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# RINKWATCH REPORT

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2022 - 2023

Dept. of Geography &  
Environmental Studies

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Inspiring Lives.

RinkWatch 



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 [www.rinkwatch.org](http://www.rinkwatch.org)



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## A NOTE FROM **THE TEAM**

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**Hello, RinkWatchers, and thanks again this year for your support and assistance.**

The winter of 2022-23 was another interesting one, especially in central and eastern parts of North America. The big rink-related news this past winter was the fact that the world's largest outdoor rink – Ottawa's Rideau Canal Skateway – did not open for skating this year, for the first time ever. December teased us with some occasional cold days, but for most of the Christmas season and through all of January, eastern Canada and the northeastern US experienced an ugly mix of fluctuating warm-and-cold temperatures (more warm than cold) punctuated by rain, freezing rain and snow. By early February a lot of people simply abandoned their rinks

after having eked out no more than a handful of skating days. Some of our more southerly-situated American participants didn't get a single day on the ice. Those rink makers who persevered were rewarded for their stubbornness by the coldest late-winter temperatures we've seen in a while, and recorded final skating days much later than usual.

As is the case in most winters, eastern rink makers were jealous of their western counterparts. It was another solid season of skating on Canada's Prairies and the northern Great Plains, although it didn't get off to the crazy-early start of the previous winter. This

year's report shows once again examples of skating conditions from all parts of the outdoor rink-loving parts of North America, allowing you to compare how your rink compared with others in our network.

A special thank you goes out to all those Sentinels who helped our team test the use of Kestrel data loggers to record rink side temperatures and sent us the data by email. We learned a lot with your help, including the ability of batteries to withstand winter cold temperatures (not so well). We've included examples of the data we collected so you can see the fruits of your labour. We might experiment with a different device next winter, one that claims to be more cold tolerant (we'll see about that).

Speaking of data, in late 2023 we will be publishing yet another scientific study that is based on data provided by you and other participants in the RinkWatch project. What we did was to map all the areas of North America where average January temperatures are presently colder than  $-5^{\circ}\text{C}$  – i.e. all the locations where temperatures in the dead of winter should be cold enough every year to make it worth the effort to build a rink. We then used three different climate models to map where those similar temperatures will be found in the 2050s given current global

greenhouse gas emissions. The results don't look great, especially for eastern North America. We will let you all know when the full study is published; in the meantime we've included a map on the next page that we generated using data from the Université du Québec à Montréal (UQAM) model to show all the locations where average January temperatures are projected to be colder than  $-5^{\circ}\text{C}$  in the 2050s.

Again, thanks so much for your participation last winter, and we hope to connect with you again later this year.

Best wishes,

The RinkWatch team



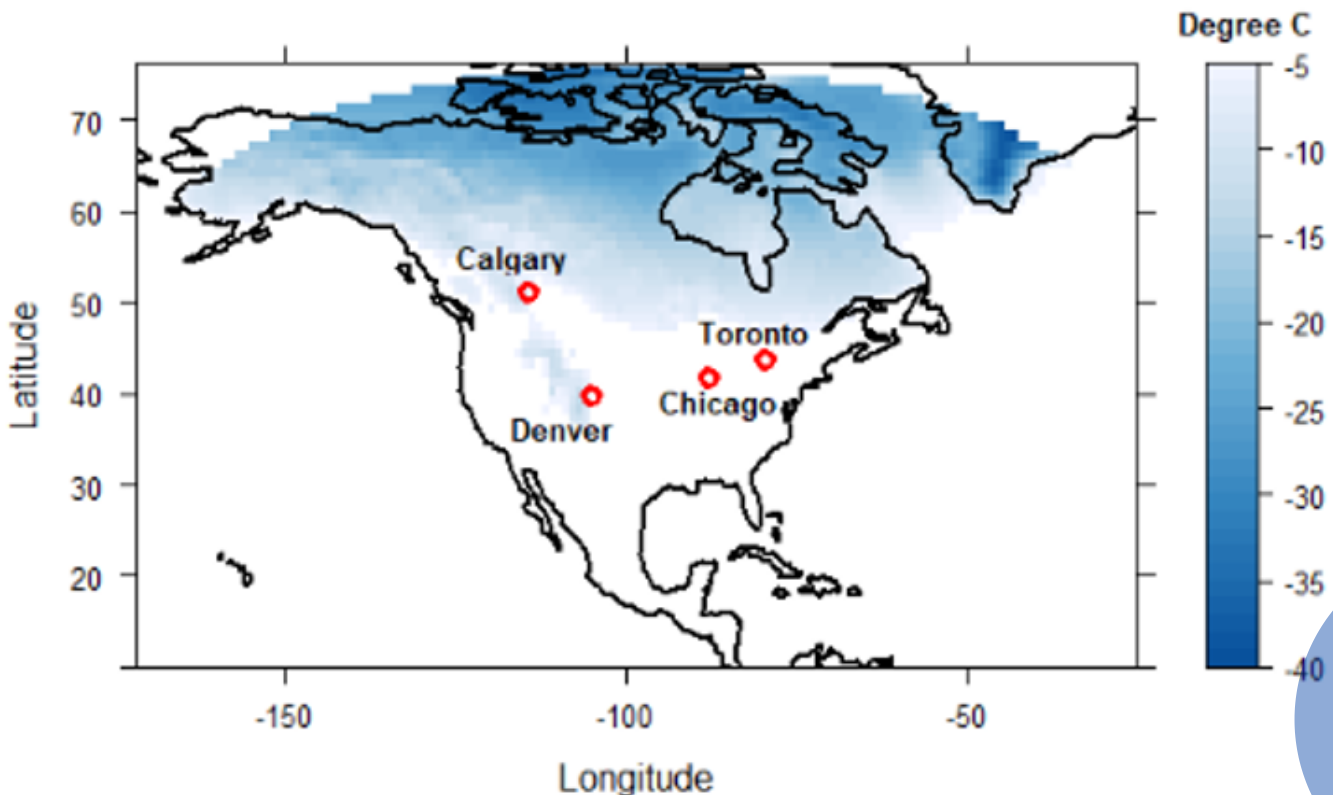
Image provided by Philippe Allard of St-Calixte, QC



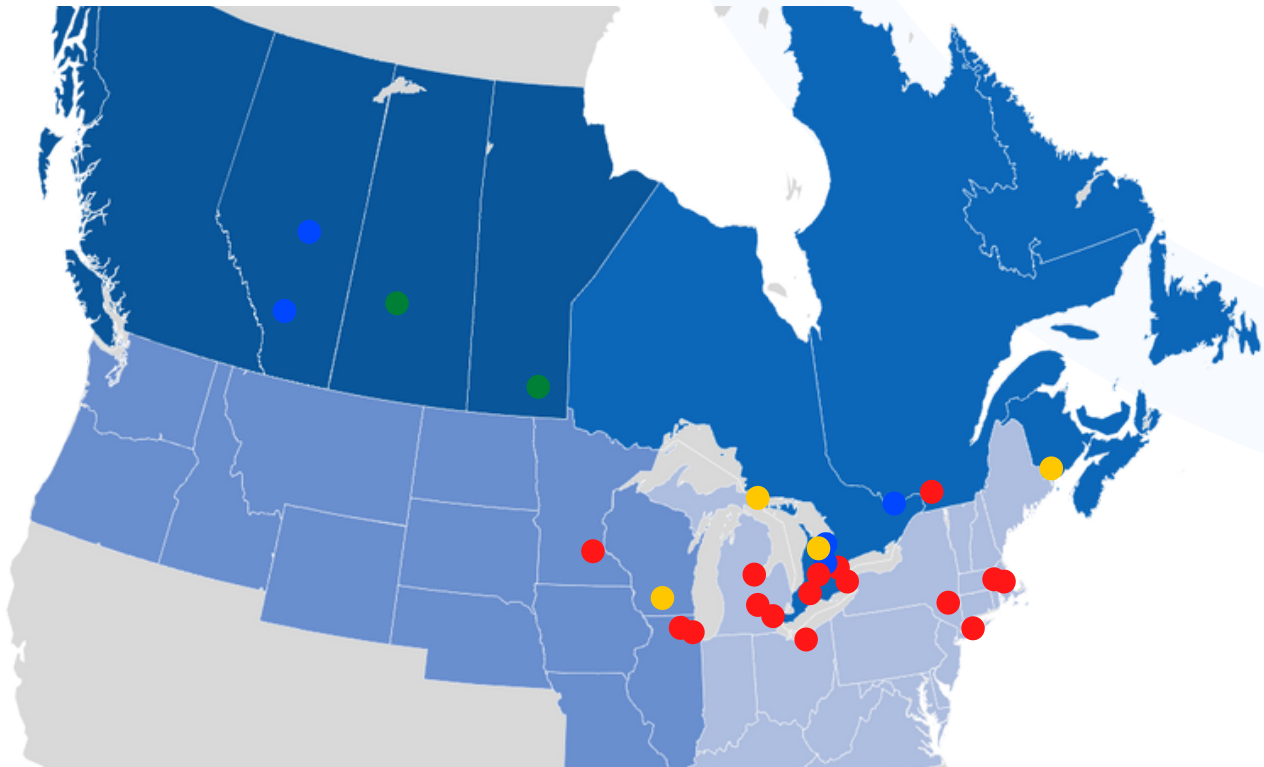
# THE FUTURE OF OUR WINTERS

Map below: Areas where average January temperatures in the 2050s are expected to be colder than  $-5^{\circ}\text{C}$  under Representative Concentration Pathway 4.5 scenarios according to the NA-CORDEX Canadian GCM. Translation: People living in areas shaded in blue can still expect to be skating outside in most winters thirty years from now (i.e. Alaska, the Territories, most parts of the Prairie provinces, and northern Ontario, Quebec and Labrador, and higher elevation locations in the Lower 48 states). Cities like Toronto and Chicago will still occasionally have winters cold enough to build a rink, but not every year. Atlantic Canada will see winter temperatures more like those of New York/New Jersey, where rinks are built opportunistically during unusually cold periods.

**2050s average January Temp: CanESM2**



# OUTDOOR RINK LOCATIONS



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

Calgary, AB

Edmonton, AB

Saskatoon, SK

Petersfield, MB

Holland Centre, ON

London, ON

Mono, ON

Maple, ON

Niagara Falls, ON

Ottawa, ON

Richards Landing, ON

Wasaga Beach, ON

Waterloo, ON

St-Calixte, QC

Oak Bay, NB

Farmington, MN

Verona, WI

La Grange Park, IL

Saint Charles, IL

Canton, MI

East Lansing, MI

Midland, MI

Berea, OH

Nesconset, NY

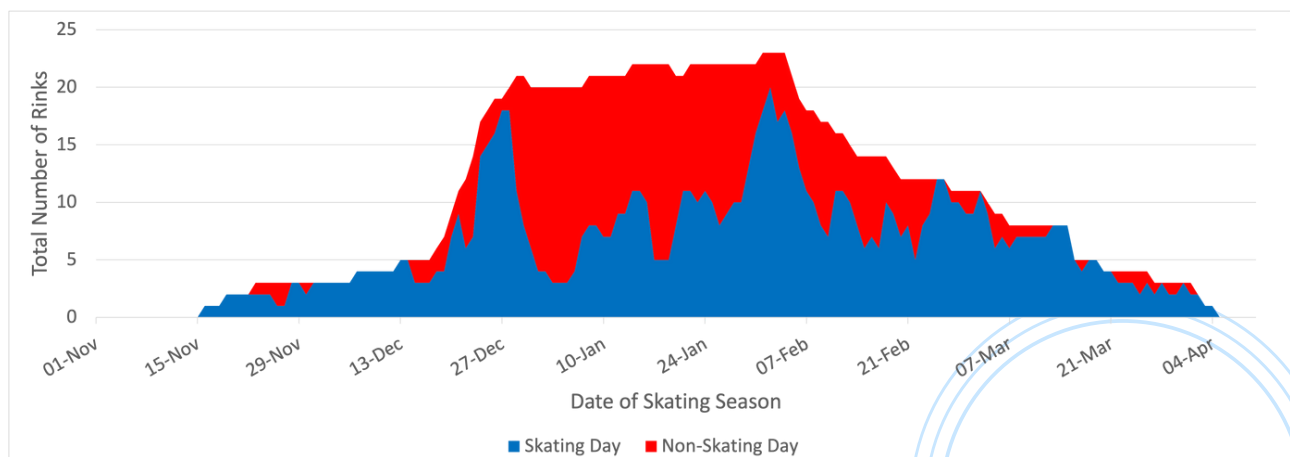
Rhinebeck, NY

Stow, MA

Wellesley, MA

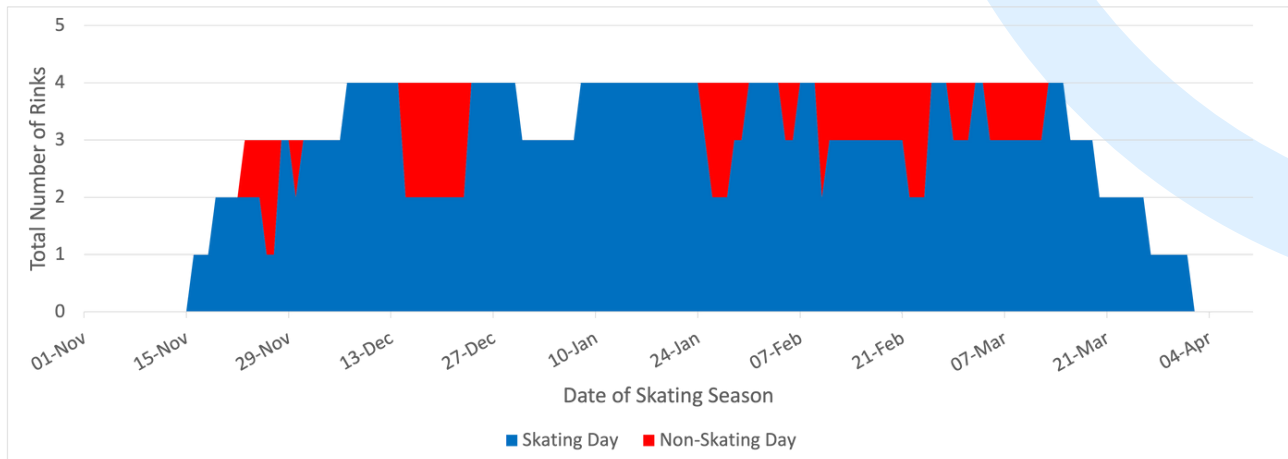
# SKATING SEASON DATA

## FIGURE 1: SKATING SEASON DATA - ALL RINKS

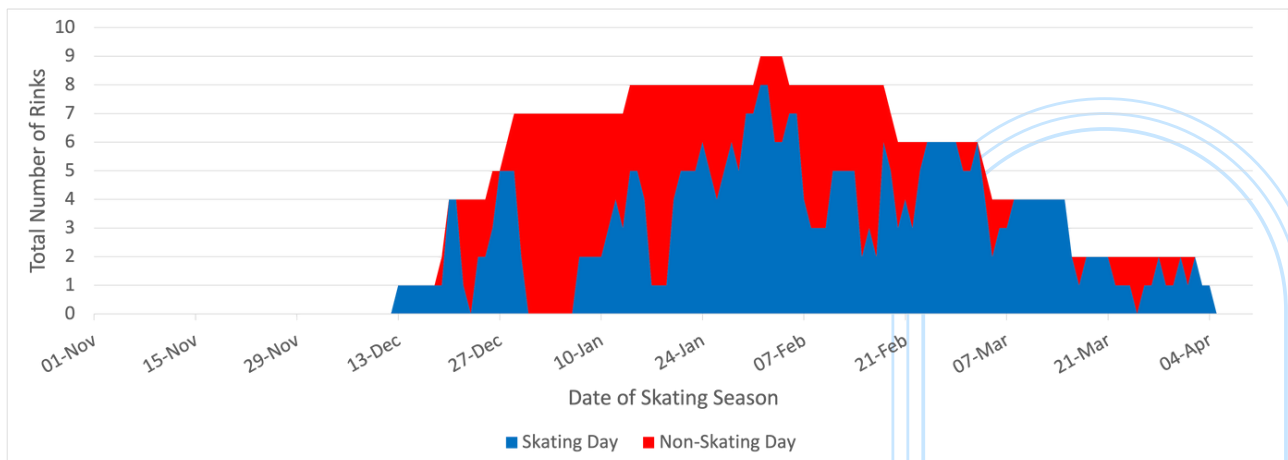


Figures 1-5 compare the number of skating days and non-skating days for all sentinel rinks and for sentinel rinks in specific regions in the winter of 2022-2023. The dates listed on the horizontal axis begin with the earliest reported skating day from our sentinel network (November 16, 2022) through to the final reported skating day (April 4, 2023). The number of sentinel rinks operating is seen on the vertical axis. The blue area of the chart reflects the total number of rinks reporting skatable conditions on a given date, and the red area reflects the number of rinks reporting unskatable conditions on that same date.

## FIGURE 2: WEST CANADA REGION



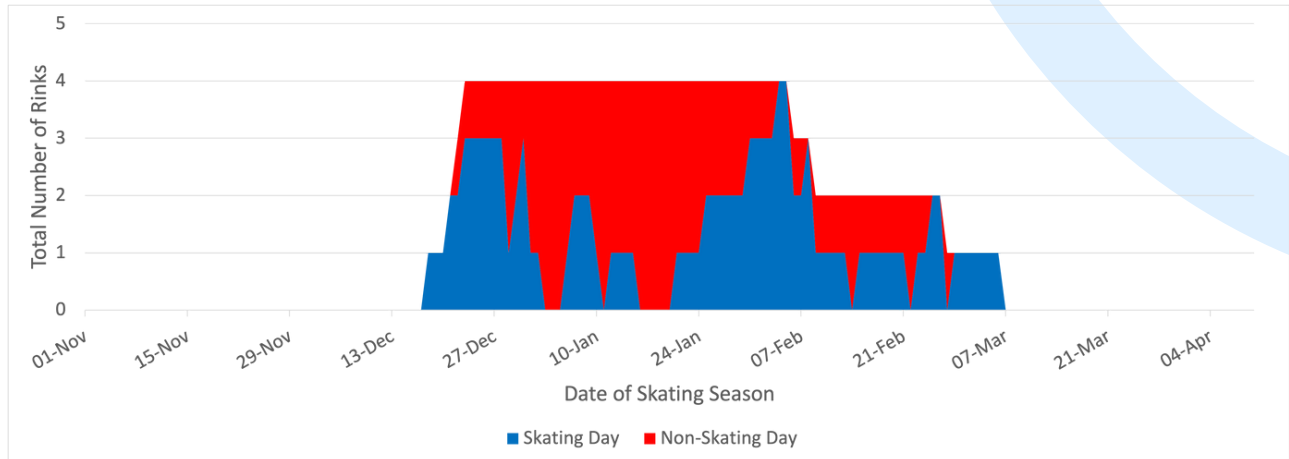
## FIGURE 3: EAST CANADA REGION



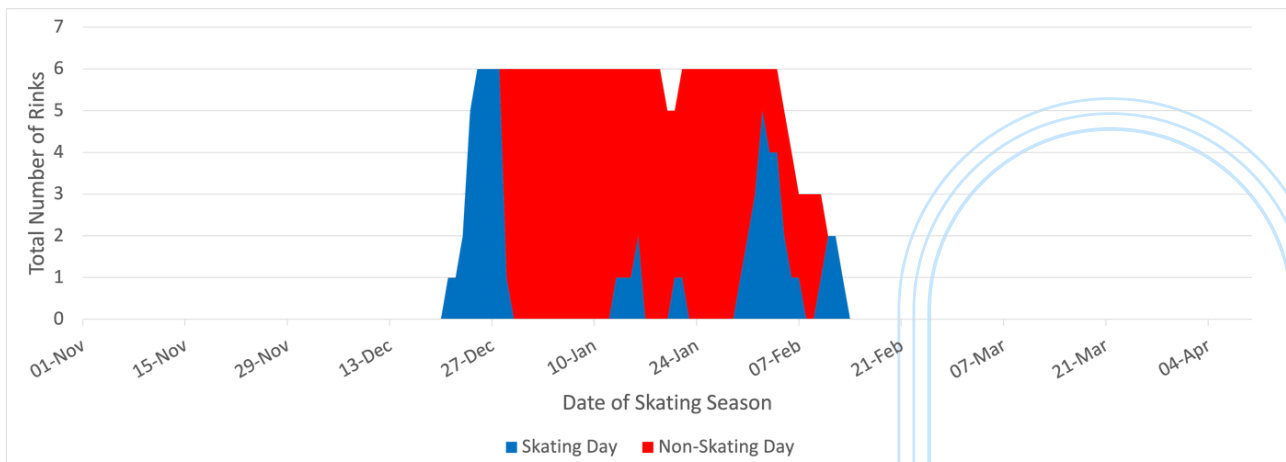
**SKATING SEASON**  
**DATA**



# FIGURE 4: WEST USA REGION



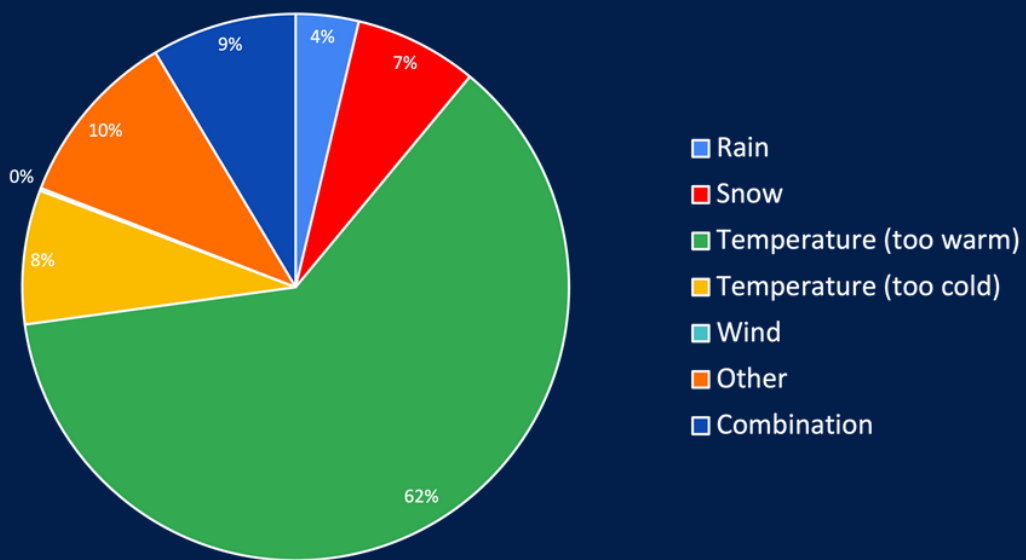
# FIGURE 5: EAST USA REGION



## SKATING SEASON DATA



## FIGURE 6: WEATHER FACTORS - ALL RINKS



Figures 6 through 10 summarize the reasons given by Sentinels for days during the winter when their rink was not skatable or was less-than-optimal.



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# WEATHER FACTORS

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FIGURE 7: WEST CANADA REGION

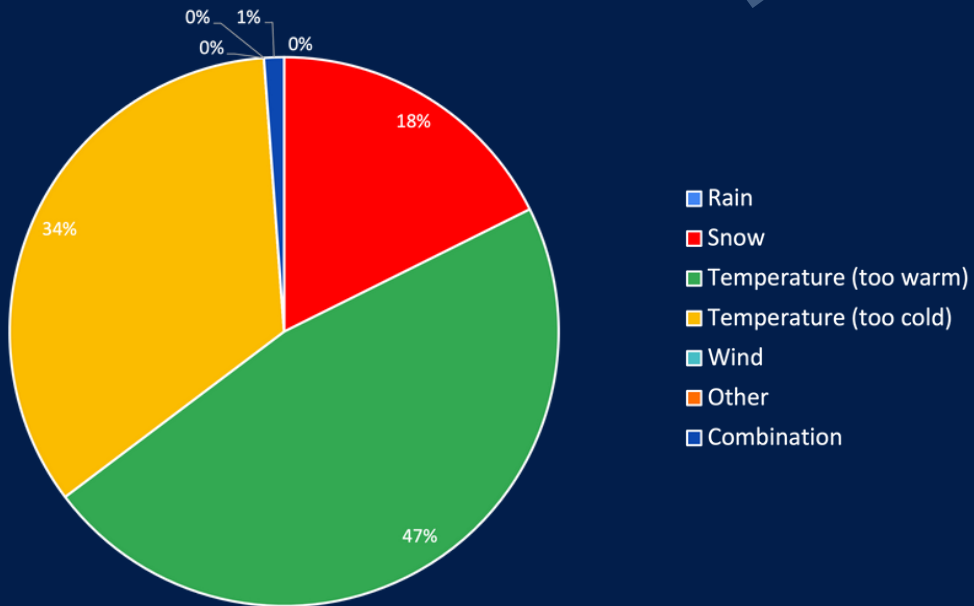
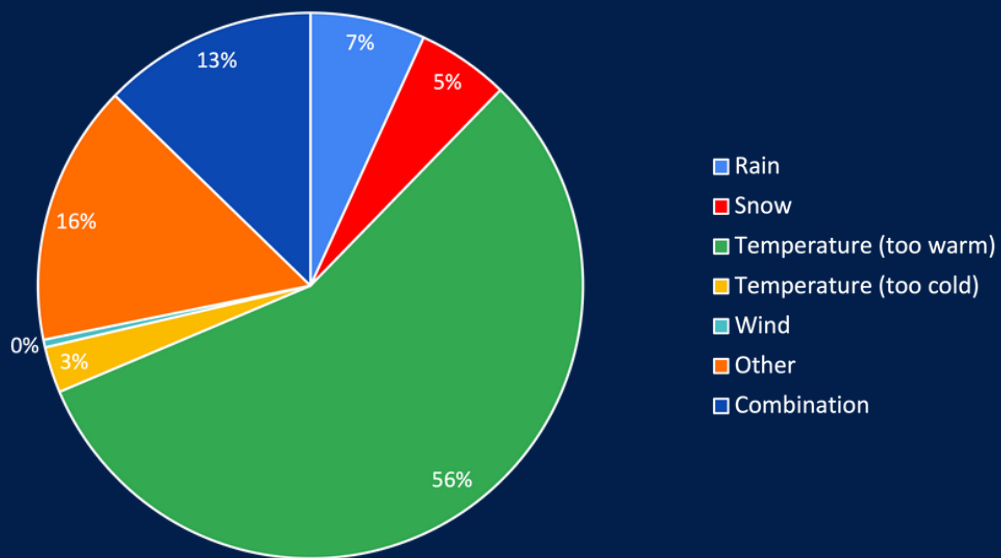


FIGURE 8: EAST CANADA REGION

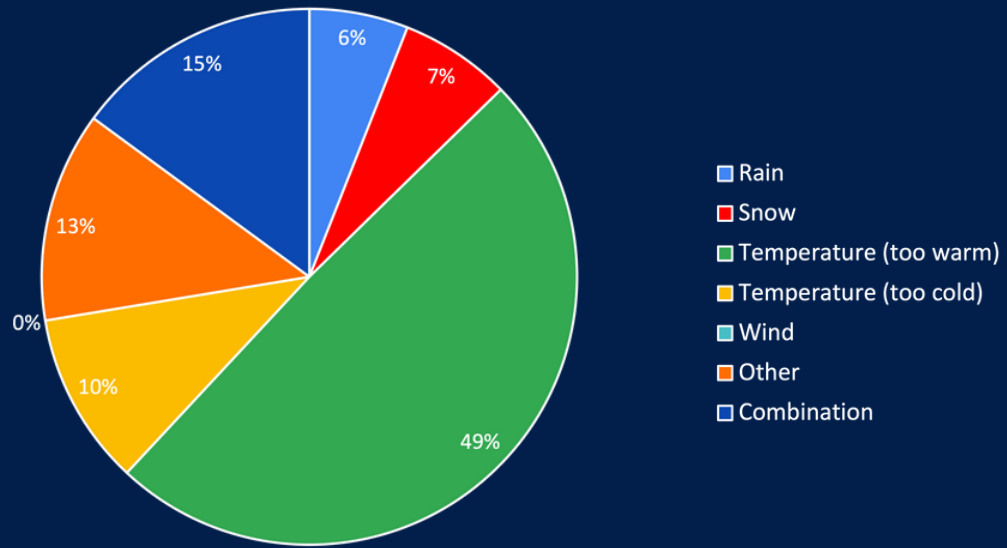


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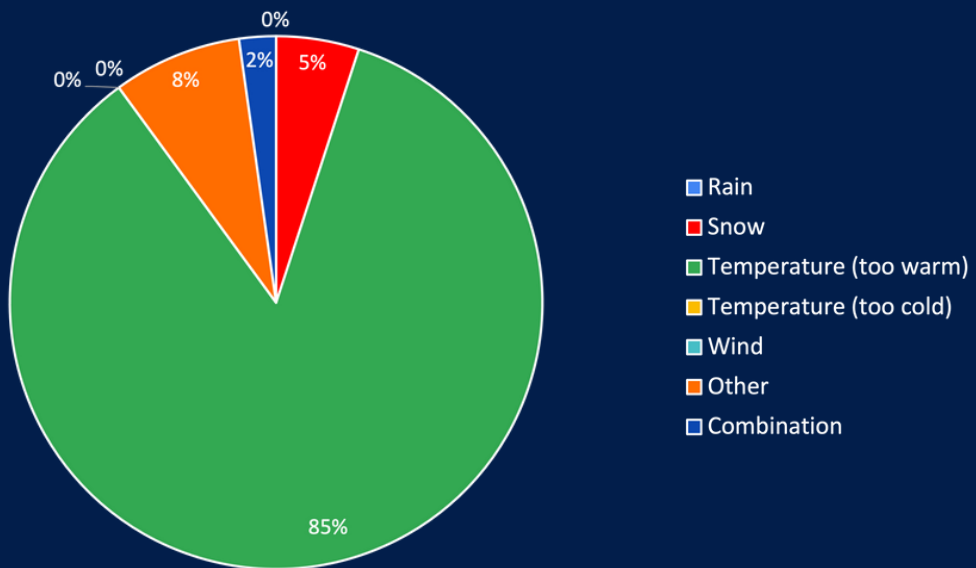
# WEATHER FACTORS

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# FIGURE 9: WEST USA REGION



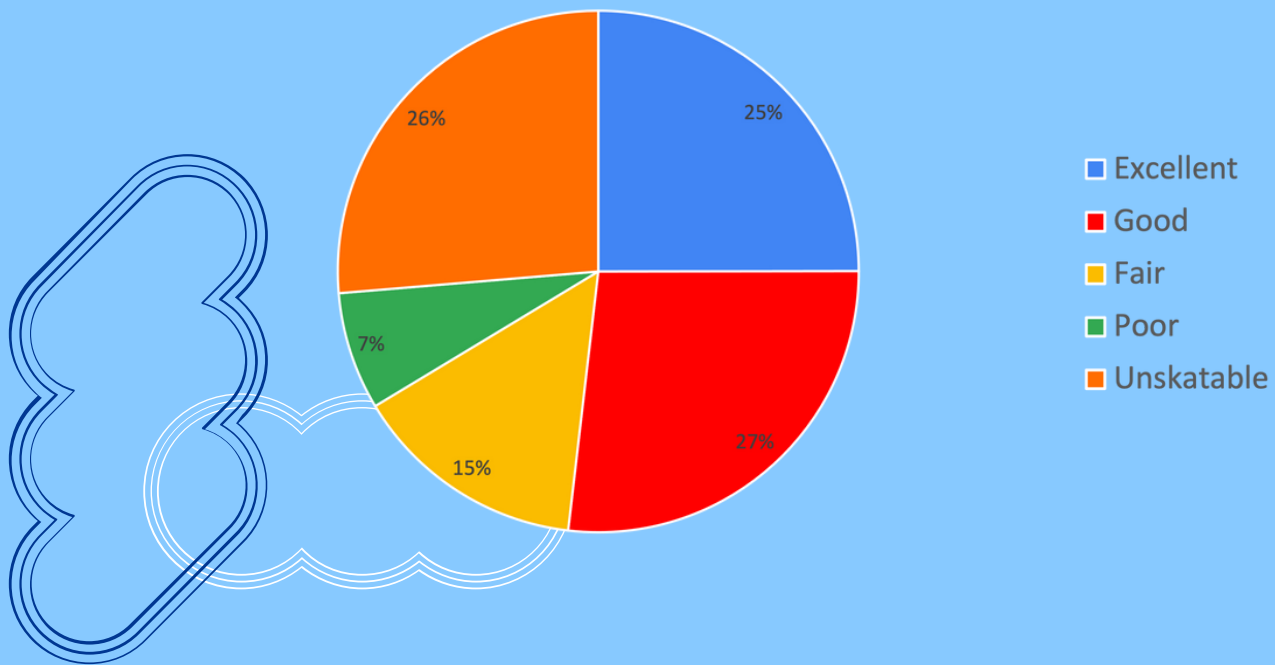
# FIGURE 10: EAST USA REGION



# WEATHER FACTORS

# ICE CONDITIONS

**FIGURE 11: ICE CONDITIONS -  
ALL RINKS**



Figures 11 through 15 summarize the relative skating conditions reported by sentinels during the season.



# ICE CONDITIONS

FIGURE 12: WEST CANADA REGION

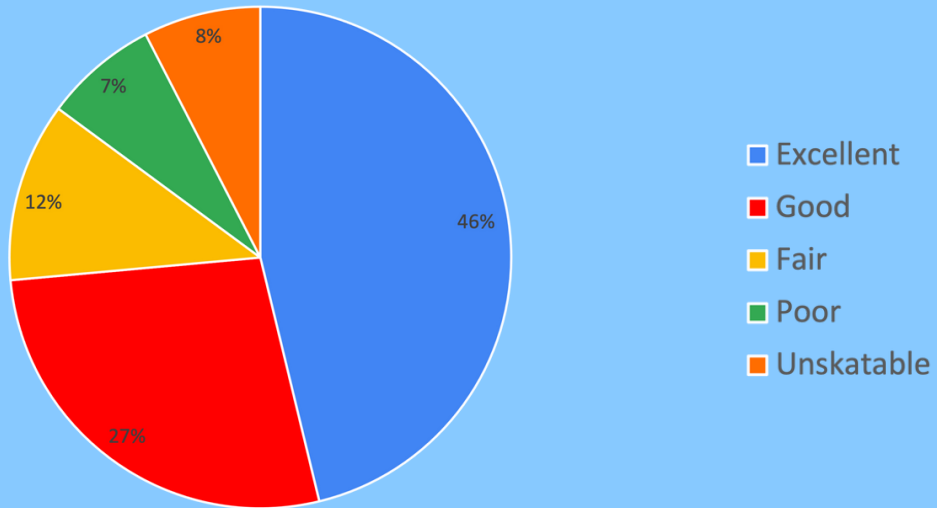
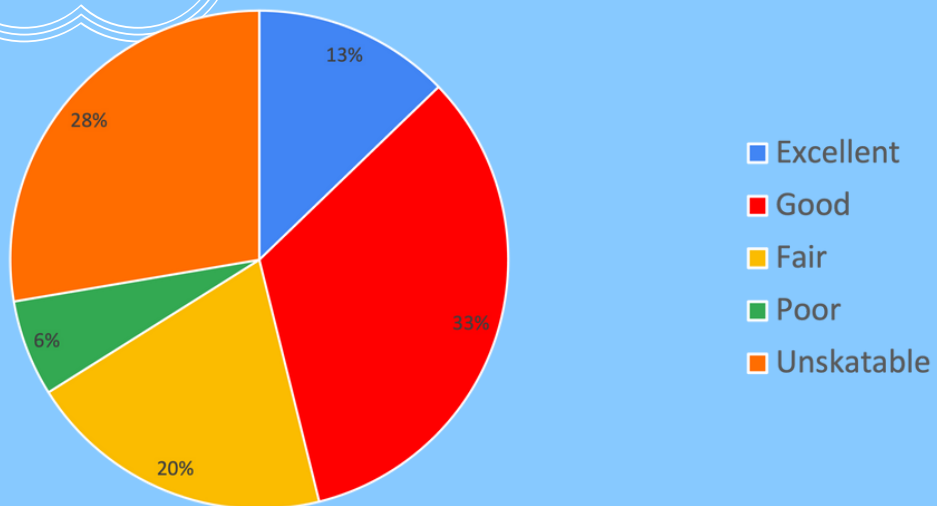


FIGURE 13: EAST CANADA REGION



# ICE CONDITIONS

FIGURE 14: WEST USA REGION

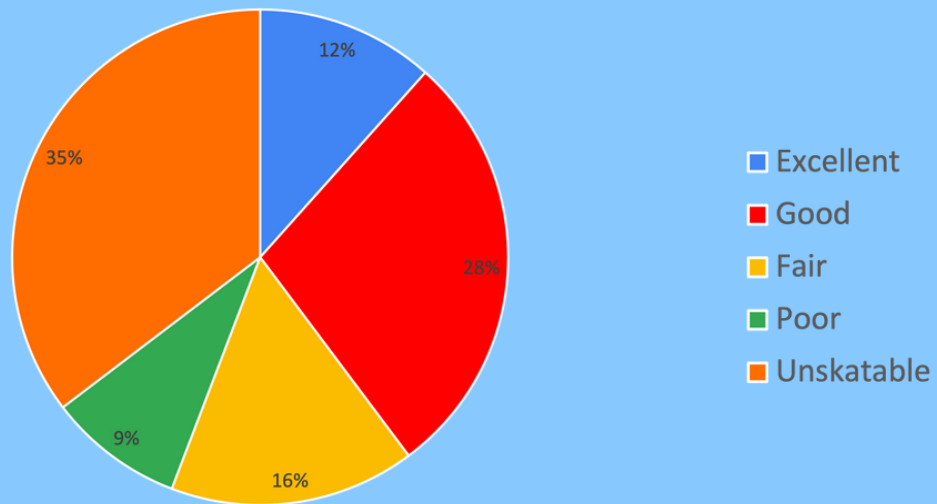
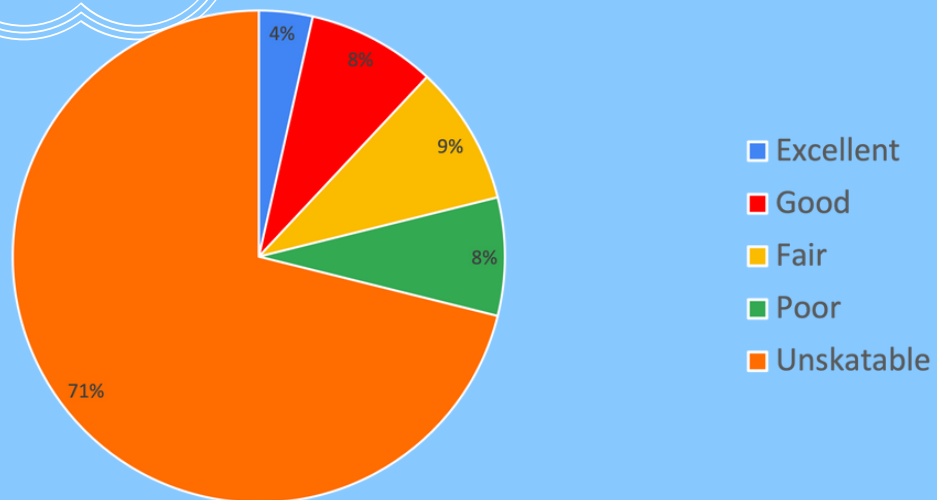
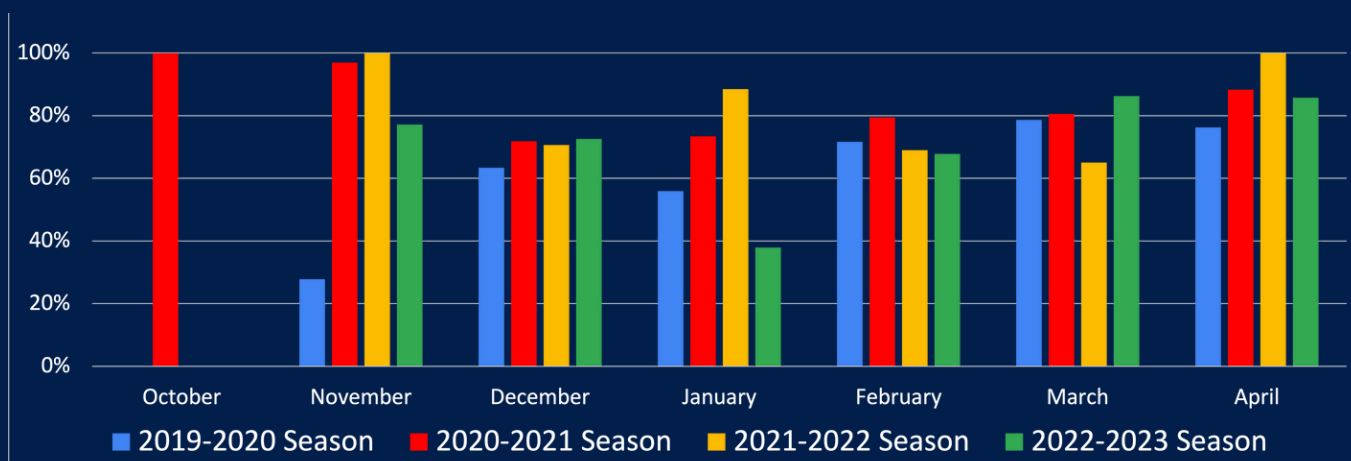


FIGURE 15: EAST USA REGION





## FIGURE 16: SKATING SEASON COMPARISON - ALL RINKS



Figures 16-20 compare the percentage of skatable days per month between the 2019-2020, 2020-2021, 2021-2022, and 2022-2023 skating seasons.

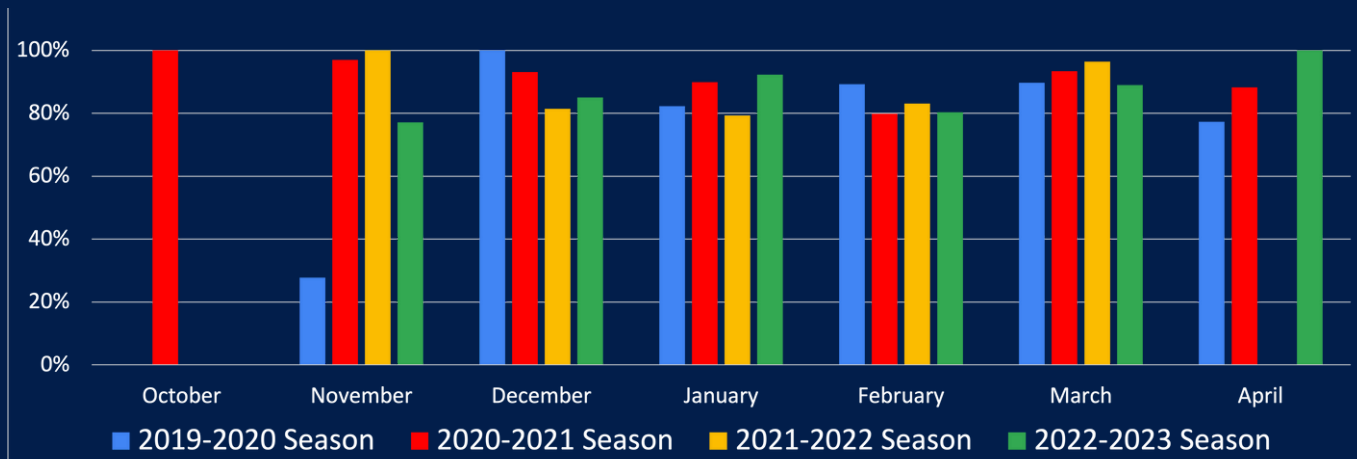
Please note, the data displayed for the months between October and April only reflect the days included in the skating season in each respective month.



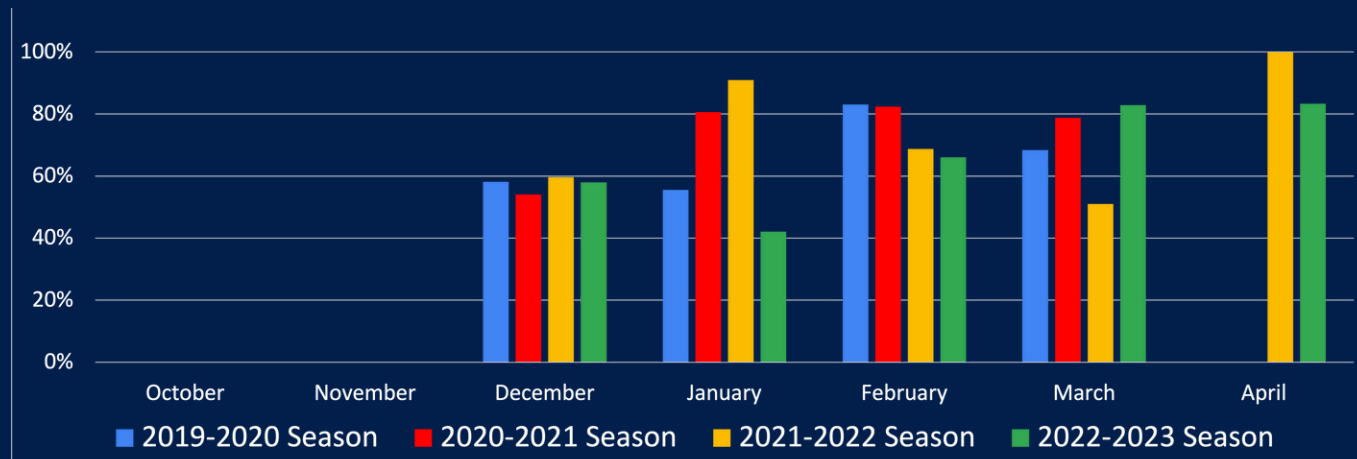
# SKATING SEASON COMPARISON



### FIGURE 17: WEST CANADA REGION



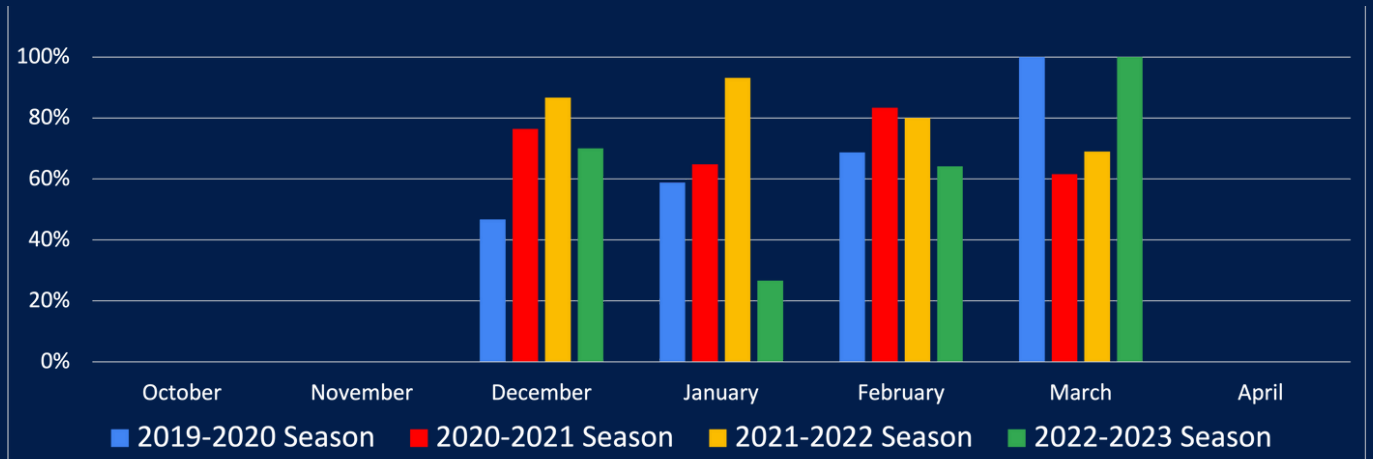
### FIGURE 18: EAST CANADA REGION



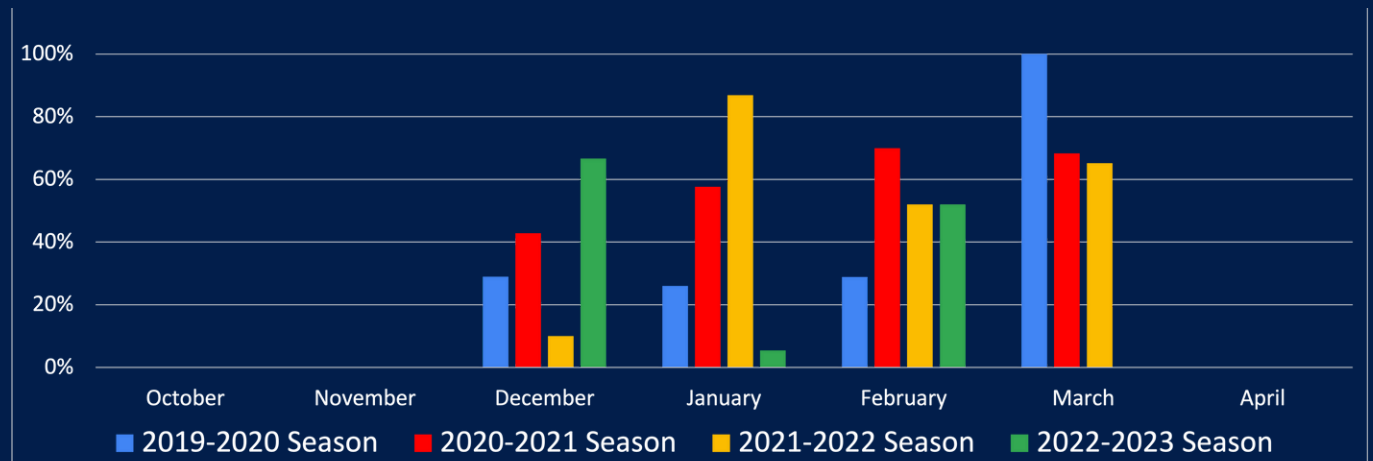
# SKATING SEASON COMPARISON



### FIGURE 19: WEST USA REGION



### FIGURE 20: EAST USA REGION



# SKATING SEASON COMPARISON





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# THANK YOU

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**The 2022-23 RinkWatch Sentinel Program honour list of volunteers:**

Kaija Hupila, Alessandro Wilner, Carole Hunt-Ford, Eric Walker, Jason Vlahos, Jimmy Skrivanos, Kevin Riley, Mark Rafferty, Maurice Cormier, Michel Godbout, Philippe Allard, Tom Trottier, Zach Weston, Adam Chiasson, Andy & Dawn, Aric Dodd, Brian Eckhardt, Chris Fraser, Dan Sanborn, Derek Coulombe, Mathew Blanchard, Max Farley, Roberta Bond, Sean Gill, Sean Howard, Shelley Jackson, and Rick Nasta.

Additionally, we'd like to thank Shelley Jackson for sharing her incredible photos with us. Check out the Shelley Jackson Design Facebook page [here](#) to learn more about her work.