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Published 02:25 01.06.11 | Latest update 02:25 01.06.11

Israel's largest underground water source discovered near Jerusalem convention center

Excavation work by Israel Railways while working on high speed Jerusalem-Tel Aviv train line reveals cave with largest underground water sources ever discovered in Israel.

By Zafrir Rinat

Tags: Israel water

A cave discovered during excavation work by Israel Railways in Jerusalem contains the largest and most impressive underground water sources ever discovered in Israel, scholars say.

The cave was discovered near the International Convention Center in the capital during construction work on a station for the future high speed Jerusalem-Tel Aviv train line. Builders came across it while digging a service shaft at a depth of 75 meters - five meters from the planned bottom of the shaft.

Over the past few days, scholars from the Cave Research Unit of the Hebrew University's Department of Geography, who were called to the scene by engineering companies working with Israel Railways, have been crawling through the underground nooks and crannies. "It's hard work, crawling through mud into a cave the end of which we haven't reached yet," Prof. Amos Frumkin, head of the unit, said. Frumkin said the cave is between a half a meter to a few meters wide, and is a few dozen meters high.

According to an initial survey by Frumkin's team, the cave developed as water seeped in from the surface and dissolved the limestone. The resulting cavern is known as a karstic cave, named after the region in Slovenia where the phenomenon was first documented. The surveyors said that during their initial exploration, they found water flowing through the cave from northwest to southeast.

Frumkin estimates the cave to be about 200 meters long but that it could be longer. A small canyon at the end of the segment that has so far been checked plunges through cracks down into a series of waterfalls.

Frumkin says the cave "puts Israel on the map of tropical and temperate karstic regions where underground streams are common."

The cave also has hydrological significance because it is part of the mountain aquifer, an underground reservoir into which rainwater flows from the surface, and that extends all along Israel's central mountain range, Frumkin says. "The study of the cave can help us understand the precise mechanism by which water flows through the aquifer in the Jerusalem area," he adds.

It will also help researchers understand how pollution leaches into the ground from the surface. Researchers usually have to drill wells to study this problem, but the newly discovered cave allows a direct look into the aquifer.

As opposed to the cave discovered in the Ramle area a few years ago, which contained crustaceans previously unknown to science, Frumkin says only microscopic life-forms were found in his explorations. Nevertheless, he says the cave must be protected as a valuable natural phenomenon, and that this can be accomplished without impeding construction of the railway station.

This story is by:

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