

Forest of Nisene Marks State Park: Epicenter of the 1989 Loma Prieta Earthquake

Trip highlights: earthquake damage to a natural landscape, landslides, fissures, sag ponds

It is fortunate that the epicenter of this large earthquake happened in such a remote area within the Forest of Nisene Marks State Park! The hike to the epicenter region of the 1989 earthquake is both long and strenuous, but the rewards are a multitude of views of a damaged landscape and a forest that is recovering from the effects of the earthquake. Shaking from the $M=7.0$ earthquake created numerous surface ruptures and slumps that are still largely. The most impressive geomorphic features are along the Big Slide Trail that descends from China Ridge into the canyon of Aptos Creek.

Starting from the Aptos Creek Road (Santa Cruz) park entrance, park at the picnic area trail head and follow the Aptos Creek Fire Road uphill for about 4 miles (it will involve an elevation gain of about 1,000 feet). The Big Slide Trail intersects the fire road on the right. This narrow trail descends gradually at first through a "drunken forest" (trees lean in unusual ways in many places). The trail then descends steeply into Aptos Creek Canyon in an area affected by massive landslides initiated, in part, by the earthquake. Continue downhill along the Aptos Creek Trail to return to the fire road. A sign marking the location of the epicenter is along the Aptos Creek Trail about 0.6 mile east of the fire road intersection. The complete loop hike is about 11 miles. Note that the rugged Big Slide and Aptos Creek trails are inaccessible to bicycles. It is advisable to call about trail conditions before starting the hike during the rainy season.

The Forest of Nisene Marks was heavily lumbered, mostly to make charcoal for baking local marble into lime (for cement) in the late 19th to early 20th Century. Wood and lime from the Santa Cruz area were used in the rebuilding of San Francisco after the 1906 earthquake and fire. Local lime was also used in the construction of the Grand Coulee Dam in Washington.



Figure 4-1. This pond formed at the head of a great slump along the Big Slump Trail.



Figure 4-2. The landscape reveals many clues to the severity of the earthquake. Many trees fell during the 1989 earthquake, and whole groves of trees have bent trunks from having adjusted themselves back to a vertical direction after the ground surface rotated in areas of deep-seated slumps.



Figure 4-3. One of many fissures along the Big Slide Trail that opened during the 1989 earthquake.

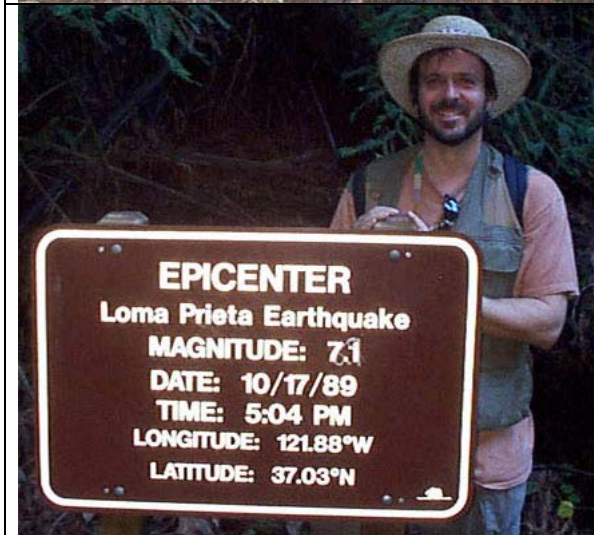


Figure 4-4. The park sign was installed along the Aptos Creek Trail at the location of epicenter of the 1989 earthquake. This sign is located about one mile east of the intersection of the Aptos Creek Trail with the Aptos Road (trail).