

# Gaston teacher bound for South Pole adventure

By Joe DePriest

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Liz Ratliff knows for certain she'll have a white Christmas this year.

Dec. 25 is always that way at the South Pole.

A Gaston Day School math teacher and mother of a 2-year-old daughter, Ratliff, 30, will be winding down her three-week research expedition to Antarctica by Christmas.

Folks back home will already have some details about the South Pole adventure by keeping up with Ratliff's online journal, but she'll still have plenty to tell.

I recently stopped by Ratliff's classroom for a preview of the journey.

This is Ratliff's first year at Gaston Day. Before that, she taught at Camden High in Camden, S.C. Ratliff and her husband, a chemistry teacher at Limestone College in Gaffney, S.C, are residents of Spartanburg.

She grew up in Hopkins, S.C., outside Columbia. Her father, a Navy veteran who served in the Vietnam War, is a retired social worker; her mother is a nurse.

Ratliff's grandfather is from England and her grandmother from Croatia.

This interesting family mix may help explain Ratliff's rich imagination.

As a kid, she dreamed of being an astronaut, archaeologist and circus clown.

She actually interviewed a clown as a kid reporter for the Columbia State newspaper's Mini-Page section.

Other dreams included going to the U.S. Air Force Academy and traveling to places few others

- Learn more:

Liz Ratliff will keep an online journal about her South Pole experiences at [www.polartrec.com/member/lizratliff](http://www.polartrec.com/member/lizratliff).

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had ever been.

A partial list of her current hobbies includes flying, playing bagpipes, knitting, fencing, wood carving and learning languages.

## **Summer at the pole**

A graduate of the University of South Carolina, Ratliff started her career as an electrical engineer, working in the computer industry. (Her grandfather had been an engineer.) Then she went back to school to be a math teacher.

In 2008, she got a Knowles Science Teaching Foundation Fellowship. The five-year program allows math and science teachers a chance for professional development, along with leadership grants and money for classroom materials.

The group meets three times a year around the United States. At a meeting in Philadelphia, Ratliff heard a keynote speaker describe the National Science Foundation's IceCube research project at the South Pole.

A giant telescope was being buried in glacial ice to study tiny sub-atomic particles called neutrinos. Ratliff learned that scientists don't know what neutrinos are, but the South Pole is the best place to observe them because the ice is extremely clear. The speaker mentioned that researchers were looking for math and science teachers to help with the project. This was seen not only as a way to provide professional development for teachers but also as a way to spark public interest in the project.

The telescope program intrigued Ratliff. The following year, she trained as an alternate to go on the South Pole through a hands-on field program called PolarTREC (Teachers and Researchers Exploring and Collaborating.) The program has funding for the polar project through the National Science Foundation.

Another teacher landed the job. However, last year, Ratliff got a call from the IceCube project, saying there was a new opportunity and asking if she was still interested in the South Pole. They didn't have to ask twice.

For Ratliff, the trip is free. According to USA Today, the polar guiding company PolarExplorers estimates the 2011-12 cost for an eight-day trip to the South Pole at \$45,000.

Ratliff leaves Dec. 7 for the U.S. Amundsen-Scott South Pole Station – her home through Dec. 28. It's a four-day trek, via Australia and New Zealand, where she'll get cold-weather gear.

December is summer at the South Pole. It'll be a balmy minus-20 degrees instead of the wintertime 100-below.

Ratliff expects the landscape to look like a big, frozen lake. There are no trees, no bugs, no wildlife – nothing except ice. At an altitude of 10,000 feet, the environment is dry and windy; in the summer there's sunlight around the clock.

The last teacher who went there lost 15 pounds in two weeks, Ratliff learned. She expects to consume more calories and drink plenty of water.

In preparation for the trip, she's had all sorts of physical tests along with extensive dental X-rays. The South Pole is no place to have serious problems with your teeth.

## **Nothing's routine**

The U.S. polar station – named after explorers Roald Amundsen and Robert Falcon Scott – is staffed with about 150 people in the summer. There's a post office, gift shop and ice cream machine.

In the small theater, the annual Halloween tradition is screening the 1951 sci-fi movie "The Thing," which takes place at the South Pole. Ratliff hopes to rent the DVD before she leaves home.

At the pole, she'll live in a dorm room, hopefully with a good view of the icescape. Ratliff has learned the station has a sauna, so she's taking a swimsuit.

The actual work she'll be doing there is putting radio antennae in the ice.

That may sound routine, but I don't think anything will be routine at the South Pole for this first-time visitor. I imagine it will be like going to the moon or Mars: so different that every minute will be an adventure, no matter what's going on.

"It's a great opportunity," said Ratliff. "The people I've talked to who have been there say they'd love to go back every year."

She hopes the once-in-a-lifetime experience will make her a better teacher and enhance classroom discussions.

It's not surprising she has other adventures in mind: a trip to Egypt and the spot where the Titanic sank in the North Atlantic.

I hope she gets to those places – and that her imagination keeps soaring.

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