



Edward Cholo, left, and Nicolas de Pelham, Aboriginal Aquatic Resource and Oceans Management, community monitors for Liidlii Kue First Nation, look at maps that show the extent of the permafrost thaw at Scotty Creek since 1947 in 2013. Next week 10 high school students will have their chance to learn their way around the Scotty Creek facility.

WSL file photo

# Scientists reach out to youth

Researcher says 'all hands on deck' needed to address changing Northern climate

by April Hudson  
Northern News Services  
Deh Cho

Ten high school students from Thomas Simpson Secondary School in Fort Simpson and Deh Gah School in Fort Providence will be joining researchers at the Scotty Creek Research Station south of Fort Simpson next week.

They will be the first students to participate in a credit course, led by Wilfrid Laurier University associate professor Bill Quinton, where they will learn firsthand about ec hydrology and the impact climate change has been having on the region.

The course runs from March 11 to 18 and brings the students and researchers together with elders and representatives from Dehcho First Nations.

Quinton said the course is a partnership between the uni-

versity, the GNWT and Dehcho First Nations. The Scotty Creek research station is one of several sites the university operates in the territory.

Part of the university's agreement with the territory is to increase local capacity and engage in training activities, Quinton explained.

**"It's a time to come together, and a good place to come together is Scotty Creek."**

Bill Quinton

"In the spirit of that, we've come up with this new course," he said.

"The idea was to do this across the Deh Cho and have students reply."

In order to be considered for the course, students were required to write a letter

explaining why they wanted to take it.

"They were referring to their concerns about how things were changing," Quinton said.

"I think there was a real sense that the challenge is so large with climate change and all the uncertainty it brings to water resources and other resources, that we really need

all hands on deck to address these things."

Quinton hopes the program at Scotty Creek will mesh with Dehcho First Nations' Dehcho Kehodi program, an environmental stewardship initiative that began in 2014.

"This is a nice opportunity to align on ongoing and new initiatives. Maybe Scotty Creek can play a role in helping to prepare guardians," Quinton said.

"It's a time to come together, and a good place to come together is Scotty Creek."

During the course, students will hear from Dehcho First Nations Grand Chief

Herb Norwegian. They will also work with Fort Simpson's Edward Cholo, whose traditional trapline runs along the old army road near the research station.

While on course, students will learn about aquatic ecology and how to use scientific instruments to take and analyze snow and soil samples.

They will learn forest characteristics and take measurements of tree height, diameter and density.

They will also need to analyze their data and write reports.

Quinton and his fellow researchers began working at

Scotty Creek Research Station in the mid-1990s.

The station is located by Goose Lake south of Fort Simpson. Around 1999, Quinton says work began to install semi-permanent sensors, which kicked off a long-term archive of data from the facility.

"Initially, it was a study on water resources and hydrological processes, but as time went on we noticed the landscape was changing due to thawing permafrost," he explained.

"It's really stark out there in terms of how obvious the change is."

One result of permafrost thaw is flooding as the ground surface lowers. That causes black spruce trees to die off, resulting in a forest turning into a wetland.

Around 2005, researchers began to bring in interdisciplinary people to study gas fluxes, carbon and methane, as well as linking into international agencies such as NASA.

"We started re-orienting our research to address these questions about how climate warming is changing the land," Quinton explained. "We are really focusing on areas of intense permafrost thaw."

## TUNDRA COMICS