

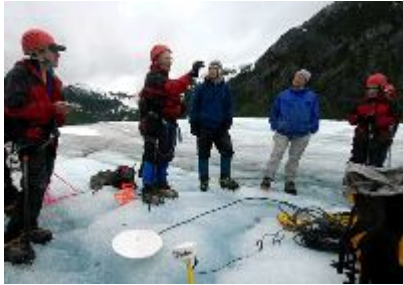
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Teachers learning on the EDGE

11 science instructors participate in program held at Juneau Icefield

By **BRITTANY RETHERFORD**

JUNEAU EMPIRE



Suzy Lafferty / Juneau Empire

► On ice: Professor Cathy Connor, second from left, recounts a story about the Mendenhall Glacier as John Wahl, far left, Logan Berner, Matt Heavner and Kelly Lawrence listen Tuesday on the Juneau Icefield. The device in the foreground measures the annual ice melt.

likely reaction to photos of them wearing red helmets and donning axes.

The teachers hail from all parts of Alaska, as far away as Delta Junction and Kwigillingok and as close as Dzantik'i Heeni Middle School.

They were selected for the "Experimental Discoveries in Geoscience Education" program known as EDGE, which is aimed at taking students out of the literal classroom and into the outdoors to learn about earth science through field experiments and computer mapping technology.

The program offers an opportunity for Alaska teachers to interact with university faculty and students, and for science educators to learn more about field training methods.

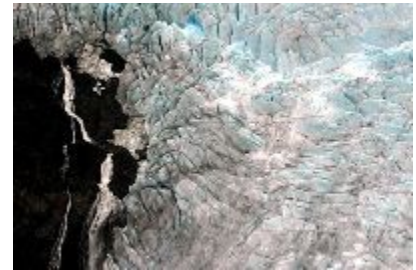
Holding an ice ax and wearing crampons, Cathy Connor stood near a small blue stream that cut deeply through ice before disappearing into the Mendenhall Glacier.

"We have a fair amount of silty material on top of the ice. Where do you suppose that is coming from?" she asked.

The University of Southeast Alaska geology professor explained how a fallen, brown leaf can create deep, narrow holes in glacial ice because of what is known as the "albedo effect" and why the oldest ice at the glacier is found at the bottom.

Connor was not talking to teenage science students. Her students were teachers.

The 11 science instructors were busy listening, peering at red algae growing in blue pools and making jokes about their students'



► High above: University of Alaska Southeast Professor Cathy Connor says the Mendenhall Glacier's features shift continuously.

The goal is to help teachers design stimulating curriculum that will help students meet the state's earth science performance standards. The project was funded by the National Science Foundation.

Ben McLuckie, a science teacher in Hoonah since 1992, completed the EDGE program last year but returned to the Ice Field Tuesday with the new crop of participants.

He said that hands-on learning has proved an invaluable teaching method for his students.

"Having the kids collecting data, just sensing the world ... experiencing the science, it captivates all the kids in my class," he said.

As part of the program, McLuckie brought two of his students to Juneau for a five-day workshop that included a trip up to the icefield. The teachers this year will have the same opportunity.



Suzy Lafferty / Juneau Empire

► An observation: John Wahl jots down notes Tuesday during a visit to the Juneau Icefield.

Teachers are expected to be enrolled in an online geology and science project mentoring course to create a live Web-based classroom. They then navigate their EDGE students through science fair projects and return to Juneau in the spring to present their work during an EDGE symposium and at the Southeast Alaska Regional Science Fair.

David Gillam, a science teacher from Anchorage, said the program has been fun but learning the new technology has been "frustrating."

"At first the learning curve was steep," he said. Gillam has been an elementary school teacher for the past 29 years and will be teaching science-only for the first time at an Anchorage middle school this year. John Wahl is a science and math technical specialist with the Juneau School District. He said the district has instituted a technology plan to get more teachers involved with using the latest systems available.

Teachers who came to Juneau with EDGE

-Jennifer Bacus

Kwigillingok|

-David Gillam

Anchorage|

-Lori Gillam

Anchorage

-Maryjane

Hadaway

Kongiganak

-Randy Merrill

Palmer

-Faith Scott

Palmer

-Gary Cooper

Delta Junction

-David Kovach

Juneau

-John Wahl

Juneau

-Geoff Johnson

Huslia



Suzy Lafferty / Juneau

Empire ▶ Sample: Geoff Johnson bottles algae to take back to the laboratory. Behind him, from left, are Faith Scott, Cathy Connor and Randy Merrill.

How do kids respond to GPS? "They love it," Wahl said.

Back on the icefield Tuesday, Connor remarked on how few snow fleas would starve this summer with the abundance of algae.

The group of science teachers gathered around, someone tossed a leaf into a small stream. "Who has a stopwatch?" she asked. • Brittany Retherford can be reached at brittany.retherford@juneauempire.com or at 523-2276.