



## Australian Speleological Federation Inc.

Registered as an Environmental Organisation by the Department of Environment and Heritage, Canberra

The Secretary,  
Senate Environment, Communications Information Technology and the Arts References Committee  
Parliament House,  
CANBERRA ACT 2600

28 February 2006  
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### **Inquiry into Australia's national parks, conservation reserves and marine protected areas**

The Australian Speleological Federation Inc (ASF) is a Federation of clubs and societies interested in the study of caves and karst (speleology). It is the Australian representative on the IUCN linked International Union of Speleology, and is an environmental organization with a recognised Environmental Gift Fund under the auspices of the Department of Environment and Heritage. ASF believes that funding and resourcing for parks and reserves across all States and Territories is inadequate to fulfil the objectives and management requirements for the reserves administered.

Caves are formed where there are soluble rocks. Limestone is the most common soluble rock and most of the world's caves occur in limestone. Caves may also be formed in other rocks and the best example of these are volcanic caves and vents, several examples in Australia are those at Undara, Qld and in the Victorian Western District. Those at Undara are in a National Park whilst some of the lava caves and vents are in National Parks or other Reserves.

Despite limited study, often by our members, it is evident that the heritage significance of much of Australia's karst is very high. ASF members have documented what is known of the karst and pseudokarst estate. However, support by Government agencies both State and Federal for these investigations of this important and vulnerable estate in the protected areas is poor. Members of ASF have a strong interest in the better management of Australia's karst resources and often volunteer their time and expertise in documenting and surveying caves and their contents for government agencies.

Karst is a complex phenomenon and the variation exhibited in the study of caves, namely the geological diversity is important. In recent years this has been neglected in both legislative mechanisms and by managers in favour of a biased concentration on biodiversity! Both managers and legislators could profitably expend more energy on protecting and managing for geological and earth science components of the lands they manage as well as for biodiversity. This would involve employing earth science professionals at all levels of the management agencies. This would significantly improve land management practices and the interpretation and education facilities offered to the public by land managers. The relative geoscience ignorance compared to bioscience, in most Australian land management agencies is extremely serious.

Caves are particularly vulnerable to disturbance whether it is from human visitors or due to surface management. It is for these reasons that a “total catchment management” type of approach is necessary for cave and karst management. It is also why sustainability is such an important concept and underlying objective of all public land management agencies. In many instances “cave reserves” often have inadequate boundaries because they were gazetted at a time when the underground flows of the water, which formed the caves, were not understood. An example where Federal money and processes were invaluable was the provision of acquisition funds for the Naracoorte Caves World Heritage Area. These funds were used to acquire extra land under which the caves extended. These funds ensured the integrity of the cave fossil deposits that formed the basis of the World Heritage nomination.

ASF members have developed two important codes governing caving practice: the **Code of Ethics and Conservation** and the **Minimum Impact Caving Code**. These are available of the ASF website [www.caves.org.au](http://www.caves.org.au). They have been adopted by many Park and Reserve Managers in Management Plans.

In this submission, we detail serious shortcomings of management capacity, and resourcing problems in some States, however, this question of resourcing is a problem in all States and Territories. We also note that Federal leadership in the World Heritage Area could result in initiatives for an interstate agreement to nominate the Nullarbor for World Heritage listing which is overdue.

We observe that Federal EIS requirements have been imposed for an extension of mining on Christmas Island which if allowed to occur will inevitably affect the National Park and cave and karst values on the Island as well as endanger various species. A similar development associated with oil and gas is also proposed for Barrow Island, WA which we suspect will affect the karst, its associated stygofauna and other endangered species.

The other important corollary to Federal and State interactions is the question of tourism facilities and quality of Park Management across Australia. Visitor numbers to Parks are a reflection of the quality of advertising rather than management. For some years now we believe that Park management and resourcing has been marking time or going backwards. This is particularly true of cave and karst area management across Australia.

We should say that our interests do not include marine protected areas except to say we fully support protection of such areas and suggest that the creation of more of these will ultimately result in more sustainable commercial fisheries as well as ensuring the protection of biodiversity.

Please refer to more detailed comments directly addressing the Terms of Reference in the attachment.

Yours sincerely



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If further information is required between 6/3/06 and 6/4/06 then please refer other Executive members via [www.caves.org.au](http://www.caves.org.au)

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In many instances cave reserves were designated up to 150 years ago. Very few of them encompassed adequate boundaries to protect either the caves or the cave biota adequately. There are many instances where judicious acquisition has materially improved the quality and protection of caves. Federal funds have been used in recent years to very good effect to add to Naracoorte Caves National Park (World Heritage Area), South Australia and the Mole Creek Karst National Park, Tasmania. Such Federal assistance to States for purposes such acquisitions can considerably assist the States with national significant objectives whether karst, cave or biodiversity objectives such as to support EPBC Act (1999).

### **a. the values and objectives of Australia's national parks, other conservation reserves and marine protected areas;**

In Australia with its States and Territories, legislation is different for each. The values and objectives are not in question: it is whether management is guided by them and perhaps whether they truly reflect modern objectives which embrace habitat and ecosystems approaches which protect all biota. Whilst biodiversity values are important we believe they have been over emphasised resulting in a distortion of the geological values upon which the parks and reserves were originally gazetted.

### **b. whether governments are providing sufficient resources to meet those objectives and their management requirements;**

Most protected areas containing karst and caves in Australia are under resourced both in dollars or staffing, which is not only inadequate but seriously under skilled. In all States and Territories the Governments struggle to provide sufficient resources to fulfill the objectives of the Acts they administer. Land management agencies especially with respect to Parks and Reserves are saving money on staffing, resourcing and infrastructure to the extent of being remiss in administering the lands they control.

In Victoria, resourcing of Parks Victoria has not kept up with the increased number of Parks and Reserves resulting in a very much larger area to manage. This is to the detriment of the Parks management as there are insufficient staff available. Although only one or two such Parks are for caves per se and managed for caves or karst values, karst and caves in other Parks and Reserves tend to be very secondary components of the managed areas and are often ignored in the competition for scarce resources (biota, fire, weeds and feral animals)! With respect to caves and karst, Parks Victoria also suffers from staff which are underskilled in cave and karst matters. None of the Victorian cave and karst Parks or Reserves have adequate Management Plans.

NSW has increased the area of conservation managed lands in National Parks. The increase in size of area managed has often been coupled with a push to decrease management staff numbers, resulting in infrequent management attention to problems.

In Western Australia several of the key karst areas in the State have long expired management plans. Given the huge amount of time it has taken for these key documents to be updated, it is clearly obvious that the CALM does not have the sufficient resources in its planning section to undertake what is required to meet the objectives and management requirements. Over the past 2 year period, despite several speleological consultation meetings with CALM regarding these areas, there are still no draft management plans released for two of the critical areas. **The Leeuwin-**

**Naturaliste National Park Plan** is dated 1989-1999 has not been finalised or renewed and is now 7 years out of date. The **Yanchep National Park Management Plan** is now 7 years out of date and needs considerable revising. The Yanchep National Park seriously needs a specific “cave manager” as a matter of priority. There is a need for an integrated approach to management in the area. Yanchep National Park has had several key staff leave in the last 2 years, none of these individuals have been replaced and many of the vacant positions are being undertaken by individuals already undertaking other functions/roles. In particular the employee in the key role of Conservation Ranger was not replaced and as such the Threatened Ecological Community has received little focus or ongoing monitoring as should have occurred. There are several Threatened Species and a “Threatened Ecological Community” in the Yanchep National Park. A recovery plan is in place but this has deficiencies not the least of which is inadequate resourcing with staff possessing the expertise and support to achieve a favourable outcome. **Will this be one of the first such communities to become extinct? It is Federal legislative protection invoked here (EPBC Act 1999).** The **Cape Range National Park Management Plan, WA** is dated 1987-1997 and has been in the process of review for some time. This is now 9 years out of date and was recently released for public comment until April 2006. **The Nullarbor Region is within the South Coast Management Plan** and there appears to be no progress on reviewing the plan, dated 1992-2002.

The last review of nature conservation reserves in the **Kimberley Region, WA** was in 1991. Humphreys (1995) outlines some of the recommendations that were made for the karst areas of the Kimberley, and referred to a submission made by the ASF in 1980. It is still considered that **the caves and karst of the West Kimberley are of considerable international significance.** The area’s current land management regime does not adequately provide for the reservation and protection of important karst features, nor does it recognise outstanding opportunities to incorporate into existing reserves, features that would considerably enhance the value of those reserves. Point 1.8 of the ASF submission (Davey 1980) recommended that “there be a thorough integrated survey of all the cave and karst features of the Limestone Ranges of the West Kimberley and that such a survey should examine geomorphological and biological attributes as well as aboriginal relicts”. It is understood that at that time, it was recommended that the WA Museum be requested to make a survey of the caves and springs for the limestone ranges. Humphreys (1995) outlined that this survey has never been conducted. It is our recommendation that the current status of the karst areas in the Kimberley needs progressing and resources need allocation to this.

**c. any threats to the objectives and management of our national parks, other conservation reserves and marine protected areas;**

There are many threats to the objectives and management of cave and karst in National Parks and Reserves. Some examples are:

In Victoria, management neglect despite representations is seriously compromising Loch Ard Gorge in Port Campbell National Park where there are extensive and disgraceful areas of graffiti on the walls of the Gorge and in the caves off the Gorge (White 2002). This Park is one of Victoria’s iconic tourist attractions with pictures appearing in both domestic and international tourist promotion literature. The responsible agency Parks Victoria should be castigated for not being able to set priorities and identify the things that matter. Victoria is the loser! In addition, the interpretation information and signage is poor and dated and typical of that in other parks across the Victorian Park Estate.

**In WA, in the Leeuwin Naturaliste National Park (LNNP)** there are four “Aquatic Root Mat Community in Caves of the Leeuwin Naturaliste Ridge”. These are a “Threatened Ecological Community” (TEC) that are listed under the EPBC Act (1999) as endangered. A recovery plan is in place and CALM has a specialist recovery team that meets to address issues. There was a recent proposal on land adjacent to the LNNP that could be classified as a threat. Despite the existence of the TEC in the LNNP, we are advised that CALM did not have sufficient resources to provide

appropriate written advice when requested by the Shire of Augusta Margaret River during 2005. It also appears that verbal advice about the TEC was received too late in the process for the Shire to include the existence of the TEC in the planning process. As a result of this, and a combination of other Environmental Agencies lack of awareness of the TEC, the Shire approved a proposal for a “blue gum” Eucalyptus Plantation directly adjacent to the LNNP and in an area likely to provide a threat to the TEC. Due to a combination of factors, the proposal is now not likely to proceed, however the issues of the need for thorough interagency consultation and communication, including communication with speleological groups, remain as necessary to ensure the objectives and management of the State's National Parks is appropriate and reflects their State and Federal obligations. The excuse that there is insufficient staff time for such work indicates serious under resourcing.

**In WA, in Yanchep National Park** the “Aquatic Root Mat Community in Caves of the Swan Coastal Plain” is a listed species under the Federal EPBC Act. This is listed as a “Threatened Ecological Community” that is endangered. A recovery plan is in place and CALM has a specialist recovery team that meets to address issues. The main concern is the situation for the cave fauna in the stream caves. Further to what was reported previously, the CALM, Water Corporation and Waters and Rivers Commission have been artificially maintaining water to certain areas in attempts to maintain the subterranean stygofauna habitats. The Government project to direct artificial supplementation to the cave stream in the Crystal Cave lasted only several weeks and the water has been switched off due to concerns regarding oxidised irons in the karst system. It is our understanding that there is no longer any living stygofauna in this cave or in the Root Matt communities in this cave. It is still our opinion that the key threat to this area is the existence of pine plantations in the catchment of these caves – where the pine trees are reducing recharge to the superficial aquifers, and are removing water from the aquifer, thus contributing to the lowering of the Gngangara Mound (the watertable). The Government needs to hasten their plans to reduce the Pine Tree Plantations in the east. We reiterate that this should be a priority as the catchment to the east is significant to the karst hydrology.

**In WA, in the Cape Range National Park** the Cape Range in its entirety is not in the National Park but protection of the cave biota and stygofauna of the Park can only be insured if the whole hydrological system is protected. The key threat to the National Park would be if mining on the rest of the Cape were to change the hydrological regime. This would affect the karst hydrological system and subterranean fauna. It is important that the National Park boundaries be extended to include the rest of the Cape and that the Mining Reserve be removed.

**In WA, on the Nullarbor, there are areas of Unreserved Crown Land and several conservation reserves.** The Nullarbor is a large, significant karst area, where visitation impacts on the karst system are difficult to assess. It is clear to many speleologists that the Nullarbor is an area that desperately needs appropriate management. There is still no “on-ground” management of the caves and karst, and as such, there is no monitoring of impacts or conditions. The other issue of importance regarding the Nullarbor Plain is that it has to be one of the most iconic areas of Australia. Its cave and karst values are superlative on a world scale. The caves contain bone assemblages from recent to past eras and cave biota much of which is cave adapted (troglobitic) and unique to caves on the Nullarbor. There are important cultural values of both indigenous and white history. **The Nullarbor deserves World Heritage listing and this should be facilitated by Federal agencies in cooperation with both the South Australian and Western Australian Governments.**

**d. the responsibilities of governments with regard to the creation and management of national parks, other conservation reserves and marine protected areas, with particular reference to long-term plans; and**

Some of the comments about the Victorian Park Planning Model made below about Plans and Resource Inventory are relevant to other State Park Services.

Despite the existence of management plans for all Parks and some Reserves in Victoria, the plan model is one of obfuscation. Plans are confused with Resource Inventory and only use prescriptive planning provisions so that accountability is almost impossible to determine. It discredits the Parks Service and the Government at a time when so many other areas of Government are now much more accountable and demonstrably so. Other methods of planning exist and if the Resource Inventory was separated and the plans were strategic and included both staff and budgetary resourcing Park Management would be more effective. The Plans often have out of date material and data and when Parks Victoria staff are provided with the up to date material Parks Victoria is unable to incorporate it or reflect the new material in plans or in appropriate management changes.

**National Park agencies are seriously due for auditing and not just of budgetary expenditures. Serious accountability auditing against the requirements of the Acts they administer is required. Such auditing could be recommended for each State to conduct or alternatively a comparative audit could be conducted by Federal agencies. This is an urgent need.**

**e. the record of governments with regard to the creation and management of national parks, other conservation reserves and marine protected areas.**

Most States have significantly increased the size and number of protected areas in the last 20-30 years. Many cave and karst areas have been included in these new parks and conservation reserves.

For a number of reasons related to conflicts of interests in the past many of the early reservations of cave and karst areas were only protected as minimal areas. The conflicts were alternative uses such as mining, forestry and agriculture. Only a few of these early reserves have been increased in size and most have not had their status improved from reserve to National Park which would properly reflect their importance to science or the economies of local and regional communities.

**In conclusion**, one can only conclude that most agencies are under resourced, under skilled and in some instances narrow-minded and have a poor record in managing the cave and karst estate in their care.

## **References**

Davey, A. (1980). The Kimberley Karst. Excerpt from "The Conservation of the West Kimberley Karst" by Adrian Davey in *The Western Caver* 20 (2) pp 35 –48.

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White, Nicholas (2002) *Management of Graffiti, Loch Ard Gorge, Port Campbell National Park, Victoria* ACKMA Journal No. 48 September 2002 pp 27-28.



