

Land, Water and People

Elephants, Camels and Sharks?

By Dave Dyer

The San Luis Valley and surrounding mountains have hosted animal and plant diversity unlike anything that occurs today. The rocks and sediments of the Valley have preserved hundreds of millions of years of clues to changing environments; clues that are there for us to see if we know how to look for them. Let's go back over 300 million years and take a look at times when this region was covered with tropical jungles, or an inland sea that reached from Canada to Mexico, or a huge freshwater lake covering almost the entire San Luis Valley teeming with life uncharacteristic to Southwestern Colorado as we know it today.

Go into the Sangre de Cristo Mountains and you may find palm leaves that were left on the ground over 300 million years ago. Right close by you might find critters that look like clams or sea lilies that once lived in warm, tropical seas. Walk a few more steps and you may find teeth from sharks that look like they could inflict terrible wounds but were from animals that only fed on shellfish.

In another part of the Sangre de Cristos look for teeth of sharks so large they would dwarf a great white shark in today's oceans. If you find these remains, you are standing in rocks that were laid down over 60 million years ago.

Now let's look to the west along the Rio Grande River and you might find pinecones and needles that look like they were dropped in the sand only yesterday but are in fact over 25 million years old. They are messengers from a time when the area around Creede was a giant lake with shorelines of ash and silt from area volcanoes.

If we go to the center of the San Luis Valley and you might find the remains of strange-looking horses that were early ancestors to modern steeds but are in sand and rock deposits over 10 thousand years old. A few feet away you could stumble on the remains of camels or bison or even the remains of a woolly mammoth.

There are laws, of course, of which fossils you can collect from public lands. In general, you can collect invertebrate fossils (such as insects and plants) as a hobby from National Forest System and Bureau of Land Management lands. It is not legal to collect fossils from vertebrates, such as bison and camels. If you plan on being a hobby collector, it is best to thoroughly research the laws before you remove a fossil.

Our valley has undergone incredible changes throughout our geologic history and you only need to take a close look to see what time has left behind.

Dave Dyer is the NEPA/FOIA/Appeals and Litigation Coordinator for the San Luis Valley Public Lands Center. When not working, you'll most likely find him with a fly rod in hand testing his skills on the residents of the wonderful waterways of the Rio Grande National Forest or face to the ground looking for fossils.