

## East Knox students vicariously visit Antarctica

By PAM SCHEHL  
News Staff Reporter

HOWARD — East Knox secondary school students got an inkling of what life is like as an Antarctic researcher on Thursday when Dr. Rachael Morgan-Kiss and her assistant Amber Teufel talked about their experiences studying photosynthetic microbes in Antarctic lakes. Based out of the department of microbiology at Miami University (Ohio), the pair heads way, way south during the Antarctic summer. They work out of McMurdo research base as well as field camps near the lakes in McMurdo dry valleys, technically a desert area. Kenyon professor of biology Joan Slonczewski assisted in the presentation, as she is planning to accompany Morgan-Kiss to Antarctica this season.

Morgan-Kiss talked about the history of Antarctic exploration, explained how researchers get to the field sites (helicopters) and discussed the extreme weather gear. She also said any researcher has to complete

extreme field training, called “Happy Camper School,” which helps prepare researchers for the sometimes brutal conditions where the median summer high temperature is minus 20. A myriad of photos and visual images helped the students gain a better understanding of the Antarctic working conditions, the living facilities and the vastness and stark beauty of the landscape.

Morgan-Kiss explained that researchers in the field face serious dehydration concerns and make their own drinking water by melting glacier “berries,” eat a high fat and high sugar diet, and need lots of sunscreen because the UV levels are very high.

Following the presentation, the students were able to ask questions of Morgan-Kiss, Teufel and Slonczewski, and look at some Antarctic microbes, science equipment and extreme weather clothing used by researchers.

Freshman Paris Pitts said she liked all the information about Antarctica. She said she was surprised to learn



**Pam Schehl/News**  
East Knox junior Tanesha Lewis models extreme weather gear used by researchers in Antarctica. The jacket, called “Big Red,” is manufactured solely for people who work in Antarctica.

one could go scuba diving in the salt lakes there — after drilling a hole through 10 feet of ice.

Others students said they

were surprised to learn microbes were the only permanent “native” lifeforms on

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the continent, that researchers have to take out all waste and garbage, including body waste, and that civilian support staff are also hired to work at the research bases. They were interested to hear that ATVs are used to explore on the frozen lakes, but aren’t allowed on the shore.

Asked why she even wanted to go to such a cold place, Teufel said, “It’s just so gorgeous. Our lakes are in a valley between mountains. It’s so quiet. There’s no sound.” She said at the field research site it doesn’t rain or snow, and in

the Antarctic summer there is sunlight 24 hours a day. Teufel also said the place isn’t as dangerous as some media accounts would lead one to believe.

Questioned about her motivation for going to Antarctica, Slonczewski said, “We want to know what’s happening with global climate change. Global climate change is affecting Antarctica faster than any other place on the planet and we want to see how it affects photosynthetic microbes in the Antarctic that also produce oxygen.”

“If the microbes are affected, does that directly affect us?” asked student Manny Singletary.

“Yes,” responded Slon-

czewski, “because the oxygen they produce goes all over the planet. You’re breathing oxygen from microbes in Antarctic and microbes all over the ocean. ... We want to assess how important those microbes are in oxygen production.”

Slonczewski said she is looking forward to seeing the Antarctic geography and weather because the snow and ice form all kinds of patterns not found elsewhere.

“I’m also interested in how living things adapt in such a frozen place,” she added, “and how people adapt to live and survive there where you’re sleeping in a tent and you wake up and there are ice crystals on your face.”

East Knox students will be