

The Temboan caves

We have some natural caves as well as caves we dug out ourselves by the Masarang excavator in our Temboan project area. The natural caves were already home to colonies of bats. These bats produce a lot of guano which is rich in potassium, magnesium, nitrogen and phosphate. We use it to mix in with our biochar and compost to produce our own local organic fertilizer for our replanting activities with excellent results. Here are some pictures of the very scenic cave along the Walinsorit river that we have not yet fully explored.



Below are some pictures of our manmade caves that within a very short period already have become home to a colony of bats as well as swiftlets. We hope in the future, when the swiftlet colonies have grown enough, to start replacing the eggs in the nests with those of edible bird nest producing species. Here two pictures of the cave still being dug out with our multiple purpose excavator and a view from the TreesForAll tower showing the cave in what is now a green lush area full of life on what two years ago was still a biological desert with just yellow grass. And much of this is on very thin topsoil as can be seen in the first picture.





And here some pictures of some of the bird nests with one of the nests attacked by a species of rat snake, probably a cave-dwelling rat snake (*Orthriophis taeniurus ridleyi*). Also called the cave racer, this snake is an adept climber, capable of scaling limestone cave walls where it feeds on roosting bats and swiftlets. eating the young swiftlets in the nest. It is amazing how fast nature takes over every opportunity it is provided. After our tree planting we have also seen big increases of swirling swiftlets.



Below two more pictures. After a heavy rain the cave bottom was filled with water which is just what swiftlets need for an ideal nesting cave. But a strange phenomenon which lasted only days occurred. A yellow kind of algae covered the water surface. On the right fresh guano droppings from the bats, most likely *Cynopterus branchyotis*.

