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World's oldest red spruce found on Fundy coast

■ **Scientists keep secret the location of spindly tree hidden in corner of gorge**

By HOWARD CARR
Special to the Telegraph-Journal

SACKVILLE — There have undoubtedly been many secrets spoken and kept under the cloak of a dense Fundy

fog.

But no matter how excited Ben Phillips gets about his summer discovery, he will never reveal the secret location of the world's oldest living red spruce tree.

In August, the fourth-year environmental studies and geography major at Mount Allison University was in a deep green gorge along the Bay of Fundy coast and found the

tree, which later tests proved to be 445 years old.

"It was very exciting and it's still very exciting," Mr. Phillips says.

Mr. Phillips made the discovery while researching how climate change might affect trees in the lower level fog belt differently from those in the nearby Caledonia highlands.

His trek into the gorge shattered New Brunswick's previ-

ous record for red spruce, which was 192 years old. In fact, he found a number of trees that are close to and over 300 years old.

"You could almost call it an ancient grove of red spruce with one of them being the granddaddy," says Dr. Colin Laroque, assistant professor

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The Front

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SPRUCE: Tree is far from spectacular to look at

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of geography at Mt. A.

All he would say is that the very healthy old growth forest is in a protected area within the boundaries of Fundy National Park.

"The tree seems to be very healthy," in a sheltered corner of the gorge, he said. "Because of its particular circumstances we think this tree is going to live a very long time, yet . . . it could easily hit 500 (years old).

Previously, scientists thought that roughly 400 years old was the oldest a red spruce could live, based on the fact that the oldest example on record was a 405-year-old spruce in New Jersey.

"This is really a feather in our cap from a research point of view, but it also puts us on the map in the tree world," the professor said of a tree that would have been a seedling four decades before Samuel de Champlain sailed into the Bay of Fundy.

"Everybody wants to have the biggest or the oldest, so in the tree ring world New Brunswick now has the oldest red spruce tree ever found."

Despite its great age, the tree is far from spectacular to the eye.

It has a very sparse top, is about 35 meters tall, and its 445 rings are



Submitted photo

Ben Phillips, a Mount Allison University student, discovered the 445-year-old red spruce in a gorge in Fundy National Park.

contained in a trunk that measures a mere 13.5 centimetres from its centre to its outer edge.

"There are a lot of other ones in the area that were just under and over 300 years old that were much larger than this one," he said. They got a lot more sunlight and were able to grow bigger.

This oldest tree's numerous periods of slow growth were determined by measuring the distance between each ring using a microscope or computer technology that can determine distances as small as 1/1,000 of a millimetre.

Mr. Phillips, a native of Moncton,

said his research has shown that red spruce in the low lying fog belt will grow on average half as much as trees in the highlands each year.

His newly discovered tree "was out-competed," he continued, pausing for some second thought.

"But who was out-competed in the end?" he asked. "From an evolutionary standpoint, how many more cones or seeds has this tree produced over its lifetime compared to the ones that only lived a couple of hundred years?"

Like the location of the old tree, that too remains a secret.