

## **Bullita cave - Poster**

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### **Where is it:**

Bullita cave is located in Limestone Gorge of the Gregory River National Park, about 50 km south of Timber Creek in the Northern Territory.

### **When did the survey start:**

John Dunkley had communication with a friend who worked in the NT who said that the area looked promising. The ranger of the time, Keith Claymore had done a lot of research there and had found several caves and developed Australia's first 4wd track in a national park. This goes from Bullita homestead to Humbert River and has been featured in some 4wd magazines and newspapers.

In 1991, a group from CSS went on a trip to Gregory NP and found several caves. It wasn't until 1993 that the "Backyard" was found, but we now know that one of the caves we have since connected into was found in 1991. TESS's (Top End Speleo Society) cave was also found around that time.

### **Participants:**

Since 1992, we have had joint trips to Gregory NP with many other clubs. Clubs included have been:

NUCC, VSA, Mole Creek, ISS, CEGSA, WASG, TESS, and we have had international visitors as well. As there has been so much work to do, the joint trips have been invaluable. We have tried to organise the trip so that TESS members can join us, and so that the mapping efforts could be combined. This has been quite successful and given our groups an opportunity to help out with each others caves.

### **Surveying & Mapping:**

In 1991 and 1992, we mapped relatively small caves, so when the backyard was found in 1993, it was quite a surprise. In 1994, more of the backyard was surveyed, and in 1995 we linked into a cave that TESS had previously found. From there it was just a matter of working east and joining up with several other caves that had been mapped in previous years.

Bullita cave was 73 km long as of Jan 2001 (it is now over 87 km as of July 2002). Each year various connections are deliberately left as a carrot for the members joining on the trip in the next year.

Don Glasco produced the original maps which were very impressive. We input the data into Compass to process loop closures. There are now over 7000 points of data and each year the data files get bigger. Then the data was exported using ArcTools into ArcView to produce the maps. Since then, Bob Kershaw, Tony Veness, Veronica Schumann and myself have produced maps for use in the field for each successive trip.

Tony produced some fantastic A0 colour plots of the cave with digital terrain, drainage and even aerial photography superimposed (See Plate 1.). We were fortunate with the aerial photographs, which while quite old, were of the same scale as the topographic maps. We also have newer aerial photographs of the area, but they are at a different scale, and are not as detailed as the earlier ones, so were not as useful for field work, or for scanning for the mapping process.

### The Future:

In 2000, we mapped another significant cave, "SOCOG's", which was not too far from the southern extent of Bullita. If this could be connected to Bullita, then the length of the cave could exceed 80 km, but the connections were likely to be tight (This connection was in fact made in 2001).

One of the biggest challenges, however, is not surveying, but is the mapping. Many hundreds of hours have been devoted to inputting data into Compass, printing the line drawings and then drawing up the maps. This is a continuous job, and only increases each year as more cave is discovered.

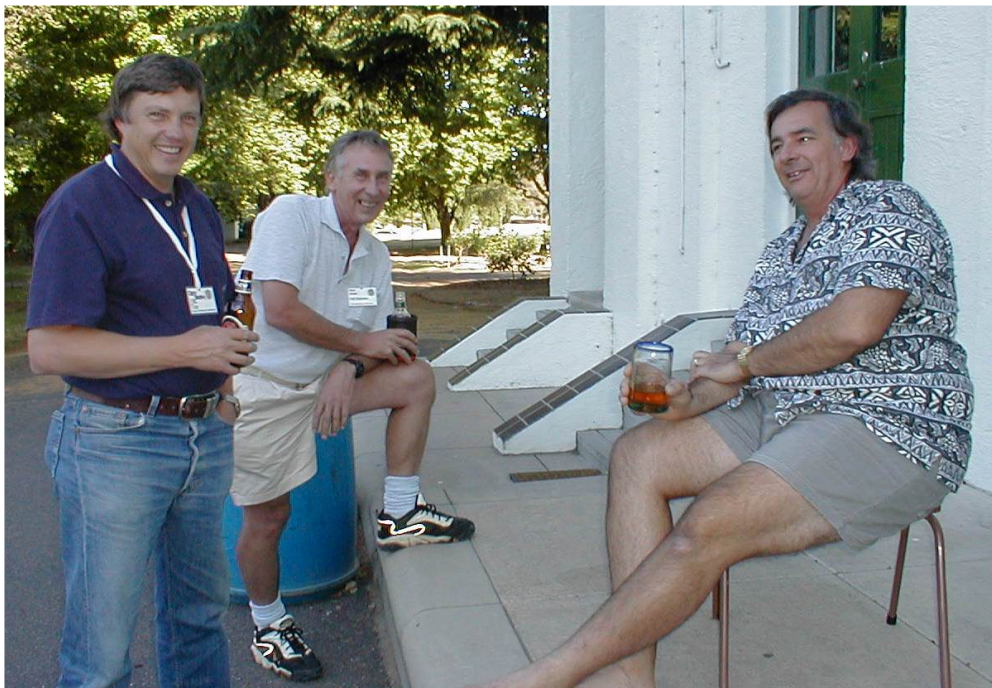
Access to Gregory National Park for mapping of caves is becoming more strict as the National Parks are producing their management plans for the area. The condition of our permits mean that we are required to supply them with our data for use with their own electronic maps.

There are still several more, smaller caves that can be connected to the main Bullita cave, plus there are many sections deep within the main cave that have not been surveyed because it can take so long to navigate to them. There are still many years work left in the area, and while it is open to debate, I would estimate that keen cavers could look at getting a total length of well over 100 km.

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Plate 1. Colour plot of the cave with digital terrain, drainage and aerial photography superimposed is shown in the CD-ROM version of these Proceedings



Chris Bradley, Noel Sands and Peter Berrill in Bathurst

Arthur Clarke