Professor working in Antarctica

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Kate Pound is adjusting to life on an uninhabited continent.

Kate Pound, St. Cloud State geologist, in Antarctica

The associate professor of earth and atmospheric sciences at St. Cloud State University is posted October through January in the Antarctic with a team of about 80 scientists, educators, students, technicians, drillers and support staff from Germany, Italy, New Zealand and the United States. Listen to a podcast, recorded by the Miller Center's Small Bytes team, in which Pound discusses the technology she is using in Antarctica.

Pound is one of eight educators nationwide working with ANDRILL during the 2008 drilling season. ANDRILL (ANtarctic geological DRILLing) is collecting sediment core samples from the seafloor beneath the Antarctic ice shelf and sea-ice, to learn about the continent 's past and probable future.

A geologist, and faculty member since 2002, Pound is blogging about her experience to help K-12 science students in learn about a 5.4 million square mile continent that hosts thousands of visitors each year, but has no permanent residents.

Pound is a Science Museum of Minnesota Science Buzz correspondent and Scientist on the Spot. She is helping develop preparatory and lab/classroom activities for teaching K-12 teachers.

"The two specific jobs I have been doing are core scanning and imaging," said Pound by e-mail from McMurdo Station, Antarctica. "Once the core gets to McMurdo from the drill rig it gets split in half (a working half and an archive half), and then I scan the core so that we have high quality digital image of what it looks like. This helps off-ice geoscientists work on it. And, the software used for this allows geoscientists to collaborate on our work and communicate interpretations by annotating the image with our interpretations."

Pound earned her bachelor's degree from Middlebury College in Middlebury, Vt. She has two graduate degrees from University of Otago in New Zealand.

"I was surprised at how quickly I fell into the routine," Pound said. "It feels as though I am starting to almost take for granted the wonderful view I have of the Trans-Antarctic Mountains out of my Crary Lab window. I am also somewhat surprised at how quickly I have adjusted to the temperature."

Nighttime temperatures have been in the low single digits on the Fahrenheit scale, with windchill readings in the -20 to -30 range.

McMurdo Station is on the southern tip of Ross Island. Recent daytime high temperatures — it is summer in Antarctica — have been in the single digits on the Fahrenheit scale. Pound said her 15-hour work days sometimes end with walks, if the weather allows. Her limited social life includes an occasional visit to the coffee house or pub, part of the infrastructure that supports up to 1,200 people at the continent's largest community. There are lectures Wednesday and Sunday evenings where scientists present their research.

"We have heard from geologists, penguin and seal biologists, glaciologists, and from the ITASE team — International Trans Antarctic Science Expedition — on how they engineer the work they are doing for minimum cost, minimum environmental impact, and maximum material transported," she said. ITASE transports equipment overland to the South Pole.

- Jeff Wood