

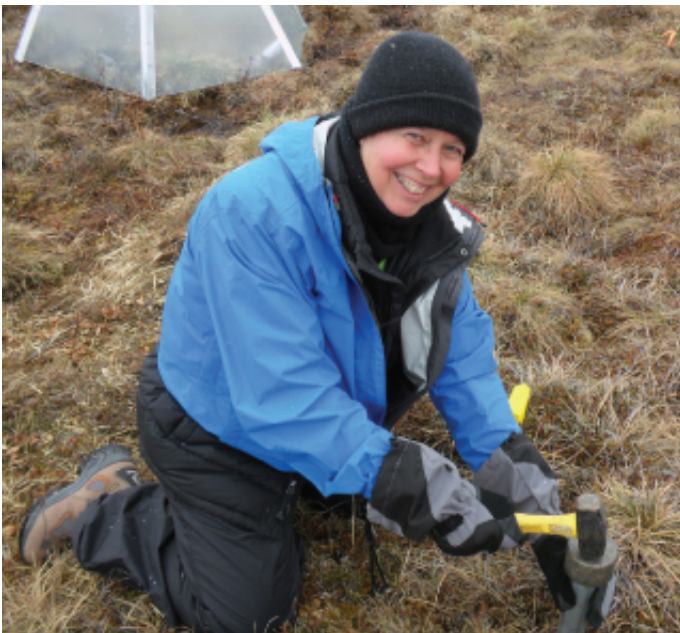
POLAR EXPRESS

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POLAR EXPRESS

Expedition puts teacher on top of the world

Susan Steiner MAT '07, a science teacher at Macon Early College, spent six weeks from May to July in Alaska's far north as one of a dozen teachers from across the nation participating in this year's PolarTREC program. Funded through the National Science Foundation, the program brings together K-12 teachers and polar researchers to invigorate polar science education.



Steiner, shown taking a soil core in the tundra, studied under Mike Weintraub, an environmental science professor at the University of Toledo who researches terrestrial ecosystems and global change ecology. Through a combination of field sampling, experimentation and laboratory work, the team focused on how seasonal changes in tundra plants and soil dynamics are affected by changes in the timing of snow melt and warming.

They worked from Toolik Field Station, north of the Arctic Circle and "ideally located and incredibly well set up to support science," Steiner wrote in one of the many journal entries she posted as part of the experience. "One of our greatest global challenges, currently, is climate change and understanding its effects. The effects of climate change are more apparent in the

arctic than anywhere else in the world, and the tundra ecosystems around Toolik have been studied for several decades."

During her time in Alaska, Steiner experienced the midnight sun, myriad mosquitoes, birding and wildlife sightings including caribou and musk ox. Traveling north along the Dalton Highway, she saw the Arctic Ocean and long stretches of the Trans-Alaskan Pipeline. To prepare for the trip, she attended orientation in Fairbanks, Alaska, in February.

Steiner teaches earth/environmental science, biology and physics. Her expedition elevated her public profile: The Franklin Press featured her in a full-page story prior to the trip, and the Macon County Public Library exhibited a display about Steiner and the expedition while she was in Alaska. Now that she's back, Steiner is integrating what she learned into lesson plans for a more inquiry-based, authentic science curriculum with her students.

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