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Times & Transcript

138 YEARS
MONCTON, N.B.

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NEWS

Times & Transcript

Trees provide clues into weather patterns of the past

■ **Mount Allison professor studies rings of trees to tell what years had lots of rain**

Trees may not be able to forecast weather, but they can give an accurate picture of what weather has occurred over past decades and even centuries.

And they can help scientists devise models that will improve predicting climates and climate change in the future.

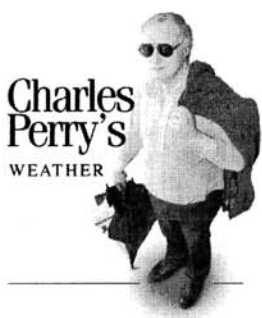
Dr. Colin Laroque, assistant professor of geography at Mount Allison University, said that by examining the rings on a tree, you can determine weather patterns in the area where it was growing, year by year, over the life of that tree.

Laroque displayed a graph at the recent Fundy Model Forest Forestry Fair in Sussex showing the weather pattern for one area, year by year, all the way back to 1550, which was charted by studying the rings on a tree.

If the rings are large, he explained, that indicates a good growing season, while small, narrow rings signify a poor growing season. He said this provides a good measurement of the temperatures at the time of each ring.

Times of plentiful rain or snow are marked by rings that are thicker than those left by times of drought. And there are any number of other weather information that can be extrapolated from studying the rings, he said.

Laroque said there are various laboratories across the country and around the world deciphering this information from tree rings, but the



Mount Allison lab is the only one in the Maritimes doing it.

He said they take small "pencil samples" from the tree which are so minuscule that they do not affect the tree's natural growth. Then, they sand them and measure them under a microscope.

The weather office at the Moncton airport has been measuring temperature, precipitation and other weather data for many years, said Laroque. So, the Mt. A laboratory has no problem testing the veracity of the tree ring measurements, he said, noting they match accurately with the weather station's findings over that time.

So, using tree rings, they can measure climate with complete accuracy as far back as the tree goes, he said. "We are only limited by the age of the tree. If it is 300 years old, for example, we can only measure the area's climate back 300 years."

Laroque said you can also measure the climate of the past by using clam shells, deep sea corals or ice cores. But the tree rings are the most accurate, provide year by year climate information and trees

Weather Facts

- Today's high for southeastern New Brunswick is expected to be 23C (73F) and the low, 10C (50F).
- Yesterday's high for the area was 23C (73F) and the low was 9C (48F).
- The highest maximum temperature recorded in Metro Moncton for Sept. 17 (yesterday) was 27.2C (81F) in 1942. The lowest minimum temperature was -1.7C (28.9F) in 1948.
- On this date (Sept. 18) last year, it was a foggy, drizzly day, which saw 2.6 millimetres (0.1 inches) of rain fall in Metro Moncton. The high was 17.6C (63.7F) and the low was 13.8C (56.8F).

are a lot more plentiful than ice cores, he said.

Because of its accuracy, the Mt. A professor noted that tree ring measurements can be invaluable in designing models for predicting climates in the future, a very important endeavour these days with talks of climate change.

By testing it against tree ring data re past climates, where you know your answers are accurate, you can determine if you have a model that can predict future climates with some accuracy, said Laroque.

Meanwhile, a mix of sun and cloud is being forecast for today in Metro Moncton, with temperatures expected to climb to a high of 23C (73F).

Cloudy conditions are predicted for tomorrow with a 70 per cent chance of showers. The projected high for the day is 19C (66F).

■ *Charles Perry's Weather appears daily in the Times & Transcript.*