

Largest Lava Tunnel in the Goto Islands

A lava tunnel (also called a lava tube) is essentially a tunnel created when super-hot lava flows from a volcanic eruption. As the lava flows, it melts everything in its path, including rock. The inner core of the flow remains extremely hot (some calculations say it cools only 1 degree Celsius per kilometer of travel), but the surface of the flow begins to cool rapidly when it contacts either air or water. This process creates a strange geologic phenomenon in which the cooling lava forms a quickly hardening “roof” while the hot inner core melts its way onward. In most cases, the lava disburses at the far end, leaving behind a hollow space where it once flowed.

Long, Dark, and Full of Seawater

Because of Tomie’s volcanic history, it has many such lava tunnels. The largest one is Iana, which stretches over 1,400 meters in total. Approximately 400 meters from the wide entrance, the tunnel narrows to about one meter and is filled with seawater, which indicates an underground connection to the ocean.

Rare Cave Creatures

Aside from its considerable size, this lava tunnel is special because researchers have discovered within it a variety of cave creatures that are either rare or unique to this locale. For example, where water has collected in the darkened tunnel, there are tiny marine animals. One interesting resident is the fish *Lucigobius albus*, a very small, blind species of goby, which is so rare that it is considered in danger of extinction. It has been discovered in only one other place in all of Japan.

Out of concern for safety, the Iana Lava Tunnel is not open to the public, but the large entrance, which affords a good view into the interior, is a popular tourist attraction.