

C.D.A.A. 40th Anniversary Newsletter

No. 125 - SEPTEMBER 2013



CAVE DIVERS ASSOCIATION OF AUSTRALIA
(Incorporated in South Australia)

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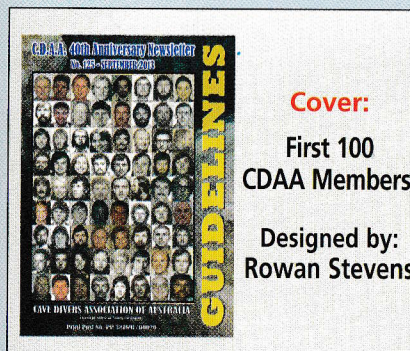
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Cover:

First 100
CDAA Members.

Designed by:
Rowan Stevens

CAVE DIVERS ASSOCIATION OF AUSTRALIA

ABN 65 062 259 956

P.O. BOX 544, Mt Gambier, SA 5291

GUIDELINES is a newsletter of the Cave Divers Association of Australia. All articles for the following issue are to be sent to the Publications Director, Email: publications@cavedivers.com.au

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CONTACT LIST

Please contact the most relevant person or, if unsure write to:
C.D.A.A. P.O. Box 544 Mt Gambier SA 5291 www.cavedivers.com.au

NATIONAL DIRECTOR - John Vanderleest
Email: national@cavedivers.com.au Mobile: 0419 775 771

STANDARDS DIRECTOR - Linda Claridge Mobile: 0408 052 070
Email: standards@cavedivers.com.au AH: (03) 5565 8793

Quality Control Officer - Position Vacant
Email: quality@cavedivers.com.au

Safety Officer - Agnieszka Malkowska
Email: safety@cavedivers.com.au Mobile: 0401 416 330

Search & Rescue Officer - Richard Harris
Email: sar@cavedivers.com.au Mobile: 0417 177 830

Instructor Records & Materials - Deb Williams
Ph: 0419 882 800 Fax: 03 5986 3179 Email: instrrecords@cavedivers.com.au

BUSINESS DIRECTOR - Helen Higgins
Email: business@cavedivers.com.au Mobile: 0411 720 440

Treasurer - Tammy Beattie Email: treasurer@cavedivers.com.au

CDAA Products - Andrea McIntyre
Email: products@cavedivers.com.au Mobile: 0407 332 306

SITE DIRECTOR - Grant Pearce
Email: site@cavedivers.com.au Mobile: 0438 833 103

Kilsby's Access - Craig Larkin
Email: kilsby@cavedivers.com.au Mobile: 0418 821 191

Tank Cave Access - David Fielder
Email: tankcave@cavedivers.com.au Mobile: 0410 450 496

Shaft Access - Terri Allen
Email: shaft@cavedivers.com.au Mobile: 0419 176 633

PUBLICATIONS & RECORDS DIRECTOR - Rowan Stevens
Email: publications@cavedivers.com.au - Mobile: 0417 550 509

Records Officer (Membership matters) - Rowan Stevens
Email: records@cavedivers.com.au - Mobile: 0417 550 509

Copy Editor - Position Vacant

Guidelines - Graphics & Advertising - David Bryant
Email: guidelines@cavedivers.com.au - Mobile: 0417 125 710

Webmaster: Simon Roberts Email: web@cavedivers.com.au Mobile: 0433 069 751

AREA REPRESENTATIVES

ACT: Heike Apps Email: actrep@cavedivers.com.au Ph: 0407 230 108

NSW: Greg Ryan (Acting) Email: nswrep@cavedivers.com.au

N.T.: Jeff Swann Email: ntrep@cavedivers.com.au Mobile: 0408 819 782

QLD: Ben Beneke (Acting) Email: qldrep@cavedivers.com.au

SA: Ken Smith Email: sarep@cavedivers.com.au Mobile: 0407 603 118

South-East SA - Grant Pearce Ph: 0438 833 103. Email: sesarep@cavedivers.com.au

WA: Pippa Waterworth Email: warep@cavedivers.com.au Mobile: 0410 304 894

VIC: Tim Muscat Email: vicrep@cavedivers.com.au Mobile: 0422 127 802

Public Officer - Andrew Seifried

CDAA INSURANCE

Policy Type: Combined Liability Insurance Policy# SY-CAS-08-041140
 Insurer: Liberty International Underwriters ABN: 61 086 083 605
 Level 27, 1 Macquarie Place, Sydney NSW 2000
 Name Insured: Cave Divers Association of Australia
 Public Liability \$10,000,000 any one claim. Expiry: 30 September 2013.

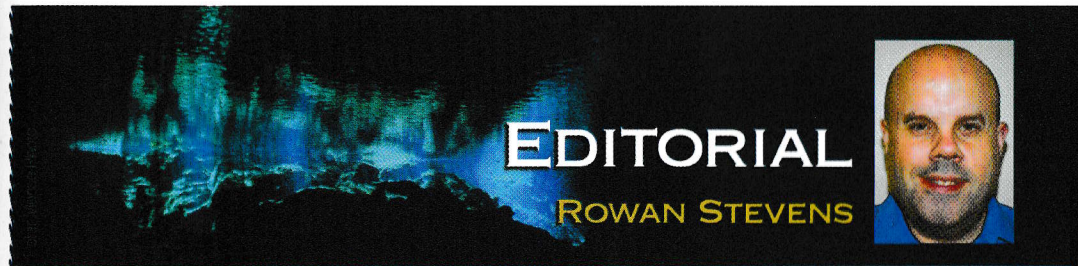
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Welcome to the 40th anniversary special edition of Guidelines.

In this issue we are focussing on the history of the CDAA, a feat made possible with special thanks to Peter Horne and Stan Bugg who have prepared articles on "40 Years of the CDAA – A Unique Success Story" and "The Early Years of the CDAA: A Personal Perspective". These articles are compelling reading and while the more seasoned members will be familiar with the early years, both articles serve as a baton to the current and future generation of cave divers about our identity, trials and tribulations. We have also reprinted CDAA Newsletter No. 1 (circa 1976) enabling us to look through a keyhole into the past to see what was important to the CDAA when membership numbers approached 300.

Do you know how many female members have been in the CDAA? Which states have the largest and smallest number of members? Who are the top 3 instructors who have trained the most students? How many members have been in the CDAA? How many certifications have been issued? What is the average age of all members and of current members? The answers to these questions and more have been written up in "A History of CDAA Membership" in which I provide an analysis of membership trends over 40 years.

On the administrative front, AGM 2013 and the 40th celebrations are upon us – program details are included in this issue as well as published on the web site, accessible under "Our 40th" (<http://www.cavedivers.com.au/agm2013>) from the home page. Bookings are now open from the Online Shop for the 40th Gala Dinner, make sure you reserve your seat before 4th November, 2013. The three incumbent Directors (National, Publications and Site) have stood unopposed, but voting is still required for nomination of Kevin Burrowes as a Life member. Kevin has been our public officer for many years and had contributed countless hours of hard work and dedication to the betterment of the Association.

Don't forget to submit your vote.

Lastly, there is no National Committee Update in this edition. Each member would have received an email from the National Director advising that the CDAA Business Plan 2013-2016 and Risk Management Framework Proposal are now available for download from the member's document library on the web site.

Happy anniversary! I hope to see you all at the 40th celebrations and AGM 2013 in Mt. Gambier over the weekend of the 9th and 10th November, 2013.

From the digital archives, your 40th anniversary National Committee. Long live the CDAA!



John
Vanderleest
National

Rowan
Stevens
Publications

Linda
Claridge
Standards

Helen
Higgins
Business

Grant
Pearce
Site

Rowan Stevens #3177 | Publications and Records Director
M: 0417 550 509 | E: publications@cavedivers.com.au

AGM 2013 INFORMATION

This year's AGM 2013 information will be posted to the website (www.cavedivers.com.au) no later than Thursday 10th October. To access, login using your CDAA number and password and select (from the left hand menu) "Members Document Library". When the page is displayed, select AGM 2013 from the drop down-list. The minutes from last year's AGM, the agenda for this year's AGM and the Directors' annual reports will all be found here. Once the financial

statements for the year 2012-2013 are finalised, they will also be posted here.

Details for the 40th anniversary celebrations and photo competition can be found on the website. Please register your attendance for the Symposium on the forums to assist with catering. To book and pay for the 'CDAA 40th Celebration & AGM Dinner', visit the online store before Monday 4th November 2013. Regards, Helen Higgins, Business Director.

Search & Rescue Update 2013 Sump Rescue Course

Applications are now open to participate in the 2013 Sump Rescue and Recovery Orientation Program (SROP). This two-day course will be run on the Sunday and Monday immediately following the AGM at Mt Gambier this year (Nov 10-11th).

The course is aimed at giving participants some knowledge and skills that would make them useful "First Responders" at a diving accident where a diver is missing, injured or deceased. Think of it as the first aid course equivalent of cave rescue! By knowing more about how to respond at an incident, you will become a more careful caver and help avoid such situations in the first place.

Participants must be current members of the CDAA and be at Advanced Cave level. Places will be given on a first come first served basis, and preference will be given to those who applied but missed out last year. Please email sar@cavedivers.com.au BEFORE September 1st if you wish to apply. The fee is \$50.00.

Cocklebidy Rescue Cache

An accident in Toad Hall could be a serious incident requiring a large and prolonged rescue operation. To improve the comfort and chances of survival of an

injured diver, a rescue cache will be placed in Toad Hall before the end of the year. The cache will contain environmental protection, food and water, lighting and first aid. A first aid manual and a basic survival guide will offer the injured party some tips for managing a bad situation.

Part of the cache will be a "through-ground" cave radio that can (as the name suggests) transmit from the chamber to the surface. The Toad Hall half of the radio will live in Toad Hall. The surface component will hopefully live at the Cocklebidy Roadhouse. All divers visiting Toad hall will be encouraged to collect and use the radio to communicate with their divers visiting Toad Hall. This will be invaluable for letting the surface crew know when divers have safely arrived at Toad and when they are leaving (and hence their ETA at the surface lake). In the event of an accident, help could be summoned from Toad hall without the need to send back a diver, thus shaving hours or even days off the response time of a rescue party. Medical advice could be communicated rapidly to the underground party.

Funding for the cache and the radio has been generated through the SROP course fees.

Articles for Guidelines DEC. 2013 - Deadline is Nov. 15th.

- Send articles by email to guidelines@cavedivers.com.au
- Text files should be saved as Word files or Simple Text
- Pictures saved from digital cameras or scanned from photos must be at least 200-300 dpi at 15cm wide, RGB files, and saved as Maximum Quality JPEG's.

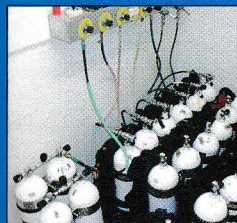
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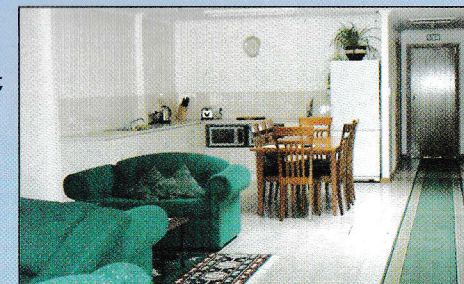
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FROM THE ARCHIVES

CAVE DIVERS ASSOCIATION OF AUSTRALIA

(INCORPORATED IN SOUTH AUSTRALIA)

NEWSLETTER NO. 1.

This is the first of our Newsletters, in which we will let you, the member, know what is happening in the Cave Diving world. News from the local scene, advice about forthcoming testing sessions, meetings, membership reports, etc will be presented, along with a regular technical bulletin, intended to cover such topics as new cave diving techniques, buoyancy vests, depth gauges, and so forth.

Any articles or suggestions will be welcome and should be given to your State Secretary.

MEETINGS

The dates for the next CDAA meetings have been confirmed as SATURDAY, 10th JULY, 1976 at ALLENDALE EAST HALL starting at 7-30pm; and the ANNUAL GENERAL MEETING, SATURDAY 25th SEPTEMBER, 1976, again at ALLENDALE EAST starting at 7-30pm.

Membership is now close to 300, with the majority of these holding some form of CDAA certification. If you haven't been tested, why not ring or write to your state secretary to let him know you wish to be tested. We can only organize a test session if we have enough interested candidates!

TRAINING

The Committee has decided that the CDAA will not officially run training programmes, owing to certain difficulties and cost of organising. However, there are training sessions being organised by individuals, if you wish to be part of this, in Victoria contact Graham Bradshaw on 211 7673 after hours or Dave Mc Ivor on 846 1730 after hours. In South Australia contact the President at his home address. These courses are to Cat 1 & 2 theory and practical levels and will end in a testing session to the standard. The qualifying dives will still be required and a copy of the Diving Medical may be asked for.

There have been rumours concerning snorkelling in the Mt. Gambia holes. You are reminded that CDAA only sets the standard for SCUBA divers. Snorkelling doesn't require a permit except for Picanninnie Ponds. A Pics Snorkel Permit can be obtained from the Ranger at 35 Canavan Road, Mt. Gambier subject to holding a suitable certificate. Snorkelling in other holes should not be attempted without landowner permission.

CARD UPDATES

For most of you, the date of expiry on your Category Card will read 10th June, 1976. As that day draws closer so your card becomes invalid. Send your card, with three dollars subscription also due on that date to:

THE SECRETARY.
CAVE DIVERS ASSOCIATION OF AUSTRALIA
P.O. Box 2161 T
G.P.O. MELBOURNE. 3001.

The upgraded card will be returned to you with the minimum delay.

- 2 -

We expect this will be about a week. Those of you who have not got a Certification Card are reminded that your subscription also falls due at the end of June, and can be sent to the same address. Cards can be surrendered at July meeting and will be posted back to you.

If you belong to a Club and want a committeeman to come to a Club meeting and answer questions, contact your state secretary and arrange it. Any other queries regarding CDAA should also be referred to the Secretary.

TEE-SHIRTS

Now available in Red, Green and Blue, sizes 14 - 16 - 18 with Club emblem on them. Cost \$4-50 each postpaid. Send money and orders to your State Secretary.

YOUR COMMITTEE MEMBERS FOR 1975/1976 ARE:

VOLKER ZARBO (PRESIDENT)
12 SHERINGA CRES., SALISBURY PARK. S.A. 5109.
GRAHAM BRADSHAW (SECRETARY)
c/- 1288 CENTRE RD., SOUTH CLAYTON. VIC. 3169.
JEFF WILLIAMS (TREASURER & VICE PRESIDENT)
52 TRAMWAY PDE., BEAUMARIS. VIC. 3193.
NEIL TINDAL (PUBLIC OFFICER)
15 TURNBULL RD., ENFIELD. S.A. 5085.
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54 MILNE ST., TEMPLESTOWE. VIC. 3106.
ROBERT MC CORMACK
5/18 PROSPECT HILL RD., CAMBERWELL. VIC. 3124.
PHIL PRUST
19 BROADMEADOW DVE., FLAGSTAFF HILL. S.A. 5159.
DAVE WARNES
133 ESPLANADE, HENLEY BEACH. S.A. 5022.

A History of CDAA Membership

By Rowan Stevens, Publications and Records Director

When the CDAA was launched with formation of the first National Committee on Saturday 29th September, 1973, very few would have guessed what would follow over the next forty years. This article provides a selection of analytical insights into membership key facts and figures over the Association's history. These insights have been made possible from the 2013 digital archive project that scanned, catalogued and archived all member training records and photos into our membership database.

The digital archive project was not without its challenges as records management was paper-based with records overflowing in filing cabinets, folders, plastic bags and boxes. Some attempts over the years have been made by previous Record Officers to arrange records into membership folders, but these too had become separated and interwoven into other folders making it impossible to find anything quickly.

So, over a 5 month period in 2013 the storage locker was cleaned up and each training record and accompanying member photo was scanned into a digital archive. Added to each record in the archive was meta-data about the record – certification type, certification date, certifying instructor, any assistant instructors. Note: As our training standards has been updated over the 40 year period, this article assumes that:

- Category 1 and 2 is equivalent to Deep Cavern
- Category 3 is equivalent to Cave
- Category 3 Advanced and Category 4 is equivalent to Advanced Cave

Members can view their scanned records by logging into the web site (www.cavedivers.com.au) and selecting 'My Forms' located under the 'My Membership' menu.

Analysis of the digital archive has yielded the following key results:

Historical membership analysis:

- 4,399 divers in total have been certified – see Table 1.
- 7 members have been awarded lifetime status and 4 members have been inducted into the Hall of Fame.
- <http://www.cavedivers.com.au/cdaa-hall-of-fame>
- 46% of Advanced Cave, 28% of Cave and only 8% of Deep Cavern certified divers are current financial members – see Table 2.
- 15% of all members have been Female – Table 5.
- 50% of all members come from Victoria,

followed by South Australia providing 25% of all members, whereas Northern Territory has provided only with 0.4% – see Table 6.

- There have been a total of 5,491 certifications issued, of these 712 records did not have an instructor clearly indicated. Of the remaining records the top 3 primary certifying instructors by total certifications are Linda Claridge, Ian Lewis & John Dalla-Zuanna – see Table 8.
- There have been 121 visitor permits issued with Europe being home to the majority of visitors, followed by the Americans and then Asia.
- Two significant data entry errors has allowed 167 CDAA numbers to never be allocated from 3573-3672 and 3831-3899.
- The average date of birth of all current and past members is 1961.

Current membership analysis:

- Only 16% of total members (697) are current financial members – see Table 1.
- The distribution of financial member types are: 94% have diving status, 5% have non-diving status and 1% are life members – see Table 3.
- 72% of current financial members are trained to use Nitrox as a breathing mixture on open circuit; 15% of are trained to use a Rebreather – see Table 4.
- 52% of current members come from Victoria, followed by 22% from South Australia - Table 6.
- Linda Claridge has trained the most divers in 2013-2014.
- The average year of birth of all current members is 1967, of cave certified members is 1961 and of advanced cave certified members is 1966.
- As of 23rd August 2013 - the next sequential CDAA number to be allocated is 4840.

May the CDAA enjoy another 40 years.



Rowan Stevens
3177

MEMBERSHIP	ALL	CURRENT
Inactive	3256	- 74%
Non-Financial	-	446 10%
Financial	-	697 16%
TOTAL	4399	697

Table 1: Total Members

CERTIFICATION	ALL	CURRENT
Advanced Cave	485	221 46%
Male	431	197 89%
Female	54	24 11%
Cave	828	234 28%
Male	715	201 86%
Female	113	33 14%
Deep Cavern	3086	242 8%
Male	2585	211 87%
Female	501	31 13%
TOTAL	4399	697 16%

Table 2: Total Certifications

FINANCIAL TYPE	ALL	CURRENT
Diving	-	653 94%
Non-Diving	-	37 5%
Life	-	7 1%
TOTAL	-	697

Table 3: Total Current Members by Financial Type

ENDORSEMENTS	ALL	CURRENT
Nitrox (OC)	988	499 72%
Trimix (OC)	335	206 30%
Rebreather (Air)	140	108 15%
RB (Nitrox)	66	61 9%
RB (Trimix)	67	47 7%
SROP	22	22 3%
No Endorsements	2781	179 26%
TOTAL	4399	697

Table 4: Total Current Member Endorsements

GENDER	ALL	CURRENT
Male	3731	609 87%
Female	668	88 13%
TOTAL	4399	697

Table 5: Total Gender Distribution

INSTRUCTOR NAME	TOTAL CERTIFICATIONS	%
Linda Claridge	468	9%
Ian Lewis	454	8%
John Dalla-Zuanna	241	4%
Barrie Heard	239	4%
Gary Barclay	192	3%
John McCormick	157	3%
Anthony Richardson	157	3%
Warrick McDonald	143	3%
Richard Megaw	131	2%
Maxwell Marriott	126	2%
Ronald Allum	125	2%
Glen Harrison	120	2%
Remainder (63 instructors)	2938	54%
TOTAL CERTIFICATIONS (40 YEARS)	5491	

Table 7: Top 12 Instructors by Certification Totals

Table 6: Total Member Summary by Certification, Gender and Location

STATE	ACT		NSW		NT		QLD		SA		TAS		VIC		WA		OVERSEAS	
PERIOD	ALL	NOW	ALL	NOW	ALL	NOW	ALL	NOW	ALL	NOW	ALL	NOW	ALL	NOW	ALL	NOW	ALL	NOW
Advanced Cave	6	3	43	18	2	1	16	9	135	54	2	1	204	118	25	12	52	9
Male	5	2	37	17	2	1	16	9	126	51	2	1	178	103	21	10	44	8
Female	1	1	6	1	0	0	0	0	9	3	0	0	26	15	4	2	8	2
Cave	11	2	107	30	4	1	44	17	171	38	3	3	376	120	84	21	28	7
Male	11	2	90	27	2	1	41	15	151	35	2	2	318	99	74	18	26	7
Female	0	0	17	3	2	0	3	2	20	3	1	1	58	21	10	3	2	0
Deep Cavern	58	4	378	26	13	0	96	10	792	61	29	2	1568	127	111	9	41	3
Male	48	3	303	21	11	0	79	10	673	53	24	2	1319	110	92	9	36	3
Female	10	1	75	5	2	0	17	0	119	8	5	0	249	17	19	0	5	0
TOTAL	75	9	528	74	19	2	156	36	1098	153	34	6	2148	365	220	42	121	10
% Distribution	1.7%	1.3%	12.0%	10.6%	0.4%	0.3%	3.5%	5.2%	25.0%	22.0%	0.8%	0.9%	48.8%	52.4%	5.0%	6.0%	2.8%	1.4%

The Early Years of the CDAA: A Personal Perspective.

By Stan Bugg. CDAA #96.

In the sixties and seventies, cave diving in South Australia and Victoria invariably meant Mount Gambier. Diving was yet to take off in the Nullarbor. A small number of Sydney divers were exploring Jenolan. I began to dive the mount in 1971.

We saw Mt Gambier as an alternative to the weather dependent ocean diving. We had no formal cave diver training, and little real appreciation of its inherent risks. We merely bought our basic ocean diving skills and equipment to a freshwater environment. In 1971 Kilsbys was already closed, following a double fatality in 1969.

When we dived in caves, our gear was identical to what we wore to dive Portsea or Flinders Pier, except we added a torch! When I say a torch, I do not mean the 50 watt canister types preferred today. Imagine a torch that is so pathetically dim that today you would not even consider it as a backup.

Dressed in a basic wetsuit, mask fins and snorkel (yes. Snorkel!) and a single cylinder worn in a backpack and harness, we pretended that we were diving safely. Such was the arrogance of youth, and most of us got away with it albeit with a few scares along the way. A description of how we geared up in 1971 is better understood by listing what we **did not** have:

- No BCDs. They started to appear about 1974.
- No octopus regulators.
- No lines and reels.
- No backup torches.
- No redundant air sources.
- No contents gauges. These did not come into common use until about 1975.

Access to Pics, Ewens Ponds, Gouldens and Little Blue was as simple as turning up and diving. Sites on private property involved various degrees of discussion with the landowners. One Tree access was negotiated much as it is today, by speaking to Peter Norman and asking for the key. Barnoolut was more complex, and often involved a searching inquisition from the manager Reg Watson. He would always discourage us from visiting Bullocks ("an evil hole" in his opinion) We rarely had climbing gear for Blacks and Bullocks, so a visit to Barnoolut meant 1080. Sites in the pine forests were technically out of bounds, but we snuck into Pines anyway.

There were no restrictions on Pics, and a procession of divers of all levels of ability would dive it from first light until dusk and beyond. There was a real advantage to being early, as the visibility would be destroyed by mid-

day. On many occasions I observed more than ten divers in Pics at the same time.

We made Mt Gambier trips six to eight times per year, to dive the easily accessible sites. Our lack of climbing equipment put Shaft on the "must see" list, but the opportunity never arose for me.

By 1973 I had accumulated about fifty dives in Mt Gambier, at Pics, Pines, Ewens, Gouldens, Little Blue, One Tree and 1080.

Meanwhile, in response to what we were hearing from overseas, some cave divers began to use guidelines. As no commercially made reels were available, we made our own. Buoyancy compensators became available, as did contents gauges, but many chose not to use them. Our home made reels were rubbish when compared with today. Many used electric cable reels! We tended to use line that was too thick by today's standards. BCs were horse-collar types, and were specifically designed to float a diver face up. It was a tricky skill to get a good horizontal swimming position while wearing one. Some divers began to tape the top section to reduce the buoyancy above their shoulders.

Decent knives were impossible to get. Divers knives were big, bulky and blunt; in other words totally unsuited to the needs of cave divers.

In 1972-3 it all went pear shaped.

A fatality near Pics in 1972 caused moderate concern, and highlighted the dangers of a silt-out, and the need for a guideline, but most of us continued to dive our old ways with no real appreciation of the risks.

Then, late in 1972 three divers became silted out and drowned in Alleyns Cave near Pines. The press went ballistic, querying the sanity of anyone who would enter "those caves."

Before the furor had died down, in May 1973 four Sydney divers failed to return from a deep dive in Shaft.

The headline read, "Killer cave traps divers." Once again, lack of the appreciation of the risks associated with being unable to find their way out was seen as the critical factor.

With eight deaths in 15 months, the reaction was close to hysteria. Calls came from everywhere to close all caves. Many landowners stopped allowing divers. The SA government closed Pics, and Woods and Forests refused access to any cave on plantation property.

Fortunately, after several collective deep breaths from all concerned, a degree of sanity prevailed. Instead of legislating to prohibit all diving, the South Australian government gave divers the opportunity to find solutions to the situation. But the implicit message was clear; sort it out, or face bans.

A meeting convened in Mt Gambier in September 1973. An article in Guideline says it was at Allendale. My memory was that it was in central Mt Gambier. The meeting was attended by about sixty divers from Victoria and South Australia. It was chaired by **Neil Tindall** and **Dave Warnes** from South Australia, who had already been in discussion with the South Australian Government.

Those who attended were in furious agreement that divers should control their own destiny in finding a solution to the dilemma. How this was to occur was a more elusive part of the puzzle.

The meeting voted to form the **Cave Divers Association of Australia**. We elected **Eddie Gertzner** from Mt Gambier as President, and Victoria's **Alan Day** as Vice President. We set membership fees at \$5. When this figure became known back in the capital cities, many declared it to be excessive!

Other elected committee members were **Roger Townley** and **Russell Pope** of Victoria, and **Dave Warnes** and **Neil Tindall** of SA. **Laurie Kristoff** became treasurer, and **Frank Mc Guire** was appointed secretary.

This committee was charged with the mind boggling task of finding a solution to the alarming death rate, and to come up with a way to win back the confidence of the landowners and government so access to caves could be restored. Progress was slow, as all correspondence between the reps was via surface mail or long distance phone.

After several months, the committee submitted the CDAA's first constitution, and a recommendation for all caves to be rated according to difficulty. These levels were called **category one, category two and category three**. Divers and the CDAA quickly reverted to

the terms **Cat 1, Cat 2 and Cat 3**.

- Cat 1. Equates to cavern. E.g. Gouldens, Horse and Cart, Tea Tree, Little Blue**
- Cat 2 equates to sinkhole or deep cavern. Pics, 1080, blacks, One Tree, Ela Elap.
- Cat 3 equates to cave. Allendale, fossils, Pines, Bullocks*.

* At the insistence of Barnoolut's manager Reg Watson, Bullocks hole was listed as Cat 3, despite it having all the features of a Cat 2. (an evil hole, remember?)

** Little Blue was considered a Cat 1 as it had virtually no overhead areas.

Perversely, just as the CDAA was getting its ducks in a row, and while Pics and many other caves were closed, a pair of divers snuck into Pics, and one drowned. While the event could have derailed all negotiations, it seemed to have the opposite effect, due to the circumstances of the fatality:

- The divers were not CDAA members.
- They were diving illegally.
- They were diving far deeper than the CDAA's recommended maximum of 36m.

In a strange way the incident seemed to validate what the CDAA was putting in place.

Once the committee had defined levels of difficulty for the different sites, the next phase was to certify members to dive these sites. To achieve this, the CDAA intended to subject ALL prospective cave divers to a skills and knowledge assessment, regardless of their ability, experience, background or qualification.

The reaction was extremely negative. Divers around the country denounced CDAA, claiming that they had no right to force such a scheme on them.

To understand the negative reaction, a historical perspective is needed. In the early 70s, ANY diver qualification was rare. Many were self taught. Others had done some form of training with an "instructor" or a dive school, but there was nothing in the way of a commonly agreed curriculum. Diver training at the time varied from good to poor, with several so-called dive schools competing for the narrow niche market between bad and bloody awful!

The concept of an instructor qualification was equally rare, with less than sixty qualified instructors Australia wide in 1974. So we had a potentially difficult situation for the CDAA; a large group of divers, of widely varying levels of skill and competence, often with a rather dodgy SCUBA diver training card, all of whom wanted the CDAA to endorse them as cave divers so they could go back to killing themselves as quickly as possible. ►

To its enduring credit, the CDAA stood its ground against the deafening clamour to sign people off. Certification by CDAA was to be via test only, with no-one exempted, despite their fame, their connections, or their experience.

Their first aim was to certify the most experienced people as Cat 3 divers. For this they needed a practical skills assessment, and a theory test. In August 1974 a representative of CDAA asked Bob Cumberland and I if we were going to sit the Cat 3 testing. When we confirmed that we were, he asked us to write a theory paper!! That's right! I sat my OWN theory paper... and passed! This historic event took place late August 1974 at Melbourne YMCA, where the Southbank Arts Centre now stands. About forty divers attended. A similar test occurred in Adelaide.

Two weekends were organized for prospective cat 3 divers to do in-water tests in Mt Gambier. The first weekend in late 1974 allowed committee and key divers to be tested, and to trial the tests that were to be applied to the general membership later.

I attended the second weekend in May 1975, along with fellow instructors David Perry, David McIvor (later to be CDAA NTO and president), Bob Cumberland and Graeme Bradshaw (future CDAA secretary/treasurer). We practised all Saturday in Pics, Little Blue and Ewens. With little to go on, we focused on blackout line following, buddy breathing with no mask, and ditch and recovery.

At a packed meeting at Allendale Hall Saturday evening, we were told of the procedures for Sunday's testing:

A buoyancy control exercise on a vertical line with fins removed. Diver was to ascend and descend according to the directions of the examiner, and hold the depth with no movement of feet or hands. Adjustment of buoyancy was allowed but only via oral inflation.

In buddy pairs, reel out through two tie-offs. At the examiner's direction, the pair loses both masks and one regulator. The pair was to return to the "entrance" while buddy breathing and retrieving the line.

A blackout exercise, following a fixed line for approximately 40m, and past four tie-offs.

The outcry from many of those assembled was immediate and vociferous. Heated discussion ensued for about an hour, and every aspect of the tests was dissected and criticized. Through it all, the committee members answered all complaints, questions and criticisms calmly and logically, and assured all present that this was how it was going to be done whether they liked it or not!

Sunday AM we assembled at Pics car park.

I teamed with Bob Cumberland, and we did the buoyancy test in the first pond, watched by Phil Prust. We did better than we had dared hope, and we were handed over to Dave Warnes for the buddy breathing test, also in the first pond. Once this was over, we proceeded to the Cathedral for blackout line work. When we had completed this test, we were put in charge of assessments on the blackout test for the rest of the day. David, Dave and Graeme were similarly employed after successful completion.

Several enduring impressions of the day still linger;

The extent of the friction about who tests whom; inter-shop rivalries, interstate rivalries, personal rivalries and so on, was a surprise.

I was constantly impressed by the conduct of the CDAA representatives and the degree to which, without ever compromising their standards, they catered to the disparate egos with their claims of bias, lack of opportunity to perform, etc. One such person who accused the tester of personal bias, was even offered a re-test with the tester of his choice. He failed the re-test!

The degree to which these three tests have stood the test of time with few alterations is testimony to the sound thinking behind their development under a lot of pressure, and with little precedent to base decisions on. The original CDAA committee pretty much got it right first time!

Most who attempted the tests passed, so by day's end, the CDAA had a substantial pool of cat 3 divers, and they could implement the next phase; testing for cat 2. Into 1975, cat 3 divers with an instructor qualification were given responsibility for testing prospective cat 2 divers in their own state. Again an exam was required, and I was asked to assist with writing it.

Training was not yet offered. Nor was it requested. There were a large number of divers who felt that they were ready to be tested and signed off. Such divers could present for an assessment, and be looked at by the examiners. The venue popularly used in Melbourne was Oakleigh pool. Prospective Cat 2 divers attempted exactly the same tests as those for cat 3.

Meanwhile Cat 3 testing continued, initially in Pics, then eventually in Gouldens. A scheme evolved whereby candidates were tested by examiners from another state to remove implications of bias.

As CDAA membership grew, many stood back and watched to see what would happen. Would this new upstart mob crash and burn? Would it become worthwhile to join? Or more importantly, would it become necessary?

As much as many disagreed with how CDAA was tackling the situation, the CDAA had several trump cards: The SA government supported it.

Access to Pics was only available to CDAA members. It was yet to have a booking system. Most landowners would only allow access upon production of a CDAA card. Non members could still sneak into Ewens, Little Blue, & some caves in the Pine forest, but options were limited.

By the end of the seventies:

- Testing programs were being conducted regularly in Adelaide and Melbourne.
- Examiners were appointed, overseen by a National Training Officer.
- Legal agreements between Woods and Forests and Parks and Wildlife were in place.
- A policy on Nullarbor diving was developed.

By 1979, membership had risen to 450.

Key developments in the eighties:

- Publication in 1980 of Ian Lewis and Peter Stace's book. **Cave Diving in Australia**, the first book dedicated to Australian cave diving. This ground breaking book became the training text for CDAA for the next ten years.
- Exploration in the Nullarbor took off in a big way, with Cocklebiddy being pushed to beyond Toad Hall. Other key areas of discovery in the eighties were Pannikin Plain and Tank Cave.
- Fees were raised to \$10 in 1983.
- Introduction of a regular newsletter, **Guidelines**. Originally 8-12 A5 pages, posted to members quarterly.
- Introduction of training courses, and appointment of instructors.
- Introduction of a policy whereby an instructor could not examine his/her own students. An independent examiner had to assess them!
- Addition of **Cat 3 Advanced** in 1986 in response to increased activity in the Nullarbor, and the discovery of more challenging systems in the Mt Gambier region, such as Englebrechts West, Iddlebidy, and Tank.
- Requirement for a redundant air supply for Cat 3 Advanced dives. P.S. A pony cylinder was acceptable.
- 1986: Octopus regulators to be mandatory for all CDAA diving.

A total restructure in 1989; Introduction of an administrative model very close to what CDAA has today, and

doing away with the state based committee structure. Abandonment of the Cat 1, 2 & 3 system to become **Cavern, Sinkhole, Cave and Penetration**. This change required a series of crossover seminars to certify current members for the new levels.

Emergence of commercially available cave diving equipment. Prior to the late eighties, cave divers used modified ocean diving gear, or they made their own equipment. Items of equipment that 21st century divers take for granted began to appear; canister lights, wings, manifolds, reels and spools, and dry suits.

Respecting our pioneers.

A celebration of our fortieth anniversary is, by its very nature, a look backwards. Every generation leapfrogs the accomplishments of its predecessors, and twenty first century divers are chalking up prodigious distances in both Mt Gambier and the Nullarbor. But I urge you not to lose sight of the significance of the achievements of divers in the seventies and eighties, even if they seem tame by today's standards.

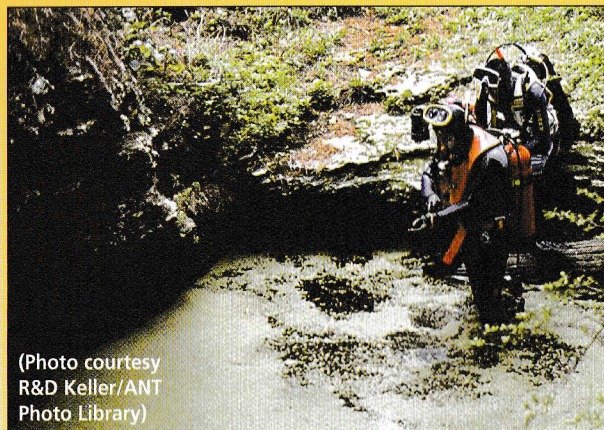
As you roar along Cocklebiddy to Toad Hall with your fleet of X Scooters or Gavins, and multiple stages, give a moment's thought to Hugh Morrison, Peter Rogers, Ron Allum and Simon Jones, who SWAM the whole way while pushing a sled loaded with 16 spare cylinders! Or Chris Brown, Paul Arbon, Phil Prust, Dennis Thamm, David Doolette and Tim Payne (and several others... sorry for any omissions) who made the same swim in the mid eighties.

The next time you shoot along the superbly lined tunnels of Tank Cave, remember that in 1983, Peter Horne and Mark Neilson found it by wriggling down a 45 cm high tunnel filled with cow s*#t, squeezed through a restriction with a single cylinder each, and confirmed that the system continued. They saw enough to tell Chris Brown, Paul Arbon and Phil Prust that it was worth a look. After several false starts due to ingress of the forementioned cow s*#t after heavy rain, in 1989, the trio broke through into the tunnels beyond the 90 metre room, and the rest is history.

Remember also that, over the next year or so, about five cubic metres of soil and rock were removed from the access tunnel, and the entrance lake was widened to make entry and exit safer and easier.



Stan Bugg
CDAA #96



(Photo courtesy
R&D Keller/ANT
Photo Library)

PETER HORNE CDAA #719

40 Years of the Cave Divers Association of Australia – *'A Unique Success Story'*

A 40th anniversary is a milestone at any time, but I believe that it is an even more important occasion when it involves an organisation which was formed by people from diverse backgrounds and with different ideologies to protect their common interests and goals.

This was certainly the case with the CDAA, where South Australian and Victorian cave divers formed a voluntary organisation which could effectively (if unpopularly) regulate and control scuba diving activities in Mount Gambier's notorious "sinkholes" after a series of diving tragedies between 1969 and 1973 triggered calls for governmental intervention.

But how to present a fair and balanced summary of the huge number of important events that occurred over such a long period of time? Entire books could be written on such issues as committee actions and deliberations alone, or the bitter infighting which has plagued the Association throughout its existence. But I hope that you will find this article to be one that presents a more positive perspective about what the CDAA and its 4,000+ members have been able to achieve in the past 40 years.

The beginnings of the Association were difficult times; even its name was controversial. Should it have been the Cave Divers Association of Mount Gambier, or of South Australia, or of Australia (pers. comm. Stan Bugg, Aug 2013)? How should sites be "categorized", how should divers be "assessed" to dive the sites, and who had the right to act as the "experts" responsible for the testing? Such issues as well as the wording of a finally-agreed Constitution all had to be sorted out before the Association held its first formal meetings in Mount Gambier and the community hall in the adjacent township of Allendale East in late 1973.

The inaugural CDAA committee comprised Eddie Gertners (President), Alan Day (Vice-President), Frank McGuire (Secretary), Laurie Kristoff (Treasurer) and committee members David Warnes, Neil Tindal, Roger Townley and Russel Pope, and

while this team undoubtedly had a lot on their plate during the CDAA's first and very public year of existence the rather abrasive manner in which the fledgling CDAA went about telling people how they could dive, and how they would need to be tested, went down like a lead balloon in many quarters. This was especially the case with clubs and the locals who had discovered and opened up most of the sites in the first place, and evidence of such discontent can still be found today in the form of crude graffiti on the walls of some caves!

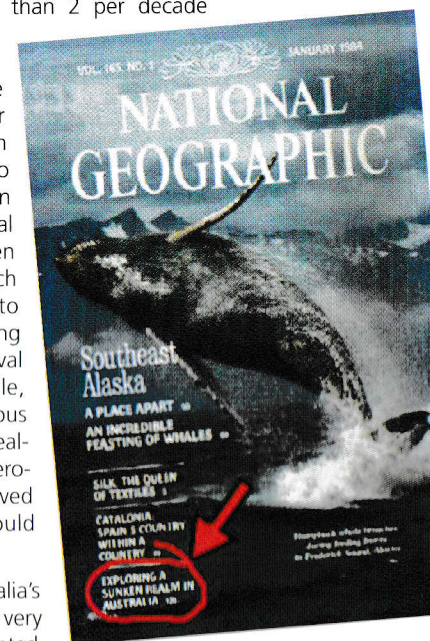
But at the end of the day, the CDAA was so successful that the fatality rate fell from about 2 per year (1969-1974) to less than 2 per decade (1974-2013), with the result that landowners, the Government and the general public no longer hysterically called to "ban cave diving". The idea to rate sites depending on their features and potential levels of hazard, and then assessing divers to match those ratings, proved to work very well, and teaching such key cave diving survival skills as the thirds rule, always running a continuous line to the surface and dealing with emergencies in zero-visibility conditions showed that self-regulation could work, after all.

Early records about Australia's first cave dives are sadly very scarce and poorly documented, but along with the fact that in many cases (depending on people's fading memories) it is hotly debated regarding who did what, when and with whom, it is generally agreed that the first cave dives in Australia probably took place in 1952, not in Mount Gambier but at the Imperial Sumps of Jenolan Caves in New South Wales. Here, Ben Nurse and Denis Burke undertook a series of well-publicized dives using air-pumps and hoses. Ironically these dives coincided with the first known cave dive in the United States the same year, when a Floridian diver explored a cave called Jugg Hole.

Six years later in early 1958, Victorian divers Bill Kunert, Bob Kunert and Jim Palmer performed a

pioneering dive at Buchan between Royal and Federal caves, and in May that year John Driscoll and Peter Matthews also continued exploration in Sub-Aqua Cave using oxygen rebreathers (very different to today's units) and primitive, bulky rubber drysuits. Then in June 1959, John and Peter turned their attention to Dalley's Sinkhole, around the same time that a small number of divers first began to visit Mount Gambier's better-known, more readily-accessible sinkholes.

Thanks to the excellent records of the Cave Exploration Group of South Australia (CEGSA) Inc, it is also known that many pioneering Mount Gambier sinkhole dives were undertaken at the end of the 1950s such as at Kilsbys Hole, Little Blue Lake and Ten-Eighty Sinkhole by Adelaide divers including Peter Girdler and Barry Fowler. A number of local Mount Gambier divers (in particular Lawrence Arthur "Snow" Raggatt, Philip "Mick" Potter and Bob Pulford) also became almost legendary figures as they discovered and explored one site after another during those early days.



The region has long been known internationally for its cave diving sites, as this National Geographic magazine from January 1984 indicates.

Compared with the vast range and quality of gear available today, the equipment that these early cave divers needed to obtain, build or modify was quite extraordinary; for example Doug and Sandy Haig bought some ex-Navy Porpoise scuba cylinders around 1959, and like many other divers they shipped large containers of compressed air to Mount Gambier from Adelaide so they could decant them without needing a compressor.

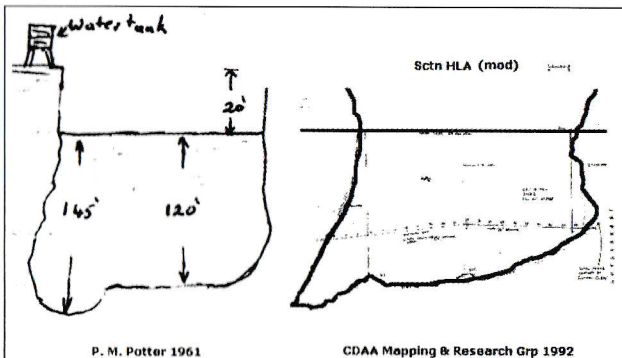
Snow Raggatt's second set of gear comprised twin 28 cubic-foot steel tanks with a Sea Hornet regulator; the cylinders were old ex-Army "buffer" cylinders which were originally used to cushion the recoil from big guns! No harness was available for the tanks; the cylinders were simply



Snow Raggatt performing what he believed was probably his first dive, at Port MacDonnell around 1959 (photo courtesy Snow, Jean and Steve Raggatt, 2005; digitally cleaned up by the author, 2006).

wired together and supported by a strap worn around the waist, so that the bottles floated up behind him. And of course there were no such things as buoyancy vests or octopus regulators then, either.

Snowy's first sinkhole dive took place on 18th November 1962, and within the next year or so he dived in many of the area's sinkholes with members of his family (including Paul and Judy, who even at the age of around 12, dived to 36 metres with Snow) as well as Mick Potter. They were also involved in the building of the first jetty at Piccaninnie Ponds with the Mount Gambier Spearfishing and Skindiving Club a couple of years later.



The first known underwater map of a sinkhole, incidentally also of the Little Blue Lake by Mick Potter, based on his first dive; nearly 40 years later and after many dozens of more careful mapping dives, the 'formal' CDAA survey by the author and many others looks disturbingly similar (was it worth the effort and expense?!!)

As diving in the sinkholes became more popular once Piccaninnie Ponds became more widely known, Snow established a dive shop in Mount Gambier which he ran with Jean, and sometimes up to 200 people visited them over a long weekend. To cater for the vast lack of knowledge or understanding of the risks of sinkhole diving, Snow and Mick Potter and the club ran the first training courses in Ewens Ponds, and there is no doubt that it was largely through their safety-consciousness and innovativeness that risks were minimized as much as possible in that era.

Fellow local pioneering diver Mick Potter got his twin Porpoise cylinders in 1961 and used the decanting technique to refill them. His regulator was a single-hosed Porpoise Sportsman and he had to stick his tongue into the mouthpiece to stop it from free-flowing. And like many other divers, Mick also at first used a very uncomfortable dry suit called a Dunlop Aquafort which caused painful blood-blistering at depth because it had no inflation system to compensate for the crushing effects of the surrounding water pressure.

Mick was also one of the very few early divers with the foresight to keep a log of his dives and to also make sketches of some of the places he visited, and back in the mid-1980s he kindly provided the author with a copy. This shows that his first deep dive took place on 13 December 1961 with Dave Burchell in Little Blue Lake; he was grossly overweighted and crash-dived to about 10 metres before he luckily managed to halt his descent. After making buoyancy corrections Mick descended again, this time to 36 metres.

In April 1962, an Adelaide-based CEGSA group explored several caves in the region and formally classified the sinkholes then called Devil's Punchbowl and The Sisters; they also had some unnamed divers with them who explored three sinkholes – One Tree (a.k.a. Wurwurkooloo), Ela Elap and Kilsby's. These were the first known recorded dives in these features.



Jean and Snow Raggatt representing their shop and club at a display, circa 1964 (courtesy Steve, Jean and Snow Raggatt, 2004; digitally cleaned-up by the author, 2006).

Also during the early 1960s, dive shop owner Dave Burchell established the Adelaide Skin Diving Centre in Compton Street.

Dave was an extraordinary character; on one occasion he performed the State's first "Para-Scuba" jump at Port Noarlunga, where he parachuted into the ocean before being handed scuba equipment and then descending to a mini-submarine which brought him to shore! Despite losing his right leg in a train accident during his youth (not from a shark attack as many suspected), Dave lived his life to the full and achieved many remarkable goals, including his then-amazing and well-publicized dive in the rubbish-filled Engelbrechts Cave with Mick Potter, John Lees

and Ross Curnow on 4 April 1964. He subsequently wrote in his logbook "... a new maze of caves for the City Council. (The) Council flood-lit the cave for us – big publicity. Bottom of cave is 80 feet below ground level, water depth 17 feet, entered cave on right hand side of water, followed tunnel, turned left (and) entered underwater cave. Followed tunnel, came to T-shaped bend, turned to left, followed along tunnel for about 20 feet then turned back (and) followed line out in pitch blackness. Used drum on safety line for first time". From this dive Mick drew up a representative sketch-map of the cave; years later it was realized by other cave divers that had his team merely gone to the ceiling and checked out some of the gaps between the boulders at their furthest penetration they would probably have discovered the large air chamber there as well. It also seems especially ironic that as a result of those early explorations, the newspapers felt that there was no tourism potential in what is today one of Mount Gambier's most important tourist drawcards!

It's perhaps worth briefly mentioning here that in those early, carefree days, access arrangements were a simple matter of just popping in and chatting to landowners on a purely personal basis...no qualification cards, no payments and free permits (where permits were indeed required); and sometimes the odd cray or bottle of red was appreciated! It became evident from the start that one of the keys to successfully securing access to private cave diving sites was the goodwill of landowners and managers and their personal relationships and friendships with cave divers.



Water level comparisons in Little Blue Lake – around 1961/62 (courtesy Graham Went, 1982) and in early 2007 (by the author).



In Victoria during Christmas 1960, John Driscoll discovered a significant amount of new cave using a hookah in Scrubby Creek Cave, while several Western Australian Speleological Group (WASG) divers undertook the first preliminary assessment of the underwater regions of Weebubbie and Cocklebiddy caves on the Nullarbor Plains around 1961-1963. In what was perhaps the understatement of the cave diving century, the silty conditions they encountered led them to report that Cocklebiddy Cave apparently "didn't go"!!

Around the same time, divers from the Sub Aqua Speleological Society of Victoria (SASSV) including Ron Addison, Lorraine Newman, Ed Steet, Peter Robertson, Les Grant, John Noonan, Bill Kunert and Elery Hamilton-Smith explored a number of the larger Mount Gambier features including Piccaninnie Ponds which was first dived around 1961 (pers. comm. Ron Addison 2006), although it had long been known about and fished for its eels by the landowner, Max Holloway, who kept a small boat in the ponds long before it was dived.



Pioneering Mount Gambier divers Ron Addison and Dave Warnes, early 1960s (courtesy Ron and Dave in 2006 and 2004 respectively).



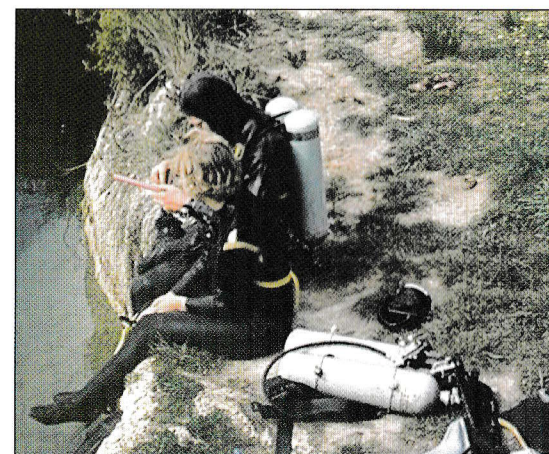
Mick Potter with his dry-suit and at the jetty at Piccaninnie Ponds. The wetsuit was the first US Divers suit (made in France) and the Rolleiflex camera (worth \$6,000 at that time!) was in a Hanns Hass housing imported from Norway in late 1963 or early 1964. The weights and weightbelt were made at a club meeting, and the twin aluminium cylinders were evidently the first 3000psi aluminium units used in Australia by civilians, having been imported from France by the Australian Navy (courtesy Snow, Jean & Steve Raggatt, and Mick Potter, 2004; digitally cleaned-up by the author, 2006).

Mick Potter experienced his first serious incident in Pics on 27 January 1964, when he and Adelaide diver Brian Rodger lost contact with their thick safety rope whilst ascending through near zero-visibility water at a depth of 235 feet in a confined area of the Dog Leg tunnel. As a result of this experience Mick developed a guideline reel which consisted of an open coil of line wrapped around

an old cable drum with a stick poked through it; this allowed him to feed out and tie off line as required, thus avoiding the problems of line-traps and snagging around corners which were frequently caused by surface-fed ropes. Similar guideline systems were also developed independently overseas, and this innovation of a manageable and continuous line to the surface proved to be one of the most important safety techniques ever developed for cave diving.

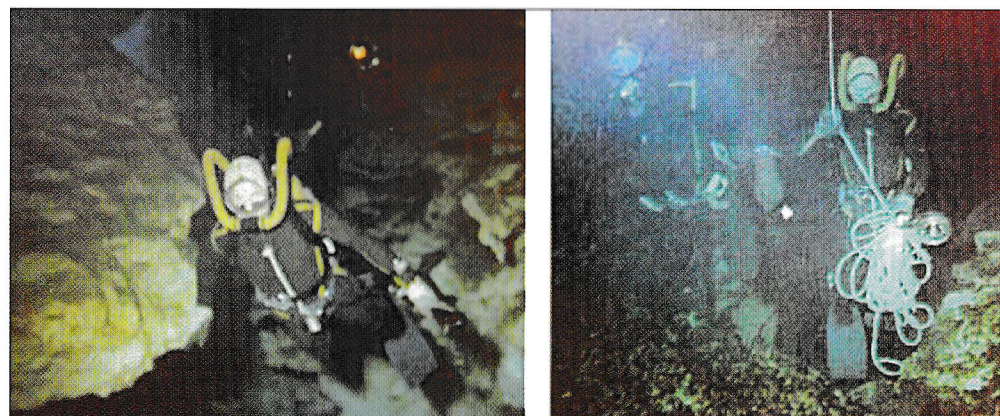
Another interesting early-1960s Piccaninnie Ponds story involved a four year old girl who was a very competent and capable swimmer for her age. In the carpark, she was fitted with a small hand-made facemask by her father and then taken to a depth of around 180 feet (55 metres) in the Dog Leg! Surfacing safely later, she excitedly took off her mask and exclaimed "Wow! That was the best swim EVER!" (pers. comm. Elery Hamilton-Smith, ASF Conference, Jan. 2007). Several years later in around 1964, local diver Jock Huxtable performed what is thought to have been the first (solo) dive to about 20 metres depth in The Shaft (thought to have first opened up around 1938 when a plough-horse punched its foot through the solution tube cap).

While Mount Gambier was becoming known as the "Mecca" of South Australian cave diving, other work occasionally took place elsewhere in the state. One such project involved the first underwater exploration of a shallow, very muddy cave in the Flinders Ranges during the Easter



Preparing for an early dive in Little Blue Lake, early 1960s - note the redundant dual-tank system and the upside-down configuration which allowed for easy access to the tank valves (courtesy Ron Addison, 2006).

break of 1967, when a combined CEGSA/South Australian Museum group of researchers and surveyors comprising Peter Robertson, Doug Seton and Alan Waldron explored it (pers. comm. Grant Gartrell and Peter Robertson, 2005). The divers were linked to a rope fed out from the surface, and they used karabiners to slip along the line. They checked a lead along a metre-high passage for several minutes before the rope became hard to pull through; Peter explained that when he looked back, he found they had lost almost all visibility due to mud being stirred up, so they decided to abort the dive. However when they signalled for the rope to be held tight by the surface party so



Mick Potter with his twin-hose regulator and the "safety rope" which nearly caused his demise in the early 1960s (courtesy Mick Potter, 1980s).



The landing at Ewens Ponds as it appeared in 1976 (left), and as the same area looked in the early 1960s (photos by the author and Mick Potter).



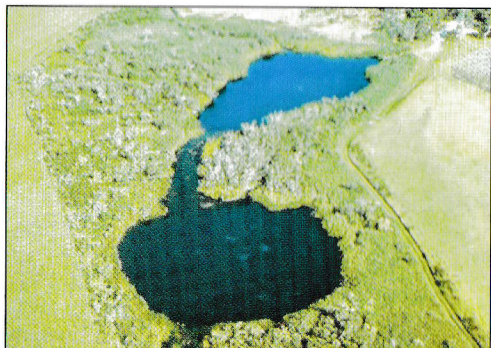
they could pull themselves out, the signal was not understood and each pull only resulted in more rope being fed out! The rope also went across to the side of the passage to an area where it was too narrow to pass through. It was only through the cool-headed efforts of the lead diver (who very gently eased the rope out of the inaccessible flattener and pulled in all the slack, thus allowing the other divers to have a tight rope to follow back to the surface) that this dive did not end tragically.

Although such cave explorations were rare occurrences during those early days, there were still those even then who wanted to utilize their

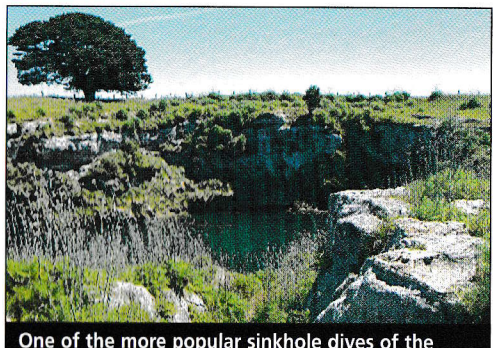
underwater skills to benefit mankind in a more general way. Not a lot is known about scientific cave diving of that era but Graham McKenzie and Brian Brawley were certainly among the first South Australian cave divers to put their skills to use in this manner. Graham was in fact the first person to recognise the potential value of the fossil beds in Mount Gambier's Fossil Cave; he passed a small quantity of collected bones to local speleologist Fred W. Aslin who subsequently coordinated further dives involving Graham and Brian during the next five or six years with Dr Brian Daily of the S.A. Museum. Their January 1968 collection



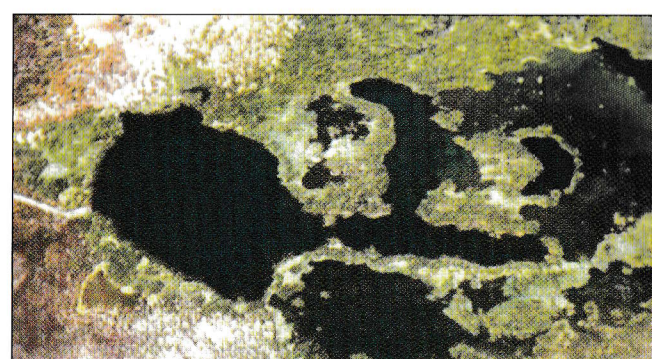
Snow wearing twin scuba cylinders in Ewens Ponds, early 1960's (courtesy Mick Potter and Snow, Jean & Steve Raggatt, 2004).



Aerial view of the First and Second ponds at Ewens Ponds, mid-1960s (courtesy Valerie Taylor, mid-1980s).



One of the more popular sinkhole dives of the region, One Tree Sinkhole, with its One Tree! The first known dives here took place in April 1962 (courtesy Alex Wyschnja, 2005).



Piccaninnie Ponds from the air, mid-1960s (courtesy Valerie Taylor, 1980s).

included six important sets of skulls and jaws of the extinct marsupial *Sthenurus* sp. Brian also undertook additional bone-collecting dives between 1968 and 1974, and as a result most of the more obvious and important material was collected and preserved.

Between 1965 and 1968 the large number of extremely inexperienced and untrained people visiting the deep and silt-prone features of the Mount Gambier area without knowledge about such dangers as nitrogen narcosis, decompression sickness, buoyancy changes caused by compression, hypothermia, or even the simplest of safety lines made many of the more experienced people feel that it was only a matter of time until someone's luck ran out.

The chances of an accident occurring were also increasing as people tended to discard the use of twin, small cylinders in favour of larger-volume, single tanks; contents gauges were few and far between (and basically mainly of the "needle-gauge" variety); and buoyancy vests, when used at all, were basically modified inflatable life jackets of the "horse-collar variety" (divers often removed their weightbelts at depth as their wetsuits compressed and they became less buoyant.

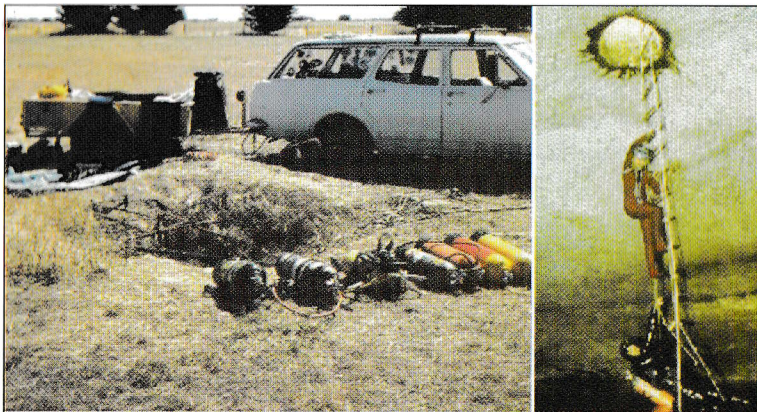
It wasn't until the mid-1970s that anything approaching a true "buoyancy-compensator device" with a scuba-fed inflator system first came onto the Australian market), and many divers also tended to rely on their old faithful 'J-valve reserve' mechanisms too much (a lever system attached to the tank valve which saved the last couple of hundred p.s.i.), the same way they did when they were catching crays in the open ocean.

In January 1970, the focus on Australia's cave diving areas swung away to the hot, waterless Nullarbor Plain to the State's west, when then-dry caver Ian Lewis first snorkelled in Weebubbe Cave



Comparative views of divers' access to Piccaninnie Ponds: Mark Nielsen (with the Puddles Kambrook Reel) in 1980 (above), and Ron Addison's mob around 1960 (below) – photos by the author and Ron Addison. We have never had it so good!





Entrance to The Shaft (during the 1984 CDAA mapping project), and Valerie and Ron Taylor climbing in sometime around 1965 (courtesy Valerie Taylor, 1980s).

with an underwater torch, discovering a massive sump which sparked his desire to take up diving (so that he could return and explore it properly) and commencing a decade of record-breaking discoveries under the Nullarbor.

Two years later in 1972, Ian led the first "Nullarbor Cave Diving Expedition" which included such folk as Dave and Tamsin Warnes, Ron Doughton (from Sydney, with his wife and a compressor) and Mike Turner. During this trip Phil Prust and Bob Turnbull explored Weebubbie Cave underwater for the first time and Phil also discovered the first 150 metres or so of the enormous underwater passage in Cocklebidby Cave.

It was also around this period that Mount Gambier cave diving activities attracted unwanted attention because of the 11 deaths in Kilsbys Hole, Piccaninnie Ponds, Alleyn's Cave and The Shaft. While a few dive clubs of the 1960s introduced safety line procedures for cave diving for their members, the lack of any standardised system meant that divers took their lives in their own hands, and so it wasn't a real surprise when two young lads drowned in Kilsbys in April 1969.

The public and political response to this accident was considerable and drawn-out; understandable, perhaps, in view of the fact that it wasn't until some 11 months had passed before the last victim's body was removed from The Shaft (partly



May 1973 which (fortunately for the cave diving community) was very well-represented by divers Dave Burchell, Peter Christopher (President of the Underwater Explorers Club of S.A.) and Bob Pulford (diving representative for the Mount Gambier Spearfishing and Skindiving Club). Other divers and cavers including Ian Lewis provided advice to the Committee, which also comprised the Chairman and Deputy Commissioner of Police, Mr L.D. Draper, the Chief Ranger of Department of Environment and Conservation, and the Secretary of the Department of Marine and Harbors.

Public opinion was considered by this Committee and the fact that some members of the cave diving community (notably members of FAUI, the Federation of Australian Underwater Instructors) were prepared to try self-regulation was favourably considered; in fact on page 16 of the Committee's report they noted that "...While at

Mt. Gambier in the course of its enquiry informal discussions were held with people both resident at and visiting Mt. Gambier and who had a common interest in diving in sink-holes and underwater caves. The obvious concern of these people was that action would be taken to close off holes and caves or in some way destroy them... suggestion (was) made that a united body would, apart from other

caused by the fact that no decent map existed of the cave). Because of the public outcry surrounding these accidents and calls from certain quarters for the total banning of all cave diving activities, the Government formed a "Committee Appointed To Investigate Safety Precautions for Scuba Divers In Fresh Water Sink Holes and Underwater Caves" in

benefits, give opportunity for standardization of education and qualifications. Interested persons called a meeting at that time and the Cave Divers Association of Australia was formed, with an interim Committee. That Committee called a meeting of the proposed Association in September, 1973..."

They also said that "...As a Committee we are optimistic that the activity of the Cave Divers Association with Australia-wide interests coordinated, would go far towards solving many of the problems associated with sink-hole and underwater cave diving... we are of the opinion that while a chance exists for achievement of greater underwater cave diving safety by the employment of virtually voluntary remedies, legislative control of the sport should be deferred".

Furthermore, the Committee recommended that "...the cave known as either "S86" or the "Death Cave" ... be sealed in a manner that preserves its physical condition but prevents access, e.g. an iron grille". Such awareness of the value of cave conservation was largely the result of representations by many prominent members of the caving community, and this recommendation was very commendable, considering the public feelings about the drownings.

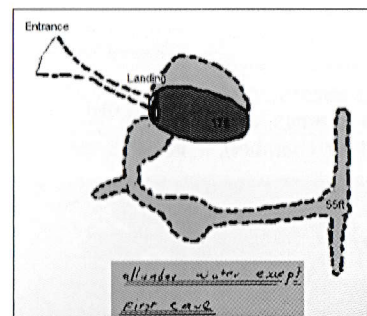
In the Association's early years, most "cave" divers were really open-water divers seeking the thrill of diving in crystal clear water; most would have thought that crawling up flooded, silted-out passageways was the

stuff of nightmares (as indeed it can be!). Because the Association's primary objective was to safeguard divers' access to sites, the group was mainly concerned with rating the sites and assessing the divers in one of three "categories" which matched divers' skills with each site's depth, extent of overhead environment and silting potential. Places like Piccaninnie Ponds and One Tree were especially popular and only a handful of divers were interested in searching out new caves or undertaking any form of cave research. But it was through the efforts of these more adventurous members that such significant places as Engelbrechts, The Three Sisters, Stinging Nettle, Nettle-Bed and especially Tank Cave were discovered using the very limited equipment and techniques of the day.

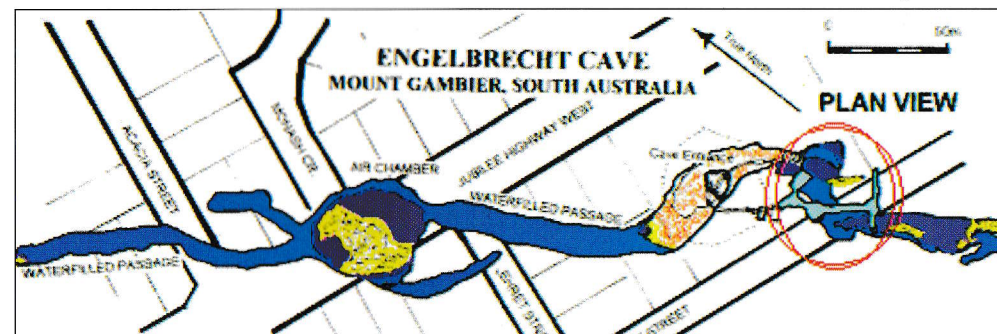
Even as the CDAA was getting its act into gear during 1973 and 1974, cave diving activities blossomed elsewhere around the country. Ron Allum and Al Grundy performed a number of dives in such places as Jenolan, Bungonia, Wyandbene and Cliefden in New South Wales, and Ron (and later, Ian Lewis) investigated some sumps in Yarrangobilly. Also

around this time Ian also explored 50 metres of virgin underwater passage in a cave near the Glenelg River using a hand-held scuba cylinder, as well as Town Cave at Curramulka on the Yorke Peninsula, with Phil Prust assisting from the surface.

In the mid-1970s a series of complex dives was also commenced under the Nullarbor by a number of groups from southern and western Australia. In January 1974, Ian



Tracing from Mick Potter's sketch of the Eastern Side of Engelbrechts Cave as it appeared in his personal logbook.



The relationship between Mick Potter's sketch and the cave as it is currently known, with his drawing circled in red.

DIVER DIES IN S-E TRAPPED 200 FT. SINKHOLE

A young man drowned today in a sinkhole near Mount Gambier.

He got into difficulties while diving with a companion in the Piccaninnie Ponds sinkhole early today.



Headline from the December 1974 Piccaninnie Ponds tragedy

Lewis led the "Second Nullarbor Cave Diving Expedition", and he and Keith Dekkers, assisted by about 30 other cavers from around Australia, dived every known wet cave except Moonera Tank during that trip. They were the first to explore Pannikin Plain, Murra-El-Elevyn, Koonalda, Winbirra and Tommy Graham's caves (discovering the first air chamber in Tommy's, with Keith almost reaching the second air chamber),

and they eventually totalled some 1.3km of virgin underwater passage all up. Then around mid-1974, Phil Prust, Peter Chesson, Denis Whatt and others discovered the second airchamber in Tommy's as well as about 350m of new passage in Weebubbie Cave.

Around May '74 Ian dived Naracoorte's S102 and the Henschke Quarry caves and also around this time checked out Coobowie Corner Cave on the Yorke Peninsula with Terry Reardon (which the author dived and mapped some 10 years later in August 1985, being unaware of this earlier exploration). They also dived Lake Hamilton Homestead Cave near Sheringa on the southern Eyre Peninsula.

Tasmania first entered the cave diving picture sometime around 1974 as well, when Bill Kinnear and others reportedly discovered 400 metres of submerged passage in Kubla Khan Cave without reaching the end.

Back in Mount Gambier, yet another drowning in Piccaninnie Ponds in December 1974 created renewed community concern which was fortunately quickly quelled when it was realised that the victim was not diving within the CDAA's (or National Parks') safety guidelines. This was the last fatality for 10 years until April 1984, when two young men died in Piccaninnie Ponds.

In 1975 Ian Lewis published his comprehensive "South Australian Cave Reference Book" (Occasional Paper Number 5) for CEGSA, detailing all of the caves known in South Australia at that time, and during the period 1975-1979 numerous Nullarbor discoveries dominated the Australian cave diving scene. In August that year Hugh Morrison, Simon Jones and Keith Dekkers made a world-record push to the 550-metre mark in Cocklebiddy Cave and also pushed Tommy's to the final rockpile which they explored until the



Dave Warnes and others also explored Murra-El-Elevyn around this time and found the first airchamber in that cave (pers. comm. Phil Prust, 1980s), and also sometime in 1976, Peter Robertson and Lou Williams penetrated Victoria's Dukes Cave for a short distance before they were stopped by a restriction.

In early to mid-April 1977, a team of divers including Phil Prust, Peter Stace, Ron Allum, Al Grundy and Jo Grundy found another 350m in Cocklebiddy (totalling 1.520 kilometres) and they also further explored and surveyed Tommy Graham's, Weebubbie and Murra-El-Elevyn caves using RDF equipment which was designed by Ron Allum. Later in 1977, Hugh Morrison, Simon

top portion collapsed, and in May 1976 Hugh and Dick Beilby, as members of a large combined Sth Australia / West Australian team, discovered Cocklebiddy's First Rockpile air chamber at the one-kilometre point, and also went about 100m on from the far side. Phil Prust,

Jones and Steve Sinclair undertook a 7-hour multi-cylinder dive to around 2.1 kilometres in Cocklebiddy, and as Hugh explained to the author in a letter in March 1992, it was during this dive that he "...first used a sledge (sic) which Simon made from PVC tubing".

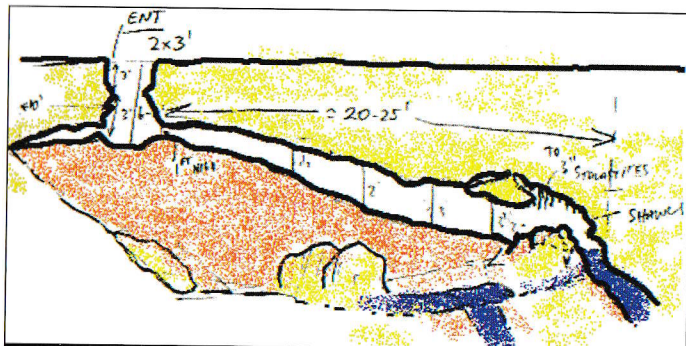
In August 1977, Victorian diver Graham Bradshaw published the first basic introduction to underwater cave mapping in the CDAA's first "Occasional Paper Number 1", and thanks to the foresight of whoever included the clause in the CDAA's Constitutional Aims and Objects about encouraging "research, including mapping, of all underwater caves and sinkholes", the seed had been planted for the Association to support the formation of the CDAA Research Group (coordinated by former President Peter Stace) in March 1983. The Research Group subsequently undertook the first underwater surveys and scientific studies of Kilsbys Hole, The Shaft, Piccaninnie Ponds and Engelbrechts Cave, and also indirectly led the author to form the South Australian Underwater Speleological Society Inc. in 1986, with which CDAA members undertook more comprehensive studies and surveys of most of the other major sinkholes and caves including Ten-Eighty, Gouldens, Iddlebidy and The Pines as well as Blue Lake and a comprehensive revisiting of Fossil Cave for Flinders University.



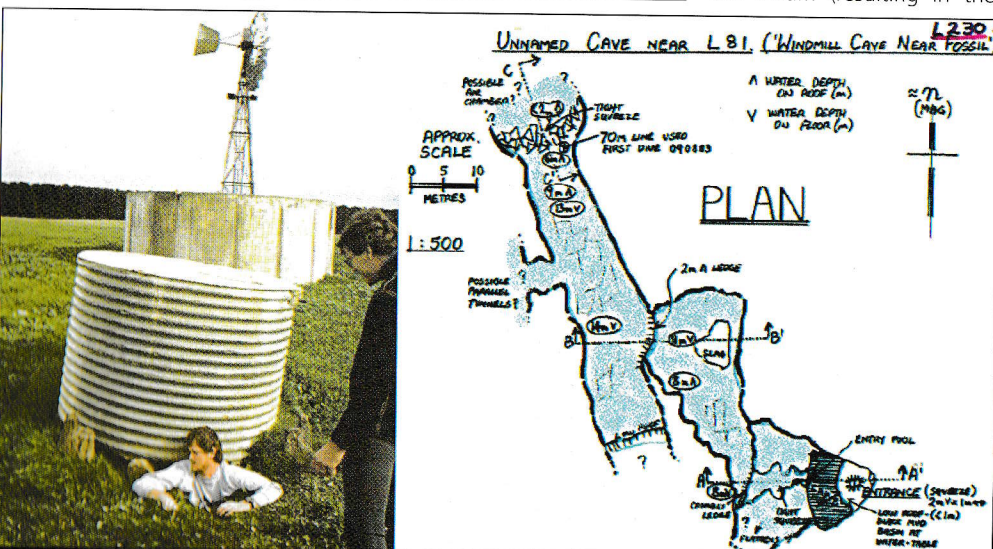
The Shaft, 1973 (courtesy Sgt. Marty Harnath, S.A. Police, 1979).



In early 1978, Peter Stace, Phil Prust and Ron Allum continued from earlier Tasmanian explorers and discovered more than 1.4 kilometres of arduous, dirty and very cold (4-6oC) passage in a number of different cave systems, especially in Kubla Khan, where a major breakthrough occurred. Also that year, Ron and Phil returned to Cocklebidy and added yet another 300m or so to this enormous cave. In addition, Peter Stace and Ian Lewis checked out a number of "new" sinkholes in the Mount Gambier area (including Woolwash Cave, Rubbish Cave, Horse and Cart Sinkhole and Tea Tree Sinkhole) for potential dive sites for CDAA-qualified divers, and Ian and Peter also spent much of their dive-time undertaking



Author's sketch of the original entrance showing the ceiling just a foot (30cm) above Tank Cave's muddy, cow-poo-covered floor.



The original entrance to Tank Cave (photo by Mark Nielsen, during the second trip there) and the first sketch by the author from the first dive.

and drawing-up the first reasonably accurate surveys of the known popular sinkholes and caves of the region for their ground-breaking book, "Cave Diving In Australia" which they published in 1980.

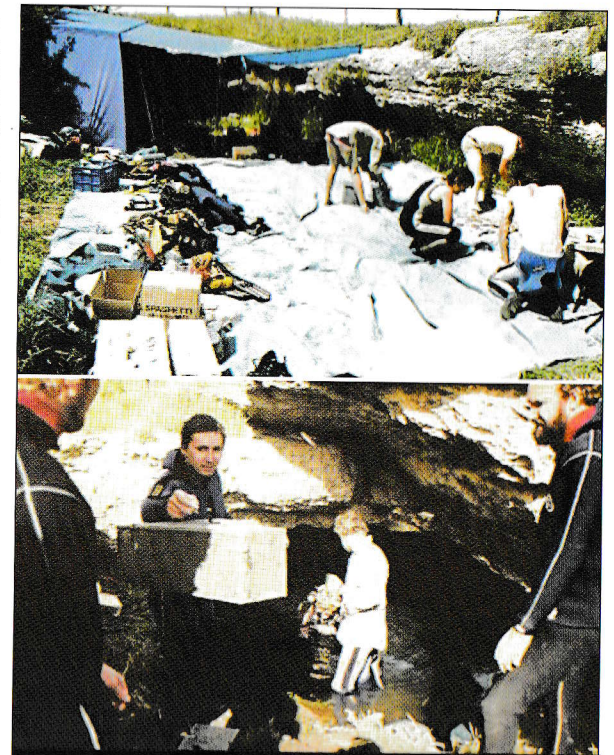
Hugh Morrison was involved in yet another Cocklebidy push in early 1979, this time using much more sophisticated sleds which could hold 15 scuba cylinders; they also ran a telephone cable out to the First Rockpile and reached a penetration distance of some 3,150 metres. Meanwhile back in Mount Gambier again, Robin and Martin Garrad, Clive Mills, Richard Stanton, Keith Evans, Peter Rogers and Jenny Hiscock, working with Flinders University's palaeontologists, set up a complex star-dropper survey grid in

Fossil Cave and subsequently recovered hundreds of important bones of extinct Australian animals.

During this period there were also a number of other important explorations and discoveries in the Mount Gambier area, including the Eastern Side of Engelbrechts Cave which was revisited for the first time since 1964 and more thoroughly explored by Phil Prust, Peter Stace and Ron Allum (resulting in the

discovery of the large airchamber there, the first such feature ever found in a Mount Gambier waterfilled cave), and in May the unstable, silty and very restrictive Western Side's entry lake was pushed by Ron Allum, who surfaced soon afterwards, reporting that he couldn't see a thing, but also that apparently it "went"! Phil and Peter were also the first to discover the 100m-long main passage on the Western Side but they didn't look up, and it was during a later dive by Ian Lewis and Terry Reardon that they discovered the large air chamber, along with the other flooded passages leading off from it. The horrible north-western extension of The Swimthrough and the underwater regions of The Three Sisters were also explored for the first time by members of this group; these were the first dives since the cave had been sealed in the 1960s as a result of extensive pollution which had been caused by a local abattoir in days gone by.

At the end of the 1970s a number of significant discoveries were also made in the Jenolan Caves system by a team including Ron Allum, Phil Prust, Ian Lewis, Terry Reardon, Robin Garrad, Jenny Hiscock and Peter Rogers, with many of these occurring in Mammoth Cave (Ice Pick and Slug Lake), Imperial Cave and "Sump 7", which was reportedly "very nasty, silty and with nil flow", while in Tasmania, Frank Salt and Peter Cover discovered a major air chamber and passages in Union Cave and also explored My Cave.



SAUSS Project Number 1, in Fossil Cave, carrying on from where the original Flinders Uni teams left off in 1979 (photos by the author).

Around the same time Stuart Nicholas, Nick Hume and Rolan and Stefan Eberhard undertook a number of explorations in the Junee-Florentine Master (Cave) System. And cave and sinkhole diving in the Mount Gambier region was once again becoming a very popular pastime.

With the commencement of the 1980s came a

Ponds out of bounds

Picconinny Ponds, east of Port MacDonnell, in the South-East, have been declared out of bounds to swimmers, campers and divers by the director of the SA National Parks Commission (Mr. R. G. Lyons).

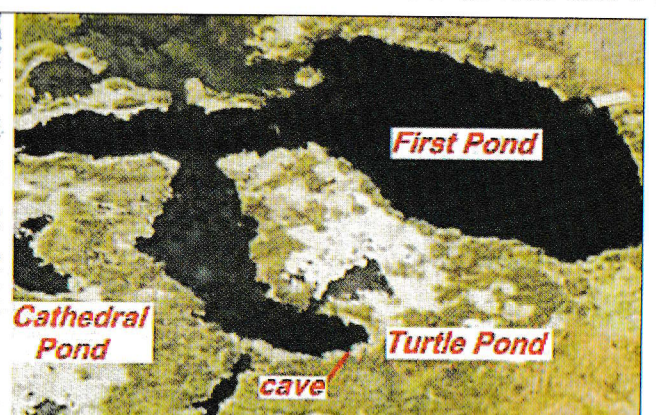
Mr. Lyons said last night the area would remain out of bounds until

Lyle Kelly, 34, of Hampton, Melbourne, had been scuba diving in one of the ponds with a friend when he got into difficulties and was unable to return to the surface. His body was recovered on Saturday evening by local scuba divers.

Mr. Lyons said he had instructed the park ranger in the area to erect a notice at the entrance to the ponds declaring the area out of bounds.

He wanted to talk to scuba divers and other bodies connected with water safety, to try to find some way to allow people to enjoy the ponds safely.

He said he understood Mr. Kelly had little experience in the use of scuba gear, and that he had only recently bought



flood of innovative new diving technologies including better-quality buoyancy systems and more powerful and reliable underwater lighting equipment (especially in America), and cave diving explorations continued not only in South Australia and the Nullarbor but in other States as well. However the vast majority of Australian cave diving activities still occurred within a 30 kilometre radius of Mt Gambier.

Typical gear of this era now consisted of a 5mm or 7mm neoprene wetsuit and hood, a heavy waist-buckled lead weightbelt, a single 72 cubic-foot steel or 88 c/ft aluminium compressed-air scuba cylinder (the author also used a "slingshot Y-valve" configuration on one cylinder so that two regulators could be attached separately), a main regulator and an "octopus" regulator on a tether or neck-

strap (in the author's case again, also with a nylon stocking fitted across the mouthpiece to keep silt and rubbish out!) as well as a scuba-feed hose and tank contents/depth gauges.

Divers also often carried a large (often home-made) YUASA lead-acid battery pack and hand-held torch (the more flashy ones being of the sliding test-tube variety, but most were fixed-beam monsters). And while "Fenzy"-style inflatable buoyancy vests were all the rage in the mid-1970s, cave divers soon learnt about their limitations in cave environments (they were not good for holding a diver's body in a horizontal position), and back-pack or jacket-style buoyancy systems then became more popular, as did other brands and styles of 'horse-collar' vests (with their CO2 cartridges removed and plugged, and the

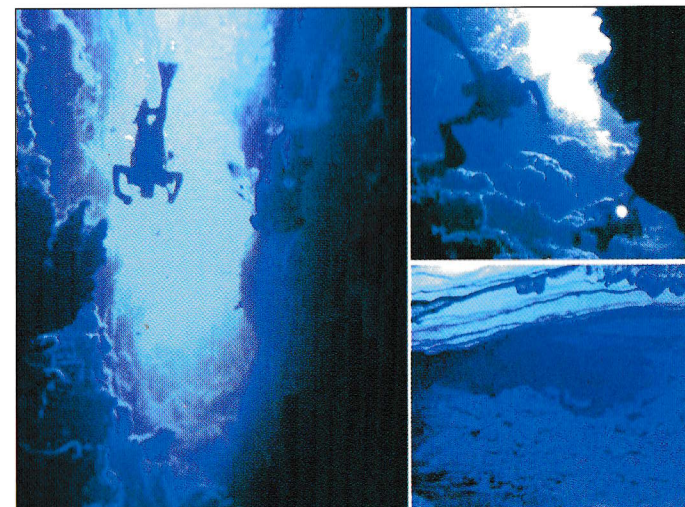
neck/shoulder regions wrapped in tape to minimize upper-body lift when the vest was inflated).

The first inflatable dry suits also began to enter the cave diving scene around this time, and helmet-mounted lights, while long used by cavers and divers in Europe, were first introduced in the Mount Gambier region by the author in 1983 as a simple "hands-free" underwater research and surveying light source (after pinching the idea from visiting French cave divers!). Such contraptions initially evoked cries of derision from some of our more respected "old-time cave divers", as these early versions were little more than simple low-powered reference lights; the more powerful "standard" helmet-mounted systems which were to later adorn cave divers' heads only came into being several years later.

Also during this period, a number of members became interested in underwater cave mapping and research work, and in 1980 some of us collected a range of water samples at various depths from a variety of sinkholes and caves to enable them to be assessed for contaminants such as

nitrites and pesticides. Then on 26 January 1981, a rare centipede-looking crustacean called a syn-carid was discovered by the author in Fossil Cave, and this simple discovery proved that even basic investigations into the underwater speleological world had not yet been undertaken properly to that time. Consequently he and Mark Nielsen undertook the first ever year-long, 3-monthly study of the temperature structures of four of the larger sinkholes (namely One Tree, Ela Elap, Ten-Eighty and The Black Hole) to better understand their environments. This project resulted in some very interesting findings, and also confirmed that Ela Elap, at around 11°C at the bottom, was the coldest known waterfilled feature in the Mount Gambier area (although Little Blue Lake went down to 12°C on one occasion; the 'notoriously-cold' Ewens Ponds and Piccaninnie Ponds actually hover around the relatively-comfortable 15-16°C mark).

In February 1981, Nick Hume and Stuart Nicholas undertook their initial exploration of Wolf Hole in Tasmania, and also



Some general views in the Chasm, and (bottom right) looking down The Dog Leg (photos by the author and Andrew Cox, mid-1980s).



The Border Watch, Tuesday, April 7, 1964-7

TOURIST POTENTIAL NOT IN THIS CAVE

ENGELBRECHT CAVE does not appear to have any potential for development as a tourist attraction, although its underwater features impressed four divers who explored it on Saturday.

The four divers, who explored Engelbrecht Cave on Saturday, have a "breather" in the main chamber of the cave. They are Ross Curnow (left), David Burchell, John Lees, and Mick Potter. On the ledge above the water with his back to the camera is Craig Roeger, son of the Town Clerk (Mr. D. H. M. Roeger) who assisted in the exploration. (Picture by Ray Fowler).



The author and Mark Nielsen demonstrating some of the typical sinkhole-diving gear of the late 1970s at Ela Elap sinkhole: modified Kambrook electric cord reels used as guideline reels, horse-collars vests (again somewhat modified) and single cylinders with J-valve reserve mechanisms were still in common use (photos by Terry Reardon and the author).

around that time the Nullarbor's Pannikin Plain Cave was explored to about 400 metres by Ron Allum, Terry Reardon and Peter Rogers before shortly afterwards being pushed to about 600m (to near a rockpile) by Phil Prust, Jenny Hiscock and Russell Kitt. Ian Lewis, Dave Warnes, Terry Reardon and Karl Lengs undertook the first dives in Far North Queensland's Camooweal area for the first time in 1981, and later that year Nick Hume and Rolan and Stefan Eberhard undertook further major explorations in the Junee system in Tasmania. During early January 1982, the author also accompanied Peter Stace in a check of various features around the Mount Gambier area.

The following March, Glen Netherwood, Peter Ackroyd and Alex Kariko used side-mounts and surface-fed lines to explore a very tight, silty sump in M-4 Cave, and in September Hugh Morrison led another combined SA/WA team to Cocklebidy Cave, resulting in the discovery of Toad Hall, which was explored



The author recording temperature readings of 11 degrees C at the bottom of Ela Elap while a dive buddy illuminates his slate; a few years later the author put some very basic "Aquaflash" torches on a canoe helmet so that he could write in the dark and read mercury thermometers etc. without needing such additional lighting assistance (courtesy Mark Nielsen, 1981).

to the lake on its far side – an extra 500 metres, to a world-record penetration distance of 4,100 metres. Also that year Chris Brown pushed from the 600 metre point to 780m in Pannikin Plain Cave with Phil Prust (using triple cylinders) and

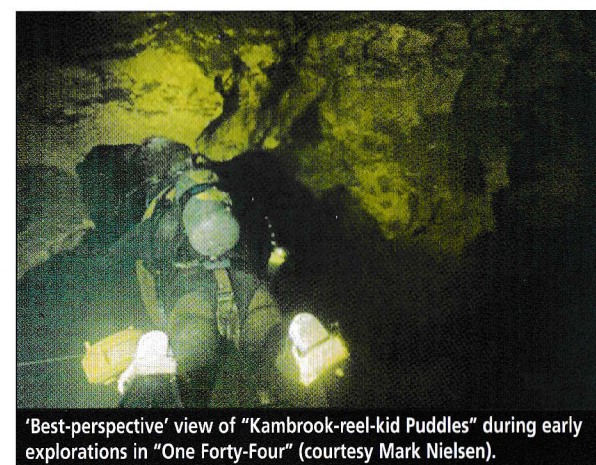


The Kilsbys Hole research party (L to R) – Peter Girdler, Ian Lewis (the one with the cute yellow ducky-fins!), Robin Garrad, Martin Garrad, Jenny Hiscock and Peter Stace or Phil Prust (one or the other!) Note all of the floating support platforms and other gear which covered the lake's surface during those years (photo by the author, 1983).

found an aircamber; Phil also made a major discovery in Murra-El-Elevyn (with Chris, Ron Allum and Peter Rogers) resulting in a 300% increase in known cave passage.

Ian Lewis also pushed the small cave in the Third Pond at Ewens around this time to a depth of some 20 metres, where a fierce outflow and very tight flattener passage at an "interesting cross-jointed aquifer outlet" prevented further exploration (Ian's words as related here don't really indicate how difficult it was to squeeze along the restriction with his hand-held scuba tank flapping behind him and his mask pushed so hard against his face that he thought his eyeballs were going to pop out!).

Back at Dalley's Sinkhole in April 1983, Glen Netherwood and Peter Ackroyd explored a 14m sump and discovered a large cavern, and from



'Best-perspective' view of "Kambrook-reel-kid Puddles" during early explorations in "One Forty-Four" (courtesy Mark Nielsen).

April to July Nick Hume, Stefan Eberhard and others explored the Junee system again, along with Welcome Stranger.

The year 1983 was also an exceptional one for both cave diving science generally and at a personal level for this writer. Between March and August, in the company of Mark Nielsen, Andrew Cox and Peter Stace, the author undertook a range of explorations in various "fissure caves" and other features in the Mount Gambier area. During these grovels one chance photo happened to highlight an unusual wall feature which was later identified as being an ancient "petroglyph" which may have been 20,000 years or more old.

Soon afterwards various petroglyph experts were taken around the caves of the South East and a number were found to contain these rare and important archaeological artefacts which some believe were carved by the very ancient "Tasmanoid" people, the predecessors of today's Aboriginal people who subsequently settled Australia (pers. comm. Dr Neil Draper, Aboriginal Heritage Unit, Dept. for the Environment circa 1985). The CDAARG's first project - the mapping and palaeontological assessment of Kilsbys Hole - was also successfully undertaken during this time.

Then, in the evening of 9 August 1983, one of Australia's most significant cave diving discoveries was made when the



Hells Hole (courtesy Mark Nielsen, circa 1980).



Ah, there's nothing quite like the security offered by the modified Kambrook electric-cord reel and a powerful 12-watt Dacor UL-700 torch! (courtesy Mark Nielsen).

author and Mark Nielsen, working from a suggestion by Peter Stace, crawled through a 30cm high cow poo-covered flattener under a windmill tank in the middle of a paddock and negotiated an underwater jumble of rocks and silt to find themselves exploring the first main passage of what the author would later name Tank Cave. Although "the windmill cave" had long been rumoured to be some kind of dive, nobody had ever reported finding the 100 metres or so of spectacularly-clear and completely unmarked passage that had just been explored, and Mark returned a few weeks later with another diver to explore further.



(Left) The author and Peter Stace after a duckweed-covered grove in Sinkhole 5L145, and (right photo) enjoying the thrill of sliding through the rubbish in Bullock Head Cave – one reason why the author is also known as Peter "Puddles"! (courtesy Barbara Stace and Mark Nielsen respectively).

Unfortunately with the limited access and poor lighting gear of that time, no further explorations were made by Mark as attempts to lease the paddock to enable the digging-out and stabilizing of the entrance were unsuccessful. (Moving on to the many other projects which were running at that time, the author passed information about the discovery on to Phil Prust, Chris Brown and Paul Arbon a couple of years later for their "possible interest" in pursuing the difficult access arrangements, in the mistaken belief that the cave probably did not really have much potential!)

In September 1983, European-style cave diving techniques and philosophies reached South Australia, when French divers Francis and Eric Le Guen (assisted by Veronique Borel, Jerome Krowicki and Sylvie Goutiere) visited the Mount Gambier area before heading out to Cocklebidy Cave to set a new world penetration record of 6,000 metres there. Prior to this visit no Australian teams had ever considered the exploration of Cocklebidy in a competitive light, and considering the hospitality which was extended to them by Adelaidian cave divers many people were extremely offended by the way in which the French subsequently boasted about how they had "broken the Australian record" when it had never been a competition in the eyes of the locals.

Consequently, just over a month later, a large Australian team including Ron Allum, Peter Rogers and Hugh Morrison broke the French (and thus the world) record when Hugh used a single cylinder to squeeze some 240 metres further along a very narrow and silty passage – an astounding display of courage, considering the fact he was alone, with no backup cylinder ... and 6 kilometres from the entrance!! During that trip Chris Brown and Phil Prust also pushed Pannikin Plain Cave to 1,070m and

explored 130m or so of a lower section of Warbla Cave, and explored Warbla's second airchamber for the first time.

In October and November 1983, Stefan Eberhard, Nick Hume and Peter Clover undertook exploratory dives in the Trowutta Arch and Kubla Khan systems in Tasmania, including making a thru-dive in Kubla Khan, and between March and June 1984 a lot of other Tasmanian progress occurred including further major explorations in Union Cave by Rolan and Stefan Eberhard, more Junee explorations by Nick Hume and Attila Vrana, and Rolan Eberhard's pushes in Pendant Pot/Growling Swallet where he penetrated a 15m tunnel which joined the systems together.

In early 1984 local Mount Gambier crop-duster pilot and diver Peter Blackmore, in the company of Phil Earl and Danny Quintel, discovered Iddlebidy Cave: a flooded, single-passage system some 250 metres in length. (Sadly the discoverers chose to keep its location a secret for many years, and it was only through a bizarre coincidence involving talking with a forestry worker that the author accidentally located the feature). Later some skull fragments from a young (possibly aboriginal) person were found in the flooded entrance chamber, making this the first water-



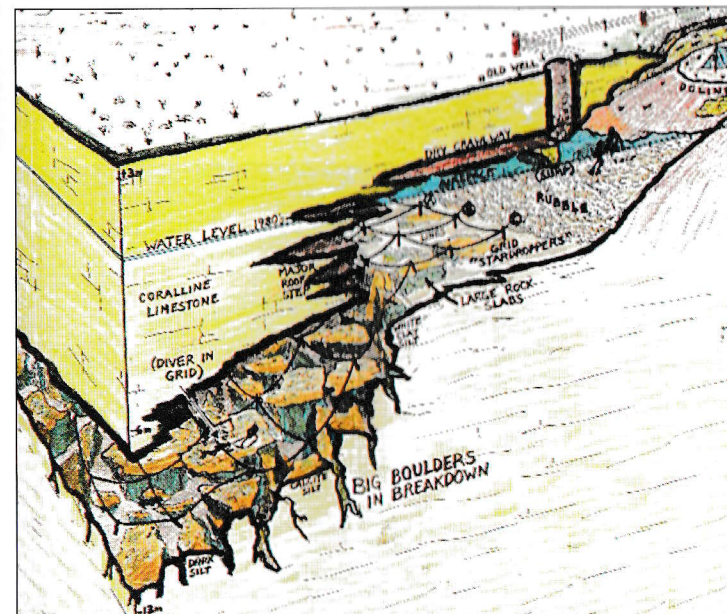
Just inside the entrance lake (courtesy Andrew Cox, mid-1980s).

filled cave in the area known to contain human remains. This new "angle" later saw Association members dealing with staff from the SA Government's Aboriginal Heritage Unit as well as local Aboriginal representatives.

In April 1984, Piccaninnie Ponds sadly suffered its first double fatality, involving a CDAA member and his untrained friend who snuck into the Ponds without a permit and drowned at about 60 metres after becoming entangled in their line in

the Dog Leg. The fact that they broke several key rules once again highlighted the importance of the CDAA's role in cave diving issues, and fortunately for the diving community the "killer sinkholes" outcry of yesteryear was not repeated this time. This accident also appeared to have been largely caused by the guideline becoming snagged in a non-standard waist-mounted snap-hook which could not be disentangled by divers affected by nitrogen narcosis and in zero-visibility conditions.

The following month, Chris Brown reported finding an interesting passage of about 40m



3D perspective cutaway sketch showing the general layout of Fossil Cave and the survey grid (by the author, not to scale!)

penetration behind the rockpile in The Pines with Paul Arbon, and in August Chris and Paul, along with Phil Prust, checked out the many virgin side-tunnels past the 720m mark in Pannikin Plain cave. Then in November, the author commenced the CDAA's Piccaninnie Ponds Research Project, when the first lines were laid in the cave system. This project resulted in the production of a high-quality map of The Cathedral and main Chasm areas of this famous feature which was also used by the National Parks Department as a template for their "cutaway view" map of the system in the Piccaninnie Ponds carpark.

In mid-1985, the author used one of Ian Lewis's small hand-held scuba cylinders to squeeze into an unnamed hole across the road from The Pines, reaching a maximum depth of eight metres where a small silty restriction was found. This feature would later be called Stinging Nettle Cave (5L186) and would be pushed to around 30 metres deep by David Funda and Petra Fundova in 2003.

In October, Stuart Nicholas and Nick Hume explored the Coelacanth Extension in Tassy, and between November 1985 and June 1986 Nick also undertook more explorations in Pendant Pot



The rediscovery of "144" and the subsequent first explorations of the water-and-airfilled passages underneath a young pine forest (courtesy Peter Stace, Mark Nielsen and Andrew Cox, 1980s).

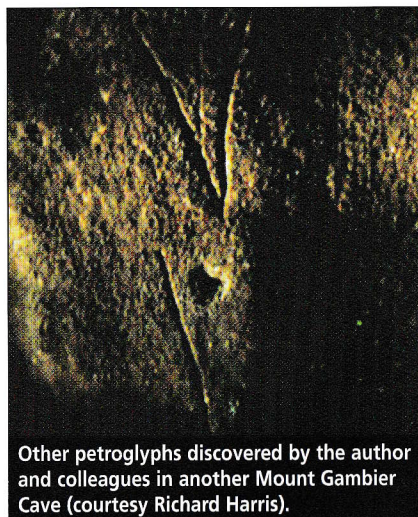


and Mainline Sump. Several months later, in May 1986, the CDAA commenced its Engelbrechts Cave Mapping Project which was coordinated by Andrew Cox, and the following month Peter Ackroyd explored Confession Sump in Dukes Cave for some 18m to a restriction at a depth of six metres. He also re-opened a small hole in Whale Cave and explored 14m of nasty passage without fins, using only a small hand-held scuba cylinder.

In August 1986 Chris Brown, Paul Arbon and Dennis Thamm organised the first sled-push party to visit Cocklebidy Cave's Toad Hall since 1983 (and the fourth ever); it was also the



Site of the discovery of the first major "petroglyph" wall markings in 1983; an accidental finding which occurred while the author (the diver with the yellow reel) and Andrew "Grovel" Cox were investigating a small deep pool of water there (courtesy Tony Hambling/Rino Dell'Antonio).

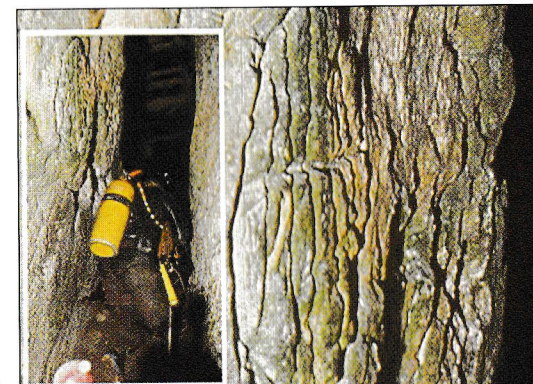


Other petroglyphs discovered by the author and colleagues in another Mount Gambier Cave (courtesy Richard Harris).

smallest expedition to that point, and most of the known side tunnels were explored.

In October 1986, the author formed a new research-oriented cave diving body, the South Australian Underwater Speleological Society (SAUSS) Inc. with a group of scientific and diving associates, and the Society commenced the detailed mapping and study of a number of sites including more work in Fossil Cave, Gouldens Hole, The Pines, Blue Lake, Allendale Sinkhole and Ten-Eighty Sinkhole. Also in October the author participated in an exploration and assessment study of all known major drains and headsprings along the Mount Gambier coastal area with Lands Department's environmental officer, Mark Watson; these visits revealed that most sites required urgent protective measures to be taken. The following month the author and Chris Brown undertook an exploratory and mapping dive in Allyn's Cave to assist with later access planning and negotiations; other divers involved in that project included Dennis Thamm and Richard Megaw.

The next event of significance occurred in Pannikin Plain Cave in September 1987, when Ron Allum and Chris Brown made yet another major discovery of 600 metres of virgin passage. Peter Rogers and Andrew Wight also discovered the Oval Room and several hundred metres beyond, to near the end of Mega Chamber. Three months later in December, Chris and Peter extended the cave for another 250m and found a collapse with a major lead beyond Mega Chamber. The author was also busy again during this period; in September he worked with Mia



Close view of the most significant petroglyph, which was fortunately not disturbed by the bulk of the author groveling underneath! (courtesy Rino Dell'Antonio/Andrew Cox/Tony Hambling).

Thurgate to re-assess the coastal springs which he had visited the previous year with Mark Watson, and other features including Woolwash Cave were also assessed.

Then in December renowned biologist Dr Thomas Iliffe from the Bermuda Biological Station for Research visited Mount Gambier, and with the assistance of the author and his associates Tom visited a number of important biological sites and collected a variety of rare troglobitic life-forms which he scientifically described back home later. In November 1988, the "Pannikin Plain Cave Diving Expedition" was organized by Andrew and Liz Wight. This was the first professionally-sponsored, hi-tech scooter-assisted cave diving expedition in Australia, and the team comprised lead divers Phil Prust, Ron Allum, Chris Brown, Paul

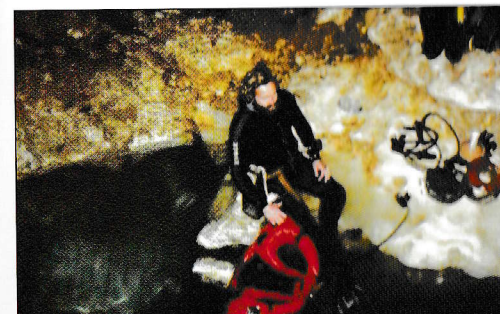
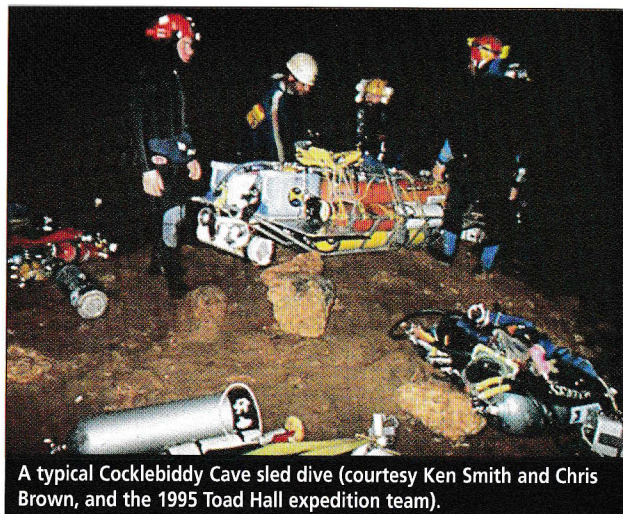


Photo showing the relatively high water level in The Shaft during the 1984 project – the surveyors including Chris Brown (left), Andrew Cox and the author (with the funny hat) were all able to very comfortably utilize the ledge (which is these days several metres above the water) to prepare for their dives with the other team members (courtesy Paul Arbon, 1984).



Arbon, Peter Rogers, Rob Palmer (UK) and Wes and Terri Skiles (US). A dramatic rainstorm almost caused a major disaster where much of the team were trapped underground through the movement of giant boulders in the entrance, but fortunately they all got out alive and the resultant documentary "Nullarbor Dreaming" became a true life drama that aired well on national television (and also prompted Andrew to work with film-maker James Cameron to make the dramatic survival movie, "Sanctum". This was also the first occasion when water and speleothem sampling of flooded Nullarbor caves commenced on a large scale, a project which was later to continue under the leadership of Dr Julia James (Sydney University).

The same month, a combined team of CDAA and SAUSS divers including Andrew Cox, Greg Bulling, Tony Carlisle (videocameraman) and the author performed a research dive in Iddlebidy Cave and

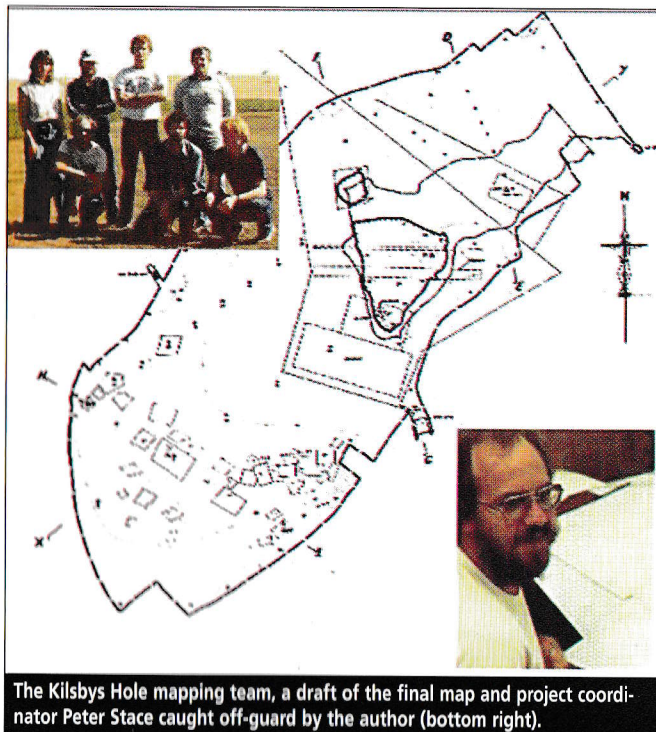


A typical Cocklebidy Cave sled dive (courtesy Ken Smith and Chris Brown, and the 1995 Toad Hall expedition team).

recommended that the site be opened to small parties of divers on an occasional basis. The following month the author coordinated a CDAA research project involving the assessment of the major sinkholes on Barnoolut, when about a dozen keen divers recorded the physical aspects of Bullock Hole, Ten-Eighty and The Black Hole prior to the re-establishment of regular diving activities after a two-year closure of the property.

Also around this period, at Wellington Cave (Limekilns or McCavity Cave) in New South Wales, following reported efforts by earlier cavers during low-water under drought conditions, divers Simon McCartney, Keir Vaughan-Taylor and others explored the main waterfilled chamber of this impressive feature for the first time (pers. comm. Ernie Holland, Jenolan Caves, 1990s).

Also in late 1988, the CDAA's management structure changed when Lance Mitchell replaced the President's role as National Director, John Vanderleest replaced the National Secretary as Business Director, and Ian Lewis took the seat as Standards Director.



The Kilsbys Hole mapping team, a draft of the final map and project coordinator Peter Stace caught off-guard by the author (bottom right).

In May 1989 (some 4 years after their first attempt), Chris Brown and Phil Prust revisited Tank Cave and finally broke through into some of its major extensions, commencing the dives that would result in the discovery of more than 7 kilometres of virgin passage in the next few years. Even today, some 25 years later, this ongoing project continues to yield new passage to those who are willing to push harder than most.

In September 1989, with groundwater pollution in the Mount Gambier area becoming topical because of a proposal to build a potentially-polluting CCA (copper chrome arsenate) plant near Mount Gambier, the author established a limited CDAA subcommittee called the "Water Quality Assessment Directorate" which involved the input of Ian Lewis, Maurice Parry and others. Although one high-nitrate site was located, fortunately no other significantly detrimental discoveries were made.

Shortly afterwards, in January 1990, the CDAA Mapping and Research Group commenced its ninth research project, namely the exploration, mapping and scientific assessment of a new fea-



The author and Greg Bulling after a bone-recovery dive in Ten-Eighty Sinkhole, during which some important fossil material was retrieved including a Diprotodon tibia (courtesy Peter Ginnane, 1986).



Petra Fundova, Ken Smith, Carlo Virgili and David Funda during the weekend that the Dark Room restriction collapsed, opening up the area to everyone (photo by the author).

ture called Nettle-Bed Cave, around the same time that the Little Blue Lake mapping project also finally got off the ground after some five years in the planning. Nettle-Bed was discovered by (then) Adelaide-based diver Grant Pearce with the assistance of Chris Murphy after he had removed some rocks at the other end of Mud Hole's collapse doline. The site exhibited possible human wall scratchings underwater along with probable megafaunal markings, and the presence of abalone and limpet "tucker" shells in the cave also indicated that considerable community and Aboriginal consultation and research planning was needed before recreational cave divers were able to safely gain access.

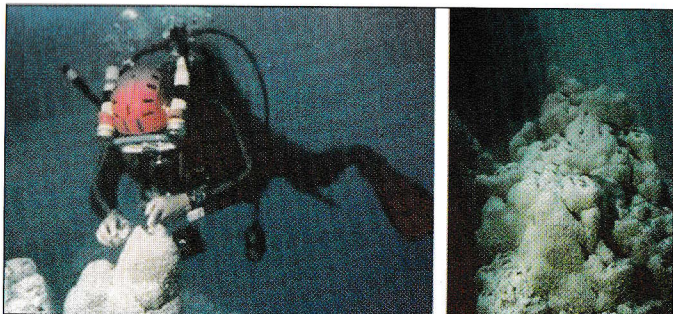
The following month the author accompanied noted American cave diving researcher Jeff



First light for this monster bone in many thousands of years!

Bozanic to the "Bone Room" in Ten-Eighty Sinkhole, and in March 1990 Tony Carlisle and Greg Bulling produced an excellent videotape of Warbla Cave, enabling those who could never go there to see its underwater beauties for the first time.

In April the following year, Tony and Greg coordinated the first major videotaping and research/surveying dive to Cocklebiddy Cave's Toad Hall, using improved underwater tank/video sleds (this was the 5th team ever to visit Toad Hall). Later in 1990, the author worked with Andrew Cox (Manager of the CDAA's Research Group) to undertake a series of exploratory dives in the sinkholes on Barnoolut Estate to determine which features might have

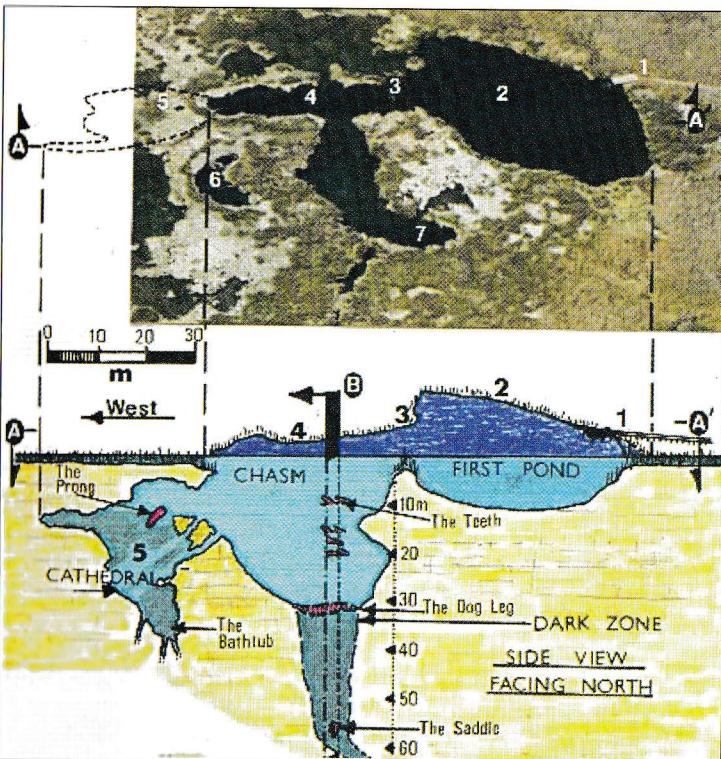


The author sampling a portion of the amazing "stromatolites" which were discovered in Blue Lake in 1985 (courtesy Mark Nielsen/Andrew Cox).

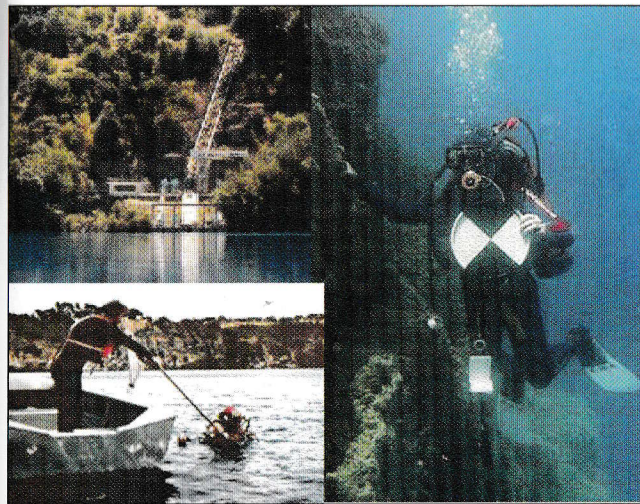
been worth including in the CDAA's general access list (unfortunately nothing was found to be suitable for recreational divers although some interesting scientific aspects and sites were identified).

In the middle of 1991, the author assisted Mark Nielsen with the SAUSS mapping project he was running in Ten-Eighty Sinkhole, and in November Peter Ackroyd explored the Prayer Pool in Dukes Cave for several metres after abseiling directly into the water whilst wearing dive gear. This was found to be about 6m deep and some 18 metres penetration distance (sounds strangely familiar!).

In 1992 a team of some of Australia's most experienced deep cave divers including Ron Allum, Chris Brown, Andrew Wight and Phil Prust dived to 87 metres around 200 metres in from the entrance in the Big Tunnel of The Shaft with world famous U.S. cave diving pioneer, Irby Sheck Exley, and years later other deep teams (again including Chris and Phil) would explore the very deepest regions of this awesome cave to around 125 metres on the



Combined photo/cutaway sketch representation of the main Piccaninnie Ponds system, based on the CDAA Research Group's mapping project which the author coordinated there in 1984 (sketch by the author, photo courtesy Andrew "Grovel" Cox, 1983).



The Blue Lake is a very beautiful place in summer; the blue colour is actually a physical characteristic of the water itself and is replaced at around the 16m point by a foggy grey "mist" comprising small planktonic forms. In the above photos Wolfgang Zeidler passes a plankton net to the author and a diver holds a Secchi disk which when used with a fibreglass tape attached, served as an excellent horizontal-visibility indicator. In the shallows, it was never any clearer than around 20-25 metres, but at depths of around the 50 metre mark it dramatically improved and by 75m it could have been as much as 100m visibility, although it was too dark there to use the disk technique (the illumination across the flat, grey bottom of the lake looks very similar to a full moon on a white sandy beach at midnight). Photos by the author, Andrew Cox and Mark Nielsen.

opposite side of what was long believed to be the deep end. It is tragic that Sheck was to perish during his deepest dive ever just two years after his Shaft visit without having known of these later discoveries.

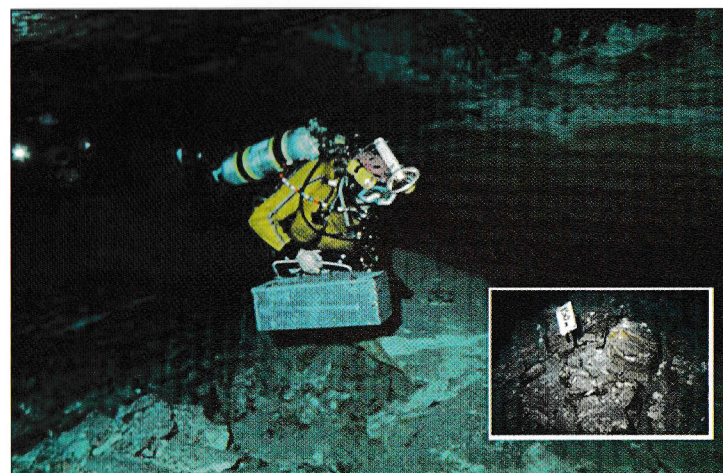
The fascinating Black Hole began to reveal its true nature in 1994 during the first stages of a detailed exploration and surveying project run by the author in the sinkhole; the study was sadly stopped when the divers were beginning to work at depths approaching 50 metres. The property also changed hands around that time.

In 1995 two new sites, Hanns Cave and Bakers Cave, were opened up to the general Mount Gambier cave diving community, and the same year Chris Brown broke the world record in Cocklebiddy Cave yet again by reaching the apparent "real end" of the cave ... but who can know for sure?

Discoveries of the Early 21st Century

There have been many truly spectacular underwater cave discoveries over the years, and with thousands of caves now known to exist on the Nullarbor alone, there is a great deal of fascinating speleology to be undertaken in this vast country of ours.

As prominent Western Australian cave diver Paul Hosie mentioned in a report dated March 2004, "after the last of the 'great' cave diving expeditions to push Cocklebiddy Cave occurred in 1994, things seemed to quiet down a little. We stood back and looked on in awe at the achieve-



The author carrying a Fossil Cave "bone basket" through Iddlebiddy Cave; the basket was an ideal container for the sediment corers (one of which can be seen through the basket's mesh in the photo) along with several large and very fragile glass bottles which were used to collect water samples for pesticide checks (courtesy Greg Bulling).

ments of the Americans at places like Wakulla Springs, as well as the extensive flooded cave systems of Mexico ... although cave diving still continued in New South Wales and South Eastern Australia, many subsequent visits to the Nullarbor revealed little in the way of exploration or new passages. Had it all been done? Was there nothing left to do but follow line?? Recent discoveries and a new generation of cave diving explorers are showing that exploration of Australia's awesome Nullarbor Plain has only just begun..."

Then!...

In 1997, Paul, with fellow cave divers Andy Nelson, Craig Challen and Karl Hall, dived all of the known wet caves of the Nullarbor and later realised that there were many other diveable caves in the region. Their first breakthrough



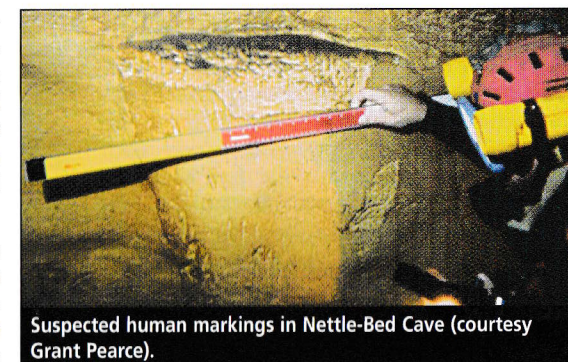
Flinders Uni researcher Cate Newton spreads the bones out to dry before transporting them back to Adelaide. One particularly stressful moment involved a large German Shepherd which a tourist brought down into the sinkhole while these 30,000 year old bones were all exposed! (photo by the author, 1986).

occurred in Nurina Cave on the Roe Plains, where some 150 metres of virgin underwater passage was originally explored. To explore this cave, the

divers were required to adopt "...side-mount techniques and all the team members learnt underwater surveying skills in order to map the new passages they had found". The cave was subsequently explored to more than 1.3 kilometres, with many underwater leads still to be explored (pers. comm. Paul Hosie, Aug. 2007).

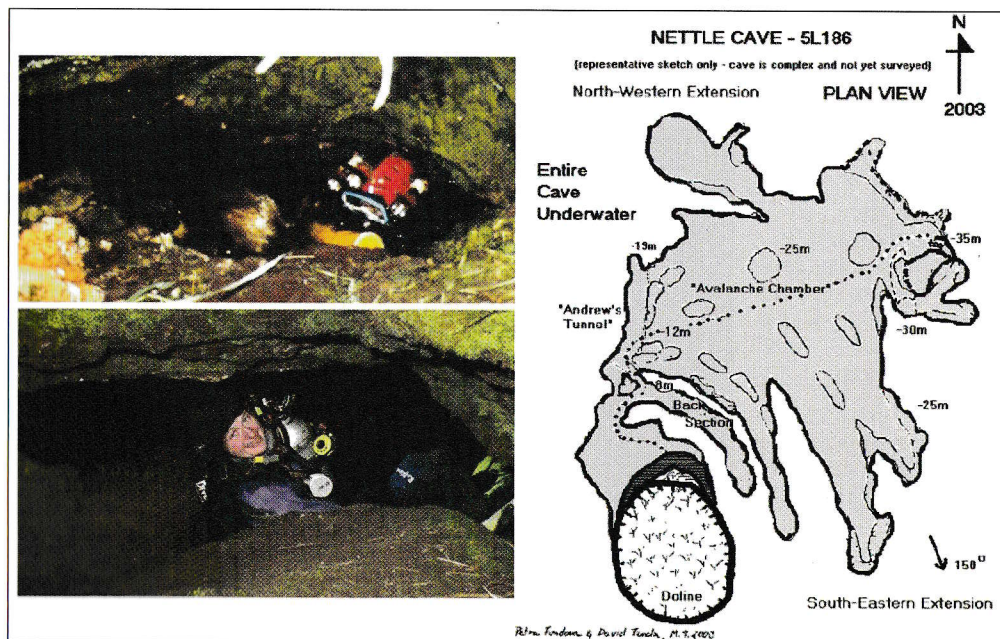
Later in September 2000, while the divers were surveying the main line through Warbla Cave during an expedition coordinated by the Sydney Speleological Society (SUSS), a small low flattener passage was noted high on a wall about 300 metres into the cave; further investigations eventually led to "Lost Lake", revealing to the group that in fact "...there was still a lot of work to be done on the Nullarbor, and all involved now had 'the Exploration Bug'!!".

In the last few years or so, there have been a lot of truly spectacular cave diving discoveries and achievements which still need to be properly documented: these include such things as the "bottom of Pics" by Dr Richard "Harry" Harris and John "JDZ" Dalla-Zuanna (110 metres); astounding

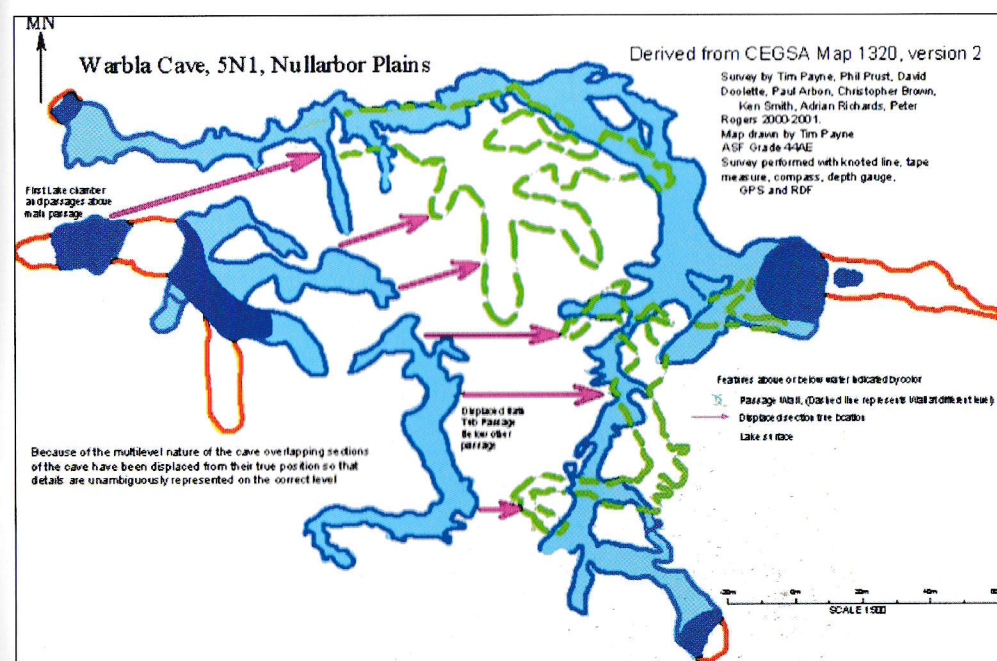


Suspected human markings in Nettle-Bed Cave (courtesy Grant Pearce).

multi-kilometre discoveries by Paul Hosie et al of such places as Olwogin and Burnabbie Caves on the Roe Plain; the discovery by visiting Czech divers David Funda and Petra Fundova of a significant new area in The Pines and Stinging Nettle Cave; much additional research in the flooded Blue Lake and Mount Hypipamee volcanic craters; the surveying of Kija Blue in the Kimberley by Harry and Ken Smith et al; numerous new discoveries in the Roe Plain and around Camooweel; and other incredible work in New Zealand's Pearce Resurgence.... stay tuned!! (To add later as info is collected).



The author using a small hand-held cylinder to check out Stinging Nettle Cave in 1985 (top left) and the same restriction during one of Petra Fundova's dives in 2003 - what a difference a 2m water-level drop can make! (courtesy Dennis Tham and David and Petra Funda, 2003).



Another recent and very detailed map by Tim Payne and colleagues, this time of Warbla Cave on the Nullarbor (again, with thanks to Tim).

And Finally...

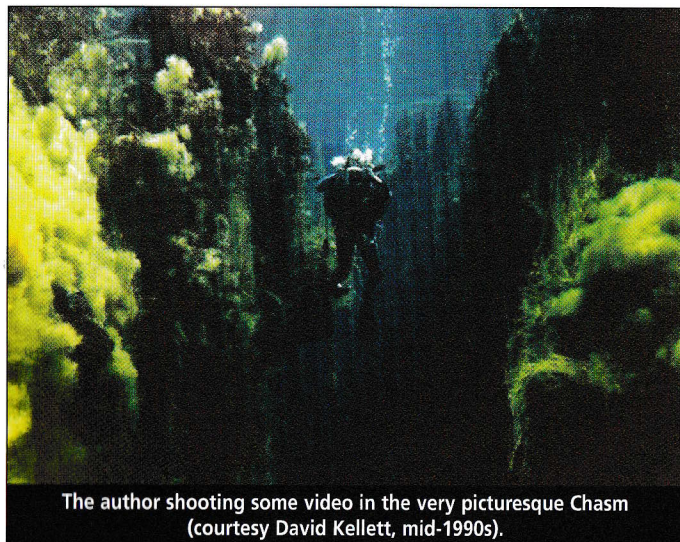
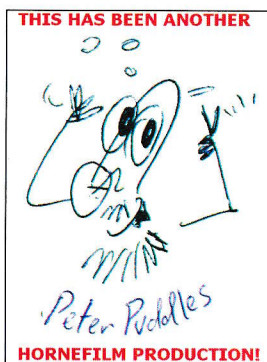
"In the last few years, there have been a lot of truly spectacular cave diving discoveries and achievements which still need to be properly documented. These include such things as the "bottom of Pics" by Dr Richard "Harry" Harris and John "JDZ" Dalla-Zuanna (110 metres); astounding multi-kilometre discoveries by Paul Hosie et al of such places as Olwolgin and Burnabbie Caves on the Roe Plain; the discovery by visiting Czech divers David Funda and Petra Fundova of a significant new area in The Pines and Stinging Nettle Cave; much additional research in the flooded Blue Lake and Mount Hypipamee volcanic craters; the surveying of Kija Blue in the Kimberley by Harry and Ken Smith et al; numerous new discoveries in the Roe Plain and around Camooweal; and other incredible work in New Zealand's Pearse Resurgence. In addition, many members are exploring much further afield, in far-away, exotic places, and more detailed information about such explorations will be recorded as it comes to hand in the future. Stay tuned!....

Today the Cave Divers Association of Australia is recognised as being the leading cave diving organisation in the country. I also know of no other non-profit, voluntary organisation anywhere which is responsible



Thanks for Reading,
Peter Horne.

for so many roles: we train and certify our members while categorizing the places that members may visit; we lease and own our own caves (including one of the most significant in the world); our members are involved with numerous groundbreaking cave conservation and speleological studies including mapping, palaeontology, archaeology and groundwater pollution issues; we introduce new techniques and technologies; and we negotiate and work closely with a large number of Government departments, private landowners and Aboriginal organisations/representatives. The Association really does have much to be proud of, and in its fourth decade the CDAA's future is looking brighter and more interesting than ever before."



The author shooting some video in the very picturesque Chasm
(courtesy David Kellett, mid-1990s).

Acknowledgements:

This necessarily-brief historical summary was produced from a huge amount of much more detailed personal information which was kindly provided to the author by many dozens of people, particularly Ian Lewis, Peter Stace, Stan Bugg, Snow and Jean Raggatt, Mick Potter, Phil Prust, Dave Warnes, Paul Hosie, Peter Girdler, Chris Brown, Paul Arbon, Bob Cunningham, Doug Haig, Rob Addison, Bob Pulford, Andrew & Liz Wight, Al Grundy, Stuart Nicholas, Nick Hume, Stefan Eberhard, Peter Robinson, Peter Ackroyd, Chris Edwards and Hugh Morrison. Many others helped to pioneer cave diving in South Australia, and it is only because of the unfortunate lack of published records that the contributions of other early underwater adventurers are not so widely known or acknowledged.

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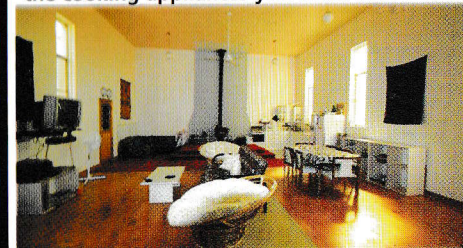
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Divers to classify sink holes, caves

From **STUART INNES**

MOUNT GAMBIER — A group of divers has taken the initiative in classifying sink holes and caves and grading divers using them.

The divers also will advise landholders on who should use their caves. This follows a meeting here at the week-end of the National Cave Diving Association of Australia.

The association's foundation president (Mr. E. Gertners) said "it was hoped that eventually all sink holes and caves would be sign-posted, giving information on depth, siting and a small map of the particular underground network."

The association was formed in Mount Gambier last year after nine people drowned in the tragedies in caves in the Lower South-East.

"We have given up the idea of waiting for the Government and will go ahead and do it ourselves," Mr. Gertners said.

However, the association would work with any organisation set up by a State Government, he said.

The classification of the caves and sink holes would be on their "relative danger."

The low-danger ones would be the straight up and down caves and the high danger would be the complex tunnels that required "penetration" diving.

"We want to classify divers to go into specific areas," Mr. Gertners said. "For the more dangerous caves, we don't want holes."

divers to enter them until they have submitted a dive plan for our approval and have been given the go-ahead.

"We will be approaching landholders with our proposals, aims and ambitions."

Mr. Gertners said the association had no power to enforce or police all divers, but it was hoped it would be recognised as the authority.

The association's long-range plan was to test a member from each diving club. That member would become a testing officer and would be responsible for recommendations of other members of his club.

It is estimated that 19,000 dives a year are made in South-East sink holes.

FROM THE ARCHIVES

CAT 3 EXAMINER

Surname: **DALLA-ZUANNA**

Given Names: **JOHN**

Address: **KEW, VIC., 3101**

Phone Priv. **861-8466** Bus. **- 481 6326**

In OK: **MR. A. DALLA-ZUANNA**

Doctor: **DR. WITHERS**

Allergies: **GORE ST. FITZROY, VIC., 3065**

PHONE NO. 419 4029

PENICILLIN

236

27-11-11 Date Issued & Category

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CDA	CDA	CDA
CATEGORY	CATEGORY	CATEGORY

Update

17 SEP 1978

24 JUN 1979

15 JUL 1980

15 JUL 1981

30 JUN 1982

30 JUN 1984

30 JUN 1986

30 JUN 1987

30 JUN 1989

STUDENT

17/11/56

MALE

1.8m

70kg

MEDIUM-SLIM

BROWN

GREEN

SINGLE

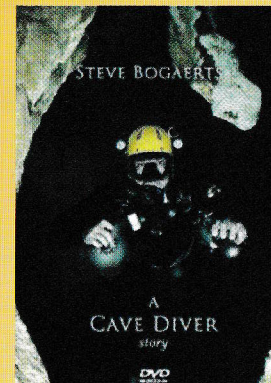
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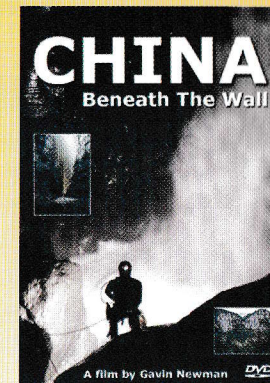
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John Dalla Zuanna's
original
membership record
(front and back)

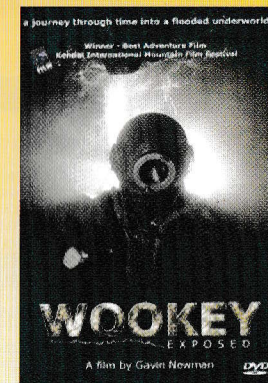
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NAME

Deep
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NAME

Deep
Cavern

Cave

Adv.
Cave

A.C.T.



APPS, Heike (CDAA 2776)
Phone: 0407 230 108
E: appsclan@tpg.com.au

Yes Yes Yes

VICTORIA Continued



DALE, Steve (CDAA 3926)
Mobile: 0468 417 211
Email: Steve@extremewatersport.com.au

Yes

NEW SOUTH WALES



FEATONBY, Tim (CDAA 3327)
Worworing Heights, NSW
Ph: 0402 129 253
E: tim.featonby@hotmail.com

Yes Yes



DALLA-ZUANNA, John (CDAA 236)
Penetration instructor
Phone: 03 9480 1316
E: jdz@paintandcustom.com.au

Yes Yes Yes

SOUTH AUSTRALIA



PAYNE, Timothy (CDAA 2640)
Phone: 0448 147927
E: Tim@diveessentials.com

Yes



EDWARDS, Chris (CDAA 2247)
Email: cedwards@aant.com.au

Yes



HIGGINS, Andrew (CDAA 3329)
Mobile: 0413 569 164
E: ah3329@gmail.com

Yes Yes Yes

VICTORIA



ALLEN, Terri (CDAA 3483)
Mob: 0419 176 633
E: terri.allen@bakeridi.edu.au

Yes Yes



McDONALD, Warrick (CDAA 1882)
BH: (03) 9579 2600
E: info@oceandivers.com.au

Yes Yes Yes



BARCLAY, Gary (CDAA 1735)
AH: 03 5565 8793
E: garinda@bigpond.com

Yes Yes Yes



MONACO, Rubens (CDAA 1731)
Phone: 03 5984 1799
E: info@idscuba.com.au

Yes Yes



BOWMAN, Jane (CDAA 1880)
BH: 03 9579 2600
E: janelbowman@hotmail.com

Yes Yes Yes



CHAMBERS, Geoff (CDAA 3484)
Phone: 0438 059 886
Email: geoffie1@gmail.com

Yes



PAYNTER, Geoff (CDAA 3784)
Mob: 0407 445 112
E: gpaynter@geo.net.au

Yes



CLARIDGE, Linda (CDAA 2214)
Mobile: 0408 052 070
E: garinda@tpgi.com.au
AH (03) 5565 8793

Yes Yes Yes

CDAA SITE ACCESS - www.cavedivers.com.au

Remember: Access is a privilege, not a right. Please be considerate of landowners wishes. CN = CAVERN S = SINKHOLE C = CAVE P = PENETRATION

SITE	LEVEL	OWNER	ACCESS DETAILS
MT. GAMBIER - SA			
EWENS Ponds	Nil	DEWNR - P.O. Box 1046 Mt Gambier 5290 (08) 8735 1177	Groups of 6 or more, phone/mail to Dept. for Environment, Water & Natural Resources (DEWNR) Smaller groups, no need. Fax: (08) 8735 1135 General Diving: Divers to contact DEWNR and notify of date and site to be dived. Please make requests by phone or fax only. Divers must have the correct CDAA diving endorsement for the site and carry current financial CDAA membership card. The diver must have signed an indemnity with DEWNR before access is permitted and original copy must be received by DEWNR prior to diving. Training: The Instructor is to notify DEWNR of the date the sites are needed and to forward signed indemnities from each student and their temporary card number/ membership number. Permit holders by phone or fax. Be aware of delicate vegetation. \$26/dive or annual Permit \$60. NOTE: Members can login to www.cavedivers.com.au and download pre-populated indemnity forms and these must be submitted to DEWNR at least 2 weeks prior to the intended dive date. NOTE: Divers should renew their Piccaninnie Ponds indemnities at least 2 weeks prior to their intended dive date.
Gouldens	CN	DEWNR	By phone or mail, 1 week prior. PO Box 2168, Mt Gambier 5290. Ph: (08) 8738 4003.
2 Sisters Fossil	CN	DEWNR	By phone or mail, 1 week prior. PO Box 2168, Mt Gambier 5290. Ph: (08) 8738 4003.
Piccaninnie Ponds	S	DEWNR	Permission not required - must carry card. Obtain key from Lady Nelson Tourist Information Centre. Visit the house before diving. If no one is home - no dive! Visit the house before diving. If no one is home - no dive!
Horse & Cart Tea Tree Little Blue Allendale Ela Elap One Tree	CN CN S C C S	Peter Cunningham Peter Cunningham District Council of Grant District Council of Grant Mr. Peter Norman Mr. Peter Norman	Maximum 3 divers all weekends between May & November inclusive (check and update on CDAA website). At least 4 divers in group - 1 with previous site experience. Unrestricted days or numbers - Cave rated divers must not enter Penetration sections (stop signs) Unrestricted days or numbers. Open every weekend. Maximum of 4 divers per weekend undertaking 1 dive only (check an update on CDAA website) Open every w/end max 3 divers per day undertaking 1 dive per day (check updates on CDAA website). Open every Saturday max 4 divers, 1 dive only (check an update on CDAA website)
Dave's Cave Hells Hole Pines Mud Hole Nettle Bed Stinging Nettle Cave Iddebiddy	C S C/P C P P P	Forestry South Australia Fax: (08) 8724 2870 Phone: (08) 8724 2876 C or book on-line via the CDAA website P to arrange permit. email: conservationandrecreation@forestrysa.com.au	IMPORTANT: Divers must advise Forestry SA of their online booking. Collect permits from the Forestry Office, RHS of driveway to Carter Holt, Jubilee Hwy, Mt G. • No diving on Total Fire Ban Days. • Permit also required to run compressors during fire danger season. • Keys for Hells Hole, Nettle Bed, Iddebiddy and Stinging Nettle Cave can be obtained from Lady Nelson Visitor Ctr on presentation of Forestry SA permits.
Kilsby's	S	Landowner leased to CDAA	Refer to CDAA website. Twin Tanks - Maximum depth of 40 metres on Air. Meet at gate of property at 8.55am or 12.55pm. Book on-line at www.cavedivers.com.au or contact Craig at kilsby@cavedivers.com.au No animals, visitors or mid-week diving allowed. No diving on Total Fire Ban Days.
Shaft	S/C	Generally open one weekend a month. Trevor Ashby	For access dates go to the CDAA web page. Nitrox as a diving mix is not allowed in the Shaft unless a trimix endorsement is held but deco mixes attached to the shot line are permissible. Refer to Shaft access bulletin within CDAA Regulations. Divers applying to dive in the Shaft for the first time must document dive experience with twin tanks. Download form off website.
Engelbrechts - East - West	C C P	Mt Gambier Council Lessee Ph: 08 8723 5552 Contact: Brenton & Kemelee	Obtain key from Mt Gambier Tourist Information Centre. Access agreement must be signed prior to diving. 2 divers must sign out keys, all divers must sign in advising which groups they are diving with. Diving should be avoided after heavy rain due to possible water contamination. Diving hours are now restricted to 8am to 8pm CST.
Three Sisters	P	Millicent Council	Download indemnity from Web Page. Access available for experienced Penetration divers only. Access agreement must be signed prior to diving. Allow 4 wks for indemnity process.
Tank Cave Baker's Cave	P C	CDAA Janet & Bruce Saffin	Access Manager: David Fielder. Email: tankcave@cavedivers.com.au Access Manager: Matthew Skinner. Email: bakers@cavedivers.com.au Climbing equipment required. One member must have previous dive experience at site.
NULLARBOR - WA			
Cocklebirdy Murra El Elevyn Tommy Grahams	C/P P/C C	DEC DEC DEC	Apply in writing for permission to dive at least 4 weeks in advance of trip to: District Manager, Department of Environment and Conservation (DEC), PO Box 234, Esperance, W.A. 6450. Phone: (08) 9083 2100 Fax: (08) 9071 3657.
Olwogin Cave Weebubbie	P S/C	DPI DPI	The Department of Regional Development and Lands, Perth, South East Region. PO Box 1143, West Perth 6872. Contact Shannon Alford, E: Shannon.alford@rdl.wa.gov.au Phone: (08) 6552 4661 Fax: (08) 6552 4415
WELLINGTON CAVES - NSW			
Limekiln (McKavity) cave	P/C	Wellington Caves	Both Penetration and Cave Level are being accepted for this cave depending on its water level at the time. The cave has a restriction at the entrance which is underwater making it a Penetration Dive. During drought, the water level drops to form a small lake below the restriction allowing experienced Cave Divers access to this delicate cave. Affected by high CO ₂ levels during Summer/Autumn. Access is co-ordinated with the Wellington Caves management by Greg Ryan - Email: grynan@gmail.com . Phone (02) 9743 4157.
Water (Anticline) cave	C	Wellington Caves	Unrestricted access currently exists - Please refer to website.
Rum Jungle Lake	S	Coomalie Community Govt Council	Please refer to website. There are no specific access arrangements.
Burrinjuck Dam	S/C/P	NSW Parks & Wildlife	

Photo Competition Categories:

1. **dSLR – The daylight zone** - A chance to show off Mt Gambier's (or travels elsewhere) spectacular sinkholes, or perhaps a cave entrance leading away from the surface.
2. **dSLR – The dark zone** - Out of reach of sunshine, this category is for images taken underwater and under the earth.
3. **Compact – The daylight zone** - For the smaller cameras, cavern, sinkhole and cave entrance shots in the daylight zone.
4. **Compact – The dark zone** - Taking the compact camera beyond the reach of daylight and into the cave.
5. **Historical** - Cave diving related images taken before 31/12/2002, which may be above or below water.
6. **Humorous** - Showing the lighter side of cave diving, images may be taken above or below water.
7. **Video** - A 3 minute short film with at least 50% underwater cave footage, on a topic of your choice.

Prizes:

- ★ SMS 50 Sidemount System from Hollis Australia (<http://www.oceanicaus.com.au/>). Built for sidemount only, this kit can be used in any environment from open water to overhead. The minimalist design is ideal for travelling sidemounters.
- ★ Goods and services voucher from DKG Drysuits (<http://www.drysuit.com.au/>). DKG Drysuits offers sales, servicing and parts for rEvo rebreathers as well as drysuit repairs such as replace.
- ★ Tovatec Super Nova video light system from Ocean Divers (<http://www.oceandivers.com.au/>). 1000 lumens for use as a video or camera light or a powerful torch and rated to 122m with 3 position switch for full power, 30% power or emergency strobe light.
- ★ Undersuit from Otter Drysuits (<http://www.drysuit.com.au/>). The winner's choice of the Otter one piece or two piece undersuit systems will be sure to keep them warm through winter.
- ★ Triggerfish strobe sensors from Triggerfish (<https://www.facebook.com/Triggerfish.Slave.Unit>). Triggerfish sensors detect the camera's flash and trigger off camera strobes, adding depth and interest to photos from dark places.
- ★ Subscriptions to Sport Diving magazine (<http://www.divetheblue.net/>). Sportdiving features stories and articles from industry experts covering the hottest new dive destinations, technical diving, critter and species specials, digital photography, wreck diving, natural history, news and issues, equipment, and much more.
- ★ Accommodation and airfills at Just a Bed Lodge (<http://www.justabedlodge.com.au/>). Just a Bed Lodge offers comfortable overnight accommodation in a rural setting near Mt Gambier. Dive services from Blue Lake diving are right next door.
- ★ A light from Archon Lights (<http://archondivinglights.com.au/>). Archon is the top brand of LED-based portable lights which have brilliantly illuminated expeditions in every corner of the planet.
- ★ EOS 12W LED primary light system from Halcyon Australia (www.halcyon-australia.com.au). The new Eos has a focused light output exceeding the 10-watt HID, and a machined aluminium head that shields a nearly indestructible LED light array with an expected lifecycle of 20,000 hours.
- ★ DUI XM450 Jumpsuit undergarment from Aqua Industries (www.halcyon-australia.com.au). The choice for extended duration, decompression diving & cave diving. Its innovative design.
- ★ ScubaProX-Tek Pure Twin System with 40lb donut wing from ScubaPro Australia (www.scubapro.com). With this system you are perfectly equipped for every cave dive. Double bladder wing for complete redundancy, stainless steel backplate and an extremely durable harness provides highest safety in every situation.
- ★ Light Monkey 12W LED primary torch from AquiferTec (<http://www.aquifertec.com.au/>). With 750 lumens focussed into a 6 degree beam and a 5 hour burntime, the winner can choose between the standard and sidemount versions of this versatile and hardy primary torch.

ENTRIES CLOSE SEPTEMBER 30th

CDAA 40th ANNIVERSARY PHOTO COMPETITION



Open to all Past and Present Members
dSLR, Compact and Video Categories
Entries Close Sept 30, 2013
Winners announced Nov 9, 2013
at the 40th AGM Mt Gambier

for more details and prizes dive into
www.cavedivers.com.au/photocomp

Judges: Liz Rogers and Neil Vincent



The Border Watch

PHONE 2 3021

ESTABLISHED 1861

MOUNT GAMBIER, THURSDAY, JULY 12, 1973

DIVERS FORM OWN NATIONAL BODY

DIVERS from Mount Gambier, Melbourne and New South Wales have decided to form the Cave Diving Association of Australia.

They met in Mount Gambier last night, after evidence had been given to the S.A. Government committee of inquiry into sink hole diving in the South East.

Mr. E. Gertners, of the Deep Six Plus, said today that the new body would be independent of others and would work closely with the committee of inquiry and the S.A. Government.

The organisation would be wholly involved in cave diving and would work on the lines of education, training, safety standards and other matters associated with diving here.

It would be centred on Mount Gambier, where the majority of sink holes were located.

A committee had been elected to go back to their States to commence organisation and prepare for an all-Australian meeting here on September 29 to officially launch the Association and elect its national committee.

Mr. Gertners said the body would unite divers and set up proper standards and practices. Divers would have a chance to enjoy better cave diving experience and instruction.

"It will at least be able to give divers the clues about what to do and what not to do when they go cave diving," said Mr. Gertners this morning.

