

Ice On/Out Dates

An interesting climatological statistic to track over time is the date that a lake freezes up in the fall and the date it thaws in the spring. Ice phenology affects migration and breeding patterns of birds, food supply of fish and animals, and water chemistry. Statistical information is given in Table 3 for the ice out dates for Minneapolis lakes. Included in that table are the earliest and latest date of ice out and the year it occurred, the average date of ice out and the number of years that the Minneapolis Park and Recreation Board has records for that lake. Table 4 gives the same information for ice on.

Due to the cool spring of 2001, ice out dates were one to two weeks later than average, (Tables 1 and 3). The unusually warm November and December caused ice on dates that were approximately three weeks later than average (Tables 2 and 4). In fact, this year was the latest ever ice on for 12 of the lakes.

The historical record of ice on and out dates that the Minneapolis Park and Recreation Board maintains is unfortunately not a complete record. However, 52 years of data have been collected for ice out for Lake Calhoun (Table 3). Ice on records are less numerous with Lake Calhoun having 31 records. Lake Calhoun has the most records; Diamond Lake has the least records.

Another set of data was acquired this year from Peter Boulay, State Climatology Office, Minnesota Department of Natural Resources. These data are from a house on West Lake of the Isles Parkway. Ice on and out dates for Lake of the Isles were recorded by homeowners in a second story cupboard. The record is spotty and dates from 1912 to 2000. This complements the Minneapolis Park and Recreation Board's database.

Lake	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Birch	4/3	4/10	3/31	3/25	4/15	4/5	3/29	3/31	3/8	4/12
Brownie	4/4	4/10	4/2	4/1	4/18	4/5	3/29	3/30	3/9	4/12
Calhoun	4/8	4/16	4/7	3/25	4/20	4/14	3/29	4/1	3/9	4/14
Cedar	4/4	4/14	4/2	3/31	4/20	4/13	3/29	4/1	3/9	4/14
Diamond								3/27	3/6	4/11
Harriet	4/8	4/16	4/6	3/25	4/20	4/14	3/29	4/1	3/9	4/15
Hiawatha	3/29	4/13	3/31	3/25	4/19	4/5	3/29	3/30	3/8	4/12
Isles	4/4	4/14	4/2	3/31	4/20	4/5	3/29	4/1	3/8	4/14
Loring	4/3	4/10	4/1	3/29	4/19	4/5	3/29	3/29	3/6	4/13
Nokomis	4/4	4/13	3/31	3/25	4/19	4/5	3/29	3/30	3/8	4/13
Powderhorn	4/3	4/10	4/2	3/29	4/18	4/5	3/29	3/30	3/8	4/13
Spring					4/15	4/5	3/29	3/29	3/6	4/9
Webber			3/31	3/29	4/18	4/5	3/29		3/6	4/8
Wirth	4/6	4/11	4/2	3/25	4/18	4/5	3/29	3/30	3/7	4/13

Table 1. Ice out dates for Minneapolis lakes.

Lake	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Birch	11/16	11/26	11/30	11/10	11/12	11/15	12/16	12/7	11/21	12/14
Brownie	11/27	11/26	12/5	11/10	11/12	11/15	12/17	12/7	11/21	12/20
Calhoun	12/20	12/11	12/11	11/27	11/25	12/26	12/25	12/21	12/8	12/31
Cedar	11/27	11/28	12/11	11/23	11/21	12/1	12/21	12/21	12/12	12/21
Diamond							12/14	12/13	11/20	12/20
Harriet	12/20	12/11	12/11	11/27	11/25	12/26	12/25	12/21	12/8	12/31
Hiawatha	11/30	11/30	11/30	11/12	11/12	11/15	12/17	12/13	11/21	12/21
Isles	11/16	11/27	11/28	11/12	11/12	11/15	12/17	12/21	11/21	12/20
Loring	12/14	11/26	11/30	11/10	11/12	11/15	12/17	12/21	12/2	12/21
Nokomis	11/30	11/30	12/2	11/12	11/12	11/15	12/18	12/13	11/22	12/20
Powderhorn	11/30	11/26	12/6	11/10	11/12	11/15	12/14	12/12	11/21	12/20
Spring				11/10	11/12	11/15	12/14	12/13	11/21	12/20
Webber		11/26	11/30	11/10	11/12	11/15	12/13			12/20
Wirth	11/27	11/28	12/5	11/10	11/12	11/15	12/19	12/12	11/21	12/21

Table 2. Ice on dates for Minneapolis lakes.

Lake	Earliest Out	Year Occurred	Latest Out	Year Occurred	Average Ice Out	Years of Record
Birch	3/8	2000	4/15	1996	4/1	16
Brownie	3/9	2000	4/18	1996	4/2	20
Calhoun	3/9	2000	4/28	1965	4/10	52
Cedar	3/9	2000	4/26	1975	4/7	28
Diamond	3/6	2000	4/13	1963	3/31	9
Harriet	3/9	2000	4/28	1965	4/7	34
Hiawatha	3/8	2000	4/25	1965	4/4	27
Isles	3/8	2000	4/26	1965	4/5	32
Loring	3/6	2000	4/19	1996	4/2	21
Nokomis	3/8	2000	4/25	1965	4/4	30
Powderhorn	3/8	2000	4/27	1965	4/4	22
Spring	3/6	2000	4/15	1996	3/31	11
Webber	3/6	2000	4/18	1996	3/31	12
Wirth	3/7	2000	4/18	1996	4/1	25

Table 3. Earliest, latest and average day of ice out, and number of years of record.

Lake	Earliest On	Year Occurred	Latest On	Year Occurred	Average Ice On	Years of Record
Birch Brownie	11/1	1991	12/16	1998	11/25	16
	11/5	1991	12/20	2001	11/27	20
Calhoun Cedar	11/25	1996	12/31	2001	12/22	32
	11/18	1989	12/21	1998, 1999, 2001	12/21	20
Diamond Harriet	11/20	2000	12/20	2001	12/5	7
	11/25	1996	12/31	2001	12/23	29
Hiawatha Isles	11/1	1991	12/21	2001	11/28	21
	11/5	1991	12/21	1999	11/28	27
Loring Nokomis	11/1	1991	12/21	1999, 2001	12/21	17
	11/1	1991	12/20	2001	11/27	22
Powderhorn Spring	11/1	1991	12/20	2001	11/26	17
	11/10	1995	12/20	2001	11/29	11
Webber Wirth	11/10	1995	12/20	2001	11/28	12
	11/5	1991	12/21	2001	11/27	21

Table 4. Earliest, latest and average day of ice on, and number of years of record.