

...creations are formed by rainwater, as it seeps through the soil it picks up carbon dioxide given off by the plant roots and earthworms and other soil animals as they breathe. This makes the water quite acid and able to dissolve more calcium carbonate as it trickles through the rocks. When the water reaches the cave there is less carbon dioxide in the cave air than there was in the soil. Now some of the carbon dioxide is given up by the water to the air to even up the amounts each is losing. The carbon dioxide makes the water less acidic and less able to carry calcium carbonate it has dissolved on the way through the rock. It offloads the extra calcium carbonate onto the rock and these deposit the beautiful stalagmites and stalagmites and columns seen in the caves...

1

...Bacteria are introduced into the caves by stream water and seepage by air circulation or the activities of animals, including man. Bacterial action is thought to be responsible for the black coating on some of the speleothems. Such deposits may be due to manganese producing bacteria. Iron bacteria also occur in caves and get their energy from simple oxidation of iron compounds.

1

...Glow worms are the larval stage in the life of an insect called fungus gnat. Just as maggots grow into common houseflies, glow worms grow to become Fungus gnats which are similar to mosquitoes. Although are most spectacular in caves, glow worms are also quite common outside – they can be found wherever conditions are damp, food is in good supply and there is an over-hanging wall...

The infrastructure of tourism has a major effect on the cave system. There are both direct and indirect impacts to consider.

Direct impacts include breakage of delicate stalactites and stalagmites, construction of access routes through caves, alteration of the cave microclimate from entrance modifications and visitor numbers, the build-up of carbon dioxide in the cave from human breath, accumulated lint from clothing, and heat from lights.

2

...It takes thousands of years for beautiful creations to be made, it takes one simple careless move – even a simple touch leaves a trace of oil or mud. It doesn't take long for the decoration to be permanently stained.

When Waitomo built paths their lights attracted glow worms to lay eggs where they don't normally lay them. It takes a long time for a random glow worm to lay eggs away from its population. Their lights attracted glow worms to an area it fooled them in thinking that they were other glow worms. Since they have a large population in a random area because they expanded and multiplied which weren't originally there. They are more accessible to people so that's been a positive impact as well.

Large amounts of material are needed. Like concrete, beams and girders and decking to create decking and pathways form tourists so they wouldn't impact on the caves or the spaces underneath them. In more areas of the caves in Waitomo there needs to be more tape in certain areas so it doesn't affect the formations.

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