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TOP STORY

'Not out of the ordinary': Auburn High School alumnae and Brooklyn educator travels to Arctic tundra for research trip

Abby Driggers

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Liza Backman, an Auburn High School alumna and current Brooklyn Emerging Leaders Academy teacher, is Fairbanks, Alaska, for a PolarTREC expedition researching climate change in the Arctic tundra.

Contributed by Liza Backman

Abby Driggers

Two weeks ago, Liza Backman packed her life into her Nissan Fit to drive from Brooklyn, her home of three years, to Auburn, her hometown. Today, the **T**geochemist is teaching chemistry from Fairbanks, Alaska, before researching the Arctic tundra herself.

Born in snow-filled Buffalo, raised in the heat of Auburn, Ala., and then living amid the concrete of New York City, the cold parts of the world called out to Liza Backman as young as first grade, when Carol Smith, her teacher at the The Village School, now Auburn Montessori School, gave her an Atlas.

“It meant a lot to have that Atlas,” Backman said. “I’ve kept it with me as a reminder to always follow your passions.”

She teaches earth science, chemistry and international baccalaureate chemistry at Brooklyn Emerging Leaders Academy (BELA), a public all-girls charter school in the Bedford-Stuyvesant neighborhood of Brooklyn, N.Y.

PolarTREC, a nationally funded organization connecting research experiments and STEM educators, has given Backman the opportunity to study climate change in the Arctic tundra, something she’s wanted to do for a couple of years.

“As an all-girls school, part of our purpose is to expose our young women and young people to a myriad of experiences, opportunities, and career fields that are traditionally underrepresented by women and women of color,” head of school Nicia Fullwood said in an email. “The BELA community is thrilled to have Liza extend her student’s learning beyond the classroom walls into the real world and we’re fortunate to have Liza as an educator at BELA.”

This Alaska journey gives Backman the opportunity to grow as both a scientist and a teacher.

“PolarTREC helps teachers improve teaching strategies, develop resources for their careers, and change how they teach STEM in the classroom,” said Mike England, a media officer for the National Science Foundation’s Office of Legislative and Public

Affairs, in a phone interview. “The program invigorates polar science education and understanding by bringing educators and polar researchers together in professional collaboration.”

Backman’s journey began with a 16-hour drive from Brooklyn to Auburn for Mother’s Day weekend and then a 6 a.m. flight from Hartsfield-Jackson Atlanta International Airport on May 10.

On May 25, after a two-week quarantine in a hotel, Backman heads to Toolik Fields Station, in the northern foothills of the Brooks Range in northern Alaska, to work with polar researchers Dr. Steve Oberbauer and Dr. Jeremy May to learn more about how climate change is impacting the vegetation in Arctic Tundra. She’ll stay until June 30.

“It’s everything,” Backman said, referring to STEM education. “As a woman, you get societal pressure that makes it hard to join science and it’s crucial to get invested in it young.”

After attending The College of Wooster in Ohio and graduating with a bachelor of arts in geology and chemistry, she attended the American Museum of Natural History’s Richard Gilder Graduate School and earned a master of arts in teaching with a concentration in earth science education.

Her trip may help younger females embark on STEM careers, Fullwood says.

Backman is documenting her journey on Instagram at @thentropyreport and on a PolarTREC blog “**Pheneology and Vegetation in the Warming Arctic 2021.**”

“Through Liza’s blogging, our young people will be intimately connected to her expedition while in Brooklyn and, who knows, this may spark an unknown interest or deepen an interest of a student,” Fullwood said.

Calling herself “one piece of the larger puzzle,” Backman is particularly interested to see if the pandemic has any effects on the data collected at Toolik Field Station. She says her background in instrument analysis may have been a factor in her placement.

She said, with the pandemic, she is “lucky” to even get to go on the journey and to be the first of 11 PolarTREC educators to take a research trip in 2021.

In her initial survey of the land, she noted the temperature – 62 degrees – and the elevation – flat.

“It’s flatter than I was expecting,” Backman said in a phone interview about 4,230 miles from Auburn. “But you see the gorgeous mountain range on your way in from the airport, so I was happy.”

With the backing of friends, family and colleagues, Backman says she “cannot wait” to begin her journey.

“My family was very excited and involved but also said, ‘Of course you’re doing that; that’s what you do: you go on trips, you do research,’” Backman said. “It’s not entirely out of the ordinary for me to do this.”

Davis Thompson, language arts teacher and international baccalaureate coordinator at Auburn High School, would agree. “Liza was a delight in the classroom as a student,” Thompson said, “and I feel sure she is bringing that same joy, support, and encouragement to her classrooms as a teacher now.”

But for now, she’s four hours behind her students and starting her day at 4:30 a.m. Alaska time to match New York’s 8:30 Eastern time.

“I get to wake up and watch the Alaska sunrise each morning,” Backman said. “And what’s better than that?”

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