



Climax Canyon Park

There is over 500 feet of topographical relief in Climax Canyon. The canyon is characterized by steep slopes, and on the north side of the canyon the steep slopes are interrupted by cliff-forming sandstone outcrops. The three-hundred acre park contains some interesting geologic features. The rocks of the park are shales, sandstones and some thin coal seams, and all are units of the Raton Formation. These rocks were formed from stream and swamp deposits of the late Cretaceous Period through the early Paleogene Period. The fossilized contents of the rocks are mostly plant material—fronds, leaves and tree trunks, which are sometimes visible in the rocks near the trail.

One of the most significant events in Earth history is recorded in the rocks at the park. Sixty-six million years ago a comet or asteroid hit the Yucatan Peninsula in Mexico and (judging from the fossil record) the impact exterminated as many as 90% of all species living on the planet at that time. This was the event that killed off the dinosaurs. A worldwide fallout of debris from the cosmic collision deposited a thin layer of light-gray shale containing unusual levels of the element Iridium, thought to only come from outer space. The layer is inconspicuous (approx. ½ inch thick) and is generally identified where road-cuts have exposed a fresh view of the rocks (one such exposure on Old Pass Road is indicated on the map).

This thin iridium-rich shale layer represents the dividing line between two major geologic periods, the Cretaceous and Paleogene periods (commonly called the K-T Boundary or more recently the K-Pg Boundary). This thin rock unit also marks a profound evolutionary event. It is the end of the age of dinosaurs, but this extinction event was survived by mammals who thrived after the cataclysm. A hiker following either loop of the trail will walk across this unseen boundary.

The hillsides of Climax Canyon are covered in pinon-juniper forest, but with notable variations within this plant community. There are south facing slopes that are populated with a community of high desert plants, while the ravines and north facing slopes have a different assemblage of plants that require more moisture and cooler temperature.

The trail passes by some of the oldest junipers in the canyon. The more plentiful tree is the pinon which also favors the somewhat cooler slopes. In a few of the more shaded north facing slopes you will see groves of ponderosa pine trees with an occasional Douglas fir. The gambel oaks are common but are generally small in stature. The most common bush is the mountain mahogany.

Many places on the trail afford a spectacular view toward the East. The view is of mountains and mesas, an area geologists have named the Raton-Clayton Volcanic Field. The most prominent land-forms are the result of vulcanism—the mesas exist because they are capped with a thick lava-flow of erosionally resistant basalt that was derived from nearby volcanic vents or fissures, and the mountains to the east and southeast are extinct volcanoes.

The overlook on the West Loop, at the upper end of Climax Canyon, is four hundred feet higher in elevation than the trail head. The highpoint on the East Loop is about three hundred feet above the trail head.