

Kikuchi Gorge

The 4-kilometer Kikuchi Gorge cuts a straight line through dense forest on the eastern edge of the municipality of Kikuchi, a 20-minute drive from the city proper. The gorge is a tranquil hiking spot noted for its distinctive scenery, with waterfalls alternating with long sections of gently flowing water. This landscape, and the great diversity of plant and animal life in the area, are products of the gorge's topography and its volcanic origins.

A tale of many climates

The gorge is the source of the Kikuchi River, which flows southwest across the Kikuchi Plain for 71 kilometers before reaching the Ariake Sea. The river and gorge take shape at an altitude of 800 meters, at the convergence of countless streams originating in mountains on the outer rim of the Mt. Aso caldera. Flowing downhill from there, the river reaches an altitude of 500 meters at the end of the gorge. The 300-meter change in elevation over a distance of only 4 kilometers means significant biodiversity in the gorge, from fir and oak forest in the cold upper reaches to evergreen broadleaf trees in the lower temperate parts. This range of climatic conditions and the coexistence of forest and river ecosystems attracts a wide range of small mammals, frogs and lizards, birds, and insects.

A landscape in constant flux

The dramatic series of steep waterfalls is the result of ancient eruptions of the Mt. Aso volcano, located southeast of the gorge, and the ceaseless flow of water over tens of thousands of years. The volcano experienced four massive eruptions between 270,000 and 90,000 years ago. Volcanic matter unleashed by these eruptions piled up in the valley that was to become Kikuchi Gorge. This matter—mainly hot, thick ash—solidified, forming a type of rock 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. Water flowing over the rock eventually penetrates these fissures and causes blocks to break off, leaving sheer cliffs that become waterfalls. The vertical breaks in the rock are visible throughout Kikuchi Gorge, as are giant boulders that have fallen from the mountainsides due to erosion and tumbled into the river.

The combination of the river's comparatively steep flow and the welded tuff's tendency to break off in large pieces means that the landscape in Kikuchi Gorge is in constant flux. The rock visible in the gorge today is thought to be approximately 270,000 years old, produced by the first of Aso's great eruptions—the newer layers have already been swept away by the water.