



Yucatan Cave Diver To Speak At UNH On "Secrets Of The Maya Underworld"

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DURHAM, N.H. -- The Yucatan Peninsula in the Mexican State of Quintana Roo is peppered with ancient, limestone sinkholes and caves known as "cenotes." The cenotes (pronounced "sin-O-tays") are at once an important biological resource for the region and a sacred and essential part of ancient Mayan culture. In both cases, these unique habitat areas and sites of Mayan antiquities are at risk due to population growth and development. Cave diver-explorer Sam Meacham has for years actively worked to map and protect them.

Meacham, director of a Mexican-based ecological program and organization designed to preserve and protect cenotes and the aquifer system that connects them, will discuss his work at the University of New Hampshire this coming Tuesday, February 28. Meacham's presentation, "Secrets of the Maya Underworld," was recently featured in a BBC documentary, which aired in the U.S. on the Discovery Channel.

According to Meacham, over the last twenty years, dedicated cave diving explorers have discovered more than forty submerged cave systems beneath the jungles of Quintana Roo. In total, over 200 miles of submerged passageways, including the three largest underwater cave systems in the world, have been surveyed and mapped. Yet this is only a fraction of what exists below the surface, including an abundance of evidence found to support the fact that a large ancient Maya population once inhabited the area.

Over the past two years, Meacham has been actively involved with UNH faculty and students who have used remote sensing methods to study the cenotes from both a biological and anthropological-archeological perspective. Ryan Huntley, at the time a UNH master's degree student, studied the cenotes using Landsat satellite imagery in an effort to better characterize the vegetation associated with the sinkhole and caves as part of the overall effort to detect, map, and preserve the cenotes.

Says Huntley, "The cenotes are important for biological as well as historical and cultural reasons. They were very sacred to the Maya, who used them for drinking water as well as sacrificial sites. These are unique habitats that haven't been studied in detail except by cave divers like Sam."

Huntley's cenote work was supported in part by the NASA-funded New Hampshire Space Grant Consortium, which as part of its mission seeks to engage K-12 students in application of science and technology. In addition to his UNH presentation, Meacham will visit several area middle and high schools to speak to students involved in another Space Grant-sponsored program called Forest Watch.

Professor Barry Rock, of the UNH Department of Natural Resources and the Institute for the Study of Earth, Oceans, and Space, directs the Forest Watch program and is bringing Meacham to UNH so that students at all levels (K-12, undergraduates, and graduate students) will learn how space-age technology can be used to study a range of environmental and cultural topics. "Sam is a real-life Indiana Jones who uses math, science, and space-age tools to make exciting discoveries about the ancient Maya and the current conditions in today's cenotes. The students will love him," Rock says.

Meacham is the director of Centro Investigador del Sistema Acuifero de Quintana Roo or CINDAQ. The area of Yucatan CINDAQ seeks to study and protect includes Cancun and the Riviera Maya. In conjunction with the Nature Conservancy, CINDAQ has focused on the Ox Bel Ha cave complex and the associated aquifer system. In addition, Meacham's organization and others are addressing consequences of the impact that urban development in the Riviera Maya is having on the Caribbean Coral Reef system off the shores of the Yucatan Peninsula.

"The Secrets of the Maya Underworld" will be presented Tuesday, February 28th from 12:40 - 2:00 pm, in Room 303 of James Hall on the UNH Durham campus. It will be free and open to the public, and refreshments will be served.