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Poster

Ma-Lena, a marble cave in Sri Lanka

Ma-Lena which is located at the western foothills of the peak wilderness mountain range and close to Kaluganaga is an underground cave complex. The cave is situated in Guruluwana of Rathnapura District. Physiographically the cave area belongs to wet zone of the country. During a field visit the cave was scientifically explored and speleological aspects were primarily studied with an idea of carrying out a complete research study in future.

Though it has several entrances two are the main which have wide mouths to the North and South. North entrance opens to a higher elevated chamber complex while the other entrance opens to a lower elevated chamber complex. Both chamber complexes are connected by vertical tunnels and small chambers at various places. In addition, several small chambers are connected to a main chamber in each complex. The cave complex is hydrologically active. Geologically, the cave is made up of impure marble of highland complex. Floated country rocks in the marble are highly weathered and some mineralized zones can be observed. The grain size of the marble varies from place to place.

The formation of cave chambers is directly correlated with a fluvial weathering process. The chamber walls and ceilings are being nicely polished by the flowing water. The fluvial weathering is further evidenced by weathering features of the bed rock marble which extends up to the land surface. In addition, some elluvial deposits are brecciated. Speleothems are characterized by the presence of rim pools, cave curtains, stalagmites, stalactites, cave pearls, siliceous deposits, cave pillars, helictites and flowstones. The cave is home for mainly chiropteran bats which are definitely in thousands of numbers. Their guano deposits make a thick carpet on the floor of the chambers. In addition, insects, mollusks and shrimp species were also found in the cave stream. This cave is the largest limestone cave recorded by our team in Sri Lanka.

Keywords: Ma-Lena, Marble cave, Elluvial deposits, Fluvial weathering, Guano deposits