Around the show caves

Cutta Cutta Caves

Cutta Cutta Caves are a unique tropical cave system situated with an open woodland landscape in the Katherine Region of the Northern Territory. Cutta Cutta Caves are a warm cave system with the temperature and humidity inside the varying in between wet and dry season.

The cave ecosystem is intrinsically linked with surrounding landscape with several monsoon vineforest plant species including fig tree species (notably the rare Hairy-Fruited Banyan Fig (*Ficus virens var. dasycarpa*)) tapping into the caves with their root systems, relying on the humid air inside for moisture. The rocky outcrops of the karst landscape also offer fire protection to the plant species that grow within them and offer a sanctuary for animals such as the Common Tree Snake, Red and Black Flying Foxes, Figbirds and the Common Koel.

The inside of the Cutta Cutta Caves i also home to a variety of animals. While not frequently spotted by tourists, six bat species have been recorded in the cave, including two vulnerable species, the Ghost Bat and the Orange Leaf-nosed Bat, which are both at risk of becoming endangered. It is also common for snakes to be spotted in the cave with Brown Tree Snakes and Olive Pythons seen regularly during tours.

Dry season visitors to Cutta Cutta Caves

The caves are accessible by participating in a guided tour. An elevated walkway was built in the cave in the late 1980s to prevent further erosion and reduce the impact of tourism on the cave's fragile ecosystem. Cutta Cutta Cave is lit using a variety of lighting, including LEDs, and is powered by a solar panel grid. During the tour, visitors see a variety of cave formations, including stalactites, stalagmites, flow stones, shawls, straws and the cave is also home to spectacular calcite crystals which make many of the formations inside the cave glisten under torchlight.

Nitmiluk Tours works in conjunction with the Northern Territory Parks and Wildlife Service to help maintain and promote the important ecological and recreational assets within the Cutta Cutta Caves Nature Park.

Capricorn Caves has done it again!

The Queensland Tourism Award gold winner for the best tourist attraction goes to Capricorn Caves.

We are humbled to receive this award in loving memory of Ann Augusteyn who worked tirelessly on this submission before her recent passing.

It was a massive team effort and each and every team member played an important role, thank you.

This one is for you, Ann!

Margaret River

The Margaret River Busselton Tourism Association team has had great results in removing weeds across the Margaret River Caves Precinct. There was, however, a sizeable number spread out along wall of the doline thatwere just out of reach. So after a few phone calls and emails a plan was created .....

On Sunday 28 October 2018, the State Emergency Service, West Australian Speleological Group and Cavers Leeuwin joined forces in helping to remove arum lilies from the walls of the doline at Lake Cave, by abseiling the sides of the doline.

It was a great day with over 35 active participants joining in - so many, in fact, that a group from Cavers Leeuwin ventured off to Brides Cave to undertake the same task. All the weeds that were visible were removed with enough daylight for a couple of mock rescues.

All in all, the day was a great success, with thanks to all those involved - it will be an event we look forward to repeating.

Wellington Caves

I love a sunburnt country,
…….,
…….,
Of droughts and flooding rains,
(Dorothea Mackellar)
The Central West of NSW went from floods in the spring of 2016 to drought in just 2 years!

In 2016, the series of heavy rain events flooded towns such as Canowindra, Forbes, Dubbo and Wellington. At Wellington Caves, Gaden Cave which is often dry with a woodland above, became quite wet and it was not uncommon during that period to see frogs in the chambers. The Fossil and Phosphate Tour had a major mud slip which blocked the entry Adit, requiring a bobcat and several days labour to stabilise the area. Cathedral Cave had the 'Well' rise and completely flood the lower chamber. This flooding in the lower level of Cathedral Cave was for 9 days and even when the water subsided it remained off limits for a few weeks before the floor was safe enough for tours to visit again.

Fast track two years and the central west of NSW, in fact all of NSW, was in drought!

In September 2018, NSW was declared to be in drought. Wellington certainly was very dry and our Cathedral Cave 'Well' was a mere puddle in the shadows and not registering on the 5+m depth gauge. Our region then had above average rainfall for October 2018 and barren sheep paddocks quickly changed to tall grass. The region technically remained in drought but visually appeared to be lush. The 'Well' depth gauge rose to 1.8m.

UNSW has been conducting hydrological studies at Wellington Caves under the leadership of Prof Andy Baker. Drip monitors in Cathedral Cave have been strategically placed below speleothems, just under the surface at the upper chambers as well as just above the water table in a lower passage above the 'Well'.

This study has become part of an international hydrological study and Friedberg University in Germany have also assisted in adding soil moisture probes in open grassland and in woodland on Wellington Caves Reserve.

Wellington Caves Reserve now has:

- A weather station
- Drip data loggers under speleothems in Cathedral Cave
- Bore holes to access data from the ground water

This combines a very thorough analysis of the rain and its effect on soil moisture, through the limestone of Wellington Caves to the ground water and its changes to and from the Bell River. In fact, numerous papers are now being produced and Wellington Caves are being showcased around the world in these scientific circles.

Andy Baker also recently facilitated recent visits by Lucia Ojeda, who is an expert on cave climates, working on her PhD at Nerja Cave in Spain, and Wuhui Duan, a past climate/speleothem scientist from China.

Andreas Hartmann of Friedberg University also works alongside Andy Baker and together they were instrumental in planning the recent addition of soil moisture probes. Andreas is also the guest host for the American Geophysical Union Instagram page. Check out this link:

https://blogs.agu.org/waterunderground/2018/10/08/groundwater-and-drought/

UNSW also secured agricultural land for the base of a hydrological study beside the Macquarie River in Wellington and it has around 50 bore holes which enables the study in groundwater.

On Father's Day, 2 September 2018, Wellington Caves team member Tara Grasnick and her father, John Grasnick, took a walk behind their property on the Bell River a few kilometres downstream from the caves. The Bell River had become an intermittent stream way. There is limestone here on either side of the Bell River and no doubt water remained in the karst but at very low levels.

See also the companion article on the next page

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You have now gone past the pages for the Guides' School and the ACKMA Annual General Meeting in Naracoorte in May 2019.

Have you remembered to fill in your registration form yet??