

Massillon native, teacher to explore Chukchi Sea

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A 1980 Central Catholic graduate, Wheeler is a science teacher at J.C. Parks Elementary School in Indian Head, Md., and, for the second time, was selected to take part in PolarTREC, a program that pairs scientists and researchers.

"There is so much change going on in the world to go and see it firsthand and to bring it back to the classroom. I knew it was going to be pretty exciting for me and the students," Wheeler said.

Wheeler, 50, was selected for the program in 2009, and traveled to the Bering Sea for similar research. Her latest adventure will take her to the Hanna Shoal in the Chukchi Sea, northwest of Barrow, Alaska, for 21 days.

It is the same region where oil giant Shell began an exploratory arctic-drilling program earlier this month.

"We're examining the ecosystem, from the mud all the way up to the skies," she said by phone Thursday. "From the mud down in the bottom of the shelf, to the water column and above.

"I get an opportunity to go with all the scientists and do what they are doing," she said. "They do a lot of study in the mud and water column. They'll do grabs from the bottom and they look at, especially, the organisms and the chemicals in the first two centimeters, because that feeds a lot of the animals, like walruses

"We'll go to specific spots in the Chukchi, where they have gone before, and compare it (the mud) to the last one."

The U.S. National Science Foundation funds PolarTREC, which stands for Teachers and Researchers Exploring and Collaborating in the Arctic. The program is managed by the Arctic Research Consortium. It aims to connect scientists with teachers, who in turn help translate their research to the general public.

Wheeler left for an 18-hour trip to Dutch Harbor, Alaska on Friday, and is slated to leave on the icebreaker Tuesday. It is her second trip to the Arctic.

In spring 2009, during her Bering Sea expedition, she helped monitor Walruses and test sea ice, including ice algae, which is an important "ingredient" to the food chain. Temperatures dipped to as low as 25 degrees below zero.

"Now it's going to be a twice-in-a-lifetime experience," she said.

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Wheeler was one of more than 250 teachers nationwide to apply for the program, and among only about 15 to be accepted.

She has used her work to give students present-day, real-life scientific lessons. In addition to having scientists on the expedition give presentations to her classes, Wheeler had some 240 students write to 240 different polar scientists. They sent back letters and photos of the region they were researching.

"We talk about the food chain in the Arctic and compare it to a food chain more mainland, like in Maryland, and a lot of times they are the same," she said. "We look at organisms the same way and talk about adaptation. It translates across the board."

Also during the 2009 expedition, PolarTREC teachers coordinated with a school off the Bering Sea shore to establish pen pals and an online book club with their own classrooms.

"My students were exposed to students who had never been in cars, and had snowmobiles," she said. "They didn't have swimming pools. They live on subsistence, meaning they whale and walrus and catch other food. They don't go to the grocery stores. They get all of their supplies daily by plane.

"So, it was interesting watching the correspondence between the students," Wheeler said.

Wheeler recently returned to Massillon to visit her parents, John and Alice Wheeler. She and her husband, Michael Ziebell, have two daughters, Zoë and Calla.

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