

Around the show caves

Introduction

In this edition, we have three contributions—two from local sites and one, a series of three interesting photographs of lava tubes, from South Korea.

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From Mark Delane—Margaret River (WA)

The unexpected side effects of COVID-19 in our caves

With the world spinning and then coming to a full stop in a hurry ... all from a partly cooked bat, aliens, or some other conspiracy ... like everyone, we stopped operations and closed our sites thanks to COVID-19.

With a great deal of uncertainty, worry and a focus on social distancing, cleaning and stockpiling toilet paper, consideration for the caves was more about the concept of their having a break - a chance to breathe and relax.

Well, little did we realise that, while the caves may have embraced the lack of visitors, our cave infrastructure did not. It sounds strange, I know, but with a complete lack of visitation some of our infrastructure dramatically showed signs of need for people - in two key areas.

The first was the handrails. Many of them started to show signs of surface rust within a couple of weeks, which then rapidly increased over the following weeks. Without the constant movement of hands up and down the handrails (moving and dispersing any moisture that condenses on them), the moisture could sit and cause damage. The impact was astonishing; the vertical and angled sections rusted at a rapid rate. It was as if gremlins were working on them around the clock. These sections became inaccessible, unsafe and a hazard within four to six weeks. The horizontal sections, however, seemed to be spared.

the cave they eliminate or drastically reduce this risk by dispersing and moving the moisture and not allowing it to penetrate the steel.

So, with no one moving through the cave - wiping off the moisture - for the period of closure, we have inadvertently allowed the handrails to rust. In preparation to reopen the sites as the restrictions eased, we were shocked to discover the extent of rust that had occurred. With lots of head scratching and with mouths open, we had to start replacing large sections of handrails quickly in some of our caves.

So, over a couple of weeks, we spent hours removing affected sections of handrails and replacing them with new rails. In total, we ended up replacing over 300 metres of handrails - all bent and custom-shaped to suit each cave.

The second surprise to our caves was the visible presence of mycelium growth on sections of the Jarrah timber boardwalks. Again, with no visitors walking through the caves and suppressing any chance of growth, the mycelium took the opportunity and started to colonise sections with some spectacular results. Some of these boards have been in place within the caves for up to 15 years. Thankfully, there was no need to replace any boards.



**Mycelium photos:
Tim Brown**



Photo: Trish MacShane

The thinking is that, as people used the handrails to go up and down the stairs, they slowly affected the handrails by reducing the galvanized zinc coating and thus increased the exposure of the steel to moisture penetration and therefore the likelihood of rust. As people move through

Both events were purely the result of having no visitors within the caves for a number of weeks - completely unexpected outcomes! Certainly, some lessons learnt; some long hours of replacing infrastructure; and a true sense of renewed amazement about how caves are truly stunning and constantly surprising!



From Ian Eddison—Wellington Caves Discovery Lab

The Wellington Caves Discovery Lab is located within the new Visitor Experience Centre. It provides “hands on” interactive science sessions for all ages. This is a multifunctional area and is suited to public tours and school excursion sessions. With the closure of the Fossil and Phosphate Mine and Gaden Cave, due to the current social distancing restrictions, we were forced to think nimbly and determine what other products we could offer to increase visitor dwell time.

While we had not officially begun activities in the Discovery Lab, we had run short visits as tests in the previous holidays. Based on the popularity of these events, introducing a new Discovery Lab tour was the obvious choice.

We have put together a 45-minute activity. This enables visitors to learn about the different sciences that are studied on site, in particular palaeontology. Guests are given an overview of geology, hydrology and chemistry before undertaking their own fossil dig through 800,000 year-old sediment excavated from the Fossil and Phosphate Mine. Some of the exciting discoveries found include reptile vertebrae, a possum jaw and a range of carnivore teeth.

These “Fossil Finding” sessions have been very successful. We have run them during both peak and off-peak periods.



Photo from the Discovery lab (left) by Michelle Tonkins

Photo of Anticline Cave (right) by Anton Veugen



Anticline/Water Cave

This small but very interesting cave is located in the middle of the Caves Caravan Park. It is inaccessible to visitors but is a unique feature of our Park. It is geologically and hydrologically significant – showing the karst process from the laying down of the rock; significant folding and uplift; the dissolving process (including speleothem development); right through to explaining the water table.

Anticline has an interesting history. After being “lost” for many years and rediscovered in 1988, it was cleared of rubbish, landscaped and fenced. An interpretative A4 sign was added. We are working on a project potentially to open this cave to guests in the future.

In the short term, however, we have developed a simple but effective strategy to enhance visitor engagement. We have designed a webpage accessible by a QR code delving into the history of Anticline, its rediscovery and a range of images to showcase the spectacular folds and uplifts. This is an effective way to allow visitors to experience Anticline Cave without physical access.

Wellington Caves has taken our interpretation of this significant karst landscape feature (an estavelle) to a much more modern level for our caravan park guests.