

## **Speleological Investigations of some Caves in Knuckles Range Sri Lanka**

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A speleological investigation was carried out in the area around Meemure, the traditional village located in Knuckles range. Four rock caves were studied during August, 2010. They are known as Nitro cave, Twin caves at Kapuatuwa Galge, Oil lamp cave and Kapuatuwa Galge (Rawana Guhawa Cave) at Uyangamuwa rock. The Nitro cave is located on the middle of a rocky mountain called Kumbukmulla, and other three caves were located on the rock of Uyangamuwa. Kadatenne little cave which was formed due to erosion and can be described as a sink hall with a subterranean tunnel which was also mapped. Geological, biological, morphological studies were carried out in all studied sites. In addition, samples were collected from cave sediments, cave ceiling and speleothems. Measurements of the caves were taken to draw base maps and cross sections which describe the morphology of the caves. Geologically, the area belongs to the Highland Complex which comprises high grade metamorphic rocks. Geological condition of all three caves was similar and was composed of a Gneissic rock and a marble rock. The marble rock has been weathered and only remnants can be observed inside the cave. The Gneissic rocks are characterized by two or

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three sets of joints along which the marble band is oriented. When considering the formation of the studied caves, the dominant factor is the weathering along the rock structures like joints and rock boundaries. In addition, the marble rock which is highly sensitive to weathering has played a major role in the formation of these three particular caves. Morphological studies revealed that all studied caves have a large mouth and tapering cave space. According to the classification, all studied caves can be categorized as hollow cave. The biological investigations revealed that cave crickets and spiders were the most abundant insects in all caves. The Nitro cave was inhabited by a large colony of microchiropteran bats.

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