



# Welcome to Naracoorte

## 21<sup>st</sup> Australasian Conference on Cave and Karst Management

### 10 to 15 May 2015

### Naracoorte, South Australia

#### **Come to Naracoorte's 2015 Conference!**

The 21<sup>st</sup> Conference on Caves and Karst Management (ACKMA) Conference will be convened in May 2015 at Naracoorte, South Australia under the auspices of the Department of Environment, Water and Natural Resources (DEWNR) with input from the South Australian (SA) Friends of Parks group, the Friends of Naracoorte Caves and local ACKMA members.

DEWNR manages a majority of the sites that the conference will visit on field excursions, including three that are internationally significant - Naracoorte Caves National Park World Heritage Area, and Bool Lagoon and Piccaninnie Ponds RAMSAR sites.

Conference excursions will visit many of the sites in the south-east of SA to which participants were introduced in 1999, when the ACKMA conference was based in Mt Gambier. The achievements of DEWNR and its partner agencies will be showcased in 2015 as will the investigations and findings of Flinders University palaeontologists in Naracoorte Caves National Park.

#### **Conference theme: 'Caring for Country'**

The conference theme acknowledges the association of Australia's first peoples to their land - to "country", allows insight into cultural relationships, reflection on early European settlement and insights into today's economic, social and conservation endeavours.

#### **Getting to and from Naracoorte**

Naracoorte is approximately 330 kilometres south east of Adelaide (capital of South Australia). By car it is approximately 3½ hours from Adelaide (via Taillem Bend, Keith and Padthaway; or around 4 hours via the coast). There are flights from all other capital cities into Adelaide daily. Adelaide airport has an international terminal with many direct flights available (check with airlines).

Regional Express (REX) ([www.regionalexpress.com.au](http://www.regionalexpress.com.au)) flies into Mt Gambier (Mt Gambier is 100 km south of Naracoorte Caves) daily from Adelaide and Melbourne. Delegates could then travel via bus to Naracoorte. Alternatively (and a better option) is travel via coach from Adelaide. Premier Stateliner Coach Group travels

to Naracoorte daily from Adelaide (see below for timetable). The required service is Adelaide to Mount Gambier (via inland) leaving from the Central Bus Station (Franklin St, Adelaide), with delegates getting off the bus in Naracoorte township (Battery Service, Smith St). It is then only a short walk or taxi ride to accommodation. Go to <http://www.premierstateliner.com.au/> for more information on the bus service.

There are two taxi services in Naracoorte township; Naracoorte Taxis 131 008 and South East Taxi Service Ph: (08) 8762 0689 or (08) 8762 0798.

#### **Papers guide**

Please have abstracts to the Conference Convener (and cc the Journal Editor) by **1 March 2015**. All papers will be 20 minutes with 10 minutes for questions.

With around 20 paper slots the conference organisers reserve the right to decline papers. We will try to advise speakers as soon as possible, and by 15 March at the latest.

#### **Partner's Program**

We have not designed a full week program for partners but are able to offer a hosted excursion to local sites of interest and along the way enjoy an interesting and entertaining mix of experiences – food, wine, tourism. This is proposed for Wednesday 13 May 2015 at a cost of approx \$55.00 per head.

If there is not sufficient interest we could facilitate a rental vehicle and provide a range of ideas of things to see and do.

#### **Conference clothing guide**

You can buy t-shirts, polo shirts, long sleeved polar fleece jackets with full zip, two styles of vest – polar fleece and reversible. And as usual the colours are black or black – though if you really need a different colour ask the convener. The items are stock items in a local shop. We need to have the clothes orders by Monday 30 March 2015 so allow time for the embroidery to be done.

## Conference program

May 2015	Morning	Afternoon	Evening
Friday 8 May Saturday 9 May	Pre-conference caving or field trips: to be confirmed		
Sunday 10 May	Registration opens 3pm, Naracoorte Town Hall		
Monday 11 May	Papers	Split groups and rotating tours: Victoria Fossil Cave, Bat Centre and Blanche Cave, Wonambi Fossil Centre, Fossil Laboratory	Key note address: Economic Development - a partnership approach
Tuesday 12 May	All day tour departing 9am to Ramsar site Piccaninnie Ponds Ramsar Site, Ewens Ponds Pick Swamp, South East water licensing, other wet places....		Key note address: Prof John Long
Wednesday 13 May	Papers	Site visits: Sand and Robertson Cave blocks and Ramsar site Bool Lagoon Game Reserve Ramsar Site	ACKMA Committee meets
Thursday 14 May	All day tour departing 9am to Mount Gambier. Aboriginal Centre, volcanoes. ACKMA AGM		Evening meal in Mount Gambier
Friday 15 May	Papers	Free time or organised trips to Coonawarra wineries	Final function
Saturday 16 May	Delegates depart for home or post conference trips		



*Dr Jessica Bloise in Starburst Chamber, Victoria Fossil Cave, Naracoorte.  
One of the adventure caves being offered as a pre conference trip.  
Photo: Steve Bourne*

# Australasian Cave and Karst Management Association

## Naracoorte 2015 11 -15 May

### Conference booking form

<b>Who are you?</b>			
Name			
Affiliation/background Published in conference handbook.  (or just say 'unchanged since Tasmania and/or Waitomo')			
Postal Address Include post code			
Email Address			
Preferred phone number/s			
<b>What will you do?</b>			
Paper ( ) Refer to paper guide    Title:			
Poster ( )        Title:			
<b>Where will you sleep?</b> For Naracoorte accommodation - refer to the accommodation information in the Journal			
Arrival date ( )		No. of nights ( )	No. in party ( )
Accomm name, address			
ETA in Naracoorte?		Date and time:	
<b>In Naracoorte</b>			
Arrival date ( )		No. of nights ( )	No. in party ( )
Accomm name, address			
If sharing, with whom are you sharing?			For your records - your accomm costs: \$
<i>If you need information email the Conference Convener</i>			
<b>How will you get to/from Naracoorte?</b>			
Bus Adelaide to Naracoorte	Tick one	Yes ( )	No ( )
Bus Melbourne to Naracoorte via Mt Gambier	Tick one	Yes ( )	No ( )
Fly to Adelaide	Tick one	Yes ( )	No ( )
Fly Adelaide to Mt Gambier REX Air	Tick one	Yes ( )	No ( )
Fly to Melbourne	Tick one	Yes ( )	No ( )
Fly Melbourne to Mt Gambier REX Air	Tick one	Yes ( )	No ( )
Own transport	Tick one	Yes ( )	No ( )
<i>If you need information email the Conference Convener</i>			

## Pre- and post-conference trips

The Convener needs to know by 31 March 2015 the level of interest in activities to confirm trips/ tours.

### 1. Adelaide to Naracoorte via the Coorong RAMSAR listed area: 10 May 2015

If there is enough interest a pre-conference bus pick-up can be arranged from Adelaide / drive to Naracoorte. If enough demand a reverse trip can be arranged after the conference.

The drive takes the south western route from Adelaide, crosses the Murray River on the Wellington ferry and continues south along the Coorong coastal highway before turning inland at Kingston to arrive safely at Naracoorte in a 20-seater coach.

10 people	Expected cost per person	\$150
15 people	Expected cost per person	\$100
20 people	Expected cost per person	\$ 75
Pick-up 8.30 city	<b>Festival Centre</b>	
Pick-up 9.00 sharp	<b>Domestic airport departures</b>	
Buy lunch en route	<b>Meningie</b>	Own cost
Drop off in Naracoorte	At your accommodation	

### 2. Pre- and post-conference caving

*Locality: In Naracoorte Caves National Park World Heritage Area*

<b>Cave</b>	<b>Leader</b>	<b>Best max party size</b>	<b>No. interested</b>
Sand Cave – vertical entry/exit – bring your gear	Steve Bourne	6	
Starburst	NCNP Guide/s	6 (can have two parties in cave at same time)	
Fox Cave	NCNP Guide/s	6 (can have two parties in cave at same time)	
<b>Private property</b>			
Beekeepers (adjacent NCNP WHA) short vertical	CEGSA or FUSSI cavers	8	

Once we have numbers we will confirm. Numbers are limited so first-in....

## Conference Fees - Payment Information

Payment of Conference Fees can be made into the ACKMA account by direct credit; by cheque; or by credit card (VISA or MASTERCARD only).

Conference Fees				Your cost
Registration	Au \$592. Includes lunch, dinner, morning and afternoon tea, in-conference transport, cruise, venues, publications and little extras. Includes Sunday pre-conference and Friday dinners			
Hotel breakfast Advise us so we can book you in	Continental	\$14.00 pp	No. ( )	
	Cooked	\$20.00 pp	No. ( )	
Own breakfast arrangements?	Are you making your own arrangements for breakfast Circle Yes			
Transport with us?	Enter your cost from above			
Day fee - members	\$125/day – includes lunch & dinner. No of days ( )			
Day fee – others	\$145/day – includes lunch & dinner. No. of days ( )			
Clothing	a) Tee shirt	size	\$30 each	
	b) Polo shirt	size	\$45 each	
	c) Vest polar	size	\$55 each	
	d) Vest reversible	size	\$75 each	
	e) Jacket	size	\$85 each	
<b>Sub-TOTAL</b>	<b>AU \$</b>			
Before 3 March '15	No additional fee charged			
After 1 April '15	Add late fee 10%			
Credit card	Add surcharge please 2.5%			
<b>TOTAL</b>	<b>AU \$</b>			

How to pay – options			Tick option
<b>A</b>	Direct credit into the ACKMA Au account (our preference) 1/ Deposit into 'Aus Cave & Karst Mngt Assoc' account 2/ Deposit to BSB 065 156 Account 1025 7455 3/ Swift code is CTBAU2S. Bank is 065, Branch is 156, Account is 1025 7455 5/ Use your_surname in the reference codes and also email these details to the Conference Convener. 6/ If grouping funds together to save transfer fees – please ensure the Conference Convener gets full details of ALL group members for a transfer		
<b>B</b>	Credit cards 1/ Add 2.5%. Visa and Mastercard only. Merchant name is 'Blueberry Patch'. 2/ Advise the Conference Convener the following: Type of card; Cardholder name; Amount authorized; 16 digit card number; 4 digit expiry date; 3 digit card security code from back of card.  The record of payment will appear on your statement as debited to "Blueberry Patch".		
<b>C</b>	Cheques or bank drafts – contact the Convener to discuss.		

Registration receipts will be issued by the Convener after the Treasurer has confirmed payments have been received in the ACKMA bank account.

## Accommodation in and around Naracoorte

See - <http://naracoorte-sa.street-map.net.au>

Email: [naracoortevic@nlc.sa.gov.au](mailto:naracoortevic@nlc.sa.gov.au)

Ph: (08) 8762 3199

**Kincraig Hotel** – 158 Smith Street, Naracoorte

Ph: (08) 8762 2200 Email: [kincraig@rbm.com.au](mailto:kincraig@rbm.com.au)

**Bushmans Arms Hotel** – 20 Robertson St, Naracoorte

Ph: (08) 8762 2100 Email: [admin@bushmans.com.au](mailto:admin@bushmans.com.au)

**Naracoorte Hotel/Motel** – 73 Ormerod St, Naracoorte

Ph: (08) 8762 2400 Email: [info@naracoortehotel.com.au](mailto:info@naracoortehotel.com.au)

**Country Roads Motel \*\*\*\*** - 20 Smith St, Naracoorte.

Ph: (08) 8762 3900 Email: [countryroads@rbm.com.au](mailto:countryroads@rbm.com.au)

**Greenline Motel \*\* ½** - Bordertown Road, Naracoorte. Ph: (08) 8762 2599

Email: [greenlinemotel@bigpond.com](mailto:greenlinemotel@bigpond.com)

**Cave Park Cabins \*\*\* ½** - self-contained cottages, Caves Rd Naracoorte

Ph: (08) 8762 0696 Email: [robm@rbm.com.au](mailto:robm@rbm.com.au)

**William MacIntosh Motel \*\*\*\*** - Stewart Tce, Naracoorte

Ph: (08) 8762 1644 Email: [info@william-macintosh.com.au](mailto:info@william-macintosh.com.au)

**Naracoorte Cottages \*\*\*\*** - five self-contained cottages.

Ph: 0408 810 645 [www.naracoortecottages.com.au](http://www.naracoortecottages.com.au)

**Naracoorte Holiday Park \*\*\*** - Caravans, cabins.

Ph: (08) 8762 2128 or 1800 999 899 [www.naracoorteholidaypark.com.au/](http://www.naracoorteholidaypark.com.au/)

**Willowbrook Cottages \*\*\*\*** - Jenkins Tce, Naracoorte

Ph: (08) 8762 0259

If you are phoning from overseas the prefix is 0011 61 or +61. The SA area code is 08 from within Australia and 8 from overseas; also delete the leading 0 from a mobile number.

### Accommodation and camping at Naracoorte Caves National Park (NCNP).

Wirreanda Bunkhouse has four rooms with one and five bunks in each and H, I, J are three separate units with four bunks in each. The bunkhouse has a shower and toilet. A communal kitchen is only for accommodation users; communal showers and toilets are shared with campers. There are 13 powered sites and a tenting area. Wirreanda has been put aside for ACKMA attendees and will remain available until two weeks prior to the conference at a cost of \$10 per person (shared) or \$45 per room or unit (single or one couple). Bedding packs are available at \$10 per person. Bring own towels.

Ph: (08) 8762 2340 Email: [DEWNR.NaracoorteCaves@sa.gov.au](mailto:DEWNR.NaracoorteCaves@sa.gov.au)

For more information about the Conference contact:

**Deborah Carden**

Email: [conference.convenor@ackma.org](mailto:conference.convenor@ackma.org)

Email2: [deborah.craven-carden@sa.gov.au](mailto:deborah.craven-carden@sa.gov.au)

Ph: (08) 8762 3412 Mob: 0409 006 710



## KEY SITES

### Australian Fossil Mammal Site - Naracoorte

Naracoorte Caves was inscribed on the World Heritage list on 18 December 1994 as a serial nomination with Riversleigh in North Queensland. Together they form the Australian Fossil Mammal Sites (AFMS).

To become World Heritage listed, a property must meet at least one of ten criteria of Outstanding Universal Value (OUV) and the AFMS meet two. Criterion eight states that outstanding examples of major stages of earth's history must be represented and criterion nine requires representation of significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water and marine ecosystems and communities of plants and animals. The fossil record at Naracoorte Caves spans a major stage of earth's history (the Quaternary ice-ages) and the record provides examples of how ecological communities developed through the Pleistocene ice-ages. Dedicated research at both AFMS over the past forty years helps the sites meet obligations under the World Heritage Convention by furthering the understanding about the sites' OUVs, adding to existing knowledge and allowing transmission of that knowledge to the world-wide community. Recent work by Dr Liz Reed and colleagues shows that it's not only animal fossils that are preserved at AFMS Naracoorte.

2014 is the 20<sup>th</sup> anniversary of the World Heritage listing and while this will be celebrated in 2014, we will also celebrate it with ACKMA at Naracoorte in 2015.

### Conference guests and keynote speakers

Conference guests will include representatives from the Department of Environment, Water and Natural Resources, the agency that administers the 'Australian Fossil Mammal Site - Naracoorte [(AFMS) the Naracoorte Caves National Park] and three RAMSAR sites.

DEWNR speakers will include Deborah Carden, Manager Naracoorte and Tantanoola; Dr Amy Macken, Executive Officer AFMS Naracoorte; and Ian Lewis, karst geomorphologist/hydrologist, caver and cave diver.

### Prof Richard Mackay

Prof Mackay is a Partner of GML Heritage Pty Ltd and the immediate past Chair of the Australian World Heritage Advisory Committee. He was a member of the Commonwealth State of the Environment 2011 Committee with particular responsibility for heritage.

Prof Mackay teaches at La Trobe University and is a Research Associate at the University of Sydney. He is a former member of the NSW Heritage Council and Director of the National Trust, and a former Getty Conservation Institute Research Scholar. He has worked in heritage management throughout Australia and in Asia on sites including Kakadu National Park, Port Arthur, Sydney Harbour Bridge and the Royal Exhibition Building, Victoria. He is currently the Project Director for the Angkor Heritage Management Framework project in Cambodia.

Relevantly, in the context of this conference, Richard Mackay was an active speleologist and member of the Sydney University Speleological Society in the late 1970s and early 1980s. He was on the famous exploration trip that discovered the underground river in Spider Cave, Jenolan in 1979; and he subsequently served for more than a decade as a member of the Jenolan Caves Reserve Trust, including a period as Chair.

In 2003 Professor Mackay was made a Member of the Order of Australia for services to archaeology and cultural heritage and in 2013 he was the inaugural recipient of the Sharon Sullivan Award conferred by the Australian Heritage Council to an individual who has made an outstanding long term contribution to Australia's national heritage.

### Prof John Long, Strategic Professor in Palaeontology at Flinders University.

Before taking up his current appointment John served as Vice President at the Los Angeles County Museum (2009-2012) and prior to that was Curator of Vertebrate Palaeontology at the Western Australia Museum (1989-2004).

John is presently serving as the President of the Society of Vertebrate Palaeontology; as Vice President of the Royal Society of South Australia; and Chair of the AFMS Naracoorte Interagency-Community Reference Group (IRG) and member of AFMS IRG Scientific Research Sub-Group. He is the author of 28 books, 150 peer-reviewed scientific papers (including seven in 'Nature' and Science' since 2006) and over 90 popular science articles and blogs.

Professor Long primarily investigates the origins of the vertebrate body plan through researching fossil fishes of the Palaeozoic Era. He has worked on expeditions collecting fossils in Australia, Antarctica, South Africa, Thailand, Vietnam, Iran and China. He has received the Eureka Prize for Promotion of Science (2001); the Australasian Science Prize (2008); the Royal Society of Victoria Research medal (2010) and the Verco Medal of the Royal Society of South Australia (2014).

## Prof Rod Wells

Rod is Emeritus Professor in Biological Sciences at Flinders University. Although retired he is still actively involved in research. Growing up in Leura in the Blue Mountains west of Sydney he developed a love of natural history from an early age. On leaving school he studied engineering at the then University of Technology and the University of NSW. He became interested in cave exploration and palaeontology and took part in expeditions to the Nullabor Caves in the early 1960s. This led to a career change and he returned to university to major in Zoology.

In 1973 he completed his PhD at Flinders University into the physiology and ecology of the Southern Hairy-nosed wombat, the first ever study of the biology of the species. He played a key role in establishing the Brookfield Wombat Reserve, South Australia, now Brookfield Conservation Park and its management/monitoring program.

With colleagues he has carried out extensive research into megafaunal fossil deposits at Flinders Chase on Kangaroo Island; at Redbanks Conservation Park at Burra; at Lake Callabonna and Lake Eyre Basin along Cooper's Creek and the Warburton. More recently, at Collinsville Station east of Mt Bryan, he has excavated *Diprotodon* skeletons with Flinders University Palaeontological Society.

With his good friend, ACKMA's Dr. Grant Gartrell, he discovered the fossil deposits in Victoria Cave in 1969. He spent the majority of his working life undertaking and directing extensive palaeontologic research at Naracoorte's fossil caves and played a key role in taking 'the Caves' to World Heritage status in 1994.

## Dr Liz Reed

Liz is currently a Research Fellow, School of Physical Sciences at University of Adelaide. Dr Reed's interest in palaeontology began with a visit to Naracoorte Caves in 1995 as an undergraduate student. She completed her PhD thesis at Naracoorte investigating the taphonomy of the large mammal fossil deposits. She has led the research at Naracoorte Caves since 2005, taught the Vertebrate Palaeontology course until 2012 and supervised several Honours and PhD students. Recent

and ongoing research investigates biodiversity response to climate change during the late Quaternary at Naracoorte.

Aside from research, Liz has been actively involved in promoting palaeontology and developed the concept of Palaeontology Week with Naracoorte Caves management and the SA Museum. She also prepared the Fossil Tourism Strategy for the South Australian Tourism Commission and has coordinated successful Science Week events.

## Dr Helen Macdonald

Helen holds a PhD in Philosophy (Applied Ethics). She spent a number of years as a university academic, teaching philosophy and applied ethics before moving to the private sector. Initially she worked for the Australian gold mining company, Normandy Mining, on community and indigenous relations issues and policy development.

In 2002 Normandy merged with the Newmont Corporation and Franco Nevada and Helen was appointed as General Manager for Community Relations and Communications for the Australian region. In January 2003 she transferred to Denver, Colorado USA to take up the position of Director, Community Relations and Social Development for Newmont. In this position she developed policy, supported global exploration and mining activities and represented the company on a range of voluntary initiatives including the United Nations Global Compact, International Council for Mining and Metals, Global Reporting Initiative and the Voluntary Initiative for Security and Human Rights. In 2008 she was appointed General Manager, Environment & Social Responsibility for a 1 Billion USD new gold mine development project in Ghana and in early 2011 started working on Newmont's Conga project in Peru, a 5 Billion USD copper development project.

In October 2011 she was appointed as the CEO of the Naracoorte Lucindale District Council and part of her responsibilities include identifying opportunities to enhance the economic prosperity of the Council as well as for the Limestone Coast Region.

AFMS Naracoorte is an important tourism draw-card and educative asset in the local and regional economy.





## WELCOME FROM YOUR HOSTS

### Alexandra Cave

**Thomas Shortt** 3 years

#### Background

I was born in Melbourne in 1988. My family and I moved to Naracoorte in 1999 to be closer to family. I completed Secondary School at Naracoorte High and was first exposed to Adventure Caving on Year 8 Camp. I attended the University of South Australia where I completed a BA majoring in International Studies. During my studies I had the opportunity to go on exchange overseas and ended up spending a semester in the US state of Minnesota. While it was a little chilly to start with (-45 degrees Celsius some nights) the experience was incredible.

After finishing university I returned to Naracoorte. I managed to land an amazing job at the Naracoorte Caves, which I still thoroughly enjoy doing today. I had visited the caves at least a dozen times whilst growing up, giving me a great appreciation for their beauty and the scientific value they offer. Now I have the opportunity to help protect the caves and allow others to experience and enjoy something that I think is very special.

#### Alexandra Cave

Alexandra Cave is one of the most beautiful caves on the park. The cave is one of our more highly decorated and is quite open and easy to traverse. It has a cluster of long straws, large columns and an amazing mirror pool. The latter never fails to impress (gets us plenty of oos and ahhs!).

We focus on the geology of the caves, speleothems, and the recent scientific work done in the cave. We have even trialled photographic tours. The cave has an interesting history. Discovered in 1908 by William Redden, the cave was opened to great fanfare and celebration in 1909. A large gathering of people, including the governor of the state and quite a large band, was in attendance for the official opening. While the cave itself has not changed much since its discovery, the lighting and hand rails have. Things are set to change yet again with our current upgrade of the lights. People still enjoy the cave today, which is something that guides and others who have worked on the cave, both past and present, can be very proud of.

#### Highlights

Working at the caves has presented some very interesting opportunities but working with film crews has been one of the highlights. I have been filmed twice in Alexandra Cave for *Totally Wild* and *Scope*, both children's science shows based on science, nature and adventure. Was kind of nice to be recognised by some kids on a tour not long after it was on TV, even better was that they remember what I had said!

### Stick Tomato Cave

**Andrew Thompson** 15 months

#### Background

Born Adelaide, South Australia, 1974. Graduated with a major in International and Regional Studies (University of South Australia) and a minor in German Language and Literature (University of Adelaide) 1998. Played viola for the Adelaide Uni Orchestra for two years. Taught English in China and South Korea 1998 – 2008. Moved to Naracoorte 2009 with partner Jinhwa and pet dog Snowy (a Jindo breed from Korea). Currently living on a hobby farm near the caves with our six dogs (!) and eight sheep. Haven't forgotten all my German, can speak and read everyday Korean, and basic Chinese.

#### Stick Tomato Cave

Adventure Caving in Stick Tomato Cave is perfect for introducing first-time cavers to this activity. The great thing about it is that all of the squeezes and challenges are optional. It is really interesting to see the group dynamics develop during the tour. People can be a bit nervous or excited at the start, some of them talking rapidly and joking loudly, some looking a bit stressed-out and quiet. As the tour progresses, they help each other, give encouragement, and often clap when someone completes a challenge that they thought was impossible. By the end of the tour, even though the group is often made up of complete strangers, they are socialising like old friends. Doing something that is challenging or a little out of your comfort zone can really make you feel great.

#### Highlights

You get to meet a huge variety of people in this job: tourists from all over the world and an interesting mix of personalities and backgrounds amongst the staff. I especially enjoy being able to say a few words to the occasional visitor in their native language – they absolutely love it.

My favourite tour would have to be Victoria Fossil Cave. Even if visitors have seen a myriad of caves before it, the cave has that huge and amazing fossil deposit and an interesting history. Each step of the tour whets the visitors' appetite for more, and by the time they reach the fossil chamber, I love seeing how keen everyone is to see the fossils from close-up and how amazed they are at what they are seeing. I enjoy this part of the tour, because everyone is so focused and inquisitive. It's great interacting with the group at the fossil bed, and there are usually lots of questions even as we exit the cave and walk back to our vehicles.

## **Fox Cave (Extended Adventure Tour)**

**Barb Lobban** 12 Years

### **Background**

I have three boys. My husband Scott and two sons, John and Will. I grew up in Adelaide and visited the caves quite often as a child as I had cousins in Naracoorte. I moved to Naracoorte in 1995 with my husband and John who was then 14 months old. When friends were down we often came to the caves, although I never imagined I would end up working in such an amazing office. After leaving school I worked in retail with BIG W Discount Stores. I started as a shop floor assistant, then worked as State Garden Buyer for the chain. Here I am now with what I believe to be one of the best jobs around!

### **Fox Cave**

If you ever have the need to test your boundaries or experience a sense of adventure, then Fox Cave might be for you. Head off with your experienced guide for three hours of adventure and fun. Before entering the cave your guide will explain safety guidelines and cave conservation. As you enter, you begin your first challenge, shuffling between wall and rock then onto hands, knees and eventually belly. As the group passes through the gateway, it climbs down into a fairly open chamber. Then begins the journey through an amazing cave system. Names such as Tree Root and Madonna Chamber, beautiful speleothems, large rock piles and evidence of past cave entrances.

### **Highlights**

Where do I start – there have been many highlights. My most memorable would have to be the first Palaeontology week we hosted with the SA Museum. The lawn area between the Wonambi Fossil Centre and visitor car park had between 700-800 school children. What an amazing Roadshow! Prof. Tim Flannery opened the event. As a fairly new guide I was pretty chuffed to be on a tour that Tim was to lead. I asked him to come up front and he said to me “You know more about this stuff than me”. Wow, that was pretty cool.

*Getaway*, the holiday television program, visited a few years ago with Ben Dark the presenter. I guided the crew in to Starburst Chamber. What a funny bloke! He loved the cave experience and at one point said “I want your job”.

## **Wet Cave and Wonambi Fossil Centre**

**Dannielle Thomas** 3 years

### **Background**

Born in Naracoorte and grew up on the family farm near Avenue Range which also has caves. CEGSA (Cave Exploration Group of South Australia) made numerous trips to our property to visit and map ours and others in the area. My sister and I used to assist them by crawling through the smaller passages. After finishing school I applied for a position at the Naracoorte Caves but was unsuccessful. I moved to Adelaide and obtained a job through The University of Adelaide. After a few years a position at the Naracoorte Caves came up again. With encouragement from my family I applied and was successful, making the big decision to move back home. I haven't looked back.

### **Wet Cave**

It is frustrating to hear people say “I've seen one cave so I've seen them all.” We all know that this isn't the case as each cave has its own personality. Wet Cave has large open entrances, high ceilings and huge chambers with speleothems to match. A new lighting system has recently been installed giving the cave a complete makeover.

### **Wonambi Fossil Centre**

The Fossil Centre showcases the animals that once lived in the area, what they looked like and how they might have lived. Their story springs to life thanks to theatre, science and information gleaned from the evidence in the caves. Many young children don't get much further than the first door when the life size robotic *Thylacoleo* roars! I've often imagined stepping back in time....maybe humans would have been on the menu?

### **Highlights**

The first time I experienced Opera in Blanche Cave. We set up and lit about 500 tea candles, transforming the cave into a beautiful, magical arena.

I was taking Adventure Caving into Stick-Tomato Cave and a couple of the kids were absolutely terrified. With a lot of encouragement I managed to get them through the challenges and by the end of the tour the tears had turned into large smiles. It was a very rewarding personal experience.

## Bat Centre/Blanche Cave

**Decima McTernan** 21 years

### Background

Born, Naracoorte. After completing my family I helped set up the Rural Access Centre in Naracoorte and eventually became co-ordinator there. I worked and trained in the areas of disability, employment and community education.

While still working at the Access Centre, I saw an ad in the local paper for a Cave Guide at the Naracoorte Caves. I envisaged it as a nice little “weekend job”, a relaxing change from the all-consuming nature of the work I was doing! I have been the Senior Guide at Naracoorte for several years now. I work with a great team of people. It is rewarding, challenging at times but never, never dull!

### Bat Tour

On a Bat Tour the first port of call is the Bat Centre itself. As a small child I played in Blanche Cave as most of the local children did. At that point in time man hadn't even walked on the moon! Would I ever have believed then, that in the future, infra-red technology would allow visitors insight into the otherwise rather secretive world of the Southern Bent-winged Bat? Could I have imagined then, that it would be possible to view the teeming insect life in the guano piles of Bat Cave in the same manner? This endangered Bat colony has been monitored for several years now, with night counts through a good portion of the year. The information gleaned from this research helps us to better understand their status and plan for their future protection.

Blanche Cave is majestic rather than delicate and a wintering site for bats. A tour of this cave usually encompasses the geology of the area, cave formation, speleothems and the palaeontological and palaeoecological significance of the cave. It is steeped in European and ancient history and was even used as a ballroom in the 1800s. If those walls could only talk!

Until more recently this cave tended to be overlooked by fossil researchers. In the past, practices such as unrestricted access and guano mining signalled the likelihood of too much human impact. It has since been proved that nothing could have been further from the truth and ground-breaking research has taken place here.

### Highlights

Seeing “Opera in the Cave” for the first time. Beautiful young voices, candles dancing to the music. Stunning! Watching the cave come to life with the new lighting system. Magic!

## Blackberry Cave

**Jinhwa Lee** 4.5 years

### Background

I was born in South Korea, and grew up in a big family where three generations lived together. They can't believe that I crawl through caves for a living, because they all know how much I hated bugs and snakes or getting my clothes dirty. Now they know I'm adventure caving, but they are still amazed. I majored in “English Language and Literature” and minored in “Tourism Management” at Uni. I had eight years teaching experience in Korea. My students ranged from seven to seventy years of age.

I came to Australia in 2009 with my husband Andrew and our puppy Snowy. She's a “Jindo”, which is a famous Korean hunting and guarding breed.

### Blackberry Cave

There are many caves with delicate crystals and great fossils, but Blackberry is one of my favourite Novice Adventure caving tours. You crawl most of the way in and out and have to stay with the group, doing everything together, as opposed to Stick Tomato where you can choose to do each challenge or not. There are two openings into the cave, and our groups use the western-most one. After entering the first chamber, there are two ways into the next part of the cave. We use one on the way in, and the other on the way out. One great challenge the cave offers is called “The Letterbox”. It is at the furthest part of the tour. This challenge involves sliding yourself down into a small area, twisting yourself around, and then crawling and climbing out through a fairly tight tunnel.

### Highlights

Being a guide at the Naracoorte Caves involves many different skills and provides many learning opportunities. We talk with geologists, learn about palaeontology, and also other things like snake behaviour, first-aid and four-wheel drive training. I really enjoy learning new things, so I look forward to these days of training and they're a real highlight for me. There are some very memorable people and experiences sometimes. Once I had a family who had lost their mother / partner to cancer. The father chose to take their children adventure caving as a way of bonding and helping them through the grieving process. They found it challenging, and even a little scary, but in the end completed everything successfully. I received a very touching letter afterwards. Adventure caving is not only physically challenging, but also mentally. I learned a lot from this family.

## World Heritage Tour

**Gavin Kluske** 5 years

### Background

In 1988 my father bought a house and subsequently discovered a large python living in the roof space, which I caught and kept as a pet. It rekindled a childhood interest in keeping and breeding reptiles and birds. I joined the South Australian Herpetology Group which is a group of reptile keepers that also conducts field research in association with the SA Museum. I worked with SAHG for over 20 years including 6 years as President. During the same period I began working with the Department for Environment as part of their Biological Survey Section, which was surveying the fauna and flora of South Australia. We travelled to remote areas, trapped and observed fauna, identified species and preserved specimens to become part of the collections at the SA Museum and State Herbarium. I also spent 2 years as an assistant collection manager at the SA museum. I first met the guys at the caves when I delivered a jar of 'pickled' reptiles from the museum, to be used in an education program at the caves.

### World Heritage Tour

The World Heritage Tour is a tour catering for visitors with a deep interest in the Naracoorte Caves. Small groups of 2 to 4 people and a longer duration than regular tours, allows a freedom to explore the caves in great detail and visit some areas not accessible on regular tours. I usually include a visit to Victoria Fossil Cave, including a more comprehensive look at the fossil chamber deposit, a visit to the lab, a visit to Blanche Cave with its younger and more recently discovered fossils and the endangered southern bent-wing bats.

### Highlights

It is a joy to watch visitors discover the secrets of the Naracoorte Caves and to come out of the cave at the end of a tour with a new appreciation of the fauna of Australia, both past and present. My personal highlight is sitting alone in Blanche cave after a night bat tour with thousands of Southern Bent-wing Bats flying past me in the dark.

## Victoria Fossil Cave

**Frank Bromley** 14 years

### Background

Born, UK. Worked as a Technician with Telstra for nearly thirty years until taking a redundancy package in 1998. Enrolled at Flinders University and undertook a Bachelor of Technology (Ecotourism) where I had the good fortune to study under Rod Wells. I had a four week "work experience" placement at Naracoorte Caves during my study. I enjoyed the experience so much that I applied for a vacancy that came available here just after I graduated. I enrolled in the Ecotourism degree with the hope that I would eventually gain employment showing people some of the things about our great country that I love and perhaps help them realise the importance of looking after our natural heritage. I didn't realise at the time just how much the caves would come to match those criteria, and in particular the Victoria Fossil Cave.

### Victoria Fossil Cave

A lovely cave with some great speleothems and interesting features. Compared to many caves elsewhere; probably not the most decorated or spectacular of caves. However the treasure within this cave is undoubtedly the fantastic fossil sites throughout its many convoluted phreatic passages and collapsed chambers.

On the public tour we cover a great range of topics, often starting with the bigger geological picture, the limestone/ karst, the Kanawinka fault, cave formation and speleothems. All of this is discussed within the context of the palaeontological significance of the site and the World Heritage listing of the Naracoorte Caves National Park. I always acknowledge Rod Wells' contribution to Palaeontology at Naracoorte and his part in getting The Naracoorte Caves recognised as being worthy of World Heritage Listing, in conjunction with the Riversleigh fossil site.

I like to think that the history presented to us through the fossils gives us the opportunity to better understand our environment, how it works and how sometimes in some respects it has failed. We can take lessons from that history to help us understand the environment of today and perhaps better deal with the environmental challenges of the future.

### Highlights

I had the opportunity, during a "Friends of Parks" Forum, to conduct a guided tour through this cave in the presence of Rod Wells. I conducted much of the usual tour with Rod then speaking to the group at the fossil bed. The fact that Rod was very complimentary after the tour was to me a complete and final justification that my choice of vocation had been a good one.