



ORR LAKE CONDITIONS UPDATE

Sample Date: Feb 14, 2022

Ice Thickness

43 cm

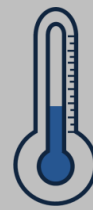


Remember, no ice is safe ice! Always check local ice thickness and take proper precautions before going out on any frozen lake.

Water Temperature

Surface
0.1°C

Bottom
5°C



Temperatures increase with depth since water around 4-5°C has the highest density and sinks to the bottom. This is important for the survival of aquatic life in the winter!



Thick ice at the sampling site (43 cm)

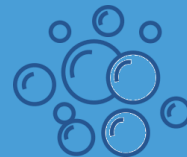
Approx. Ice On Date

Dec 26
2021

This is late compared to observations from the past 5 years, where the average ice on occurs around Dec 4th.

Bottom Water Dissolved Oxygen

6.5 mg/L



This is sufficient for warm water fish like Bass and Pumpkinseeds. Bottom water values are important since this is where fish & invertebrates spend much of their time in the winter.



A perfect winter day on the lake!



General Observations

- Small amount of snow cover on ice surface
- Water was clear with no odour
- Ice was a combination of strong clear ice and weaker white ice



Water sampling through the ice



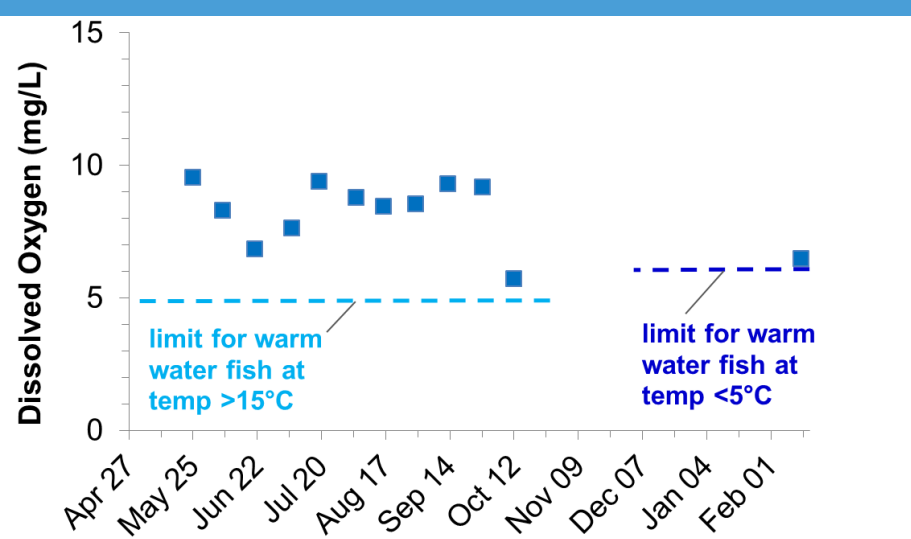
Winter sampling site and equipment



Pouring water samples

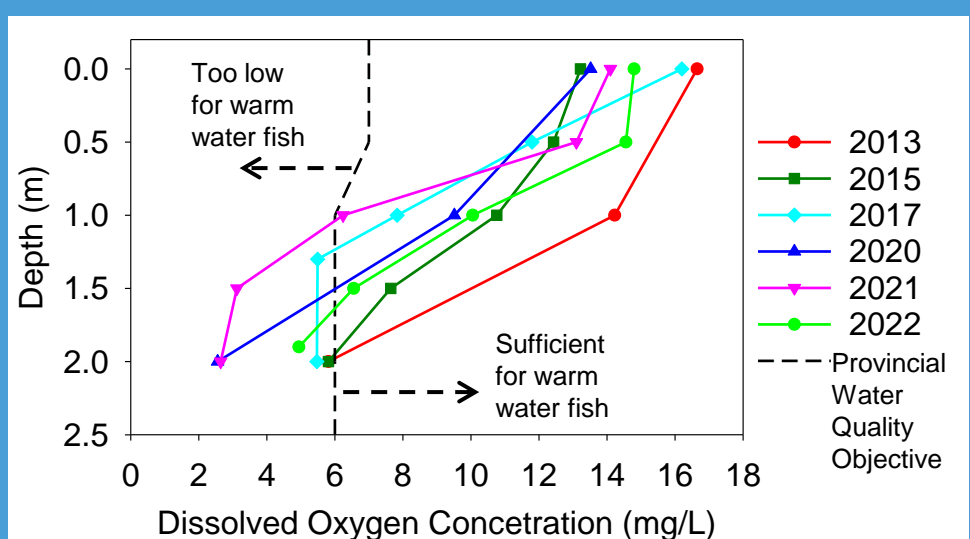
ORR LAKE WATER QUALITY TRENDS

Bottom Water Dissolved Oxygen Seasonal Trends



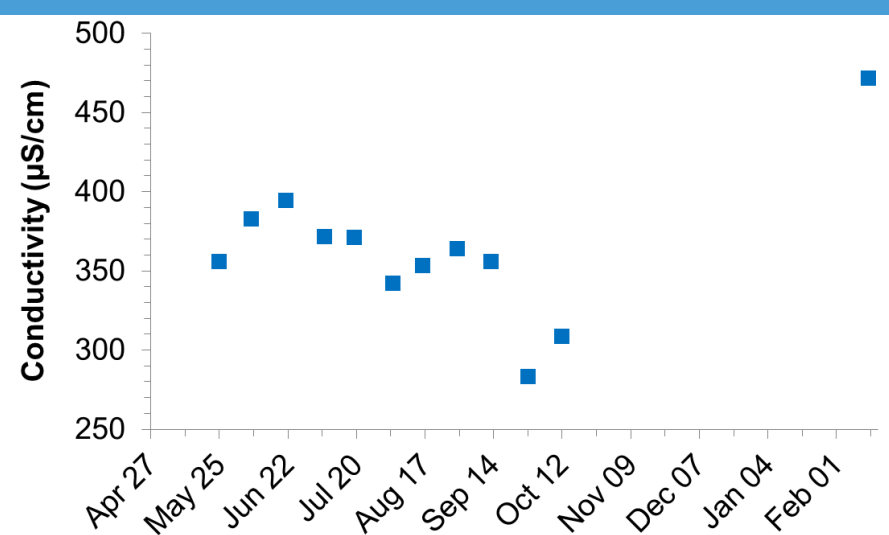
Under ice oxygen levels at 1 m off bottom remain above the Provincial Water Quality Objective for warm water fish.

Historical Dissolved Oxygen Profiles 2013-2022



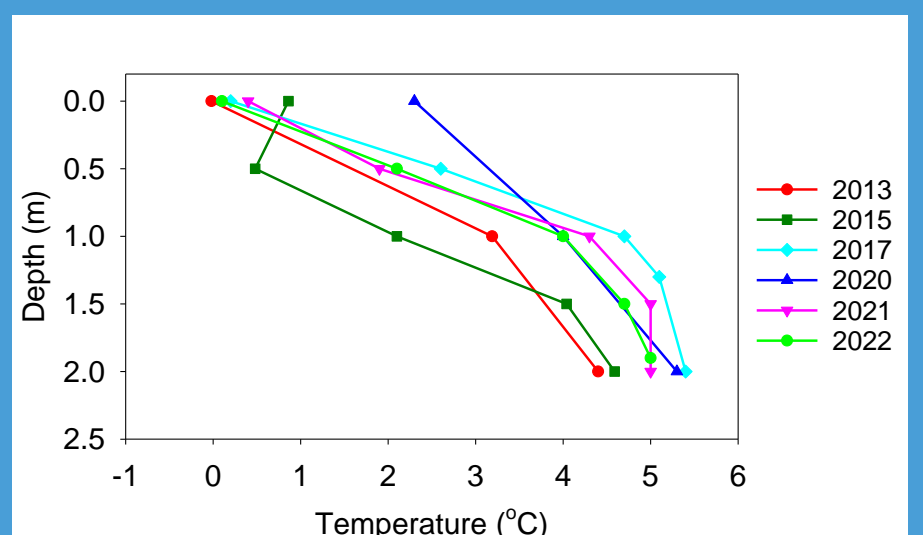
Oxygen depletion in 2022 was average compared to past years. The bottom 0.5 m was below the Objective for warm water fish in 2022.

Surface Water Conductivity Seasonal Trends



Conductivity indicates the amount of dissolved material in the water. Values increase under the ice as there is little dilution from rainfall.

Historical Temperature Profiles



Lake temperatures this year are average compared to past years. Currents under the ice influence temperature profiles from year to year.