

“Cave Formations as Climate Records”

Dr. Rhawn Denniston

Department of Geology

Cornell College

Mount Vernon, Iowa

Cave formation such as stalagmites form over thousands of years as water slowly drips into caves, often in total darkness. Stalagmites are composed of the mineral calcite (calcium carbonate, CaCO_3) and are ideal for reconstructing past climates. Small amounts of radioactive elements incorporated into the calcite allow stalagmites to be precisely dated, while shifts in the types of oxygen and carbon are capable of tracking changes in temperature, rainfall, and vegetation. This talk will review how stalagmites are used to look at prehistoric climate changes, and will include some research conducted by the speaker looking at monsoon and hurricane activity over the past 3000 years in the Australian tropics.



Dr. Denniston explores a cave.