UNH Students, Including Several From N.H., Among 10,000 Geophysicists At Annual Science Meeting

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DURHAM, N.H. -- Every December, scientists from all over the world gather to discuss the latest findings in everything from aeronomy (a branch of science that deals with the atmosphere of Earth and other planets) to volcanology at the American Geophysical Union (AGU) annual meeting.

This year in San Francisco, the crowd of more than 10,000 will include 11 students who have studied or are studying at the University of New Hampshire’s (UNH) Institute for the Study of Earth, Oceans, and Space (EOS) and related departments. Even some high school students who have worked with UNH scientists will present their research results at the meeting.

“This is significant,” says George Hurtt, an assistant professor of community and ecosystem ecology at EOS and the Department of Natural Resources, “because students here are not just ‘students’ – in the narrow, passive, sense – but are learning to be active and important researchers at the national and international scale. This is a testament first to both the quality of their work, and, second, the quality of the research and education experience offered here.”

AGU is a worldwide scientific community that advances “the understanding of Earth and space for the benefit of humanity” by informing and educating the public and by demonstrating the relevance of geophysical research to society, by fostering a strong and diverse Earth and space science workforce, and by providing a basis for the development of public policy activities worldwide.

Says Scott Ollinger, an assistant professor of forest ecosystem analysis and remote sensing at EOS and the Department of Natural Resources, “‘Geophysical’ includes everything from the geology of stars, planets and asteroids to volcanoes, oceans, the atmosphere, and ecosystems, which is why we’ve got scientists and students from all four of EOS’s research centers attending.”

Ollinger, who, like Hurtt and a large contingent of other UNH scientists will attend the annual session, notes that another reason for the meeting’s importance is some of the specific topics covered – “climate change being a really big one,” he says.

Carylon Girod of Dover, a master's degree candidate at EOS and the Department of Natural Resources, will give a poster presentation on research she's been doing this past year on global
fire patterns and trends as influenced by El Nino and La Nina events.

“Last summer, at the Oak Ridge National Laboratory, I implemented a fire model that predicts fire through average precipitation and temperature in an ecosystem model from the lab,” Girod says.

Girod conducted the work under an award she won from the Department of Homeland Security’s Graduate Fellowship Program. She is being funded to attend the AGU meeting by the New Hampshire Space Grant Consortium, which brings together the state’s education and scientific communities to foster public interest in science education, scholarship, and research.

Space Grant is also funding the trip to San Francisco for Shrewsbury (Mass.) High School student Heather Briggs, who will present her paper on work done this past summer with UNH scientists Chuck Smith, Charlie Farrugia, and Vania Jordanova, and fellow student Travis Glines of Littleton (N.H.) High School.

Briggs was the lead author of the paper written by the group on analysis of magnetic field data derived from the Advanced Composition Explorer (ACE) spacecraft during the first day of flight in 1997 when the satellite transited the Earth’s magnetosphere and exited into the solar wind.

While doing the research, both Briggs and Glines were participants of Project SMART – a summer institute at UNH that allows talented high school students in science and mathematics to become acquainted with the environment and resources of the university as a place for higher education and research.

Other students attending the AGU meeting are Ph.D. candidates Qingyuan Zhang of Durham, Doug Vandemark of Portsmouth, Kathy Reeves of Newmarket, Kaplan Yalcin of Auburn, Julian Jenkins of Durham, and Carsten Nielsen of Saginaw, Mich., and master’s degree candidates Mariya Schilz of Bayside, Calif., Sarah Silverberg of Bow, and Tracey Wawreziak of Morrisville, Vt.