Finding Common Ground on Climate Change
By Tom Moran, Alaska EPSCoR

If you want to get a bunch of Alaskan and Argentinean students talking to each other, ask them about snowboarding.

The topic of hitting the slopes was the most fertile ground for discussion the morning of April 8, 2008 when a group of Fairbanks middle-school students traveled to the University of Alaska Fairbanks campus for a “Pole to Pole” videoconference with students in Wasilla and Shageluk, Alaska, and in Ushuaia, the capital of Argentina’s Tierra Del Fuego province at the southern tip of South America. The event was part of the GLOBE IPY Seasons and Biomes program, a worldwide educational project in which students discuss climate change through their observations of the seasons.

And one thing they observed was that they seem to be getting less and less slope time every year. “I've just noticed that snowboarding season has ended a lot sooner,” noted a Wasilla High School student over the videoconference mic. “I was just wondering how much longer we’re even going to have snow.”

The question prompted lots of discussion in the wired classroom in UAF’s O’Neill building, filled with Randy Smith Middle School and home-school students, and in the other far-flung classrooms visible on the giant screens in the front of the room. Jorge Rabassa, the Minister of Education for Tierra Del Fuego, told students a low-lying ski slope outside Ushuaia had been closed for good due to lack of snow. “Twenty years ago we had a great slope and now it’s gone for good,” he said.

The videoconference hadn’t been arranged to focus on winter sports, of course, but rather to bring together students from both edges of the globe to share their observations of how climate changes are affecting their local environments. Questions and topics ranged from temperature variations, to changes in the extent of frozen soil, to the shrinking winter travel season and the recent appearance of two new bird species in Shageluk, a village near the Yukon River in Western Alaska. The students and teachers in the various spots took turns making comments and raising questions, with the whole event moderated by a panel of scientists in Boulder, Colorado.

“It’s pretty obvious that in both hemispheres we are seeing changes, that in both hemispheres there is concern about climate change,” said conference emcee Peggy Lemone, a senior scientist at the National Center for Atmospheric Research in Boulder and chief scientist for the GLOBE Program.

When the talk turned to climate experiments, ideas abounded, from using frost tubes to measure the depth of frozen soil to looking at historical data of when people take off snow tires to study changes in the start of springtime. The videoconference was to be followed up by a web chat where scientists and students could work out how they could run studies to draw their own conclusions about the changes that are becoming more acute the farther north — or south — one goes.

“We’re kind of like the canaries in the coal mine,” said Dave Valentine, one of several UAF scientists who helped lead the discussion in Fairbanks. “The changes that we’re expecting to happen globally are probably going to happen most dramatically at the high latitudes, where we’re at.”

The Seasons and Biomes project is a worldwide K-12 educational program run under the auspices of the GLOBE (Global Learning and Observations to Benefit the Environment) program, which is funded by NASA, the University Corporation for Atmospheric Research, and Colorado State University. Seasons and Biomes is a collaborative effort with the International Polar Year (IPY). The Seasons and Biomes project is funded through the National Science Foundation, and NSF Alaska EPSCoR has contributed both expertise and funding to the project.

The videoconference was just one small piece of the program, which will see students in the various GLOBE sites conduct research into their local ecosystems, learning about climate change and scientific procedures in the process.