

## **Lakes as indicators of climate change**

After a period of steadily decreasing temperatures, it was November 23<sup>rd</sup> when Lake Windermere officially froze this winter. This date was recorded and will be kept for future reference.

Wildsight's Lake Windermere Project, working in partnership with the B.C. Lake Stewardship Society (BCLSS), has been participating in an ongoing process that will document the lake's ice-on and ice-off patterns.

Currently scientists are studying the natural freezing and thawing cycles of Canadian waters because ice cover is being directly affected by climate change. By recording and analyzing ice cycles, much more can be learned about how climate change is affecting the environment. The measurement will help with an understanding of a number of climatic variables including air temperature, wind and solar radiation.

The freezing and thawing of lakes and rivers was being monitored long before scientists began to record it. There has been extensive ice-on/ice-off data collected on Canadian lakes, dating back to the early 1800s. These observations were typically for practical and cultural purposes, like determining when boat passages or log drives could be made, as well as determining when on-ice travel was safe.

Seasonal differences in the ice cover for lakes and rivers can have a substantial impact on Canada's ecosystems. Changes in the breeding seasons and migration patterns of birds and waterfowl, food supplies for fish and mammals, water temperature along with changes to water chemistry can all occur. Ice cover can also affect national trade, transportation, outdoor recreation and tourism.

As our climate changes, we can learn more about how this will affect the different regions of Canada and how our ecosystems will react to the change.

The Lake Windermere Project has been documenting ice cycles on Lake Windermere since 2005. If you have been keeping your own records and would like to share them with the Lake Windermere Project please contact the project office at 341-6898. You can also visit the Project office located in the old District of Invermere office beside the Invermere Community Centre. The Lake Windermere Project is a long-term comprehensive stewardship program dedicated to safeguarding the health of our lake. The Lake Windermere Project is made possible by generous support from Wildsight, Environment Canada, Columbia Basin Trust and the Real Estate Foundation of B.C.