



Bering Land Bridge N Pres. • Cape Krusenstern NM
Gates of the Arctic NP & Pres. • Kobuk Valley NP • Noatak N Pres.

Summer 2017

Weather & Climate Summary Bering Land Bridge National Preserve Summer 2017

Nome Summer Weather

The first half of June was warm with temperatures well above normal. On June 8th the high temperature was 76°F, a new daily record. The normal high is 53°F for that date. This was also the high temperature for the summer (it was also 76°F on June 5, but that was not a daily record). Even the daily minimum temperatures were above the expected high temperatures in early June. It did cool down and temperatures were near normal towards the end of June, but overall, the average temperature for the month was 4.9°F warmer than normal at 52.7°F. The total precipitation for June was 1.18 inches, which is 120% of average. June 2017 was the 2nd warmest on record (1907-2017).

July was slightly warmer and wetter than normal. The average monthly temperature was 53.2°F, which is 1.0°F above normal. Monthly precipitation was well above normal, totaling 3.93 inches. The 1.74 inches of rain measured on July 23 was a record for that date. Overall, the July rainfall total was 181% of normal.

Overall, August was 1.1°F cooler than normal, with warmer temperatures at the beginning of the month and cooler than normal temperatures the second part of the month. The minimum temperature on August 20 was 32°F, a record low for that date. The average monthly temperature was 49.0°F. Rainfall totals were 55% of normal with a total of 1.77 inches for the month. August is generally the wettest summer month, but July had more rain in both 2016 and 2017.

The average summer temperature at Nome was 51.6°F which is 1.6°F warmer than the 1981-2010 normal. Interestingly, the average summer temperature in 2016

was also 51.6°F. The last two years are now tied as the 10th warmest summers on record (1907-2017). The total summer precipitation was 6.88 inches, 109% of normal (Figures 1 and 2; Tables 1 and 2).

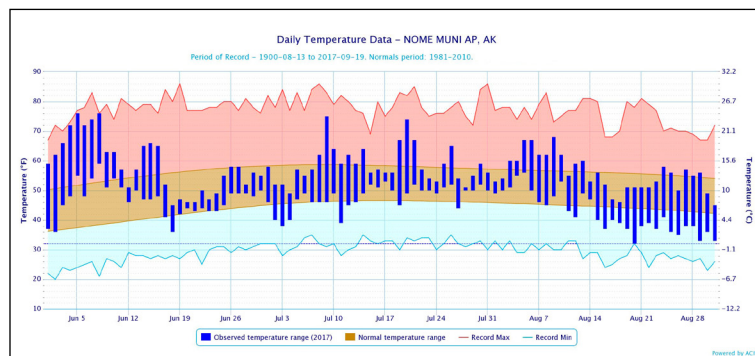


Figure 1. Summer 2017 daily temperatures at Nome showing record maximum (red), record minimum (blue), normal (brown) and observed range (blue bars).

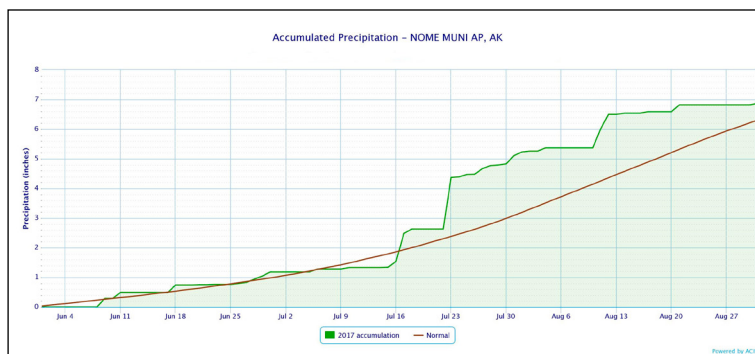


Figure 2. Summer 2017 accumulated precipitation at Nome (green) compared to normal (brown line).

Table 1. Temperature: Summer 2017 average monthly temperatures compared to the 1981-2010 normal.

Summer 2017	Average Monthly Temp °F	1981-2010 Normal °F	Departure from Normal °F	Monthly High °F / Date	Monthly Low °F / Date
June	52.7	47.8	+4.9	76 / Jun 5, 8*	36 / Jun 2, 18
July	53.2	52.2	+1.0	75 / Jul 9	38 / Jul 3
August	49.0	50.1	-1.1	68 / Aug 9	32** / Aug 20

Summer Season Temperature Departure from Normal: +1.6°F. *Record daily high; **Record daily low.

Table 2. Precipitation: Summer 2017 monthly precipitation totals compared to normal.

Summer 2017	Total Monthly Precip. in.	1981-2010 Normal in.	Departure from Normal in.	Greatest 24 -hr. total in. / Date	# Days with >=0.01 in. water
June	1.18	0.98	+0.20	0.29 / Jun 9	10
July	3.93	2.11	+1.82	1.74* / Jul 23	15
August	1.77	3.22	-1.45	0.64 / Aug 11	9

Summer Season Precipitation Departure from Normal: +0.57 inches (109% of normal). *Record for that date.

Climate Monitoring in Bering Land Bridge National Preserve

NPS climate stations in Bering Land Bridge complement the long-term record from the National Weather Service station in Nome. NPS stations are located at Serpentine Hot Springs, Midnight Mountain, Devil Mountain, and Ella Creek (Figure 3).

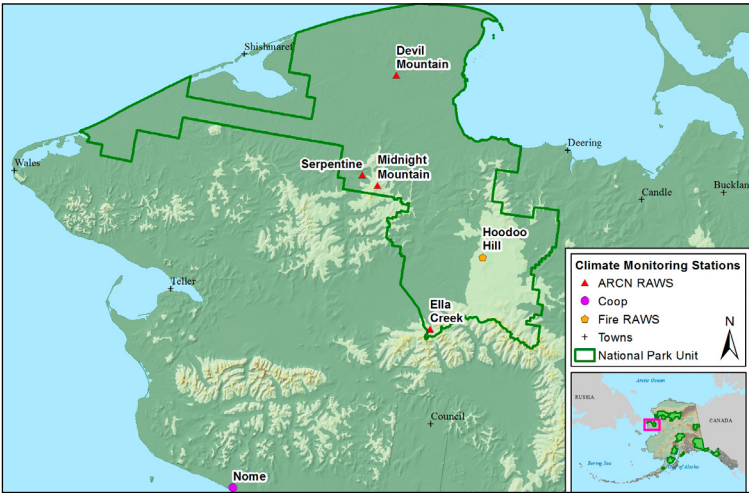


Figure 3. NPS Climate stations in Bering Land Bridge National Preserve.

Relationship between Sea Ice and Temperature

The air temperature fluctuations in June at sites around Bering Land Bridge illustrate the daily variability that is driven by sea ice presence or absence, elevation, and coastal proximity (Figure 4). Ella Creek, the high elevation site in the Bendeleben Mountains, was warmer than Devil Mountain in early June when lingering sea ice was still present off the northern and eastern coasts of BELA (see Figure 5 for an example of lingering sea ice in early June 2015). Later in June a more standard lapse rate was apparent, where temperatures generally decrease with an increase in elevation. During the last half of June, Ella Creek was on average about 8.0°F colder than the other three sites at lower elevations. Also, noticeable

is the crossover of temperatures in mid-June between Kotzebue and Nome. On June 18, the daily average temperature in Kotzebue climbed above the daily Nome temperatures and remained warmer for the month, presumably when the influence of the sea ice was gone for the summer.

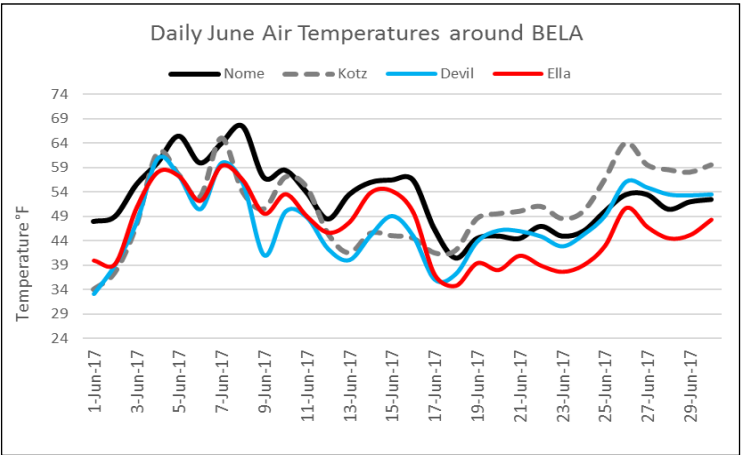


Figure 4. Summer air temperatures around BELA.



Figure 5. Sea ice off the east coast of BELA June 4, 2015.

More Information

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