

Welcome to Earth Matters...field notes on the geology of New Mexico's enchanting landscapes. Celebrating Earth Science Week, I'm Daniel Jones.

Many of you have visited the amazing Carlsbad Cavern in Southeastern New Mexico, or maybe some of the other caves in New Mexico or in other parts of the country. If you have, then you already know how spectacular these underground worlds can be. Hundreds of thousands of visitors come from all over the world each year to visit Carlsbad Caverns National Park and see Southeastern New Mexico.

Caves are not just for show. Many important resources come from caves. While we mine certain minerals from caves, like guano for fertilizer, or saltpeter for explosives, the most important cave resource is actually water. Caves are one part of a landscape known as karst, which is built upon limestone and other types of rock that dissolve easily. Karstlands have unusual features like sinkholes and sinking streams – and caves! When groundwater flows through karst, it is flowing through caves and other large underground passages and conduits. More than a fifth of the world's population gets water from aquifers in limestone and other karst rocks, and caves are windows into this hidden underground world where scientists like myself, and my colleagues at the National Cave and Karst Research Institute, can get down into and study these places where water flows underground. By studying caves, we can learn how to better understand, manage, and protect our critical water resources.

Next year is the International Year of Caves and Karst, an entire year celebrating caves and the resources they provide. If you are interested in learning more, visit IYCK2021.org, and look for local events near you.

Celebrating Earth Science Week, I'm Daniel Jones, Professor at New Mexico Tech and Academic Director of the National Cave and Karst Research Institute.