



Arizona Rocks 75

Text and photos by Ray Grant

It is supposed to be 115 degrees in Phoenix today so I thought I would take a step back in time to when glaciers were present in Arizona and the temperatures were lower. During the Ice Age, there were glaciers in Arizona at least three times. The first was around 200,000 years ago, the second around 100,000 years ago, and the third around 30,000 years ago.

How do we know there were glaciers here? Geologists have found glacial erosional features and glacial deposits in the White Mountains and the San Francisco Peaks. The erosional features include cirques, u-shaped valleys and striations. The deposits are lateral moraines, terminal moraines, and glacial erratics. These deposits are material pushed along by the ice.

The first glaciers were the biggest. In the San Francisco Peaks the glaciers were up to 3.9 miles long and 650 feet thick and in the White Mountains up to 4.4 miles long and 490 feet thick. The second glaciation was much smaller in both mountain ranges and the third was very small.

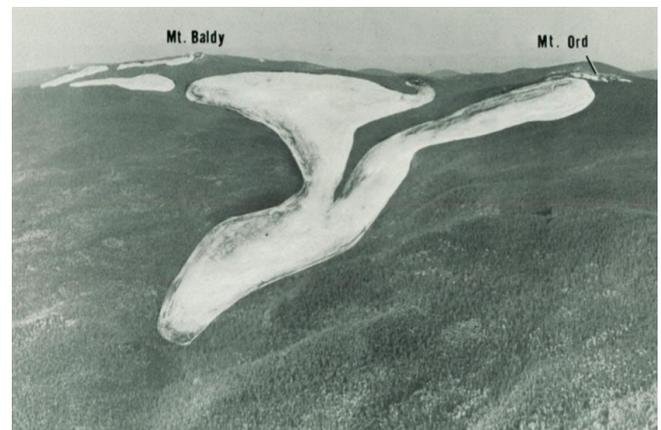
More information can be found in the excellent Down-to-Earth series published by the Arizona Geological Survey. The San Francisco Peaks is in Down-to-Earth 14 and the White Mountains in Down-to-Earth 16. Both these publications have additional references for more information. They can be found on line at the Arizona Geological Survey website.



San Francisco Peaks with cirques where glaciers started during the Ice Age.



San Francisco Peaks showing what it might have looked like during one of the glacial advances, from Arizona Geological Survey Down-to-Earth, No. 14.



White Mountains showing what it might have looked like during a glacial advance, from Arizona Geological Survey Special Paper No 16.