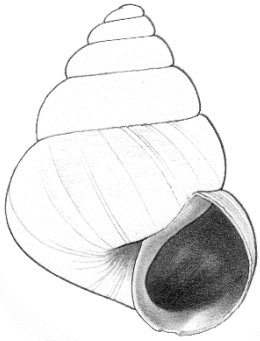
Special animals of the caves of the Kinabatangan need protection!



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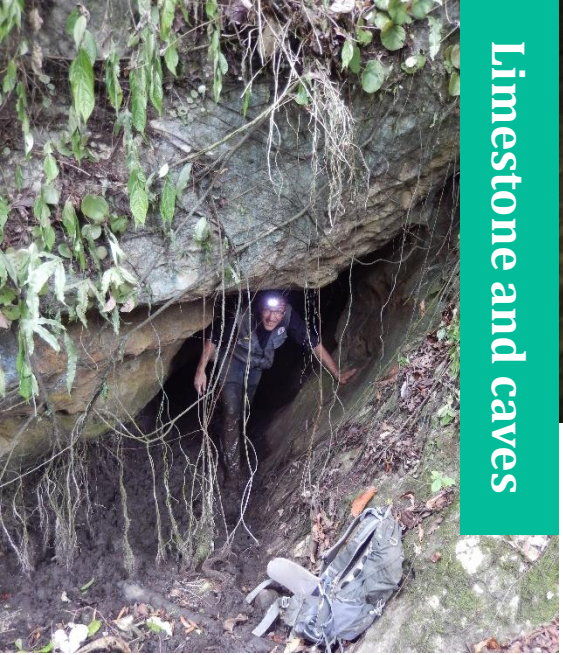
Limestone and caves

Although limestone occupies only a very small fraction of the land area, it harbours disproportionate biodiversity. For example, in Peninsular Malaysia almost 14% of the seed plant flora grows on limestone that covers only 0.3% of the land surface. However, entire limestone hills are being removed because of land-use changes and limestone and marble extraction.

Therefore, this ecosystem has long been identified as one of the most endangered ecosystems in Malaysia.

Limestone and caves



Limestone deposits along the Kinabatangan river exist as numerous relatively small, isolated hills in which a large number of caves were formed. These caves constitute unique, highly biodiverse, and extremely vulnerable tropical habitats.

Practice of limestone exploitation in Malaysia has been to give concessions to cement producers for entire limestone hills under the assumption that a small number of conserved hills will be able to sustain the karst biodiversity of the area. But, since each limestone hill contains endemic species, this practice should be replaced by practice in which parts of each individual hills is preserved.

Cave animals are endangered

Cave-adapted organisms live under conditions of permanent darkness and constant temperature. Thus, they are strongly and irreversibly adapted to cave environments, which makes them particularly sensitive to any external interference.

Unfortunately, such disturbance is taking place: limestone hills in which these caves were formed are being removed because of land-use change or for limestone and marble extraction.

Given the high degree of endemism and the rate at which these limestone hills are being degraded or removed by land-use change, many cave species are threatened and some are already extinct.

Which animals live in caves?

So far, several invertebrate groups have been recorded in caves in the Lower Kinabatangan area: molluscs, springtails, spiders, harvestmen, millipedes, isopods, Hymenoptera, and beetles. Among vertebrates, one species of edible-nest swiftlets and several species of bats were recorded in this area.

Two groups of animals particularly rich in endemic species in caves on Borneo are beetles and small-bodied snails. The inaccessibility of their subterranean habitats makes them poorly known and poorly understood by both scientists and local communities.

As a result, they are under high anthropogenic pressure, facing threats by habitat loss and pollution.

We want to help by:

- Raising environmental awareness about cave fauna and limestone ecosystems
- Documenting cave biodiversity and obtaining Red-List status for the most endangered cave invertebrate species
- Preventing further degradation of limestone habitats in the Lower Kinabatangan
- Increasing the number of inviduals and institutions involved in the protection and conservation of limestone habitats
- Bringing our results under the attention of conservation groups that are active in Lower Kinabatangan
- Initiate further conservation actions for the protection of other species inhabiting limestone outcrops

Please, remember that:

Caves and limestone habitats harbour a huge number of endemic and endangered species. For instance, 50% to 75% of land snail species in Malaysia can be found only at these limestone hills.

Caves can bring long-term recurrent benefits for tourism, agriculture, landscaping and the environment.

Without caves, we may not even have... durians! Caves are homes of bats, which are the biggest pollinators of durian trees (as well as petai, langsat and rambutan). Bats also help get rid of insect pests.

Therefore, the long-term recurrent benefits of limestone for eco-tourism, agriculture and landscape enhancement may be worth more than the one-off gains of quarrying them to make cement.

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We would like to thank Danau Girang Field Centre, KOPEL, and HUTAN for their help in organizing field works and lectures.