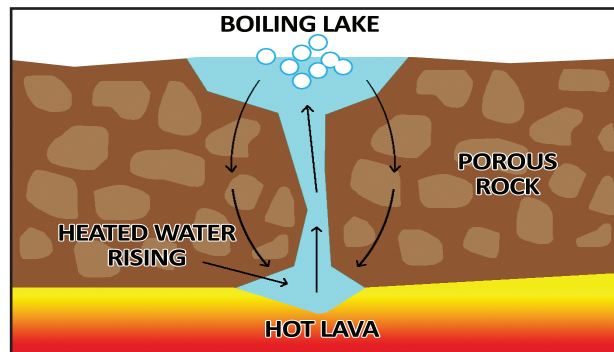


Boiling Lake and Valley of Desolation

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Boiling Lake is the world's second largest boiling lake (but the largest of its type in the world), and is located 5 miles (8 km) east of Roseau, in the heart of Morne Trois Pitons National Park.



How the lake boils

The first recorded sighting of Boiling Lake was in 1875, by Edmund Watt and Dr. Henry Alford Nicholls, two Englishmen working in Dominica at that time, and their guides. Later that year, Henry Prestoe, a government botanist, and Dr. Nicholls were commissioned to investigate this natural phenomenon. They measured the water temperature and found it to range from 180° to 197° F (82° to 91.6° C) along the edges, but could not measure the temperature at the centre where the lake is actively boiling. They measured the depth to be greater than 195ft (59m).

A later report indicated that apparently the lake's water level had decreased, and a geyser developed in the lake's centre. The geyser spewed water and mud to 60 ft (18 m) and higher, building a pumice cone at its base and filling the bottom of the lake. The Boiling Lake occasionally stops boiling and the water level drops significantly. A photograph of the lake taken in 1895 when it was "dry" showed the water level 30-50ft below the water line; it later returned to its normal conditions. The lake's two most recent "dried-up episodes" were in 1988 and from December 2004 to April 2005.

Today the Boiling Lake appears like a cauldron of bubbling greyish-blue to dark-grey water that is usually enveloped in a cloud of vapour. The lake is approximately 200 ft (61 m) across, and its present depth is unknown but more than 35ft. The sides of the lake are a mixture of clay, pumice and small stones.

It is believed that the Boiling Lake is a flooded fumarole, a crack through which gases escape from the molten lava below, rather than a volcanic crater. The lake collects water from the surrounding hills, in the form of a small stream and a short cascade which empty into it. The water seeps through the porous bottom to the hot lava below where it is trapped and heated to boiling point.

Hikers to Boiling Lake cross the region known as the Valley of Desolation. What was once a lush, forested area appears now to be devoid of life.

The harsh environment of the Valley has limited the wildlife to lizards, cockroaches, mayflies and ants.

Scattered throughout the purple-green floor are coloured hot springs. The blacks, greys, blues, yellows, browns and oranges are the results of minerals in the water which have been deposited on the stream beds. Some of the rocks are also covered with yellow sulphur crystals. Hot boiling mud, mini-geysers and fumaroles are scattered in the Valley. The water from Boiling Lake and Valley of Desolation flows into Victoria Falls and River Blanc, and enters the Atlantic Ocean via the Pointe Mulatre River, a popular picnic area near Delices.



The Valley's floor is covered in a dense mat of mosses and lichens, interspersed with grasses and the light-yellow flowered endemic bromeliad, *Pitcairnia micotrinensis*.

Since the first reported sighting of the Valley of Desolation and the Boiling Lake many changes have occurred. The major change has been the size of the fumarole area and the subsequent destruction of the forest. A major phreatic (volcanic ash-and-steam) eruption in Dominica in January 1880 appears to have come from the Valley of Desolation, and could have initiated those changes. It is expected that the Valley of Desolation will remain an active fumarole region for many years.

The Valley of Desolation and the Boiling Lake can be reached via a 3-hour long trail (one way) which starts in the village of Laudat. The Ti-Tou Gorge at the beginning of the trail is another feature of volcanism. The undulating sides of this over 50ft deep, narrow gorge indicate that it was not cut by a river. As the molten lava was cooling, it split and pulled apart, similar to the way a drying mud puddle splits and cracks.

As you journey past large *Chatannyé*, *Bwa Bandé*, *Maho Kochon* and palm trees, listen for the calls of the *Siflé Mountany* (Mountain Whistler) in the canopy above. From the Trois Pitons ("Breakfast") River the trail winds steeply up the slopes of Morne Nicholls. It passes through the remains of one of the best stands of *Wézinyé Mountany*, a tree typical of the montane forest and the only native conifer on Dominica.



On the upper slopes of Morne Nicholls is another forest type, elfin woodland. Here the trees are stunted by the strong winds, and their branches and trunks are nearly hidden by the many mosses and lichens which grow on them.

At 3,200 ft on the summit of Morne Nicholls - the highest point on the trail - you may get panoramic views of Morne Micotrin to the north; Morne Prosper, Roseau, Laudat, Cockrane and Eggleston to the west; and the sharp cone of Morne Watt to the south. On very clear days, Martinique may be seen to the south and Marie Galante to the north-east.

Hikers visiting the Valley of Desolation and the Boiling Lake should go with an experienced guide. While passing through the Valley of Desolation, please stay on the trail to avoid breaking through the thin crust covering the hot lava below.

Take only pictures and memories, and leave behind only footprints. Please do not litter, and leave no trace.



Boiling Lake and Valley of Desolation are part of the Morne Trois Pitons National Park World Heritage Site, which was set aside by the Government of Dominica for the enjoyment of Dominicans and visitors alike. Everything within the park is protected by law. Let us all play our part in preserving Dominica's natural heritage.

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