With the arrival of spring temps, ice coverage on Lake Michigan is likely to end up just below average this season

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As ice coverage across the Great Lakes falls from winter highs with spring and summer warming ahead, Lake Michigan is likely to end up with a just-below-average season.

Lake Michigan reached an ice coverage high of 37% in February, according to data from the National Oceanic and Atmospheric Administration's Great Lakes Environmental Research Laboratory, which records and models ice coverage.

The long-term average maximum cover for Lake Michigan, going back to 1973, is about 41%.

Early projections for the season estimated near-record low ice coverage for the Great Lakes but were adjusted as a string of freezing temperatures chilled much of the region.

Tracking ice cover is important so that long-term trends can be identified despite occasional years of high or low ice coverage, said James Kessler, physical scientist with NOAA's Great Lakes Environmental Research Lab.

Ice cover is highly variable, but overall there are now fewer days with ice and coverage is decreasing at a rate of about 5% per decade. The disappearance is less pronounced in Lake Michigan, and more so in Lake Superior, which is among the planet's fastest-warming lakes.

The overall decline "doesn't mean that we're not going to continue to have high ice years," Kessler said.

Overall, Great Lakes coverage peaked in late February at about 56%, just above the long-term average.

Lake Michigan, along with Lake Ontario, was an outlier. The other Great Lakes, particularly Lake Superior and Lake Erie, experienced above-average maximum coverage.

Kessler said Lake Superior experienced a late increase in ice cover and

is still rising.

Lake Superior, which generally hits maximum coverage later in the season, reached a peak of about 79% coverage in mid-March, up from an average 62%. The lake has continued to see above-average cover in recent days.

"Despite the fact that at this time of the year, it's usually decreasing," he said. "This particular year seems to be peaking even later than typical for Superior."

Lake Michigan's ice coverage in the last week has been as low as 15% and as high as 22%. The lake's surface temperatures are sticking close to the average going back to 1995 and are likely to begin the climb toward seasonal highs reached around August.

Disappearing ice coverage was among the effects of climate change spotlighted in the latest United Nations report from the Intergovernmental Panel on Climate Change. It's one of many shifts to which people and ecosystems will need to adapt as the world continues to warm, largely as a result of heat-trapping greenhouse gasses produced from the burning of fossil fuels.

Great Lakes scientists, including some from the University of Chicago, recently took part in the first coordinated sampling effort of the lakes in winter to understand what disappearing ice might mean for one of the largest freshwater systems on the planet.

"Some of the most dramatic changes are happening in the winter," said project organizer Ted Ozersky, an associate professor at the University of Minnesota at Duluth. "If we don't understand how the Great Lakes work for a big chunk of the year, I think we're not in a good position to predict how they will change."