U.S. DEPARTMENT OF COMMERCE, WEATHER BUREAU
IN COOPERATION WITH THE WISCONSIN CROP REPORTING SERVICE
CLIMATOGRAPHY OF THE UNITED STATES NO. 20-47

LATITUDE 44°52'N
LONGITUDE 87°20'W
ELEV. (GROUND) 656 Feet

CLIMATOLOGICAL SUMMARY

MEANS AND EXTREMES FOR PERIOD-1930-1959

STATION: STURGEON BAY, WISCONSIN

Month	Temperature (°F) Means: Daily maximum	Daily minimum	Monthly	Extremes: Record highest	Year	Record lowest	Year	** Mean degree days	Precipitation Totals (Inches): Mean	Greatest daily	Year	Snow, Sleet: Mean	Maximum monthly	Year	Greatest daily	Year	Mean number of days: Precip. .10 inch or more	Temperatures Max.: 90° and above	32° and below	Min.: 32° and below	0° and below	Month
(a)	30	30	30	30		30		30	30	30		30	30		30		30	30	30	30	30	
Jan.	26.7	10.4	18.6	55	1944	-25	1951+	1440	1.19	1.12	1950+	10.0	30.5	1938	13.0	1938	4	0	20	31	7	Jan.
Feb.	28.3	10.2	19.3	53	1930	-29	1939	1280	1.30	1.57	1937	9.0	23.2	1936	11.3	1936	3	0	18	28	6	Feb.
Mar.	36.5	19.9	28.2	76	1946	-13	1943	1140	1.73	1.72	1959	8.1	28.0	1959	14.0	1959	4	0	10	28	1	Mar.
Apr.	50.8	31.9	41.4	82	1958	14	1939+	710	2.35	1.85	1958	1.7	7.0	1944	5.0	1949	6	0	1	17	0	Apr.
May	63.4	41.0	52.2	91	1944	24	1943+	400	2.65	2.09	1959	0.5	5.5	1954	4.5	1947	7	*	0	3	0	May
June	74.0	51.2	62.6	100	1934+	29	1949	140	3.07	2.51	1954	0	0		0		6	1	0	*	0	June
July	80.1	57.4	68.8	105	1936	40	1947+	40	2.87	2.19	1931	0	0		0		6	2	0	0	0	July
Aug.	77.5	56.8	67.2	102	1955	32	1934	60	3.00	3.53	1941	0	0		0		6	2	0	*	0	Aug.
Sept.	69.1	49.5	59.3	96	1931	26	1947	200	3.18	2.15	1942	T	T	1942	T	1942	7	*	0	1	0	Sept.
Oct.	57.5	39.7	48.6	85	1953	17	1933	510	2.17	1.86	1954	0.1	3.0	1933	3.0	1933	5	0	0	6	0	Oct.
Nov.	42.0	28.1	35.1	69	1953	- 6	1951	900	2.30	1.98	1934	3.3	13.8	1951	7.0	1951	5	0	5	21	*	Nov.
Dec.	30.8	17.1	24.0	58	1946	-22	1933	1270	1.39	3.60	1959	7.6	23.5	1933	8.0	1951	4	0	16	29	3	Dec.
Year	53.1	34.4	43.8	105	July 1936	-29	Feb. 1939	8090	27.20	3.60	Dec. 1959	40.3	30.5	Jan. 1938	14.0	Mar. 1959	63	5	70	164	17	Year

(a) Average length of record, years.

T Trace, an amount too small to measure.

** Base 65°F. (H. C. S. Thom, Monthly Weather Review, January 1954.)

+ Also on earlier dates, months, or years.

* Less than one half.

CLIMATE OF STURGEON BAY, WISCONSIN

Sturgeon Bay, county seat of Door County, is located on Door Peninsula between Green Bay and the main body of Lake Michigan in northeastern Wisconsin. The surrounding area is rolling with farmlands, cherry orchards, and second growth woods. The original vegetation was mainly hemlock, sugar maple, yellow birch, and white pine. The soils are predominantly red clays. Data in this summary are representative of Door Peninsula.

Sturgeon Bay's climate is modified considerably by Green Bay and Lake Michigan. This is reflected in the fewer number of days with extremely high and low temperatures than are common for the latitude. Spring and early summer is retarded by the surrounding cool water; summers are mild and pleasant; relatively warm lake water delays the first freeze in the fall; winters are cold. The lake influence is also felt in higher average cloudiness and lower percentage of sunshine than at stations away from the lake. Ice usually begins to form on Green Bay the last few days of November; by the end of December ice covers all the south end as far north as the Sturgeon Bay-Menominee line. All the north end is usually covered with ice by the middle of January. However, in mild years some open water remains throughout the year. The ice usually breaks up by the end of March or early April.

During the period of this summary, 1930-59, the number of days with 0 degrees or below in a year has varied from 3 in 1931 to 38 in 1936. The number of days with 90 degrees or above has varied from 0 in 1954 to 13 in 1955. About one year in three has fewer than 3 days with 90 degrees or higher temperatures.

Approximately 55 per cent of the average yearly precipitation falls in the five months May through September. The likelihood of an inch or more of rain in a 7-day period is greater during the first half of June and third week of August than any other time of the summer; the chance is 3 in 10 years. The likelihood of a 7-day dry period, trace or less, is greater at the end of August than any other time of the summer; the chance is 2 in 10 years. Intensities of about 1.10 inches in 1 hour, 1.70 inches in 6 hours, and 2.30 inches in 24 hours can be expected about once in two years. The greatest amount in 24 hours was the 4.57 inches that fell August 25, 1910. Annual snowfall has varied from 12 inches in 1958 to 74 in 1959.

Thunderstorms have occurred on an average of 33 days a year with extreme years of 19 and 46 days. Hail has fallen on an average of 2 days a year with extreme years of 0 and 6 days.

Wind, sunshine, and relative humidity observations are not taken at Sturgeon Bay, but the following data from Green Bay should be representative.

Prevailing winds are from the northwest through the southwest with the exception of early spring when northeast winds dominate. April and November are the windiest months with averages of 12 miles per hour. Speeds in excess of 60 miles per hour can be expected to occur in 7 of 10 years. The highest speeds are usually from the west or southwest.

The percentage of possible sunshine has averaged about 40 per cent for November and December and 60 per cent or more for May through September. The remaining months average between 50 and 60 per cent.

Relative humidity has varied from an average winter nighttime maximum of about 80 per cent to a daytime minimum of about 70 per cent; comparative summer averages are 85 and 60 per cent.

The average date of the last 32-degree freeze in the spring is May 17, and the first in the fall is October 2. The growing season, defined as the number of days between the last 32-degree freeze in the spring and the first in the fall, averages 137 days. The following table gives the likelihood of critical temperatures occurring.

Temperatures	20%	40%	60%	80%
AFTER DATE IN SPRING				
32° or below	May 27	May 20	May 14	May 8
28° or below	May 10	May 3	Apr. 27	Apr. 20
24° or below	Apr. 27	Apr. 20	Apr. 13	Apr. 6
20° or below	Apr. 15	Apr. 8	Apr. 1	Mar. 24
16° or below	Apr. 5	Mar. 29	Mar. 23	Mar. 15
BEFORE DATE IN FALL				
32° or below	Sept. 22	Sept. 29	Oct. 5	Oct. 12
28° or below	Oct. 8	Oct. 15	Oct. 22	Oct. 29
24° or below	Oct. 22	Oct. 30	Nov. 5	Nov. 13
20° or below	Nov. 3	Nov. 11	Nov. 17	Nov. 25
16° or below	Nov. 14	Nov. 21	Nov. 28	Dec. 5

Marvin W. Burley
Weather Bureau State Climatologist
Weather Bureau
Madison, Wisconsin

STURGEON BAY, WISCONSIN

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1930	11.9	23.8	30.4	41.1	55.4	63.6	68.0	69.4	61.3	45.8	37.4	24.9	44.4
1931	24.6	27.9	29.8	42.4	50.6	64.3	72.1	65.8	65.4	51.0	42.0	31.2	47.3
1932	26.9	21.8	23.0	39.0	51.4	63.8	68.6	69.1	58.8	44.0	30.0	20.3	43.1
1933	24.6	14.0	25.8	39.1	52.0	67.1	69.1	65.2	62.5	44.0	29.0	17.7	42.5
1934	22.4	10.2	22.7	37.9	53.2	63.2	66.2	62.2	56.2	47.4	37.6	20.2	41.6
1935	12.4	19.2	29.2	39.6	49.2	59.3	72.4	67.1	56.9	47.1	33.6	22.2	42.4
1936	12.8	4.0	28.4	36.1	54.7	60.2	72.2	67.4	60.4	43.8	30.2	25.2	41.3
1937	14.4	18.7	25.5	39.9	52.9	61.8	69.6	71.2	58.9	44.0	33.1	21.2	42.6
1938	14.8	21.2	31.8	42.4	51.6	61.4	68.0	69.6	58.0	51.4	35.6	24.6	44.2
1939	21.8	13.7	26.4	38.3	53.8	62.7	69.0	67.7	59.0	46.8	35.7	30.8	43.8
1940	13.2	20.8	23.3	37.9	50.8	61.1	68.1	65.7	60.1	49.4	33.0	25.6	42.4
1941	20.9	19.2	25.1	47.2	56.0	65.4	70.5	66.6	59.7	49.1	37.2	29.4	45.5
1942	18.0	19.0	32.0	46.0	49.7	61.8	67.4	66.5	56.7	47.1	33.8	18.7	43.1
1943	13.5	17.0	23.2	39.6	51.2	64.4	69.6	68.6	55.4	48.5	33.0	24.6	42.4
1944	26.4	22.4	26.2	38.2	56.2	64.3	68.2	68.0	59.3	47.8	40.0	20.3	44.8
1945	14.0	18.4	37.9	41.7	48.3	58.7	65.1	67.2	59.2	46.6	35.4	20.2	42.7
1946	21.3	21.2	39.6	44.2	51.2	61.2	68.2	66.0	59.8	51.6	38.8	24.8	45.7
1947	22.2	17.6	28.4	39.2	47.8	60.0	68.7	71.9	61.6	56.8	32.2	24.4	44.2
1948	14.8	18.8	27.6	43.4	51.2	62.8	68.8	67.7	63.0	48.5	40.0	24.7	44.3
1949	22.8	21.1	29.7	44.2	52.6	65.4	71.0	69.7	57.0	52.5	35.3	26.3	45.6
1950	19.4	19.2	24.9	34.6	51.4	62.2	65.3	61.9	59.2	51.9	32.5	19.3	41.8
1951	16.5	20.5	28.3	42.3	56.7	60.5	69.1	63.8	56.3	49.0	28.9	21.6	42.8
1952	19.1	25.0	27.3	46.3	53.8	63.7	69.0	65.7	60.5	45.0	37.3	28.7	45.1
1953	24.8	21.3	32.1	39.9	51.6	62.9	69.1	69.8	60.0	53.8	40.8	27.3	46.1
1954	18.1	28.8	28.3	43.1	48.1	64.3	67.6	66.5	59.0	48.9	38.5	25.7	44.8
1955	18.8	19.7	27.3	48.1	55.7	62.7	72.6	73.6	60.7	50.5	31.8	20.3	45.2
1956	21.2	19.4	25.7	39.3	50.5	63.8	64.9	66.9	55.3	52.8	36.3	25.5	43.5
1957	12.0	22.5	29.6	42.0	51.8	62.7	69.3	67.3	58.4	47.7	35.7	27.0	43.8
1958	22.1	17.1	31.8	44.4	52.0	58.6	66.9	67.4	60.1	50.7	37.7	16.3	43.7
1959	11.5	14.4	26.0	41.9	55.2	65.3	67.9	71.3	60.7	45.9	28.8	29.7	43.2

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1930	0.46	3.50	1.39	0.77	4.20	2.56	1.25	0.58	1.47	2.05	0.23	0.44	18.90
1931	0.55	0.56	1.35	0.72	2.33	1.56	3.47	1.30	5.95	3.12	3.23	0.78	24.92
1932	2.04	1.35	1.05	0.92	2.63	1.02	2.45	3.70	1.31	2.56	2.02	1.06	22.11
1933	1.24	1.25	1.85	2.14	2.80	4.54	4.09	0.95	2.88	4.53	1.25	2.05	29.57
1934	0.81	0.80	3.89	1.44	1.46	4.15	1.69	2.26	3.60	2.05	6.19	1.93	30.27
1935	1.51	1.28	0.76	1.95	1.06	4.72	1.44	1.89	2.74	1.79	1.94	1.10	22.18
1936	1.21	2.06	1.45	1.73	2.97	1.84	0.72	6.54	3.47	1.99	0.95	2.19	27.12
1937	1.93	2.63	0.19	2.94	1.10	1.64	2.14	1.79	3.06	2.17	2.67	0.50	22.76
1938	3.24	3.61	2.13	1.81	4.47	1.83	2.81	5.15	4.99	1.15	2.26	1.85	35.30
1939	1.87	1.62	1.92	2.01	2.62	3.87	1.80	3.03	2.48	2.32	0.57	1.11	25.22
1940	1.23	0.57	0.87	2.56	3.33	4.54	2.62	5.09	1.85	1.99	2.68	1.53	28.86
1941	1.37	0.94	0.94	1.52	2.01	1.19	1.80	4.79	4.26	4.48	2.00	1.24	26.54
1942	0.56	1.09	3.04	1.78	6.11	2.73	1.89	0.61	6.90	1.62	1.30	2.31	29.94
1943	1.57	1.09	2.38	2.23	2.49	7.84	1.57	2.61	1.71	1.57	1.70	0.08	26.84
1944	0.80	0.95	1.36	2.56	2.01	4.76	1.76	4.33	4.43	1.31	3.10	0.51	27.88
1945	0.30	2.19	1.02	3.54	2.68	3.97	4.76	4.76	4.82	1.72	4.67	1.25	35.68
1946	2.17	0.55	1.47	0.50	3.05	3.56	1.33	1.41	3.03	1.34	2.35	1.51	22.27
1947	1.06	0.43	0.95	3.64	3.63	2.35	3.67	3.13	3.03	0.78	1.29	1.01	24.97
1948	0.50	1.52	2.67	2.98	1.18	2.56	2.02	1.65	1.77	1.28	6.41	1.07	25.61
1949	1.91	1.01	2.14	2.15	1.59	2.89	5.05	3.01	1.94	1.38	2.31	1.03	26.41
1950	2.61	0.80	2.57	3.30	1.43	2.14	4.10	1.48	2.99	2.09	1.78	2.38	27.67
1951	0.90	1.50	3.28	4.04	1.13	1.77	3.81	4.17	4.16	4.64	2.08	1.87	33.35
1952	1.95	0.27	2.99	1.30	2.92	2.41	6.32	2.73	1.02	0.11	2.52	1.37	25.91
1953	0.90	3.34	0.98	4.71	0.93	2.21	3.01	1.20	1.99	0.72	0.90	1.55	22.44
1954	0.47	0.98	1.50	4.64	2.69	6.43	2.64	0.80	6.16	3.41	1.22	0.89	31.83
1955	0.75	0.81	1.16	3.73	2.93	3.60	1.86	3.04	0.79	3.79	1.70	0.92	25.08
1956	0.49	0.66	2.06	1.19	2.30	1.97	6.03	3.78	1.76	0.81	2.39	0.99	24.43
1957	0.20	0.29	0.57	2.63	5.32	3.20	3.14	4.35	1.93	1.53	3.63	1.76	28.55
1958	0.27	0.17	0.55	3.05	1.64	3.04	3.94	4.05	3.83	1.48	1.37	0.22	23.61
1959	0.87	1.29	3.44	2.15	4.39	1.19	2.81	5.89	4.96	5.42	2.24	5.00	39.65

STATION HISTORY

Precipitation records were taken at Sturgeon Bay from February 1870 to June 1874, and temperature observations from February 1870 to January 1871 by Mr. R. M. Wright and Mr. C. C. Pinney.

A climatological station operated 4-1/2 miles southeast of the post office near the Coast Guard Station from March 1, 1895 to July 31, 1895. Mr. Carl Anderson was the observer.

The station was re-opened near the Coast Guard Station April 7, 1905. The instruments were moved to a location 1-1/4 miles east of the post office July 29, 1915. On July 1, 1920 the instruments

STATION HISTORY (Continued)

were moved to 510 North Cedar Street. The station was moved to the Wisconsin Experiment Station March 1, 1924.

All exposures are believed to have been good and over sod.

Observers have been:

Mr. Adam Dier . . . . . March 7, 1905 to April 30, 1915.
Mr. George C. Robinson. . . . . May 1, 1915 to July 29, 1915.
Mr. E. W. Long . . . . . July 29, 1915 to June 30, 1920.
Mr. C. W. Sanderson . . . . . July 1, 1920 to February 29, 1924.
Wisconsin Experiment Station. . . . March 1, 1924 to the present.