

EDUCATION

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Out of the refrigerator and into the freezer

RHS science teacher preps Antarctica trip for climate change research, fun

By Nicholas DeMarino

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If she really wants to visit Antarctica, Lesley Urasky needs her wisdom teeth removed.

"Medical facilities are limited and because storms are very common and unpredictable, evacuation is uncertain," said Urasky, a Rawlins High School science teacher. "They just want to minimize anything that could go wrong."

The "they" in question is PolarTREC — Polar Teachers and Researchers Exploring and Collaborating — a National Science Foundation-funded initiative pairing teachers and researchers.

Urasky is one of 13 grade school and secondary school teachers selected by PolarTREC to help a team of scientists conduct Arctic and Antarctic research and bring polar science into their classrooms. She's slated to study climate change-related glacial retreat on the Beardmore Glacier for six weeks in the Transantarctic Mountains beginning Dec. 1.

"My role is to help the team conduct their research and, more importantly, to bring the science to the public," Urasky said. "It's not dumbing it down so much as bringing the vocabulary concepts down to laymen's terms for the general public and, in particular, students."



Courtesy photo, Lesley Urasky
Lesley Urasky, shown here snowshoeing in the Snowy Range, is preparing for an expedition to Antarctica as part of a Polar Teachers and Researchers Exploring and Collaborating program. Urasky is a science teacher at Rawlins High School.

Although her hands-on experience is going to be in an area largely inaccessible to her students, Urasky hopes to mobilize the information and relationships she develops into lessons at RHS.

"The primary researcher — John Stone of the University of Washington — is supposed to come out the following year and we'll take students out to the Snowy Range," she said. "We can study the past glaciations there."

Little things

Urasky is preparing her mind and body for the Antarctica endeavor.

"I'd like to say I'm standing in a walk-in freezer, but I haven't been," Urasky said with a laugh. "I've been doing a lot of walking and hiking ... and am reading seven or eight papers written by members of the research team."

PolarTREC pays for Urasky's medical tests and other costs associated with the trip. They'll also reimburse RHS for her substitute teacher for the expedition's duration.

"I was naïve at first — I thought I'd just go get on a plane and go — but there's a whole process of getting physically qualified, logistics, travel arrangements, checking the satellite phone, getting cold weather gear, all of that."

— Lesley Urasky, Rawlins High School science teacher and PolarTREC member

"The fact that I'm going, it's very surreal and hasn't really sunk in yet," Urasky said. "I was naïve at first — I thought I'd just go get on a plane and go — but there's a whole process of getting physically qualified, logistics, travel arrangements, checking the satellite phone, getting cold

weather gear, all of that."

Her husband, Dave Urasky, has been offering his own thoughts on pragmatic matters, largely garnered from mountaineering in a number of cold-climate areas in the 1980s, including Alaska's Mount Denali.

"There are things you have to be aware of, like what you do with your mittens when you take them off," Dave said. "They go in your jacket so they stay warm. If you set them down they can blow away."

It's the little things that are important, he said.

"I've been at 40 below with 100 mph winds, and if you make a mistake, you've got severe problems," Dave said. "This is going to be more extreme."

Despite the apparent dangers, Lesley expressed scant reservations about the trip.

"There's some risk, and it's going to be the most remote location that I've been," Lesley said, contextualizing the expedition in terms of a previous Inca Trail canoe trip in the Amazon and various whitewater-rafting endeavors. "I'm really excited though."

Perspective

Exposure dating — essentially the measurement of elements in rocks created by exposure to cosmic ultra-violet rays — wasn't something Lesley learned about while earning a bachelor's and master's degree in geology from the University of Wyoming.

"It's something that's come about in the last 12 years or so," she said. "We learned about radiometric dating ... but this is something I've had to educate myself about."

Lesley said her preparatory research has given her a new perspective on teaching.

"I'd forgotten what hard work it is, what discipline it takes to sit down and contemplate reading, take notes and try to internalize it," she said. "It brings me back to more of a student perspective. ... I've been teaching stuff in class for 12 years, but this is the first time they're hearing and seeing it."

In a larger sense, Lesley said her acceptance into PolarTREC has given her a renewed sense of confidence.

"When I found out about this (last September), there were only three weeks left to apply, so I gave it a shot and thought nothing would come of it," she said. "I'd looked at other positions before, but didn't have enough confidence in myself to think I would make it ... and now I do."

In a larger sense, Lesley hopes she sets an example for her students by pursuing this opportunity and putting her education into practice.

"This is what makes science fun," Lesley said. "It's one thing to sit in a classroom and hear about concepts, but to go out and touch them ... and show how they're important in your daily life — that's what I hope my students understand about the possibilities of science."