

# Poas Volcano

## Location

37 km (23 mi.) north of Alajuela, at Poas National Park.

## Altitude

2704 meters (8,872 feet)

## Description

It is one of the few accessible active volcanoes in the Americas. Poas Volcano is located in the Central Volcanic Cordillera. It can be reached via San Jose Alajuela Fraijanes Poasito (56 km) by paved road. This park has an excellent visitor center where there are exhibitions, talks and audiovisual presentations. It is equipped with toilets and a cafe. The Main Crater and Lagoon paths leave from the offices, and near the Main crater there is a picnic area with tables, toilets and drinking water. Visitors cannot go down into de craters. A bus service operates from San Jose. In San Jose and Alajuela there are hotels, restaurants and markets, and along the road you can find restaurants and grocery shops.

The Poas Volcano, located in the National Park of the same name, is one of the most active volcanoes in Costa Rica. You can lodge nearby in hotels and lodges that take advantage of the great weather near this national park. The volcano stands 8,884 feet high, and contains three craters and several lake filled vents. The summit crater, which is the most widely visited, contains two lakes: Botos, which is cold and has clear water, and another, geothermally heated one, which is one of the most acidic lakes in the world.

Rising 2,708 meters above sea level, this volcano's gas emissions have notably increased since 1989, causing acid rain that has damaged plant life in some areas of the park as well as neighboring agricultural plantations. The summit features two craters: the main one, at one and a half kilometers in diameter and 300 meters deep; and Laguna Botos, a cold, rain fed lake that feeds the Ri-o a•ngel, a tributary of the Ri-o Sarapiqui- that flows into the Caribbean. Currently the volcano emits a great quantity of gases and steam from the various fumaroles located in the crater's inner cone.

Poas is an active volcano with frequent small geyser and lava eruptions. The last major eruptions at Poas Volcano were from 1952-54. The visitor's center has interactive educational presentations and activities.

This volcano has three craters, only one of them active. The live volcano is a crater, is 1.5 km (9/10 of a mile) wide and 300 meters (984 feet) deep. It contains at its bottom the largest active boiling lagoon in the world, 350 m (1,148 feet ) wide and a cone, bubbling constantly with fumarole and geysers, 40 m (131 feet) above the level of the boiling lagoon. North of the active crater is the long-extinct von Frantzius composite cone, the oldest crater in the mountain range system. The dormant volcano is located 800 meters (1/2 a mile) southwest of the active crater. This fellow gave up the fire and brimstone business some 7,500 years ago, and transformed itself into a cold water lake 500 meters (1,641 feet) wide. Water from the lake drifts down the mountainside to become the Sarapiqui River, flowing eastward to the Caribbean coast.

With a diameter of 1.5 km., Poas Volcano's crater is reportedly one of the widest in the world. If it is clear enough to see to the bottom of the 984 foot deep crater, you may observe some type of activity, ranging from fumaroles, to bubbling emissions on the surface of the small rain filled lake, to actual geyser type eruptions, but it is constantly changing. During the early 1990s, there was enough geyser activity to cause the lake to lose its water by the end of the dry season; this

resulted in increased gaseous emanations that forced the Costa Rican national park to close on a few occasions. More recently, the opposite has occurred at this historical site in Costa Rica. Intense rainfall during the first months of 2005 raised the level of the hot lake by 13 feet (a record since starting to track the level of this lake in 1978), and increased its area by 20 percent. This caused some fumaroles to be covered by water, which started presenting constant bubbling at the Poas, Costa Rica.

Poas is an andesitic-basaltic stratovolcano 2,708 m high. It is impressively beautiful and is one of the three volcanoes of the continent that are accessible along a paved road that almost reaches the crater edge.

Subconical in shape, the upper part has three caldera depressions. The main crater is an enormous hollow almost 2 km in diameter and 300 m deep. At the bottom of this crater there is a thermomineral lagoon some 350 m across. When it occasionally dries out, the sulfur emissions become more intense and produce acid rain that damages the vegetation and the fields on its sides.

To the north of the active crater there is the von Frantzius cone, the oldest eruption point, which today is inactive, on the peak of the massif.

To the southwest, there is another cone called Botos, which is currently occupied by a very beautiful cold water lagoon some 400 m across. The volcano experiences plumiforme cyclical eruptions similar to those of a geyser, which consist of columns of muddy water together with steam that rise from a few meters to several kilometers.

Back in 1889, the volcano set off a powerful earthquake that knifed away a part of a hill, forming a forming a land pot that filled with water becoming Fraijanes Lagoon, a site that Costa Ricans have long treasured as a place to go for a Sunday outing.

There have been other eruptions. In 1910 a huge ash cloud was blown 8,000 meters (26,248 feet) into the air, plumiforme eruptions at the site creating the largest geyser in the world has ever seen. The 1952-1954 eruptions put up more ash clouds, the thick with fire rocks and underground noise. Since 1989, gas emissions have increased, creating acid rain that damaging strawberry and coffee crops west of the volcano.

The densely vegetated cone presents geyser like eruptions of crater lake water, as well as plumes of steam. Looking to the left of the Poas Volcano Costa Rica crater, you can see the detrimental effects of the volcanic gases that cause a localized form of acid rain. For several kilometers downwind from the crater, the vegetation is brown and dying.

The park has four main habitats. One area around the crater is devoid of vegetation or with only a few adapted species like the paddle fern (*Elaphoglossum lingua*). The area of the arrayans (*Pernettya coriacea* and *Vaccinium poasanum*) are covered in dwarf vegetation that does not grow over 3 m high.

The stunted forest can be seen along the path between the main crater and Botos lagoon. It is almost impenetrable and is made up of very twisted trees. The cloud forest, very moist and shady, surrounds the Botos Lagoon and the part behind Potrero Grande. Here, most of the trees reach 20 m high and are completely covered in mosses. Hepaticae, and other epiphytic plants.

Although animal life in general is scarce, there are lots of birds. Among the 79 species of birds found there, special mention may be made of several humming birds and the quetzal (*Pharomachrus mocinno*), the most beautiful bird on the

continent. The Poas squirrel (*Syntheosciurus poasensis*) is an interesting mammal that is yellowy red in color with a tail as long as its body.

The best time to visit the Volcano is from May to November, the earlier the better. Your walks will take you to the active crater for a look at the plumes of sulfuric smoke and water vapor, and along natural trails leading to the Botos Lagoon.

Although its activity is considerably different than Arenal Volcano, Poas is another of Costa Rica's most active volcanoes. The colorful summit craters comprise a popular attraction, and are accessible by vehicle.

The visitor center and scenic overlook at the volcano area has a small coffee shop and tables, and is open from 8:00am to 4:00pm. Visitor services include information, a park ranger station, trails, restrooms, signage, a cafeteria, parking and several natural viewpoints.