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FEATURED

Scientists in action

Sydney Warner May 4, 2018



Answering a few questions from the students, PhD candidate Aleah Sommers goes over a few key points from the science presentation on May 3 at Montrose High School.

(Sydney Warner/Montrose Daily Press)

Taking a break from the textbook, Montrose High School biology students got an opportunity to explore the world of real life scientists and sisters Pacifica and Aleah Sommers.

During the May 3 class period, the Sommers sisters, experts on glaciers, talked about their research and adventures on the job.

While Pacifica works in the polar desert of Antarctica using cryoconite holes to look at the role of chance in an ecosystem's development, her sister, Aleah, spends time in Greenland measuring the permeability of the firn.

In Pacifica's experiment, researchers drilled their own makeshift cryoconite holes and placed samples of soil in them. The man-made holes worked like test tubes for the scientist. She measured the diversity and change that occurred in the species inhabiting these holes.

Aleah spent her time in Greenland tracking how the melt from the warmer air gets into the firn, freezes and what that does to the glacier.

As the science students learned, there was a certain awe in their faces when it came to hearing about the sisters' on-the-job experiences.

Although most people get up in the morning, shower, make a cup of coffee and drive to work, these scientists were at nature's mercy every day. When there was a heavy snow on the glacier, Pacifica had to take three days to sweep the snow away to locate the cryoconite holes and repeat that process until a weather window appeared to do her research. She also had about a 45-minute hike each time she needed to be on location.

Aleah faced days of 40-below weather and on one of those days, the equipment malfunctioned.

"I wanted to cry but I was afraid that my tears would freeze in my eyes," Aleah recalled.

She spent countless times sleeping with a shovel so she would be able to dig out of her tent from snow drifts and would wake up with ice covering her equipment.

These women battled the cold each day so that their research can be used to understand glaciers and better prepare for the future where glaciers are melting and affecting someone's water resource, a rising ocean and habitats disappearing.

To learn more about the Sommers Sisters' work, visit pacificasommers.com/2017/04/15/science-of-the-sommers-sisters/.

Sydney Warner is the Montrose Daily Press' multimedia journalist.