

Seventeenth Australasian Conference on Cave and Karst Management

**Buchan Caves, Victoria, Australia
29 April to 5 May 2007**



CONFERENCE HANDBOOK

CONFERENCE CONVENOR:

Dale Calnin, Ranger-in-Charge, Buchan Caves

Handbook prepared by:
Kent Henderson,
ACKMA Publications Officer

Conference supported by:
Parks Victoria

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29 April to 5 May 2007

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Kent Henderson, Publications Officer, ACKMA Inc.

Cover Photo: Frank Moon (top) guiding the then Governor of Victoria, Sir Reginald Talbot (second from the top), on a tour of Fairy Cave, Buchan (1908).

Map acknowledgements:

Ken Grimes (maps on pages 20 & 34)
Dave Smith (map on page 77)
Other Maps – courtesy of *Parks Victoria*

INNOVATION GIPPSLAND – MAKING GOOD IDEAS HAPPEN IN 2007

The Gippsland Innovation Festival has been the largest regional innovation festival in Australia for a number of years. This is a direct reflection on our region's capacity to come up with new ideas and make them happen. 'Necessity is the mother of Invention' rings true for many Gippslanders who have lived and worked in many beautiful but isolated parts of the region. In this new age of information and communications technology, we are all a lot closer to each other than we used to be. Innovation Gippsland showcases the passion and intellectual capacity of a region that is not content to rely on its abundant natural resources. Innovation Gippsland is about sharing success, letting people know what is happening in our great region, and encouraging business, community and government to make Gippsland an even better place to live, work and do business.

Conference Organising Committee – ACKMA 2007

Dale Calnin (Convenor)

Steve Bourne, President, ACKMA Inc.; Fellow – ACKMA Inc.
Professor Elery Hamilton-Smith, AM, Life Member – ACKMA Inc.
Kent Henderson, Publications Officer, ACKMA Inc.; Life Member – ACKMA Inc.
Andy Spate, International Relations Officer, ACKMA Inc.; Life Member – ACKMA Inc.
Nicholas White, Fellow – ACKMA Inc.
Miles Pierce
Dr. Susan White

John Senior
(*Parks Victoria*)
Allison Marion
(*Parks Victoria* – Conference Organiser & Committee Secretary)

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WELCOME TO THE CONFERENCE

A very warm Victorian welcome to all delegates to the 17th Australasian Conference on Cave and Karst Management, organised by the Australasian Cave and Karst Management Association (ACKMA) Incorporated.

The conference is hosted by *Parks Victoria* and the small country township of Buchan located in East Gippsland, Victoria. For many of our delegates this will be your first visit to this part of Australia so the following information is provided as an introduction to Buchan and the East Gippsland area.

Buchan is one of the Victorian's oldest European settlements dating back to 1838 when early white settlers ventured here in search of grazing land. It is nestled between the foothills of the Alpine and Snowy River National Park (Australian Alps) and the 90 mile beach and is best known for its beautiful limestone caves, spectacular high country scenery, river gorges, tall forests, rainforest and dry rain shadow woodlands.

Within the small township of Buchan lies the Buchan Caves Reserve which has been in operation since the early 1900's and is significant for its geological, cultural heritage, environmental and landscape values.

The story of Buchan Caves first began with the discovery of Fairy Cave on the 18th March 1907 by Frank Moon. He was an incredible enthusiast and such a salesman he helped lay the foundation of the Buchan Caves Reserve and indeed put Buchan on the map as a tourist site. This year marks the centenary of the Fairy Cave and although this event was celebrated earlier by the local community, celebrations to mark this occasion and the role that Frank Moon played at Buchan Caves will carry over into our conference week.

The first white person to visit Royal Cave (1910) and Federal Cave (1915) was Fredrick Wilson who after many years experience at Jenolan was appointed to manage the caves at Buchan and set them for public viewing. He erected wire netting fences and handrails throughout both Fairy and Royal caves. He helped preserve the caves at Buchan that otherwise would have suffered at the hands of early vandalism.

A lot is owed to Fredrick Wilson for his wonderful workmanship and recognition of his contribution will also be celebrated.

Visitors to the caves soon learn that the reserve is as equally beautiful above the ground as it is below. Much of the charm and character of the reserve today can be contributed to the original landscape plan designed by government botanist Hugh Linaker. The Reserve is now admired and valued for the impressive collection of beautiful exotic trees that provide a stunning array of colour in autumn.

Since the work of our early pioneers the Buchan Caves Reserve has become one of Victoria's major tourist destinations. It consists of 260 hectares and is part of an extensive karst area containing hundreds of caves.

Buchan is a special place, of which we are very proud. It provides a wonderful example of Indigenous and European cultural heritage – which is central to the 17th ACKMA conference theme.

Thank you for making the effort to attend our conference. We hope you enjoy your time spent with us.

Dale Calnin
Conference Convenor



Kent Henderson (left) with Dale Calnin

GENERAL INFORMATION

CLIMATE

The climate for Buchan in late April early May should be mild/moderate during the day (around low 20s) and cool at night with the possibility of light frosts.

SHOPPING

The township of Buchan has very limited shopping facilities. The closest main shopping towns are Lakes Entrance (45 minute drive) or Bairnsdale (60 minute drive) with all major banking facilities available.

- **The Buchan Caves Reserve.** The Visitor Centre has EFTPOS facilities (no cash withdrawals) available together with an impressive range souvenir/clothing items.
- **Buchan General/Post Office.** It has with a limited range of basic grocery items available. The Post Office has **Giro Post** facilities for some banks, where you are able to withdraw cash. Open Monday to Friday only. Closes at 5.00pm.
- **Buchan Valley Roadhouse.** Fuel, newspapers and take away food are available seven days a week until 5.00pm.
- **Caves Main Street Cafe.** Open seven days for breakfast, morning and afternoon teas and lunch. Evening meals by appointment. Carla also runs a craft shop.
- **Black Marble Hut.** Craft shop open seven days per week.
- **Caves Hotel.** Business hours will adjust to suit ACKMA needs.

MEDICAL

Buchan has a Bush Nursing Centre, with a nurse manager in charge. Open Monday to Friday 8:30 am to 5:00 pm and Saturday 8:30 am to 12:30 pm.

The nearest public hospital is Bairnsdale, which also has medical clinics and chemists. Lakes Entrance also has a Medical Centre and Chemist facilities.

POWER SUPPLY: 240 volt, 50 Hz, 3 pin plug.

CONTACT NUMBERS

- Mobile phones on the CDMA network will work at some places in the Buchan Valley.
- There are two public phones. One is located in the main street of the town and the other in the Buchan Caves Reserve.
- Internet facilities will be available within certain hours during the day at the Buchan Caves Reserve.
- For all emergencies, Police, Fire or Ambulance - Dial "000"
- **Bush Nursing Centre** (03) 51 559 222
- **Buchan Police Station** (03) 51 559 268
- **Buchan Caves Reserve** (03) 51 621 900
- **Dale Calnin** 0427 832 471



The Conference Organising Committee. Left to Right – Dale Calnin, Elery Hamilton-Smith, Miles Pierce, Kent Henderson, Dr. Susan White, Nicholas White, Allison Marion and John Senior.

ACKNOWLEDGEMENTS

So much work, particularly over the past two years, has gone into to planning the 17th Australasian Conference on Cave and Karst Management (ACKMA 2007) at Buchan.

As Conference Convenor I have been overwhelmed by the support and assistance given to me during this time and for that I would thank the following people and organisations.

- Firstly, the Conference Organising Committee comprising Kent Henderson, Andy Spate, Prof. Elery Hamilton Smith, Dr. Susan White, Nicholas White, Miles Pierce, and Steve Bourne for their valuable time and input. To Kent and Andy particularly for the tireless work behind the scenes and their invaluable assistance and guidance throughout.
- To my colleagues in *Parks Victoria* – Allison Marion, Leanne Hodge, Matt Holland, Scotty Graham, Dave Harper, Gail Wright, Carole Young, Robyn Calnin, Dennis Matthews, John Senior, Dennis Ward, Ray Supple, Catherine Bessant – who have worked tirelessly in various working groups to ensure the success of this conference. Leanne and Matt

particularly have contributed enormously, coordinating accommodation, transport and endless other logistical needs – thank you so much.

- Special thanks must be given our conference coordinator Allison Marion. Alli's contribution to this conference has been outstanding. Her planning and organisational skills have been exemplified and without her the conference would not have succeeded.
- To *Parks Victoria* for your support throughout and for allowing the conference to be at Buchan Caves Reserve.
- To the *Friends of Buchan Caves group* for their continuous dedication and work effort in the lead up to the conference in order to finalise their low voltage lighting display in Federal Cave. 'Friends' members assisting during the Conference include Peter and Marg Robertson, Glenn Baddeley, Miles and Rhonwen Pierce, and Nicholas White.
- To Dr. Susan White and Ken Grimes for putting together the Conference *Field Guide* and Kent Henderson for Conference *Handbook*.

SPONSORS

- *Parks Victoria* is a major sponsor of the event, contributing resources and staff time to organise and manage the event.
- East Gippsland Shire Council provided the funding for the conference satchel.
- Wyanga Park Winery provided a candlelit dinner cruise for two people.

To the local Buchan community, thank you for the way you have welcomed, assisted and supported the conference. Caterers, local suppliers and community groups have been remarkably helpful to

Dale Calnin,
Conference Convenor.

ensure that the visit to Buchan by conference attendees is comfortable and enjoyable.

Finally I thank all attendees for making the effort to attend the 2007 conference – particularly those who have travelled great distances to be here and all who are contributing presentations, assisting with field inspections, or assisting in some way to ensure the success of the conference.

I sincerely thank you all for your contribution and support.

Yours in Cave and Karst Management,

SAFETY PLAN FOR THE ACKMA 2007 CONFERENCE SUMMARY

Introduction:

A Safety Plan has been prepared for the ACKMA 2007 Conference. The safety plan covers all aspects of the conference including; planning of, setting up, the event days and the clean up of the ACKMA 2007 conference. The site for the event is Buchan Caves Reserve and sites outside of the Reserve around the township of Buchan.

Site Occupational Health & Safety Policy:

This policy statement commits *Parks Victoria* and ACKMA to ensuring a safe and healthy workplace is provided and maintained for all employees, contractors, volunteers and visitors during all stages of this Conference.

ACKMA 2007 Conference Convenor:

The ACKMA 2007 Conference Convenor has overall responsibility for OH&S for the Conference and daily operation. The *Parks Victoria* OH&S Safety Working Group will play a key role in planning and implementation of safety requirements. A Safety Officer will assist and provide advice throughout the conference in relation to all OH&S requirements.

Employees and Attendees:

Every employee on site has responsibilities with respect to OH&S. This extends to all volunteers, attendees, suppliers and their employees. Responsibilities shall include:

- Performing all duties in a manner which ensures the OH&S of themselves and other personnel on site;
- Observing all OH&S rules, regulations and work procedures for which they have been fully informed of and instructed in;
- Assisting in the identification, elimination and control of on site hazards;
- Immediate reporting any injury, hazard or defective tools, equipment or machinery to their supervisor or ACKMA Conference Convenor.

OH&S Notice Board:

There is an OH&S Notice Board which includes;

- OH&S policy;
- Phone numbers for local emergency services:
 - Ambulance - 000
 - Fire Authority - 000
- Evacuation and other emergency procedures;
- Name of the elected OH&S representative;
- Name/s of first aid officers and who they represent;
- Location of the first aid facilities;
- OH&S information updates including hazard alerts, hazard communications;
- A folder which contains all the Job Safety Analysis sheets.

Induction Program:

The ACKMA 2007 Conference organisers will conduct a site induction session for all conference attendees prior to commencement of the activities, which will include emergency information, location of the OH&S notice board and protocols for reporting of hazards and incidents. A formal briefing session in addition to the one above will also be held for tour guides or leaders prior to commencement of the afternoon program on the first day of the conference.

ACCOMPANYING PERSONS PROGRAM

Coordinators: Robyn Calnin & Angela Hamilton-Smith

There will be an opportunity for accompanying persons to register for the following:

Wednesday 2nd May

Wyanga winery tour from 11am – 3pm. Cost approx. \$40.00 per person. Bookings for this need to be confirmed Tuesday morning at the Buchan Caves Office. This trip includes a tour of the Gippsland Lakes, wine tasting, lunch at Wyanga winery and boat trip back. Transport is also able to leave earlier if people would like to have a look about Lakes Entrance prior to 11am.

Thursday 3rd May

Trip to Lakes Entrance and/or Bairnsdale. (We may have a swim at the heated pool if there was enough interest). The program is flexible on this day – no cost involved (only a swimming fee of \$5.00, if such be desired).

VOLUNTEERS ASSISTING AT THE CONFERENCE

- all of whom have the grateful thanks of the Organising Committee

PARKS VICTORIA TEAM:

Allison Marion	Carole Young	Yas Aley
Leanne Hodge	Phil McGuinn	John Rogerson
Matt Holland	Gail Wright	Maree King
Dave Harper	Dennis Matthews	Daryl Burns
Scotty Graham	Graham Parkes	Friends Group of Buchan
Robyn Calnin	Ricky Mullet	Caves

BUCHAN CAVES STAFF:

Gail Calnin	Keith Greenwood
Annemarie Henderson	Heather Johnson (Daly)
Robyn Benton	Dean Phelan
Kate Kenyon	

BUCHAN PRIMARY SCHOOL ASSISTS ACKMA!

The Buchan Primary School children have prepared historic figurines of people who have made a significant contribution to the history of Buchan and the Buchan caves.

On each of the figurines features a description of the person it represents and the role that they have played. The figurines are situated at various locations around the Buchan township and the Buchan Caves Reserve and will help orientate delegates throughout the conference week, or be enjoyed as part of a self guided walk.

The Conference Organising Committee would like to sincerely thank the Buchan Primary School children and staff for their efforts.

SEVENTEETH AUSTRALASIAN CONFERENCE on Cave and Karst Management CONFERENCE PROGRAM

Conference Themes:
Indigenous and European Cultural Landscapes
The Evolution of Presenting Caves – Where to Next?
Karst Tourism – the Past to the Future

MARSHALL (with a loud voice): **Kent Henderson**

DAY 1 – SUNDAY 29 APRIL – ARRIVAL DAY

Afternoon:

Registration:

From 2.00pm at the Buchan Caves Visitor Centre.

REGISTRATION FOR NEXT AFTERNOON'S ACTIVITY

2.30pm

Tour of Federal Cave. (Maximum party – 10). Friends of Buchan Caves Group members.

Evening:

From 6.00pm – **OPENING FESTIVITIES**
– **Buchan Caves Reserve**

1. **WELCOME TO COUNTRY. Uncle Albert Mullet** (local indigenous Elder)
2. **OFFICIAL OPENING** of the Conference by
Mr. Craig Ingram, Member of State Parliament for East Gippsland,
in the presence of the following dignitaries:
 - Uncle Albert Mullet (local indigenous Elder)
 - David Thorpe (Moogji Aboriginal Council)
 - Mendy Urie (Mayor, East Gippsland Shire)
 - Steve Kozolowski (CEO, East Gippsland Shire Council)
 - Chris Rose, *Parks Victoria* (Regional Manager, Victoria East)
 - Dennis Matthews, *Parks Victoria* (Chief Ranger, Victoria East)
3. Indigenous Dancers will perform. Cellist: Yasmin (*Parks Victoria*).
4. WELCOMING BARBECUE

DAY 2 – MONDAY 30 APRIL

Morning:

From 7.00 – 8.30

BREAKFAST at the Buchan Recreation Hall.

8.45 – 9.00 **Housekeeping.** Dale Calnin, Conference Convenor.

PAPER SESSION ONE Chair: Steve Bourne.

9.00 – 9.15 Paper 1. Professor Elery Hamilton-Smith
Introducing cultural heritage.

9.15 – 10.15 Paper 2. **KEYNOTE ADDRESS.** Robert Bednarik
Australian Rock Art.

10.15 – 10.45 Paper 3. Dr. Jo Flood
The Archaeological Significance of Buchan Caves.

10.45 – 11.00 **Morning Tea**

PAPER SESSION TWO Chair: Professor Elery Hamilton-Smith

11.00 – 11.30 Paper 4. Associate Professor Ian Clark.
In Quest of Narguns & Nyols: a history of indigenous tourism at the Buchan Caves Reserve.

11.30 – 12.00 Paper 5. Associate Professor Ian Clark.
The abode of malevolent spirits and creatures – Caves in Victorian Aboriginal social organization.

12.00 – 12.30 Paper 6. Bob Haldane.
A Caving Pioneer: Frank Moon and the caves of Buchan.

12.30 – 1.30 **Lunch**

Afternoon:

OPTION 1: **WORKSHOP on Cave & Karst Survey Data –collection and use**
1.30 – 4.30 Convenor: Ken Grimes. Location: Buchan Hall.

Objective: To discuss the collection of cave and surface data and its analysis, use and management. Including some aspects of cave mapping (especially concurrent data collection) but mainly the collection of other data for use with existing cave and topographic maps (possibly via GIS).

Agenda:

1. Brief Review of some obvious issues, and decide which we want to talk about, plus possibly some discussion about BROAD issues here?
2. A few short (<10 minute) presentations of existing databases (GIS or other) & their use – results, problems and fixes. A maximum of 1 hour in all.
3. Discussion of General Issues and Specific Topics arising from above.

Possible issues for discussion include:

- Intended use (must know this before planning anything – it affects most of following)
- What data is needed (what things are people recording?)
- The difference between accuracy and precision – and how much is needed?
- What level of locational accuracy/precision is needed?
- Baseline data = guessing the future issues - It might be useful to compile a list of the Types of Baseline Data that should be collected in all/most sites?
- What impacts during collection - how much is justified? – plus documentation at time of survey/exploration to reduce impact

DAY 3 – TUESDAY 1 MAY

Morning:

From 7.00 – 8.30 **BREAKFAST** at the Buchan Recreation Hall.

REGISTRATION FOR AFTERNOON'S ACTIVITY

PAPER SESSION THREE Chair: Kent Henderson

9.00 – 9.30 Paper 7. John Hawker.
Linaker landscape.

9.30 – 10.00 Paper 8. Nic Haygarth & Arthur Clarke..
Ozone-whetted appetites and hearts devoid of care': cruising to caveland in 19th Century Tasmania.

10.00 – 10.30 Paper 9. Neil Kell & Andy Spate.
Lighting for Darkness.

10.00 – 11.00 Paper 10. Dan Cove & Dave Rowling.
Cave Lighting in the Early 21st Century.

11.00 – 11.15 **Morning Tea**

PAPER SESSION FOUR Chair: Andy Spate

11.15 – 11.45 Paper 11. David Head.
High Intensity LED Lighting

11.45 – 12.15 Paper 12. Grant Commins, Scott Melton & Ian Eddison.
Jenolan Looks at Challenges of Interpretation into the 21st Century

12.15 – 12.45 Paper 13. Dr. Warren Peck.
Non-Entry Inspections to Conserve Tourist Caves.

12.45 – 1.30 **Lunch**

Afternoon:

OPTION 1: **LIGHTING AND INFRASTRUCTURE WORKSHOP**

1.30 – 4.30 Convenor: Andy Spate. **Location: Buchan Hall.**

This will be a real workshop – there will be pliers and screwdrivers and wires and four-letter words – not like the other multi-syllabic talk-fests! On Tuesday morning there will be five or six presentations on cave lighting and alternative approaches for showing caves.

In the afternoon workshop session those interested will troop off to (probably) Federal Cave to play with lights and to talk about handrails and paths.

So if you are interested in such things, bring your samples, gadgets and ideas (and screwdrivers and four-letter words) along to Buchan - and names and addresses of your suppliers for circulation to other participants.

OPTION 2: **WALKING TOUR OF THE PYRAMIDS KARST AREA**

1.30 – 5.00 approx. Leader: Nicholas White

OPTION 3: SHOW CAVE TOURS

- Royal Cave **1.30 & 1.45** (maximum per party – 30)
- Fairy Cave **3.00 & 3.15** (maximum per party – 20)

OPTION 4: CAVE TOURS TO FORMER SHOW CAVES at Murrindal
1.30 – 5.50 approx.

- Shades of Death Cave, Lilly Pilly Cave & Murrindal Cave
(max. party – 10). Leaders: P. McGuinn & G. Rebbechi

OPTION 5: GUIDED WALKS

Potholes Reserve, Murrindal (max. party – 15). Leader: G. Parkes
Main Reserve (max. party – 20). Leader: J. Hawker

OPTION 6: SELF GUIDED WALKS

Spring Creek and Moon Hill Walks (see Conference *Field Guide* for details)

Evening:

7.00

DINNER at KAROODA PARK

Buses leave Buchan at 6.30pm. MUSIC NIGHT. Leader: Robyn Calnin

DAY 4 – WEDNESDAY 2 MAY**Morning:**

From 7.00 – 8.30

BREAKFAST at the Buchan Recreation Hall.**REGISTRATION FOR AFTERNOON'S ACTIVITY****PAPER SESSION FIVE** Chair: Jay Anderson

9.00 – 9.30

Paper 14. Dr. Susan White.
Karst and pseudo-karst in Victoria: An Overview.

9.30 – 10.00

Paper 15. Ian Lewis.
Mt Gambier's Cenotes – Management and Interpretation of a Unique Feature.

10.00 – 10.30

Paper 16. Alan Griffin & Peter Austen.
Evolution of Management Models at Jenolan Caves, New South Wales, Australia

10.30 – 11.00

Paper 17. Stephen Reilly.
Karst Environments in New South Wales.

11.00 – 11.15

Morning Tea**PAPER SESSION SIX** Chair: Dave Smith

11.15 – 11.45

Paper 18. Dr. Joanne McKnight, Dr. Susan Turner & Dr. Susan White
Celebrating Planet Earth: UNESCO Assisted GEOPARKS in the Australasian-Pacific Region.

11.45 – 12.15

Paper 19. Ian Lewis
Umphy and The Man

12.15 – 12.45

Paper 20. Arthur Clarke & Nic Haygarth.
From bones to beetles: Tasmanian caves as biological repositories

12.45 – 1.30

Lunch

Afternoon:

OPTION 1:

1.30 – 4.30

WORKSHOP: RESPONDING TO CHANGE IN CAVE MANAGEMENT

Convenors: Elery Hamilton-Smith & Andy Spate.

Location: Buchan Hall.

We plan to hold a workshop at the Buchan Conference on what is wrong with cave and karst management (and what is right!) and the development of appropriate and strategic responses to examine this question and to produce ideas for where ACKMA and its members can work to improve cave and karst management. We both attended the recent Australian Speleological Federation Conference at Mt Gambier and frequently found ourselves listening to and discussing concerns about problems in the quality of cave management. At least in part, this is a result of reductions in funding and new managerial demands, both of which are commonly cited problems or excuses.

However, to lay it all at the feet of those who decide upon budgets would be a gross over-simplification. It must also be said that many of the comments were made in ignorance of how management occurs and of what managers actually do – and have achieved.

Since then we have seen the results of the 2006 World Heritage Rating system. A panel of over 400 frequent and suitably qualified travellers evaluated a list of selected World Heritage sites (415 sites in 2006) and rated them on a number of set criteria. Over half of these sites received a rating that indicated they had significant problems. Given that one would expect quality management of World Heritage sites, this is a sad indicator that the general state of protected area management is in a bad way.

There are many local examples in Australia. Many of these were in difficulty because they were quite unprepared to manage the rapidly increasing number of visitors, even though in many cases we know this could be managed. Some, of course, do face impossible pressures. The massive cruise ship industry can and does deliver up to three thousand visitors in a single day!

Although not a World Heritage site, the 53 km² syngenetic karst island of Bermuda (population of 66,000) hosts up to three such cruise ships at once – often arriving on the same day. There are also hundreds of cruising yachts and many plane flights from North America and Europe. Coping with such floods of visitors is virtually impossible. Many more World Heritage sites simply had poor quality of visitor management, even though they were not facing massive increase in the number of visitors. They offered seriously deficient infra-structure, lack of proper people movement management, or inadequate hosting services.

Then, particularly in poor countries, they failed to clear litter and often allowed beggars on the site. There were many complaints about the sale of shoddy souvenirs: but that of course is almost a universal problem. Then some countries, as deliberate policies, are doing their best to turn wondrous heritage sites into pseudo-Disney style amusement parks. Most of the rated sites were cultural ones focusing upon built environments, and only a few of the natural sites included caves or karst. But again, this survey provides a valuable indicator of the general state of park management. One of the strongly criticized karst sites was the famous Ha Long Bay of Vietnam.

Having visited there only a few weeks ago, Elery was shocked and appalled at the decline in standards of care and protection. We (and many others who have spoken to us) are both shocked and amazed at the recent development of the Nettle Cave at Jenolan.

In spite of the World Heritage status of the site, this development contravenes all Australian documented codes on heritage management: Burra Charter, Natural Heritage Charter, Heritage Commission Guidelines on Tourism, the Richmond Communique on World Heritage Management, relevant ASA Standards and possibly NSW environmental planning legislation. [N.B. We are simply listing clear discrepancies in the project; not voicing any judgments about the quality of the outcomes.]

It can well be argued that it therefore also fails to recognise and implement the principles laid down in the Operational Guidelines for the Implementation of the World Heritage Convention. Then there is the Nullarbor, where trans-border co-operation should ensure a permanent on-site ranger presence but little has been done to ensure on-going protection and adequate visitor support.

PAPER SESSION EIGHT Chair: Mike Warner

- 11.15 – 11.45 Paper 25. Dave Smith
Ruakuri – environmental management & development
- 11.45 – 12.15 Paper 26. Paul Griffiths & Carol Ramsey
Spaet Cave, British Colombia, Canada
- 12.15 – 1.15 **Lunch**

Afternoon:**OPTION 1:**

1.30 – 4.30

EDUCATION WORKSHOP:**Who are we educating, what for and how can we do it?**

Convenor: Dr. Susan White. Location: Buchan Hall.

Objective: Education supports only one of two ends: it either forces compliance to what we believe is right or it provides the tools with which we can shape what we will become. Education includes informal as well as formal education sources.

This workshop will discuss to **whom** we aim educational material at as well as exploring some examples of material. Other sources and how to customize material will be shown.

Agenda :

1. Brief review of some obvious issues, and decide which we want to talk about. This will include some issue of material for formal schooling (Primary, secondary and tertiary) as well as community education and adult education.
2. Discussion and look at some specific activities and how they could be modified and what uses they have.
3. Discussion of General Issues & Specific Topics arising from above.

Possible issues for discussion include:

- NSS Project Underground material
- Geoscience Australia Discovering Caves kit and poster
- Other kits and posters
- Internet resources
- Excursions and field trips
- Film, DVD, CD, Video material
- Relevance of European and US material in Australia/NZ. What Australian/NZ material is there?
- Science/geography teacher material and how to source it
- How to not just 'talk and look'? What activities are suitable/appropriate?
- Interactive materials and activities
- Can we learn from new museum ideas on presenting material to the public?
- How can we make it relevant to the current 'learning outcomes' and how do we reach teachers?

OPTION 2:**THE WHITE-FELLA CULTURAL HISTORY OF THE BUCHAN AREA.**

Leader: Elery Hamilton-Smith

Much of this will be a walking tour of the reserve and township precinct. But if numbers are low, then we may go a little further afield. You will find some notes on other interesting sites scattered through your field guide.

OPTION 3:**SHOW CAVE TOURS**

- Royal Cave **1.30 & 1.45** (maximum per party – 30)
- Federal Cave **1.30 & 3.00** (maximum per party – 10)
- Fairy Cave **3.00 & 3.15** (maximum per party – 20)

**OPTION 4: CAVE TOURS TO FORMER SHOW CAVES at Murrindal
1.30 – 5.30 approx.**

- Shades of Death Cave, Lilly Pilly Cave & Murrindal Cave
(max. party – 10). Leaders: P. McGuinn & G. Rebbechi

OPTION 5: SELF GUIDED WALKS
Potholes Reserve; Main Reserve & Spring Creek (see Conference *Field Guide* for details)**Evening:**6.30pm **DINNER at the CAVES MAIN STREET CAFE, Buchan**7.30pm **ACKMA Inc. ANNUAL GENERAL MEETING**
(Agenda – see Page 59)

DAY 6 – FRIDAY 4 MAY

Morning:From 7.00 – 8.30 **BREAKFAST** at the Buchan Recreation Hall**PAPER SESSION NINE** Chair: Dr. Susan White9.00 – 9.30 Paper 27. Professor Elery Hamilton-Smith
*Saying What we Mean: Comments on the Vocabulary of Tourism*9.30 – 10.00 Paper 28. Tomaz Zorman.
*Škocjan Caves Park, Slovenia - Visions.*10.00 – 10.30 Paper 29. Greg Middleton
*Grande Caverne - a new show cave for Rodrigues, Mauritius*10.30 – 11.00 Paper 30. Xiao Shizhen
*South China karst and Libo World Heritage Nominated site*11.00 – 11.15 **Morning Tea.****PAPER SESSION TEN** Chair: John Ash11.15 – 11.30 Paper 31. Emily Davis
History of Cave Conservation; New York State, USA11.30 – 11.45 Paper 32. Emily Davis & John Sagandof
Conservancies and Show Caves in Partnership: A Case Study of the Evolution of a Relationship.11.45 – 12.15 Paper 33. Dr. Susan White, Greg Middleton & Nicolas White
*Karst Issues in an Hydro-electric Power Proposal: Iralalero-Paitchau Karst, Timor-Leste*12.15 – 12.45 Paper 34. Steve Bourne & Cathie Plowman
If you've seen one cave, have you seen them all? **Interpretation Workshop introduction.**12.45 – 1.30 **LUNCH**

Afternoon:**OPTION 1:**

1.30 – 4.30

WORKSHOP: VARIED CAVE TOURS WITH POWERFUL MESSAGES CAN BE CREATED WITH THEMATIC INTERPRETATIONConvenors: Steven Bourne & Cathie Plowman. **Location: Buchan Hall.**

While show caves offer much variety there is often a great deal of similarity when it comes to the visitor experience of them. Unfortunately, most tours deliver the same information, no matter where the cave is. The typical cave tour will involve the cave's discovery, some geology, speleothem growth including how fast they grow, any number of ideas on how helictites grow (or none!) and how old the largest stalagmite might be. An oft quoted statement by visitors "seen one cave, seen 'em all" is not true, it is more a reflection of how the cave tour is delivered. Of great sadness, is that cave guides often report that they are bored with their tours or visitors report that 'the guide seemed bored' or 'the guide seemed tired'.

There are many ways in which cave experiences could be organised so as to ensure variety for both the visitors and the guides. However, managers and guides generally seem content to offer the approach outlined above. Options for variety include alternatives to the guided tour and using thematic interpretation for guided tours. What makes thematic interpretation different? Instead of going into a cave and saying everything that you know about it, you develop a theme (and eventually several of them). When people think of themes in relation to caves they often think of topics like history, cave decorations, glaciers, water or cave fauna. In thematic interpretation terms, these are topics not themes, but great themes can be developed from these topics. So, the above list of topics could become:

- History:
You can be a detective trying to answer questions about what you see in Blanch Cave.
- Cave decorations:
Within this cave you will discover some of nature's oldest masterpieces.
- Glaciers and water:
Water is the artist at work in Marakoopa Cave
- Cave fauna:
Hidden amongst the spectacular are the caves secret citizens.

With a little effort, themes allow guides and managers to unlock their creativity and have a varied number of tours. The same things won't be said on every tour. While some information can be used for more than one theme, information can be left out if it doesn't support the theme. Visitors are in for a new tour, rather than hear one they've heard before. While interesting, amazing and mind-blowing facts are easily forgotten, a strong theme will be remembered long after the facts that support it are forgotten.

Themes are fun, easy to develop and ensure variety in your cave presentations. The workshop we will lead at the Buchan Conference will have you developing a thematic tour. While we would love to accommodate everyone, this will be a practical workshop rather than a talk and we can cater for a maximum of 25 or so people.

OPTION 2:**CAVE TOURS TO FORMER SHOW CAVES at Murrindal****1.30 – 5.50 approx.**

- Shades of Death Cave, Lilly Pilly Cave & Murrindal Cave
(max. party – 10). Leaders: P. McGuinn & G. Rebbechi

OPTION 3:**SELF GUIDED WALKS**Potholes Reserve; Main Reserve & Spring Creek (see Conference *Field Guide* for details)**Evening:**

7.30

CONFERENCE DINNER at Bellevue Motel, Lakes Entrance**NOTE:** This is traditionally a "Dress Up Affair"!**SPECIAL GUEST: Alan Costigan****

Master of Ceremonies: Kent Henderson

Buses leave Buchan at 6.30pm

** Alan Costigan (or ‘Cossie’, as he is affectionately known) is an original ACKMA Life Member. He was Manager of Buchan Caves for many years, retiring to Lakes Entrance in the mid 1980s. He was renowned for his innovation to cave management, and his legacy at Buchan (and wider a field) continues to this day. It will be a special pleasure for many of us to have him present at our Conference Dinner.

DAY 7 – SATURDAY 5 MAY – departure day

Morning:

From 7.00 **BREAKFAST** at the Buchan Recreation Hall

After Breakfast: Departure.



Anticline Cave, Buchan

A BRIEF HISTORY OF SHADES OF DEATH CAVE at Murrindal

While common overseas, very few show caves in Australia are, or have been, privately owned. The only currently operated Australian example is Capricorn Caves in Central Queensland. Shades of Death Cave at Murrindal (15 km north of Buchan), also privately owned and previously operated, is one of these.

In the early 1960s several members of the Victorian Cave Exploration Society (which years later evolved into the Victorian Speleological Society) fell in love with Shades of Death Cave (also known as the Murrindal Moon Cave).

They decided to develop the cave in conjunction with Murrindal and Lilly Pilly Caves which were then being shown by the group on a “permissive occupancy” from the (then) Victorian Lands Department.

The land owner granted a lease to a group headed by Jack McMahon, Graham Shaw, and Geoff Rebbechi. The current entrance to Shades of Death Cave was excavated and blasted to connect with the main cave. Three steel stairways and some concrete paths were installed and the cave opened for business. In 1969 the cave was closed as the lease was not renewed by the landowner.

The group (now headed by Graham Shaw and Geoff Rebbechi) also had a lease to show tours through the nearby Murrindal Cave, so operations were continued therein until the end of 1982, when that lease was similarly not renewed. However, undaunted, the group (which now also included Dennis Rebbechi – Geoff’s brother – and Dennis’ wife, Carol) negotiated the purchase of five acres of hillside land above Shades of Death Cave.

Between 1982 and 1984 further cave development ensued, including more pathways, handrails, and an (then) innovative push button lighting system (powered by a large petrol generator in a shed near the entrance), which was designed and installed by Warren Kennedy. As a result this work, the length of the show cave area doubled.

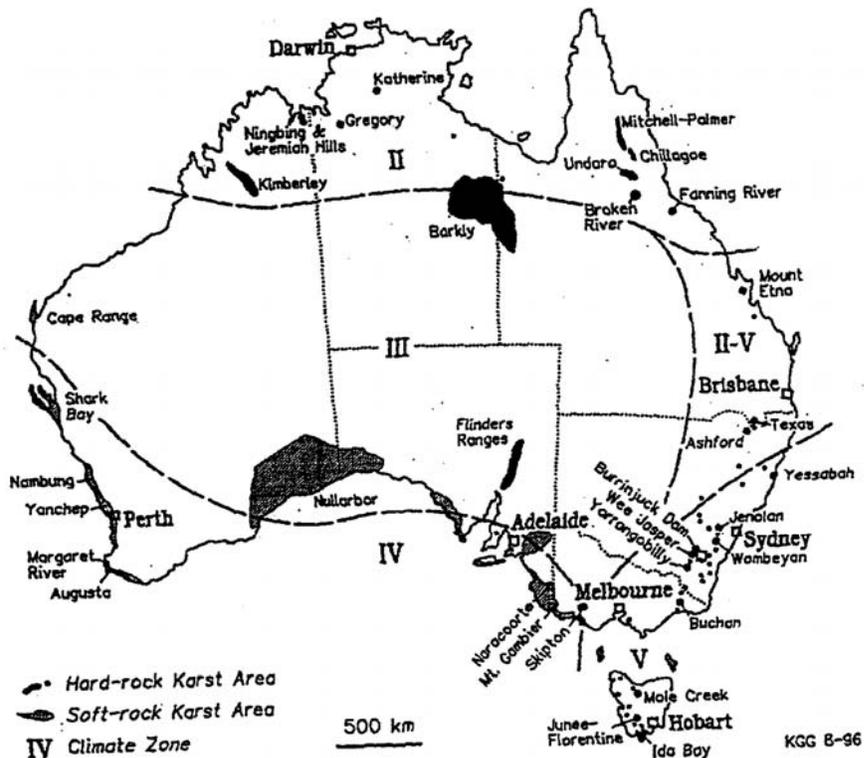
The cave was shown only during public and school holidays, and long weekends (simply because all involved lived and worked in Melbourne – 5 hours drive away); with Dennis, Geoff, and Carol Rebbechi as guides, and Warren Kennedy and Graham Shaw as both engineers and guides.

As a result overall visitation was small. About a thousand visitors went through the cave in 1983/84, peaking at 5500 in 1989/90, and tapering down to 2600 in 1991/92. The cave was never operated as a “commercial” show cave as such; it was more a “love child” of the owners.

Very sadly Warren Kennedy died in 1991, and the partnership was then converted into a company owned by Dennis, Carol and Geoff Rebbechi, and Graham Shaw. Around this time Dennis (who served for some years as Treasurer of ACKMA – he is also a Fellow of ACKMA) and Carol decided to move to the Gold Coast in Queensland. They endeavoured to sell the cave, without success.

Subsequently, the land (upon which Dennis and Carol had built a house) was subdivided between the land and the house, and the cave entrance. Eventually, the land and house was sold, and the cave entrance allotment was passed to Geoff Rebbechi (who retains ownership of it to this day), with Graham Shaw continuing as engineer and adviser.

ACKMA is most grateful to Geoff for very kindly agreeing to come to Buchan during the Conference to lead groups through his wonderful Shades of Death Cave.



Distribution of karst areas and climate provinces in Australia

Tropical-climate zone (II); subtropical dry-climate zone (III); transitional zone with winter rain (IV); warm-temperate zone extending to warm-temperate/tropical transitional climates zone (V, II-V). Map compiled by Ken Grimes from data in Bridgewater (1987); Gillieson & Spate. Reference: Smith, D. W. (Ed). Cave and Karst Management in Australasia XII. Proceedings of the 12th Australasian Conference on Cave and Karst Management, 1997. p 17.

ABSTRACTS OF PAPERS

in order of Scheduled Presentation

Paper Presenters are reminded that the final version of each paper is required **NO LATER THAN 30th June, 2007** please, to enable publication of the Conference Proceedings. Please email the same, with attachment, to Dave Smith: <dwsmith@doc.govt.nz>

DAY 2 – MONDAY 30 APRIL

Paper 1: **PROFESSOR ELERY HAMILTON-SMITH, AM**
9.00 – 9.15 ***Introducing cultural heritage***

Caves have fascinated all peoples. So they are often seen as places of spiritual importance, as a site of religious rituals, as a place of curiosity or a place of great beauty. So, in addition to their value as natural heritage and often of scientific importance, they have also been seen as cultural icons. In some cases, use of a cave as a sacred or

other special place is inextricably related to the surrounding landscape and so falls into that group of heritage sites now known as cultural landscapes. At another level, some are places of great intensity, and our keynote speaker will discuss the very specific example of rock art.

Paper 2: **KEYNOTE ADDRESS – ROBERT BEDNARIK**
9.15 – 10.15 Convener/CEO, International Federation of Rock Art Organisations (IFRAO)
Australian Rock Art

Australia is distinguished not only by possessing the largest concentration of rock art, but also by being the only country that has continuing broad access to ethnographic interpretation of rock art by its traditional custodians. Moreover, Australia has the largest organisation of rock art researchers, the premier scientific journal in the field, and the largest academic congress in the discipline. This presentation explains the reasons for some of these factors, and it offers an overview of the huge corpus of Australian rock art. The

major regional concentrations of it are introduced, with special attention given to the cave art of Australia, which is the world's second-largest body of this particular phenomenon. Some attention is also given to the time periods the rock art belongs to, to the methodology of estimating the age of rock art, to the issue of its interpretation, and to the questions of its preservation and protection. The presentation closes with a brief synopsis of the current campaigns to protect rock art in Australia.

Paper 3: **JOSEPHINE FLOOD**
10.15 – 10.45 ***The Archaeological Significance of Buchan Caves***

The limestone caves of Buchan have proved highly significant in revealing both past culture and environment in south-eastern Australia. Rich faunal deposits have been excavated by Norman Wakefield at Pyramids Cave, Josephine Flood and Jeannette Hope at Cloggs Cave and Paul Ossa at New Guinea II. These provide a consistent, dated sequence of fauna spanning the last thirty millennia. Cloggs Cave is of particular importance in the debate about the extinction of megafauna in Australia for its lowest layer contains a mandible of the extinct short-faced kangaroo *Sthenurus orientalis*, dated to 21,700 ±1250/ -1050 BP (ANU-1220). (NB this is a revision of the previously published radiocarbon age). This is one of only three firmly dated 'late' occurrences of megafauna in Australia.

with animal fat and therefore of Aboriginal, not modern origin.) Prehistoric artefacts have also been found in several caves in the Buchan region. (Those excavated by Flood, Ossa and by the late Alexander Gallus (in East Buchan II) are now in the National Museum of Victoria in Melbourne.) Twenty millennia ago Cloggs Cave and New Guinea II were occupied by hunter-gatherers, using stone and bone tools to manufacture wooden artefacts and skin cloaks.

The oldest human occupation yet discovered dates to about 21,000 years at New Guinea II, a similar antiquity to the oldest artefacts excavated by Flood in the small, granite rock-shelter of Birrigai in the ACT. This indicated human presence at least on the fringes of the Snowy Mountains at the height of the last ice age. Aboriginal people have lived in the region continuously ever since, as much younger tool types attest in Cloggs Cave, New Guinea II and EB II.

Rock art is extremely rare in Victoria but Buchan caves contain two examples, macaroni-style engravings in New Guinea II and a painting at Cloggs Cave. (Analysis of pigment from the latter show it is natural pigment mixed

These findings show the tremendous potential cultural and scientific significance of even small, unprepossessing caves and rock-shelters, and there is a need for much further research to be carried out in south-eastern Australia. Regarding site protection, none of these caves or rock-shelters are suitable for public entry and metal grilles and padlocked gates are in place at most of them, but they do need regular monitoring by

site managers to prevent damage from burrowing animals etc. Informative interpretive panels would also aid public education and understanding and the cause of Aboriginal reconciliation. I would be happy to provide the content for roadside signs in the region of New Guinea II and the Lower Snowy River open air campsites (near the NSW-Vic border) and for Cloggs Cave near the bridge from where the cave is visible.

Paper 4:

11.00 – 11.30

ASSOCIATE PROFESSOR IAN CLARK***In Quest of Narguns & Nyols: a history of indigenous tourism at the Buchan Caves Reserve***

This paper is concerned to document tourism and indigenous heritage values associated with the Buchan Caves Reserve in Gippsland, Victoria, Australia. It shows that indigenous values have not been at the forefront of the development of the tourism product at the Buchan Reserve. The inattention to Aboriginal values within the development of tourism may best be

understood as a structural matter, a view from a window which has been carefully placed to exclude a whole quadrant of the landscape. Indigenous values of places were rarely discussed because they were not in the eye of the vision, 'out of sight' and 'out of mind'. Indigenous tourism at Buchan does not challenge this understanding.

Paper 5:

11.30 – 12.00

ASSOCIATE PROFESSOR IAN CLARK***The abode of malevolent spirits and creatures******– Caves in Victorian Aboriginal social organization***

A study of Aboriginal associations with Victorian caves finds that there is a rich cultural heritage associated with caves. This association has been found to be rich and varied in which caves and sink holes featured prominently in the lives of Aboriginal people – they were often the abodes of malevolent creatures and spirits and

some were associated with important ancestral heroes, traditional harming practices, and some were important in the after death movement of souls to their resting places. Aboriginal names for caves, where known, are discussed.

Paper 6:

12.00 – 12.45

BOB HALDANE***A Caving Pioneer: Frank Moon and the caves of Buchan***

Over a period of many years there has been considerable debate about by whom, how and when the caves of Buchan were first discovered. Clearly, there is no doubt that Indigenous Australians can truly lay claim to being first visitors.

This paper discusses the first European explorers of the caves and then gives an account of the life, times, discoveries and works of Frank Moon who not only explored the caves but set the foundations of the show cave industry in Victoria.

DAY 3 – TUESDAY 1 MAY

Paper 7:

9.00 – 9.30

JOHN HAWKER***Linaker landscape***

The Buchan Caves Reserve is more than just limestone caves. The Reserve is greatly admired and valued for the impressive collection of exotic trees planted along Spring Creek Valley in amongst the indigenous Yellow Box, Manna Gum, and Blackwood and on the hillsides, the rare Buchan Blue Wattle.

major tourist feature in autumn, the planting also includes many fine conifers; pines, cypress and redwoods.

In 1929 Hugh Linaker prepared a landscape plan for the Reserve, providing a planting list, sketch of the avenue trees, and a rustic shade house. His plan showed predominantly exotic trees although natives were not excluded and included eucalypts, she-oaks and wattles. While the colourful deciduous trees have become a

Linaker, born in Ballarat on 4 June 1872, was one of nine children. At the age of 14, he was apprenticed as a gardener to the Ballarat Gardens. After 14 years at Ballarat, he was awarded the post of curator of the Ararat Gardens out of 96 applicants. He held this position from 1901 to 1912, when he became Landscape Gardener at Mont Park Hospital for the Insane. Around 1933 he was appointed State Superintendent of Parks and Gardens.

During his career Linaker was responsible from 1912 for the design and maintenance of the grounds of all mental hospitals in the State. He was also involved in the design of the grounds to the Shrine of Remembrance in 1933, the Yarra Boulevard beautification scheme Yarra Bend National Park and Mount Buffalo National Park. Linaker's advice was sought by many country municipalities for the planning of public parks and gardens including Ararat Botanic Gardens (Alexandra Gardens), Alexandra Park, Stawell, Herbert Gardens, Box Hill, Princes Park, Maryborough, and the Pioneer Women's Memorial in the Domain. He planned the plantations for the model township of Yallourn and the

Road Plantations on Geelong Road. He advised also on the gardens at Stonnington, Malvern, Carn Brea, Hawthorn and at Burnham Beeches, Kallista. In 1938 Linaker prepared a plan for the draining of Lake Augusta (now the sunken oval) at Castlemaine.

Linaker was a frequent lecturer and an inaugural member of the Victorian Tree Planters Association formed in 1926. Hugh Linaker died on 10 October 1938 at the age of 66. Linaker is regarded by many as the leading landscape gardener of his generation in Victoria, and in one sense was a successor to William Guilfoyle.

Paper 8: **NIC HAYGARTH & ARTHUR CLARKE**
9.30 – 10.00 *Ozone-whetted appetites and hearts devoid of care?: cruising to caveland in 19th Century Tasmania*

Mystery Creek Cave at Ida Bay, south of Hobart, and Flowery Gully Cave, north of Launceston, were the subject of short-lived cruise services in the 1890s. At a time when Tasmanian tourism was effectively unfunded and unorganised, the Ida Bay excursions appear to have catered for a Hobart appetite for the 'sublime', for local scientists and potential limestone miners.

Wandering spruiker John Watt Tyler conducted at least one cruise down the Tamar River from Launceston to Flowery Gully Cave, which he wrote up as a carefree indulgence for jaded businessmen and summer idlers. Neither 'wild' cave system developed a substantial tourist trade, however, with rail and motor touring to acetylene-lit caves becoming ascendant in Tasmania.

Paper 9: **NEIL KELL & ANDY SPATE**
10.00 – 10.30 *Lighting for Darkness*

Within the darkness of a cave – any light will have a dramatic affect. The issue is – how can we utilise this contrast between the natural environment of cave darkness and the introduction of artificial lighting technology? How much should be lit? And, further, how this can be done with minimal impact on the cave both in the short and long term?

This presentation addresses some of the issues confronting those who light caves for public viewing including such issues as *lighting for access*, *lighting for atmosphere* and *lighting for protection* of the cave resource. It deals with practical philosophies for cave lighting emphasising sensible and low(er) cost approaches.

Paper 10: **DAN COVE & DAVE ROWLING**
10.30 – 11.00 *Cave Lighting in the Early 21st Century*

Jenolan Caves has recently added a self-guided tour to its product range. The Nettle Cave stands prominent at the gateway to Jenolan Caves and would certainly not have gone unnoticed by the traditional occupants of the area. Since its discovery by Europeans in the 1840's the Nettle Cave has been witness to the onslaught of exploration, tourism, infrastructure development, abandonment and now re-development. Its beauty was enjoyed by many in

its early history then closed and hidden away for 73 years. Its recent reopening has been generally welcomed but also subject to some criticism and controversy. From as early as the dreamtime to the present day the cave has been subject to "interpretation" by humans. Using the Nettle Cave as a backdrop we will look at interpretation at Jenolan as it has progressed into the 21st century and the challenges ahead of us.

Paper 11: **DAVID HEAD**
11.15 – 11.45 *High Intensity LED Lighting*

This PowerPoint presentation deals with high intensity LED lights being developed by Weidmuller Pty Ltd. It describes their properties and demonstrates a variety of LED fittings manufactured for cave use in Australia. Some of these have been used at Jenolan and Wombeyan

caves and their use is being considered at other cave sites in Australia and South Korea. Examples of their use will be shown in the presentation during the Cave Lighting Workshop.

Paper 12: GRANT COMMINS, SCOTT MELTON & IAN EDDISON
11.45 – 12.15 *Jenolan Looks at Challenges of Interpretation into the 21st Century*

Over the past decade there has been a great deal of attention devoted to the subject of lighting show-caves, and many papers have been written and delivered on approaches to lighting various caves around the world. As a consequence of this focus, a series of ‘first principles’ have effectively been established to provide

the current best practice guidelines for lighting or, as more often the case, re-lighting, a cave. Work at Jenolan in particular in relighting the Imperial, Lucas and Temple of Baal has added significantly to establishing these principles.

Paper 13: DR. WARREN PECK
12.15 – 12.30 *Non-Entry Inspections to Conserve Tourist Caves*

Vandalism in Australian caves has been occurring for more than a century. Even tourist caves with extensive barriers and wire mesh to protect delicate cave formations are subject to occasional attacks by vandals with irreparable results. A new approach to the development and public inspection of tourist caves is required in the interests of cave conservation.

There are sections of Australian operating metal mines where human access is not permitted, yet mining continues using remote-controlled machinery overseen by remote-sensing techniques from a nearby tunnel or alcove in the mine. Non-entry inspections of the Bat Cave at Naracoorte have proved popular with the general

public whilst minimising the environmental impact on the cave and its bat population. A video link, using infra-red imagery, connects the cave to the above-ground Bat Observation Centre. If applied to other tourist caves, conventional video techniques would permit visitors to experience the full ambience of a delicately-ornamented cave without actually entering it. Whilst this concept is particularly applicable to previously undeveloped caves, thus avoiding the wholesale cave damage involved in the construction of paths and installation of fixed lights, it is also applicable to caves already open to the public eg. a vandal-prone section of a tourist cave, or an alcove that can only be viewed by one or two persons at a time.

DAY 4 – WEDNESDAY 2 MAY

Paper 14: DR. SUSAN WHITE
9.00 – 9.30 *Karst and pseudo-karst in Victoria: An Overview*

This paper will give an overview of the many caves and related landforms known in Victoria. Some are true karst but others are volcanic caves and pseudo karst. These features have scientific, recreation, aesthetic, conservation and education values and are an important part of the state’s heritage. The karst and pseudo karst features are the result of the following natural processes: solution, precipitation, volcanism, weathering, piping, and wave action. Some karst is buried under the volcanic flows of western Victoria.

Solution and precipitation, primarily of carbonate rocks is the single largest group. These fall into two main

groups at widely separated in geological time: karst in the Palaeozoic limestones, mainly in the eastern part of the state, and that in Cainozoic limestones which are found from East Gippsland to the South Australian border.

The next largest group is the volcanic caves of the Western District Volcanic Province which have a wide range of features, many of national and international geological significance. Significant features are found in a range of other rock types including granitic rocks, quartz sandstones and silcrete.

Paper 15: IAN LEWIS
9.30 – 10.00 *Mt Gambier’s Cenotes – Management and Interpretation of a Unique Feature*

In the south east of South Australia, the Limestone Coast is the regional name for a vast karst plain of “soft-rock” tertiary limestone, shallow inland around Bordertown and Kingston but gradually deepening towards the sea to the south of Mt Gambier, and which contains over 1000 caves. In the deeper zone are dozens of unique “Cenotes” – large circular vertical-sided pits dropping into clear deep freshwater lakes.

They are mysterious and controversial. Cave divers have died in them in earlier decades. Hells Hole may be the largest cenote in the world. A number of cenotes have been used as rubbish dumps with some since cleaned and rehabilitated. They contain an array of biotic life, some of which are unknown elsewhere. Even the term “cenote” is a conflict of various unresolved definitions. Cenotes occur on private property, forests and farm lands with a corresponding diverse mix of landowners.

The forthcoming nomination of the region in conjunction with the Volcanoes of Western Victoria as Australia's first UNESCO-recognised Geopark, together with a rapidly increasing public demand for understanding of diminishing groundwater levels is now focusing international attention on these distinctive features.

Management and Interpretation of the cenotes has only been sporadic, despite several examples of good conservation efforts and signage. In order to present their explanation and fascinating stories to an emerging global audience, a broader co-ordinated strategy is required for the promotion of the cenotes of the Limestone Coast Geopark.

Paper 16:**ALAN GRIFFIN & PETER AUSTEN**

10.00 – 10.30

Evolution of Management Models at Jenolan Caves, New South Wales, Australia

The privatisation in 1989 of accommodation and commercialisation of cave tours at Jenolan was part of the Greiner Government's overall reform agenda which focussed on the application of New Public Management Principles.

introduced in 1989. The analysis indicates the business model adopted in 1989 had more to do with the commercial issues at Jenolan than the introduction of New Public Management principles.

The acquisition of the 99-year accommodation lease by government in 2006, provided a timely opportunity to examine the implications of the management reforms

The lessons learnt should aid the development of long term management arrangements for Jenolan and ensure the preservation of its natural and built assets for future generations.

Paper 17:**STEPHEN REILLY & RUSSELL COMMINS**

10.30 – 11.00

Karst Environments in New South Wales: Issues, Directions and unevaluated karst values

Within New South Wales there are approximately 430 deposits of limestone or dolomite, most being less than 2 square kilometres in outcrop extent. About 100 of these deposits are cavernous and could be described as karst environments. Other deposits show little evidence of karstification on surface exposures but may contain significant groundwater dependant ecosystems (GDEs) or buried palaeokarst features, however this has not been assessed.

To improve karst conservation outcomes in NSW there is a need to clarify, prioritise and address karst issues and threatening processes. There is a need to undertake research and documentation of many karst environments, compiling the information in a GIS/database of NSW karst that may be utilised by state agencies and local governments who are involved in land use management and planning for private and public land. With many karsts located on private land there is a need to enlist owners in partnerships towards karst conservation through the provision of advice, conservation agreements and funding of conservation works. Some key karst environments would benefit if acquired into the state reservations system.

There are also a small number of Pseudokarst features of various origins. Although many of the largest and significant karst environments are contained within Reserves, two thirds of NSW karst environments are located in privately owned land. Significant research and assessment of karst in NSW has been undertaken including a comprehensive database of caves developed by the Australian Speleological Federation, a NGO.

In recognition of the importance of karst environments the State government has recently legislated to form a state Karst Management Advisory Committee (KMAC) and resourced a Karst Conservation Unit (KCU) within the Department of Environment and Conservation. KMAC has a strategic planning and advisory role, advising to the Government through the National Parks Advisory Committee.

Many of these studies are confined to a limited number of recognised karst sites or features. Numerous locations lack documented assessment of key karst values. An accurate state GIS karst layer that maps karst environments, key features, catchments, tenure and threatening processes has yet to be developed. The need for urgent further documentation of NSW's karst environments is supported by existing findings that indicate some of NSW's karsts are the most complexly evolved yet found and contain a high diversity of cave invertebrates with a high degree of endemism. Recent research confirms some caves at Jenolan Caves are 335 million years old, making them the world's oldest known enterable caves.

The KCU has been functional since July 2006 and has developed a work plan and is undertaking a range of projects in line with identified priorities. Only recently formed KMAC will contribute advice and direction to the KCU. Current projects of the KCU are discussed along with some karst issues identified at a forum of karst managers and researchers held in March 2006.

Paper 18: **JOANNE MCKNIGHT¹, SUSAN TURNER² AND DR. SUSAN WHITE³**
 11.15 – 11.45 ***Celebrating Planet Earth: UNESCO Assisted GEOPARKS in the Australasian-Pacific Region***

¹ Chair, Volcanoes Discovery Trail Committee

² Convenor, Australasia-Pacific Geoparks Network

³ Convenor Standing Committee on Geological Heritage, Geological Society of Australia

The recent initiative by UNESCO to establish a worldwide Network of Global Geoparks has important implications for Australia, especially western Victoria and southeastern SA. The Geological Society of Australia and various state government departments have been documenting geological sites of conservation and heritage value for over 30 years. The Geopark Network aims to promote geological sites for geotourism, education and research. The Geopark model most likely to be effective in Australia is a 'grass-roots' approach where local communities in conjunction with different levels of government take responsibility for their own region. Comparison with some of the European Geoparks Network provides useful examples. An informal network of people interested in forming Geoparks in Australia and the South Pacific has been formed.

A formal application for a Global Geopark is currently underway for the region known as the Kanawinka Geopark, extending across the South Australian and Victorian borders. This Geopark is concerned

predominantly with the volcanic landscapes of the Western District Volcanic Province and its geological context.

This presentation will outline aspects of the proposed Kanawinka Geopark. The area proposed, extends from Colac and Red Rock to the coast of South Australia past Millicent and north to Nigretta and Wannan Falls and the base of the Grampians. This area has significant volcanic caves and associated karst areas and is of interest to both CEGSA and VSA. Since 1998 the local Government bodies of this region commenced operation of the Volcanoes Discovery Trail Committee to promote the region and link geology with tourism.

Important aspects of Geoparks are the links between the geology and the people, their stories, culture and history that build into a sustainable source of geotourism, bring jobs to rural and indigenous people and in turn help protect sites of importance and promote geoheritage complementing the work of the interested non government and government organizations.

Paper 19: **IAN LEWIS**
 11.45 – 12.15 ***Umphy and The Man***

Umpherston's Cave is a prominent cenote in an attractive park on the approaches to Mt Gambier in the Limestone Coast of South Australia. Entry is free and visitors walking across the park are very surprised to see terraces of hydrangeas, lush curtains of ivy, two tall palm trees, possums, barbeques and a waterfall within the sinkhole. There are a number of important reasons behind this European presentation of a unique Australian natural geo-feature.

Close to the site of the first settlement of the city in the 1830's, the cenote (and its hidden twin nearby) were initially part of the prosperous property of a prominent and innovative local farmer, James Umpherston, who in the 1880's decided to beautify it along the lines of an imperial garden with a dinghy on its sizeable lake.

By the 1960's all this had been completely buried by industrial rubbish from the Forest Operations Mill which

had taken over the old farm. The mill's Regional Administrator, Ken Norton, decided to clean and restore it. He led and motivated the large mill's Social Club for almost 20 years, sometimes in direct conflict with his employers and using company plant and equipment whenever they could get it to haul and clean out the cenote. The unexpected discovery of the original lost garden terraces at the bottom was a highlight.

An enthusiastic, redoubtable and strongly ethical man, Ken had to deal determinedly with the mill politics and management issues generated by the staff involvement. Since the cenote was restored, Ken has devoted the last 18 years full-time since his retirement to maintaining and beautifying the park and gardens as a tribute to the forestry workers and for the greater community, for which he was recently awarded an OAM. He has now turned his energy to the hidden twin sinkhole....

Paper 20: **ARTHUR CLARKE & NIC HAYGARTH**
 12.15 – 12.45 ***From bones to beetles: Tasmanian caves as biological repositories***

Prior to their attraction as tourist visitor destinations, caves were heralded as sites for biological study. Although the allure of glow-worms in Tasmanian caves

has captured the imagination of many observers and scientists alike, most of the early biological interest in caves centred on the study of bone deposits.

In the early 1840s, during the infancy of organised structures for natural science in Tasmania, naturalists and scientists were encouraged to look at the bottom of caves for bones. An initial fervour of activity occurred in the mid-1840s, with the discovery of bone deposits in caves on the eastern bank of the Tamar River, in northern Tasmania.

Some twenty years later – with the encouragement of Professor Owen – Messrs Whittle, Allport, Krefft and other members of the Hobart-based Royal Society of Tasmania unearthed extant and extinct mammalian species from “ossiferous deposits” in caves west of the Derwent River, just north of Hobart. In the early 1880s, the searches for mammalian skeletal remains in caves at Mole Creek lead to the discovery and description of the

first Tasmanian cave invertebrate: the Tasmanian Cave Spider.

Although interest in the bone deposits of Tasmanian caves continued well into the 1900s, the focus of cave biology studies had broadened to encompass the range of invertebrates, including extinct species collected as bedrock fossils in caves and/ or the surrounding limestone. From around the turn of the 20th Century, the study of living species in Tasmanian caves included the first collections of cave crickets, harvestmen and other cave dwelling spiders, together with an on-going interest in the taxonomy of the Tasmanian Cave Spider and cave dwelling glow-worms. In 1910, a cave at Ida Bay in southern Tasmania yielded several new species, giving rise to description of the first cave adapted beetle from Australia.

DAY 5 – THURSDAY 3 MAY

Paper 21:

9.00 – 9.30

JOHN ASH

From 44 gallon Drums and Covers to Concrete, ‘Caissons’ and Engineers – Creating an Entrance Shaft into Ruakuri Cave, Waitomo, New Zealand

Setting: Ruakuri Cave is situated at Waitomo Caves, New Zealand. It is a 5 km plus network of large vadose river canyons and smaller phreatic passages cut through a fault-bounded block of Oligocene Otorohanga Limestone. The system has three main levels of passages, two dry entrances, three walk- climb in stream entrances, two abseil shafts, one siphon, one excavated entrance, two possible digs and three reasonable question marks.

History: In 1904 tours accessed the cave via a sloping rock debris pile leading down into a wide passageway at the base of a 60m high cliff face. Over the last 4-500 years New Zealand native Maori had used this entrance, and higher openings in the cliff face, as a *wahi tapu* or burial site. In 1906, after paying compensation to the tour pioneer, James Holden, the government took over the operation.

On Waitangi Day, February 7, 1988, the cave was closed to dry tours as a result of a land dispute between descendants of James Holden and the government operator at the time, the Tourist Hotel Corporation. (At that stage THC also operated the Glowworm Cave and Aranui Cave).

Subsequent cultural issues ensured that the *waahi tapu* entrance would not re-open. The dry tours ceased to operate.

For the next 17 and a half years the Holden family investigated alternative means of accessing the cave. These included:-

1989- 1992: Consulting with the Department of Conservation and Maori elders (*kaumatua*) for a culturally acceptable means of re-opening the traditional entrance. This negotiation was finally abandoned.

1993-4: Tunneling into the upstream section of the cave and creating a boat ride to link up with cantilevered walkways that would connect with the old tour route. This initiative stimulated competing activity from a neighbouring landowner. Eventually it resulted in the Holden’s purchase of 5 acres of adjoining land, thereby ensuring the protection of this section of the cave.

1994: Enlarging the stream entrance used by Black Water Rafting adventure tours. A few quick cash-flow calculations ensured that the wetsuit-clad, cave rafters were left in peace.

1995-2000: Engaging a developer to obtain relevant Resource Consents and to investigate excavating and enlarging the Rimrock extension – a passage that was extended, explored and mapped, with the assistance Black Water Rafting guides, in 1996-7. The extremity of this passage was connected to the surface by drilling from a ground survey point.

Further investigations involved a baseline report on the cave climate, trials with a 40,000 psi rock-cutting water blaster and consulting with underground pipe-thrusting experts and theme park ride designers. In the final analysis the term “open cheque book engineering” was coined. The developer went into voluntary receivership.

2000-2003: Forming a new partnership with APR, one of the consulting companies involved in obtaining the Resource Consents, and The Legendary Black Water Rafting Co. (BWR). This partnership acquired the assets of the former developer, which included the Consents and ten 2.4m by 2m concrete sewer pipes.

Focus now shifted from the Rimrock passage to the Drum entrance, which had been excavated by recreational cavers and lined with 44 gallon drums in 1968. It was situated about 80m north of the previous site, just within the Ruakuri Bush Scenic Reserve administered by the Department of Conservation (DOC).

Engineering: Because this section of cave lay under crown land administered by DOC, a Concession needed to be applied for and a new set of conditions added to those in the original Resource Consent. The developers now had to monitor:
the cave climate for:

- air flow
- temperature
- humidity
- carbon dioxide
- and
- volatile organic compounds
- vibration and speleothem damage
- stream sediment loads
- air and water pollution
- cave sediment excavations
- cave biota and
- energy inputs.

Limits of acceptable change were established and standards were set for all earth and engineering works. Engineering designs evolved - from simply enlarging and shotcreting the existing Drum entrance, to sheet-piling a cylinder directly at the entrance, to sinking a caisson offset from the entrance and tunneling into the cave.

The approach depended on how much geotechnical information one was prepared to collect, engineering expertise and creativity, tenacity and the size of ones cheque book

In 2003, Tourism Holdings Ltd. (THL), who operate the Glowworm Cave and Aranui Cave, made an offer to purchase the Ruakuri development as well as the Legendary Black Water Rafting Co. At the time THL were New Zealand's largest tourism operator; they had the capital backing and the move made strategic sense. Back to a three cave operation.

Extra geotechnical drilling was carried out and the nature of the fault line on which the Drum entrance was situated was evaluated. It was then decided to proceed with an

excavation off-set from the present cave access and connect this to the entrance chamber by a tunnel.

Contracts were let to construct a top-down caisson that would be shotcreted to a wall thickness of 300mm. Geotechnical cloth and plastic drainage grid would be installed around the perimeter of the structure to maintain the hydrological integrity of the host ground. Detailed surveying was carried out to calculate the final baseline of the excavation and the orientation of the inter-connecting tunnel.

This information was critical if speleothem damage within the first chamber was to be avoided or minimized. The inter-connecting tunnel was to be formed by pipe-thrusting the ten surplus 2.4m diameter sewer pipes from the floor of the caisson directly into the cave. It would pass beneath the original 44 gallon drum entrance.

Consent parameters were continually monitored and temporary 'airlock' doors were installed in the pipe tunnel prior to breakthrough into the cave. Once access to the cave proper had been achieved, in-fill sediments in the Drum passage were hand excavated and removed by wheelbarrow, skip and crane. Sediment floors and banks were channel sampled for later analysis. Buried, broken speleothems were also marked and collected for later study.

Steel formwork was then attached to the walls of the entrance cylinder in preparation for the pouring of a 150 metre, 1 in 10, spiral concrete access ramp. Power supply cables were readied for feeding into the cave before the entire structure was roofed over.

'Airlock' doors were installed in the entrance and exit openings to the caisson as well as in both ends of the inter-connecting tunnel and a water 'shower' established – dripping from the roof onto a large piece of karren in the centre of the floor. The latter feature gave some degree of control over the humidity and temperature of the air in the entrance cylinder.

The finishing touches involved theming the outside of the structure that protruded above ground level with gunite, to make it look like, and blend in with, surrounding karst outcrops - and burying, landscaping and planting the roof.

Finally, on July 28, 2005, after addressing all of the stakeholders' needs and having staff swim 200 metres to work for eighteen months, dig out 300 tonnes of silt by hand, mix 1000 cubic metres of concrete and lose 10 kilograms in weight each, a 17 and a half year project reached a successful conclusion. Ruakuri Cave re-entered the tourist arena as an innovative 1.2 km long, dry, wheel chair accessible journey.

Paper 22: **JOHN ASH**
 9.30 – 10.00 *The Big Step from Carbide to Electricity: Cavers Re-Light Ruakuri Cave*

There have been some fine ACKMA papers in the last couple of years - on re-lighting Lucas Cave and the Temple of Baal Cave at Jenolan as well as a delightful diversion to fibre optics at Kelly Hill Caves on Kangaroo Island. Then there is the work of Neil Kell who talks about being creative, inspirational, insightful and arty but is pragmatic enough to say “no light....no access” – and

doesn't that set the scene.

This paper is a ‘retrospective’ in the sense that it is looking back on a project already completed – or possibly it is an ‘introspective’ in that it deals with personal feelings of achievement (or lack of) with regards to tackling the re-lighting of Ruakuri Cave, Waitomo NZ.

Paper 23: **VAN WATSON**
 10.00 – 10.30 *Ruakuri Walkways – Practical Cave Engineering*

Recreational Cavers started an adventure caving business in a ‘Tourist Cave’. Much later on they got to design and

fit a new ‘Tourist Cave Tour’ into that cave. This is what happened.

Paper 24: **VAN WATSON & ANGUS STUBBS**
 10.30 – 11.00 *Ruakuri cave – Guiding the Product*

What we knew then? How guides came into the BWR/ Ruakuri fold, where they got their passion for caves and how BWR moulded its guiding style. What we did. How we perceived the Ruakuri product could be guided, trials and training and how we started guiding the product.

Modifying how physical constraints, Client expectations and Guiding X factors change how the trip runs. The future – How do we tap into a guide’s passion for their profession and consistently deliver a quality, memorable product.

Paper 25: **DAVE SMITH**
 11.15 – 11.45 *Ruakuri – environmental management & development*

Ruakuri is a Waitomo, New Zealand, cave recently reopened to visitors. The cave has a number of valuable features including significant speleothems and sediment deposits, cave fauna and historic values. It operated as a show cave from 1904 to 1988. The recent re-development (by a major national tourism operator, Tourism Holdings Ltd), included a new tunnel entry, a new internal tunnel, relighting, and new pathways. The cave traverses three tenures of land: private land, road reserve and Scenic Reserve. The development was subject to the conditions of environmental resource consents from two local authorities and the concession process of the Scenic Reserve. The cave is of great

significance to the local community, especially to local iwi.

Environmental management and development had to take into account this complex range of tenures, interest groups and statutory requirements, the values of the cave, the effects of tunnelling and other in-cave works and the potential effects of visitation. Environmental monitoring and management regimes were established to protect the cave through the development stage and into the operational phase. Examples include airflow management, tunnelling monitoring, speleothem protection, sensitive walkway development and lighting systems.

Paper 26: **PAUL GRIFFITHS & CAROL RAMSEY**
 11.45 – 12.15 *The Story of SPAET Cave, British Columbia, Canada*

SPAET Cave was a karst cave located on privately owned land near Victoria, the capital city of the Province of British Columbia. Beyond its natural attributes, the small cave had considerable historical, cultural, aesthetic, scientific and educational value. In particular, elders and other informed members of local First Nations had articulated the spiritual value and cultural meaning of the cave site. SPAET Cave was ultimately destroyed by land development activities authorized by government entities, seriously harming British Columbia's evolving reputation for cave conservation and environmental stewardship.

While primary forestry activities in British Columbia may no longer pose as great a threat to cave and karst resources as they once did, population growth and urban sprawl have placed SPAET Cave and other caves on privately owned lands in the Greater Victoria area at risk from land development activities. The SPAET Cave site came into conflict with a \$5 billion development project described as the largest of its kind in British Columbia, with two major hotels, two golf courses and plans for 5,500 homes.

This paper examines the application of existing legislation, regulations, policies and practice guidelines in the case of SPAET Cave.

There are currently no provisions in provincial legislation to require protection or special management for caves on privately owned lands in British Columbia, except by special circumstance. BC also has a comprehensive set of voluntary best practice guidelines for urban and rural land development. These guidelines recognize caves as environmentally valuable and

sensitive resources. The story of SPAET Cave will illustrate why private land developers in British Columbia cannot always be relied upon to automatically or voluntarily protect and conserve valuable and sensitive caves or karst resources.

While the story of SPAET Cave is not exactly a new one for British Columbia, it is hoped resolving the problems discussed in this paper will make it easier to avoid future cave losses.

DAY 6 – FRIDAY 4 MAY

Paper 27:

9.00 – 9.30

PROFESSOR ELERY HAMILTON-SMITH

Saying What we Mean: Comments on the Vocabulary of Tourism

Everybody is now well aware of the growing concern for conservation and protection of important places, and today with the concept of sustainability. Regrettably, we often forget that ideas like this have been about since at least since the Neolithic.

This paper will review the range of provisions for international recognition that have come into place since

the 1960s: Biosphere Reserves, Ramsar wetlands, World Heritage, the UN Charter for Nature, and now Geoparks. We have seen a steady improvement in both the extent and quality of conservation management. But today, this is being overtaken by tourism with both excessive numbers of travellers and conversion of protected areas into cheap amusement parks.

Paper 28:

9.30 – 10.00

TOMAŽ ZORMAN

Škocjan Caves Park, Slovenia - Visions

Due to their exceptional significance, the Škocjan Caves were entered on UNESCO's list of natural and cultural world heritage sites in 1986. In 1999, the Caves were entered on the Ramsar Directory of Wetlands of International Importance as the first European Ramsar site in accordance with the guidelines for the designation of underground wetlands.

In October 2004, the Škocjan Caves Park was included in the world network of biosphere reserves MAB – "Man and the Biosphere" as the "Karst Biosphere Reserve"; all of this was under the auspices of UNESCO. By 2004, there were only 19 locations in the world, including the Park, that participated in all three of the above-mentioned programmes.

The Park is also part of the European network, Natura 2000, which is aimed at the conservation of areas of internationally important animal and plant species and natural habitats.

The protected area of the Park covers 413 hectares and encompasses three villages, Matavun, Škocjan and Betanja, with a total of 67 inhabitants. The area of influence of the Škocjan Caves Park covers about 45,000 hectares and includes the entire Reka River watershed. The Škocjan Caves Public Service Agency, established by a Decision of the Government of the Republic of Slovenia, began to operate in 1997. The highest body of

the Park is the Agency's Council which comprises the representatives of various ministries, local community and the Slovenian National Commission for UNESCO.

Since its establishment, the Park has been fostering exemplary co-operation with local inhabitants in the area of natural and cultural heritage protection, cultural heritage renovation and organization of various activities.

Biodiversity in the Park is an important and valuable feature. It represents unique evidence of the Earth's history and geological development in the area as well as enabling the preservation of data in the genetic code of all rare and endangered animal and plant species while shaping the history of the area and its inhabitants.

This enables an original approach to environmental education. Special attention is paid to young people with far-reaching goals such as building awareness of nature and the problems of social activities in such areas as economy and politics, education for tolerance and respect, responsible action and use of knowledge.

The Park's Management carries out work programmes in accordance with the Programme for Protection and Development of the Škocjan Caves Park (a management plan) as well as professionally and responsibly managing our natural and cultural heritage.

Paper 29: **GREG MIDDLETON**
10.00 – 10.30 *Grande Caverne - a new show cave for Rodrigues, Mauritius*

The caves of the calcareous aeolianite of South-West Rodrigues (Mauritius, Indian Ocean) have been known since at least 1786 when the first bones of the extinct, flightless Solitaire were collected from them. One cave, Caverne Patate, has been operated as a show cave for a very long time and, since flaming torches were used for lighting until 1990, has suffered considerably from soot deposits. Most of its accessible speleothems have been souvenired.

In 2001 Mauritian/Australian naturalist and entrepreneur, Owen Griffiths, conceived of a project to restore the native vegetation of part of the aeolianite plain of SW Rodrigues, reintroduce giant tortoises to the site and provide visitor access to the underlying caves. In due course a lease of nearly 20 hectares was obtained from the Rodrigues administration, a new company, François Leguat PL, was established to run the project and a program to breed the necessary tortoises was commenced on Mauritius.

The author was invited to advise on the opening of Grande Caverne as a guided show cave and Caverne de la Vierge as a guided 'adventure' cave and to provide

interpretative material. A Rodriguan with a natural history background has been engaged to run the cave tours and late in 2005 was given on-the-job training in South-West Western Australia through cooperation with the Augusta-Margaret River Tourist Bureau (Caveworks).

Planning of pathways in Grande Caverne commenced in September 2006 and initial tests of cave lighting were carried out. Recycled plastic planking is to be used for the pathway surface, supported by polyethylene pipe where it crosses sediment floors and steel framing where it is elevated. Handrails will be of stainless steel.

The principle guiding the design and installation of the pathway is that it should have minimum impact on the cave and that all structures should be fully removable. It is likely that lighting will utilise 12 volt dichroic lights but consideration is also being given to the use of state-of-the-art large 24 volt LED arrays. Complex lighting control systems will be avoided in favour of a simple physically-switched system which can be serviced by local personnel. Current planning would have the giant tortoise and cave park open by mid-to-late-2007.

Paper 30: **XIAO SHIZHEN**
10.30 – 11.00 *South China karst and Libo World Heritage Nominated site*

China has more than 1,250,000 km² of Karst. Three sites in South China are currently under consideration for World Heritage recognition. They are the Shilin Stone Forest, the massive landforms of Wulong and the Libo Karst. Other sites will be progressively nominated to constitute the total South China Karst Nomination. The Libo site (in the Southeast of Guizhou) is a major and complex cone karst area, but has what is considered to be one of the finest sub-tropical rainforests of the world. The Shui people have managed an important section of

this forest (Maolan) for sustainability for at least the last 1200 years.

The forests are diverse in form and demonstrate a great biodiversity. 174 species have also been collected from the caves. Overall, the striking landscapes and the rich flora and fauna make it a place of great beauty. Finally, the rich cultural traditions of the various minority people make it also a place of great joy.

Paper 31: **EMILY DAVIS**, North eastern Cave Conservancy
11.15 – 11.30 *History of Cave Conservation; New York State, USA*

New York can not look with pride on its cave conservation history. Caves have been stripped of formations and groundwater problems ignored. The state

will not pass a cave protection bill. Slowly small land trusts are taking the challenge to improve this situation.

Paper 32: **EMILY DAVIS & JOHN SAGANDORF**
11.30 – 11.45 *Conservancies and Show Caves in Partnership: A Case Study of the Evolution of a Relationship.*

In the late 1980s the staff of the National Speleological Society Fiftieth Anniversary Convention approached Howe Caverns to see if the convention Howdy Party could be held on the property. Upon visiting the cave we found that the staff did not see the cave as the cavers did. The local cavers and volunteers who were working on the NSS Convention visited Howe several nights

between that first visit and the very successful Howdy Party on July 1, 1991. his started a relationship that has developed and flourished to this day. A partnership between the management of Howe Caverns and the cavers of the North eastern USA has benefited both parties.

Paper 33:

11.45 – 12.15

SUSAN WHITE¹, GREG MIDDLETON² AND NICHOLAS WHITE³***Karst Issues in an Hydro-electric Power Proposal: Iralalero-Paitchau Karst, Timor-Leste***¹ Latrobe University Environmental Geoscience, & Victorian Speleological Association² Sydney Speleological Society, & Southern Tasmanian Caverneers.³ Australian Speleological Federation Conservation Commission, & Victorian Speleological Association

The proposed Iralalero hydro-electric scheme in far eastern Timor-Leste would divert water from the Irasiquero River upstream of the Mainina sinkhole to a tunnel through the Paitchau Mountains leading to a power station on the coast.

The Iralalero-Paitchau Mountains area is a karst region, containing a wide range of karst-related landforms and features. These include a large polje, collapse dolines, sinkholes, blind valleys, karren, caves and springs. A substantial component of the hydrology is underground and the area relies on underground water for almost all of its water supplies. The area has significant surface and underground geodiversity and biodiversity.

The proposal, as currently formulated, appears to have a number of significant limitations which, unless adequately addressed, could cause significant cost overruns and/or seriously undermine the scheme's viability. Estimates of the construction costs appear to have underestimated the risks and costs of drilling, tunnelling and de-watering the karstic terrain, and as a result are inadequate.

Understanding of the relationship between the lake and the watertable is inadequate, as are stream flow records, with consequent implications for sustainable power generation from the scheme. The karst has not been subjected to a thorough and detailed study by experts in this specialised field, and the implications of the karstic

nature of the terrain appear to have been poorly understood. A full investigation of the hydrology, caves and karst features of the region is essential.

The proposed hydro scheme is incompatible with the maintenance of many of the natural and cultural values which give the area its special significance and ecotourism potential. It jeopardises proposals to provide protection to the special environmental values of the area and could damage precisely the features most likely to attract adventure tourists, putting at risk the development of tourism in the region.

The people living in the environs of the proposed scheme appear ambivalent about the possible benefits. A lowered regional watertable may affect the entire population and agricultural production east of Los Palos. The existing proposal inadequately addresses the problems of the very limited infrastructure in the area.

There are serious questions as to the ability of the proposed scheme to provide the claimed electricity output on a continuing basis at the currently estimated costs and with the suggested low levels of environmental impact.

Despite the serious inadequacies in the investigations and documentation there are indications that the Timor-Leste Government is likely to approve the scheme.

Paper 34:

12.15 – 12.45

STEVE BOURNE AND CATHIE PLOWMAN*If you've seen one cave, have you seen them all?***Interpretation Workshop introduction.**

While show caves offer much variety there is often a great deal of similarity when it comes to the visitor experience of them. Cave tours have mostly moved beyond the fantasy tours delivered for well over 100 years in Australia. The need to deliver a more conservation and educational tour to visitors was identified by several authors in the 1980s and the focus changed. Unfortunately, most tours now deliver the same information, no matter where the cave is.

The typical cave tour will involve the cave's discovery, some geology, speleothem growth including how fast they grow, any number of ideas on how helictites grow (or none!) and how old the largest stalagmite might be. An oft quoted statement by visitors "seen one cave, seen 'em all" is not true, it is more a reflection of how the cave tour is delivered. Research by tourism organisations

shows today's travelling public are far more discerning and are seeking *experiences*. So how do we deliver different experiences in caves? Guides and managers have a suite of possibilities for differentiating their tours.

Firstly there are a range of options besides the traditional guided tour with a commentary. And, secondly, the use of thematic interpretation enables endless possibilities for guided tours with both variety and powerful long-lasting messages. While creating variety presents challenges to managers and guides, the rewards are more meaningful cave experiences for visitors and more satisfying and varied options for those who present cave tours. This presentation will introduce a workshop on thematic interpretation that will be delivered later in the conference.

POSTER PRESENTATION

The following poster will be presented at the Conference:

PRELIMINARY MICROCLIMATE STUDY OF FORESTED KARST SINKHOLES, NIMPKISH RIVER AREA, NORTHERN VANCOUVER ISLAND, BRITISH COLUMBIA, CANADA

T. R. Stokes, Terra Firma Geoscience, 1480 Sherwood Drive, Nanaimo, British Columbia, Canada, V9T 1G7
<tstokes@island.net>

P. A. Griffiths, Cave Management Services/KarstCare, 544 Springbok Road, Campbell River, British Columbia, Canada, V9W 8A2 <priff@island.net>

Carol Ramsey, Campbell River, British Columbia, Canada. <sciurus46@yahoo.ca>

A preliminary investigation into the microclimatic conditions of forested karst sinkholes was carried out in the Nimpkish River Area of northern Vancouver Island, British Columbia. The 'Karst Management Management Handbook for British Columbia (BC)' best practice guidelines indicates that some forested sinkholes on karst (particularly ones of larger dimensions) likely have their own microclimates, and thus possibly support ecologies with habitats for specific types of flora and fauna. Forestry companies who identify such features are advised to leave a two tree-length reserve area around such sinkholes, plus a surrounding management area if required for windthrow mitigation.

However, in reality little is known about the characteristics of forested sinkholes that generate microclimates in coastal British Columbia, and also what are likely forest stand conditions or attributes that define such a microclimate. Therefore the goals of this project were to firstly determine the nature of the sinkhole microclimates using near-ground air temperature as a proxy indicator for microclimate, and to secondly examine what characteristics of forested sinkholes (such as size, depth, and overall shape) govern their ability to generate a distinct microclimate. An additional goal was to assess how timber harvesting operations might affect sinkhole microclimates, and to determine whether simple field techniques could be developed to monitor these effects.

Two large sinkholes were selected for the study in the Nimpkish River area of northern Vancouver Island – one forested and one where the trees had been clearfelled up to the rim of the sinkhole. The forested sinkhole is approximately 30 m in diameter and 7-10 m deep and is located approximately 75 m from the edge of a clearcut. The 'logged' sinkhole has similar dimensions to the forested sinkhole and is located within a clearcut. Temperature data loggers (LogTag Recorders - Model TRIX-8) were deployed in an array in and around each of the three sinkholes.

Nine of these data loggers were used to monitor the air temperature at each sinkhole – four on the sinkhole rim as defined by the upper slope break (at the north, south, east and west cardinal directions); four on the midslopes (at the north, south, east and west cardinal directions) and one at the drainage focus of the sinkhole. A series of

control sites were set up in the surrounding forested and clearcut areas. These data loggers were left in place and set to take measurements at intervals of every ¼ hour from June to December 2006. Three of the warmer days of the summer (June 28, 29 and 30, 2006) were initially chosen for detailed analysis to identify trends and patterns of air temperature changes. Preliminary analyses of the three-day period have indicated that air temperatures for the clearcut control site ranged from 0 °C to 35 °C, while the forested control site ranged from 4°C to 23 °C during the same period. Temperatures at the drainage focus of the logged sinkhole ranged from 2°C to 24°C, while those at the drainage focus of the forested sinkhole ranged from 5 °C -15 °C. Temperature ranges for the rim and midslopes of the forested sinkhole were somewhat similar to the forested control site. However for the logged sinkhole, the rims had similar temperature ranges to the clearcut control site, while midslopes had slightly lower upper range values compared to the clearcut control site.

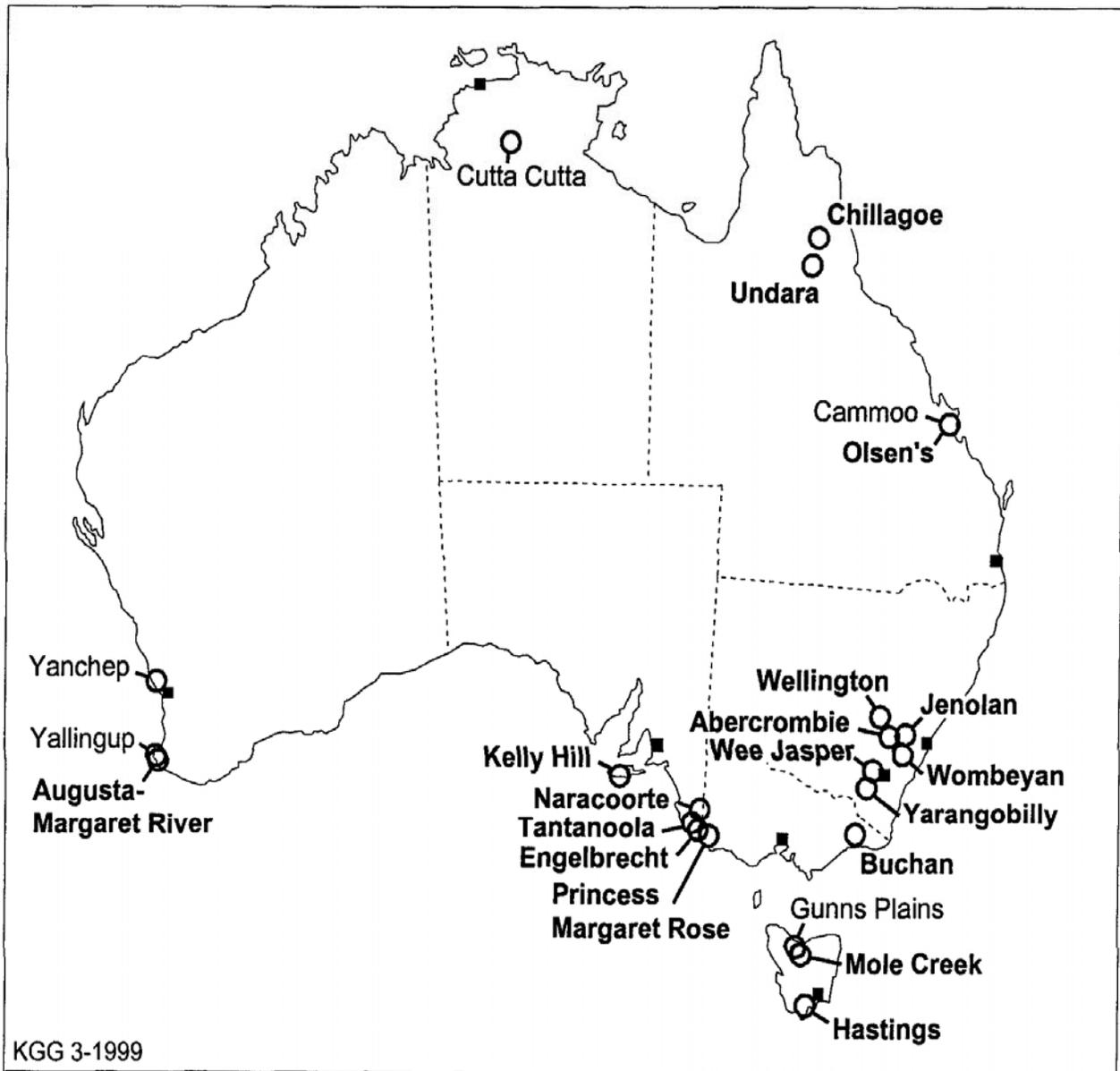
From these data it is apparent that the range of air temperatures in the drainage focus of the large forested sinkhole is much narrower than those of the forested control site. The drainage focus is in fact distinctly cooler (by 8 °C) than the forested control site during the warmest time of the day (mid-afternoon), while it is slightly warmer (by 1 °C) during the coolest times of the day (early morning). It can therefore be reasonably inferred that these temperature differences could lead to distinct microclimatic conditions at the drainage focus, possibly with increased potential for ground moisture retention and higher ambient relative humidity.

In addition to this, it can be speculated that this drainage focus could provide different habitat or ecological niches as compared to the surrounding forest. Interestingly, the air temperatures recorded at the midslopes and rims do not appear to be too dissimilar to the forested cover control site. This may require more investigation. A significantly greater range in temperatures is also apparent between drainage foci of the logged sinkhole and the forested sinkhole (2°C -24 °C and 5 °C -15 °C, respectively). This difference provides some indication as to the level of disturbance that surrounding logging activities can have on the microclimates at the base of a sinkhole of this size and shape.

In conclusion, our preliminary findings show that large forested sinkholes do exhibit distinct microclimates that can be measured and defined to some extent using air temperature as a proxy indicator. A key outstanding question is how important is it to preserve these microclimates at the base of these sinkholes, and what size of tree buffer is most suitable or reasonable? It appears that these sinkhole microclimates are likely important for certain specific fauna and flora, but are they also probably essential for the karst hydrological and geomorphological functions and processes that occur within and around forested sinkholes. In the larger picture of karst management in coastal British Columbia, important.

this research should be considered only as a first step in evaluating the impacts of forestry activities on forested sinkholes.

Temperature data loggers appear to be a reasonably inexpensive method to monitor microclimatic conditions, and can potentially be used by forest companies to ensure the effectiveness of their karst management strategies for sinkholes with distinct microclimates. This is critical for the new era of the results-based forest practices in BC, where professional reliance and the use of routine-level effectiveness evaluation indicators are becoming more and more.



Location of Australia's Show Caves. Map by Ken Grimes.

LIST OF DELEGATES/ATTENDEES

(alphabetically arranged)

- 1. JAY ANDERSON** **2nd Conference Attendance**
 P. O. Box 443, Cloverdale, Western Australia. 6985.
 Tel. (+61 8) 9757 7411 (work), 0407 473 539 (mobile), Email: <jayanderson@margaretriver.com>
 Caves Manager – Augusta Margaret River Tourism Association. An active speleologist, with a strong background in karst management, including post graduate study. Currently also President of the Australian Speleological Federation (ASF). Her interests include interpretation, biospeleology, leadership and cave rescue.
- 2. ROSS ANDERSON** **1st Conference Attendance**
 P. O. Box 443, Cloverdale, Western Australia. 6985. Tel. 0407 473 539 (mobile).
 Email: <rossjay@iinet.net.au>
 Ross works as a rope access technician in the oil and gas and mining industries. Speleological interests include a long term exploration and documentation project in the Napier Ranges of the West Kimberley's, cave rescue organization and training, photography, cave inventories and documenting cave fauna.
- 3. JOHN ASH** **8th Conference Attendance**
 C/- Post Office, Waitomo Caves, New Zealand. 2566.
 Tel. (+64 7) 878 8384 (home), Email: <jkash@xtra.co.nz>
 Formerly Joint owner/operator of Black Water Rafting. Recreational caver since 1950s. Interested in cave conservation, trip dynamics, and guide training, photography and all things karstic. ACKMA Education Officer, NZ (1995-97).
- 4. PETER AUSTEN** **1st Conference Attendance**
 P. O. Box C283, CSULPO, Bathurst, New South Wales, Australia. 2795.
 Tel. (+61 2) 6332 5888 (work), (+61 2) 6332 9399 (fax),
 Email: <peter.austen@jenolancaves.org.au>
 Commercial Manager, Jenolan Caves, New South Wales.
- 5. GLENN BADDELEY** **1st Conference Attendance**
 P. O. Box 2277, Mount Waverley, Victoria, Australia. 3149.
 Tel. (+61 3) 9808 7248 (home), (+61 3) 9808 4249 (work), 0412 357 408 (mobile),
 Email: <gnbaddeley@pacific.net.au>
 Current Vice President, Past President, Life Member, and Parks Victoria Liaison Officer – Friends of Buchan Caves Inc. Full Member, Records Keeper, & Past President – Victorian Speleological Association Inc. Full Member, Caving Activity Leader and Instructor – Victorian Scout Caving Team. Business Manager of ASF's *Helictite* journal. Interested in cave exploration, documentation and conservation.
- 6. DR. CLAIRE BAKER** **4th Conference Attendance**
 27 Regent Street, Woolloongabba, Queensland, Australia. 4102.
 Tel. (+61 7) 5545 1666 (work), 0418 722 550 (mobile), Email: <bugsyklaire@yahoo.com.au>.
 Claire was hooked on glowworms from the first time she laid eyes on one of their bums! She has been researching of Australian glowworms fauna since 1997, and still has many unanswered questions. She manages the Tamborine Mountain Glowworm Caves, and is still actively researching at the University of Queensland. Accompanying to the Conference: **Mark Gahan**.
- 7. SERENA BENJAMIN** **2nd Conference Attendance**
 33 Coolamon Road, Taroona, Tasmania, Australia. 7053
 Tel. (+61 3) 6227 8338 (home), Email: <serenab@utas.edu.au>
 Honours graduate in karst science, University of Tasmania. Member of Southern Tasmanian Caverneers. ACKMA Life Member's Fund award recipient, 2005.

8. STEVEN BOURNE**5th Conference Attendance**

P. O. Box 134, Naracoorte, South Australia. 5271.

Tel. (+61 8) 8762 0301 (home), (+61 8) 8762 3412 (work), 0428 833 752 (mobile)

Email: <bourne.steven@saugov.sa.gov.au>

President of ACKMA. Fellow of ACKMA. Manager of Naracoorte Caves National Park – a World Heritage Fossil Site. Keen interest in fossil research and management of fossil sites, including assisting local land owners with fossil caves.

9. GEORGE BRADFORD**1st Conference Attendance**

Yarragobilly Caves, Kosciuszko National Park, New South Wales, Australia. 2720.

Tel. (+61 2) 6454 9597 (home and work), (+61 2) 6454 9598

(FAX), Email: <george.bradford@environment.nsw.gov.au>

Manager, Yarragobilly Caves, New South Wales.

10. DAVID BUTLER**3rd Conference Attendance**

“Lueena”, 637 Deviot Road, Deviot, Tasmania, Australia. 7275

Tel. (+61 3) 6394 7686 (home), 0427 947 686 (mobile), Email: <lueena@bigpond.com>

Member of Northern Caverneers, Tasmania. Long history of caving in Northern Tasmania. Member of Karst Cave, a community group involved in cave management in northern Tasmania.

11. DALE CALNIN**7th Conference Attendance**

Buchan Caves Reserve, Caves Road, Buchan, Victoria, Australia 3885

Tel. (+61 3) 5155 9414 (home), (+61 3) 5162 1908 (work), 0427 832 471 (mobile), (+61 3) 5155 9490 (fax),

Email: <dcalnin@parks.vic.gov.au>

Fellow of ACKMA. Conference Convenor. Ranger-in-Charge of the Buchan Caves Reserve & Snowy Mountains National Park (West). Responsible for the management of the Buchan Caves and the National Park, and the wider Karst areas of Buchan and Murrindal.

12. DEBORAH CARDEN**5th Conference Attendance**

Department of Conservation, 72 Russell Street, Westport, New Zealand

Tel. (+64 3) 731 1843 (home), (+64 3) 788 8008 (work), (+64 3) 788 8009 (FAX),

Email: <dcarden@doc.govt.nz>

ACKMA's Karst Science Officer (NZ). Department of Conservation Ranger, Westport. ACKMA Conference 2005 – organising committee member. Treasurer of New Zealand Speleological Society.

13. MICHAEL CHALKER**11th Conference Attendance**

Wombeyan Caves, P. O. Box 18, Taralga. New South Wales, Australia. 2580.

Telephone: (+61 2) 4843 5976 (office & home), (+61 2) 4843 5988 FAX.

Email: <wombeyan@goulburn.net.au>

Life Member, ACKMA Inc.; Past President, ACKMA Inc.; Convenor: 14th Australasian Conference on Cave & Karst Management (Wombeyan Caves, New South Wales, 2001). Manager, Wombeyan, and Abercrombie Caves – NSW National Parks & Wildlife Service.

14. PETER CHANDLER**10th Conference Attendance**

277 Te Anga Road, Waitomo Caves, New Zealand. 3993.

Tel. (+64 7) 878 7621 (office & home), 027 327 9892 (mobile), Email: <pete_lib@xtra.co.nz>

Life Member of ACKMA. Past President of ACKMA. Currently NZ Vice President. Manager/Director 'Spellbound Ltd – Eco Cave Tours'. Previously co-owner of Blackwater Rafting (for 16 years).

15. DAVE CHITTY**1st Conference Attendance**

P. O. Box 393, Beechworth, Victoria, Australia. 3741.

Tel. 0419 280 614 (mobile), 0419 285 491 (mobile FAX), Email: <agati@netc.net.au>

Owner/Director – *Adventure Guides Australia*: outdoor adventure company (rock climbing, caving, camping, etc.). Member: Victorian Speleological Association.

16. BRIAN CLARK**9th Conference Attendance**

Mulu National Park, CDT 62, 98007 Miri, Sarawak, Malaysia.

Email: <brianclark@mulupark.com>

Fellow of ACKMA. Past President of ACKMA. Manager and Ranger-in-Charge, Mulu National Park, Sarawak. Former Manager of Naracoorte Caves World Heritage Area, South Australia. Convenor, 13th ACKMA Conference, Mt. Gambier, 1999.

17. ASSOCIATE PROFESSOR IAN D. CLARK**1st Conference Attendance**

School of Business, University of Ballarat, P. O. Box 663, Ballarat, Victoria, Australia. 3353.

Tel. (+61 3) 5341 7715 (home), (+61 3) 5327 9436 (work), Email: <i.clark@ballarat.edu.au>

Associate Professor in Tourism; interested in Indigenous tourism, and Indigenous association with caves.

18. ARTHUR CLARKE**5th Conference Attendance**

P. O. Box 245, North Hobart, Tasmania, Australia. 7002.

Telephone: (03) 6228 2099 (office and home), (03) 6298 1107 (Dover), (03) 6226 2745 FAX.

Email: <arthurc@southcom.com.au>

Fellow of ACKMA. Honorary Research Associate, University of Tasmania. Cave Biologist, investigating biodiversity and ecology of cave-dwelling species in cave/karst ecosystems in Tasmania, Tsingy karst in Madagascar, and the limestone karsts of southern, south western and central China. Added interests are the conservation and history of caves and karst in Tasmania.

19. NEIL COLLINSON**6th Conference Attendance**

P. O. Box 1, Te Anau, New Zealand.

Tel. (+64 3) 249 8181 (home), (+64 3) 249 8646 (work), 027 229 0759 (mobile), (+64 3) 249 7022 (FAX),

Email: <ncollinson@realjourneys.co.nz>

Te Anau Area Manager of 'Real Journeys' tourism and sightseeing company; operators of Te Anau Glow-worm Caves in Fiordland National Park, South Island, New Zealand.

20. GRANT COMMINS**1st Conference Attendance**

2515 Jenolan Caves Road, Hampton, New South Wales, Australia. 2790.

Tel. (+61 2) 6359 3167 (home), (+61 2) 6359 3926 (work), 0248 515 948 (Mobile),

Email: <grant.commins@jenolancaves.org.au>

Visitor Services Manager, Jenolan Caves. Supervisor – Jenolan Caves guiding staff. Responsible for commercial operations at Jenolan Caves.

21. RUSSELL COMMINS**1st Conference Attendance**

Level 2, 203-209 Russell Street, Bathurst, New South Wales, Australia. 2795.

Tel. (+61 2) 6332 2217 (work), Fax: (+61 2) 6332 3150.

Email: <russell.commins@environment.nsw.gov.au>

Policy Officer, Karst Management Unit, NSW Department of Conservation. Long term recreational caver. Multi-pitch vertical cave guide instructor for Jenolan Caves for eight years.

22. TRAVIS CROSS**2nd Conference Attendance**

242 Waitati Valley Road, RDZ Waitati, New Zealand. 9085.

Tel. (+64 3) 482 2272 (home), Mobile: 021 061 1156, Email: <traviscross@gmail.com>

Masters Student in Geology, Otago University, New Zealand – Looking at Bulmer Cavern, North West Nelson, NZ. Conservation and Research Coordinator, New Zealand Speleological Society.

23. TONY CULBERG**4th Conference Attendance**

P. O. Box 122, Lindisfarne, Tasmania, Australia 7015

Tel. (+61 3) 6243 0546 (home), (+61 3) 6243 0829 (fax), Email: <culbergf@bigpond.com>

Retired operator: 'Exit Cave Adventure Tours'. Secretary Australian Speleological Federation 1974-1980. Secretary – Tasmania Caverneering Club 1974-1980.

Accompanying to the Conference: **Pat Culberg**

24. BRETT DALZELL**4th Conference Attendance**

P. O. Box 569, Ceduna, South Australia. 5690

Tel. (+61 8) 8625 2978 (home), (+61 8) 8625 3144 (office), 0409 209 410 (mobile),

(+64 8) 8625 3123 (fax), Email: <dalzell.brett@saugov.sa.gov.au>

District Ranger, Department of Environment and Heritage, South Australia, based at Ceduna. Responsible for the South Australian section of the Nullarbor karst. Keen caver and environmentalist.

25. EMILY DAVIS**1st Conference attendance**

P. O. Box 10, Scholarie, NewYork, U. S. A. 12157.

Tel. (+1 518) 295 7978 (home and work), email: <speleobooks@speleobooks.com>

Member: National Speleological Society (USA). Interests include cave management of conservancy-owned caves, show cave – caver cooperation.

26. GEOFF DEER**2nd Conference Attendance**

1479 Gunns Plains Road, Gunns Plains, Tasmania, Australia 7315.

Tel. (+61 3) 6429 1133 (home), (+61 3) 6429 1388 (work), 0411 294 778 (mobile). (+61 3) 3642 1362

(FAX), Email: <gunnsplainscaves@bigpond.com>

Trish and I hold the lease of Gunns Plains Caves, Tasmania (since September 2004), following a lifelong interest in caves by both of us. We are interested also above ground and wish to use our horticultural knowledge to return parts of the Reserve to its natural state using endemic plants from seed collected locally.

27. TRISH DEER**1st Conference Attendance**

1479 Gunns Plains Road, Gunns Plains, Tasmania, Australia 7315.

Tel. (+61 3) 6429 1133 (home), (+61 3) 6429 1388 (work), 0411 294 778 (mobile). (+61 3) 3642 1362

(FAX), Email: <gunnsplainscaves@bigpond.com>

Geoff and I hold the lease of Gunns Plains Caves, Tasmania (since September 2004), following a lifelong interest in caves by both of us. We are interested also above ground and wish to use our horticultural knowledge to return parts of the Reserve to its natural state using endemic plants from seed collected locally.

28. ALBIN DEBEVEC**1st Conference Attendance**

Javni Zavod Park Škocjanske Jame, Skocjan 2, SI-6215 Divača, Slovenia

Tel. (+386 5) 7082 100 (work), (+386 5) 7082 105 (FAX), Email: <albin.debevec@psj.gov.si>

Director of Park Management of Tourist Caves, Škocjanske Caves, Slovenia, under World Heritage, Ramsar and MAB protection. Accompanying to the Conference: **Doroteja Debevec**.

29. ROLAN EBERHARD**4th Conference Attendance**

Nature Conservation Branch, Department of Primary Industries, Water & Environment,

G. P. O. Box 44, Hobart, Tasmania, Australia. 7001.

Tel. 61 3 6233 6455, Fax 61 3 6233 3477, Email: <rolan.eberhard@dpiwe.tas.gov.au>

Australian Vice-President, ACKMA. Rolan works on karst projects in the nature Conservation Branch of the Department of Primary Industries, Water & Environment in Tasmania. Recent projects include: environmental monitoring systems in show caves, strategy for managing caves in the Tasmanian Wilderness World Heritage Area, hydrogeological mapping of karst systems at Mole Creek, management plan for the Mole Creek Karst National Park and Tasmania's Reserve management Code of Practice (operational standards for management of protected areas.)

30. IAN EDDISON**1st Conference Attendance**

Locked Bag, Jenolan Caves, New South Wales, Australia. 2790.

Tel. (+61 2) 6336 0505 (home& fax), (+61 2) 6359 3911 (work), 0422 567 559 (mobile),

Email: <eeddo@optusnet.com.au>

Guide for nine years as Jenolan Caves. Attended cave guide workshops at Wombeyan, Naracoorte, Mole Creek, and Margaret River. Interested in caves history, and flora and fauna. Hold NSW TAFE certificates in Outdoor Guiding, Tour Guiding, and Tourism, Sales and Marketing. I have a professional background in retail, sales, advertising and marketing.

31. BRETT FARQUHARSON**3rd Conference Attendance**

P. O. Box 2024, Bowning, New South Wales, Australia. 2582
Tel. (+61 2) 6227 6133 (home), Mobile: 0412 427 051.
Email: <brettlesley@austarnet.com.au>
Long time scout Association instructor and assessor in caving.

32. KEN GRIMES**4th Conference Attendance**

RRN 795, Morgiana Road, Hamilton, Victoria, Australia. 3300.
Tel. (+61 3) 5573 4503 (office & home),
Email: <remap1@ozemail.com.au>
Consultant geologist, specialising in karst studies. My particular interests are in mapping, documentation, soft-rock karsts, and lava caves. Member: ACKMA, CCV, CEGSA. Co-editor of *Helictite* journal. Lecturer for the Karst Hydrology subject in the CSU course in Karst Management.

33. GRANT GARTRELL**5th Conference Attendance**

P. O. Box 27, Mount Compass, South Australia. 5210
Tel. 61 08 8556 9100 (home & work), Fax: 61 08 8556 9142, Email: <blueberrypatch@bigpond.com>
ACKMA Treasurer, and ACKMA Fellow. Life member – Cave Exploration Group (South Australia). Interests include cave meteorology, cave morphology, conservation and interpretation. Co-discoverer World Heritage listed Fossil Cave, Naracoorte. Retired physicist and currently a farmer.
Accompanying to the Conference: **Merry Gartrell**

34. ALAN GRIFFIN**2nd Conference Attendance**

22 Helvetia Avenue, Berowra, New South Wales, Australia. 2081.
Tel. (+61 2) 9456 5226 (home), (+61 2) 9995 5272 (work), Fax: (+61 2) 9995 5299.
Email: <alan.griffin@environment.nsw.gov.au>
Administrator, Jenolan Caves Reserve Trust.

35. KAREN GRIFFITHS**1st Conference Attendance**

Cave Treks, 544 Springbok Road, Campbell River, BC V9W 8A2, Canada.
Tel: (+1 250) 923 1311, Email: <kgriff@island.net> or <karen.griffiths@marineharvest.com>
Wilderness cave tour operator for twenty-five years on Northern Vancouver Island, British Columbia.

36. ELERY HAMILTON-SMITH**16th Conference Attendance**

P. O. Box 36, Carlton South, Victoria, Australia. 3053.
Tel. (+61 3) 9489 7785 (home), Email: <elery@alphalink.com.au>
Life Member, ACKMA, and ACKMA Public Officer. Professor, Cave & Karst Management, Charles Sturt University, Albury, New South Wales. Chair, Task force on Cave & Karst Management, IUCN/WCPA
Accompanying to the Conference: **Angela Hamilton-Smith**

37. JAYME HATCHER**1st Conference Attendance**

13 Cardinal Crescent, Busselton, Western Australia. 6280.
Tel. (+61 8) 9757 1192 (home), (+61 8) 9757 7411 (work), (+61 8) 9757 7421 (FAX),
Email: <jaymehatcher@margaretriver.com>
Visitor Services Officer, *Caveworks*, Margaret River, WA. Conference Convenor-designate for the 2009 ACKMA Conference at Margaret River.

38. NIC HAYGARTH**1st Conference Attendance**

Unit 3, 42 Frederick Street, Perth, Tasmania, Australia. 7300.
Tel. (+61 3) 6398 1334 (home & work),
Email: <nicha@kooe.com.au>
Historian, co-author with Arthur Clarke of the forthcoming book – *Wonderstruck: A History of Tasmanian Show Caves*.

39. DAVID HEAD**1st Conference Attendance**

4 Soling Crescent, Cranebrook, New South Wales, Australia. 2749.

Tel. (+61 3) 4729 0996 (home), (+61 3) 9671 9999 (work), 0404 480 807 (mobile), (+61 3) 0971 9900 (fax),

Email: <david.head@weidmuller.com.au>

Principal engineer, Weidmuller Pty. Ltd. Designer of LED lighting for industrial applications, and caves.

40. NICK HEATH**1st Conference Attendance**

Kelly Hill Caves, PMB 38, Kingscote, Kangaroo Island, South Australia. 5223.

Tel. (+61 8) 8559 7231 (work), (+61 8) 8559 7373 (FAX), 0439 890 838 (mobile),

Email: <heath.nicholas@saugov.sa.gov.au>

Interpretive Guide at Kelly Hill Caves, Kangaroo Island, South Australia

41. KENT HENDERSON**11th Conference Attendance**

P. O. Box 332, Williamstown, Victoria, Australia. 3016.

Tel. (+61 3) 9398 0598 (home), 0407 039 887 (mobile), Fax: (+61 3) 939 80523.

Email: <kenthen@optusnet.com.au>

ACKMA Life Member. ACKMA Publications officer & Assistant Executive Officer. Editor, ACKMA Journal for past twenty years. Author of eight books on various show caves, including three on Buchan.

42. IAN HOUSHOLD**7th Conference Attendance**

Earth Sciences Section, Department of Primary Industries and Water, P. O. Box 44, Hobart, Tasmania,

Australia. 7012. Tel. (+61 3) 6239 0191 (home), (+61 3) 6233 3868 (work), (+61 3) 6233 3477 (FAX),

Email: <ian.houshold@dpiwe.tas.gov.au>

Fellow of ACKMA, and ACKMA Karst Science Officer (Australia). Geomorphologist with the Tasmanian Department of Primary Industries and Water. Primarily focused on geo-conservation work, particularly in karst and fluvial systems. Current research is into the effects of neotectonics on karst and river system evolution in South West Tasmania.

43. GEOFF KELL**1st Conference Attendance**

Carey's Cave, Wee Jasper, New South Wales, Australia. 2582.

Tel. (+61 2) 6227 7247 (home), (+61 2) 6227 9622 (work),

Email: <geoff@weejaspercaves.com>

Manager, Carey's Cave, Wee Jasper – involved in maintenance, marketing and touring of the cave for 15 years. Developing different approaches for involving visitors in the cave experience.

44. NEIL KELL**6th Conference Attendance**

P. O. Box 351, Tumut, New South Wales, Australia. 2720.

Tel. (+61 2) 6947 5749 (home & Fax), 0448 103 007 (mobile),

Email: <neilkell@yahoo.com>

Fellow of ACKMA, and a Churchill Fellow. Consulting designer of cave lighting, involving numerous projects nationally and internationally.

Involvement of over twenty years with the management and interpretation of Yarrangobilly Caves, New South Wales. Currently employed as an Interpretative Assistant at Yarrangobilly Caves.

45. KIM RYEON**2nd Conference Attendance**

Cave Research Institute of Korea, 370-43, Teogaedong, Chuncheon, Kangwondo, Republic of Korea, 200-

943. Tel. (+82 33) 242 5176 (work); (+82 11) 9996 5176 (mobile); (+82 33) 242 9314 (FAX);

Email: <caver92@hanmail.npt>

Vice-Director, Cave Research Institute of Korea. Cave explorer and scientist for 15 years – caved and researched in New Zealand, China, Greece, Slovenia, Italy and Korea. Cave diver. Contributor to many books and research reports on caves in Korea.

46. IAN LEWIS**1st Conference Attendance**

P. O Box 1055, Portland, Victoria, Australia. 3305.

Tel. (+61 3) 5522 4061 (work), (+61 3) 5522 4099 (fax), 0427 284 051 (mobile),

Email: <ian.lewis@centrelink.gov.au> or <kanawinka@yahoo.com.au>

Life-long interest in the caves, sinkholes and cave diving of south-east South Australia since the 1960s. Life Member of the Cave Exploration Group of South Australia (CEGSA), and Cave Divers Association of Australia. Author of several books on caves and cave diving. Involved in the investigation and assessment of the multiple cave diving deaths in the 1970s. Honors thesis on south-east caves and sinkholes, and completing Masters Thesis on the geology of major caves at Naracoorte.

47. MOIRA LIPYEAT**2nd Conference Attendance**

29a Celia Street, Redcliffs, Christchurch, New Zealand. 8081.

Tel. (+64 3) 384 2570 (home).

Long time underground and above ground karst enthusiast, Interested in photography, earth sciences and the history of caving. Co-author with Les Wright of "Delving Deeper, Fifty Years of Cave Discovery in New Zealand".

48. CHRISTIE MAHONY**1st Conference Attendance**

Department of Environment & Conservation, Yanchep National Park, Wanneroo Road, Yanchep, Western Australia. 6035. Tel. (+61 8) 9561 1004 (work), (+61 8) 9561 2316 (FAX), 0438 160 261 (mobile),

Email: <christie.mahony@dec.wa.gov.au>

Volunteer Coordinator, Yanchep National Park, Western Australia

49. GREG MARTIN**10th Conference Attendance**

Department of Conservation, Private Bag 3072. Hamilton, New Zealand.

Tel. (+64 7) 854 0255 (home), (+64 7) 858 1007 (work), 027 475 1460 (mobile), (+64 7) 838 1004 (fax),

Email: <gmartin@doc.govt.nz>

Past President, ACKMA, and ACKMA Fellow. Waikato Conservator, Department of Conservation, Hamilton, New Zealand. Chairman of the Waitomo Cave Management Committee and Chairman of the Waitomo Environment Trust.

50. DEREK MASON**6th Conference Attendance**

81 Maungakawa Road, RD4, Cambridge, New Zealand.

Tel. (+64 7) 823 5525 (home), Mobile: 0274 778829, Email: <thorntonridge@xtra.co.nz>

Cave Owner – Blackdown Caves, Waitomo (operating as 'Spellbound Tours')

51. MARY McCABE**3rd Conference Attendance**

64 Wentworth Terrace, Rockhampton, Queensland, Australia.

Tel. (+61 7) 4927 1051, 0427 377 455 (mobile).

Member of ACKMA, Central Queensland Speleological Society and the Australasian Bat Society.

52. SCOTT MELTON**1st Conference Attendance**

3 Burmah Road, Jenolan Caves, New South Wales, Australia. 2790.

Tel. (+61 2) 6359 3131 (home), (+61 2) 6359 3911 (work), (+61 2) 6359 3307 (fax),

Email: <meltdown260366@hotmail.com>

I have been a guide at Jenolan Caves since 1993. Member: Jenolan Caves Historical & Preservation Society for 26 years. Graduate (2002): CSU Certificate in Karst Management. I have participated in a guide exchange at Mammoth Cave, Kentucky, USA. Hobbies include collecting cave books, magnets, brochures and posters.

53. DR. NEVILLE MICHIE**5th Conference Attendance**

9 Patrick Street, Beacon Hill, New South Wales, Australia. 2100.

Tel. (+61 2) 9451 9379 (office & home), Email: <namichie@iinet.net.au>

Research scientist who works on cave climates and physical processes in caves. Have developed specialized instruments for observing and monitoring cave processes. Accompanying to the Conference: **Lyn Michie**.

54. TONY MITCHELL**1st Conference Attendance**

P. O. Box 260, Orbost, Victoria, Australia. 3888.

Tel. (+61 3) 5154 2428 (home), (+61 3) 5164 1372 (work), 0428 911 372 (mobile).

Email: <tonymitchell@dse.vic.gov.au>

Parks Victoria Fauna Management Officer – Forest stewardship and biodiversity, DSE, Orbost.

55. RENEE MOURITZ**1st Conference Attendance**

P. O. Box 170, Yallingup, Western Australia. 6282.

Tel. (+61 8) 9755 2585 (home), (+61 8) 9755 2152 (work), Email: <a.test@iinet.net.au>

Guide, Ngilgi Cave, Western Australia, of both show cave and adventure cave tours. I have an environmental science background and am interested in karst management. Currently researching local cave history.

56. GRAHAM PARKES**3rd Conference Attendance**

14–16 Tandara Road, Halls Gap, Victoria, Australia. 3381

Tel. (+61 3) 5356 4381 (office), (+61 3) 5356 4324 (home), Email: <gparkes@parks.vic.gov.au>.

Ranger-in-Charge, Grampians National Park (Eastern Victoria). Former Ranger-in-Charge, Buchan Caves.

57. DR. WARREN PECK**1st Conference Attendance**

13 Midway Street, Glen Waverley, Victoria, Australia. 3149

Tel. (+61 3) 9807 5007 (home), (+61 3) 8601 3300, (+61 3) 8601 3399 (FAX), 0419 539 023 (mobile),

Email: <wpeck@amcconsultants.com.au>

Principal Geotechnical Engineer, AMC (mining) Consultants. Worked as a casual guide at Jenolan, Wombeyan and Yarrangobilly Caves (1956-61). ASF President (1961-62). Worked in civil engineering tunnels (1967-87). Worked on mining projects (1989 to present). Associate Professor of Geological Engineering at RMIT University, Melbourne (1991-98).

58. MILES PIERCE**5th Conference Attendance**

42 Victoria Crescent, Mont Albert, Victoria, Australia. 3127

Tel: (+61 3) 9890 8319 (home), Email: <milwen@ozemail.com.au>

A long term member of ACKMA. Hon. Life member of VSA and a past president of ASF Inc. Current member of, Parks Victoria, Caves & Karst Advisory Group and participant on various past cave management/development consultancies. Interested in a wide range of speleological and cave management issues. Semi-retired professional engineer (FIE Aust.) practicing in electrical power, controls and lighting systems. Other interests involve industrial heritage, bushwalking, 4WD etc.

59. RHONWEN PIERCE**5th Conference Attendance**

42 Victoria Crescent, Mont Albert, Victoria, Australia. 3127

Tel: (+61 3) 9890 8319 (home), Email: <milwen@ozemail.com.au>

Began caving as a foundation member of CQSS and currently a member of VSA and ASF Inc. I am at the moment a board member of Rimstone Cooperative and while active caving has become difficult I am still very interested in all aspects of speleology.

60. VERONICA PFITZNER**1st Conference Attendance**

Kelly Hill Caves, PMB 38, Kingscote, Kangaroo Island, South Australia. 5223.

Tel. (+61 8) 8559 7323 (home), (+61 8) 8559 7231 (work), 0418 831 743 (mobile),

Email: <pfitzner.veronica@saugov.sa.gov.au>

Senior Guide, Kelly Hill Caves, Kangaroo Island, South Australia.

61. CATHIE PLOWMAN**3rd Conference Attendance**

“Lueena”, 637 Deviot Road, Deviot, Tasmania, Australia. 7275

Tel. (+61 3) 6394 7686 (home), 0427 947 686 (mobile),

Email: <lueena@bigpond.com>

Member of Northern Caverneers, and Karstcare. Keen on developing cave and karst interpretative skills, and has been training guides in thematic interpretation.

62. BARRY RICHARD**8th Conference Attendance**

42 Edith Road, Jenolan Caves, New South Wales, Australia. 2790.

Tel. (+61 2) 6335 6239 (home & work & FAX), 0428 619 709 (mobile),

Email: <relax@jenolancabins.com.au>

Fellow of ACKMA. Owns and operates 'Jenolan Cabins' at Jenolan Caves. Guide at Jenolan Caves. Life member and patron of Blue Mountains Speleological Club.

63. GEOFF REBBECHI**1st Conference Attendance**

P. O. Box 4132, McKinnon, Victoria, Australia. 3204.

Tel. (+61 3) 9578 5909 (home).

Owner/manager, Shades of Death Cave. Murrindal.

64. STEPHEN REILLY**5th Conference Attendance**

Level 2, 203-209 Russell Street, Bathurst, New South Wales, Australia. 2795.

Tel. (+61 2) 6336 0304 (home), (+61 2) 6336 0304 (work), Fax: (+61 2) 6332 3150.

Email: <stephen.reilly@environment.nsw.gov.au>

Senior Policy Officer, Karst Management Unit, NSW Department of Conservation. Worked in karst areas since 1982, including Yarrangobilly, Wombeyan and Jenolan Caves (manager at Jenolan Caves - 10 years).

65. PETER ROBERTSON**1st Conference Attendance**

P. O. Box 150, Hawthorn, Victoria, Australia. 3122.

Tel. (+61 3) 9818 4415 (home & FAX), 0429 014 055 (mobile), Email: <pdrobertson@netspace.net.au>

Member – Victorian Speleological Association (VSA), and Friends of Buchan Caves. Host for delegates residing at *Homeleigh* (VSA's Buchan accommodation house) during the Conference. Accompanying to the Conference: **Marg Robertson**.

66. DAVID ROWLING**1st Conference Attendance**

P. O. Box 99, Oberon, New South Wales, Australia. 2787.

Tel. (+61 2) 6335 6333 (home), (+61 2) 6359 3923 (work), 0427 356 333 (mobile),

Email: <rowling@lisp.com.au>

Team Leader Electrical – Jenolan Caves. Responsible for the entire electrical services at Jenolan Caves, which includes rewiring/wiring electrical, lighting, data and control systems.

67. BIAN RUMEI**1st Conference Attendance**

Mulu National Park, CDT 62, 98007 Miri, Sarawak, Malaysia.

Email: C/- <brianclark@mulupark.com>

Senior guide, Mulu Caves, Malaysia, where he has worked for twelve years. Graduate from a course in park management and ecotourism. He did his research paper on *lampenflora*.

68. CHESTER SHAW**9th Conference Attendance**

P. O. Box 67, Mole Creek, Tasmania, Australia. 7304.

Tel. (+61 3) 6363 1433 (home), Mobile: 0418 362 341,

Email: <trog18@bigpond.com>

Life Member of ACKMA. Retired manager, Mole Creek Caves, Tasmania. However still maintain a very keen interest in Cave & Karst management. Now also collects cave memorabilia.

69. DAVE SMITH**6th Conference Attendance**

Department of Conservation, PO Box 38, Te Kuiti, New Zealand.

Tel. (+64 7) 878 8534 (home), (+64 7) 878 1050 (work), Mobile: 021 146 6828, Fax: (+64 7) 878 1051

Email: <dwsmith@doc.govt.nz>

ACKMA Fellow, and ACKMA Executive Officer. Cave and Karst Officer at Maniapoto Area Office, Department of Conservation, Te Kuiti. Karst work includes Waitomo area recreational caves. Involved with NZSS, Waitomo Catchment Trust, Waitomo Museum Soc. (currently Chair), Glowworm Cave Advisory Group, etc.

70. ANDY SPATE**13th Conference Attendance**

2 Hoskins Street, Hall, Australian Capital Territory, Australia. 2618.
Tel. (+61 2) 6230 2322 (home), (+61 2) 6230 9966 (work), Mobile: 0407 293 301, Fax: (+61 2) 6230 2322.
Email: <andyspate@aliencamel.com>

ACKMA Life Member, and Past President. Currently ACKMA's International Relations Officer. CEO & Tea lady: *Optional Karst Management*. Consultant on cave & karst management, interpretation training, landscape rehabilitation, and cave & karst exploration.

71. ROBERT TAHI**7th Conference Attendance**

P. O. Box 501, Otorohanga, New Zealand.
Tel. (+64 7) 878 7971 (home), (+64 7) 878 8323 (work), 021 328 390 (mobile), (+64 7) 878 8858 (fax),
Email: <robert.tahi@waitomocaves.co.nz>.
Manager – Waitomo Glowworm Caves.

72. DON TUMNEY**1st Conference Attendance**

8-12 Julia Street, Portland, Victoria. 3305.
Tel. (+61 3) 5522 3465 (work), 0409 142 942 (mobile), (+61 3) 9678 9765 (fax),
Email: <dtumney@parks.vic.gov.au>
Ranger-in-charge of the Glenelg Area for Parks Victoria, encompassing Mt. Napier State Park, Mt. Eccles National Park, Bats Ridge Wildlife Reserve, and the Lower Glenelg National Park (including Princess Margaret Rose Cave).

73. DIANNE VAVRYN**8th Conference Attendance**

28 Barmoya Road, The Caves, Queensland, Australia 4701
Tel. (+61 7) 4934 2788 (home), Mobile: 0427 524 514,
Email: <dlvavryn@westnet.com.au>
Fellow of ACKMA. Casual Ranger – Queensland Parks and Wildlife Service (Bat Cleft – guide for 28 seasons). Tour guide at Cammoo Caves – 1984, and Olsen's Capricorn Caverns, 1985-1997. Organizing Committee Member: 10th Australasian Conference on Cave & Karst Management, 1993; and 8th Australasian Bat Society Conference, 1997. Sub-editor, ACKMA Journal. Interested in all aspects of Karst, its management, flora/fauna, and helping others to understand their importance and need of protection.

74. MIKE WARNER**1st Conference Attendance**

P. O. Box 10, Scholarie, New York, U. S. A. 12157.
Tel. (+1 518) 295 7978 (home and work), Email: <speleobooks@speleobooks.com>
Member: National Speleological Society (USA). Interests include cave management of conservancy-owned caves, show cave – caver cooperation.

75. VAN WATSON**5th Conference Attendance**

P. O. Box 13, Waitomo Caves, New Zealand.
Tel. 07 878 8375 (home), 07 878 6219 (work), Mobile: 021 417 814, Fax: 07 878 5190
Email: <van_watson@thelongline.com>
Operations Manager at Black Water Rafting, currently involved with the development of the Ruakuri Cave which is due to re-open to tourists in the next couple of months, under the management of Tourism Holdings. In the past two years have done two stints in the Borneo doing rigging for the International Adventure Race.

76. RAULEIGH WEBB**11th Conference Attendance**

27 Beckenham Street, Beckenham, Western Australia. 6107.
Tel. (+ 61 8) 9356 5550 (home), 0419 946 764 (mobile), (+61 8) 9264 5557,
Email: <rauleigh@iinet.net.au>
Fellow of ACKMA. ACKMA Webmaster and Information Technology Officer. General interest in Cave Management with emphasis on Cave Conservation by Management. Developer of Cave Permit and management software. Accompanying to the Conference: **Samantha Webb**.

77. NICHOLAS WHITE**13th Conference Attendance**

123 Mannington Street, Parkville, Victoria, Australia. 3052.
Tel. (+61 3) 9328 4154 (home & Fax), 0427 110 143 (mobile),
Email: <nicholaswhite@netspace.net.au>

Fellow of ACKMA. ASF Vice President and Chair – ASF Conservation Commission, and ASF International Commission. Fellow of ASF. Long standing advocate of cave conservation and improved cave and karst management.

78. DR. SUSAN WHITE**7th Conference Attendance**

123 Mannington Street, Parkville, Victoria, Australia. 3052.
Tel. (+61 3) 9328 4154 (home & Fax),
Email: <susanqwhite@netspace.net.au>

Interested in karst from the late 1960's, and have explored and visited caves and karst in all States of Australia and Overseas. Currently Editor of *Helictite*, Chair of ASF's Helictite Commission, and Publications Commission; Editor of *Nargun* (VSA Newsletter); Chair of the Standing Committee for Geological Heritage of the Geological Society of Australia.

79. CANDICE WILLIAMS**1st Conference Attendance**

378 Mewett Road, Dunsborough, Western Australia. 6281.
Tel. (+61 8) 9755 3475 (home), (+61 8) 9755 2152 (work), (+61 8) 9755 2022 (FAX),
Email: <cs1@geographebay.com>

Supervisor (Manager), Ngilgi Cave, Western Australia. Interested in eating, caving, fishing, and reading.

80. ANN WOOD**4th Conference Attendance**

Department of Environment and Conservation, 14 Queen Street, Busselton, Western Australia. 6280.
Telephone: (+61 8) 9757 7035 (office), (+61 8) 9758 8979 (home), (+61 8) 9757 7422 FAX, Mobile: 0427 525 445, or 0407 193 250. Email: <annewood@dec.wa.gov.au>

Caves manager, Department of Environment and Conservation – South West Region. Manager of Calgardup & Giants Caves (public access *self-guided* caves), and other karst sites in the Leeuwin-Naturaliste Nat. Park. Member: Cavers Leeuwin Inc. for over 18 years.

81. GRAHAM WOOD (Chippy)**2nd Conference Attendance**

C/- Department of Conservation, 72 Russell Street, Westport, New Zealand.
Tel. (+64 3) 731 1895 (work), (+64 3) 788 8009 (fax), Email: <gwood@doc.govt.nz>

Ranger with the Department of Conservation. Involved in a range of biodiversity work, including weed control, Westland petrel work, general species work, as well as cave protection. Special interests: photography and working on own land.

82. PETER WOOD**4th Conference Attendance**

P. O. Box 388, Margaret River, Western Australia. 6285.
Telephone: (+61 8) 9758 8979 (home).

Member: Cavers Leeuwin Inc. for 18 years; and CALM Cave Management Advisory Committee (for over ten years). Member, Executive Committee: Augusta-Margaret River Tourism Association (Caveworks). Professionally a wine producer with a passion for underground cellars.

83. PHILIP WOOD**7th Conference Attendance**

23 Romilly Street, Westport, New Zealand.
Tel. (+64 3) 789 8106 (home), (+63 3) 789 8800 (work & Fax),
Email: <complex@ihug.co.nz>

Fellow of ACKMA. Foundation member of ACKMA – long time cave explorer – mapped Buller Area including Honeycomb Hill – Metro – Babylon – Megamania. 12 years, West Coast Parks & Reserves, West Coast Conservation Board – 40 years, Scouting and Westport Rotary Club. 16th ACKMA Conference Convenor. Menswear Retailer.

84. STEPHEN WOOD**1st Conference Attendance**

24 Haurigon Road, Morwell, Victoria. 3840.

Tel. (+61 3) 5134 3223 (home), (+61 3) 5134 5088 (work), 0418 663 502 (mobile),

Email: <michelle.tisdale@gmail.com>

Diesel specialist. I have been a member of VSA and Rimstone for many years. Recently joined ACKMA. I am particularly interested in the Buchan area, where I cave regularly. Member: Friends of Buchan Caves.

85. XIAO SHIZHEN**1st Conference Attendance**

Guizhou Normal University, Guiyang City, Guizhou, China.

Email: <xiaosz@163.com>

Shizhen is currently a post-graduate student but is a long-experienced caver with a very considerable expertise in karst sciences. In particular, she played a key role in preparing the documentation for the South China Karst World Heritage nomination. Her intention is to continue working in the karst field, perhaps in development of nature-based tourism.

86. TOMAŽ ZORMAN**1st Conference Attendance**

Javni Zavod Park Škocjanske Jame, Skocjan 2, SI-6215 Divača, Slovenia.

Tel. (+386 5) 7082 100 (work), (+386 5) 7082 105 (FAX), Email: <albin.debevec@psj.gov.si>

Chief Ranger – Service, Škocjanske Caves, Slovenia, under World Heritage, Ramsar and MAB protection. Accompanying to the Conference: **Alenka Hrib**.

PART TIME ATTENDEES:**87. ROBERT BEDNARIK****1st Conference Attendance**

P. O. Box 216, Caulfield South, Victoria, Australia. 3162.

Tel. (& FAX) (+61 3) 9523 0549, Email: <robertbednarik@hotmail.com>

Convener, President and Editor, International Federation of Rock Art Organisations (IFRAO); Secretary and Editor, Australian Rock Art Research Association (AURA); Contributing Editor, *Discovering Archaeology*; Managing Director, Archaeological Publications Inc. Managing Director, Archaeological Soil Lab Patron, Life Member, Honorary Member or Member of numerous scholarly associations world-wide; Permanent Chairman of the AURA Congress; National Co-ordinator of CAR, International Comité pour l'Art Rupestre, ICOMOS. Chief Scientist, The First Sailors Expedition and the Nale Tasih Expedition Director, International Institute of Replicative Archaeology.

Robert has produced about 470 refereed scientific publications, mostly in cognitive epistemology and palaeoart studies, also general and replicative archaeology, soil science, speleology, deontology, semiotics and geomorphology. In all about 1000 publications, including several books.

He has appeared in over a dozen film documentaries, presented some 120 papers at professional meetings and invited lectures, and has given about 450 interviews to the printed and electronic media, in many parts of the world.

His field research in various thematic and geographical areas has included work in central, northern, eastern, western and southern Europe; Siberia, India, China, Saudi Arabia, Indonesia, Canada, U.S.A., Mexico, Caribbean, various South American countries, southern Africa, Morocco, and all regions of Australia.

88. DR. ROBERT (BOB) HALDANE**1st Conference Attendance**

P.O. Box 14, Buchan, Victoria, Australia. 3885.

Tel. 0408 532 158 (mobile), Email: <haldane@bigpond.com>

Author and historian based at Buchan in East Gippsland, Victoria, Australia. He served in the Victoria Police Force for almost thirty-four years, retiring at the rank of Superintendent in August 2001. In addition to extensive operational experience as a uniformed officer and detective, his police career included positions as a staff officer, industrial relations officer, research officer and editor of the Victoria Police newsmagazine *Police Life*.

In 1990 he was awarded a Chief Commissioner's Certificate for 'outstanding leadership'; in 1997 he completed the International Police Executive Officers' Course; and in 1998 he was awarded an Australian Police Medal for 'distinguished police service'. He holds the degrees Doctor of Philosophy and Bachelor of Arts (Honours) from La Trobe University and is a graduate of the Federal Bureau of Investigation National Academy (USA). He is also a Fellow of the HRH Duke of Edinburgh Study Conference (1986) and the Gippsland Community Leadership Program (1996).

He is currently a Councillor and former Deputy Mayor of the East Gippsland Shire Council and a member of the Gippsland Coastal Board. His other recent interests have included coordination of the East Gippsland Vocational Education Program Inc. and membership of the Sustainable Gippsland Advisory Committee and Gippsland Area Consultative Committee. He was inaugural Chairperson of the Gippsland East Local Learning and Employment Network and is a former Chairperson of the East Gippsland Shire Council Audit Committee. He is a Past-President of the Buchan Primary School Council; Buchan Bush Nursing Centre Committee of Management; and Gippsland Community Leadership Program Alumni.

89. JOHN HAWKER

1st Conference Attendance

Heritage Victoria, P. O. Box 500, East Melbourne, Victoria, Australia. 8002.

Tel. (+61 3) 9510 5012 (home), 0438 510 522 (mobile), Email: <john.hawker@dse.vic.gov.au>

Horticulturist with Heritage Victoria, Department of Sustainability & Environment. Previous work experience has included; Horticultural Project Officer, Royal Botanic Gardens, Melbourne from 1982-1990, Horticulturist, Department of Planning, 1990-95, and since 1995 he has been a horticulturist at Heritage Victoria. He has extensive experience in the identification, assessment and management of the cultivated flora of Victoria, and the conservation of historic gardens and designed landscapes.

In 1989 John was awarded a Churchill Fellowship to study the conservation and management of botanic and historic gardens. He has participated in plant surveys of more than 130 historic gardens, and since 1982 has assisted in the National Trust with the development and management of the Register of Significant Trees of Victoria.

Total Delegates: 89. **Accompanying Persons:** 7. **TOTAL ATTENDANCE: 96.**



A view inside the Buchan Caves Visitors Centre

ACKMA OFFICE BEARERS: 2006 - 2007

PRESIDENT:

Steve Bourne, Naracoorte Caves, P. O. Box 134, Naracoorte, South Australia. 5271.
Tel.: (08) 8762 3412 (office), (08) 8762 1231 FAX, Email: <president@ackma.org>

IMMEDIATE PAST PRESIDENT:

Robyn McBeath, 17 Barrett Street, Margaret River, Western Australia. 6285.
Tel.: (+ 61 8) 9757 2980 (home), 0448 975 729 (mobile), Email: <past.president@ackma.org>

NEW ZEALAND VICE-PRESIDENT, & ACKMA NZ ADMINISTRATOR:

Peter Chandler, *Spellbound Tours*, C/- P.O. Box, Waitomo Caves, New Zealand.
Tel.: (+64 7) 878 7621 (office & home), Email: <nz.vice.president@ackma.org>

AUSTRALIAN VICE-PRESIDENT & KARST CONSERVATION OFFICER:

Rolan Eberhard, Nature Conservation Branch, Dept. of Primary Industries, Water & Environment,
G. P. O. Box 44A, Hobart, Tasmania. 7001.
Tel.: (+61 3) 6233 6455 (office), (+61 3) 6233 3477 (FAX), Email: <aus.vice.president@ackma.org>

EXECUTIVE OFFICER, AND NZSS LIASION OFFIER:

Dave Smith, Department of Conservation, P. O. Box 38, Te Kuiti, New Zealand.
Tel.: (+64 7) 878 1050 (office), (+64 7) 878 8534 (home), email: <executive.officer@ackma.org>

TREASURER & MEMBERSHIP RECORDS OFFICER & A.S.F. LAISION OFFICER:

Dr. Grant Gartrell, P. O. Box 27, Mt. Compass, South Australia. 5210.
Tel.: (+ 61 8) 8556 9100, (+61 8) 8556 9142 (FAX), Email: <treasurer@ackma.org>

PUBLICATIONS OFFICER & ASSISTANT EXECUTIVE OFFICER:

Kent Henderson, P. O. Box 332, Williamstown, Victoria. 3016. Tel.: (+ 61 3) 9398 0598 (Office & Home),
(+ 61 3) 9398 0523 (FAX), 0407 039 887 (mobile), Email: <publications@ackma.org>

INFORMATION TECHNOLOGY OFFICER & WEBMASTER

Rauleigh Webb, 27 Beckenham Street, Beckenham, Western Australia. 6107.
Tel.: (+61 8) 9356 5550 (home), 0419 946 764 (mobile), Email: <webmaster@ackma.org>

KARST SCIENCE OFFICER (AUSTRALIA):

Ian Houshold, Earth Sciences Section, Dept. of Primary Industries, Water & Environment,
P. O. Box 44A, Hobart. Tas. 7001.
Tel.: (+61 3 6233 3868 (office), (+61 3) 6233 4377 FAX, Email: <aus.karst.science@ackma.org>

KARST SCIENCE OFFICER (NEW ZEALAND):

Deborah Carden, Dept. of Conservation, 72 Russell Street, Westport, New Zealand.
Tel.: (+64 3) 788 8008 (office), (+64 3) 731 1028 (home), email: <nz.karst.science@ackma.org>

INTERNATIONAL RELATIONS OFFICER:

Andy Spate, 2 Hoskins Street, Hall, ACT, Australia 2618
Tel.: (+61 2) 6230 9966 (office), 0407 293 301 (mobile), Email: <internationalrelations@ackma.org>

CONFERENCE CONVENOR:

Dale Calnin, C/- Post Office, Buchan, Victoria. 3885.
Tel.: (+61 3) 5162 1900 (office), (+61 3) 5155 9414 (home), Email: <conference.convenor@ackma.org>

PUBLIC OFFICER:

Professor Elery Hamilton-Smith, AM, P. O. Box 36, Carlton South, Victoria. 3053.
Tel.: (+61 3) 9489 7785 (home), (+61 3) 9481 2439 FAX, Email: <elery@alphalink.com.au>

SUCCESSION OF ACKMA OFFICERS SINCE FOUNDATION

	1987-89	1989-91	1991-93	1993-95	1995-96	1996-97	1997-98	1998-99
President	E. Holland	E. Holland	A. Spate	A. Spate	M. Chalker	M. Chalker	G. Martin	G. Martin
Aust Vice President	J. Sutherland	A. Spate	K. Kiernan	N. Kell	B. Allen	A. Augusteyn	A. Augusteyn	R. McBeath
NZ Vice President	D. Williams	D. Williams	D. Williams	P. Dimond	G. Martin	G. Martin	P. Chandler	P. Chandler
Executive Officer	E. Hamilton-Smith	E. Hamilton-Smith	E. Hamilton-Smith	E. Hamilton-Smith	A. Spate	A. Spate	A. Spate	D. Gillieson
Treasurer	N/A	N/A	G. Hammond	D. Rebbechi	D. Rebbechi	D. Rebbechi	D. Rebbechi	D. Rebbechi
Conference Convener	K. Wilde	K. Tritton	A. Augusteyn	C. Shaw	P. Dimond	P. Dimond	B. Clark	B. Clark
Publications Officer	K. Henderson	K. Henderson	K. Henderson	K. Henderson	K. Henderson	K. Henderson	K. Henderson	K. Henderson
Educ. Off. - Australia	N/A	N/A	N/A	S. Hardy	S. Reilly	S. Reilly	N/A	N/A
Educ. Off. - New Zealand	N/A	N/A	N/A	N/A	J. Ash	J. Ash	N/A	N/A
ASF Liason Officer	N/A	N/A	N/A	N/A	E. Holland	E. Holland	E. Holland	E. Holland
Info. Off. - Australia	N/A	N/A	N/A	N/A	N/A	N/A	R. McBeath	P. Bell
Info. Off. - New Zealand	N/A	N/A	N/A	N/A	N/A	N/A	D. Smith	D. Smith
Karst Science Officer	N/A	N/A	N/A	N/A	N/A	N/A	N/A	A. Spate
Public Officer	N/A	N/A	N/A	N/A	E. Hamilton - Smith	E. Hamilton - Smith	E. Hamilton - Smith	E. Hamilton - Smith
	1999-00	2000-01	2001-02	2002-03	2003-04	2003-04	2004-05	2005-06
President	B. Clark	B. Clark	P. Dimond	P. Chandler*	R. McBeath	R. McBeath	S. Bourne	S. Bourne
Aust Vice President	R. McBeath	R. McBeath	S. Bourne	S. Bourne	S. Bourne	S. Bourne	R. Eberhard	R. Eberhard
NZ Vice President	P. Chandler	P. Chandler	P. Chandler	Vacant	P. Chandler	P. Chandler	P. Chandler	P. Chandler
Executive Officer	D. Gillieson	D. Gillieson	R. Lyons	R. Lyons	R. Lyons	R. Lyons	D. Smith	D. Smith
Treasurer	D. Rebbechi	D. Rebbechi	G. Gartrell	G. Gartrell	G. Gartrell	G. Gartrell	G. Gartrell	G. Gartrell
Conference Convener	M. Chalker	M. Chalker	L. Little	L. Little	P. Wood	P. Wood	D. Calnin	D. Calnin
Publications Officer	K. Henderson	K. Henderson	K. Henderson	K. Henderson	K. Henderson	K. Henderson	D. Calnin	D. Calnin
Educ. Off. - Australia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Inform. Tech & Webmaster	N/A	N/A	N/A	N/A	R. Webb	R. Webb	R. Webb	R. Webb
ASF Liason Officer	E. Holland	A. Clarke	A. Clarke	G. Gartrell	G. Gartrell	G. Gartrell	G. Gartrell	G. Gartrell
Info. Off. - Australia	P. Bell	M. Thurgate	J. Taylor	J. Vincent	N/A	N/A	N/A	N/A
Info. Off. - New Zealand	D. Smith	D. Smith	D. Smith	D. Smith	D. Smith	D. Smith	N/A	N/A
Karst Science Officer (Aus)	A. Spate	A. Spate	A. Spate	A. Spate	I. Houshold	I. Houshold	I. Houshold	I. Houshold
Karst Science Officer (NZ)	N/A	N/A	N/A	N/A	N/A	N/A	D. Carden	D. Carden
Public Officer	E. Hamilton - Smith	E. Hamilton - Smith	E. Hamilton - Smith	E. Hamilton - Smith	E. Hamilton - Smith	E. Hamilton - Smith	E. Hamilton - Smith	E. Hamilton - Smith

LIFE MEMBERS & FELLOWS of ACKMA Inc.

<p>LIFE MEMBERS OF ACKMA Inc. Awarded to members who have made an outstanding and long term contribution to the Aims of the Association.</p>	<p>FELLOWS OF ACKMA Inc. Awarded to members who have made a distinguished and ongoing contribution to the Aims of the Association.</p>
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NAME:	Date elected a FELLOW	Date elected a LIFE MEMBER
Alan Costigan		21 May 1993
Roy Skinner		21 May 1993
Clyde Stiff		21 May 1993
Michael Chalker	21 May 1993	4 May 2001
Ernst Holland	21 May 1993	4 May 1995
Prof. Elery Hamilton-Smith	21 May 1993	4 May 1995
Andy Spate	21 May 1993	6 June 1998
Dave Williams	21 May 1993	4 May 1995
Dr. Kevin Kiernan	4 May 1995	
Kevan Wilde	4 May 1995	2 May 1997
Brian Clark	2 May 1997	
Kent Henderson	2 May 1997	11 May 2002
Rauleigh Webb	2 May 1997	
Nicholas White	2 May 1997	
Peter Dimond (deceased)	6 June 1998	
Greg Martin	6 June 1998	
Dennis Rebbechi	6 June 1998	
Neil Kell	23 April 1999	
Chester Shaw	23 April 1999	10 May 2003
Dianne Vavryn	17 June 2000	
Peter Chandler	4 May 2001	14 April 2005
Arthur Clarke	11 May 2002	
Peter Bell	10 May 2003	
Robyn McBeath	10 May 2003	
Dave Smith	10 May 2003	
Dr. Grant Gartrell	31 May 2004	
Lana Little	31 May 2004	
Barry Richard	14 April 2005	
Phil Wood	14 April 2005	
Dale Calnin	6 May 2006	
Steve Bourne	6 May 2006	

PRESIDENTS of ACKMA Inc.

Ernst Holland	1987 – 1991	Peter Dimond	2001 – 2002
Andy Spate	1991 – 1995	Peter Chandler	2002 – 2003
Michael Chalker	1995 – 1997	Robyn McBeath	2003 – 2005
Greg Martin	1997 – 1999	Steve Bourne	2005 –
Brian Clark	1999 – 2001		

AIMS OF ACKMA Inc.

- To develop improved standards in the management of the cave and karst heritage of the Australasian region.
- To provide for liaison between services to, and joint action by, those interested in cave and karst management.
- To carry out or cause to be carried out any scientific research which may further the improvement of standards in cave and karst management.
- To formulate and promote policies and initiatives in cave and karst management.
- To do any other things which are conducive or incidental to the attainment of the above.

A BRIEF HISTORY of ACKMA Inc.

Conferences on Cave and Karst Management have been held in this region since 1973. From then until 1983, they were organized under the auspices of (but not organised by) The Australian Speleological Federation, the first five being termed Australian Conferences on Cave Management and Tourism.

The 6th Conference was held at Waitomo Caves, New Zealand in 1985. In 1987, The *Australasian Cave Management Association* (ACMA) was formed at a meeting held at Yarrangobilly Caves during the 7th Conference in New South Wales. All conferences since have been referred to as Australasian Conferences on Cave & Karst Management.

The Association re-named itself *The Australasian Cave & Karst Management Association* (ACKMA) at the subsequent biennial General Meeting associated with the 8th Conference held at Punakaiki, New Zealand, in 1989. At the 1995 biennial General Meeting at Derwent Bridge, Tasmania, during the 11th Conference, the Association became incorporated as *ACKMA Inc.* Prior to that date Officers of the Association were elected to two-year terms.

The tenure of officers is now twelve months. The *Proceedings* of all sixteen Conferences thus far held have been published, and are also available on CD Rom.

The first edition of The ACMA (later ACKMA) Newsletter was published in June 1988 – a mere 12 pages. It was thereafter published half-yearly until 1993. For the subsequent 18 months, it was published quarterly, with two full “Journal Editions”, and two (minor) “Newsletter Editions”. The publication was permanently renamed the **ACKMA Journal** from edition 16 issued in September 1994, and from edition 19 (June 1995) it has been issued quarterly as a full Journal.

SIGNIFICANT EVENTS

in AUSTRALASIAN CAVE & KARST MANAGEMENT since the FOUNDING of ACKMA in 1987

1987

- | | |
|------------------|--|
| 10 – 17 May 1987 | 7th Australasian Conference on Cave & Karst Management, New South Wales |
| 16 May 1987 | ACMA Founded, Yarrangobilly Caves, New South Wales |
| October 1987 | Blackwater Rafting, Waitomo, New Zealand, opens for business |

1988

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| June 1988 | Edition 1 of the ACMA Newsletter published |
|-----------|--|

1989

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|--------------------|---|
| 10 – 14 April 1989 | 8th Australasian Conference on Cave & Karst Management, Punakaiki, NZ. |
|--------------------|---|

- 14 April 1989 ACMA becomes ACKMA - Biennial General Meeting, Punakaiki
- February 1989 Ruakuri Cave at Waitomo closed to the public
- June 1989 Water Cave re-discovered at Wellington Caves
- July 1989 Ruakuri Cave Karst Walkway at Waitomo Caves completed
- August 1989 ACKMA team prepares a Report on Cutta Cutta Caves, Northern Territory
- September 1989 New Zealand ACKMA team advises on cave management in Tonga

1990

- Early 1990 Jillabenan Cave, Yarrangobilly, re-wired & given universal access
- 13 –14 May 1990 1st Cave Guides *Gabfest*, Yarrangobilly Caves, New South Wales
- 14 June 1990 Waitomo Glowworm Cave comes under a partnership of the Department of Conservation and Ruapuha Uekaha Hapu Trust for ownership and management
- June 1990 Eastern Chamber Extension, Fairy Cave, Buchan, completed for opening
- 1 – 2 August 1990 Severe flooding of Wombeyan and Abercrombie Caves, New South Wales
- 9 – 15 September 1991 **9th Australasian Conference on Cave & Karst Management, Margaret River, Western Australia**

1991

- 3 – 5 March 1991 2nd Cave Guides *Gabfest*, Wombeyan Caves, New South Wales
- 12 December 1991 National Parks and Wildlife (Karst Conservation) Bill and the Wilderness (Karst Conservation) Amendment Bill pass through the New South Wales Parliament

1992

- 8 January 1992 Jersey Cave Centenary Celebrations, Yarrangobilly Caves, New South Wales (following complete re-wiring and re-development)
- 8 – 9 February 1992 1st Australian Karst Studies Seminar/Workshop, Buchan, Victoria
- 17 – 18 March 1992 3rd Cave Guides *Gabfest*, Naracoorte Caves, South Australia
- February 1992 International Network on Cave Protection and Management, established under the commission on National Parks & Protected Areas (CNPPA) with significant Australian involvement
- March 1992 New Entrance Tunnel and re-development of Gaden Coral Cave, Wellington Caves, New South Wales, completed
- April 1992 Olsens Caves, Rockhampton, Queensland, universal access constructed and opened
- 17 April 1992 Cammo Caves, Rockhampton, Queensland, becomes self-guiding
- 31 July 1992 Benders Quarry near Exit Cave, Tasmania, closed by the Federal Government
- 9 August 1992 Undara Volcanic National Park, North Queensland, officially opened
- August 1992 Neil Kell awarded Churchill Fellowship to study cave lighting in U. S. A.
- 3 September 1992 ACKMA Committee meets in Melbourne

- November 1992 Glowworm Cave at Waitomo, New Zealand, re-lit
 Nov – December 1992 Waitomo Museum of Caves extended
 26 December 1992 Moondyne Cave, Western Australia, re-opened as an Adventure Tour cave

1993

- 1 January 1993 Peter Dimond, Waitomo Museum of Caves Director, received *the Queen's Service Medal*, in New Zealand New Years Honour List
 24 – 26 March 1993 4th Cave Guides *Gabfest*, Buchan Caves, Victoria
 17 – 23 May 1993 **10th Australasian Conference on Cave & Karst Management, Rockhampton, Queensland**
 24 – 29 May 1993 Post Conference Study Tour to Undara and Chillagoe Caves, Queensland
 20 – 22 November 1993 2nd Karst Studies Seminar/Workshop, Wombeyan Caves, New South Wales
 October 1993 Wet Cave, Naracoorte, SA, opened as self-guided tourist cave
 13 November 1993 Jubilee Cave Centenary Celebrations, Jenolan Caves, New South Wales
 11 December 1993 Grand Arch self-guided Tour officially opened, Abercrombie Caves, New South Wales
 December 1993 Tinted Cave (self-guided), Wombeyan Caves, New South Wales, completed & opened

1994

- 14 – 18 March 1994 5th Cave Guides *Gabfest*, Jenolan Caves, New South Wales
 8 April 1994 Newly-constructed *Education Centre* at the Waitomo Museum of Caves officially opened by Rt. Hon. J. B. Bolger, Prime Minister of New Zealand
 10 April 1994 Victoria Cave Centenary Celebrations, Naracoorte Caves, South Australia
 14 May 1994 ACKMA Committee meets in Sydney, New South Wales
 15 May 1994 Joint ACKMA – ASF Executive Meeting
 10 July 1994 2nd Australian Seminar on Spelean History, Sydney University, New South Wales
 July 1994 Rehabilitation Plan for Newdegate Cave, Hasting Caves, Tasmania, released
 August 1994 New Zealand ACKMA members from both North and South Islands meet informally at Waitomo.
 December, 1994 Naracoorte Caves inscribed on the World Heritage List

1995

- 10 January 1995 New Lighting & Re-development of Princess Margaret Rose Cave, Western Victoria, officially opened
 29 April 1995 Cave Creek Tragedy, Paparoa National Park, South Island, New Zealand
 29 April – 7 May 1995 **11th Australasian Conference on Cave & Karst Management, Tasmania**
 4 May 1995 **ACKMA Incorporated inaugurated**
 19 June 1995 *Determining an Environmental and Social Carrying Capacity for the Jenolan Caves Reserve* document officially launched.

- 11 August 1995 ACKMA officially incorporated (in Victoria)
 October 1995 ACKMA's *South East Karst Province of South Australia Report* published
 7 October 1995 *Bat Cave Televue Centre* officially opened, Naracoorte Caves, South Australia
 December 1995 *Blackwater Cafe* (new Blackwater Rafting headquarters) opened, Waitomo Caves, NZ

1996

- January 1996 New Jenolan Caves Reserve Trust building opened in Bathurst, NSW
 February 1996 ACKMA 'multilateral' Cave Guide exchanges
 13-15 February 1996 3rd Australian Karst Studies Seminar/Workshop, Naracoorte Caves, South Australia
 4 – 8 March 1996 6th Cave Guides *Gabfest*, Kelly Hill Caves, Kangaroo Island, South Australia
 20 May 1996 New Ticket Office opened, Jenolan Caves, New South Wales
 9 June 1996 **ACKMA Annual General Meeting weekend, Taralga, New South Wales**
 1 August 1996 *Directory of Caves in Australia & New Zealand* published
 7 September 1996 Redeveloped Cathedral Cave, officially opened, Abercrombie Caves, New South Wales
 13 November 1996 Mole Creek Karst National Park, Tasmania, proclaimed
 15 November 1996 Phosphate Mine "Cave" officially opened, Wellington Caves, New South Wales

1997

- 16 January 1997 New day-use facilities officially opened, Royal Arch Cave, Chillagoe, Queensland
 21 February 1997 *Caveworks* Interpretation Centre officially opened, Lake Cave, Margaret River, Western Australia
 Early 1997 IUCN *Guidelines for Cave and Karst Protection*, edited by an ACKMA team, is published
 27 April – 4 May 1997 **12th Australasian Conference on Cave & Karst Management, Waitomo Caves, New Zealand**
 4 May – 8 May 1997 Post Conference Study Tour - Takaka Karst, South Island, New Zealand
 18 October 1997 Junction Cave Centenary Celebrations, Wombeyan Caves, New South Wales

1998

- 26 January 1998 Anne Atkinson becomes a *Member of the Order of Australia* for services to geology at Undara in Australia Day Honours List
 10 – 13 February 1998 4th Australian Karst Studies Seminar/Workshop, Mole Creek Caves, Tasmania
 15 – 20 March 1998 7th Cave Guides *Gabfest*, Augusta/Margaret River Caves, Western Australia
 March 1998 ACKMA Report on Cape Range karst released by the Western Australian Government
 March-April 1998 ACKMA team undertakes management study on Christmas Island
 June 1998 10th Anniversary Edition of the ACKMA Journal published (No. 31)
 13 June, 1998 **ACKMA Annual General Meeting weekend, Jenolan Caves, New South Wales**
 July 1998 Severe flooding in the Glowworm Cave, Waitomo, New Zealand
 August, 1998 Wombeyan Caves Plan of Management, released, New South Wales

- September 1998 Mammoth Cave, Western Australia, upgrade completed, opened as a “self guided” cave
- 3 December 1998 Giant’s & Calgardup Caves, Margaret River, Western Australia, re-opened as Tourist “self Guided” caves.
- 4 December 1998 Wonambi Fossil Centre, Naracoorte Caves, South Australia, officially opened by the South Australian Premier, Hon. John Olsen.

1999

- 18 – 24 April 1999 **13th Australasian Conference on Cave & Karst Management, Mt. Gambier, South Australia**
- 24 April 1999 Te Anau Caves, South Island, New Zealand – cave upgraded officially opened
- 25 – 27 April 1999 Post Conference Study Tour to Karst & Volcanics of Western Victoria
- April 1999 ACKMA Life Member’s Fund inaugurated
- April 1999 CD Rom – *ACKMA Insights* – launched
- July 1999 Cammoo Caves, Queensland, sold to the Queensland Parks & Wildlife Service, closed as a Tourist cave, and added to the Mt. Etna Caves National Park
- 8 October 1999 ACKMA & ASF Joint Executive Meeting, Canberra, Australian Capital Territory
- 27 November 1999 Official Handover of Cammoo Caves to Queensland Parks & Wildlife Service
- November 1999 Black Water Rafting Ltd. assumes control of Mason’s Glowworm Caves, New Zealand
- 3 December 1999 New Visitor Facilities opened at the Glowworm Cave, Waitomo, New Zealand

2000

- 4 – 7 February 2000 5th Australian Karst Studies Seminar, Wellington Caves, New South Wales
- 28 February – 3 March 8th Cave Guides *Gabfest*, Wombeyan Caves, New South Wales
- 12 June 2000 Brian Clark, Manager of Naracoorte Caves, South Australia, is awarded the Public Service Medal in the Queen’s Birthday Honour List
- 17 June 2000 **ACKMA Annual General Meeting weekend, Buchan Caves, Victoria**
- 7 August 2000 New displays of Waitomo Museum of Caves, New Zealand, officially opened
- 11 October 2000 Australian Geological Survey Organisation “Discover Australian Caves” Education Kit launched, Yarrangobilly Caves, New South Wales.
- November 2000 Lake Cave, Margaret River, Western Australia, re-lighting and re-fit, completed
- 6 – 9 November 2000 Limestone Quarrying and Conservation Workshop, Bathurst, New South Wales
- 29 November 2000 Greater Blue Mountains Area, New South Wales (including Jenolan Caves), inscribed on the World Heritage List
- December 2000 Upgrade of Lucas Cave, Jenolan Caves, New South Wales, completed.

2001

- 26 January 2001 Professor Elery Hamilton-Smith awarded Membership of the Order of Australia (AM) in Queen’s Australia Day Honours List.
- 4 March 2001 Official Opening of new Hasting Caves Visitor’s Centre, Tasmania

- 30 April – 5 May 2001 **14th Australasian Conference on Cave & Karst Management, Wombeyan Caves, New South Wales**
- 5 - 7 May 2001 Post Conference Study Tours to Yarrangobilly Cave & Cooleman Plains, and to Abercrombie & Jenolan Caves, New South Wales
- 26 May – 29 May 2001 Asia Pacific Forum of Karst Eco-systems and World Heritage, Gunung Mulu National Park, Sarawak, Malaysia
- 1 – 2 December 2001 Lake Cave Centenary Celebrations, Margaret River, Western Australia

2002

- 3 –8 February 2002 9th Cave Guides Gabfest (Cave & Karst Presenters Workshop), Naracoorte Caves, New South Wales
- 5 May 2002 Professor Elery Hamilton-Smith awarded Honorary Doctorate of Applied Science by RMIT University, Melbourne.
- May 2002 Re-lighting of Newdegate cave, Hastings, Tasmania, completed by Neil Kell.
- 11 May **ACKMA Annual General Meeting, Yarrangobilly Caves, New South Wales.**
- 10 July – 10 August ACKMA has a stand at the International Cave Expo, Korea.
- 4 December New Visitor's Centre at Buchan Caves, Victoria, officially opened.

2003

- 5 – 12 May **15th Australasian Conference on Cave & Karst Management, Chillagoe Caves and Undara Lava Tubes, North Queensland.**
- May Re-lighting of Cutta Cutta Cave, Northern Territory, completed by Neil Kell
- August River Cave Centenary Celebrations, Jenolan Caves, New South Wales
- 20 December Memorial Dedication Ceremony to the late Peter Dimond, Waitomo Museum of Caves, NZ

2004

- 24 – 28 May 10th Cave Guides Workshop, Mole Creek, Tasmania.
- 29 – 30 May **ACKMA Annual General Meeting Weekend, Mole Creek, Tasmania.**
- 24 July Launch of 'Friends of Wellington Caves', New South Wales
- 11 September Lucas Cave Upgrade Officially Opened, Jenolan Caves, New South Wales
- 10 – 19 October Limestone Coast (IGCP 448) 2004 Workshop, Naracoorte Caves, South Australia
- August Publication of the Mole Creek Karst National Park Management Plan, Tasmania
- 6 November New Book: *Caves & Karst of Wombeyan* launched, Wombeyan Caves, New South Wales
- November *The Cave of the Spirit*, Waitomo, NZ, opened as a show cave by Spellbound Tours.
- December *Caves and Caving* Exhibit opened at Tasmanian Museum & Art Gallery, Hobart.

2005

- 29 March – 2 April 10th Conference on Australasian Paleontology (CAVEPS), Naracoorte Caves, South Aust.
- 6 – 10 April ACKMA Pre-Conference Study Tour, South Island, New Zealand
- 10 -17 April **16th Australasian Conference on Cave & Karst Management, Wesport, South Island, New Zealand.**
- 17 – 22 April ACKMA Post-Conference Study Tour, South Island, New Zealand
- 28 July Re-developed Ruakuri Cave at Waitomo Caves, NZ, officially opened.
- 8th November Legislation passes the NSW Parliament transferring Wombeyan, Abercrombie and Borenore Caves, and the Jenolan karst, to the NSW Parks & Wildlife Service.
- 14 December Fire destroys above ground infrastructure at the Glowworm Cave, Waitomo, NZ.

2006

- 6 – 7 January Bushfires devastate Yanchep National Park, Western Australia
- 17 February Damage to speleothems in Crystal Cave, Yanchep, Western Australia, after break-in by vandals
- 26 February – 3 March 11th Cave & Karst Presenters Workshop, Margaret River, Western Australia.
- 6 – 8 April Fire devastates external infrastructure and doline at Mammoth Cave, Margaret River, Western Australia.
- 12 April New re-lighting of The Temple of Baal, Jenolan Caves, officially opened.
- 5 – 8 May **ACKMA Annual General Meeting Weekend, Kangaroo Island, South Australia.**
- 13 September Peter Chandler and John Ash received the New Zealand Order of Merit a ceremony in Auckland, for services to tourism.
- 23 October Newly-developed Nettle Cave at Jenolan officially opened.
- 21 – 26 October ACKMA represented at the 6th International Show Caves Association, Bermuda.

2007

- 17 -18 March Centenary Celebrations of the Discovery of Fairy Cave, Buchan, Victoria.
- 29 April – 5 May **17th Australasian Conference on Cave & Karst Management, Buchan Caves, Victoria.**



**ACKMA ANNUAL
GENERAL MEETING
THURSDAY, 3RD MAY 2007
At 7.30PM**



AGENDA

- ❖ Confirmation of the minutes of the previous meeting (held at Flinders Chase National Park, Kangaroo Island, South Australia, on Saturday, 6th May 2006)
- ❖ Any actions arising from those minutes
- ❖ To consider, and if approved by resolution adopt, the revised “Rules” of the Association, as pre-circulated to all members, subject to their approval by the Victorian Incorporated Associations Office
- ❖ To receive and consider the statement to be submitted to the Victorian Incorporation Associations Office by the Association in accordance with section 30 (3) of the Act
- ❖ Receipt of reports from the Committee upon the business of the Association during the preceding year (other than the Treasurer’s Report)
- ❖ To elect officers of the Association and the ordinary members of the Committee

Note that the officers of the Association are:

- a President, two Vice-Presidents, a Treasurer, an Executive Officer, the Convenor of the Association’s next conference, and an Editor/Publications Officer

All these positions are vacant as of the date of the Annual General Meeting. Also to be elected are three ordinary members of the Committee. Currently these positions are allocated the following tasks:

- Karst Science Officer (Australia), Karst Science Officer (New Zealand), Information Technology Officer & Webmaster

Note that the responsibilities outlined above for ordinary members of the Committee are not defined in the Rules of the Association and can be reset according to the wishes of the new committee.

Nominations for the officers of the Association and for the ordinary members of the Committee closed on 1st March 2007. Nominations do not exceed vacancies.

POSITION	NOMINEE	PROPOSER	SECONDER
President	Steve Bourne	Andy Spate	Elerly Hamilton-Smith
Vice President (Aus)	Rolan Eberhard	Ian Houshold	Kent Henderson
Vice President (NZ)	Peter Chandler	Dave Smith	John Ash
Executive Officer	Dave Smith	Pete Chandler	John Ash
Treasurer	Dr. Grant Garterll	Kent Henderson	Elerly Hamilton-Smith
Publications Officer	Kent Henderson	Andy Spate	Steve Bourne
Conference Convenor	Jayne Hatcher	Jay Anderson	Anne Wood
Committee Member	Deborah Carden	Dave Smith	Pete Chandler
Committee Member	Ian Houshold	Kent Henderson	Dr. Grant Gartrell
Committee Member	Rauleigh Webb	Elerly Hamilton-Smith	Andy Spate

- ❖ To consider the budget, income and expenditure of the Association (Treasurer’s Report).
- ❖ To set the membership fees of the Association.
- ❖ To consider the day-to-day operation of the Association and following items of general business:
 - ◆ proposal to create an ACKMA Award for the Outstanding Show Cave Presenter of the Year
 - ◆ proposal to create an ACKMA Outstanding Contribution Award
 - ◆ the 18th ACKMA conference at Margaret River, Western Australia, in 2009.
 - ◆ the venue for the 19th ACKMA Conference in 2011 – to consider submission(s)
 - ◆ the venue and dates for the 2008 ACKMA AGM weekend – to consider submission(s)
 - ◆ to elect Fellows and/or Life Members (if nominated)
 - ◆ to consider recommendations from the ACKMA Committee (if any)
- ❖ Other items of general business as raised by members by 1st April 2007

Dave Smith, ACKMA Executive Officer
executive.officer@ackma.org

Proposal for an ACKMA Award for the Outstanding Show Cave Presenter of the Year

We propose that:

ACKMA create an Award to recognise the Outstanding Show Cave Presenter of the Year. The recipient would be chosen by nominations from:

- the Life Members;
- the ACKMA Committee;
- individual Members;
- show cave managers; and
- the general public.

The Award for Outstanding Show Cave Presenter is intended to recognise those who have contributed substantially the understanding and appreciation of Australasia's show caves and for support to show cave operations.

The Award would be available to guides, parking, officers, visitor centre staff and any other who steer visitors to an appreciation of cave and karst environments and their values.

The Award will consist of an appropriate gift and one year's membership of ACKMA. The Award would identify the area of excellence of the recipient.

Nominations would need to be received by the Life Member's Committee by 1 February in each year to be presented at the following Annual General Meeting.

Professor Elery Hamilton-Smith AM
Kent Henderson
Andy Spate

Proposal for an ACKMA Outstanding Contribution Award

We propose that:

ACKMA create an Award for Outstanding Contributions in Cave and Karst Conservation and Management to be chosen by the Life Members based on nominations from the ACKMA Committee and from individual Members.

The Award for Outstanding Contributions is intended to recognise those who have contributed substantially to local, national or international cave and karst care and management.

The Award will consist of an appropriate gift and one year's membership of ACKMA. The Award would identify the area of excellence of the recipient.

Nominations would need to be received by the Life Member's Committee by 1 February in each year to be presented at the following Annual General Meeting.

Professor Elery Hamilton-Smith AM
Kent Henderson
Andy Spate

MINUTES – ACKMA ANNUAL GENERAL MEETING

6 May 2006, Flinders Chase National Park, Kangaroo Island, South Australia

Meeting opened at 11:30am, Flinders - Baudin Research Centre

Present: Andy Spate, Arthur Clarke, Barry Richard, Brett Farquharson, Brian Kemp, Cathie Plowman, Chester Shaw, Dale Calnin, David Butler, Deborah Carden, Decima McTernan, Derek Mason, Dianne Vavryn, Frank Bromley, Gemma Sneddon, Grant Gartrell, Greg Martin, Ian Houshold, Jenny Dyring, Jill Mason, Kent Henderson, Lesley Farquharson, Libby Chandler, Mary Trayes, Michael Chalker, Miles Pierce, Neil Kell, Pat Culberg, Paul Flood, Pete Chandler, Peter Bell, Rauleigh Webb, Rhonwen Pierce, Robyn McBeath, Robyn Richard, Rolan Eberhard, Sam Webb, Steve Bourne, Thirza Kemp, Tony Culberg, Dave Smith, Michael Kidd

Apologies: Elery Hamilton-Smith, Angus Stubbs, Nick and Sue White. All apologies accepted.

Previous minutes: Accepted as a true and accurate record. Moved Barry Richards/Chester Shaw, carried.

Actions arising – review of Rules. A working draft of new rules for the Association has been circulated to members. Feedback is sought from all members by 30 May 06. Grant Gartrell and Tony Culberg spoke on the proposed changes, which will be put to the Buchan AGM. Grant and Tony were thanked for their efforts.

Committee reports: Accepted. Moved Arthur Clarke/Deborah Carden. Carried. Rolan was thanked for all his work putting together a submission to the Senate enquiry into resourcing of Australia's National Parks.

Treasurer's report: Report tabled by Grant Gartrell (and by Pete Chandler for the NZ account). Grant spoke to his report, highlighting the healthy balance due to the Westport Conference. It covered some losses from the Chillagoe event. \$9000 has been transferred from the New Zealand account to Australia. However, without the Conferences our annual operating costs are exceeding income. Moved that the Treasurer's report be accepted. Moved Grant Gartrell/Mary Trayes. Carried.

Moved that the report be submitted in accord with the [Victorian] Incorporated Societies Act requirement [30(3)]. Moved Kent Henderson/Di Vavryn. Carried.

Membership & fees: Noted that we have a decline in membership. In the past the Assn has been quite generous (sending Journals etc) to lapsed members but that has now stopped. There was considerable discussion about journal costs, the complexities of corporate membership and advertising in the Journal. Grant proposed a \$5 fee increase for international and full members in the 2006-7 year. Moved Kent Henderson/Rolan Eberhard. Carried. Proposed that the Committee invite other parties, body corporate or not, to be subscribers at a rate to be determined by the Committee. Moved Tony Culberg/Grant Gartrell. Carried.

Officers.

Nominations received:

President – Steve Bourne

NZ Vice President – Pete Chandler

Australian Vice President – Rolan Eberhard

Treasurer – Grant Gartrell

Executive Officer – Dave Smith

Publications Officer – Kent Henderson

Conference Convenor – Dale Calnin

Committee (3 positions) – Deborah Carden, Rauleigh Webb, Ian Houshold

It was clarified that nominations must be in advance of the meeting and not from the floor. As nominations matched positions available the President declared all elected.

General business

Website: Noted that Rauleigh Webb intends to add more interactive functions to the website.

Advertising: Proposed that the Committee put in place an advertising policy and set rates. Moved Kent Henderson/Mary Trayes. Carried

Vulcanospeleology Conference: It has been suggested that Australia host a Vulcanospeleology Conference at some stage. ACKMA have agreed to support in kind and sponsor such a Conference. [post AGM note: likely to be 2010]

2008 AGM: AGM advised that Rockhampton intend to propose (at Buchan 2007) to host the 2008 AGM; and the Committee supported this.

2009 Conference

Dale Calnin gave a presentation on the 2007 Buchan Conference. This will be held 29 April to 5 May 2007 with a theme of indigenous and European heritage. 2007 is also the centenary of Fairy Cave's discovery.

Establishment of a Trust: Derek Mason spoke to his proposal to establish a memorial trust within ACKMA to receive donations, bequests etc. A number of discussion points were raised including replication of the role of the Life member's fund; holding a fund earmarked within the general accounts; and the complexities of establishing and running a Trust. It was moved (Kent Henderson/Derek Mason) that discussion be deferred to the next AGM. Carried.

Election of Fellows and/or Life Members

Life:		No life members nominated
Fellow:	Steve Bourne	Grant Gartrell spoke nominating Steve Bourne as a Fellow of ACKMA
Fellow:	Dale Calnin	Kent Henderson spoke nominating Dale Calnin as a Fellow of ACKMA.

All nominations were accepted with acclaim. Pete Chandler presented certificates.

Late item

Cave Guides Workshop, Mole Creek

Cathie Plowman spoke about this event and said there was \$6000 available left from running the event. She was open to receiving ideas for the use of the money.

Meeting closed at 12 Noon.

SUBMISSION TO HOST THE 2008 ACKMA Inc. ANNUAL GENERAL MEETING WEEKIEND at CAPRICORN CAVES and the MT. ETNA CAVES NATIONAL PARK, QUEENSLAND

The Management of Capricorn Caves, with the support of the Queensland Parks and Wildlife Service, Rockhampton, wishes to make a submission to host the 2008 ACKMA Annual General Meeting weekend at Capricorn Caves and the Mt. Etna Caves National Park. **The proposed dates are Saturday 26th April and Sunday 27th April 2008.**

It is proposed that attendees stay at Capricorn Caves, which has more than ample accommodation, including on-site units, camping options, etc, a restaurant and bar facilities, plus a purpose built conference centre for meetings – with full audio visual facilities.

A suggested program is as follows:

Friday, 25th April 2008

Attendees arrive, welcoming BBQ

Saturday, 26th April 2008

9am ACKMA Committee meets

11am ACKMA AGM

12 noon Lunch

Early afternoon Tour Capricorn (show) Caves

Mid afternoon Tour Cammoo Caves area (Mt. Etna Caves National Park), and possibly Ballroom Cave

Evening: Dinner at Capricorn Caves

Sunday, 27th April 2008

Morning Visit Mt. Etna and Bat Cleft, and selected cave/karst sites within the Mt. Etna Caves National Park

Afternoon Attendees depart, for those staying over – caving options

Ann & Ken Augusteyn,
Owner-Managers,
Capricorn Caves

Priscilla Stevens-Guiney,
Ranger-in-Charge,
Mt. Etna Caves National Park

**SUBMISSION TO HOST THE 19TH AUSTRALASIAN
CONFERENCE ON CAVE AND KARST MANAGEMENT,
in 2011, in TASMANIA**

We, members of ACKMA based in Tasmania, wish to make a submission to host the 2011 ACKMA conference in Tasmania.

Tasmania has about 3,000 known caves and more than 100 karst cave areas. These encompass a diversity of features and settings, ranging from the rural karstlands of northern Tasmania to the remote wilderness karsts of the south-west. Spectacular karst landforms are present and readily accessible at various points. Opportunities exist to illustrate approaches to a wide range of karst-related issues.

We are currently investigating potential conference venues and favour north-west Tasmania (but no final decision has been made at this stage). The north-west contains extensive tracts of dolomite karst. Sites of interest include mound springs around Smithton, Lake Chisholm (a flooded doline) and Forestry Tasmania's development at Dismal Swamp. Day trips to the show caves at Gunns Plains and Mole Creek will be included in the program. Other parts of the State will be covered in pre and/or post conference trips.

The north-west is accessible by road from the north coast or via a longer scenic west coast route from the south. Interstate participants can travel to Tasmania by commercial flights to Launceston, centres on the north-west coast, or Hobart. Alternatively, a ferry service operates between Melbourne and Devonport and provides opportunities to bring vehicles. The closest international airport is Melbourne.

We are optimistic that the Tasmanian Parks & Wildlife Service and possibly other Tasmanian Government agencies will accept sponsorship roles for this event.

David Butler
Arthur Clarke
Pat & Tony Culburg
Rolan Eberhard

Ian Houshold
Cathie Plowman
Keith Vanderstaay



Font of the Gods, Royal Cave, Buchan

Committee Annual Reports

2006 - 2007

PRESIDENT'S REPORT

- Steve Bourne

Let me begin with a line borrowed from a certain media personality, "It has been a big year in caves and karst!" Without naming projects or people as I am certain to miss something or someone, it would appear there has been more redevelopment of cave infrastructure in the last couple of years than possibly any equivalent period prior: new lighting, handrails, tours with music, self-guiding, new managers and some exciting projects in karst conservation. It augers well for cave tourism when significant investments like this are made, but also places the onus on those involved in caves to keep their products interesting and relevant to today's public. The innovation of workshops at the Buchan Conference will present an excellent opportunity for sharing.

The ACKMA journal has been an excellent source of information in keeping members abreast of the work being undertaken. Work in the Temple of Baal, Kelly Hill Cave, Wollondilly, Dismal Swamp has featured, conservation articles from Rolan Eberhard have been excellent, research, reviews and reports have all help make the journal an eagerly anticipated read. The driving force behind this journal, Kent, deserves high praise – thankyou Kent and may you have many more journals ahead!

Thanks also to Grant and Tony for their works in revising the "Rules of ACKMA". Their work is

comprehensive and sets clear guidelines for ACKMA members. Rauleigh has once again done a great job with the website, but unfortunately the forums never really got off the ground. Dave Smith has produced an outstanding CD ROM of Conference Proceedings.

The first joint ACKMA/ASF meeting for many years was held in Mount Gambier in January with another planned at Buchan during the conference. A closer relationship between the two organisations can only be good for the conservation and management of caves and karst. ACKMA has been asked to provide comment on some developments on karst. A letter was sent to the many politicians of British Columbia urging the protection of a small but culturally significant cave (Spaet Cave). Input is now being sought regarding a mining proposal on the Nullarbor. The diverse membership that makes up ACKMA ensures we are well placed to provide balanced expert advice in many of these matters.

I would like to thank the ACKMA organising committee for their work with *Parks Victoria* to bring together an excellent conference program for Buchan. I have thoroughly enjoyed the past two years as ACKMA President, made so by the great membership that is ACKMA.

AUSTRALIAN VICE PRESIDENT'S REPORT

- Rolan Eberhard

Tassie happenings of potential interest to ACKMA members include ongoing controversy over logging native forests, substantial parts of which are karstic limestone and dolomite.

There was considerable media attention to this issue in the period leading up to a State election early last year, when a protestor engaged in an extended tree sit in the karstic Styx Valley was removed by police officers lowered from a hovering helicopter.

More recently, protestors have sought to disrupt forest operations in the Upper Florentine Valley, a large tract of forest contiguous with the Tasmanian Wilderness World Heritage Area. While the protestors appear to be mainly concerned with protecting forests and wilderness, karst has been used to bolster the case

against logging, and is indeed a significant issue at some sites.

Further south, the discovery of karst at Eddy Creek has fuelled opposition to logging parts of the Weld Valley, which has also been targeted by protestors. In contrast, things have been quiet at nearby Riveaux, a highly cavernous karst area where construction of a forestry road was halted a few years ago when caves were discovered virtually underneath it.

Despite a promising initial collaboration to map the caves and assess natural and cultural values, with input from cavers, the Aboriginal community, Forestry Corporation and DPIW's Nature Conservation Branch, progress towards resolving future management arrangement for this important karst area has been slow.

A process to improve protection of forested karst at Mole Creek initiated under the Community Forest Agreement is now underway. The Commonwealth Department of Environment & Heritage appointed the Tasmanian Land Conservancy, a community group with experience in negotiating land purchases and conservation covenants, to run the program. An initial round of offers will expire shortly.

A mid term review of the management plan for the Tasmanian Wilderness World Heritage Area has provided a context for considering management of the many caves therein, including a number of very popular caves on the more accessible WHA periphery. Mystery

Creek Cave, which until recently was probably getting a thousand visitors plus annually, is a case in point. The cave was closed last year due to concern over undercutting and movement of the cave wall at one point, possibly displacing some visitors to other nearby caves, which show signs of advanced wear and tear, as does Mystery Creek Cave. The WHA plan review is due for completion later this year.

A promising development was Forestry Tasmania's decision to reinstate a damaged cave gate at Welcome Stranger Cave, and rehabilitate a nearby forestry road, to discourage further would-be vandals.

NEW ZEALAND VICE PRESIDENT'S REPORT

- Peter Chandler

A big thanks must go to Andy Spate, for his huge contribution in promoting Caves down under at the ISCA Conference in Bermuda in September, and his preparatory visit to Waitomo beforehand.

The NZ Membership still seems to sit steady at around forty, including, three life members, and three students. Thanks to all those who have promoted ACKMA's Aims and Objectives to prospective members, and those who keep up the work in this field.

Many managers and staff have hosted visiting ACKMA members and cave and karst folk over the past twelve months. Many thanks for that. Personally, it is a pleasure to both receive and send staff away with cave management as a common goal.

I would also like to thank all the members of the committee who have kept the organisation going and all those Kiwis who have made contributions to the journal, and in particular our editor Kent Henderson.

EXECUTIVE OFFICER'S REPORT

- Dave Smith

The organisation continues to run smoothly with no real administrative issues in the last year. Only a relatively small amount of correspondence has been received or sent by the Association. Minutes, agendas etc have been completed and are available. A major upgrade of the ACKMA CD was completed incorporating a change to CSS and standardisation of character sets. This should

make the CD far easier to manage into the future. A free CD was sent to all financial members.

Thanks to the other officers of the Association for their ready responses to those tasks that have come up. Particularly note Grant and co for their ongoing work on the Rules of the Association.

TREASURER'S (& MEMBERSHIP RECORDS OFFICER'S) REPORT

- Dr. Grant Gartrell

This report, together with a full financial statement, will be circulated at the Annual General Meeting.

PUBLICATIONS & ASSISTANT EXECUTIVE OFFICER'S REPORT

- Kent Henderson

Publications:

The past twelve months has seen four ACKMA Journals published, Numbers 63, 64, 65, and 66. The success of the Journal is very largely determined by the quality of its contents, and I am most grateful to all our contributors, particularly those ACKMA committee members who contribute regularly, for their ongoing support.

The costs of production have increased slightly over the twelve months. The print run per issue is currently 260 copies. In terms of production, the Journal remains in two-column format, and text remains at 9 point. Size is usually 44 pages. I would like to particularly thank my sub-editor, Dianne Vavryn who continues to do such a fantastic job.

I usually send her the page proofs with very little notice, which she always turns around in record time. The quality of the Journal is in no small measure a reflection of her efforts.

I would also like to thank the members of the ACKMA Editorial Committee who have been a great support to me over several years now, particularly the Committee Chairman, Professor Elery Hamilton-Smith, although thankfully their services as arbitrators were not required in the previous twelve months.

I would also like to thank our Treasurer and Membership Records Officer Dr. Grant Gartrell, who has done a great job in his dual role. We have worked very well together, and together with the efforts of our Executive Officer, Dave Smith, the administration of ACKMA has flowed very smoothly indeed.

The hard copy Proceedings of the 2005 West Coast New Zealand Conference are published and now available in very limited numbers, thanks to the excellent work of Dave Smith. The CDROM version has also been published, again thanks to Dave Smith, and distributed.

Finally, I would particularly like to sincerely thank to our outgoing Committee. I always rely on the advice of each Committee member at various times, and I greatly appreciate their support and friendship.

Membership:

Membership of the Association is currently 237, down slightly on last year. Note that membership includes a small number of reciprocal members (organizations with which ACKMA is cross affiliated or otherwise associated) where no fee is paid either way.

There are a few unfinancial members, and efforts to regain lapsed members are ongoing.

Membership trends to be somewhat cyclical, with numbers increasing after each full Conference, but otherwise it tends to be relatively stable – in no small measure due to the work of our Treasurer and Membership Records Officer, Dr. Grant Gartrell, and Peter Chandler in New Zealand, to whom we are all most grateful.

KARST SCIENCE OFFICER'S REPORT (NEW ZEALAND)

- Deborah Carden

New Zealand caves and karst people are in the usual good health and spirits. Karst associated matters in New Zealand in the past year will be familiar to karst managers world wide.

Matters of particular interest in the past few months that relate to karst science directly or indirectly include (1) the biennial get-together in October 2006 attended by Dave Smith, Deborah Carden and Ian Millar, all from Dept of Conservation (DOC); a (2) the development of a DOC National Standard Procedure for monitoring caves on public conservation land; (3) a study of limestone living plants; (4) National Water Institute (NIWA) studies; the collection of a rare (crested moa) skeleton; and the collections of speleothems and tree rings for climatic studies and one of fossil invertebrates.

- The biennial meeting covers a range of topics, strategic to operational;

- The SOP intent is to provide a nationally consistent template for monitoring visitor impacts in caves;
- The plant study will extend knowledge and understanding of limestone plant life.
- NIWA has an active project looking at subterranean aquatic fauna in the South Island in 2006/07 summer.
- The moa collection was undertaken for analysis and display by Canterbury Museum (Paul Scofield, curator and Kristen Ramsdale, Canterbury Museum; Deborah Carden; Chippy Wood, DOC.
- The speleothem and tree ring collecting forms part of ongoing climatic studies (Paul Williams, Richard Holdaway, Tom Whittaker variously).

KARST SCIENCE OFFICER'S REPORT (AUSTRALIA)

- Ian Houshold

This report was written from the Australian Antarctic Division's resupply ship 'Aurora Australis', off the east coast of Macquarie Island. This will be my second trip to the island in the last year or so, researching surface landforms, caves and geological outcrops to develop a geoconservation strategy.

Macquarie Island was inscribed on the World Heritage list in 1987, primarily for its geo-conservation values. The island is the only place in the world where an entire sequence of mid-ocean ridge rocks is exposed above the surface of the sea (an ophiolite sequence) having emerged from the ocean in the mid-late Pleistocene.

A series of raised beaches up to 300 metres asl marks successive stages in emergence – many are associated with raised sea-caves, developed contemporaneously.

These caves contain relict beach materials, suitable for OSL dating and estimation of uplift rates. They also contain a reasonably diverse invertebrate fauna - however that is yet to be documented.

Following prescriptions in the Macquarie Island Nature Reserve Management Plan 2006, I have now mapped and assessed some of the caves - for example Langdon Point Cave is particularly important, as it contains untouched, relict beach sands and gravels at various elevations, suitable for dating. This trip I will document Bauer Cave on the west coast, which is reported to contain speleothems.

A question now hangs over the fate of the island - many of its landforms and wildlife habitats are being severely degraded by an explosion in introduced rabbit and rat numbers, following eradication of cats, and the increasing ineffectiveness of myxomatosis.

Rabbits are also disrupting cave sediment sequences. Rat numbers are increasing as well, and may be having an effect on cave ecosystems. Implementation of a \$24 mill rabbit and rat eradication program is now under discussion between State and Australian governments and their agencies.

Many ACKMA affiliated karst scientists attended a workshop last year, hosted by the Australian Government's Dept of Environment & Heritage (now Department of Environment and Water Resources), to assess the values of Australia's karst systems for inclusion on the National Heritage List. The workshop identified the best representatives of karst systems in all of Australia's major geographical regions, and produced a series of papers describing them. A few consultancies

were let as part of this program, where more detailed surveys of karst values were undertaken by ACKMA members. These papers will be collated into a reference document for publication later this year. A second workshop - focussing on pseudokarst landforms - is planned for June 2007. The final documents will be used as the primary tools to assess nominations for the National List.

In Tasmania, a program to help manage key areas of privately owned karst land is progressing well. Before the last Federal election \$3.5mill was allocated to the Mole Creek Karst Forest Conservation Program.

The project is being co-ordinated by the Tasmanian Land Conservancy (TLC), with the guidance of a technical assessment panel of ACKMA karst scientists. The panel has produced a detailed set of assessment criteria, and a map of significant karst systems to be used by TLC negotiators, and in the land valuation process. This program will be one of the first to recognise 'contingent value' – ie. the conservation value of karst to the general community, in negotiating a purchase price or incentives to agree to a conservation covenant.

On the academic front, perhaps the biggest news has been Armstrong Osborne's publication of illite (K-Ar) dates suggesting a Carboniferous age for open caves and associated sediments at Jenolan. If substantiated, these dates would make the Jenolan Caves the oldest continuously 'open' cave systems yet recorded internationally. Some questions regarding how closed the illite system is to Argon migration, the source of the sediments themselves, anomalously old ages for surface soils in the vicinity of the caves and a spectacular series of Mesozoic/Tertiary earth movements to account for regional geological relationships will require a response. However, if substantiated these findings would suggest that the Jenolan Caves are some of the most significant in the world from a geomorphological perspective.

INTERNATIONAL RELATIONS OFFICER'S REPORT

- Andy Spate

Over the past twelve months I have had three work trips to Korea and one conference to Bermuda - as well as one to the Shaky Isles (not that I regard our Kiwi cousins as 'international' as it is the 'Australasian' Association!).

In addition I have kept up ACKMA contacts with individuals, show cave operators and research agencies in Europe, North America and Asia. Most of these contacts have been in association visitors planning to attend the Buchan Conference.

The trip to Bermuda was to attend the National Caves Association (of the USA) Conference and the

quadrennial Congress of the International Show Caves Association. At both conferences I gave presentations on Australian and New Zealand caves and on cave lighting ideas (with Neil Kell). I also sat on a panel to lead discussions on radon in show caves.

The trip to New Zealand was to develop a bid, with Greg Martin and Pete Chandler) for ACKMA to run the next ISCA Congress in New Zealand. Greg's very fine presentation – achieved under incredible work (and holiday) pressures – impressed the delegates but not enough for our bid to triumph over Slovakia. I suspect we are still 'the colonies' for many Europeans.

INFORMATION TECHNOLOGY OFFICER / WEBMASTER'S REPORT

- Rauleigh Webb

The 'Jobs' section that advertises jobs in the cave and karst arena has again proved popular with another 5 jobs being advertised during the year. The forum management system installed on the web site was not popular with only a few initial messages being added to the site. So after leaving it for the majority of the year the link was removed in February 2007. Email's have once again been sent to the many cave sites throughout Australia and New Zealand that did not have photograph's or detailed information about their caves on the ACKMA website. As a result many of the pages have been updated with new photographs and information.

Thanks to all of those managers that have responded with images and updated information. To those of you that have not responded I ask that you take the time to provide information and images so that your page provides current and correct information and contains the

best images that you can provide. For those without images I will be hounding you once again over the next few months. If you don't respond then I will do what I did with Jenolan and ask someone with reasonable Jenolan photos if they can be used on the ACKMA site.

Costs for the website are consistent. The current hosting site has proved reliable and responsive when any minor problems have arisen. The ACKMA mailing list activity has been similar with 104 messages posted 2005 and exactly 100 messages posted in 2006. The guestbook implemented in May 2006 has had only three messages left in it. Clearly visitors are not into leaving messages on guestbook's because the usage stats for the website look good. Check out the website stats for the last 12 months in Figure 1 and Figure 2 below. Highlights are 54,361 visits over the 12 month period with an average of 157 visitors per day.

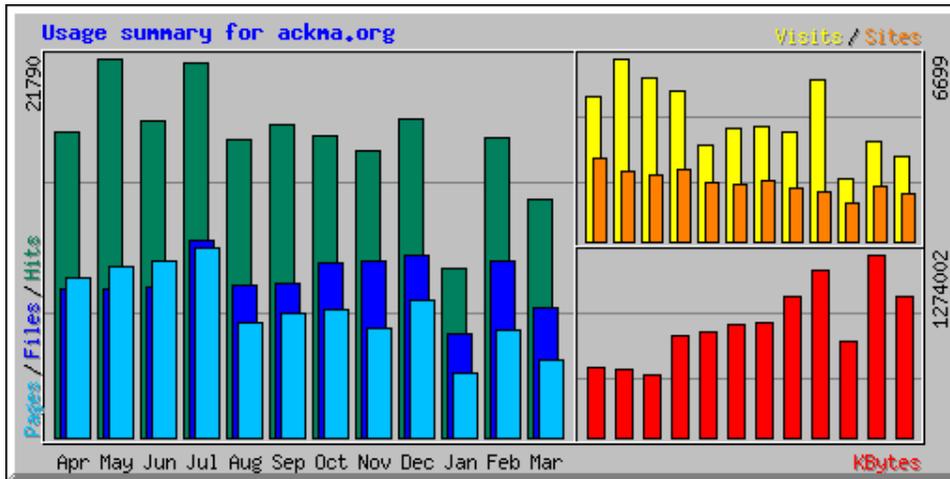


Figure 1

Summary by Month										
Month	Daily Avg				Monthly Totals					
	Hits	Files	Pages	Visits	Sites	KBytes	Visits	Pages	Files	Hits
Mar 2007	722	394	234	164	1773	979812	3132	4450	7492	13736
Feb 2007	638	374	227	134	2010	1274002	3623	6134	10099	17228
Jan 2007	460	284	175	109	1368	673817	2295	3687	5966	9672
Dec 2006	589	337	255	191	1844	1169743	5931	7927	10457	18277
Nov 2006	547	339	210	134	1960	987372	4031	6313	10187	16439
Oct 2006	559	324	235	136	2207	802653	4238	7308	10055	17359
Sep 2006	598	293	238	138	2102	784072	4154	7166	8805	17962
Aug 2006	553	283	214	113	2162	728354	3511	6650	8778	17150
Jul 2006	695	366	352	177	2611	712562	5488	10914	11357	21553
Jun 2006	606	287	339	198	2448	440172	5967	10175	8635	18197
May 2006	702	273	317	216	2573	477754	6699	9844	8493	21790
Apr 2006	584	286	304	176	3041	482305	5292	9139	8580	17542
Totals						9512618	54361	89707	108904	206905

Figure 2

As an indication of how everyone is accessing the website here's the top ten pages used to enter the site for March 2007 – See Figure 3. If you want to see how the website is going at anytime just go to:-

<http://ackma.org/webalizer/>

This link will show you the last 12 months statistics for the site and you can look at many more statistics by the month.

Top 10 of 199 Total Entry Pages					
#	Hits		Visits		URL
1	572	4.16%	497	16.70%	/
2	152	1.11%	135	4.54%	/conf2007/
3	138	1.00%	101	3.39%	/journal/journals.html
4	60	0.44%	47	1.58%	/conf2005/slides/hc t ent.html
5	47	0.34%	38	1.28%	/papers/Wait3.html
6	39	0.28%	35	1.18%	/journal/Journal No 50 - ROCK CUT CAVES of INDIA.htm
7	40	0.29%	34	1.14%	/conf2005/slides/ACKMA_logo_small.html
8	37	0.27%	31	1.04%	/journal/Journal No 49 - Further Look at Hastings.htm
9	40	0.29%	30	1.01%	/auscaves/nsw/
10	33	0.24%	28	0.94%	/conf2005/slides/clematis.html

Figure 3

Anyone wanting to put information onto the website is encouraged to contact me and have it placed online. I am only too happy to help but I can't do things if no-one asks!!



The ACKMA Committee in session, Kangaroo Island, South Australia – May 2006

ATTENDANCE AT AUSTRALASIAN CAVE & KARST MANAGEMENT CONFERENCES 1973 – 2007

Note: Attendees at only one Conference are not listed

<p>1ST CONFERENCE Jenolan, N. S. W., 1973. 40 Delegates. Convenors: John Dunkley & Elery Hamilton-Smith</p> <p>2ND CONFERENCE Hobart, Tas., 1977. 18 Delegates. Convenors: Roy & Andrew Skinner, Greg Middleton, & Tony Culberg</p> <p>3RD CONFERENCE Mt. Gambier, S. A., 1979. 30 Delegates. Convenors: Ed Bailey, Graham Pilkington, & Tony Robinson</p> <p>4TH CONFERENCE Yallingup, W. A., 1981. 24 Delegates. Convenors: John Watson, Joy Smith, Keith Tritton, & Rauleigh Webb</p> <p>5TH CONFERENCE Lakes Entrance, Vic., 1983. 25 Delegates. Convenors: Alan Costigan & Arnold Clarke</p> <p>6TH CONFERENCE Waitomo, N. Z., 1985. 31 Delegates Convenor: Dave Williams</p> <p>7TH CONFERENCE New South Wales, 1987. 34 Delegates. Convenor: Andy Spate</p> <p>8TH CONFERENCE Punakiki, N. Z., 1989. 40 Delegates. Convenor: Kevan Wilde</p>	<p>9TH CONFERENCE Margaret River, W.A., 1991. 47 Delegates. Convenor: Keith Tritton</p> <p>10TH CONFERENCE Rockhampton, Qld., 1993. 62 Delegates. Convenor: Ann Augusteyn</p> <p>11TH CONFERENCE Tasmania, 1995. 63 Delegates. Convenor: Chester Shaw</p> <p>12TH CONFERENCE Waitomo, N. Z., 1997. 55 Delegates. Convenor: Peter Dimond</p> <p>13TH CONFERENCE Mt. Gambier, S. A., 1999. 82 Delegates. Convenor: Brian Clark</p> <p>14TH CONFERENCE Wombeyan, N. S. W., 2001 83 Delegates. Convenors: Michael Chalker & Andy Spate</p> <p>15TH CONFERENCE Chillagoe/Undara, Qld, 2003. 73 delegates. Convenors: Lana Little, Val Speedie & David Gillieson</p> <p>16TH CONFERENCE Westport, N. Z., 2005. 72 delegates Convenor: Phil Wood</p> <p>17TH CONFERENCE Buchan Caves, Victoria, 2007 89 Delegates Convenor: Dale Calnin</p>
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Those noted in **BOLD** below are registered as Attendees for the 17th Conference

16 Conferences

Hamilton-Smith, Professor Elery

I – 1973, II – 1977, III – 1979, IV – 1981, V – 1983, VI – 1985, VII – 1987, VIII – 1989,
IX – 1991, X – 1993, XI – 1995, XII – 1997, XIII – 1999, XIV – 2001, XVI – 2005, XVII –
2007

13 Conferences

Spate, Andy

IV – 1981, V – 1983, VI – 1985, VII – 1987, VIII – 1989, IX – 1991, X – 1993,
XI – 1995, XII – 1997, XIV – 2001, XV – 2003, XVI – 2005, XVII – 2007

White, Nicholas

III – 1979, V – 1983, VII – 1987, VIII – 1989, IX – 1991, X – 1993, XI – 1995,
XII – 1997, XIII – 1999, XIV – 2001, XV – 2003, XVI – 2005, XVII – 2007

11 Conferences

Chalker, Michael

V – 1983, VI – 1985, VII – 1987, VIII – 1989, IX – 1991, XI – 1995, XII – 1997,
XIII – 1999, XIV – 2001, XV – 2003, XVII – 2007

Henderson, Kent	VII – 1987, VIII – 1989, IX – 1991, X – 1993, XI – 1995, XII – 1997, XIII – 1999, XIV – 2001, XV – 2003, XVI – 2005, XVII – 2007
Webb, Rauleigh	IV – 1981, V – 1983, VIII – 1989, IX – 1991, X – 1993, XI – 1995, XII – 1997, XIII – 1999, XV – 2003, XVI – 2005, XVII – 2007

10 Conferences

Chandler, Peter	VI – 1985, VII – 1987, IX – 1991, XI – 1995, XII – 1997, XIII – 1999, XIV – 2001, XV – 2003, XVI – 2005, XVII – 2007
Martin, Greg	VI – 1985, VIII – 1989, IX – 1991, XI – 1995, XII – 1997, XIII – 1999, XIV – 2001, XV – 2003, XVI – 2005, XVII – 2007

9 Conferences

Clark, Brian	VII – 1987, VIII – 1989, IX – 1991, X – 1993, XI – 1995, XIII – 1999, XIV – 2001, XV – 2003, XVII – 2007
Holland, Ernst	I – 1973, VI – 1985, VII – 1987, VIII – 1989, IX – 1991, X – 1993, XI – 1995, XIII – 1999, XIV – 2001
Shaw, Chester	IX – 1991, X – 1993, XI – 1995, XII – 1997, XIII – 1999, XIV – 2001, XV – 2003, XVI – 2005, XVII – 2007
Williams, David	III – 1979, IV – 1981, VI – 1985, VII – 1987, VIII – 1989, IX – 1991, X – 1993, XII – 1997, XIII – 1999

8 Conferences

Ash, John	VI – 1985, VIII – 1989, XI – 1995, XII – 1997, XIII – 1999, XIV – 2001, XVI – 2005, XVII – 2007
Dimond, Peter *	VI – 1985, VIII – 1989, IX – 1991, X – 1993, XI – 1995, XII – 1997, XIII – 1999, XIV – 2001
Richard, Barry	IX – 1991, XI – 1995, XII – 1997, XIII – 1999, XIV – 2001, XV – 2003, XVI – 2005, XVII – 2007
Vavryn, Dianne	X – 1993, XI – 1995, XII – 1997, XIII – 1999, XIV – 2001, XV – 2003, XVI – 2005, XVII – 2007
Wilde, Kevan	VI – 1985, VII – 1987, VIII – 1989, IX – 1991, X – 1993, XI – 1995, XII – 1997, XIII – 1999

7 Conferences

Calnin, Dale	V – 1983, IX – 1991, XIII – 1999, XIV – 2001, XV – 2003, XVI – 2005, XVII – 2007
Houshold, Ian	V – 1983, VII – 1987, XI – 1995, XIII – 1999, XV – 2003, XVI – 2005, XVII – 2007
Tahi, Robert	XI – 1995, XII – 1997, XIII – 1999, XIV – 2001, XV – 2003, XVI – 2005, XVII – 2007
White, Dr. Susan	V – 1983, VIII – 1989, IX – 1991, X – 1993, XI – 1995, XIII – 1999, XVII – 2007
Wood, Phil	VIII – 1989, X – 1993, XI – 1995, XIII – 1999, XIV – 2001, XVI – 2005, XVII – 2007

6 Conferences

Augusteyn, Ann	IX – 1991, X – 1993, XI – 1995, XII – 1997, XIII – 1999, XV – 2003
Collinson, Neil	XI – 1995, XII – 1997, XIV – 2001, XV – 2003, XVI – 2005, XVII – 2007
Costigan, Alan	I – 1973, II – 1977, III – 1979, IV – 1981, V – 1983, VI – 1985
Schurr, Geoff	VIII – 1989, X – 1993, XII – 1997, XIV – 2001, XV – 2003, XVI – 2005
Kiernan, Dr. Kevin	VII – 1987, VIII – 1989, IX – 1991, X – 1993, XI – 1995, XV – 2003
Kell, Neil	VII – 1987, VIII – 1989, IX – 1991, X – 1993, XI – 1995, XIII – 1999, XVII – 2007
Mason, Derek	XII – 1997, XIII – 1999, XIV – 2001, XV – 2003, XVI – 2005, XVII – 2007
Smith, Dave	XII – 1997, XIII – 1999, XIV – 2001, XV – 2003, XVI – 2005, XVII – 2007

5 Conferences

Bourne, Steven	XIII – 1999, XIV – 2001, XV – 2003, XVI – 2005, XVII – 2007
Carden, Deborah	XII – 1997, XIII – 1999, XV – 2003, XVI – 2005, XVII – 2007
Clarke, Arthur	XI – 1995, XIII – 1999, XIV – 2001, XVI – 2005, XVII – 2007

Gartrell, Dr. Grant	XIII – 1999, XIV – 2001, XV – 2003, XVI – 2005, XVII – 2007
McBeath, Robyn	XI – 1995, XII – 1997, XIII – 1999, XV – 2003, XVI – 2005
Mickie, Dr. Neville	XI – 1995, XIII – 1999, XIV – 2001, XV – 2003, XVII – 2007
Millar, Ian	VI – 1985, VIII – 1989, XII – 1997, XV – 2003, XVI – 2005
Pierce, Miles	XI – 1995, XII – 1997, XIII – 1999, XVI – 2005, XVII – 2007
Pierce, Rhonwon	XI – 1995, XII – 1997, XIII – 1999, XVI – 2005, XVII – 2007
Reilly, Steve	XI – 1995, XIII – 1999, XIV – 2001, XVI – 2005, XVII – 2007
Tritton, Keith *	IV – 1981, VII – 1987, VIII – 1989, IX – 1991, X – 1993
Watson, Dr. John	II – 1977, IV – 1981, IX – 1991, X – 1993, XI – 1995
Watson, Van	XI – 1995, XII – 1997, XIV – 2001, XVI – 2005, XVII – 2007

4 Conferences

Bell, Peter	IX – 1991, X – 1993, XI – 1995, XIII – 1999
Culberg, Tony	II – 1977, XV – 2003, XVI – 2005, XVII – 2007
Baker, Clare	XIV – 2001, XV – 2003, XVI – 2005, , XVII – 2007
Dalzell, Brett	XIII – 1999, XIV – 2001, XV – 2003, XVII – 2007
Dunkley, John	I – 1973, III – 1979, V – 1983, XIV – 2001
Eberhard, Rolan	IX – 1991, XI – 1995, XVI – 2005, XVII – 2007
Gillieson, Prof. David	XI – 1995, XIII – 1999, XIV – 2001, XV – 2003
Grimes, Ken	XIII – 1999, XIV – 2000, XV – 2003, XVII – 2007
Hearn, David	IX – 1991, X – 1993, XIII – 1999, XIV – 2001
Little, Lana	IX – 1991, XI – 1995, XIV – 2001, XV – 2003
Rebbechi, Dennis	IX – 1991, XI – 1995, XIII – 1999, XV – 2003
Shaw, Kay	XIII – 1999, XIV – 2001, XV – 2003, XVI – 2005
Tane, Norman	IX – 1991, X – 1993, XI – 1995, XII – 1997
Wood, Anne	XIII – 1999, XIV – 2001, XV – 2003, XVII – 2007
Wood, Peter	XIII – 1999, XIV – 2001, XV – 2003, XVII – 2007

3 Conferences

Augusteyn, Ken	IX – 1991, X – 1993, XI – 1995
Ash, Martha	VI – 1985, XII – 1997, XIII – 1999
Bauer, Jo	VII – 1987, VIII – 1989, IX – 1991
Bradley, Phil	IX – 1991, X – 1993, XI – 1995
Butler, David	XV – 2003, XVI – 2005, XVII – 2007
Callaghan, John	I – 1973, V – 1983, XII – 1997
Carey, Adrian	I – 1973, III – 1979, VII – 1987
Eberhard, Stefan	XI – 1995, XII – 1997, XIII – 1999
Farquharson, Brett	XIV – 2001, XVI – 2005, XVII – 2007
Fletcher, Andrew	XIII 1999, XIV – 2001, XVI – 2005
Gaukrodger, John	VI – 1985, VII – 1987, VII – 1989
Hardy, Sue	IX - 1991, X - 1993, XI – 1995
James, Cameron	XIII – 1999, XIV – 2001, XV – 2003
Kermode, Les*	VI – 1985, XII – 1997, XIII – 1999
Larkin, Patrick	IX – 1991, XI – 1995, XIII – 1999
Lyons, Dr. Ruth	XI – 1995, XII – 1997, XV – 2003
McCabe, Mary	XIII – 1999, XV – 2003, XVII – 2007
Macrow, Peter	II – 1977, III – 1979, IV – 1981
Matthews, Peter	III – 1979, IV – 1981, V – 1983
Middleton, Greg	I – 1973, II – 1977, XV – 2003
Parkes, Graham	VII – 1987, VIII – 1989, XVII – 2007
Plowman, Cathie	XV – 2003, XVI – 2005, XVII – 2007
Scrimgeour, Ray	XI – 1995, XII – 1997, XIV – 2001
Taylor, Neil	IX – 1991, X – 1993, XII – 1997
Thurgate, Mia	IX – 1991, XI – 1995, XIII – 1999
Trayes, Mary	XIII – 1999, XV – 2003, XVI – 2005
Walker, Noel	XI – 1991, X – 1993, XI – 1995

2 Conferences

Abel, Martin	XIV – 2001, XVI – 2005	James, Dr. Julia	XV – 2003, XVI – 2005
Aitken, Ken.	III – 1979, IV – 1981	Kim Ryeon	XVI – 2005, XVII – 2007
Allen, Ross	IX – 1991, X – 1993	Prof. Kyung Sik Woo	XV – 2003, XVI – 2005
Allen, Bruce	III – 1979, XI – 1995	Lindberg, Kriste	XIII – 1999, XIV – 2001
Anderson, Jay	XV – 2003, XVII – 2007	Lipyeat, Moira	XVI – 2005, XVII – 2007
Baird, Jane	VIII – 1989, XVI – 2005	May, John	II – 1977, IV – 1981
Benjamin, Serena	XVI – 2005, XVII – 2007	Merritt, David	XIV – 2001, XVI – 2005
Butz, Mark	I – 1973, VII – 1987	Moulds, Tim	XV – 2003, XVI – 2005
Champness, Graham	VI – 1985, VII – 1987	Newton, Mike	IV – 1981, IX – 1991
Chew, Danny	XIII – 1999, XV – 2003	Osborne, Dr. Armstrong	V – 1983, XIV – 2001
Cross, Travis	XVI – 2005, XVII – 2007	Rautjoki, Harri	VI – 1985, VIII – 1989
Culley, John	I – 1973, III – 1979	Rea, Tom	XIII – 1999, XIV – 2001
Davey, Adrian	III – 1979, VII – 1987	Rebbechi, Carol	X – 1993, XV – 2003
Davidson, Penny	XIII – 1999, XIV – 2001	Rebbechi, Sylvia	X – 1993, XV – 2003
Deer, Geoff	XVI – 2005, XVII – 2007	Robinson, Lloyd	I – 1973, IX – 1991
Ellis, Cliff	III – 1979, IV – 1981	Skinner, Andrew	II – 1977, III – 1979
Emery, Ephraim	XV – 2003, XVI – 2005	Skinner, Roy	I – 1973, II – 1977
Finn, Stephanie	XIV – 2001, XV – 2003	Speedie, Val	XIII – 1999, XV – 2003
Flett, David	VII – 1987, X – 1991	Stokes, Tim	XIV – 2001, XVI – 2005
Griffin, Alan	XVI – 2005, XVII – 2007	Swabey, Stephen	XV – 2003, XVI – 2005
Griffiths, Paul	XIII – 1999, XV – 2003	Thomas, Julie	VII – 1987, VIII – 1989
Hamilton, David “Jaws”	VII – 1987, IX – 1991	Vanderstaay, Keith	XIV – 2001, XV – 2003
Hardy, Sue	X – 1993, XI – 1995	Vavryn, Joe	IX – 1991, X – 1993
Heyne, Ken	XII – 1997, XIII – 1999	Wood, Graham (Chippy)	XVI – 2005, XVII – 2007
Hunter, Deborah	XI – 1995, XIV – 2001	Woods, Jonathan	XIV – 2001, XV – 2003
Ingfield, Jo	XIII – 1999, XIV – 2001		

* denotes deceased

SYNOPSIS of the 17th ACKMA CONFERENCE ATTENDANCE

Delegates attending their:

1st Conference	37	6th Conference	4	11th Conference	3
2nd Conference	8	7th Conference	6	13th Conference	2
3rd Conference	5	8th Conference	3	16th Conference	1
4th Conference	7	9th Conference	2		
5th Conference	9	10th Conference	2		



Visitor's Centre, Buchan Caves

REPRESENTATION AT CONFERENCES 1973 to 2007

	<u>Buchan</u>	<u>Chillagoe</u>	<u>Cutta Cutta</u>	<u>Abercromb.</u>	<u>Hastings</u>	<u>Jenolan</u>	<u>Kelly Hill</u>	<u>Marg. River</u>
1st - 1973	✓	✓	✓	✓	✓	✓	✓	x
2nd -1977	✓	x	✓	x	✓	✓	x	x
3rd - 1979	✓	x	✓	x	✓	✓	✓	x
4th - 1981	✓	x	✓	x	x	x	x	✓
5th - 1983	✓	x	x	x	x	✓	✓	x
6th - 1985	✓	x	x	x	x	✓	x	x
7th - 1987	✓	✓	x	✓	x	✓	x	✓
8th - 1989	✓	x	x	x	x	✓	x	✓
9th - 1991	✓	x	x	x	✓	✓	x	✓
10th - 1993	✓	✓	x	✓	✓	✓	x	✓
11th - 1995	✓	✓	x	✓	✓	✓	x	✓
12th - 1997	x	x	x	x	x	✓	x	✓
13th - 1999	✓	✓	x	✓	✓	✓	✓	✓
14th - 2001	✓	✓	x	✓	✓	✓	✓	✓
15th - 2003	✓	✓	x	✓	✓	✓	✓	✓
16th - 2005	✓	x	x	x	x	✓	✓	✓
17th - 2007	✓	x	x	✓	x	✓	✓	✓
TOTALS:	16	7	4	8	9	16	8	12
	<u>Mole Creek</u>	<u>Naracoorte</u>	<u>Capricorn</u>	<u>P.M.R.</u>	<u>Tantanoola</u>	<u>Te Anau</u>	<u>Waitomo</u>	<u>Wee Jasper</u>
1st - 1973	✓	x	x	x	x	x	x	✓
2nd -1977	✓	✓	x	x	x	x	x	✓
3rd - 1979	x	✓	x	✓	x	x	✓	x
4th - 1981	x	✓	x	x	x	x	✓	x
5th - 1983	x	x	x	✓	✓	x	x	x
6th - 1985	x	✓	x	x	x	x	✓	x
7th - 1987	x	✓	x	x	✓	x	✓	✓
8th - 1989	x	✓	x	x	✓	x	✓	x
9th - 1991	✓	✓	✓	x	✓	✓	✓	x
10th - 1993	✓	✓	✓	x	x	✓	✓	x
11th - 1995	✓	✓	✓	✓	x	✓	✓	x
12th - 1997	✓	✓	✓	x	x	✓	✓	x
13th - 1999	✓	✓	✓	✓	✓	x	✓	x
14th - 2001	✓	✓	x	x	x	✓	✓	✓
15th - 2003	✓	✓	✓	x	x	✓	✓	x
16th - 2005	✓	✓	✓	x	x	✓	✓	x
17th - 2007	✓	✓	✓	✓	✓	✓	✓	✓
TOTALS:	11	15	8	5	6	8	14	5
	<u>Wellington</u>	<u>Wombeyan</u>	<u>Yallingup</u>	<u>Yanchep</u>	<u>Yarrangobilly</u>	<u>Other NZ</u>		
1st - 1973	x	✓	✓	x	x	x		x
2nd -1977	✓	✓	x	x	x	x		
3rd - 1979	x	✓	✓		✓	x		
4th - 1981	x	✓	✓	✓	✓	x		
5th - 1983	x	✓	✓	x	✓	x		
6th - 1985	x	✓	x	x	✓	✓		
7th - 1987	✓	✓	✓	x	✓	x		
8th - 1989	x	✓	✓	x	✓	✓		
9th - 1991	✓	✓	✓	✓	✓	✓		
10th - 1993	✓	x	x	x	✓	✓		
11th - 1995	x	✓	✓	✓	✓	✓		
12th - 1997	x	✓	x	x	✓	✓		
13th - 1999	✓	✓	x	x	✓	✓		
14th - 2001	✓	✓	x	x	✓	✓		
15th - 2003	x	✓	x	x	✓	✓		
16th - 2005	x	x	x	x	x	✓		
17th - 2007	x	✓	✓	✓	✓	✓		
TOTALS:	6	15	9	4	14	11		

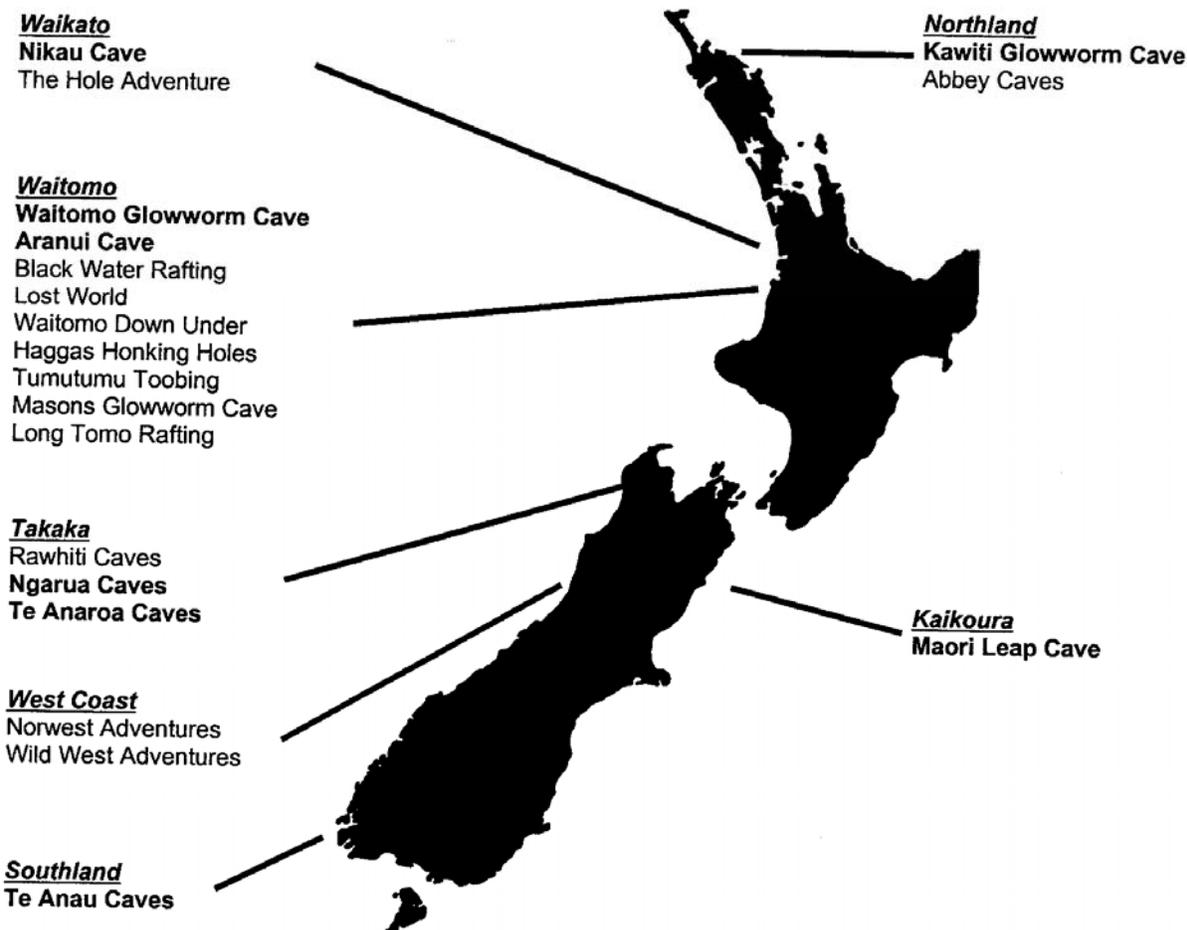
MEMBERSHIP OF ACKMA Inc. as at 1st April 2007

1. Abercrombie Caves	NSW	35. Capricorn Caverns	Qld
2. Aley C & T	USA	36. Carden D	NZ
3. Alice Shanks	NZ	37. Carey's Cave	NSW
4. American Cave Conservation	USA	38. Cave Exploration Group [S.A.]	SA
5. Anderson J & R	WA	39. Cave World	NZ
6. Andrew Lawrence	Oman	40. Chalker M	NSW
7. Aquifer Tours	SA	41. Chandler P	NZ
8. Argent S & K	NSW	42. Chew D	Qld
9. Ash J & M	NZ	43. Chillagoe Caving Club	Qld
10. Atkinson A & V	Qld	44. Chitty D	Vic
11. Augee M	NSW	45. Choi M	SA
12. Augusta-Margaret River Tourist	WA	46. Clark B	Malaysia
13. Australasian Bat Society	ACT	47. Clarke A	Tas
14. Axell P	Belgium	48. Collinson N	NZ
15. Baddeley G	Vic	49. Commins G	NSW
16. Baird J	NZ	50. Cooney C.	NSW
17. Baker Dr C	Qld	51. Costigan A	Vic
18. Barnes R	Vic	52. Cove D & D	NSW
19. Bat Conservation International	USA	53. Cross T	NZ
20. Bauer J & P	NSW	54. Culberg A & P	Tas
21. Bell P.	WA	55. Dalzell B	SA
22. Benjamin S	Tas	56. Davidson P.	NSW
23. Blanden S	Tas	57. Dept for Environment & Heritage	SA
24. Bogdan Debevc	Slovenia	58. Dept for Environment & Heritage	SA
25. Bourne S	SA	59. Dept of Conservation & Land	WA
26. Bradford G	NSW	60. Dept of Environment & Heritage	SA
27. Bradley C	ACT	61. Dept of Environment & Heritage	SA
28. Bromley R	NZ	62. Dept of Environment & Heritage	SA
29. Buchan Caves	Vic	63. Dept of Primary Industry & Water	Tas
30. Butler D & Plowman C	Tas	64. Devevec A	Slovenia
31. Callaghan J	NSW	65. Doorne S	Fiji
32. Calnin. D.	Vic	66. Dr Guilhelm de Gruilly	France
33. Cango Caves	Sth Africa	67. Dr Pavel Bella & Ing. Peter Gazik	Slovakia
34. Canterbury Caving Group	NZ	68. Drysdale Dr. R	NSW

69. Dunkley J. (ASF Library)	ACT	104.Hills Speleology Club Ltd	NSW
70. Eberhard R	Tas	105.Holden C & J	NZ
71. Eberhard Dr S	WA	106.Holland E	NSW
72. Eddison A & I	NSW	107.Houshold I	Tas
73. Emery E	NZ	108.Hunter D	Tas
74. Englebrect Cave	SA	109.Illawarra Speleo Society Inc	NSW
75. Farquarson A.	NSW	110.Indiana Karst Conservancy	USA
76. Farquarson B	NSW	111.James C	Qld
77. Ferrari B.	Vic	112.James Dr J.	NSW
78. Fiordland Travel	NZ	113.Jenolan Caves Historical & PS	NSW
79. Fleming K	NSW	114.Jenolan Caves Reserve Trust	NSW
80. Fleming N	NZ	115.Joy K	NZ
81. Flinders Uni. Speleo Society	SA	116.Karst Conservation Unit	NSW
82. Francois Leguat Ltd	Mauritius	117.Kell N	NSW
83. Gartrell G.	SA	118.Kinnaird C, Senior Park Ranger	NT
84. Geographe Bay Tourism Assn	WA	119.Lewis, Ian D	Vic
85. Gillieson Prof D	Qld	120.Lipyeat M & D	NZ
86. Giulieri J	Qld	121.Little L	Qld
87. Gordon L Smith	USA	122.Lynn K. Roebuck,	USA
88. Gough J	ACT	123.M. Alain Frances	France
89. Griffin A	NSW	124.Maclusas J	SA
90. Griffiths P	Canada	125.Malaysian Karst Society	Malaysia
91. Grimes KG.	Vic	126.Maori Leap Cave	NZ
92. Grindley D	SA	127.Marble Arch Caves	Nth Ireland
93. Guiding Organisations Australia	NT	128.Marinelli R	Italy
94. Gunns Plains Caves	Tas	129.Martin G	NZ
95. Hamilton Tomo Group	NZ	130.Mason D	NZ
96. Hamilton-Smith. E.	Vic	131.Matthews E. W.	NSW
97. Hammond G.	Vic	132.Matthews P.	Vic
98. Hastings Caves	Tas	133.McBeath R	WA
99. Hatcher J	WA	134.McCabe M	Qld
100.Haygarth N	Tas	135.McKay K & J	NZ
101.Henderson K	Vic	136.Melton S	NSW
102.Henry R	NZ	137.Merritt, Dr D	Qld
103.Highland Caving Group	NSW	138.Michie Dr N. A.	NSW

139.Middleton G	Tas	174.Shades of Death Cave	Vic
140.Millar I	NZ	175.Shannon C H	Tas
141.Mole Creek Caves	Tas	176.Sharples C	Tas
142.Moore T	NSW	177.Shaw C & K	Tas
143.Mott K.	SA	178.Short J	NZ
144.Moulds T	SA	179.Skinner R	Tas
145.Moylan M & R	Qld	180.Slabe Dr T	Slovenia
146.Nat. Parks & Wildlife Service	NSW	181.Smith D	NZ
147.National Caves Association	USA	182.Smith G K	NSW
148.National Library of Australia	ACT	183.Southern Tasmanian	Tas
149.Ngarua Caves	NZ	184.Spate A.	ACT
150.Norwest Adventurers	NZ	185.Speedie M V	Qld
151.Nurse B S	NSW	186.SRGWA	WA
152.NZ Speleological Society	NZ	187.State Library of Victoria	Vic
153.Orange Speleological Society	NSW	188.Stevens-Guiney P.	Qld
154.Osborne Dr R	NSW	189.Stiff C	NSW
155.O'Toole D	Tas	190.Stokes Dr T	Canada
156.Parkes G.	Vic	191.Stone Dr F	USA
157.Peters R & V	SA	192.Strategic Management,	NZ
158.Pierce M & R	Vic	193.Stubbs, Angus	NZ
159.Poulton R K	NSW	194.Sydney Speleological Society	NSW
160.Princess Margaret Rose Cave	Vic	195.Sydney, Joe	NSW
161.Ramsey C L	Canada	196.Tahi R	NZ
162.Rea T	USA	197.The Geoscientist	Tas
163.Rebbechi D A.	Qld	198.Thurgate M	ACT
164.Reilly S.	NSW	199.Tomas Zorman	Slovenia
165.Richard B.	NSW	200.Trayes M	NZ
166.Robinson L.	NSW	201.Undara Experience	Qld
167.Rowling J	NSW	202.Van Dyk J.& K.	Vic
168.Rowsell K	Tas	203.Vavryn D.& J.	Qld
169.Ruapuha Uekaha Hapu Trust	NZ	204.Victorian Spelo Association	Vic
170.Rutledge J	NSW	205.W.A. Speleological Group	WA
171.Scrimgeour R	NZ	206.Waitomo Caves Museum	NZ
172.Seiser P	USA	207.Waitomo District Council	NZ
173.Sellars C.	SA	208.Waitomo Down Under	NZ

209. Waitomo Wilderness Tours	NZ	223. Wilde K	NZ
210. Walsh P	NSW	224. Williams D	NZ
211. Warner A & G	SA	225. Williams. Prof. P	NZ
212. Watson V	NZ	226. Wombeyan Caves	NSW
213. Watson. Dr. J.	WA	227. Woo Kyung Sik Prof.	Sth Korea
214. Webb. R.	WA	228. Wood A	WA
215. Weidmuller P/L	NSW	229. Wood P	NZ
216. Wellington Shire Council	NSW	230. Wood P	WA
217. Wells V & G	NZ	231. Wood S	Vic
218. White. N.	Vic	232. Woodward A & P	NZ
219. White. S.	Vic	233. Woodward B	NSW
220. Whittaker T	NZ	234. Wurst D	NT
221. Whyte R	NSW	235. Wylie J & G	NSW
222. Wild West Adventures	NZ	236. Yanchep National Park	WA
		237. Yarrangobilly Caves	NSW



Location of New Zealand Show Caves and Adventure Tour Operations

RULES OF THE AUSTRALASIAN CAVE AND KARST MANAGEMENT ASSOCIATION INC.

NAME

1. The name of the Incorporated Association is the Australasian Cave and Karst Management Association Inc.(in these rules called "The Association").

INTERPRETATION

- 2.(1) In these Rules, unless the contrary intention appears—
 - “Committee” means the Committee of Management of the Association.
 - “Financial Year” means the year ending on 30 June.
 - “General Meeting” means a general meeting of members convened in accordance with Rule 11.
 - “Member” means a member of the Association.
 - “Ordinary Member of the Committee” means a member of the Committee who is not an officer of the Association under Rule 21.
 - “The Act” means the Associations Incorporation Act 1981.
 - “The Regulations” means Regulations under the Act.
- (2) In these Rules, a reference to the Secretary of an Association is a reference—
 - (a) where a person holds office under these Rules as Secretary of the Association—to that person; and
 - (b) in any other case, to the Public Officer of the Association.
- (3) Words or expressions contained in these Rules shall be interpreted in accordance with the Interpretation of Legislation Act 1984 and the Act as in force from time to time.

APPLICATION FOR MEMBERSHIP

- 3.(1) A natural person who is nominated and approved for membership as provided in these Rules is eligible to be a member of the Association on payment of the annual subscription payable under these Rules.
- (2) A person who is not a member of the Association at the time of the incorporation of the Association (or who was a member at that time but has ceased to be a member) shall not be admitted to membership—
 - (a) unless nominated as provided in sub-clause (3); and
 - (b) the admission as a member is approved by the Committee.
- (3) A nomination of a person for membership of the Association—
 - (a) shall be made in writing in the form set out in Appendix 1; and
 - (b) shall be lodged with the Secretary of the Association.
- (4) As soon as is practicable after the receipt of a nomination, the Secretary shall refer the nomination to the Committee.
- (5) Upon a nomination being referred to the Committee, the Committee shall determine whether to approve or to reject the nomination.
- (6) Upon a nomination being approved by the Committee, the Secretary shall, with as little delay as possible, notify the nominee in writing of the approval for membership of the Association and request payment within the period of 28 days after receipt of the notification of the sum payable under these Rules as the first year’s annual subscription

- (7) The Secretary shall, upon payment of the amounts referred to in sub-clause (6) within the period referred to in that sub-clause, enter the nominee’s name in the register of members and, upon the name being so entered, the nominee becomes a member of the Association.
- (8) A right, privilege, or obligation of a person by reason of membership of the Association—
 - (a) is not capable of being transferred or transmitted to another person; and
 - (b) terminates upon the cessation of membership whether by death or resignation or otherwise
- (9) An Annual General Meeting may elect no more than three persons at any one such meeting to the standing of Honorary Life Members.
- (10) Such Honorary Life Members shall have the same responsibilities and privileges as other members, but shall be excused the payment of any annual subscription.

ENTRANCE FEE AND ANNUAL SUBSCRIPTION

4. The annual subscription is \$45, or such other fee as is determined from time to time by resolution of the Annual General Meeting and is payable in advance on or before 1 July in each year.

REGISTER OF MEMBERS

5. The Secretary shall keep and maintain a register of members in which shall be entered the full name, address and date of entry of the name of each member and the register shall be available for inspection and copying by members upon request.

DISPUTES AND MEDIATION

- 6.(1) The grievance procedure set out in this rule applies to disputes under these Rules between—
 - (a) a member and another member; or
 - (b) a member and the Association.
- (2) The parties to the dispute must meet and discuss the matter in dispute, and, if possible, resolve the dispute within 14 days after the dispute comes to the attention of all of the parties.
- (3) If the parties are unable to resolve the dispute at the meeting, or if a party fails to attend that meeting, then the parties must, within 10 days, hold a meeting in the presence of a mediator.
- (4) The mediator must be—
 - (a) a person chosen by agreement between the parties; or
 - (b) in the absence of agreement—
 - (i) in the case of a dispute between a member and another member, a person appointed by the committee of the Association; or
 - (ii) in the case of a dispute between a member and the Association, a person who is a mediator appointed or employed by the Dispute Settlement Centre of Victoria (Department of Justice).

- (5) A member of the Association can be a mediator.
- (6) The mediator cannot be a member who is a party to the dispute.
- (7) The parties to the dispute must, in good faith, attempt to settle the dispute by mediation.
- (8) The mediator, in conducting the mediation, must—
 (a) give the parties to the mediation process every opportunity to be heard; and
 (b) allow due consideration by all parties of any written statement submitted by any party;
 and
 (c) ensure that natural justice is accorded to the parties to the dispute throughout the mediation process.
- (9) The mediator must not determine the dispute.
- (10) If the mediation process does not result in the dispute being resolved, the parties may seek to resolve the dispute in accordance with the Act or otherwise at law.
- (4) At a meeting of the Committee held in accordance with sub-clause (2), the Committee—
 (a) shall give to the member an opportunity to be heard;
 (b) shall give due consideration to any written statement submitted by the member; and
 (c) shall by resolution determine whether to confirm or to revoke the resolution.
- (5) If the Secretary receives a notice under sub-clause (3), he or she shall notify the Committee and the Committee shall convene a general meeting of the Association to be held within twenty-one days after the date on which the Secretary received the notice.
- (6) At a general meeting of the Association convened under sub-clause (5)—
 (a) no business other than the question of the appeal shall be transacted;
 (b) the Committee may place before the meeting details of the grounds for the resolution and the reasons for the passing of the resolution;
 (c) the member shall be given an opportunity to be heard; and
 (d) the members present shall vote by secret ballot on the question whether the resolution should be confirmed or revoked.
- (7) If at the general meeting—
 (a) two-thirds of the members vote in person or by proxy in favour of the confirmation of the resolution, the resolution is confirmed; and
 (b) in any other case, the resolution is revoked.

RESIGNATION AND EXPULSION OF MEMBER

- 7.(1) A member of the Association who has paid all moneys due and payable by the member to the Association may resign from the Association by first giving one month's notice in writing to the Secretary of his or her intention to resign and upon the expiration of that period of notice, the member ceases to be a member.
- (2) Upon the expiration of a notice given under sub-clause (1), the Secretary shall make in the register of members an entry recording the date on which the member by whom the notice was given, ceased to be a member.
- 8.(1) Subject to these Rules, the Committee may by resolution—
 (a) expel a member from the Association;
 (b) suspend a member from membership of the Association for a specified period; or
 (c) fine a member an amount not exceeding \$20—
 if the Committee is of the opinion that the member—
 (d) has refused or neglected to comply with these Rules; or
 (e) has been guilty of conduct unbecoming a member or prejudicial to the interests of the Association.
- (2) A resolution of the Committee under sub-clause (1)—
 (a) does not take effect unless the Committee, at a meeting held not earlier than 14 and not later than 28 days after the service on the member of a notice under sub-clause (3) confirms the resolution in accordance with this clause; and
 (b) where the member exercises a right of appeal to the Association under this clause, does not take effect unless the Association confirms the resolution in accordance with this clause.
- (3) If the Committee passes a resolution under sub-clause (1), the Secretary shall, as soon as practicable, cause to be served on the member a notice in writing—
 (a) setting out the resolution of the Committee and the grounds on which it is based;
 (b) stating that the member may address the Committee at a meeting to be held not earlier than 14 and not less than 28 days after service of the notice;
 (c) stating the date, place and time of that meeting;
 (d) informing the member that he or she may do one or more of the following: (i) Attend that meeting; (ii) Give to the Committee before the date of that meeting a written statement seeking the revocation of the resolution; and (iii) Not later than 24 hours before the date of the meeting lodge with the

ANNUAL GENERAL MEETING

- 9.(1) The Association shall in each calendar year convene an annual general meeting of its members.
- (2) The annual general meeting shall be held on such day as the Committee determines.
- (3) The annual general meeting shall be specified as such in the notice convening it.
- (4) The ordinary business of the annual general meeting shall be—
 (a) to confirm the minutes of the last preceding annual general meeting and of any general meeting held since that meeting;
 (b) to receive from the Committee reports upon the transactions of the Association during the last preceding financial year;
 (c) to elect officers of the Association and the ordinary members of the Committee; and
 (d) to receive and consider the statement submitted by the Association in accordance with section 30 (3) of the Act.
- (5) The annual general meeting may transact special business of which notice is given in accordance with these Rules.
 (6) The annual general meeting shall be in addition to any other general meetings that may be held in the same year.

SPECIAL GENERAL MEETING

10. All general meetings other than the annual general meeting shall be called special general meetings.
- 11.(1) The Committee may, whenever it thinks fit, convene a special general meeting of the Association and, where, but for this sub-clause, more than fifteen months would elapse between annual general meetings, shall convene a special general meeting before the expiration of that period.

- (2) The Committee shall, on the requisition in writing of members representing not less than 5 per cent of the total number of members, convene a special general meeting of the Association.
- (3) The requisition for a special general meeting shall state the objects of the meeting and shall be signed by the members making the requisition and be sent to the address of the Secretary and may consist of several documents in a like form, each signed by one or more of the members making the requisition.
- (4) If the Committee does not cause a special general meeting to be held within the month after the date on which the requisition is sent to the address of the Secretary, the members making the requisition, or any of them, may convene a special general meeting to be held not later than three months after that date.
- (5) A special general meeting convened by members in pursuance of these Rules shall be convened in the same manner as nearly as possible as that in which those meetings are convened by the Committee and, all reasonable expenses incurred in convening the meeting shall be refunded by the Association to the persons incurring the expenses.

NOTICE OF MEETING

- 12.(1) The Secretary of the Association shall, at least 14 days before the date fixed for holding a general meeting of the Association, cause to be sent to each member of the Association at the address appearing in the register of members, a notice by pre-paid post stating the place, date and time of the meeting and the nature of the business to be transacted at the meeting.
- (2) No business other than that set out in the notice convening the meeting shall be transacted at the meeting.
- (3) A member desiring to bring any business before a meeting may give notice of that business in writing to the Secretary, who shall include that business in the notice calling the next general meeting after the receipt of the notice.

PROCEEDINGS AT MEETINGS

- 13.(1) All business that is transacted at a special general meeting and all business that is transacted at the annual general meeting with the exception of that specially referred to in these Rules as being the ordinary business of the annual general meeting shall be deemed to be special business.
- (2) No item of business shall be transacted at a general meeting unless a quorum of members entitled under these Rules to vote is present during the time when the meeting is considering that item.
- (3) Five members personally present (being members entitled under these Rules to vote at a general meeting) constitute a quorum for the transaction of the business of a general meeting.
- (4) If within half an hour after the appointed time for the commencement of a general meeting, a quorum is not present, the meeting if convened upon the requisition of members shall be dissolved and in any other case shall stand adjourned to another day in the same week at (unless another place is specified by the Chairperson at the time of the adjournment or by written notice to members given before the day to which the meeting is adjourned) at the same place and if at the adjourned meeting the quorum is not present within half an hour after the time appointed for the commencement of the

meeting, the members present (being not less than 3) shall be a quorum.

- 14.(1) The President, or in the President's absence, a Vice-President, shall preside as Chairperson at each general meeting of the Association.
- (2) If the President and Vice-Presidents are absent from a general meeting, the members present shall elect one of their number to preside as Chairperson at the meeting.
- 15.(1) The Chairperson of a general meeting at which a quorum is present may, with the consent of the meeting, adjourn the meeting from time to time and place to place, but no business shall be transacted at an adjourned meeting other than the business left unfinished at the meeting at which the adjournment took place.
- (2) Where a meeting is adjourned for fourteen days or more, a like notice of the adjourned meeting shall be given as in the case of the general meeting.
- (3) Except as provided in sub-clause (1) and (2), it is not necessary to give notice of an adjournment or of the business to be transacted at an adjourned meeting.
16. A question arising at a general meeting of the Association shall be determined on a show of hands and unless, before or on the declaration of the show of hands a poll is demanded, a declaration by the Chairperson that a resolution has, on a show of hands, been carried or carried unanimously or carried by a particular majority or lost, and an entry to that effect in the Minute Book of the Association is evidence of the fact, without proof of the number or proportion of the votes recorded in favour of, or against, that resolution.
- 17.(1) Upon any question arising at a general meeting of the Association, a member has one vote only.
- (2) All votes shall be given personally or by proxy.
- (3) In the case of an equality of voting on a question, the Chairperson of the meeting is entitled to exercise a second or casting vote.
- 18.(1) If at a meeting a poll on any question is demanded by not less than three members, it shall be taken at that meeting in such manner as the Chairperson may direct and the resolution of the poll shall be deemed to be a resolution of the meeting on that question.
- (2) A poll that is demanded on the election of a Chairperson or on a question of an adjournment shall be taken forthwith and a poll that is demanded on any question shall be taken at such time before the close of the meeting as the Chairperson may direct.
19. A member is not entitled to vote at any general meeting unless all moneys due and payable by the member to the Association have been paid, other than the amount of the annual subscription payable in respect of the current financial year.
- 20.(1) Each member is entitled to appoint another member as a proxy by notice given to the Secretary no later than 24 hours before the time of the meeting in respect of which the proxy is appointed.
- (2) The notice appointing the proxy shall be in the form set out in Appendix 2.

COMMITTEE OF MANAGEMENT

- 21.(1) The affairs of the Association shall be managed by the Committee of Management constituted as provided in Rule 22.
- (2) The Committee—
 (a) shall control and manage the business and affairs of the Association;
 (b) may, subject to these Rules, the Regulations and the Act, exercise all such powers and functions as may be exercised by the Association other than those powers and functions that are required by these Rules to be exercised by general meetings of the members of the Association; and
 (c) subject to these Rules, the regulations and the Act, has power to perform all such acts and things as appear to the Committee to be essential for the proper management of the business and affairs of the Association.
- 22.(1) The officers of the Association shall be—
 (a) a President;
 (b) two Vice-Presidents;
 (c) a Treasurer;
 (d) a Secretary
 (e) the Convenor of the Association's next ensuing conference
 (f) a Publications Officer
- (2) The provisions of Rule 23 so far as they are applicable and with the necessary modifications, apply to and in relation to the election of persons to any of the offices mentioned in sub-clause (1).
- (3) Each officer of the Association shall hold office until the annual general meeting next after the date of his or her election but is eligible for re-election.
- (4) In the event of a casual vacancy in any office referred to in sub-clause (1) the Committee may appoint one of its members to the vacant office and the member so appointed may continue in office up to and including the conclusion of the annual general meeting next following the date of the appointment.
- 23.(1) Subject to section 23 of the Act, the Committee shall consist of—
 (a) the officers of the Association;
 (b) no more than three ordinary members— each of whom shall be elected at the annual general meeting of the Association in each year, and
 (c) the immediate past president.
- (2) Each ordinary member of the Committee shall, subject to these Rules, hold office until the annual general meeting next after the date of election but is eligible for re-election.
- (3) In the event of a casual vacancy occurring in the office of an ordinary member of the Committee, the Committee may appoint a member of the Association to fill the vacancy and the member so appointed shall hold office, subject to these Rules, until the conclusion of the annual general meeting next following the date of the appointment.

ELECTION OF OFFICERS AND VACANCY

- 24.(1) Nominations of candidates for election as officers of the Association or as ordinary members of the Committee—
 (a) shall be made in writing, signed by two members of the Association and accompanied by the written consent of the candidate (which may be endorsed on the form of nomination); and
 (b) shall be delivered to the Secretary of the Association not less than seven days before the date fixed for the holding of the annual general meeting.

- (2) If insufficient nominations are received to fill all vacancies on the Committee, the candidates nominated shall be deemed to be elected and further nominations shall be received at the annual general meeting.
- (3) If the number of nominations received is equal to the number of vacancies to be filled, the persons nominated shall be deemed to be elected.
- (4) If the number of nominations exceeds the number of vacancies to be filled, a ballot shall be held.
- (5) The ballot for the election of officers and ordinary members of the Committee shall be conducted at the annual general meeting in such usual and proper manner as the Committee may direct.
- (6) A nomination of a candidate for election under this clause is not valid if that candidate has been nominated for another office for election at the same election.
25. For the purposes of these Rules, the office of an officer of the Association or of an ordinary member of the Committee becomes vacant if the officer or member—
 (a) ceases to be a member of the Association;
 (b) becomes an insolvent under administration within the meaning of the Companies (Victoria) Code; or
 (c) resigns from office by notice in writing given to the Secretary.

PROCEEDINGS OF COMMITTEE

- 26.(1) The Committee shall meet at least once in each year at such place and such times as the Committee may determine.
- (2) Special meetings of the Committee may be convened by the President or by any four of the members of the Committee.
- (3) Notice shall be given to members of the Committee of any special meeting specifying the general nature of the business to be transacted and no other business shall be transacted at such a meeting.
- (4) Any four members of the Committee constitute a quorum for the transaction of the business of a meeting of the Committee.
- (5) No business shall be transacted unless a quorum is present and if within half an hour of the time appointed for the meeting a quorum is not present the meeting shall stand adjourned to the same place and at the same hour of the same day in the following week unless the meeting was a special meeting in which case it lapses.
- (6) At meetings of the Committee—
 (a) the President or in the President's absence a Vice-President shall preside; or
 (b) if the President and Vice-Presidents are absent, such one of the remaining members of the Committee as may be chosen by the members present shall preside.
- (7) Questions arising at a meeting of the Committee or of any sub-committee appointed by the Committee shall be determined on a show of hands or, if demanded by a member, by a poll taken in such manner as the person presiding at the meeting may determine.
- (8) Each member present at a meeting of the Committee or of any sub-committee appointed by the Committee (including the person presiding at the meeting) is entitled to one vote and, in the event of an equality of votes on any question, the person presiding may exercise a second or casting vote.

- (9) Written notice of each committee meeting shall be served on each member of the Committee by delivering it to the member at a reasonable time before the meeting or by sending it by pre-paid post addressed to him or her at his or her usual or last known place or abode at least two business days before the date of the meeting.
- (10) Subject to sub-clause (4) the Committee may act notwithstanding any vacancy on the Committee.

SECRETARY

27. The Secretary of the Association shall keep minutes of the resolutions and proceedings of each general meeting and each committee meeting in books provided for that purpose together with a record of the names of persons present at committee meetings.

TREASURER

28. The Treasurer of the Association—
 (a) shall collect and receive all moneys due to the Association and make all payments authorised by the Association; and
 (b) shall keep correct accounts and books showing the financial affairs of the Association with full details of all receipts and expenditure connected with the activities of the Association.

REMOVAL OF MEMBER OF COMMITTEE

- 29.(1) The Association in general meeting may by resolution remove any member of the Committee before the expiration of the member's term of office and appoint another member in his or her stead to hold office until the expiration of the term of the first-mentioned member.
- (2) Where the member to whom a proposed resolution referred to in sub-clause (1) makes representations in writing to the Secretary or President of the Association (not exceeding a reasonable length) and requests that they be notified to the members of the Association, the Secretary or the President may send a copy of the representations to each member of the

Association or, if they are not so sent, the member may require that they be read out at the meeting.

CHEQUES

30. All cheques, drafts, bills of exchange, promissory notes and other negotiable instruments shall be signed by two members of the Committee.

SEAL

- 31.(1) The Common Seal of the Association shall be kept in the custody of the Secretary.
- (2) The Common Seal shall not be affixed to any instrument except by the authority of the Committee and the affixing of the Common Seal shall be attested by the signatures either of two members of the Committee or of one member of the Committee and of the Public Officer of the Association.

ALTERATION OF RULES AND STATEMENT OF PURPOSES

32. These Rules and the Statement of Purposes of the Association shall not be altered except in accordance with the Act.

NOTICES

- 33.(1) A notice may be served by or on behalf of the Association upon any member either personally or by sending it by post to the member at the address shown in the Register of Members.
- (2) Where a document is properly addressed prepaid and posted to a person as a letter, the document shall, unless the contrary is proved, be deemed to have been given to the person at the time at which the letter would have been delivered in the ordinary course of post.

WINDING UP OR CANCELLATION

34. In the event of the winding up or the cancellation of the incorporation of the Association, the assets of the Association shall be disposed of in accordance with the provisions of the Act.

PROPOSED NEW RULES OF THE AUSTRALASIAN CAVE AND KARST MANAGEMENT ASSOCIATION INC.

ABN :87 698 816 592

NOTE: THE PROPOSED CHANGES ARE IN BOLD *ITALIC* TYPE

NAME

1. The name of the Incorporated Association is the Australasian Cave and Karst Management Association Inc.(in these rules called "The Association").

1.1 *The association is incorporated under the law of the state of Victoria, in Australia*

- 2. *(1) To develop improved standards in the management and interpretation of cave and karst heritage in the Australasian Region.***
(2) To enhance liaison between agencies and those interested in cave & karst management.
(3) To encourage and support scientific research which may further the improvement of standards in cave and karst management.
(4) To formulate and promote policies and initiatives in cave and karst management.

(5) To do any other things which are conducive or incidental to the attainment of the above.

(6) To achieve the above objects the Association has, inter alia, the power to:

(a) Publish magazines, Journals, Occasional Papers,

whether printed, electronic, digital or other,

(b) Organise a conference, symposium, seminar, meeting, lecture or similar function

(c) Sponsor, subsidize, or otherwise support research consistent with the above

(d) Provide a clearing house for information and skills in karst management

(e) Enter into contracts to provide services related to Caves and Karst.

INTERPRETATION

- 3.(1) In these Rules, unless the contrary intention appears—
 “Committee” means the Committee of Management of the Association.
“Conference” means a conference held in conjunction with each alternate Annual General Meeting, at which technical papers on topics relevant to ACKMA will be delivered
“Fellow” means a person elected pursuant to clause 4(9)
 “Financial Year” means the year ending on 31 March.
 “General Meeting” means a general meeting of members convened in accordance with Rule 12.
“Honorary Life Member” means a person elected pursuant to rule 4(10)
 “Member” means a member of the Association.
 “Ordinary Member of the Committee” means a member of the Committee who is not an officer of the Association under Rule 22.
“Register” includes paper, electronic or other forms of record, provided that a printed copy can be readily created of the contents
 “The Act” means the Associations Incorporation Act 1981 of the State of Victoria in Australia.
 “The Regulations” means Regulations under the Act.
- (2) In these Rules, a reference to the Secretary of an Association is a reference—
 (a) where a person holds office under these Rules as Secretary of the Association—to that person; and
 (b) in any other case, to the Public Officer of the Association.
- (3) Words or expressions contained in these Rules shall be interpreted in accordance with the Interpretation of Legislation Act 1984 (Victoria) and the Act as in force from time to time, *unless they are already defined in these rules.*

APPLICATION FOR MEMBERSHIP

- 4.(1) A natural person who is nominated and approved for membership as provided in these Rules is eligible to be a member of the Association on payment of the annual subscription payable under these Rules.
- (2) A person who is not a member of the Association at the time of the incorporation of the Association (or who was a member at that time but has ceased to be a member) shall not be admitted to membership—
 (a) unless nominated as provided in sub-clause (3); and
 (b) the admission as a member is approved by the Committee.
- (3) A nomination of a person for membership of the Association—
 (a) shall be made in writing; and
 (b) shall be lodged with the Association.
- (4) As soon as is practicable after the receipt of a nomination, the Secretary shall refer the nomination to the Committee.
- (5) Upon a nomination being referred to the Committee, the Committee shall determine whether to approve or to reject the nomination.
- (6) Upon a nomination being approved by the Committee, the Secretary shall, with as little delay as possible, notify the nominee in writing of the approval for membership of the Association and request payment within the period of 28 days after receipt of the notification of the sum payable under these Rules as the first year’s annual subscription
- (7) The Secretary shall, upon payment of the amount referred to in sub-clause (6) within the period referred to in that sub-clause, enter the nominee’s name in the register of members and, upon the name being so entered, the nominee becomes a member of the Association.

- (8) A right, privilege, or obligation of a person by reason of membership of the Association—
 (a) is not capable of being transferred or transmitted to another person; and
 (b) terminates upon the cessation of membership whether by death or resignation or otherwise
- (9) *In recognition of special services to the Association an Annual General Meeting may elect no more than three persons at any one such meeting to the standing of Fellow.*
- (10) *In recognition of distinguished services to the Association an Annual General Meeting may elect no more than three persons at any one such meeting to the standing of Honorary Life Members.*
- (11) Honorary Life Members shall have the same responsibilities and privileges as other members, but shall be excused the payment of any annual subscription.

ENTRANCE FEE AND ANNUAL SUBSCRIPTION

- 5.(1) The annual subscription is as determined from time to time by resolution of the Annual General Meeting and is payable in advance on or before 1 July in each year.
- (2) The entrance fee shall be determined by resolution of the Annual General Meeting.

REGISTER OF MEMBERS

6. The Secretary shall keep and maintain a register of members in which shall be entered the full name, address and date of entry of the name of each member and the register shall be available for inspection and copying by members upon request.

DISPUTES AND MEDIATION

- 7.(1) The grievance procedure set out in this rule applies to disputes under these Rules between—
 (a) a member and another member; or
 (b) a member and the Association.
- (2) The parties to the dispute must meet and discuss the matter in dispute, and, if possible, resolve the dispute within 14 days after the dispute comes to the attention of all the parties.
- (3) If the parties are unable to resolve the dispute at the meeting, or if a party fails to attend that meeting, then the parties must, within 10 days, hold a meeting in the presence of a mediator.
- (4) The mediator must be—
 (a) a person chosen by agreement between the parties; or
 (b) in the absence of agreement—
 (i) in the case of a dispute between a member and another member, a person appointed by the committee of the Association; or
 (ii) in the case of a dispute between a member and the Association, a person who is a mediator appointed or employed by the Dispute Settlement Centre of Victoria (Department of Justice).
- (5) A member of the Association can be a mediator.
- (6) The mediator cannot be a member who is a party to the dispute.
- (7) The parties to the dispute must, in good faith, attempt to settle the dispute by mediation.

- (8) The mediator, in conducting the mediation, must—
 (a) give the parties to the mediation process every opportunity to be heard; and
 (b) allow due consideration by all parties of any written statement submitted by any party;
 and
 (c) ensure that natural justice is accorded to the parties to the dispute throughout the mediation process.
- (9) The mediator must not determine the dispute.
- (10) If the mediation process does not result in the dispute being resolved, the parties may seek to resolve the dispute in accordance with the Act or otherwise at law.

RESIGNATION AND EXPULSION OF MEMBER

- 8.(1) A member of the Association who has paid all moneys due and payable by the member to the Association may resign from the Association by first giving one month's notice in writing to the Secretary of his or her intention to resign and upon the expiration of that period of notice, the member ceases to be a member.
- (2) Upon the expiration of a notice given under sub-clause (1), the Secretary shall make in the register of members an entry recording the date on which the member, by whom the notice was given, ceased to be a member.
- 9.(1) Subject to these Rules, the Committee may by resolution—
 (a) expel a member from the Association;
 (b) suspend a member from membership of the Association for a specified period; or
 (c) fine a member an amount not exceeding **twice the annual subscription**.
 If the Committee is of the opinion that the member—
 (d) has refused or neglected to comply with these Rules; or
 (e) has been guilty of conduct unbecoming a member or prejudicial to the interests of the Association.
- (2) A resolution of the Committee under sub-clause (1)—
 (a) does not take effect unless the Committee, at a meeting held not earlier than 14 and not later than 28 days after the service on the member of a notice under sub-clause (3) confirms the resolution in accordance with this clause; and
 (b) where the member exercises a right of appeal to the Association under this clause, does not take effect unless the Association confirms the resolution in accordance with this clause.
- (3) If the Committee passes a resolution under sub-clause (1), the Secretary shall, as soon as practicable, cause to be served on the member a notice in writing—
 (a) setting out the resolution of the Committee and the grounds on which it is based;
 (b) stating that the member may address the Committee at a meeting to be held not earlier than 14 and not less than 28 days after service of the notice;
 (c) stating the date, place and time of that meeting;
 (d) informing the member that he or she may do one or more of the following: (i) Attend that meeting; (ii) Give to the Committee before the date of that meeting a written statement seeking the revocation of the resolution; and (iii) Not later than 24 hours before the date of the meeting lodge with the Secretary a notice to the effect that he or she wishes to appeal to the Association in general meeting against the Resolution.
- (4) At a meeting of the Committee held in accordance with sub-clause (2), the Committee—
 (a) shall give to the member an opportunity to be heard;
 (b) shall give due consideration to any written statement submitted by the member; and

(c) shall by resolution determine whether to confirm or to revoke the resolution.

- (5) If the Secretary receives a notice under sub-clause (3), he or she shall notify the Committee and the Committee shall convene a general meeting of the Association to be held within twenty-one days after the date on which the Secretary received the notice.
- (6) At a general meeting of the Association convened under sub-clause (5)—
 (a) no business other than the question of the appeal shall be transacted;
 (b) the Committee may place before the meeting details of the grounds for the resolution and the reasons for the passing of the resolution;
 (c) the member shall be given an opportunity to be heard; and
 (d) the members present shall vote by secret ballot on the question whether the resolution should be confirmed or revoked.
- (7) If at the general meeting—
 (a) two-thirds of the members vote in person or by proxy in favour of the confirmation of the resolution, the resolution is confirmed;
 and
 (b) in any other case, the resolution is revoked.

ANNUAL GENERAL MEETING

- 10.(1) The Association shall in each calendar year, **and no later than 31 July**, convene an annual general meeting of its members.
- (2) The annual general meeting shall be held on such day as the Committee determines.
- (3) The annual general meeting shall be specified as such in the notice convening it.
- (4) The ordinary business of the annual general meeting shall be—
 (a) to confirm the minutes of the last preceding annual general meeting and of any general meeting held since that meeting;
 (b) to receive from the Committee reports upon the transactions of the Association during the last preceding financial year;
 (c) to elect officers of the Association and the ordinary members of the Committee; and
 (d) to receive and consider the statement submitted by the Association in accordance with section 30 (3) of the Act.
(e) to fix the annual subscription and entrance fee
- (5) The annual general meeting may transact special business of which notice is given in accordance with these Rules.
- (6) The annual general meeting shall be in addition to any other general meetings that may be held in the same year.

SPECIAL GENERAL MEETING

11. All general meetings other than the annual general meeting shall be called special general meetings.
- 12.(1) The Committee may, whenever it thinks fit, convene a special general meeting of the Association and, where, but for this sub-clause, more than fifteen months would elapse between annual general meetings, shall convene a special general meeting before the expiration of that period.
- (2) The Committee shall, on the requisition in writing of members representing not less than 5 per cent of the total number of financial members, convene a special general meeting of the Association.

- (3) The requisition for a special general meeting shall state the objects of the meeting and shall be signed by the members making the requisition and be sent to the address of the Secretary and may consist of several documents in a like form, each signed by one or more of the members making the requisition.
- (4) If the Committee does not cause a special general meeting to be held within the month after the date on which the requisition is sent to the address of the Secretary, the members making the requisition, or any of them, may convene a special general meeting to be held not later than three months after that date.
- (5) A special general meeting convened by members in pursuance of these Rules shall be convened in the same manner as nearly as possible as that in which those meetings are convened by the Committee and, all reasonable expenses incurred in convening the meeting shall be refunded by the Association to the persons incurring the expenses.
- (6) *Notwithstanding sub-rule (5) above, if any special general meeting called pursuant to sub-rule (2) or (4) lapses for want of a quorum, those members who signed the requisition for, but fail to attend, the special general meeting shall reimburse the Association for the costs of calling the meeting and the reasonable travel costs of all who did attend such failed meeting.*

NOTICE OF MEETING

- 13.(1) The Secretary of the Association shall, at least 14 days before the date fixed for holding a general meeting of the Association, cause to be sent to each member of the Association at the address appearing in the register of members, a notice by pre-paid post stating the place, date and time of the meeting and the nature of the business to be transacted at the meeting. *A notice sent by email which has been acknowledged meets this requirement.*
- (2) No business other than that set out in the notice convening the meeting shall be transacted at the meeting.
- (3) A member desiring to bring any business before a meeting may give notice of that business in writing *or by email* to the Secretary, who shall include that business in the notice calling the next general meeting after the receipt of the notice.

PROCEEDINGS AT MEETINGS

- 14.(1) All business that is transacted at a special general meeting and all business that is transacted at the annual general meeting with the exception of that specially referred to in these Rules as being the ordinary business of the annual general meeting shall be deemed to be special business.
- (2) No item of business shall be transacted at a general meeting unless a quorum of members entitled under these Rules to vote is present during the time when the meeting is considering that item.
- (3) Five members personally present (being members entitled under these Rules to vote at a general meeting) constitute a quorum for the transaction of the business of a general meeting.
- (4) If within half an hour after the appointed time for the commencement of a general meeting, a quorum is not present, the meeting if convened upon the requisition of members shall be dissolved and in any other case shall stand adjourned to another day in the same week at (unless another place is specified by the Chairperson at the time of the adjournment or by written notice to members given before the day to which the meeting is adjourned) at the same place and if at the

adjourned meeting the quorum is not present within half an hour after the time appointed for the commencement of the meeting, the members present (being not less than 3) shall be a quorum.

- 15.(1) The President, or in the President's absence, a Vice-President, shall *chair* each general meeting of the Association.
- (2) If the President and Vice-Presidents are absent from a general meeting, the members present shall elect one of their number to *chair* the meeting.
- 16.(1) The Chairperson of a general meeting at which a quorum is present may, with the consent of the meeting, adjourn the meeting from time to time and place to place, but no business shall be transacted at an adjourned meeting other than the business left unfinished at the meeting at which the adjournment took place.
- (2) Where a meeting is adjourned for fourteen days or more, a like notice of the adjourned meeting shall be given as in the case of the general meeting.
- (3) Except as provided in sub-clause (1) and (2), it is not necessary to give notice of an adjournment or of the business to be transacted at an adjourned meeting.
17. A question arising at a general meeting of the Association shall be determined on a show of hands and unless, before or on the declaration of the show of hands a poll is demanded, a declaration by the Chairperson that a resolution has, on a show of hands, been carried or carried unanimously or carried by a particular majority or lost, and an entry to that effect in the Minute Book of the Association is evidence of the fact, without proof of the number or proportion of the votes recorded in favour of, or against, that resolution.
- 18.(1) Upon any question arising at a general meeting of the Association, a member has one vote only.
- (2) All votes shall be given personally, by proxy or by postal vote, as per rule 36.
- (3) In the case of an equality of voting on a question, the *Chair* of the meeting is entitled to exercise a second or casting vote, *in accordance with the common law.*
- 19.(1) If at a meeting a poll on any question is demanded by not less than three members, it shall be taken at that meeting in such manner as the *Chair* may direct and the resolution of the poll shall be deemed to be a resolution of the meeting on that question.
- (2) A poll that is demanded *by the* (on the election of a) Chairperson or on a question of an adjournment shall be taken forthwith and a poll that is demanded on any question shall be taken at such time before the close of the meeting as the *Chair* may direct.
20. A member is not entitled to vote at any general meeting unless all moneys due and payable by the member to the Association have been paid, other than the amount of the annual subscription payable in respect of the current financial year.
- 21.(1) Each member is entitled to appoint another member as a proxy by notice given to the Secretary no later than 24 hours before the time of the meeting in respect of which the proxy is appointed.
- (2) The instrument appointing the proxy shall be *on the form distributed with the notice of meeting.*

COMMITTEE OF MANAGEMENT

- 22.(1) The affairs of the Association shall be managed by the Committee of Management constituted as provided in Rule 24.
- (2) The Committee—
- (a) shall control and manage the business and affairs of the Association;
- (b) may, subject to these Rules, the Act and the Regulations, exercise all such powers and functions as may be exercised by the Association other than those powers and functions that are required by these Rules to be exercised by general meetings of the members of the Association; and
- (c) subject to these Rules, the Act and the Regulations, has power to perform all such acts and things as appear to the Committee to be essential for the proper management of the business and affairs of the Association.
- 23.(1) The officers of the Association shall be—
- (a) a President;
- (b) two Vice-Presidents;
- (c) a Treasurer;
- (d) a Secretary
- (e) the *Convener* of the Association's next ensuing conference
- (f) a Publications Officer
- (2) The provisions of Rule 25 so far as they are applicable and with the necessary modifications, apply to and in relation to the election of persons to any of the offices mentioned in sub-clause (1).
- (3) Each officer of the Association shall hold office until the *conclusion of the* annual general meeting next after the date of his or her election but is eligible for re-election.
- (4) In the event of a casual vacancy in any office referred to in sub-clause (1) the Committee may appoint one of its members to the vacant office and the member so appointed may continue in office up to and including the conclusion of the annual general meeting next following the date of the appointment.
- 24.(1) Subject to section 23 of the Act, the Committee shall consist of—
- (a) the officers of the Association;
- (b) no more than three ordinary members—each of whom shall be elected at the annual general meeting of the Association in each year, and
- (c) the immediate past president.
- (d) up to two co-opted members as provided for in section 24(4)*
- (2) Each ordinary member of the Committee shall, subject to these Rules, hold office until the *conclusion of the* annual general meeting next after the date of election but is eligible for re-election.
- (3) In the event of a casual vacancy occurring in the office of an ordinary member of the Committee, the Committee may appoint a member of the Association to fill the vacancy and the member so appointed shall hold office, subject to these Rules, until the conclusion of the annual general meeting next following the date of the appointment.
- (4) *The elected members of the Committee may at any time co-opt up to two additional members to the Committee to carry out specific functions. The co-opted members terms will lapse at the conclusion of the annual general meeting next*

following the date of the appointment, although they will be eligible to be further co-opted by the incoming committee as necessary. The co-opted members may fully participate in the affairs of the Committee except that they may not vote.

ELECTION OF OFFICERS AND VACANCY

- 25.(1) Nominations of candidates for election as officers of the Association or as ordinary members of the Committee—
- (a) shall be made in writing, signed by two members of the Association and accompanied by the written consent of the candidate (which may be included in the form of nomination); and
- (b) shall be delivered to the Secretary of the Association not less than seven days before the date fixed for the holding of the annual general meeting.
- (2) If insufficient nominations are received to fill all vacancies on the Committee, the candidates nominated shall be deemed to be elected and further nominations shall be received at the annual general meeting.
- (3) If the number of nominations received is equal to the number of vacancies to be filled, the persons nominated shall be deemed to be elected.
- (4) If the number of nominations exceeds the number of vacancies to be filled, a ballot shall be held.
- (5) The ballot for the election of officers and ordinary members of the Committee shall be conducted at the annual general meeting in such usual and proper manner as the Committee may direct.
- (6) A person may nominate for more than one position. Positions shall be filled in the order set out in rule 23(1). Election to a position shall cause all other nominations of that person to lapse.
26. For the purposes of these Rules, the office of an officer of the Association or of an ordinary member of the Committee becomes vacant if the officer or member—
- (a) ceases to be a member of the Association;
- (b) becomes an insolvent under administration within the meaning of the Companies (Victoria) Code; or
- (c) resigns from office by notice in writing given to the Secretary
- (d) becomes of unsound mind or a person whose person or estate is liable to be dealt with in any way under the law relating to mental health*
- (e) If at a special general meeting called for that purpose is removed from the position by a two thirds majority of those present and entitled to vote at that meeting*

PROCEEDINGS OF COMMITTEE

- 27.(1) The Committee shall meet at least once in each year at such place and such times as the Committee may determine.
- (2) Special meetings of the Committee may be convened by the President or by any four of the members of the Committee.
- (3) Notice shall be given to members of the Committee of any special meeting. The notice shall specify the general nature of the business to be transacted and no other business shall be transacted at such a meeting.
- (4) Any six members of the Committee constitute a quorum for the transaction of the business of a meeting of the Committee.

- (5) No business shall be transacted unless a quorum is present and if within half an hour of the time appointed for the meeting a quorum is not present the meeting shall stand adjourned to the same place and at the same hour of the same day in the following week unless the meeting was a special meeting in which case it lapses.
- (6) At meetings of the Committee—
 (a) the President or in the President's absence a Vice-President shall preside; or
 (b) if the President and Vice-Presidents are absent, such one of the remaining members of the Committee as may be chosen by the members present shall preside.
- (7) Questions arising at a meeting of the Committee or of any sub-committee appointed by the Committee shall be determined on a show of hands or, if demanded by a member, by a poll taken in such manner as the person presiding at the meeting may determine.
- (8) Each member present at a meeting of the Committee or of any sub-committee appointed by the Committee (including the person presiding at the meeting) is entitled to one vote and, in the event of an equality of votes on any question, the person presiding may exercise a second or casting vote, *in accordance with common law*.
- (9) Written notice of each committee meeting shall be served on each member of the Committee by delivering it to the member at a reasonable time before the meeting or by sending it by pre-paid post addressed to him or her at his or her usual or last known place or abode at least two business days before the date of the meeting.
- (10) Subject to sub-clause (4) the Committee may act notwithstanding any vacancy on the Committee.

SECRETARY

28. (1) The Secretary of the Association shall keep minutes of the resolutions and proceedings of each general meeting and each committee meeting in books provided for that purpose together with a record of the names of persons present at committee meetings.
- (2) *Any financial member of the Association shall have access to the minutes and other records in normal business hours, subject to giving three working days' notice to the Secretary*

TREASURER

29. (1) The Treasurer of the Association—
 (a) shall collect and receive all moneys due to the Association and make all payments authorised by the Association; and
 (b) shall keep correct accounts and books showing the financial affairs of the Association with full details of all receipts and expenditure connected with the activities of the Association. *All records shall be kept in Australian dollars.*
 (c) *may create an imprest account for the committee organising a conference, on such terms and conditions as the Treasurer deems appropriate.*
 (d) *may create an imprest account for any sub group of members, on such terms and conditions as the Treasurer deems appropriate.*
 (e) *the custodian of any such imprest account must provide the Treasurer with a statement of income and expenditure annually.*

CHEQUES

- 30 (1) *All payments shall be made by cheque or electronic funds transfer.*
- (2) All cheques, drafts, bills of exchange, promissory notes and other negotiable instruments shall be signed by the *Treasurer and one other officer*.

REMOVAL OF MEMBER OF COMMITTEE

- 31.(1) The Association in general meeting may by resolution remove any member of the Committee before the expiration of the member's term of office and appoint another member in his or her stead to hold office until the expiration of the term of the first-mentioned member.
- (2) Where the member to whom a proposed resolution referred to in sub-clause (1) makes representations in writing to the Secretary or President of the Association (not exceeding a reasonable length) and requests that they be notified to the members of the Association, the Secretary or the President may send a copy of the representations to each member of the Association or, if they are not so sent, the member may require that they be read out at the meeting.

SEAL

- 32.(1) The Common Seal of the Association shall be kept in the custody of the Secretary.
- (2) The Common Seal shall not be affixed to any instrument except by the authority of the Committee and the affixing of the Common Seal shall be attested by the signatures either of two members of the Committee or of one member of the Committee and of the Public Officer of the Association.

ALTERATION OF RULES AND STATEMENT OF PURPOSES

33. These Rules and the Statement of Purposes of the Association shall not be altered except in accordance with the Act.

NOTICES

- 34.(1) A notice may be served by or on behalf of the Association upon any member either personally or by sending it by post to the member at the address shown in the Register of Members.
- (2) Where a document is properly addressed prepaid and posted to a person as a letter, the document shall, unless the contrary is proved, be deemed to have been given to the person at the time at which the letter would have been delivered in the ordinary course of post.

BYLAWS

35. *The Association in General Meeting may create, adopt, vary, modify, abolish or otherwise change one or more Bylaws. Any motion dealing with a Bylaw shall be included in the Notice of Meeting.*

WINDING UP OR CANCELLATION

36. In the event of the winding up or the cancellation of the incorporation of the Association, the assets of the Association shall be disposed of in accordance with the provisions of the Act.

END OF CONSTITUTION

THE GHOSTS OF CONFERENCES PAST



Attendees – 14TH ACKMA CONFERENCE, Wombeyan, New South Wales, 2001



Attendees – 15TH ACKMA CONFERENCE, Chillagoe/Undara, Queensland, 2003



New Zealand Attendees – 16TH ACKMA CONFERENCE, West Coast, South Island, New Zealand, 2005
Left: The North Islanders. Right: The South Islanders