A FEW THOUGHTS ON SOME TASMANIAN ISSUES

- Rolan Eberhard

Karstcare volunteer David Butler cleans muddied flowstone at Tailender Cave, within the area covered by the Forestry-Parks Joint Protocol. Photo by D. Wools-Cobb.

Kevin Kiernan's article 'Can you achieve more inside or outside the system' (*ACKMA Journal* No. 50) gives Kevin's perspective on a range of karst issues in Tasmania. I don't share Kevin's perspective on some of these issues. Having said that I agree that much can be done to improve things, and that we need to be vigilant and vocal in response to bad policies and poor management. Readers can reach their own conclusions about specific issues, but shouldn't interpret this article as an attempt to provoke a debate on aspects of karst management in Tasmania.

Forest Practices

Having worked in forest practices for six years from 1990 onwards, I can attest to the high profile that karst has within the forest practices system. Generally, the system is effective in providing an adequate level of protection for karst values, but problems have emerged from time to time, as Kevin points out.

In the early 1990s a forest company in southern Tasmania was still gaily dozing logs and slash into sinkholes and springs and reaming out surface watercourses. Apparently this didn't contravene the Forest Practices Code because it was a plantation development and outside the scope of the Code at that time. More recently, Forestry built a road over a streamsink and subterranean watercourse at Riveaux in southern Tasmania. Some fairly mediocre site restoration works were done, but the road is still there and the creek in a nearby cave receives runoff that is still turbid two years later. The logged and burned sinkhole/lake in the Florentine Valley that Kevin illustrates is another example of the system falling down. And although Kevin states that the large sinkhole appears not to have been detected during pre-logging surveys, Chris Sharples who did the initial survey has advised me that he noted the existence of a potentially karstic area, which he described in his report as 'poorly drained swales... which may or may not be of karstic origin.' Chris recommended that the feature should be operated within only under dry conditions, and that any further sinkholes found should be left undisturbed with a 10 m buffer zone. There was no further investigation of karst issues and the operation went ahead. With better visibility once the trees had been removed, and with the advent of winter flows, it became obvious that things had gone pretty badly wrong. The fact that buffer zones around sinkholes that had been mapped by Chris, and other sinkholes that came to light during the operation, got burned and/or logged adds to the concern.

At Mole Creek a forest practices plan was approved by the Forest Practices Board for a property containing an extensive cave system that partly underlies an adjoining Crown reserve. This was despite the fact that in 1997, and previously, Kevin had recommended the block as a priority for reservation. Largely on the basis of Kevin's recommendation the Department of Primary Industries, Water & Environment (DPIWE) had sought and obtained a commitment from the State and Commonwealth to purchase the block if the owner was agreeable. A further worrisome feature was that the forest practices plan had been drawn up and approved prior to the preparation of a map of the cave.

This sinkhole collapsed suddenly beneath the tractor that ploughed this paddock in November 2001. There was no damage or injuries, although loss of stock down sinkholes and caves at Mole Creek is not unusual. The filling of sinkholes has been common practice. Photo by Ian Houshold

Native trees planted on private land along Howes Cave Creek, a major tributary to Kubla Khan Cave. This work was coordinated by DPIWE in 2002, with support from the Natural Heritage Trust.

Refuse dumped in a sinkhole in a Crown reserve at Mole Creek. Since this photo was taken in October 2002, the Parks and Wildlife Service have taken steps to address a range of problems at this site.

After Nathan Duhig (now Acting Senior Geomorphologist at FPB), Luke Vanzino and I surveyed the cave, the plan was amended to provide a minimal corridor of retained bush over the mapped passages. This seemed rather pointless, as the only reason I could see for retaining the bush was to protect the percolation water catchment above the cave. However, the bush strip was far too narrow to have any effect in this regard, except in the unlikely event that the structure of the dipping limestone beds had no effect on the passage of the descending water. The response also seemed to ignore the extremely plausible scenario that the cave continued beyond the rockfall blockage that marked the limit of the current cave map. Any discussion of the degree to which the cave was in fact vulnerable to a logging operation directly above it is hampered by a lack of quantitative data on how logging affects dripwater flows in Tasmanian caves. Nor does the Forest Practices Code provide clear guidance on this issue.

The forest practices system comprises various components of which the Forest Practices Code, industry-based forest practices officers who approve forest practices plans (ie. logging plans), specialists at the Forest Practices Board and the information sources on which decisions are made are particularly critical. Like any system, failure of one part compromises the working of the whole.

The Forest Practices Code contains numerous prescriptions concerning karst and caves, as well as measures for protection of watercourses, fauna, soils and other values relevant to karst systems. The Code could be strengthened on various fronts: it attaches particular significance to 'caves near the surface' without defining what this means and apparently ignoring other hydrogeological factors that may be more important in assessing logging effects; it recognises mapped caves while failing to acknowledge that significant caves may be unmapped and unexplored; and it contains no requirement for a detailed hydrogeological investigation or cave mapping program if a coupe is known or likely to be highly karstified.

Mapping of karst systems prior to logging is critical, as measures to protect karst systems are unlikely to be effective if there is inadequate data on the nature and location of relevant features. Until recently forestry planners were using a digital map of Tasmanian karst areas that contained many errors and inaccuracies – this is now in much better shape after being revised by Chris Sharples at the instigation of Ian Houshold of DPIWE's Nature Conservation Branch. But, at the level of individual coupes and roads, there is no surrogate for a systematic field-based assessment of what's there. This isn't mandatory under the Forest Practices Code but in my view it should be.

Tasmanian Regional Forest Agreement (RFA)

Kevin's states that 'geoconservation was effectively shut out of the Regional Forest Agreement process.' It is true that there was a fundamental impediment to pushing geoconservation issues (especially reservation of geo sites) through the RFA, this being the criteria for the creation of the so-called comprehensive, adequate and representative reserve system. The criteria were defined in terms of biodiversity, old growth forest and wilderness, and these values drove the selection of areas for reservation. It's no surprise then that geoconservation proponents felt pretty frustrated during the RFA. However, the RFA wasn't a dead loss from our point of view either. For example, the pre-RFA assessment process involved the preparation of a statewide database of sites of geoconservation significance.

This gate at the entrance to Tailender Cave was built in June 2003 as a combined effort between DPIWE, Parks and Forestry. The cave will continue to be available to ASF cavers; past use of the site by various groups is thought to have been a major factor in the extensive damage that has occurred within the cave.

Stargazer Chamber, Shooting Star Cave, Mole Creek. This cave, which was discovered in February 2001, is 245 m deep and over 2 km long. Cave management issues at this site are being considered in the context of the Forestry-Parks Joint Protocol. Photo: Ian Houshold

The Tasmanian Geoconservation Database as it is now known has been picked up by government agencies such as Parks, Forestry, Forest Practices Board and Mineral Resources Tasmania, and integrated into their management systems. The database is now managed by DPIWE with advice from an expert panel.

Although geoconservation values or karst weren't mentioned in the criteria for reservation, quite a bit of karst got reserved nonetheless. A comparison of the pre and post RFA reserve systems indicates a 23% increase in the level of reservation of karst in Tasmania (see table below).

About 70% of Tasmania's karst estate is currently reserved, mostly in Crown reserves managed by the Parks & Wildlife Service. This figure is based on a GIS analysis using karst maps from Kevin's 1995 report *An Atlas of Tasmanian Karst* (Tasmanian Forest Research Council Report No. 10), as updated in digital form by Chris Sharples in 2003.

Kevin classified karst areas into four categories depending on the known or likely degree of karstification. The presence of karst at some sites is yet to be confirmed and a more meaningful analysis would consider reservation levels of the different categories. However, the lumped analysis used here serves to illustrate the point – a fair bit of karst got reserved under the RFA.

The new reserves under the RFA take in some important areas of karst at Dismal Swamp, Mole Creek (Dogs Head Hill, Great Western Tiers), Mt Cripps, Vale of Belvoir and Hastings.

These sites and various other karst reserves under the RFA were allocated to reserve categories that are available for mineral exploration and mining under the *Nature Conservation Act 2002*, although some were exempted from the provisions of the *Mineral Resources Development Act 1995* (eg. Dismal Swamp).

It's also worth noting that some outstanding areas of karst remain unreserved, including karst on Crown land that arguably should have been dealt with under the RFA. Nevertheless, it's fair to say that the RFA delivered some important gains for karst conservation in Tasmania, even if this was mostly incidental to decisions directed at other outcomes.

The RFA also allocated money for the protection by purchase or covenant of private land containing rare forest types, with some provision for inclusion of karst values where they occur in association with forest values.

This program, which is still underway, has purchased or covenanted karst properties at Mole Creek (Mersey Hill Cave), Loongana (Mostyn Hardy Cave), Seventeen Mile Plain (Montagu caves) and Gunns Plains (Kettle Pot, Werona Cave).

Table: Pre and Post RFA Reservation Levels for Karst in Tasmania

	Pre RFA area	Post RFA area	Difference
Forest Reserves	1 346 ha	14 635 ha	+13 289 ha
MDC Protection Zones*	10 863 ha	9 683 ha	-1 180 ha
Parks & Wildlife Reserves	123 020 ha	17 7671 ha	+54 651 ha
Totals	135 229 ha	20 1989 ha	+66 760 ha

* MDC Protection Zones are State forest that has been zoned to exclude logging. This is an administrative form of reservation and cannot be considered secure.

Mt Field National Park Plan

Kevin tells us that 'the Tasmania Resource Planning & Development Commission (RPDC) has actually required that Parks do karst management planning as part of its plan for the Mt Field National Park…' The implication is that without a shove from RPDC, Parks would have dodged its responsibility to manage karst at Mt Field. This is not what occurred. The draft plan contained a karst section with policies and actions for management, the first being that Parks would develop a cave and karst strategy for the park. This measure was included because karst was seen as warranting a separate and more detailed planning process, particularly due to the cross-tenure nature of the karst catchment (some significant parts of the karst system are located in adjoining State forest). RPDC endorsed this proposal, which the final plan states must be completed within two years, and made 13 other recommendations on caves and karst.

A further view of Stargazer Chamber, Shooting Star Cave, Mole Creek. Photo: Ian Houshold

While many of these other recommendations were concerned with road access to caves and the wording of contextual information in the plan, recommendations 5 and 8 state that policies and actions concerning cave monitoring, consultation with cave users, cave gating, cave cleaning and the erection of a sign on the Growling Swallet track, should be dropped from the plan, evidently in response to pressure from caving groups. Thus, it would be misleading to suggest that Parks was dragged kicking and screaming down the karst management path by RPDC, which supported some karst prescriptions originally proposed by Parks while recommending that selected karst management actions be removed from the plan.

Mole Creek Karst National Park Management Plan

In relation to the RPDC review of the submissions on the Mole Creek Karst National Park draft plan, Kevin informs us that on this occasion RPDC gave Parks an 'effective carte blanche' to proceed on the basis of 'an atrocious draft management plan.' While the RPDC review could be interpreted as vindicating the general thrust of the management plan, certain RPDC recommendations if adopted would imply significant changes to the plan and Parks policy generally (the plan is yet to be finalised).

I refer here to recommendations concerning management of restricted access caves (gated caves available to ASF cavers under permit), cross-tenure caves, caves in private land (strictly speaking these are outside the scope of the plan) and the appropriate future tenure of the Lynds Cave-Croesus Cave catchment. Anyone interested in RPDC's contribution should read the original report (www.rpdc.tas.gov.au). Certainly, RPDC didn't support those who advocated scrapping the plan, but neither did they give Parks a blank cheque to pursue its karst management program at Mole Creek.

RPDC recommendation 6 stated that Parks and Forestry should investigate the creation of a forest reserve to cover State forest parts of the Lynds Cave-Croesus Cave catchment. The recommendation further indicated that the reserve should be managed by Forestry under a plan prepared under the Parks Act (in fact this isn't possible unless the forest reserve is in the World Heritage Area).

Although it was frustrating to see that RPDC didn't argue for National Park status, at least they endorsed the position stated in the draft plan – that the area should formally protected. This was surprising as there had been considerable pressure to delete relevant policies in the plan. This escapes comment from Kevin, although he alerts us that Forestry had persistently ignored recommendations by him and others that this catchment should be reserved. He notes that in 1990 Forestry commissioned Ernie Holland and Andy Spate to undertake a management study of Croesus Cave, but 'then ignored that too'.

This statement is correct insofar as it relates to the consultants' recommendations concerning reserve boundaries, which favoured reservation of part of the catchment while arguing that the division of administrative responsibility 'should be resolved in favour of one organisation or the other'. However, it should be noted that Forestry and/or Parks have implemented various other recommendations made by Holland and Spate.

These include the installation of gates at the two upstream entrances of Croesus Cave, measures concerning administration of the permit system, provision of a water-level bypass to the Golden Stairway (removed after a trial period indicated this created new impacts) and discussion of joint approaches to management of the catchment.

Joint Protocol

The possibility raised by Holland and Spate that Forestry and Parks should consider joint management of the Croesus-Lynds catchment languished until 1999. At this time DPIWE's Nature Conservation Branch initiated a series of meetings with the Forestry to discuss future management of this area. At these discussions Forestry was clear that it would not budge on the proposal to extend the National Park at the expense of State forest. I'm convinced the door hasn't closed in this regard, provided a certain respectful interval is observed while the RFA is still warm so to speak.

More recent discussions with Forestry suggest that their initial emphatic refusal has softened in the light of discoveries such as Shooting Star Cave (see below), although we still have some way to go. Meanwhile, sites like the very attractive Tailender Cave, a less well-known stream system that parallels Croesus Cave entirely in State forest, was

suffering badly from a lack of management. An inspection of the cave by Parks, Forestry and DPIWE staff confirmed reports from cavers that Tailender Cave had become seriously degraded.

In this context the option of Parks and Forestry adopting a collaborative approach to management with the principal objective of protecting the karst system (both agencies accept this is a priority), had obvious merit. Certainly, it was preferable to the status quo – lack of management with attendant cave degradation.

The set of procedures forming the agreement, known as the joint protocol, was finalised in July 2000. It is now written into the respective management plans of Parks and Forestry (the Park draft plan and joint protocol are available at www.parks.tas.gov.au). Since the joint protocol was agreed, Tailender Cave has been gated and access to the cave will be managed by Parks through its existing cave permit system.

The Mole Creek Karstcare Group – caver volunteers working under the Parks Wildcare program – have undertaken track marking and cave cleaning at Tailender Cave. Shooting Star Cave, a cave I found within the State forest portion of the joint protocol area in February 2002, was gated as a joint initiative by Parks, Forestry and DPIWE later that year.

This extensive, highly decorated and essentially pristine cave is very susceptible to visitor damage. Forestry has agreed to a study to determine appropriate future management of the site. In the light of these developments Kevin's rebuke that the joint protocol is 'just another manifestation of content free management' is plain wrong.

The fact is that visitor impacts are a far more immediate threat to the majority of caves than the old bogey of limestone quarrying, or logging for that matter. While the forest practices system generally constrains impacts to karst systems during forest operations, management of visitor impacts in caves in State forest is a gap that Forestry needs to address.

It has big responsibilities in this regard at Mole Creek, Junee-Florentine (witness Welcome Stranger Cave) and Riveaux. So lets not shoot the messenger just yet. The joint protocol isn't the end of the story and without the sorts of measures it prescribes there may be bugger all reason to bother reserving caves like Tailender and Shooting Star a few years down the track.

Looking Ahead

A land purchase program by DPIWE has successfully negotiated transfer to the Crown of some privately owned karst land at Mole Creek and Gunns Plains. The State government and Meander Valley Council have agreed to formalise a karst strategy to deal with a range of cross tenure karst issues. These are promising developments, but they have been pursued in an atmosphere of resentment and suspicion of government that has been simmering away in parts of the community at Mole Creek for some time. The tension that exists is fed by a plethora of perceived injustices, of which concerns over access to water (the 'Nine Foot' issue), constraints on logging on karst under the forest practices system, refusal of private timber reserves and a sense that the government was making a land grab for farms while failing to offer a fair price for the karst, are recurring complaints.

Privately owned caves including such icons as Cow Cave, Herberts Pot and Wet Cave-Georgies Hall have been closed by the owners. A rumour exists that a man carrying a gun prowls the walking track to Westmorland Falls, which passes Westmorland Cave and the site of the 'Nine Foot' stream diversion. Threats have been made to tip drums of toxic material into a creek that drains to Kubla Khan Cave.

A landowner recently announced to *The Examiner* newspaper (9/4/2003) that he had dozed in a sinkhole, apparently to draw attention to claims of unfair treatment at the hands of the government. The same paper reported that the Minister for DPIWE had denied an apparently serious suggestion from the Opposition Leader that bureaucrats from his department had been posing as bird watchers to gain access to properties in the area.

In response to these issues the State government has announced that the Legislative Council's Joint standing Committee on Environment, Resources and Development will hold an inquiry into conservation on private land. The profile of karst at Mole Creek has never been higher. Sadly, this heated political environment may not necessarily be conducive to good environmental outcomes.

Decoration in Stargazer Chamber,
Shooting Star Cave, Mole Creek.