across northern lower and eastern upper Michigan. The exception was on September 6th. As the cold front that broke down the Labor Day heat wave slowly approached the region, a moist airmass originating from the Gulf of Mexico migrated into the upper Great Lakes, priming northern Michigan for repeated downpours. This came to fruition across the Grand Traverse Bay region, where widespread 3-5”+ rainfalls were common. As a matter of fact, in a historic outburst of rain, areas across central Leelanau County, Old Mission Peninsula, and Forest Lakes in Grand Traverse County observed several 6-8”+ rainfall totals from repeated rounds of torrential thunderstorms. Traverse City broke its daily rainfall record on this day, and it was the sole reason that Traverse City wound up being the only one of the five major climate sites across northern Michigan to receive above normal precipitation in September 2023.

Most other precipitation that fell across the region over the rest of the month was limited to prolonged grungy and misty periods of weather (which, while doing well for moistening the ground and vegetation, produced little in the way of appreciable precipitation) or localized showers and storms that resulted in beneficial rains in few areas while the rest of northern lower and eastern upper Michigan held dry... and in several cases, September 2023 wound up being a top 10 driest September since records began.