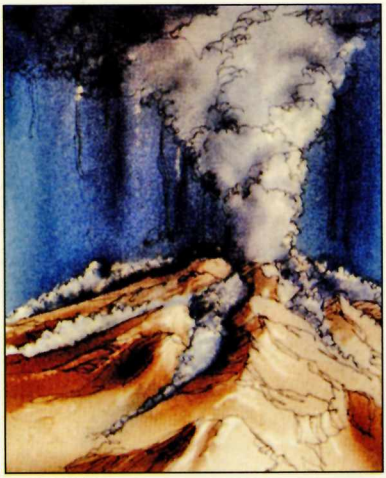
A TRAIL GUIDE TO Godfrey Glen



Artist's depiction of Mount Mazama's climactic eruption 7,700 years ago.

Godfrey Glen Trail circles along the rim of a very steep-walled canyon for about one mile (1.6 km). Allow about 45 minutes to complete the loop on this pleasant walk.

A forest dominated by Shasta red fir and mountain hemlock has regained its foothold on the landscape devastated by Mount Mazama's climactic eruption 7,700 years ago. These trees will remain in place until some new cataclysm changes the landscape, but for now dwarf huckleberry, pipsissewa, woodrushes, and Crater Lake currant thrive on the forest floor while horsehair lichen drapes some of the trees.

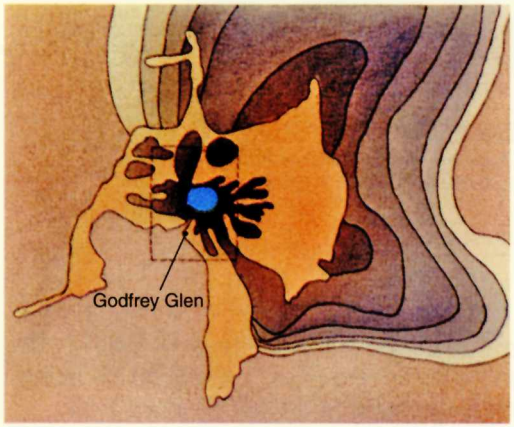
Godfrey Glen, a verdant meadow in summer, is where the tributary Munson Creek meets Annie Creek. Mazama's great eruption filled it to a depth of 250 feet after glowing avalanches called pyroclastic flows poured down the mountain and through Annie Creek Canyon at astonishing speed. The source of buff colored dacite pumice was exhausted during the eruption and a smoke colored andestic scoria, rich in crystals, burst forth from the magma chamber. Scoria now forms a conspicuous dark layer above the pumice in these canyon walls. Near the end stages of the eruption, a thin veneer of air fall ash and crystals was deposited atop the scoria. By then the slopes of the volcano had been reduced to lifeless wastes of ash and pumice.

Forests which once stood on Mount Mazama were swept away from the eruption's force or by subsequent pyroclastic flows. Lower Munson Valley and Godfrey Glen smoked as hot gasses seethed upward through the newly deposited volcanic material. Where these gasses bubbled from cylindrical vents called fumeroles, their walls were cemented from the heat and chemical action of the vapors. The resulting spires are sometimes called "pinnacles." Munson Creek has cut downward into the loosely bonded pyroclastic deposits over the past seven millennia to form the narrow V-shaped canyon. The canyon walls, sculpted by water and wind, are adorned with many pinnacles—whose location is controlled partly by vertical cracks (joints) in the rock and to a degree by the welding action of ancient fumeroles.

Natural forces—volcanism, erosion, and weather—interact to form the pinnacle spires of Annie Creek Canyon and the tall forest trees at Godfrey Glen. The Shasta red fir, mountain hemlock, lodgepole pine, and subalpine fir have adapted to the park's characteristically long winters, a snow pack of nine feet or more in depth, relatively high elevation

Stand back!

Do not venture too close to the edge as the pumiceous layer may not hold your weight and you could slip suddenly and dangerously. Carefully note the opposite canyon wall. This side is similar.



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1. Ash fall covered 250,000 square miles north and east of the volcano. Map lines mark zones of equal depth. Pyroclastic flows filled valleys and spread in sheets closer to Mazama.

2. Gray andesite scoria was deposited above buff-colored pumice as Mazama's eruption tapped deeper layers of magma. A thin veneer of air-fall ash capped the flow deposits.

3. Heat and chemical action cemented pumice and scoria in fumarole walls.

4. Cooling cracks and fumarole walls control the rate of erosion in canyon spires.

(6200 ft or 1890 m) and porous volcanic soils. This quiet forest scene is named for William C. "Bill" Godfrey, the park's chief ranger, who died not far from here in November 1930 under mysterious circumstances.

A loop trail one mile in length allows you to explore the forest and see how erosion has shaped Annie Creek Canyon since Mazama's climactic eruption. It is handicapped accessible with numerous resting places having superb views. Along the trail you will hear, but not be able to see, Munson Creek tumbling over Duwee Falls. Do not leave the trail or attempt to reach the falls since the unstable edge is exceedingly dangerous. Enjoy the forest shade and shadows cast by the trees instead, pausing to discover some of the secrets they hold.

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