

## **Kikuchi Gorge**

Kikuchi Gorge is known for its waterfalls, of which there are half a dozen along the walking path that starts at the visitor center. This scenery is the result of ancient volcanic eruptions followed by erosion over tens of thousands of years.

Mt. Aso, the expansive and still active volcano located southeast of the gorge, experienced four massive eruptions between 270,000 and 90,000 years ago. Pyroclastic flows unleashed by these eruptions filled the valley that was to become Kikuchi Gorge with volcanic matter—mainly soft and thick ash so hot that it welded together upon landing. The rock formed by this ejected matter is called welded tuff.

As welded tuff cools, the rock contracts and its surface cracks. As this cooling progresses, the cracks deepen and form columnar joints. In Kikuchi Gorge, water flowing from the nearby mountains into the valley and through the gorge eventually finds its way through these cracks, causing blocks of rock to break off. The result is sheer cliffs that become waterfalls.

Vertical breaks in the rock are visible throughout the gorge, as are giant boulders that have broken off from the mountainsides due to erosion and tumbled into the river.