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UNH Space Grant Fellowships Provide Opportunity For Diverse Research

Grad Student Travels to Mexico to Study Sinkholes Essential to Mayan Culture

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DURHAM, N.H. -- As a 2003-04 New Hampshire Space Grant Consortium (NHSGC) fellow, Ryan Huntley traveled to the Yucatan Peninsula in Mexico to conduct studies on the unique limestone sinkholes and caves known as "cenotes" that pepper the region and were a sacred and essential part of the ancient Mayan culture.

In an area some 30 kilometers inland from Cancun, Huntley, whose NHSGC research is part of his master's degree work in Natural Resources at the University of New Hampshire, sought to characterize the vegetation associated with the cenotes using "remotely sensed" satellite imagery and physical and morphological analyses of leaf samples.

"Cenotes are important for biological as well as historical and cultural reasons. They were very sacred to the Mayan who used them for drinking water as well as sacrificial sites," Huntley, of Durham, says. "These are unique habitats, they haven't been studied in much detail except by cave divers, and they are at risk because of population growth and development."

Huntley hopes to add to the body of knowledge that will help preserve the cenotes. Of the tuition, travel expenses, and stipend provided by his NHSGC fellowship, Huntley says, "I wouldn't have been able to do any of the Yucatan studies without the help of Space Grant."

Huntley, along with four other NHSGC fellows from last year, and four incoming fellows, were recently recognized at a ceremony at UNH's Institute for the Study of Earth, Oceans, and Space (EOS) - headquarters for NHSGC.

Another key aspect of Huntley's work, and Space Grant's mission, is to engage K-12 students. His research will provide students with a rich variety of scientific, cultural, and historical information.

Barry Rock, professor in UNH's Department of Natural Resources and EOS and Huntley's advisor, says, "One of the interesting aspects of his work involves Mayan archeological studies in the same area. Since the ancient Maya used 'raised field' cultivation methods and accessed water from the cenotes associated with his study sites, there may well be considerable application of his findings to the study of Mayan populations in this area between 200 BC and 300 AD - the time of Mayan occupation in this area."

Other Space Grant fellows are Elizabeth Blaisdell of New Castle, (evaluation of the global effects of small-scale water impoundment on sea levels), Lorna Ellis of Durham, (software design for managing satellite data from an instrument built at UNH), Peter Ingraham of Waltham, Mass. (remote sensing for conservation land management), and Daniel Seaton of Cambridge, Mass. (high energy phenomena in the solar corona).

New fellows welcomed were Michael Adams of Merrimack, Shane Bradt of Ballston Lake, N.Y., Kirsten Lloyd of Newark, Del., and Kristin Simunac of Shawnee, Kan.

Space Grant Graduate Fellowships provide support for studies in space-related disciplines at UNH.

NHSGC, part of a nationwide network of 52 consortia, is headquartered at UNH, and also includes Dartmouth College, Plymouth State University, N.H. Community Technical College, the Christa McAuliffe Planetarium, and FIRST Place.