

SENTINEL RINK REPORT WINTER 2019-2020

SENTINEL RINK LOCATIONS



Red = less than 30 days | Yellow = 31-60 days | Blue = 61-90 days | Green = 90+ days

Fort McMurray, AB St. Albert, AB La Grange, IL Long Grove, IL Stow, MA Lorette, MB Canton, MI Rochester Hills, MI Farmington, MN

Lynd, MN Rochester, MN Bozeman, MT Miramichi, NB Hastings, NE Rhinebeck, NY Webster, NY Holland Centre, ON London, ON Mono, ON Navan, ON Newmarket, ON Ottawa, ON Richards Landing, ON Waterloo, ON Rimouski, QC Saskatoon, SK Trevor, WI

ABOUT

RinkWatch is a citizen science research initiative that asks people who love outdoor skating to help environmental scientists monitor winter weather conditions and study the longterm impacts of climate change. Launched by researchers at Wilfrid Laurier University in January 2013, outdoor rink makers are asked to voluntarily submit data about their rinks each winter through the project website. Over the years, participants from across North America have submitted information about skating conditions on more than 1,400 outdoor rinks and ponds. The data collected through RinkWatch have led to multiple peer-reviewed scholarly publications describing how outdoor skating rinks respond to changing temperatures.

In December 2019, RinkWatch launched a pilot project called Rink Sentinels, asking outdoor rink makers in selected locations across North America to keep daily logs about ice conditions. The goal is to collect daily observations year-after-year in the same locations so as to track links between weather and rink conditions in a systematic, longitudinal fashion.

This is the first of what we hope will be many annual reports provided to Sentinel Rinkmakers. Each participant receives a summary of data about conditions on their own rink, along with a statistical overview of other rinks in the project. To each of you who participated this first winter, please accept our sincere thanks. We hope that you will participate next winter, when we aim to recruit more Sentinels to the project.

We plan to stay in touch with more news and information between now and next skating season. Here's hoping that you and your loved ones stay healthy and happy in the meantime.

– The RinkWatch team (Robert, Laura, Colin, Haydn and Karim) May, 2020



helley Sackson DESIGN

ALL RINKS: DATA SUMMARY

Earliest Skating Day: November 15, 2019; Saskatoon, SK

Largest Total Skating Days:

131 days; Fort McMurray, AB 113 days; Saskatoon, SK 94 days; Lorette, MB

Largest Number of Non-Skating Days: 58 days; Rochester Hills, MI 54 days; Webster, NY 43 days; Trevor, WI

Largest Number of Interruptions:

12; Mono, ON 11; Navan, ON 11; Holland Centre, ON *Latest Skating Day:* April 21, 2020; Fort McMurray, AB

Fewest Total Skating Days:

6 days; Rochester Hills, MI 17 days; Canton, MI 17 days; Webster, NY

Fewest Number of Non-Skating Days: 4 days; Bozeman, MT 8 days; Fort McMurray, AB 13 days; Miramichi, NB

Fewest Number of Interruptions:

2; St. Albert, AB 3; Rochester Hills, MI 3; Saskatoon, SK 3; Rhinebeck, NY



WINTER 2019-'20 RESULTS

The winter of 2019-2020 was a challenging one for outdoor rink making across much of North America, especially in the east. A cold spell in early November raised hopes for a good outdoor skating season. In Waterloo, Ontario - home of Wilfrid Laurier University and the RinkWatch team intrepid rink makers who already had their boards and liners in place were able to squeak in a few days of skating around Remembrance Day (Veterans Day in the USA). Unfortunately, conditions turned wet and mild across most of eastern North America and stayed that way until mid-January. Rink makers across southern Ontario, southern Quebec, and most of the eastern USA watched as their rinks became wading pools during the Christmas holidays - as you can see from the photo below, sent to us by the McGregor family of London, Ontario on January 13, 2020.

The McGregors were one of a number of families that signed up to be Sentinels but were not able to get a rink going at all this past winter. Most were in the east, especially in Michigan, New York, Pennsylvania, and New England, but even in the Chicago area - ordinarily a safe bet to have outdoor skating by Christmas - it was a difficult year to get a decent ice surface. And even once things did get going, frequent thaws made it difficult to maintain a skating surface (and a rink maker's spirits). Our hearts go out to American rink makers from Wisconsin through to New who persevered and in the end England managed to squeak out no more than a couple weeks of skating. The gold medal for perseverance goes to Garrett Metcalf of Rochester Hills, MI, who endured 58 days of unskateable conditions to end up with 6 days of good skating. We have our fingers crossed for you next winter!



London, ON Courtesy of the McGregor family



For people in Ontario (especially eastern parts and the Ottawa Valley) and Quebec who did finally get a rink going, it was a late start but also a late finish to the season. Spring was slow in coming, with February and March providing relatively decent conditions for skating. If you had a good-quality liner and could endure the repeated freeze-thaw events that interrupted skating (11-12 such events in Ontario!), in the end you got out on the ice more often than you might have hoped for in early January. Rinks in the Maritime provinces also got a late start, but had fewer interruptions than those to the south and west. For those in the lower Great Lakes region who skate on local ponds - like Robert from RinkWatch - this winter was almost a complete write-off: the ice was typically rotten and unsafe.



Rimouski, QC Courtesy of Guy Moreau

Western North America had a very different winter from the east, but there was a considerable gradient in conditions from north to south. The mid-November freeze allowed eager rink makers in Canada's Prairie provinces to get off to an early start, and after a mild two-week period, most rinks were in full swing by the last week of November or first week of December. Sentinel rinks in Alberta, Saskatchewan, and Manitoba recorded 90+ good skating days, with only a small number of interruptions. A mid-January thaw disrupted skating across most of the Canadian Prairies, with Manitoba and Alberta getting another disruptive mild spell in mid-February (Saskatchewan rinks were able to keep going through it). The community rink Aric Dodd helps to maintain in Saskatoon was still going into the third week of March, but other rinks on the Prairies started winding down 10-14 days earlier.

North of the Prairies, Kris Jackson's rink in Fort McMurray, Alberta, continues to be the envy of others, recording 131 skating days this winter. Unfortunately, the long winter led a build up of ice on the Athabasca River, causing serious flooding throughout much of the town. It's been a tough few years in Fort Mac – a major forest fire, collapsing oil prices hitting the city's main employment sector, and now flooding in the midst of COVID-19 shutdowns. Our best wishes go out to Kris, his family, and everyone in Fort McMurray.



South of the border, where the Prairies become the Great Plains, this winter didn't provide as reliable skating conditions as it did in Canada. Rinks with liners were skating in mid-December, but for rinks like those maintained by Thom White in Bozeman, Montana, that are built straight onto the ground, it took another couple weeks to get going. From Minnesota through Nebraska, rinks were operational by mid-December, but hit a mild spell between Christmas and New Year's Day, just when kids and their parents want them most. Good skating resumed in early January, but was interrupted by a thaw in the third week of the month. February brought its share of up and down temperatures, and by the first week in March, most American rinks were done for the year. Over in Richard's Landing, Ontario – not far from Sault Ste Marie and across the St Mary's River from Michigan's Upper Peninsula – Carole Hunt Ford's community rink had similar conditions to those in Minnesota: they got off to a mid-December start, waded through the same Christmas-to-New Year's thaw, caught that same January thaw that hit all of western North America, and wrapped things up in early March after a few hit-or-miss days.

If there's one common theme from this winter across North America, it's that a good liner is becoming a musthave item for backyard rink makers if you can afford the expense. We've been running RinkWatch since 2013, and it has become clear to us that rink makers need to expect considerable year-to-year variability in skating conditions and a wide range of week-to-week variability during the winter, regardless of the region where you live. We did not pick the best of winters to launch the Sentinel project - it would have been much better to start with an old-fashioned, cold and snowy winter instead of one where temperatures yo-yoed up and down. Perhaps to emphasize just how odd a winter it was, in mid-January, when rinks in the Prairies and Ontario were experiencing a thaw, people in Vancouver were building backyard rinks during an unusually cold spell.



St. Albert, AB Courtesy of Grant Gordon

From a research point of view, we were really pleased with the results from this pilot project. The quality of the data is excellent, and we greatly enjoyed the personal communications with everyone who participated. We learned a lot from your ongoing comments and feedback about the subtleties of rink making, which will help us refine our future research. We plan to resume the Sentinel project for next winter, expanding the number of rinks participating and the geographical coverage.



THANK YOU

We hoped you enjoyed this report, and that you will participate in the Sentinel project again next winter. If you have friends who make rinks, please tell them about us. Please follow us on Facebook or Twitter if you don't already - we will be posting news about forthcoming studies and publications based on RinkWatch data. We tend to take a hiatus from RinkWatch during the summer as we work on our other research projects, but we will be back at it again this autumn. Our sincere thanks once again to everyone who participated this year. A special shout-out to the Laurier University Research Office, who provided us the funds for the cool winter hats we were able to offer Sentinels as a small expression of our thanks. We had other plans for swag and some special events in April, but the COVID-19 shutdown of our campus got in the way. We'll do better next winter.

Best wishes for a healthy summer,

- The RinkWatch team.

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