Karstcare - Cavers Looking after Caves and Karst: an update

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Introduction

Karstcare is a group of active cavers in Northern Tasmania who are interested in contributing to the management of caves in the Mole Creek Karst National Park. Each Karstcare participant is a member of Wildcare, which is the largest incorporated environmental group in Tasmania. Wildcare has existed since 1998 and is a community partner organization with the Tasmanian Conservation, Parks and Wildlife Service. Wildcare members work alongside staff of the Service.

Wildcare has its own insurance, regretfully an important necessity in current times. The insurance premium is paid by Wildcare to cover members who are undertaking any Wildcare-approved work. Working bees are either proposed by Parks staff themselves, or our own group may propose a project, subject to Parks approval. We work directly under the Parks Office at Mole Creek. Our structure is somewhat casual, with a President, who I prefer to call a coordinator, and various volunteers from caving clubs and cavers not aligned with a club. We have contributed about 1500 hours of "hands-on" work in the past 8 years.

The President's role is, in effect, the link between Parks and volunteers. This role is as a liaison with Parks staff to discuss projects, coordinate volunteers and equipment. The President also arranges all administration with Wildcare, such as working bee call-ups and activity notification and ensures proper registration of each volunteer for each activity, to ensure insurance cover. One of the most difficult tasks for the President is the raising of funding for projects. This can be from within the Wildcare organization itself, from various Government-based environmental bodies, or even from corporate bodies. Although most of our work is labour-based, funds are required for such things as cleaning equipment, ropes for access, track markers, and protective matting. Parks sometimes assists with some equipment but often volunteers provide their own.

Achievements to 2008

Kubla Khan Cave

Kubla is one of Australia's premier caves and is considered by many to be of world class standard. It is approximately 4.6km long, with outstanding speleothems and involves considerable vertical skills. Access is extremely restricted, involving a permit and supervision by an accredited leader.

Cavers' contribution to Kubla Khan's management started in the early 1990s with a proposal from Northern Caverneers Inc. Any caver who has visited this cave will have seen a great deal of evidence of our members' contributions. Initially sandbagging and boot washing stations were introduced to minimize mud tracking and erosion. Assistance was also given to Parks staff with gating and since then a huge amount of cleaning the main route has been on-going.

Just prior to the ASF conference in Tasmania in 2005, fixed rig points were installed and water was stored in a large children's swimming pool in preparation for a major cleaning project carried out by conference attendees, in return for the opportunity to do a 'through trip' of this magnificent cave. To date a total of 883 hours of work have been contributed to this cave since 2001.

Boot-washing stations are positioned throughout Kubla Khan Cave. If used properly, they are an effective method of limiting further mud tracking onto previously cleaned areas. These stations need periodic maintenance to remove accumulated mud and to replenish the water (sometimes from several hundred metres away). Some sections of the route have recently been re-marked to keep cavers to the cleaned areas, further limiting mud tracking.

Just recently the cleaning of the rock fall down to the huge stalagmite known as 'The Khan' (18 m high) was completed. We used an innovative method for this; instead of carting water in 20kg loads in backpack sprayers, and getting aching muscles from scrubbing and spraying, we rigged up a siphon hose of 120 m with a spray head. This resulted in much less impact on the cave and cavers, and enabled this project to be completed in about one-half of the estimated time.

Tailender Cave

We have carried out a line survey, instituted track marking and placed some advisory signage and stringlines on 'no-go' areas. We are also currently undertaking extensive cleaning and have installed two boot washing stations. This time, instead of siphoning we have installed a pump to get water up to the work site, as it would have been almost impossible to manhandle backpack sprayers from the water to the work site. We have also installed p-hanger-bolts on the pitch to enable safe climbing and we are gradually laying down tube matting over the cleaned surfaces. This has proved to be our most difficult project, as to get to the worksite, usually with a big load of matting and cleaning gear requires about 400m of crawling. Often our volunteers are semi-exhausted before they even start the work!

Assistance with water-tracing

Our group was able to assist with local knowledge in a National Heritage Trust (NHT) project involving the hydrology of the Mole Creek area, including the placement of charcoal collection bags to determine stream flows in a particular valley.

Weed reduction: Mersey Hill & Wet Cave Block

The Mersey Hill area was purchased by Parks some years ago and has ongoing problems with the weed Spanish Heath. As the land is just above the Mersey River, it was considered that there was a risk that this weed would spread to adjacent areas and downstream.

The Wet Cave Block also has problems with holly and sycamores. So far three working bees have contributed to the weed eradication on these blocks. The Wet Cave Block project is the first time we have been involved in cutting hundreds of trees down in a National Park. Painting poison on plants seems an unusual activity for cavers but we have managed to contribute a total of 186 hours to these surface projects.

Croesus Cave

Croesus is probably the second most spectacular cave in the Mole Creek area, with a spectacular flowstone feature named "Golden Stairs". On the top of these stairs is a big muddy pool, making it difficult not to track mud onto sections of the stairs. To improve this situation we built a rock walkway from surrounding rocks to prevent picking up mud and tracking it further. We also cleaned this area and a further 100 m upstream.

We have also worked on a little known upper-section of Croesus; string-lining, cleaning the route and carrying out a delicate job of cleaning a major speleothem that may have been used as target practice with mud balls some years ago. A minor job was also carried out protecting some calcareous sand formations near the entrance of Croesus.

Marakoopa Tourist Cave and Beyond

Some time ago we spent a day removing all 'non-cave' material possible from the tourist sections of Marakoopa Cave. Apart from minor public litter, many old electrical installations were still lying around, plus other old construction materials. In total, four large garbage bags were filled with rubbish. The most interesting find was a very old 'Milo-type' tin with candles and a few old-style light globes. Countless broken light globes were also removed. We have also installed some string-lines in the 'Fireplace section' and matting to limit floor damage.

More recently we had a visiting interstate group keen to do some Karstcare work, so we arranged for a challenging vertical job of removing ivy from the cliff-face entrance to Marakoopa Tourist Cave.

Off-reserve Projects

Opportunities exist outside Parks controlled areas to contribute to karst environments.

Our group spent 16 hours cleaning rubbish from the entrance to Harry Creek Cave in the Dogs Head Hill area; it seems caves and other holes in the ground are great places to dump rubbish!

In July 2008 we were approached to be involved in the re-wiring and re-lighting project of Gunns Plains Tourist cave. We were given a tight deadline to have the cave 'cleaned up' before the re-opening ceremony. This involved removal of old wiring, from sometimes quite 'hairy' places, cleaning up any tourist rubbish and ensuring the pathway was clean. The contractor was so impressed with our efforts that we received a substantial donation. Members have also been involved in the non-tourist section of Gunns Plains cave with cleaning and matting and on-going maintenance.

Baldocks Cave

Just recently we installed a second fauna sanctuary near an entrance that is no longer used. This involved string-lines, tape and advisory signage.

Plans For The Future

Some of our current projects like Tailender Cave will be on-going for some time. My personal plan for Kubla Khan is to have as much of the route through this cave cleaned as is possible, thereby assisting in the management of this cave for long term human impact. Boot washing stations always require maintenance and previously cleaned areas often need minor re-cleaning.

Shortly we propose to commence a project in Lynds Cave and Cyclops Cave and only just recently Parks have acquired several additional blocks of land within the Mole Creek area that contain significant caves which will require careful management. We expect Karstcare to be involved in this management at the earliest opportunity.

Many of our tasks in the future will involve assisting Parks staff in the more difficult areas. Our guiding principle is to undo previous damage done by cave visitors and assist in managing caves to minimize future damage. Much of our work is tough! It sometimes involves standing in water of 2ºC while scrubbing flowstone with a brush! Many of our sites are difficult to access, but then who better to work in a cave than those who 'naturally' feel comfortable in such an environment? Over the time that Karstcare has been in existence, over 1500 hours have been contributed to cave and karst management in our area. We believe that we have gained tremendous respect from Parks staff for both our expertise and determination to contribute to caves in an extremely positive way.

Lessons Learned

Designing, negotiating and funding underground environmental projects is a tremendous amount of work but is particularly rewarding. For every 10 hours spent on carrying out a project, about 2 hours are taken to 'make it happen'. Without a great band of volunteers, and our determination to contribute in a positive way, our local Parks staff could not possibly complete such environmental projects. Frankly it gives us a different reason to go caving. We'd like to think that the caves that we work in are always better off for having us be there!

We've learned things such as:

1. Natural rock is easier to clean than most flowstone.
2. Not all mud is from cavers.
3. Gravity can be your friend if you can harness it (siphoning).
4. Batteries and pumps can minimize impact on caves and cavers.
5. Collapsible backpack sprayers wear badly but are easier to transport.
6. Children's swimming pools make great water storage tanks.
7. Only stainless steel pegs can be used as string-line supports (not aluminum).
8. Laminated signage is best on waterproof paper, waterproof markers and a good surrounding sealed area.
9. Some work sites are harder to get to than the work required when you're there.

10. Even the most skeptical caver is surprised by what can be achieved with a scrubbing brush and a sprayer. Visiting cavers are usually quite willing to put in a few hours work in return for a great caving experience.

11. If you keep plugging away, Parks staff will eventually be positive about what cavers can contribute.

12. Cavers can influence management with regard to caves.

What Can You Do in Your Area?

It is important to involve speleologists/cavers in cave and karst management especially as they are often the people who have found the caves, surveyed and documented them. I feel we should not judge either past practices of cavers or cave managers using today's values. By using the expertise of cavers, managers can undo some past damage and institute management principles (such as track marking, boot washing stations) to limit future damage to caves. By cavers developing relationships with cave managers in a particular caving area, managers can make use of the cavers' local knowledge and expertise. Cavers usually welcome the opportunity to have an input into management decisions. We all care about caves, so with cavers and managers forming a partnership we can work together for the good of caves and karst.

References

Wools-Cobb, David, 2005. Karstcare: Cavers looking after Caves & Karst, *CaveMania 2005 Downunder at Dover, Proceedings of the 25th Biennial Conference of the Australian Speleological Federation Inc*: 29 - 31

Wildcare - Notes for Presidents <http://www.wildcaretas.org.au/>

Karstaway Konference Participants
Photo D. Carr