

The Patriot Ledger

By Jessica Trufant

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Quincy teacher to spend six weeks in Antarctica

Cara Pekarcik, who teaches biology, zoology and marine science at North Quincy High School, will spend six weeks working with a research team in the Southern Ocean off the coast of Antarctica this fall.

QUINCY – Traveling to Antarctica has long held a spot on Cara Pekarcik's bucket list. But when she gave up her job as a whale biologist onboard boats to teach high school, Pekarcik figured she'd never get the opportunity.

But she was wrong.

Pekarcik, who teaches biology, zoology and marine science at North Quincy High School, will spend six weeks working with a research team in the Southern Ocean off the coast of Antarctica this fall.

"For students, Antarctica is such an unknown place for them, so they've been super excited and asking a lot of questions," she said Monday. "I think it also makes them think, 'wow, someone is doing something they've always dreamed of doing,' and that's a great message for them."

Pekarcik was selected to participate in PolarTREC, an educational research experience in which elementary and secondary school teachers work with scientists as a pathway to improve science education.

As students head back to school in September, Pekarcik will travel to South America to get onboard the research ship the Nathaniel B. Palmer, which will head to the Antarctic Peninsula. She will work alongside Dr. Bethany Jenkins and the University of Rhode Island research team, who offered a presentation on the trip and research Monday at the high school.

The trip to Antarctica will also be a first for Alexa Sterling, a Marshfield native and first year PHD student at the University of Rhode Island.

Pekarcik will share her experiences with scientists, other teachers and her students through online journals, photo albums, and presentations from the field. When she returns, Pekarcik will offer outreach presentations and create lesson plans on teaching about Antarctica.

"We can't fit all of you on a research vessel, but you can virtually experience some of the things we are doing and you'll be there as much as you can be," Jenkins told the students.

The group will be studying diatom – a major group of algae that are among the most common types of phytoplankton. Iron is a fundamental nutrient for diatoms, but Jenkins said the element is limited. Researchers hope to find out whether bacteria help diatoms absorb iron from the ocean water and soil.

Jenkins said this research matters because diatoms pull carbon dioxide out of the air. Thriving diatoms therefore can offset Earth's rising carbon dioxide levels.

Students on Monday – including Pekarcik's current students and those who may have her next year – had a chance to look at diatoms collected from Narragansett Bay through microscopes and try on some of the arctic gear researchers will wear.

Steven Le and Jason Wang, both freshmen, said they thought it was "really cool" that a teacher from their school would experience Antarctica.

"It isn't somewhere you can just visit. There's no airport there that I know of, and it's basically a continent for scientists," Jason, 14, said. "It's a rare experience."

Pekarcik will write about her trip and preparations. To read her journal, visit www.polartrec.com/expeditions/southern-ocean-diatoms.

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PHOTO/ GREG DERR/ THE PATRIOT LEDGER

North Quincy High School Teacher Cara Pekarcik shares a laugh with student Karyn McEvoy, who is dressed in some arctic gear. Pekarcik will spend six weeks working with a research team in the Southern Ocean off the coast of Antarctica this fall.

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